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INVESTIGATION OF STAR FORMING REGIONS IN CEPHEUS

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Table of Contents

Introduction

The space between stars contains the interstellar matter in the form of atomic and molecular gas and dust. Most of the interstellar dust form the clouds which are concentrated in the disk of the Galaxy, mostly in spiral arms. Despite their small contribution to the mass of material in interstellar clouds (only about 1 %), dust particles play an important role due to their capability to absorb and scatter the light of stars located behind the clouds. The combined effect of absorption and scattering is called interstellar extinction which is a measure of weakening of star light. Because the dependence of interstellar extinction on wavelength (the interstellar extinction law) the light of stars located behind the dust clouds becomes redder and fainter.

The dust and molecular clouds are the sites of star formation due to gravitational contraction of occasional condensations of the interstellar matter and partly due to shock waves from supernova explosion. The cloud, in which stars younger than 10 Myr are usually called as star-forming region. If hot massive stars are predominantly present in such a region, they are called an OB-associations.

One of the most active star-forming regions is located in the Cepheus constellation, at the Galactic longitudes between 100° and 120°İn this sky region, the band of the Milky Way splits into two branches, with one branch stretching approximately along the Galactic equator and the another branch forming the so-called Cepheus Flare. The latter branch separates from the main Milky Way band in the northern part of the Cygnus constellation and extends, at some angle to the Galactic equator, towards the North Celestial Pole in Ursa Minor. The Cepheus Flare contains a few star forming regions, which have recently been described by Kun et al. (2008) in the Handbook of Star Forming Regions, published by the Astronomical Society of the Pacific. Since these regions are very important to understanding the evolution of the Galaxy, especially its spiral structure, we selected some of these regions for the present photometric investigation. In our investigation we applied the Vilnius seven-color photometric system at the mean wavelengths of its passbands 345, 374, 405, 466, 516, 544 and 656 nm. The system was developed many years ago in

the Vilnius Observatory for the classification of all types of stars, especially in the presence of large and variable interstellar extinction. Using the radiation intensities measured in the passbands of the Vilnius system, it is possible to determine spectral classes (or temperatures), luminosity classes (or absolute magnitudes), and the values of interstellar reddening and extinction. The young stellar objects (YSO) can be also identified adding infrared magnitudes from the published catalogs of the photometric surveys in a number of infrared wavelengths (2MASS, WISE, Spitzer, Akari, etc.) enables a more complete photometric identification of YSOs. All this makes the Vilnius system very useful in the investigation of star forming regions, young open clusters and associations.

The following objects have been selected for the present investigation:

1. The area around the reflection nebula NGC 7023;
2. The area in the nearby dust cloud TGU 619;
3. The area around the reflection nebula and a very young open cluster NGC 7129, which contains also the old open cluster NGC 7142 reddened by the same dust cloud TGU 645 in which NGC 7129 is embedded.

NGC 7023 is a reflection nebula, illuminated by the young massive star HD 200775 and several less luminus stars. It was discovered in 1794 by William Herschel. HD 200775 is a Herbig Be star (also known as V380 Cep and HBC 726) which was studied by Slipher (1918), Altamore et al. (1980), Witt & Cottrel (1980), Witt et al. (1982), Rogers et al. (1995), Laureijs et al. (1996), Fuente et al. (2000), Werner et al. (2004), Pogodin et al. (2004), Alecian et al. (2008), Berne et al. (2008).

In the center of the reflection nebula, Weston (1953) found a small group of variable stars, show Hα line in emission. Approximately two dozens of variable stars in the region were studied by Rosino & Romano (1962). Goodman & Arce (2004) speculate that the young Herbig Ae star PV Cep, located more than 10 pc to the west of the cluster, might have been ejected from NGC 7023 at least 100,000 years ago. HD 200775 is located at the northern edge of an elongated molecular cloud, corresponding to the dark clouds L1167, 1168, 1170, 1171, 1172, 1173 and 1174, most frequently known as L1167/L1174 complex. The cloud complex has been mapped

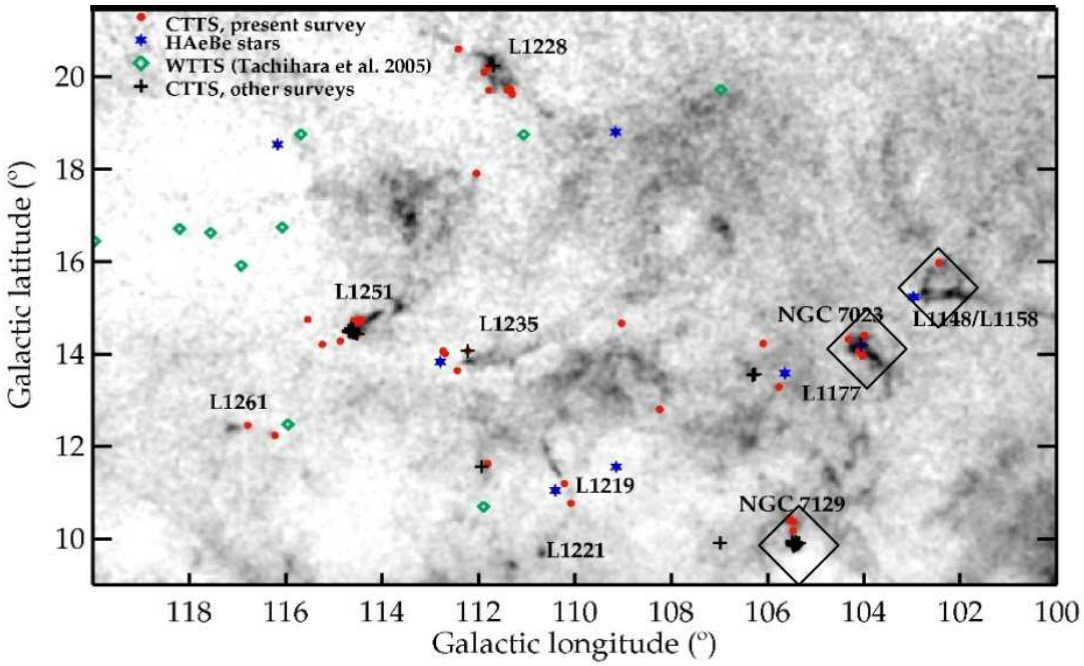

Figure 0.1.: Distribution of pre-main sequence stars in the Cepheus Flare region, taken from Kun et al. (2008), overplotted on the extinction map from the Dobashi et al. (2005). Red dots and black crosses indicate the classical T Tauri stars. Blue star symbols show Herbig Ae/Be stars and green diamonds denote T Tauri stars identified by Tachihara et al. (2005). Three black squares on the right side show the areas investigated in this work. The size of the squares is approximately the same as that of the fields observed with the Maksutov telescope.

in CO by Elmegreen & Elmegreen (1978). They determined the size of the cloud $0.5^\circ \times 1.0^\circ$, or 3.9 pc $\times$ 7.7 pc, and the mass of the molecular hydrogen about 600 $M\odot$.

Close to the star HD 200775, Watt et al. (1986) found a bipolar outflow. The area of the outflow has been mapped by Fuente et al. (1998) according to CO molecular line emission, but they found no evidence for current high-velocity gas. Another molecular outflow, centered on the IRAS source IRAS 21017+6742 was found by Myers et al. (1988). On the K filter image of L1172, Hodapp (1994) found four stars associated with localized nebulosity. Visser, Richter & Chandler (2002) detected three submillimeter sources at the position of IRAS 21017+6742 and L1172 SMM1–SMM3 claiming that there could be a protostar as a source of the outflow.

Dark cloud TGU 619 (Dobashi et al. 2005), corresponding to the Lynds (1962)

clouds LDN 1147, 1148, 1152, 1155, 1157 and 1158, is located about 1.5° west of the reflection nebula NGC 7023. This group of clouds is often referred to as the L1147/1158 complex. The L1157 outfow, associated with the IRAS 20386+6751 source, has been studied in many molecular lines, such as CO (Umemoto et al. 1992; Gueth, Guilloteau & Bachiller 1996; Bachiller & Perez Gutierez 1997; Hirano & Taniguchi 2001) and SiO (Mikami et al. 1992; Zhang et al. 1995; Gueth, Guilloteau & Bachiller 1998; Zhang, Ho & Wright 2000; Bachiller et al. 2001). Many other lines have been identified by Beltran at al. (2001), Benedettini et al. (2007), Arce et al. (2008), making the L1147/1158 complex consisting of a variety of chemical compounds.

Located in the northeastern edge of the dark cloud complex L1147/1158 is the highly variable pre–main sequence star PV Cep. It is a bright IRAS source, and has been detected in radio continuum by Anglada et al. (1992). It illuminates and ionizes reflection nebula known as GM–29 (Gyulbudagian & Magakian 1977) or RNO 125 (Cohen 1980).

The parameters of PV Cep are highly uncertain. Based on the measuremens of narrow-band continuum indices, Cohen et al. (1977) determined its spectral type close to A5.However Magakian & Movsessian (2001) estimated the spectral type G8–K0, based on the spectrum obtained in July 1987, when the star was about 2 magnitudes fainter. The spectral type F, determined by Staude (1986) and Neckel et al. (1987), is also based on the spectral data presented by Cohen et al. (1981).

NGC 7129 lies at the edge of the Cepheus Flare (Kun et al. 2000). This object is the more distant than NGC 7023, or the cloud complex L1147/1158 mentioned previously. NGC 7129 is a young cluster containing three B-type stars, namely, BD +65°1637, BD +65°1638 and LkHα234, as well as several low-mass pre-main sequence stars, (Herbig 1960; Strom, Vrba & Strom 1976; Cohen & Schwartz 1983; Magakian et al. 2004; Gutermuth et al. 2004, 2009; Muzerolle et al. 2004; Stelzer & Schulz 2009). Racine (1968) investigated the three above mentioned B-type stars and determined the distance moduli ≈12.2 magnitudes (2750 pc) for BD +65°1637 and 10.0 magnitudes (1000 pc) for BD +65°1638 and LkHα234, and labeled these values as uncertain. Based on Av vs. distance diagram, Shevchenko & Yakubov (1989) determined a distance to NGC 7129 of 1250 pc. Yonekura et al. (1997) found a group of clouds close to NGC 7129, and their result suggests that a consid-

erable part of the Cepheus Flare clouds is located at a distance of about 1 kpc. The situation is, however, far from being clear (see, e.g. Kun et al. 2008). Simonson & van Someren Greve (1976) found a large HI cloud coinciding both, in position and velocity, with the molecular clouds of Yonekura et al. (1997). They associated this cloud not with NGC 7129, but with the reflection nebulae of Cep R2 (Racine 1968) lying at a distance of 400 pc.

The old open cluster NGC 7142 is located at the Galactic latitude $+9.5^{\circ}$. The surrounding area exhibits a large number of molecular and dust clouds (see a recent review of this area by Kun et al. 2008). The cluster NGC 7142 is located only $0.4^{\circ}$from the reflection nebula mentioned above the young open cluster NGC 7129. The nebula is surrounded by the clump P2 of the dust cloud TGU 645 identified in the Dobashi et al. (2005) atlas of dark clouds. The distribution of the 100 μm emission (Schlegel et al. 1998) shows that NGC 7142 is partly covered by the periphery of the above mentioned dust cloud.

The first photometric investigations of NGC 7142 in the *UBV* system, published in the 1960, used the photographic method with standard stars measured photoelectrically. The *V* vs. *B–V* diagram of NGC 7142 first published by Hoag et al. (1961), which revealed the sequence of red giants and a crowding of stars near the turn-off point of the main sequence. In the presence of large scatter, the limiting magnitude (V=16.5) was not sufficient to cover the main sequence of stars below the turn-off point. Therefore, the reddening and distance of the cluster were estimated only approximately (Johnson et al. 1961). Van Den Bergh (1962) firstly noted that general features of the color-magnitude diagram of NGC 7142 showing a strong resemblance to those of the old open clusters M67 and NGC 188. He also draw attention to the presence of irregularities of the absorbing cloud close to the cluster. Sharov (1968) focused attention on the presence of the group of stars close to the main sequence, but located to the left from the turn-off point (blue stragglers). The other photometric investigation of NGC 7142, published by van den Bergh & Heeringa (1970), extends down to $V\approx$17 magnitude. Based on the similarity of NGC 7142 morphology to that of M 67, they determined a distance modulus of 12.5 mag (3160 pc) and the color excess $E(B–V)$= 0.41 mag adopting an evolutionary track of M 67.

The first CCD photometry of the cluster in the *BV* system, down to V=18 mag,

was published by Crinklaw & Talbert (1991). They confirmed a considerably variable extinction across the face of the cluster, suspected earlier by other authors, with differences in reddening found to be of the order of $\Delta E(B–V)$=0.1 mag. Their colour- magnitude diagram was dereddened with a mean value of $E(B–V)$=0.35 mag and gave the distance modulus 11.4 mag (1.9 kpc) by main-sequence fitting to the ZAMS. They also suspected a rich binary star population present in the cluster.

The most recent CCD photometry of NGC 7142 has been done by Janes & Hoq (2011) and Sandquist et al. (2011) in the *BVI* system down to V=20–21 mag. In the both investigations for determining the distance and age were determined using the red clump giants and the turn-off point of the main sequence, by comparing their positions with theoretical isochrones and with the sequence of the old cluster M 67. In both papers the resulting colour excesses are in full agreement, $E(B–V)$=0.32. The true distance moduli are also very close, 11.85 mag (2.3 kpc) and 11.9 mag (2.4 kpc). However, the age of the cluster determined by Janes & Hoq is 6.9 Gyr, while Sandquist et al. find ≈3 Gyr.

In this thesis the research material is described in six parts - the introduction, five sections, the references and appendix. Section 1 is devoted to a description and reductions of the observational material received by the Maksutov and VATT telescopes equipped with the filters of the Vilnius photometric system. The section is divided into three subsections describing the observations performed by the Maksutov telescope in three 1.5 square degree areas: NGC 7023 (Sec. 1.1), TGU 619 (Sec. 1.2) and NGC 7129 + NGC 7142 (Sec. 1.3). In the third area, observations were also obtained in two smaller fields with the Vatican Advanced Technology Telescope (VATT) in the direction of the open clusters NGC 7129 and NGC 7142 (Sec. 1.3). We also present the observing logs listing the exposure lengths used. The results of photometry are given in the catalogs presented in the Appendix.

Section 2 describes the methods of two-dimentional classification of stars based on the photometric data. The section is divided into two subsections, because the classification programs used for the reflection nebula NGC 7023 and the cloud complex TGU 619 (Sec. 2.1) and for the clusters NGC 7129 + NGC 7142 (Sec. 2.2), were different. A detailed description of the both classification programs is presented.

Section 3 deals with the methods for determinating distances to the star forming regions. The section is divided into three subsections describing the determination of distances to the reflection nebula NGC 7023 (Sec. 3.1), to the dark clouds of the TGU 619 complex (Sec. 3.2) and the clusters NGC 7129 + NGC 7142 (Sec. 3.3). The determination of distance to NGC 7023 and TGU 619 areas is based on the extinction vs. distance diagrams. Sec. 3.3, describing the clusters NGC 7129 and NGC 7142, is much longer, since for the determination of parameters we applied not only the extinction vs. distance diagrams, but also the dereddened color-magnitude diagrams with the isochrones, evolutionary tracks and the zero-age main sequence (Kazlauskas et al. 2006) plotted. In order to verify if the interstellar reddening law in the NGC 7129 area is normal, we used the results of infrared photometry from the 2MASS survey (Skrutskie et al. 2006).

Section 4 describes the data analysis and the results obtained in the investigated fields, as well as gives a comparison with the results of other authors . This section also demonstrates the advantage of the technique used in this investigation compared to the technique employed by other authors.

Section 5 summarizes the main results and conclusions.

Publications on the subject of the dissertation

1. Zdanavičius K., Zdanavičius J., Straižys V and **Maskoliūnas M.**, 2009, *Photometry and classification of stars around the reflection nebula NGC 7023 in Cepheus. II. Interstellar extinction and cloud distances*, Baltic Astronomy, Vol. 18, 33–52,

2. Zdanavičius K., Zdanavičius J., Straižys V and **Maskoliūnas M.**, 2009, *Photometry and classification of stars in the direction of the dark cloud TGU 619 in Cepheus. I. A catalog of magnitudes, color indices and spectral types of 1304 stars*, Baltic Astronomy, Vol. 18, 159–188,

3. Zdanavičius K., **Maskoliūnas M.**, Zdanavičius J., Straižys V and Kazlauskas A, 2011, *Photometry and classification of stars in the direction of the dark cloud TGU 619 in Cepheus. II. Interstellar extinction and cloud distance*, Baltic Astronomy, Vol. 20, 317–337,

4. **Maskoliūnas M.**, 2012, *Photometric investigation in the direction of the dark clouds in the Cepheus Flare* "Fifty years of Cosmic Era: Real and Virtual Studies of the Sky" , Publication of the National Academy of Sciences, Republic of Armenia (NAS RA), p. 120 – 124.

5. **Maskoliūnas M.**, Zdanavičius J., Zdanavičius K and Straižys V, 2012, *Photometry and classification of stars in the direction of cluster NGC 7129 and NGC 7142 in Cepheus. I. Magnitudes, color indices and spectral types of 2140 stars*, Baltic Astronomy, Vol. 21, 465–504,

6. Straižys V., **Maskoliūnas M.**, Boyle R. P., Zdanavičius K., Zdanavičius J., Laugalys V and Kazlauskas A, 2013, *The open cluster NGC 7142: interstellar extinction, distance and age*, Monthly Notices of the Royal Astronomical Society, Accepted 2013 October 16, (MNRAS, 2648)

7. Straižys V.,**Maskoliūnas M.**, Boyle R. P., Prada Moroni P. G., Tognelli E., Zdanavičius K., Zdanavičius J., Laugalys V and Kazlauskas A, 2013, *The distance to the young cluster NGC 7129 and its age*, Monthly Notices of the Royal Astronomical Society, accepted 2013 November 30, (arXiv:1312.1153)

Presentations at international conferences

1. **Maskoliūnas M.**, *Photometric Investigation in the Direction of the Dark Clouds in Cepheus Flare*, "Fifty years of Cosmic Era: Real and Virtual Studies of the Sky", Yerevan (Armenia), 21 - 25 November, 2011 (oral presentation)

2. **Maskoliūnas M.**, *Progress report on NGC 7129 and NGC 7142 in the Cepheus Flare*, "Current status of stellar photometry in the Vilnius photometric system", Krakow (Poland), 10 - 14 September, 2012 (oral presentation)

3. **Maskoliūnas M.**, *Investigation of star forming regions in Cepheus*, "Interstellar extinction in the selected dust clouds and star forming regions", Molėtai Observatory (Lithuania), 3 - 7 September, 2013 (oral presentation)

Aims of the study

The aim of this work is to investigate photometrically three areas in the star forming regions in Cepheus, known as the reflection nebula NGC 7023, the dark cloud TGU 619 and the young open cluster (plus reflection nebula) NGC 7129, in order to determine distances, values of interstellar extinction and ages of the young open cluster NGC 7129 and the distant old open cluster NGC 7142 seen through a semi-transparent window.

Tasks of the study

1. Wide-field CCD photometry in the two 1.5 square degree areas located in the Cepheus Flare at RA=20:40:00, DEC=+67:50:00 and RA=21:44:00, DEC=+65:58:00 in the Vilnius seven-color system down about V=17.5 mag.

2. Deep CCD photometry down to 18.5 - 20.0 mag in the fields of the open clusters NGC 7129 and NGC 7142 located at RA=21:42:56, DEC=+66:06:12 and RA=21:45:10, DEC=+65:46:18.

3. From the photometry to determine spectral and luminosity classes in the MK system, interstellar extinction and distance to the stars by about 2 mag brighter than the limiting magnitude in three 1.5 square degree areas located in the Cepheus Flare.

4. To determine the distances to the dust clouds in the direction of the reflection nebula NGC 7023 and to the dust clouds TGU 619 and TGU 645.

5. To determine ages, distances and the values of interstellar extinction of the open clusters NGC 7129 and NGC 7142.

Scientific novelty

1. In the investigated areas, a multicolor photometry in the Vilnius system for more than 4400 stars was obtained for the first time. For more than 2500 stars, the results of two-dimensional spectral classification have been provided also for the first time.

2. The distances to the dust clouds TGU 619, TGU 629 (NGC 7023) and TGU 645 (NGC 7129) are determined.

3. The reliable determination of distances and ages of the open clusters NGC 7129 and NGC 7142 is given, which improved our previous knowledge of the basic parameters of these star clusters.

Practical importance

The distances to star-forming regions in the Cepheus Flare, an out-of-plane concentration of molecular clouds and interstellar dust, are still unknown to a sufficient accuracy. This work is a successful attempt to determine the distances and extinctions of the selected dust clouds. The results of two-dimensional classification of 2500 stars and their distribution in the areas will put our knowledge of star-forming proceses in this areas on a more reliable basis and allow to know more about the Galactic structure. The catalog of photometry and two-dimentional classification of the studied stars is available on–line and can be used by other researches for future investigations.

Results and statements presented for defence

1. The dust cloud TGU 629 located around the reflection nebula NGC 7023, is found to be at a distance of 282 pc ($^{+73}_{-56}$). At the distance of 715 pc ($^{+186}_{-143}$), another dust layer is detected.

2. The dark cloud TGU 619 is located at a distance of 286 pc ($^{+74}_{-57}$).

3. The distance to the dust cloud TGU 645, which is associated with the young open cluster NGC 7129, is 1150 pc ($^{+293}_{-226}$).

4. The age of NGC 7129, based on six cluster member stars and the stellar evolutionary tracks, is up to 4 Myr, and this shows that the star-forming processes are still continuing.

5. The distance to the cluster NGC 7142 was estimated using five red clump giants identified as the cluster members by their distances and radial velocities, is 2.3 kpc.

6. The dereddened color-magnitude diagram for possible members of NGC 7142, compared with the Padova isochrones, gives the cluster age 3.0 ± 0.5 Gyr.

Personal contribution

The author participated in most of the CCD observations with the Maksutov telescope of the Moletai Observatory and performed the data reductions with the IRAF program package. The author took part in photometric classification of the observed stars and in the analysis of the interstellar extinctions, distances and ages of the clusters. He also collected the data from the literature and data bases and participated in the preparation of the articles related to this study.

Thesis outline

The dissertation consists of six main parts: Introduction, five chapters, References, and Appendix.

Chapter 1 presents the observational material obtained with the Maksutov and VATT telescopes.

Chapter 2 describes the methods of two-dimentional classification of stars based on photometric data.

Chapter 3 describes the method for the determination of distances to the star forming regions.

Chapter 4 provides the data analysis and the results in the investigated fields and compares the results with the results of other authors.

Chapter 5 summarizes the main results and conclusions.

Chapter 1

Observational data

Observational data of this work cover the vicinity of the reflection nebula NGC 7023, dark cloud TGU 619, young open cluster NGC 7129 and old open cluster NGC 7142. The CCD observations in the seven filters of the Vilnius system were obtained with the Maksutov 35/51 telescope of the Molėtai Observatory of Vilnius university in Lithuania for all the listed areas. For the clusters NGC 7129 and NGC 7142, deeper photometry in the same system but in smaller areas were obtained with the 1.8 m VATT telescope of the Vatican Observatory on Mt. Graham.

1.1. Reflection nebula NGC 7023

One of the most prominent objects in the Cepheus Flare is the star-forming region near its eastern edge which contains the reflection nebula NGC 7023 illuminated by the Herbig Ae/Be star HD 200775. The nebula is surrounded by a group of dust clouds L 1167, L 1168 and L 1170–1174 (Lynds 1962) which in the newest atlas of dust clouds of Dobashi et al. (2005) are joined into a single cloud TGU 629.

In the *Vilnius* seven-color photometric system the area was first investigated by Straižys et al. (1992, hereafter Paper SCKM-92) who estimated the distances to two groups of dust clouds in the Cepheus Flare from the extinction A_V vs. distance plots based on two-dimensional classification of 79 stars measured photoelectrically. The distance to the clouds, surrounding the NGC 7023 nebula, was found to be 288 pc. However, only 18 stars brighter than $V = 12.5$ were classified in this area. Among these, only six stars were found to be reddened sufficiently to be suitable for estimating the front edge of the dust cloud. For determining the cloud distance more accurately, a statistically significant number of stars is necessary. Therefore we decided to extend the investigation down to $V \approx 16.5$ mag by applying observations

Table 1.1.: The CCD frames used for the NGC 7023 area. The numbers of frames in the same filter with the same exposure are given in brackets.

Filter	λ_0 nm	min/sec	Exposure length and the number of frames
U	345	min	30 (1), 25 (1), 20 (2), 8 (2), 2 (1)
P	374	min	20 (2), 5 (2), 1 (2)
X	405	sec	900 (2), 180 (2), 50 (1), 40 (1), 15 (2)
Y	466	sec	240 (2), 60 (2), 15 (2), 5 (1), 3 (1)
Z	516	sec	180 (2), 60 (2), 15 (2), 3 (2)
V	544	sec	600 (3), 180 (2), 60 (1), 30 (2), 20 (1), 10 (1)
S	656	sec	180 (2), 60 (2), 15 (3), 5 (1), 3 (1), 1 (2)

with CCD techniques.

CCD photometry in the *Vilnius* photometric system of 1240 stars was obtained by scientific supervisor Justas Zdanavičius in an area of about 1.5 square degrees, centered at $\alpha(2000) = 21^{\rm h}01^{\rm m}37^{\rm s}$, $\delta(2000) = +68^\circ09.8'$ ($\ell = 104.1^\circ$, $b = +14.2^\circ$). For most of these stars, spectral and luminosity classes were determined from the photometric data.

The area was observed with the Maksutov 35/51 cm telescope of the Molėtai Observatory, equipped with a VersArray 1300B CCD camera of Roper Scientific, Princeton Instruments. The imaging array of the CCD chip has 1340×1300 pixels of 20×20 μm size. The linear area of the chip is 26.8×26.0 mm, and this corresponds to a field of view of $1.26^\circ \times 1.22^\circ$. The chip was cooled by liquid nitrogen to –110°C. A set of round filters of the *Vilnius* system of 50 mm diameter was used. The ultraviolet *U* and *P* and the green *V* filters are made from colored glasses, and the violet *X*, the blue *Y*, the green *Z* and the red *S* are interference filters. The filter *U* has an additional interference layer cutting the red leak at 700 nm. More details about the instrumentation are given by Zdanavičius & Zdanavičius (2003). The *Vilnius* system is described in detail by Straižys (1992).

The area was observed during the moonless period in 2005 October. The list of the frames used is given in Table 1.1. Part of the exposures were taken with a slight (about 50 pixels) shift in *x* and *y* directions to exclude the influence of some defective pixels.

Sky flats were obtained in each filter from twilight exposures. For the determina-

tion of large-scale field corrections, standard stars in the area were used. With this aim, special exposures with three shifts of about 1/3 of the field and with the rotated field were made. Flat-fielding was done by applying a code described in Laugalys et al. (2004). CCD counts were corrected for a small nonlinearity (Zdanavičius & Zdanavičius 2003).

The magnitudes of stars were obtained with the standard IRAF program package combining aperture and PSF photometry. The PSF function parameters of the images were found to be slightly dependent on the distance from the field center, consequently, small corrections depending on the star position were included. These corrections were determined by comparing magnitudes of brighter stars derived by both methods.

The magnitudes V and color indices m–V were obtained in the following sequence. At the beginning, the instrumental magnitudes m (instr) were determined for individual frames, then they were averaged for each filter. The instrumental color indices m–V (instr) were calculated as the differences between the corresponding instrumental magnitudes. The final values of magnitudes V and color indices were obtained after applying color equations and fixing the zero points. The transformation coefficients of magnitudes and color indices to the standard *Vilnius* system from Zdanavičius & Zdanavičius (2003) were used; they have been determined using photoelectric standards in the M 67 cluster from Laugalys et al. (2004) and other methods. Zero points to the color equations in the area were based on 13 stars measured photoelectrically (Straižys et al. 1992).

1.1.1. The catalog

The results of photometry in the seven-color *Vilnius* photometric system for 1240 stars down to V = 16.7 mag are published by Zdanavičius et al. (2008), which lists the identification number, the J2000 coordinates, V magnitudes, six *Vilnius* color indices and photometric spectral types. The stars are identified in the DSS2-red based charts given in Figures C.2–C.7. The division of the identification chart into sections is shown in Figure C.1. To make the identification easier, all sections overlap by approximately 45^{s} in RA and $2'$ in DEC.

The errors in magnitudes and color indices originate in both the measurement and

the subsequent reductions. The measurement errors are defined by photon statistics and sky background. The reduction errors originate in flat-fielding and transformation to the standard system. The final standard deviations for the stars brighter than 16 mag are about ± 0.015 mag for V and about 0.02 mag for Y–V, Z–V and V–S. The accuracy of U–V, P–V and X–V is somewhat lower, especially for the stars of spectral classes K–M and reddened stars. In the catalog, color indices with σ between 0.05 and 0.10 mag are marked by a colon and those with σ between 0.10 and 0.20 by a double colon. For the faintest and reddest stars the ultraviolet color indices are not given.

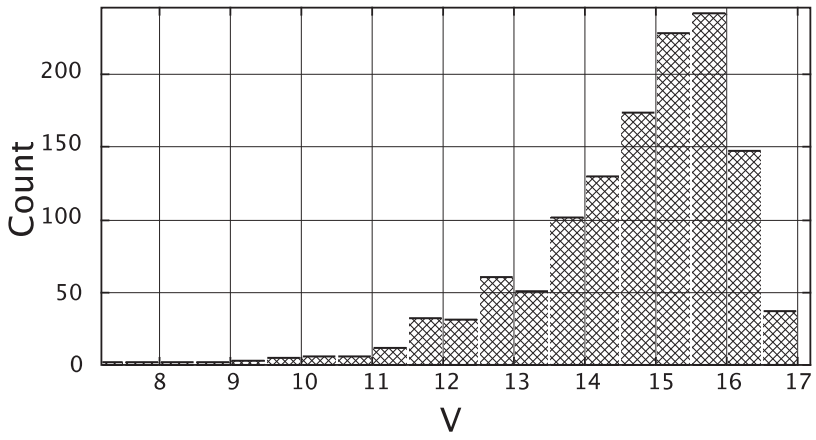

Figure 1.1.: Distribution of the catalog stars Zdanavičius et al. (2008) in 0.5 mag bins of V in NGC 7023 area

Due to the short focus of the telescope (120 cm) and large images (5–8″), the resolution of close stars (which can be both optical and physical) is complicated. By comparing the magnitudes measured with different apertures, we identified binary stars with the separations between the components larger than about 6″. Their magnitudes were measured by the PSF method and should be reliable. Also identified multiple stars with the separations between 3″ and 10″ by inspecting the DSS2 red images in the SkyView Virtual Observatory.

Table 1.2.: The CCD frames used for the TGU 619 area. The numbers of frames in the same filter with the same exposure are given in brackets.

Filter	λ_0 nm	min/sec	Exposure length and the number of frames
U	345	min	20 (3), 8 (2), 2 (2)
P	374	min	20 (3), 5 (2), 1,5 (1), 1 (1)
X	405	sec	900 (3), 180 (2), 40 (2), 15 (2)
Y	466	sec	240 (2), 60 (2), 15 (2), 5 (2)
Z	516	sec	180 (2), 60 (2), 15 (2), 3 (2)
V	544	sec	600 (2), 180 (2), 60 (1), 20 (2)
S	656	sec	180 (2), 60 (2), 20 (2), 5 (1), 4 (2)

1.2. Dark cloud TGU 619

The exposures of the area with the *Vilnius* filters were obtained with the Maksutov telescope of the Molėtai Observatory in Lithuania. The frames listed in Table 1.2 were done in October of 2005 during the same observing run as those for the NGC 7023 area. The reduction methods are the same as described in detail for the reflection nebula NGC 7023.

1.2.1. The catalog

The magnitudes and color indices for 1304 stars brighter than V = 16.6 mag are presented in Table A.1. The stars are identified in Figures C.9–C.14, the split of the area into six sections is shown in Figure C.8.

Table A.2 contains the following information: the identification numbers ZZS [2009], the J2000.0 equatorial coordinates, magnitudes V, color indices U–V, P–V, X–V, Y–V, Z–V and V–S, spectral types in the MK system, interstellar extinction and distance values. Magnitudes and color indices with σ between 0.05 and 0.10 mag are marked by a colon and those with σ between 0.10 and 0.20 by a double colon.

Spectral types of stars were determined by three different methods as described in Zdanavičius et al. (2009). For spectral classes we use the lower-case letters to indicate that our spectral classes are estimated from the photometric data. For some stars the suspected peculiarity types are given: ‘md’ means metal-deficient, ‘d’ means visual binary identified in the SkyView DSS2 red images.

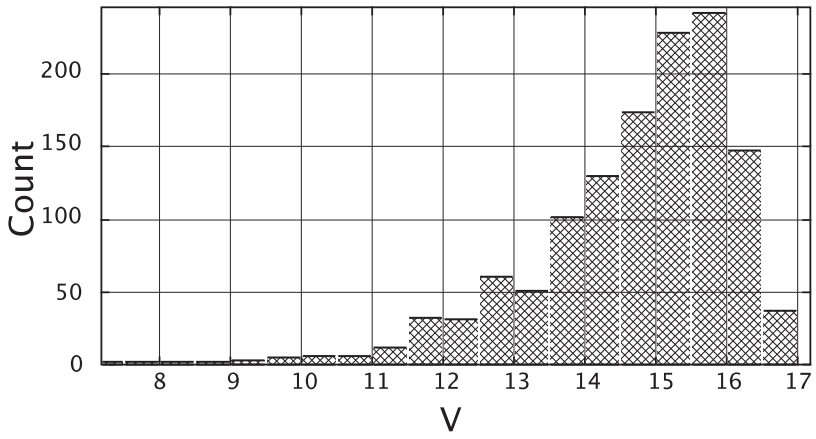

Figure 1.2.: Distribution of the catalog stars in 0.5 mag bins of V in TGU 619 area

1.3. Clusters NGC 7129 and NGC 7142

1.3.1. Observations with the Maksutov telescope

The observations were obtained in September of 2009 with the Maksutov telescope of the Molėtai Observatory in Lithuania, equipped with a Roper Scientific, Princeton Instruments CCD camera.

Magnitudes of stars were obtained by the standard IRAF program package in the aperture mode. Since the investigated area has no standard stars in the *Vilnius* system, for creating a set of local standards we applied the tie-in method with the stars in the direction of the dark cloud TGU 619 located about 7° west and investigated in Zdanavičius et al. (2009b). Short tie-in exposures at similar air masses were obtained during two nights in October of 2009. The duration of exposures was between 5 min in the *U* filter to 10 s in the *S* filter.

The CCD exposures of the field used for photometry are listed in Table 1.3. Different exposure lengths are used to avoid saturation of images of the brightest stars.

1.3.2. The catalog

The results of photometry of 2140 stars down to $V = 17$ mag are given in Table A.2 which lists the identification number, the RA(J2000) and DEC(2000) coordinates taken from the PPMXL catalog, *V* magnitudes and six color indices in the *Vilnius* system and photometric spectral types. For a part of stars color indices *U*–*V* and *P*–*V* are absent since these stars were too faint in the ultraviolet magnitudes *U* and

Table 1.3.: The CCD frames used for clusters NGC 7129 and NGC 7142 observations with the Maksutov-type telescope. The numbers of frames in the same filter with the same exposure are given in brackets.

Filter	λ_0 nm	Exposure length in seconds and the number of frames
U	345	1800 (2), 480 (1), 360 (1), 120 (1)
P	374	1500 (2), 300 (2), 60 (2)
X	405	900 (2), 300 (2), 90 (2), 20 (2)
Y	466	360 (2), 300 (1), 90 (3), 20 (1), 15 (2), 5 (3)
Z	516	240 (2), 60 (2), 15 (2), 5 (2)
V	544	720 (2), 180 (2), 30 (2), 5 (2)
S	656	240 (2), 60 (2), 15 (2), 5 (2)

P. For a few stars colors *V*–*S* are also absent. Color indices *X*–*V*, *Y*–*V* and *Z*–*V* are present for all the stars. A colon following a magnitude or color index means that its error is larger than 0.05 mag but smaller than 0.10 mag. Color indices with larger errors are excluded.

Due to a short focus of the telescope, the CCD pixel size is about $3.4''$, and many stars with the separation $< 7''$ are too close to be measured separately with a sufficient accuracy. Such stars were excluded from the catalog, if their magnitude difference was less than ~ 3 mag. A number of stars, having asymmetrical images in the SkyView DSS2 red images, should be double or multiple (optical or physical) stars with separations $< 3''$. Such stars were included in the catalog, but in the last column, instead of spectral types, they are marked by two asterisks.

The stars which in the 2MASS, Spitzer and WISE surveys have been recognized as YSOs, have the notes at the end of Table A.2. Some of them are identified by us, and some are selected from the literature.

1.3.3. Observations with the 1.8 m VATT telescope

The observations were obtained by (R. P. Boyle) in 2009 October 18–21 with the 1.8 m telescope of the Vatican Observatory on Mt. Graham equipped with a 4K backside illuminated CCD camera and a liquid nitrogen cooling. The camera contains 62×62 mm chip which produces a $13' \times 13'$ field-of-view, with a scale of $0.38''$/pixel. Both clusters were framed with different exposures to ensure the lin-

Table 1.4.: The CCD of NGC 7129 frames used. The numbers of frames in the same filter with the same exposure are given in brackets.

Filter	λ_0 nm	Exposure length in seconds and the number of frames
U	345	800 (2), 160 (3), 25 (4), 20 (4)
P	374	800 (3), 160 (3), 130 (3), 100(1), 20(1)
X	405	100 (1), 40 (3), 25 (6)
Y	466	15 (4), 4 (8)
Z	516	30 (3), 16 (1), 8 (1), 4 (5)
V	544	30 (1), 20 (1), 15 (3), 4 (6)
S	656	100 (3), 80 (6), 20 (1), 10 (10)

Table 1.5.: The CCD of NGC 7142 frames used. The numbers of frames in the same filter with the same exposure are given in brackets.

Filter	λ_0 nm	Exposure length in seconds and the number of frames
U	345	250 (3), 100 (4), 25 (8)
P	374	800 (3), 80 (7), 60 (1), 30 (1)
X	405	500 (3), 60 (1), 50 (3), 25 (4)
Y	466	360 (2), 120 (3), 12 (6), 4 (3)
Z	516	300 (3), 20 (2), 15 (3), 4 (4)
V	544	120 (3), 12 (3), 10 (1), 4 (3)
S	656	240 (3), 24 (1), 12 (2), 10 (6), 8 (2)

earity of response from $V \approx 9$ mag to the faintest limit.

The CCD frames used for the NGC 7129 and NGC 7142 areas are listed in Tables 1.4 and 1.5. The identefication charts are given in Fig.C.15 - C.20

For the reductions of CCD exposures the IRAF program package in the aperture photometry mode was used. For flat-fielding the twilight and dome exposures were applied. Large-scale systematic errors in the flat fields were corrected by using the exposures of the cluster M 67 with known photometric data in the *Vilnius* system of high accuracy (Laugalys et al. 2004). Preliminary color equations for the reduction of magnitudes and color indices of stars from the instrumental to the standard system were obtained from observations of M 67. Zero-points of magnitudes in the *Vilnius* system were based on common stars with the previous catalog (Table A.2): 34 stars in the NGC 7129 area and 117 stars in the NGC 7142 area. The

final adjustment of color equations and zero-points has been done by optimizing the accuracy of photometric classification of a selected set of stars in the investigated areas (Laugalys 2012).

For 850 of stars photometric spectral and luminosity classes were determined. The classification methods are described in chapter 2 of this work.

1.3.4. The catalogs in the NGC 7129 and NGC 7142 areas

Magnitudes and colors in the NGC 7129 and NGC 7142 areas are given in Tables A.3 and A.4 for 159 and 1037 stars, respectively. The limiting magnitude V in the NGC 7129 area is 18.8, in the NGC 7142 area it is 20.1 mag.

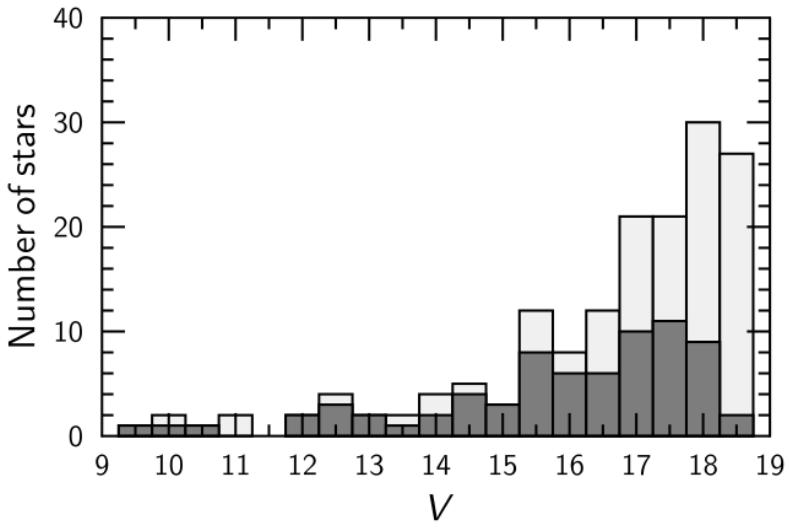

Figure 1.3.: Distribution of the measured stars in the NGC 7129 area (Table A.3) in apparent magnitudes. The shadowed parts of the columns correspond to stars for which two-dimensional spectral types were determined (Table B.3).

The accuracy of the magnitudes V and color indices X–V, Y–V, Z–V and V–S to V = 16 mag is usually better than 0.02 mag, the accuracy of U–V and P–V is about 1.5–2.0 times lower. At $V \approx 18.5$ mag, the accuracy of photometry is too low for a reliable classification of stars. The U-V and P–V color indices for the stars fainter than V = 19.0 mag in most frequently are not given.

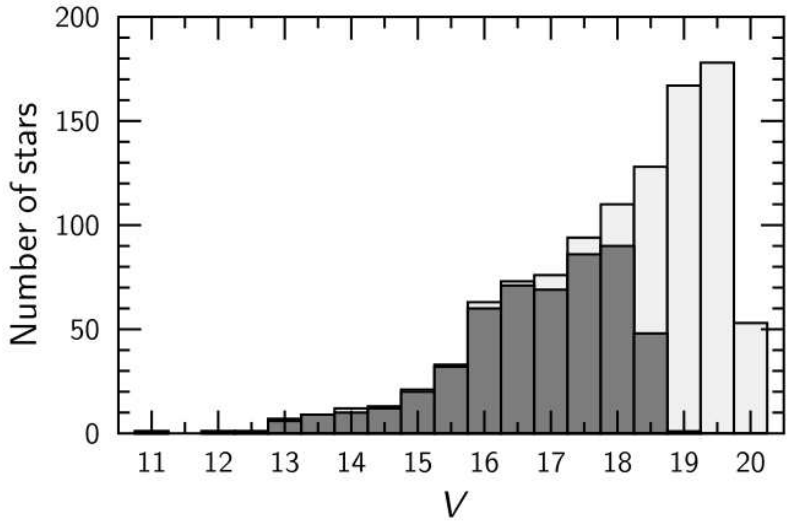

Figure 1.4.: Distribution of the measured stars in the NGC 7142 area (Table A.4) in apparent magnitudes. The shadowed parts of the columns correspond to stars for which two-dimensional spectral types were determined (Table B.5).

The columns list the following information: star number, equatorial coordinates J2000.0, magnitude V, color indices U–V, P–V, X–V, Y–V, Z–V and V–S, and photometric spectral type in the MK system. The magnitudes V with $\sigma > 0.03$ mag and color indices with $\sigma > 0.05$ mag are marked with colons. Notes at the end of the tables contain the HD, BD numbers, spectroscopic MK types, peculiarity types, binarity, variability and other information available in the literature. The ID numbers of stars having notes at the end of the catalogs are indicated with asterisks. The stars found to be binaries or having asymmetric images were not classified in spectral and luminosity classes – they are designated by double asterisks in the column of spectral types. The coordinates of stars are taken from the PPMXL catalog (Roeser et al. 2010).

Chapter 2

Two-dimentional classification of stars

Classification of stars is done by various reddening-free Q-parameters and Q,Q diagrams calibrated in terms of spectral classes and absolute magnitudes (Straižys et al. 1992).

Q-parameters are defined by the equation.

$$Q_{1234} = (m_1 - m_2) - (E_{12}/E_{34})(m_3 - m_4), \tag{2.1}$$

2.1. Classification of stars in the NGC 7023 and TGU 619 areas

For the classification of stars a few different codes were used.

1. The COMPAR code, based on the σQ method described by Straižys et al. (1992, 2002). The method uses match of 14 different interstellar reddening-free Q-parameters of a program star to those of several thousand standard stars (from 8000 to 13000) of various spectral and luminosity classes, metallicities and peculiarity types.

2. The COMPAR 2 method used ten Q-parameters (Q_{UPYV}, Q_{UPY}, Q_{UXY}, Q_{UYV}, Q_{PXY}, Q_{PYV}, Q_{XYV}, Q_{XZS}, Q_{YZV}, Q_{YVS}), calculated for 1418 "standards", formed for 89 spectral subclasses and 17 values of absolute magnitudes derived from the mean intrinsic color indices taken from two sources: (1) Straižys (1992), but with absolute magnitudes adjusted to the distance scale based on the *Hipparcos* parallaxes and linearly interpolated for missing subclasses, (2) a new set of intrinsic color indices obtained from new observations of $\sim$600 stars with the reliable *Hipparcos* parallaxes, made by A. Kazlauskas and others (unpublished). For each program star,

ΔQ_i, the differences between its Q_i-parameters and the corresponding Q_i-parameters of the 1418 standards were calculated. After that, the standards for where

$$\Delta Q_i < N\sigma_{Q_i} \tag{2.2}$$

were selected, beginning with N=1. Here σ_{Q_i} are the rms errors of the parameters Q_i, evaluated from the rms of the observed color indices, and N is the size of the error box. If N=1, the probability to find the true Q_i value between $Q_i - \delta Q_i$ and $Q_i + \delta Q_i$ is 68%, if N=2 the probability is 95%, if N=3 the probability is 99%. A rough mean spectral class and M_V of the standards found in the box are accepted for the program star (on somewhat subjective grounds). If no standard have appeared in the N=1 box, the value of N was increased and the search repeated. If no standard was found in the $4\sigma_{Q_i}$ box, the program star was accepted as peculiar.

3. The xqKLAS code, based on the xq-method described by Zdanavičius (2005). The method is based on a new concept of reddening-free parameters (q) close to normal color indices for "true" Spectral type and a 'virtual' quantity of the interstellar dust (x).

Finding the closest standard star by fitting the reddening-free q-parameters of a program star with those calculated for a set of standards – 684 synthetic stars of various MK spectral types with intrinsic color indices and absolute magnitudes taken mainly from the Straižys (1992) monograph. First until 20 of the closest standards are found. Taking Sp and M_V values of these standards, the color excess, intrinsic color indices and virtual interstellar mass, and their differences from corresponding color indices of standards, are calculated for all intrinsic color indices found. The parameters of a standard with minimal mean difference are attributed to a program star. If mean differences coincide within the errors, the standard with minimal difference of virtual masses is taken. Otherwise it is assumed that star is pecular or double.

4. The TINKLAS code, which classifies stars using various Q_i vs. Q_j diagrams (Straižys 1992). Each of them is formed from two reddening-free Q-parameters and calibrated in terms of spectral classes and absolute magnitudes. The color excess E_{B-V} is calculated from color excesses of the *Vilnius* system, mainly from E_{Y-V}, but for the accuracy control the excesses E_{X-V}, E_{Z-V} and E_{V-S} were used, too. A_V

is calculated from E_{B-V} using the ratio R=A_V/E_{B-V}.

This method was the first used for photometric classification of stars using the Vilnius multicolor phorometry.

In most cases, different methods give the spectral classes which agree within one spectral subclass. The differences of the absolute magnitudes usually are of several tenths of magnitude. However, for some stars the differences may be as great as 3 – 5 mag (low accuracy photometry). For some spectral subclasses, small systematic differences between the methods exsist. The main reason of this are different calibrations used in the programs.

Spectral and luminosity classes determined by different methods for each star were weighted and averaged. Additionally, in some complicated cases, we used various two-color diagrams, combined with the intrinsic sequences of different luminosity classes, trying to avoid ambiguity of spectral or luminosity classes. The infrared J–H and H–K_s color indices from the 2MASS survey were helpful for the recognition of K and M dwarfs.

2.2. Classification of stars in the NGC 7129 and NGC 7142 areas

In order to improve a two-dimensional classification of stars, new classification programs have been used. More details of the programs are described below.

Spectral types of stars from *Vilnius* photometry were determined by two codes. The first one is a version of the COMPAR code composed by A. Kazlauskas and described recently by Straižys et al. (2013). The second classification code named 'QQQ' was composed by K. Zdanavičius and is described here. The results of classification with the COMPAR and QQQ codes were compared and averaged.

The classification by the QQQ code is based on intrinsic color indices for 300 types of two-dimensional MK types (spectral and luminosity classes) taken from the Straižys (1992) monograph. The classification code includes the following three stages.

(1) 14 interstellar reddening-free Q-parameters are calculated from the intrinsic color indices for 300 MK types. In calculation of the Q-parameters, the ratios of

color excesses corresponding to the normal interstellar reddening law are taken. The same Q-parameters are calculated for the program stars. Next, for each program star these 14 Q-parameters are matched up with the set of 300 standards to find the MK type which shows the least standard deviation.

(2) The next classification stage is based on six intrinsic color indices which include the passbands X, Y, Z and V (X–Y, X–Z, X–V, Y–Z, Y–V and Z–V). Differerences of the observed color indices of a program star and the corresponding intrinsic color indices of the 300 MK standards are calculated giving the spurious 'color excesses' which for convenience are all transformed to the values of interstellar dust mass x (in the scale when $A_V = x = 1$). The values of $x < -0.15$ are rejected. The analysis of x values for each program star (corresponding to different color indices) allows to find the standard for which the dispersion of the six x values is at minimum. This value of x should be close to the real interstellar dust mass which affects this star, and the corresponding spectral type can be accepted for the program star.

(3) The accepted spectral type of a program star and its dust mass allows to deredden all its color indices. We can compare the dereddened indices with the intrinsic color indices of a set of standard 300 MK types, find a minimum dispersion of six color indices and to estimate again the spectral type of this program star.

Finally, the mean of these three optimum values of MK types are calculated. The dispersion of these three values serves for the estimation of the classification reliability. Interstellar reddening and extinction for each of the classified stars is determined together with its spectral type.

According to the values of this dispersion of the parameters of the first three most sutable standards, we estimate the accuracy grades of the accepted spectral types: 1 means reliable, 2 means satisfactory, 3 means doubtful and 4 means uncertain classification.

All the described methods for the estimation of spectral types are not independent since they are based on the same set of intrinsic color indices. However, the methods do not give strictely identical results due to the presence of observational errors and the cosmic dispersion of the intrinsic color indices.

Additionally, for the identification of stars with different peculiarities (emission-line stars, Am and Ap stars, subdwarfs, metal-deficient giants, binaries) a few Q_1 vs. Q_2 diagrams have been analyzed. The two-Q diagrams were selected to give the

largest separation of peculiar stars from the sequences of normal stars of different luminosities.

In the COMPAR codes, peculiar stars are identified in the *Q*-matching process since the comparison catalog, except of normal stars of various spectral and luminosity classes, also contains stars with different peculiarities.

For the identification of young stellar objects among the stars measured in the *Vilnius* photometric system, we used several two-color plots of infrared surveys: the *J*–*H* vs. *H*–K_s diagram of the 2MASS survey, the diagrams [3.6]–[4.5] vs. [5.8]–[8.0] and [3.6]–[4.5] vs. [4.5]–[24.0] of the Spitzer survey, and the combined K_s–[3.4] vs. [3.4]–[4.6] diagram of the 2MASS and WISE surveys. The details of application of the 2MASS and WISE diagrams are described in (Straižys et al. 2013).

Chapter 3

Distance determination to the star forming regions

For the classified stars we determined color excesses E_{Y-V}, interstellar extinctions A_V and distances d by the following equations:

$$E_{Y-V} = (Y-V)_{\rm obs} - (Y-V)_0, \tag{3.1}$$

$$A_V = 4.16 E_{Y-V}, \tag{3.2}$$

$$5 \log d = V - M_V + 5 - A_V, \tag{3.3}$$

3.1. Distance to the reflection nebula NGC 7023

The interstellar reddenings E_{Y-V} of 480 stars with the most reliable classification were determined as differences between the observed color indices Y–V published by Zdanavičius et al. (2008) and the intrinsic color indices $(Y–V)_0$ for a given spectral type taken from Tables 67–69 of the Straižys (1992) monograph. Color excesses were transformed to extinctions by the equation (3.2). Distances d to the stars in parsecs were calculated by the equation (3.3). Here V are from Zdanavičius et al. (2008) and M_V are from the tabulation given in Straižys (1992), adjusted to a Hyades distance modulus of 3.3 mag. The results are given in Table B.1 which gives interstellar extinctions A_V, distances d and the name of the subarea to which the star is attributed. The subareas with different extinctions are described below in this section and are shown in Figure 3.1.

Figure 3.2 shows the plot A_V vs. d for stars in the whole area. The three dotted curves correspond to A0 V (or K0 III), F0 V and G0 V stars at the limiting magnitude $V_{\rm lim}$ = 16.0. The stars of these spectral types (and absolutely fainter) above the corresponding curves are affected by the limiting magnitude, i.e., stars with high

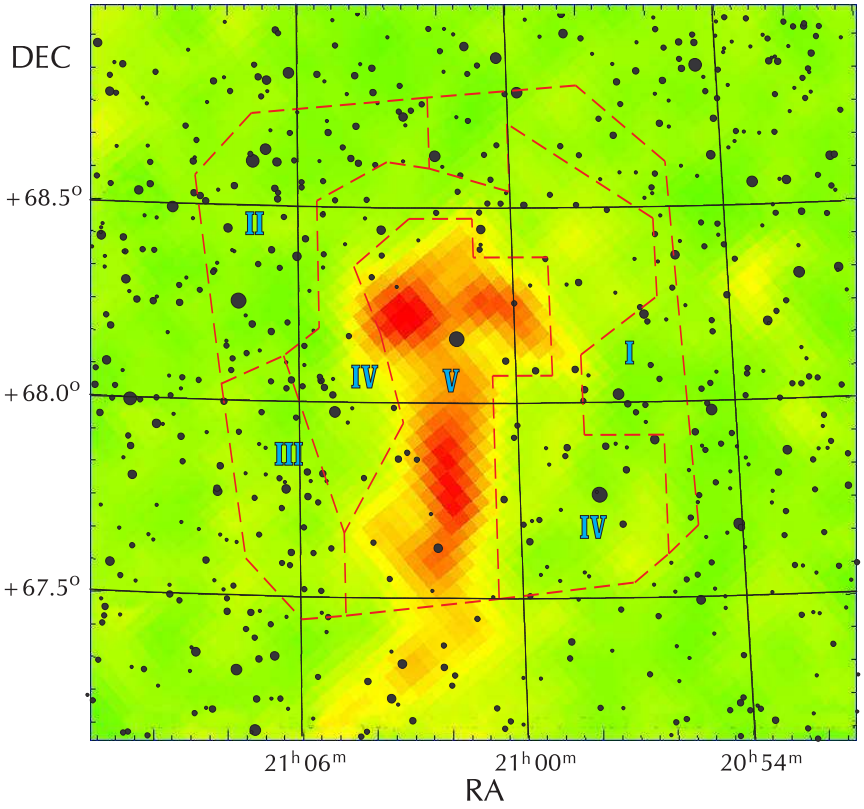

Figure 3.1.: The division of the investigated area into five subareas exhibiting slightly different dependencies of A_V on distance. The extinction map from Dobashi et al. (2005) atlas and the stars down to $V = 14$ from GSC are shown in the background.

extinctions are missing at these distances. Consequently, the plot cannot be used for estimating both the mean and the maximum extinctions. However, up to a distance of 1 kpc all the stars absolutely brighter than G0 V are well represented in the areas where A_V is smaller than ~ 2 mag. At $d = 1$ kpc and $A_V = 2$ mag, only G, K and M dwarfs near the limiting magnitude are missing. In the upper part of Figure 3.2 the error bars of the distance and A_V are shown for the two distance values. They correspond to an error of ± 0.1 mag in A_V, ± 0.5 mag in M_V and (–20, +26) % in the distance.

The segmented curve in Figure 3.2, which starts from the origin of the coordinates, corresponds to the exponential extinction law for the Galactic latitude $b = +14.2°$, calculated by the Parenago formula with the extinction coefficient $A_V = 1.5$ mag/kpc and the half-thickness of the dust layer $\beta = 0.11$ kpc (Parenago 1945; Sharov 1963; Straižys 1992, p. 146). It is evident that the Parenago curve is in agreement with the positions of low-extinction stars located closer to us than 500–700 pc.

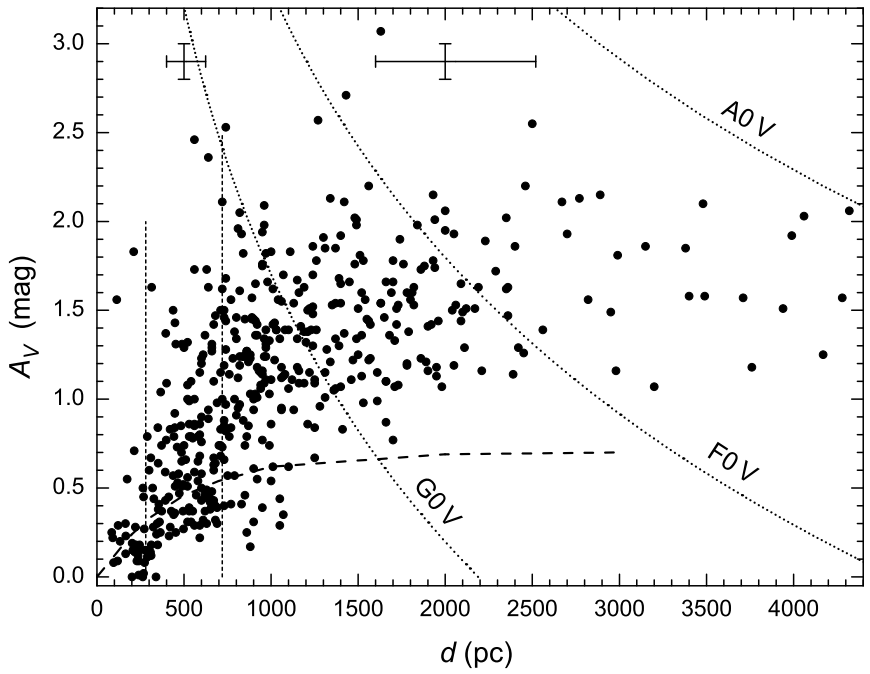

Figure 3.2.: Dependence of the A_V extinction on distance in the whole area. The three dotted curves show the limiting magnitude (V=16) effect for A0 V, F0 V and G0 V stars. The curve at the right-hand upper corner is also valid for K0 III stars since their absolute magnitudes are close to those of A0 V stars. The lower segmented curve is the dependence of the extinction on distance for the Galactic latitude +14.2° calculated by the Parenago formula (see the text). The error bars correspond to standard deviations of the distance and the extinction at 0.5 kpc and 2 kpc distances. The two vertical lines mark the mean distances of the clouds.

For determining the distance to a dark cloud we usually use stars situated at a steep rise (or jump) of the extinction at the front edge of the cloud. However, some of these stars can have negative distance errors which originate mainly from the errors in their absolute magnitudes. Consequently, the true distance to the cloud can be larger than the distance corresponding to the jump defined by the stars apparently closest to the Sun. The true distance can be found as d (min) = 0.79 d, or d (max) =d1.26, where is the distance error when the error of the absolute magnitude ΔM_V = +0.5.

In Figure 3.2 we can see that at $\sim$250 pc a steep rise in the extinction takes place. However, two of the stars, Nos. 595 and 636 in the catalog, exhibit too large extinction values, A_V = 1.56 and 0.55 mag, at small distances, 114 pc and 173 pc, respectively. The first of these two stars will be discussed below in this section. Both stars are excluded from determining the cloud distance. The remaining 10 stars

with distances between 210 and 330 pc and $A_V \geq 0.5$ mag have the mean distance 282 ± 42 pc (standard deviation) which may be considered as the distance of the nearest cloud. This result should be considered as more accurate than the value of distance found by Straižys et al. (1992) applying a similar method for only four stars of magnitudes 11–12. Two of them in (Zdanavičius et al. 2008) were suspected as binaries.

At distances larger than 250 pc the extinction continues to rise almost up to 1 kpc. However, the presence of another jump (or jumps) of the extinction can be suspected. The most probable jump is observed between 560 and 875 pc, where 560 pc is the distance to the front edge, and the distance range is defined by $d - 0.20d$ and $d + 0.26d$. Within this distance range we have 10 stars with $A_V \geq 1.8$ mag. Their mean distance is 715 ± 110 pc (standard deviation).

Trying to better understand the extinction vs. distance relation, we have split the investigated field into five subareas with the boundaries shown in Figure 3.1 and with the extinction map from the Dobashi et al. (2005) atlas and the stars down $V = 14$ mag from the GSC catalog plotted in the background. Each of these subareas exhibits a somewhat different form of the A_V vs. distance dependence. In the following, the results of the extinction dependence on distance in these subareas will be described.

Figure 3.3 shows the A_V vs. d plot for Subarea I located along the right edge of the field. The first two reddened stars with A_V between 0.6–0.8 mag are seen at an apparent distance of ~ 290 pc, i.e., quite close to the mean distance of the first cloud estimated from Figure 1. A few more jumps between 500 pc and 750 pc are also possible. The mean extinction value at distances > 1.0 kpc is about 1.3 mag, and the maximum value is close to 1.75 mag.

Figure 3.4 shows the A_V vs. d plot for Subarea II located at the left upper corner of the area. Here, the nearest considerably reddened star is found at the apparent distance 300 pc, and the second jump is seen at ~ 700 pc. At $d > 1$ kpc the extinction remains more or less constant with a mean value of 1.3 mag. In this subarea a group of about 12 stars at a distance of 800–1100 pc exhibits quite low extinction, with the values between 0.2 and 0.6 mag. Probably, these stars are seen in the directions of relatively transparent windows. They are scattered over the whole subarea.

Figure 3.5 shows the A_V vs. d plot for Subarea III located at the lower left corner

of the field. The positions of the two extinction jumps here cannot be estimated reliably but the height of the second jump is almost 1 mag, giving a mean extinction of 1.8 mag at $d > 1$ kpc.

Figure 3.6 shows the A_V vs. d plot for Subarea IV which surrounds the central dark cloud on three sides. The extinction jumps are close to the distances observed in other subareas. The extinction values show a considerable scatter (between 1.0 and 2.2 mag), with the mean value being about 1.6 mag. Two stars in the subarea exhibit the extinction values around 2.5 mag.

In Figure 3.7 we show the A_V vs. d plot for Subarea V which includes the darkest segment of the dust cloud with the reflection nebula NGC 7023. Only 14 classified stars with $A_V > 1.0$ have been found in this direction. Among these the most interesting is the above-mentioned star No. 595. Its photometric spectral type is K2 V, V = 13.18, A_V = 1.56 and d = 114 pc. It is strange to find this large extinction at such a small distance. The classification of the star by all of the methods applied is of good accuracy and coinciding. The small apparent distance of the star can be explained by its possible duplicity. If it is a binary with two identical components, the combined absolute magnitude should be more negative by 0.75 mag and the distance larger by a factor of 1.41, i.e., 114×1.41 = 161 pc, which is more realistic

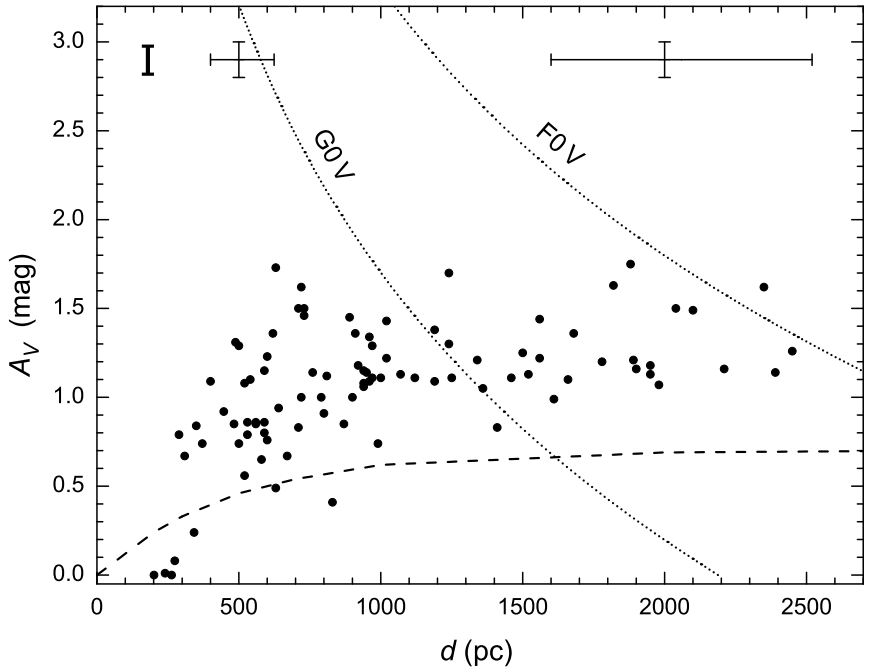

Figure 3.3.: The same as in Figure 1 but for Subarea I.

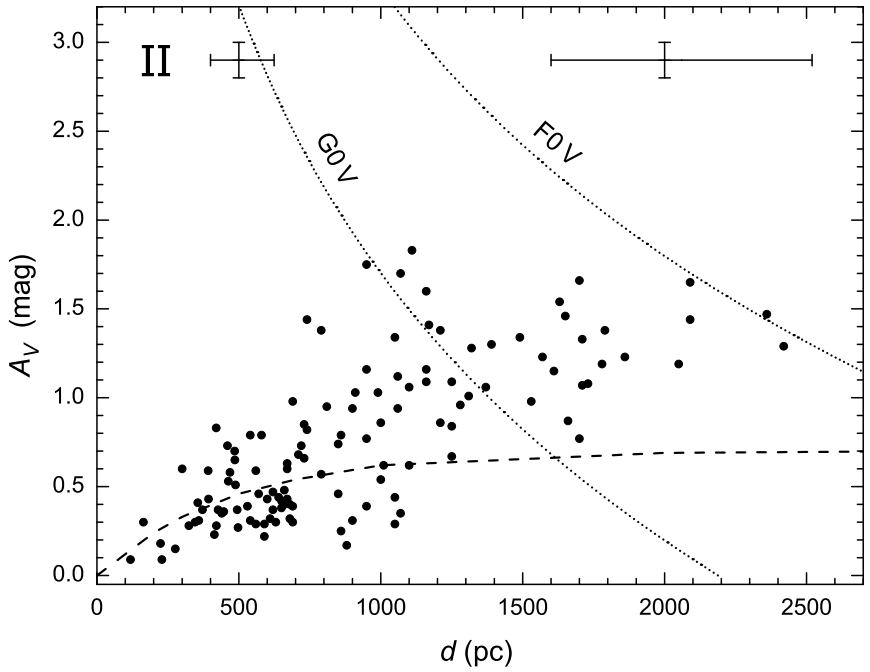

Figure 3.4.: The same as in Figure 1 but for Subarea II.

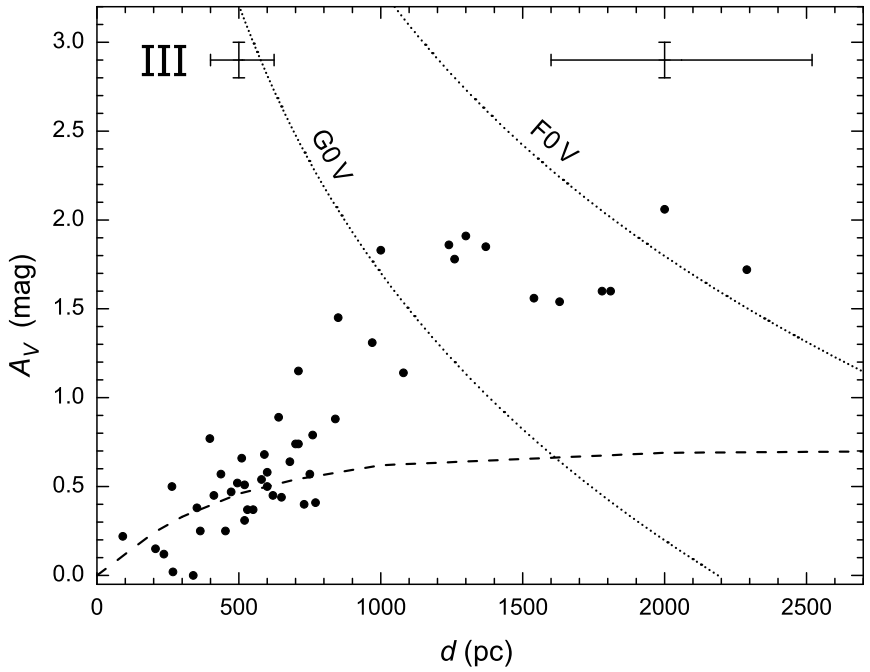

Figure 3.5.: The same as in Figure 1 but for Subarea III.

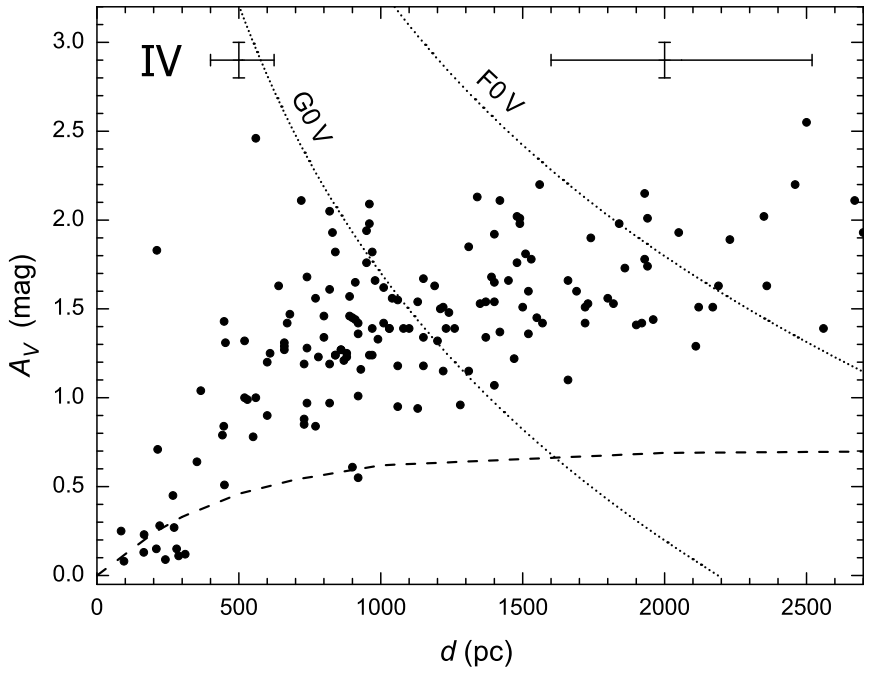

Figure 3.6.: The same as in Figure 1 but for Subarea IV.

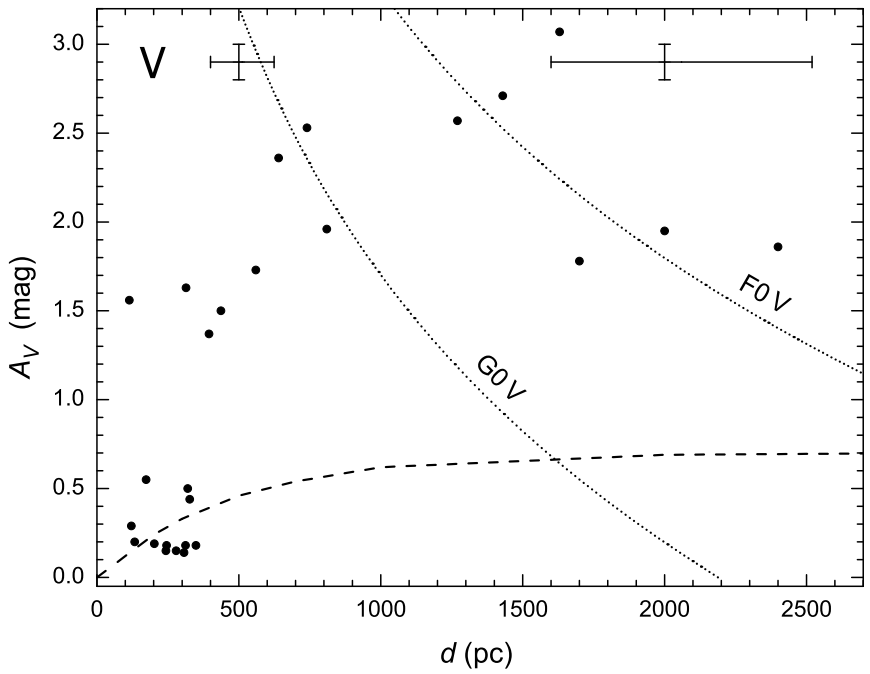

Figure 3.7.: The same as in Figure 1 but for Subarea V.

than the value for a single star, but still too small compared to the cloud distances in other subareas.

Other stars in Subarea V classified in Paper I are too scanty to estimate cloud distances. However, their distribution in the plot (Figure 7) is not in contradiction to the apparent distances of the two clouds at 282 pc and 715 pc. The largest extinction found in Subarea V is close to 3 mag, but this is not the real maximum value since the stars with larger extinctions are absent in our sample due to the limiting magnitude effect.

3.2. Distance to the dark cloud TGU 619

Applying 658 stars with most reliable classification (Table B.2), we investigate the distribution of the interstellar extinction with distance.

The plot A_V vs. d for stars in the area is shown in Figure 3.9. The three dotted curves correspond to A0 V (or K0 III), A5 V and F0 V stars at the limiting magnitude $V_{\rm lim}$ = 16.0. The stars of these spectral types (and absolutely fainter) above the corresponding curves due to limiting magnitude are missing. Thus, the plot cannot be used for estimating both – the mean and the maximum extinctions in the cloud directions. In the upper part of Figure 3.9 the error bars of the distance and A_V are shown for the two distance values (500 pc and 2 kpc). They correspond to an absolute error of $\pm\,0.1$ mag in A_V, $\pm\,0.5$ mag in M_V and (–20, +26) % in the distance.

Figure 3.9 also shows a segmented curve corresponding to the exponential extinction law for the Galactic latitude $b = +15.5^\circ$, calculated by the Parenago formula with the extinction coefficient $A_V = 1.25$ mag/kpc and the half-thickness of the dust layer $\beta = 0.11$ kpc (Parenago 1945; Sharov 1963; Straižys 1992, p. 146). The curve is in agreement with the distribution of low-extinction stars.

The front edge of the dust clouds of the Cepheus Flare can be estimated from the position of stars located at a steep rise of the extinction. Since some of these stars can have negative distance errors, the true distance to the cloud should be larger than the distance to the reddened stars apparently closest to the Sun. The true distance can be found as $d = d$ (front) + 0.2 d, or $d = d$ (front) / 0.8, where 0.2 d is the negative distance error when the error of the absolute magnitude $\Delta M_V = +0.5$.

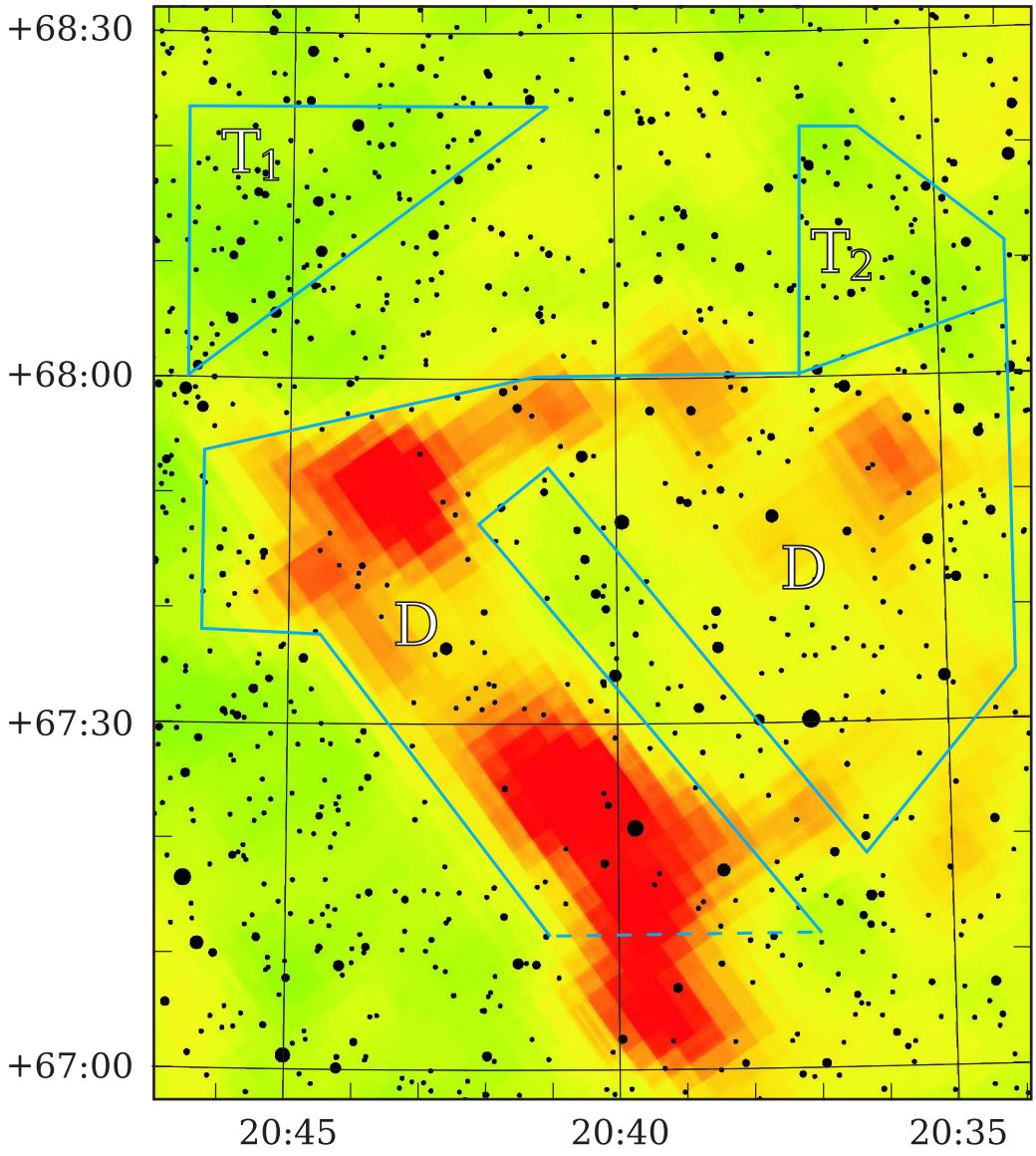

Figure 3.8.: The investigated area: the extinction map from Dobashi et al. (2005) atlas and the stars down to $V = 15$ in the background. The stars are plotted by the Chartes du Ciel (Sky Charts) from the UCAC3 catalog supplemented with Tycho 2. The blue lines limit two most transparent (T_1 and T_2) and the dark subareas (D).

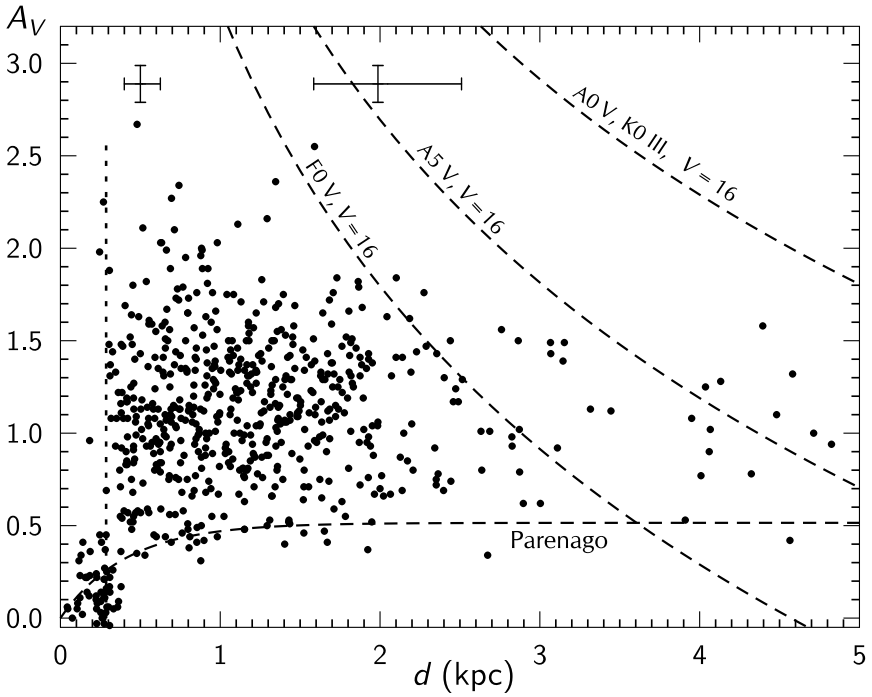

Figure 3.9.: The dependence of the extinction on distance for the whole area. The three dotted curves show the limiting magnitude effect for A0 V, A5 V and F0 V stars. The A0 V curve is also valid for K0 III giants. The lower segmented curve is the dependence of the extinction on distance for the Galactic latitude +15.5° calculated by the Parenago formula (see the text). The error bars correspond to standard deviations of the distance and the extinction at 0.5 kpc and 2 kpc distances. The dotted vertical line marks the estimated distance of the dust clouds at 286 pc.

In Figure 3.9 the two nearest stars with a considerable extinction are: No. 1188 of spectral type K1 IV with d = 183 pc and A_V = 0.96 mag, and No. 678 of spectral type K2.5 V with d = 245 pc and A_V = 1.98 mag. Their mean apparent distance is 214 pc. Considering that these stars have negative absolute magnitude errors ΔM_V = –0.5, we obtain the cloud distance at 214/0.8 = 268 pc with a 3σ error of $\pm$55 pc. The 1σ error should be close to $\pm$ 20 pc.

Another estimate of the distance to the clouds can be done considering the largest apparent distances of stars with a small or zero extinction. If these stars have positive distance errors, then the true cloud distance is $d = d\,(\mathrm{back}) - 0.2\,d$, or $d = d\,(\mathrm{back}) \times 0.8$. The most distant star with a low extinction is No. 496 of spectral type G0 V at d = 380 pc and A_V = 0.17 mag. If we consider this star having a positive absolute magnitude error ΔM_V = +0.5, the cloud distance should be at 380 $\times$ 0.8 = 304 pc. Probably, the true distance of the cloud is somewhere between the two

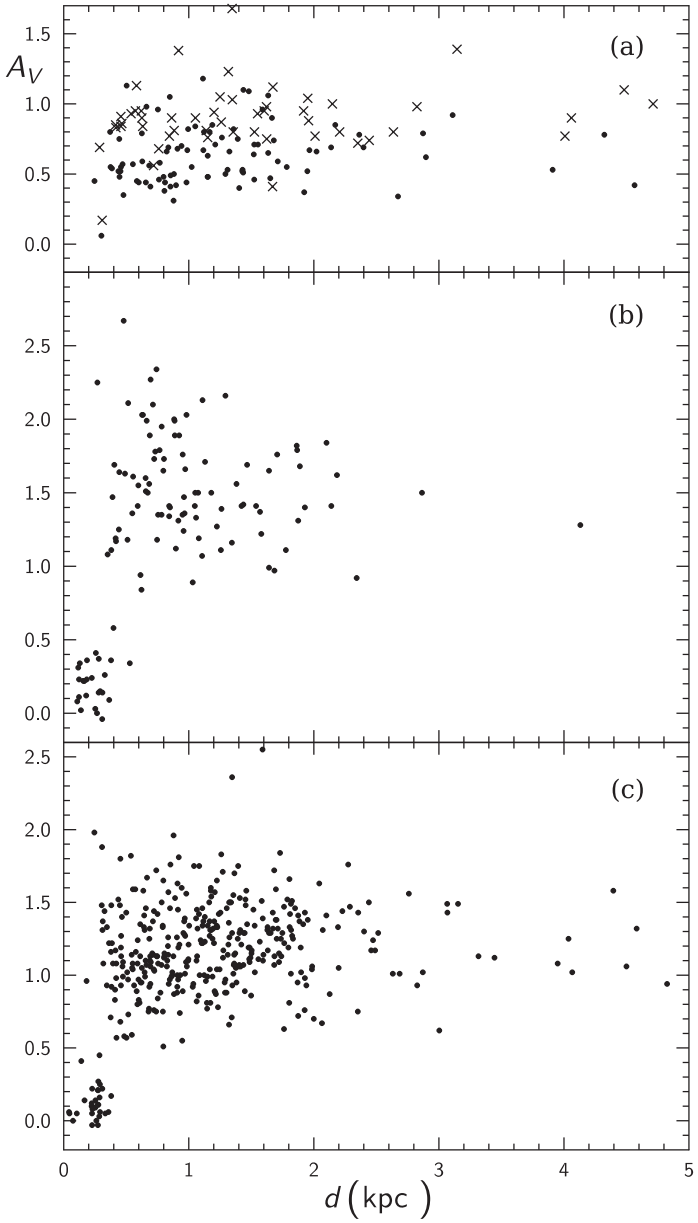

Figure 3.10.: Dependence of the extinction A_V on distance for the TGU 619 areas delineated in Figure 3.8: (a) – two most transparent subareas (dots for T_1 and crosses for T_2), (b) – the darkest subarea D, (c) – the remaining stars of the area.

estimated values, i.e., at (268 + 304)/2 = 286 pc, with $1\sigma = \pm 20$ pc.

The investigated area is quite heterogeneous with respect to the amount of the extinction. This is well seen in the SkyView blue and red DSS2 charts with the increased contrast, as well as in the Dobashi et al. (2005) atlas. In Figure 3.8 we delimited three subareas – two most transparent regions in the upper part of the area, and the area containing dust clumps of the TGU 619 cloud. Panels (a) and (b)

in Figure 3.10 show the dependence of A_V on d in these subareas. All the remaining stars, located in the regions of intermediate extinction, are plotted in panel (c).

No significant differences in the distance in these four subareas can be noticed. Also, the additional jump of the extinction at d = 715 pc, found in the direction of NGC 7023 (Zdanavičius et al. 2009a), does not appear in the direction of the TGU 619 cloud. The largest extinction found in the direction of this cloud is close to 3 mag, but this is not a real maximum value since the stars with larger extinctions are absent in our sample due to the limiting magnitude effect.

3.3. Parameters of the clusters NGC 7129 and NGC 7142

3.3.1. Distance of the cloud TGU 645 and the cluster NGC 7129

Since the cluster NGC 7129 is embedded in the dust cloud, for the determination of the cluster distance we have applied the method which uses the rise of extinction of the field stars located at a distance of the dust cloud.

For the determination of the extinction run with distance in the direction of NGC 7129, 72 stars from Table B.3 with the most accurate spectral types were used. This sample was supplemented with 83 stars classified with good accuracy in Table B.4 and located outside the $13' \times 13'$ area but inside the $20' \times 20'$ area centered on the cluster. This area covers the whole molecular cloud around NGC 7129 shown in the CO map by Ridge et al. (2003). The known YSOs and other stars with low classification accuracy were excluded.

Fig. 3.11 shows the extinctions A_V plotted as a function of the distance d. The error bar in distance corresponds to $\Delta M_V = \pm 0.5$ mag, a typical 3σ error of absolute magnitudes estimated from photometric spectral types. The errors of A_V, originating from the observational errors and intrinsic 'cosmic dispersion' of the relation between Y–V and spectral classes, are of the order of ± 0.2 mag.

The distribution of stars in Fig. 3.11 shows that the extinction increases steeply close to $d \approx 1$ kpc where the TGU H645 P2 cloud can be located. The scatter of A_V at greater distances is quite large – from about 1 mag to 3.4 mag. Another, much lower rise of extinction up to 1 mag might be present at a distance of ~ 500 pc.

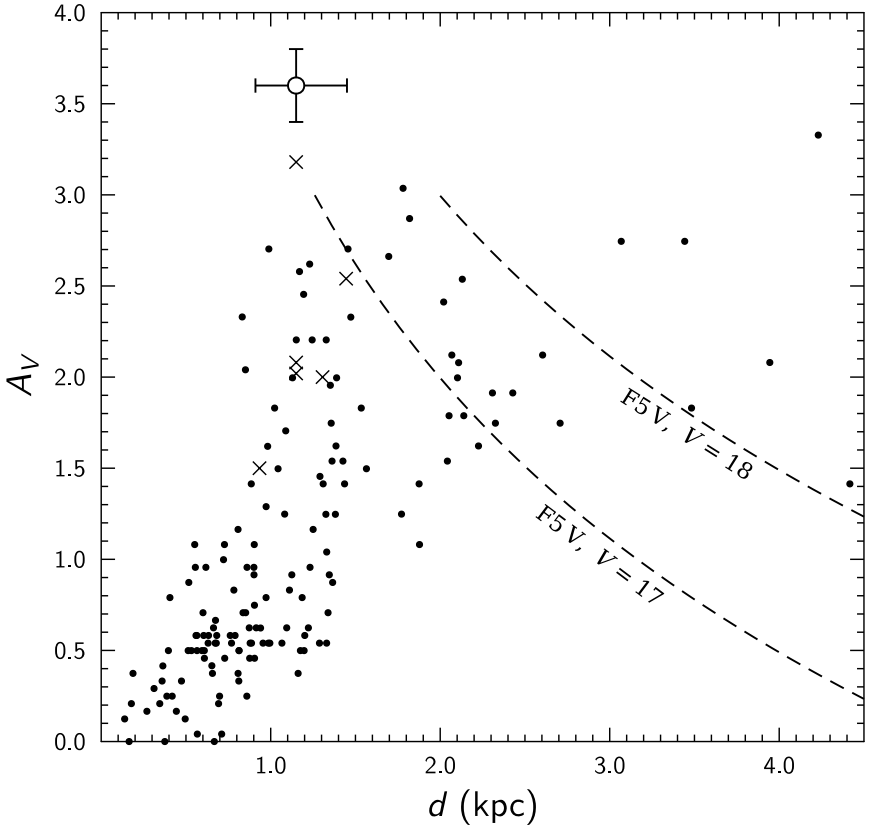

Figure 3.11.: Extinction vs. distance diagram for stars of the NGC 7129 area classified in the Vilnius system. The two curves show the limiting magnitude effect for F5 V stars at V = 17 and 18 mag.

For determining the cloud distance we must take into account that a portion of stars are scattered toward lower distances because of negative distance errors. The main source of distance errors is in their absolute magnitudes – in the photometric classification we take ± 0.5 as the 3σ error of M_V. In this case the stars with the maximum negative distance errors will appear closer to the Sun by a factor of 1.26. Thus, if we find stars with large extinctions at a distance d_1 pc, the true distance of the cloud should be at $d = 1.26\,d_1$. In Fig. 3.11 the mean distance of five front stars with $d < 1.0$ kpc and $A_V > 1.4$ mag is 0.91 kpc. If these stars are moved from the dust cloud shorward because of absolute magnitude errors, the front edge of the cloud is expected to be located at d = 1.15 kpc, which corresponds to the true distance modulus V–M_V = 10.30 mag.

Also, for the shortward scattering of apparent distances the unresolved binary stars can be responsible. If both components of a binary star are of the same lumi-

nosity, its real distance should be at $1.41\,d_1$. In this case the distance of the cloud should be at d = 1.28 kpc. Since we have no information that any of the five stars closer than 1 kpc is a binary, we will accept that their shifts shortward are due to the error of M_V only. If this assumption is correct, the absolute distance error (3σ) of the cloud is 240 pc, or $\sigma \approx 80$ pc. At a distance of 1.15 kpc the angular diameter of the cloud, 0.3°, is equal to 6 pc.

The greatest number of stars in the NGC 7129 area with two-dimensional spectral types falls on 17–18 mag. Most of them are main-sequence stars of spectral classes F and G. The two broken curves in Fig. 3.11 demonstrate the effect of limiting magnitude for F5 V stars with magnitudes V at 17 and 18. Above the last curve only B- and A-type stars, as well as G-K-M giants can be found. These types of stars in this area are rare.

Fig. 3.11 shows that behind the dust cloud at 1.15 kpc the extinction does not increase – it remains approximately between 1.5 and 3.4 mag up to 4.5 kpc. This fact is expected, since at the Galactic latitude 9° our line of sight at 2 kpc reaches 320 pc above the Galactic plane, where dust clouds are quite rare. However, the J–H vs. H–K_s diagram of 2MASS shows (Fig. 3.13) that the background RCGs, located at distances from 3 to 8 kpc, are affected by reddening, which corresponds to A_V up to $\sim$14 mag. The most reddened 11 RCGs with J–$H > 1.5$ all are seen mostly in the eastern (left) half of the area with the largest dust density. The presence among them of a few ordinary K–M giants will not change the conclusion that the total extinction, created by the cloud in some directions, is as large as 10–14 mag.

Since the cluster NGC 7129 is embedded in the dust cloud TGU H645 P2, we accept the same distance both for the cloud and the cluster. We have identified only six stars close to the ZAMS for which the membership to the complex is evidenced by illumination of the surrounding dust and forming the reflection nebulae. Three of these stars, Nos. 96, 105 and 154, are 4–6′ away from the central concentration of visible and infrared objects. However, they all are located in the same dust and molecular cloud, and we will consider these three stars as the cluster members formed in the local condensations of gas and dust a few million years ago. The most active formation of stars continues now in the core of the cluster which according to Gutermuth et al. (2004, 2005) has a diameter of 3′, while the whole area in which YSOs are observed, is about 4 times larger.

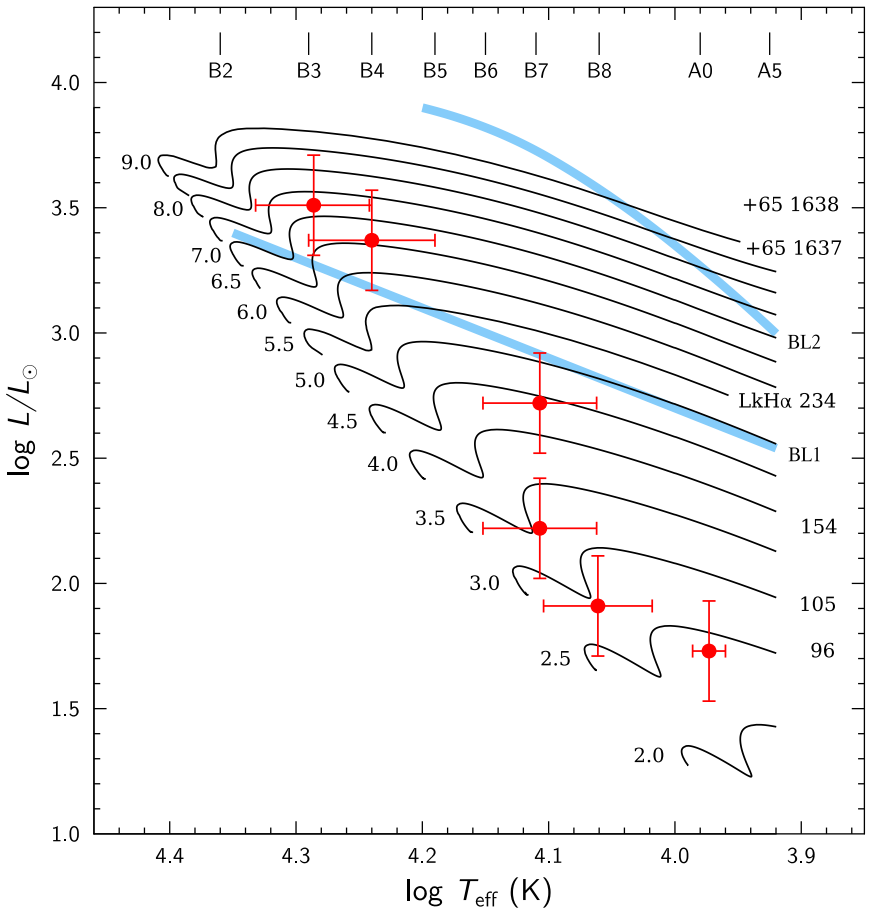

Figure 3.12.: The effective temperature vs. luminosity diagram with the evolution tracks for the masses 2–10 $M_\odot$. Six NGC 7129 members of spectral classes B3–A1 located close to the ZAMS line with theit error bars are plotted in red. The numbers of stars are shown at the right edge of the plot. Spectral classes, corresponding to the effective temperatures, are indicated at the top. The two birthlines for the 10^{-5} and $10^{-4}\,M_\odot\,\mathrm{yr}^{-1}$ accretion rates from Palla (2005) are shown in blue. They are named BL1 and BL2, respectively.

The data for the six cluster stars are given in Table 3.1. Fig. 3.12 shows the plot of these stars in the the $\log L/L_\odot$ vs. $\log T_{\rm eff}$ diagram. Their luminosities in solar units were calculated with the equation

$$\log L/L_\odot = 0.4(M_{\rm bol,\odot} - M_{\rm bol,\star}) = 0.4(4.72 - V + A_V + 10.30 - BC), \qquad (3.4)$$

where V is the apparent magnitude of the star, $M_{\rm bol,\star}$ is its absolue bolometric magnitude, $M_{\rm bol,\odot}$ = 4.72 is the bolometric absolute magnitude of the Sun, BC are the bolometric corrections, and 10.30 is the true distance modulus of the cluster. The extinctions A_V were determined with Eq. (3.1).

Table 3.1.: Photometric and evolution parameters of the most luminous stars in the NGC 7129 area, located in the luminosity-temperature diagram close to the main sequence. The results for the first three stars are based on the MK types and *BV* photometry from Racine (1968), Herbst & Shevchenko (1999) and Hernández et al. (2004), see the text.

No.	Sp. type	V	$\log L/L_\odot$	$\log T_{\rm eff}$	BC mag	Mass $M_\odot$	Age Myr	Notes
BD+65 1637	B4 III-IV	10.18v	3.37	4.240	–1.57	6.6	0.27	1
BD+65 1638	B3 IV-V	10.18	3.51	4.286	–1.85	7.2	0.20	
LkHα 234	B7 III	12.21v	2.72	4.107	–0.80	4.5	0.70	3
96	a1 IV-V	12.35	1.73	3.973	–0.16	2.5	3.10	2
105	b8 V	13.34	1.91	4.061	–0.55	3.0	2.38	
154	b7 V	12.28	2.22	4.107	–0.80	3.5	1.59	

Notes.
1. Herbig Ae/Be star; measured in the Vilnius system in Table A.3 (No. 108).
2. YSO of Class III, X-ray source (Stelzer & Scholz 2009).
3. Herbig Ae/Be star; measured in the Vilnius system in Table A.2 (No. 699).

The three brightest stars in the cluster are BD+65 1637 (Herbig Ae/Be star), BD+65 1638 (YSO of Class III) and LkHα 234 (also Herbig Ae/Be star). To calculate the $V_0 = V - A_V$ and $(Y–V)_0$ values of these stars, the following spectral classes were used: B3 for BD+65 1638 from Racine (1968), B4 for BD+65 1637 and B7 for LkHα 234, both from Hernández et al. (2004). The last two stars are variables (V361 Cep and V373 Cep) with the V amplitudes 0.71 and 1.48 mag, respectively. Their positions in Fig. 6 were calculated using the average V magnitudes and B–V colors from Herbst & Shevchenko (1999). For BD+65 1638 the extinction was calculated from *BV* photometry given by Racine (1968). If we place these three stars at the accepted distance of the cloud (1.15 kpc), their absolute magnitudes and corresponding luminosity classes are as follows: –2.20 (B3 IV) for BD+65 1638, –2.14 (B4 III-IV) for BD+65 1637, and –1.27 mag (B7 III) for LkHα 234.

The three fainter stars, No. 96 (2MASS J21424031+6610069, A1 IV-V), No. 105 (2MASS J21424707+6610512, B8 V) and No. 154 (2MASS J21435035+6608477, B7 V), plotted in Fig. 3.12, are the sources illuminating the dust cloud in their vicinities and forming the three small reflection nebulae around them. The first two stars were observed in the *JHKL* system by Strom et al. (1976) (SVS 2 and SVS 10). The reflection nebulae around them are described by Magakian & Movsesian (1997). The star No. 96 was identified by Stelzer & Scholz (2009) as YSO with X-ray emis-

sion. The stars Nos. 96 and 105 show the excess emission in the WISE 12 and 22 μm bands. However, both of them have approximately photospheric spectral energy distributions up to λ = 5–8 μm. A possibility exists that the flux measurements of these stars in the longest WISE bands are affected by a strong background of the surrounding nebula (see the WISE images of NGC 7129 in SkyView and the discussion in Koenig et al. (2012).

The bolometric corrections and temperatures of stars were taken from Straižys (1992) according to their spectral classes. Our scale of $T_{\rm eff}$ for B-stars is close to that given by Flower (1996), Bessell et al. (1998) and Torres (2010).

The PMS evolution tracks for 2–9 $M_{\odot}$ stars of solar chemical composition (Z = 0.0129, Y = 0.2740, ML = 1.74, $X_D = 2 \cdot 10^{-5}$,) were taken from the database of Pisa Stellar Models calculated by P. G. Prada Moroni especially for this investigation. More details about the tracks can be found in Tognelli et al. (2011).

The positions of the six stars with respect to the evolution tracks allow to estimate their masses and ages, the results are given in Table 3. Among the six stars, BD+65 1638 has the largest mass (about 7.2 $M_{\odot}$) and is the youngest (200 000 yr). The star No. 96 has the smallest mass (2.5 $M_{\odot}$) and is the oldest (3.1 Myr). The error crosses for each star are shown. The errors of $\log L/L_{\odot}$ correspond to the absolute (3σ) errors of the accepted distance modulus of the cluster, $\pm\,0.5$ mag. The errors $\log T_{\rm eff}$ correspond to an error of $\pm\,1$ decimal spectral subclass. Naturally, for the two Ae/Be stars the real errors should be larger due to lower accuracy of spectral classification, variability, presence of circumstellar disks and envelopes, possibility of anomalous extinction law in the circumstellar dust, etc.

3.3.2. 2MASS two-color diagram for the cluster NGC 7129

Important information about the cluster and its vicinity can be obtained from the near-infrared JHK_s photometry of the 2MASS survey Skrutskie et al. (2006). The diagram J–H vs. H–K_s, together with various two-color diagrams, containing magnitudes of the Spitzer and WISE infrared surveys, have been used to identify tens of YSOs in the cloud (see references in Note table). We will apply this system to verify if the interstellar reddening law in the area is normal.

Fig 3.13 shows the J–H vs. H-K_s diagram for 2MASS stars located in a $15' \times 15'$

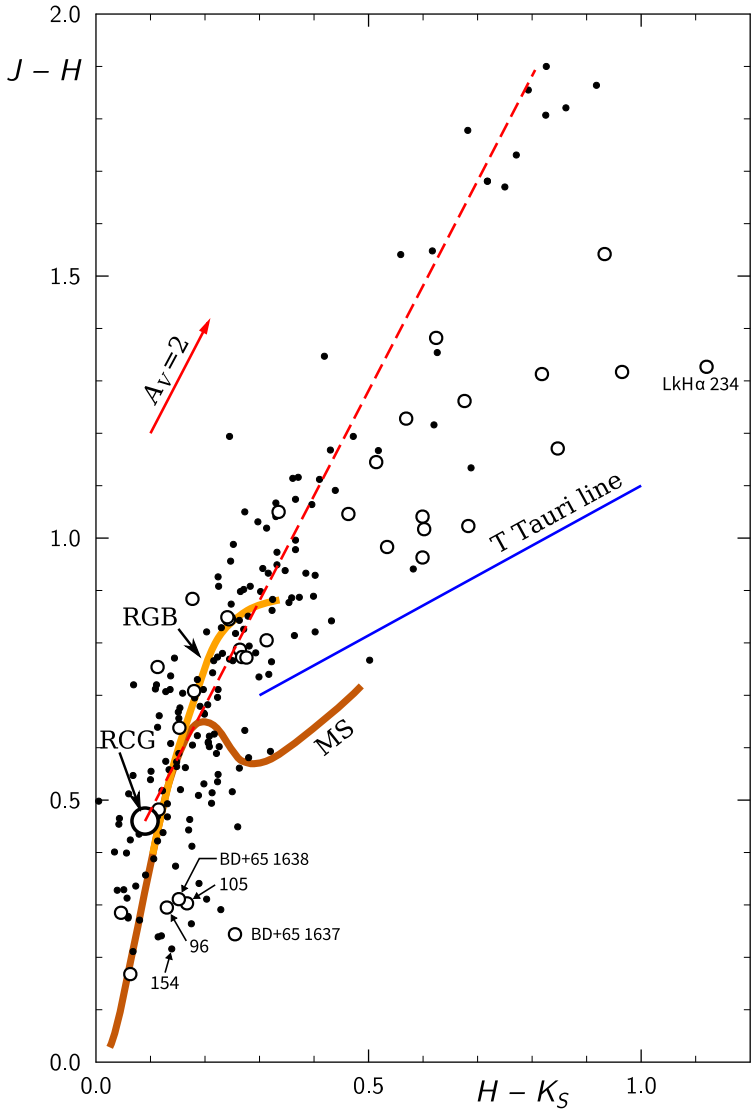

Figure 3.13.: The *J*–*H* vs. H–K_s diagram for the 2MASS stars with errors of magnitudes ≤ 0.05 mag in the $15' \times 15'$ box centered on NGC 7129. Above *J*–*H* = 1.5 the accuracy limit of magnitudes < 0.1 is accepted. The main sequence (MS, brown belt), red giant branch (RGB, orange belt), the intrinsic locus of red clump giants (RCG) with its reddening line, and the intrinsic T Tauri line are shown. The YSOs, listed in Notes to Table A.3, are shown as open circles.

field with the center on NGC 7129. Lower than *J*–*H* = 1.5, only the stars with magnitude errors ≤ 0.05 mag are plotted. The location of intrinsic sequences of luminosity V and III stars and the intrinsic position of the Red Clump Giants (RCGs) are shown according to (Straižys & Lazauskaitė 2009). Trying to plot heavily reddened RCGs, above the mentioned value of *J*–*H*, magnitude errors are allowed up to 0.1 mag. The reddening line with the slope $E_{J-H}/E_{H-K_s} = 2.0$, drawn through their

intrinsic position of RCGs at J–H = 0.46, H–K_s = 0.09 represents well the reddened RCGs up to J–H = 1.9. This slope of the reddening line is typical to most dark clouds and correspond to normal interstellar reddening law (Straižys et al. 2008; Straižys & Laugalys 2008). This, 2MASS photometry shows that the near-infrared interstellar reddening law in the direction of NGC 7129 is close to normal.

The YSOs of NGC 7129 observed in the Vilnius system are plotted in Fig. 3.13 as open circles. YSOs of Class II (T Tauri stars with circumstellar disks) are located above the intrinsic line of T Tauri stars shown in the Figure (from Meyer et al. 1997). YSOs of Class III (diskless objects) are mixed with the normal stars. Many more YSOs have been identified with the Spitzer infrared and the Chandra X-ray surveys, but most of them were not accessible for our CCD photometry in the Vilnius system, being too faint or located in the bright area of the reflection nebula.

3.3.3. Distance and age of the cluster NGC 7142

For determining the distance to NGC 7142 we applied five RCGs identified by Sandquist et al. (2011). The numbers of these stars in Table B.5 are 461, 493, 683, 998 and 1026, all of them are of spectral types G8–G9 III classified with good accuracy. The sixth RCG identified by Sandquist et al., our No. 799, could not be classified since it is a visual binary with the components of similar brightness and a separation of 2–3″. The mean distance to the five RCGs, 2.33 ± 0.14 kpc, was calculated taking their average dereddened magnitude V_0 = 12.54 mag and the absolute magnitude M_V = +0.7 mag, corresponding to G8–G9 giants in the RCG sequence on the M_V vs. B–V diagram for the Hipparcos stars (Perryman et al. 1997). The given rms error originates from the dispersion of dereddened V magnitudes of the five stars.

Table 3.2.: Red clump giants in the cluster NGC 7142.

Number	V	Sp. type	$(Y–V)_0$	A_V	V_0	d (pc)
461	13.72	G8 III	0.72	1.12	12.60	2400
493	13.50	G9 III	0.75	1.16	12.34	2130
683	13.78	G8 III	0.72	1.29	12.49	2280
998	13.76	G9 III	0.75	1.21	12.55	2340
1026	13.95	G8 III	0.72	1.21	12.74	2560

The A_V vs. d diagram for 507 stars in the direction of NGC 7142, derived from the data of Table B.5, is shown in Fig. 3.14. It includes the both –field stars and the cluster members. At low distances the extinction A_V increases gradually up to 1.0–1.2 kpc reaching the values between 0.8 and 1.5 mag. At this distance range the line of sight should cross the outskirts of the dust cloud TGU H645 P2 in which the nearby young cluster NGC 7129 is embedded. At larger distances no extinction rise is expected since at this Galactic latitude our line of sight recedes from the Galactic dust layer near its plane. At a distance of 1.2 kpc the line of sight is already 200 pc above the plane.

In the calculation of the individual distances to the RCGs we applied their absolute magnitude M_V = +0.7, read out for the G8–G9 giants from the M_V vs. B–V diagram of the Hipparcos stars (Perryman et al. 1997). In this diagram the absolute magnitudes are calculated from the parallaxes of high accuracy. The calculated distances of individual RCGs are listed in Table3.2 The average distance is 2310 pc.

Distances to the same RCGs can be also determined from 2MASS JHK_s photometry accepting to the stars the absolute magnitudes M_{K_s} = –1.6 (Alves 2000; Grocholski & Sarajedini 2002) and the intrinsic color indices H–K_s = 0.09 (Straižys & Lazauskaitė 2009). The mean distance of these stars, 2270 pc, is in good agreement with the result from Vilnius photometry.

Except of the five RCGs, we also attribute to cluster members a few red giants of spectral class K for which the membership was inferred from radial velocities. The three reddest giants of spectral types K2–K4.5 with numbers 1077, 1102 and 1181 were taken from the Table A.2. A few G-K giants and subgiants were added to the list of members according to their position in the dereddened CMD and the distance, with possible errors of M_V taken into account.

Thus, we accept that the cluster is located close to 2.3 kpc. This more or less is in agreement with the more distant star density maximum seen in Fig. 3.14 At this distance the diameter of the cluster is: $2300 \times \mathrm{tg}\, 0.2^\circ \approx 8$ pc. Thus, the whole spread of stars seen in Fig. 3.14 is a consequence of the distance determination errors. The error of absolute magnitude $\pm\, 0.5$ mag at a distance of 2.3 kpc gives the spread of apparent (i.e., not real) distances between 1.8 kpc and 2.9 kpc. The 194 stars found within these two distances and the extinctions A_V between 0.7 and 1.5 mag were accepted to be possible cluster members. Naturally, a certain amount of field stars

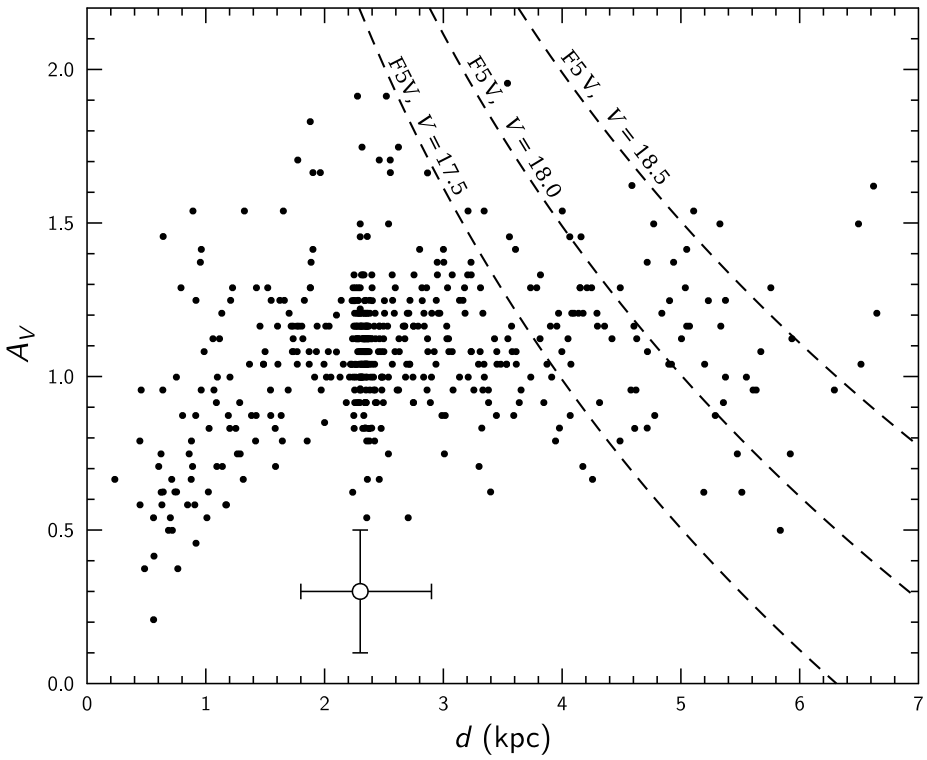

Figure 3.14.: Extinction vs. distance diagram for the stars of the NGC 7142 area classified in the Vilnius system. The two curves show the limiting magnitude effect for F5 V stars at V = 17 and 18 mag.

in this distance range is expected.

In the intrinsic CMD (Fig. 3.15) a strong crowding of stars is seen near the main sequence with $(Y-V)_0$ from 0.46 to 0.53, corresponding to the spectral classes F5–G0 and the luminosity classes V–IV. This signifies the presence here of the cluster stars near the turn-off point. We have accepted that all these crowding stars are cluster members since the main sequence in the direction of higher temperatures is almost empty (except of a few possible blue stragglers).

Unfortunately, in this spectral range the luminosity effect between V and IV classes on Q-parameters is quite small, and most stars located close to the turn-off point during photometric classification have been attributed to luminosity V. However, in the intrinsic CMD many of them lie at different levels above ZAMS, consequently, they should be of a higher luminosity. To make the absolute magnitudes closer to reality, we took into account their rise in the CMD diagram above the ZAMS line, ΔV, which was subtracted from M_V of the ZAMS. This procedure was not applied only to the stars located ± 0.2 mag from the ZAMS – these stars were

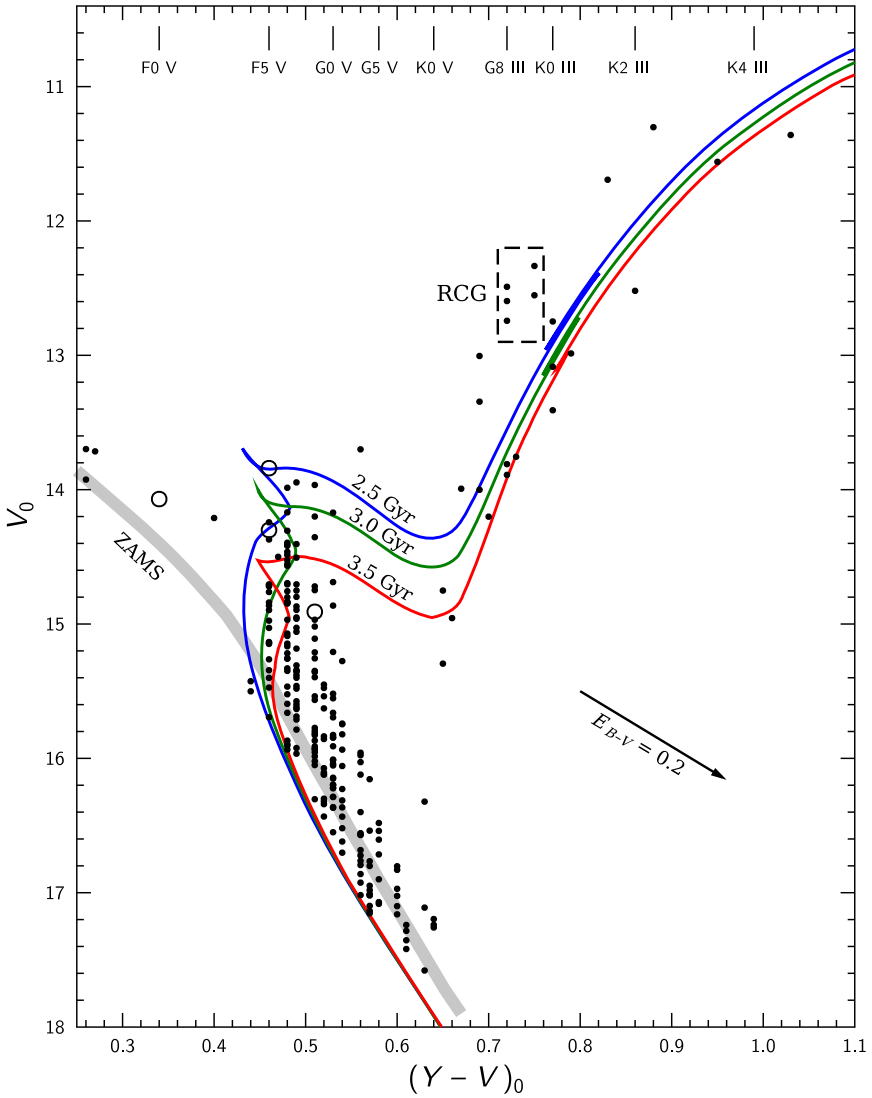

Figure 3.15.: Dereddened colour-magnitude diagram for 255 possible members of the cluster NGC 7142. The grey line is the ZAMS from Kazlauskas et al. (2006) and the three coloured lines are the Padova isochrones for the ages 2.5, 3.0 and 3.5 Gyr, all are shifted according to a distance modulus of V_0–M_V = 11.8. Spectral classes, corresponding to the intrinsic $(Y-V)_0$ colours, are indicated at the top. The five possible RCG stars are placed in a rectangular box. Some amount of field stars can be present in the diagram. The four eclipsing variables, probable non-members, are shown as open circles.

accepted to belong to luminosity V. In this way more negative absolute magnitudes were found for many stars in the region of the turn-off point. Since some stars in this region of CMD are binaries, their luminosities determined by this method should be overestimated. This must be taken into account determining the age of the cluster.

The choice of the coolest stars at spectral class G0, to which the absolute mag-

nitudes have been corrected with the described method, is somewhat voluntary. It is based on the fact that for G-type stars the photometric luminosity effect is larger, and the stars are classified in luminosity classes with a better reliability.

The grey line in Fig. 3.15 represents the ZAMS for solar metallicity from Kazlauskas et al. (2006) corresponding to the distance modulus V_0–M_V = 11.8 mag. The main sequence of the cluster has the turn-off point at $(Y–V)_0$ = 0.46, spectral type F5 V. The spread of stars in absolute magnitudes at this point is about 1.5 mag. About 15 stars are located close to the expected sequence of giants and subgiants. Five possible blue stragglers (their numbers in Table B.5: 337, 418, 631, 664 and 754, spectral classes A6–F2) are seen close to the ZAMS. Due to possible duplicity, their positions in the colour-magnitude diagram can be of lower accuracy. One of them, No. 631 (F0 V) is an eclipsing variable V3 from the Sandquist et al. (2011) list. Two K-stars, Nos. 348 (K2.5 III) and 820 (K1.5 III) can belong to the asymptotic giant branch.

The intrinsic CMD of the cluster can be used for its age determination comparing to isochrones, but for this the metallicity should be known. From photometric diagrams in the Washington system, [Fe/H] = –0.17 was found by Geisler et al. (1991). From the medium-resolution spectroscopy of 11 red giants Friel & Janes (1993) found the mean metallicity [M/H] = 0.0 from the Fe and Fe-peak element blends and –0.23 from the Mgb+MgH feature. Twarog et al. (1997) transformed these values to a revised metallicity scale and received a value of [Fe/H] = +0.04. Jacobson et al. (2007, 2008) from medium- and high-resolution spectra of six stars have found [Fe/H] = +0.08 and +0.14. Sandquist et al. (2013) from high-resolution spectra of the eclipsing variable V375 Cep have found [Fe/H] = +0.09. Thus for the age determination we decided to use the isochrones for [Fe/H] = +0.10 which corresponds to Z = 0.019.

In Fig. 3.15 we plot three isochrones for the ages 2.5, 3.0 and 3.5 Gyr from the Padova database of stellar evolutionary tracks and isochrones[1] for the Vilnius system adjusted to a distance modulus of 11.8 mag. It is evident that the main-sequence lines of the isochrones with respect to the observed ZAMS line show a shift down by 0.2 mag in absolute magnitudes *or* by 0.02 mag to the left in $Y–V$. It is difficult to determine the reason of this shift; it can be the result both of the observational ZAMS

[1] Bressan et al. (2012) and http://stev.oapd.inaf.it/cgi-bin/cmd

and the theoretical isochrones. The problems of the transformation of isochrones to the observational plane were discussed in many papers, see e.g. van den Berg et al. (2010) and Sandquist et al. (2011).

A visual comparison of the distribution of stars near the turn-off point with isochrones shows that the cluster age should be somewhere between 2.5 and 3.0 Gyr. In the region of red giants, the 3.0 Gyr isochrone seems to be preferable. However, if we shift the isochrones by 0.2 mag upward (up to the coincidence with the observed ZAMS), then the 3.0 and 3.5 Gyr isochrones become favoured. Also, if the four stars at the hook of the upper isochrone between V_0 = 13.8 and 14.0 mag are binaries or non-members, the 3.0 Gyr isochrone would well represent its hook stars at 14.2–14.4 mag. The bluest star on the 2.5 isochrone, No. 239 (V1, F5 V), is really the binary, eclipsing variable and probable non-member (Sandquist et al. 2011, 2013). Consequently, there are good reasons to consider that the age of NGC 7142 is close to 3.0 ± 0.5 Gyr.

The vertical bar of stars in Fig. 3.14 at d = 2.3 kpc and A_V between 0.8 and 1.35 mag is formed by the cluster members, mostly by F5-G0 stars for which the absolute magnitudes were calculated.

In the area, the maximum number of stars with two-dimensional spectral types falls on 17–18 mag. Most of them are main-sequence stars of spectral classes F and G. The three broken curves in Fig. 3.14 demonstrate the effect of limiting magnitude for F5 V stars with magnitudes V between 17.5 and 18.5. Above the upper curve, only B- and A-type stars, as well as G-K-M giants can be found. These types of stars are rare in this area.

Chapter 4

Results and discussion

4.1. Reflection nebula NGC 7023

The dust cloud TGU 629, surrounding the reflection nebula NGC 7023, belongs to a giant dust and molecular cloud system known as the Cepheus Flare. In the summaries of distance determinations of different objects in this system, Kun (1998) and Kun et al. (2008) came to the conclusion that the system either has a considerable depth or consists of several layers with distances ranging from 200 to 500 pc. Two layers of interstellar gas were found by radio observations by Heiles (1967) in the neutral hydrogen 21 cm line and by Grenier et al. (1989) in the CO molecular lines. Applying the kinematical method to velocity profiles of the lines, Grenier et al. find the approximate distances to the layers: 300 and 800–900 pc.

Our results described in Chapter 3 also give evidence that dust clouds in the vicinity of NGC 7023 concentrate at least in two layers at 282 pc and 715 pc. There is a possibility that the true distances of these cloud layers are not the same throughout the area. However, the number of stars at the extinction jumps in different subareas is too small to be sure that these distance differences are real. The extinction vs. distance plots also allow to suspect that more clouds are present along the line of sight. This is in agreement with the map of the CO intensity distribution (Dame et al. 2001) which evidences that the molecular cloud structure in the Cepheus Flare is quite clumpy and fragmented.

Our estimates of cloud distances are in satisfactory agreement with those found by Grenier et al. (1989) from kinematics of the CO clouds. The CO radial velocities show that at the Galactic longitude $\ell = 104^\circ$ both clouds are connected by a bridge. The distant CO layer should be more prominent at larger Galactic longitudes, i.e. on the left side of our area (Subareas II, III and, partly, IV). This is in agreement

with our results.

If we accept that dust clouds in this direction reach a distance of 700 pc, the depth of the cloud layer should be about 400 pc. The length of the whole Cepheus Flare cloud system ($\sim 18^\circ$) corresponds to ~ 95 pc at a distance of 300 pc and to ~ 220 pc at a distance of 700 pc. It seems possible that the Cepheus Flare has its extension known as the Polaris Flare (Heithausen et al. 1993; Dame et al. 2001). In this case the whole complex of molecular clouds from ℓ, b = (100°, +14°) to (126°, +30°) has a length of $\sim 30^\circ$ and the projected complex length is from ~ 160 pc at a distance of 300 pc to ~ 375 pc at a distance of 700 pc. The apparent width of the Cepheus and Polaris Flares is only $\sim 8^\circ$, which corresponds to 42 pc at a distance of 300 pc and 100 pc at 700 pc.

The projected length of the cloud system at 700 pc (375 pc) is comparable to the observed depth of the complex (400 pc), i.e., the complex looks like a pancake, and our line of sight runs along its plane. The heights of the two cloud layers above the Galactic plane in the direction of NGC 7023 are 75 pc and 170 pc.

To have the estimates of cloud distances more accurate, one must minimize the errors of absolute magnitudes of the stars which define the jumps in the extinction vs. distance dependence. This can be done either by spectral observations of these stars to verify their spectral and luminosity classes or by determining trigonometric parallaxes. Within a few years, in the case of the success of the *Gaia* mission, the distance problem of these reddened stars will be solved.

4.2. Dark cloud TGU 619

In this investigation are described the results of the investigation of interstellar extinction in the direction of the dark cloud TGU 619 (Dobashi et al. 2005) located in the Cepheus Flare. The distribution of extinction in the ~ 1.5 square degree area is quite complicated – in some directions the extinction is relatively low, with the A_V values of 0.5–1.5 mag even at large distances. In these regions the lower envelope of the star distribution is in agreement with the mean exponential Parenago law for the galactic latitude $b = 15.5^\circ$. In the direction of the TGU 619 clumps the extinction is so large that even in the Palomar atlas no stars are seen. The found maximum value of extinction at 3 mag corresponds only to the edges of the dust cloud which

is found to be at a distance of 286 ± 20 pc. This distance should be somewhat larger if at least one of the three stars, on which the distance is based (Nos. 496, 678 and 1188), is unresolved binary.

In our earlier investigation (Straižys et al. 1992), the distance to the same cloud group was determined by a similar method but using a photoelectric photometry of brighter stars (V between 9 and 12) in a larger area, with the extinction values A_V between 0.45 and 1.5 mag. The obtained distance, 325 pc, was the average value for 10 stars concentrating within 240–380 pc. Since some of these stars can be located behind the clouds, this distance could be overestimated. Only four of these stars are present in our CCD catalog, so the verification of the result of 1992 is problematic. However, both results are within the error box (see also a discussion on the cloud distances by Kun et al. 2008).

No evidences was find for the presence of the second extinction jump (Zdanavičius et al. 2011) at 715 pc, suspected in the direction of NGC 7023 (Zdanavičius et al. 2009a). This our result is in agreement with the velocity distribution of the CO molecular line emission at $\ell = 102.5^\circ$ shown by Grenier et al. (1989), where only the low velocity component is present.

4.3. Open clusters NGC 7129 and NGC 7142

Since the cluster NGC 7129 is embedded in the dust cloud, for the determination of the cluster distance we have applied the method which uses the rise of extinction of the field stars located at a distance of the dust cloud.

For the determination of the extinction run with distance in the direction of NGC 7129, 72 stars from Table B.3 with the most accurate spectral types were used. This sample was supplemented with 83 stars classified with good accuracy in Table B.4 and located outside the $13' \times 13'$ area but inside the $20' \times 20'$ area centered on the cluster. This area covers the whole molecular cloud around NGC 7129 shown in the CO map by Ridge et al. (2003). The known YSOs and other stars with low classification accuracy were excluded.

Fig. 3.11 shows the extinctions A_V plotted as a function of the distance d. The error bar in distance corresponds to $\Delta M_V = \pm 0.5$ mag, a typical 3σ error of absolute magnitudes estimated from photometric spectral types. The errors of A_V, originat-

ing from the observational errors and intrinsic 'cosmic dispersion' of the relation between Y–V and spectral classes, are of the order of ± 0.2 mag.

The distribution of stars in Fig. 3.11 shows that the extinction increases steeply close to $d \approx 1$ kpc where the TGU H645 P2 cloud can be located. The scatter of A_V at greater distances is quite large – from about 1 mag to 3.4 mag. Another, much lower rise of extinction up to 1 mag might be present at a distance of ~ 500 pc.

For determining the cloud distance we must take into account that a portion of stars are scattered toward lower distances because of negative distance errors. The main source of distance errors is in their absolute magnitudes – in the photometric classification we take ± 0.5 as the 3σ error of M_V. In this case the stars with the maximum negative distance errors will appear closer to the Sun by a factor of 1.26. Thus, if we find stars with large extinctions at a distance d_1 pc, the true distance of the cloud should be at $d = 1.26\, d_1$. In Fig. 3.11 the mean distance of five front stars with $d < 1.0$ kpc and $A_V > 1.4$ mag is 0.91 kpc. If these stars are moved from the dust cloud shortward because of absolute magnitude errors, the front edge of the cloud is expected to be located at $d = 1.15$ kpc, which corresponds to the true distance modulus V–$M_V = 10.30$ mag.

Also, for the shortward scattering of apparent distances the unresolved binary stars can be responsible. If the both components of a binary star are of the same luminosity, its real distance should be at $1.41\, d_1$. In this case the distance of the cloud should be at $d = 1.28$ kpc. Since we have no information that any of the five stars closer than 1 kpc is a binary, we will accept that their shifts shortward are due to the error of M_V only. If this assumption is correct, the absolute distance error (3σ) of the cloud is 240 pc, or $\sigma \approx 80$ pc. At a distance of 1.15 kpc the angular diameter of the cloud, 0.3°, is equal to 6 pc.

The greatest number of stars in the NGC 7129 area with two-dimensional spectral types falls on 17–18 mag. Most of them are main-sequence stars of spectral classes F and G. The two broken curves in Fig. 3.11 demonstrate the effect of limiting magnitude for F5 V stars with magnitudes V at 17 and 18. Above the last curve only B- and A-type stars, as well as G-K-M giants can be found. These types of stars in this area are rare.

Fig. 3.11 shows that behind the dust cloud at 1.15 kpc the extinction does not increase – it remains approximately between 1.5 and 3.4 mag up to 4.5 kpc. This

fact is expected, since at the Galactic latitude 9° our line of sight at 2 kpc reaches 320 pc above the Galactic plane, where dust clouds are quite rare. However, the *J*–*H* vs. H–K_s diagram of 2MASS shows (Fig. 3.13) that the background RCGs, located at distances from 3 to 8 kpc, are affected by reddening, which corresponds to A_V up to $\sim$14 mag. The most reddened 11 RCGs with J–$H > 1.5$ all are seen mostly in the eastern (left) half of the area with the largest dust density. The presence among them of a few ordinary K–M giants will not change the conclusion that the total extinction, created by the cloud in some directions, is as large as 10–14 mag.

In the literature, there are a few estimates of the age of the NGC 7129 stars based on different methods. One of the methods is the estimation of the fraction of stars with the circumstellar disks (YSOs of class II) among the total cluster members. According to Gutermuth et al. (2004) this fraction is 54%, while Stelzer & Scholz (2009) find 33%. Comparing these fractions with the results for other young clusters, they estimate the age of NGC 7129 as 2–3 Myr and 3 Myr, respectively.

Hernández et al. (2004), among other Herbig Ae/Be stars, have obtained new estimates of spectral classes for BD+65 1637 and LkHα 234. Combining these spectral classes with photometry from the literature, they found the positions of these stars in the $\log L/L_\odot$ vs. $\log T_{\rm eff}$ diagram and, comparing with the PMS evolution tracks, estimated their masses and ages. The masses of these stars are 7.0 and 4.8 $M_\odot$, and the ages are are 0.29 and 0.83 Myr, respectively, in close agreement with our results, see Table 3.1.

Kun et al. (2009), using their spectral classes and *BVRI* photometry in NGC 7129, have plotted in the $\log L/L_\odot$ vs. $\log T_{\rm eff}$ diagram four NGC 7129 K–M stars of low masses. Three of them are found to be younger than 1 Myr. Increasing the distance from their 0.8 kpc to our 1.15 kpc leads to the increase the age but insignificantly. However, the observed magnitudes, colour indices and bolometric corrections of YSOs are usually affected by emission lines and infrared excesses, therefore the calculation of their positions in the theoretical HR plane can be inaccurate.

According to the concept of Stahler (1983) (see also Stahler & Palla (2005) and Palla (2005)), all PMS tracks in the HR diagram should begin from a 'birthline' where the new-born stars first appear as visible objects. In the region of masses larger than 1 $M_\odot$ this line runs approximately along the 0.5–1.0 Myr izochrones approaching the ZAMS. The birthline intersects ZAMS at about 7 $M_\odot$ for the ac-

cretion rate $10^{-5}\,M_{\odot}\,\mathrm{yr}^{-1}$ and at about $15\,M_{\odot}$ for the accretion rate $10^{-4}\,M_{\odot}\,\mathrm{yr}^{-1}$. Both these birthlines, BL1 and BL2, are plotted in Fig. 3.12 in blue. The positions of BD+65 1637 and BD+65 1638 are close to the birthline L1 but are slightly above it. For the variable Ae/Be star BD+65 1637 this difference can be related to the errors in its luminosity. However for another star, BD+65 1638, the distance from the birthline BL1 is definitely larger than the luminosity error bar. Probably, this star (or both of them) during the PMS evolution had the accretion rate by a factor of ~ 3 higher than $10^{-5}\,M_{\odot}\,\mathrm{yr}^{-1}$.

About a decade ago Bica et al. (2003) have published a list of star groups which in the atlas of the infrared 2MASS survey look like open clusters. One of these 'infrared groups', [BDS2003] 31, is located close to NGC 7129, with the center coordinates RA = $21^{\mathrm{h}}42^{\mathrm{m}}00^{\mathrm{s}}$, DEC = $+66^{\circ}05'12''$ Fig. 4.1. It is evident that this group is not an infrared object since its 12 stars, seen in the K_s filter, are all observable in optical wavelengths.

Most of these stars were measured in the Vilnius system (Table B.7) and classified in two dimensions. We plotted for the group the A_V vs. d and the V_0 vs. $(Y–V)_0$ diagrams. Both these plots do not confirm that these stars form a real cluster: their A_V are scattered within 0.3–1.8 mag, distances are within 0.4–5 kpc, and in the colour-magnitude diagram no sequence is seen.

In the present investigation we find the following parameters of NGC 7142: the mean extinction A_V = 1.1 mag (corresponding to E_{B-V} = 0.35), the distance 2.3 kpc (the true distance modulus 11.8) and the age close to 3.0 Gyr. The value of the distance is not completely independent, since it is based on the five RCGs identified by Sandquist et al. (2011) and confirmed in the present paper. The parameters of the cluster are in a good agreement with the Sandquist et al. results based on *BVI* and partly on *JHK* photometry. However, in our case the results are obtained in a completely different system which allowed us to classify stars in spectral and luminosity classes and apply their individual dereddening. Therefore the resulting parameters of the cluster should be more reliable.

In most investigations the parameters of NGC 7142 are compared with the parameters of other old metal-rich clusters, mostly with M67. According to the latest estimates (Salaris et al. 2004; Cheng et al. 2012), the age of M67 is 4.3 Myr, i.e. it is somewhat larger than our value for NGC 7142. Since the reddening of M67 is

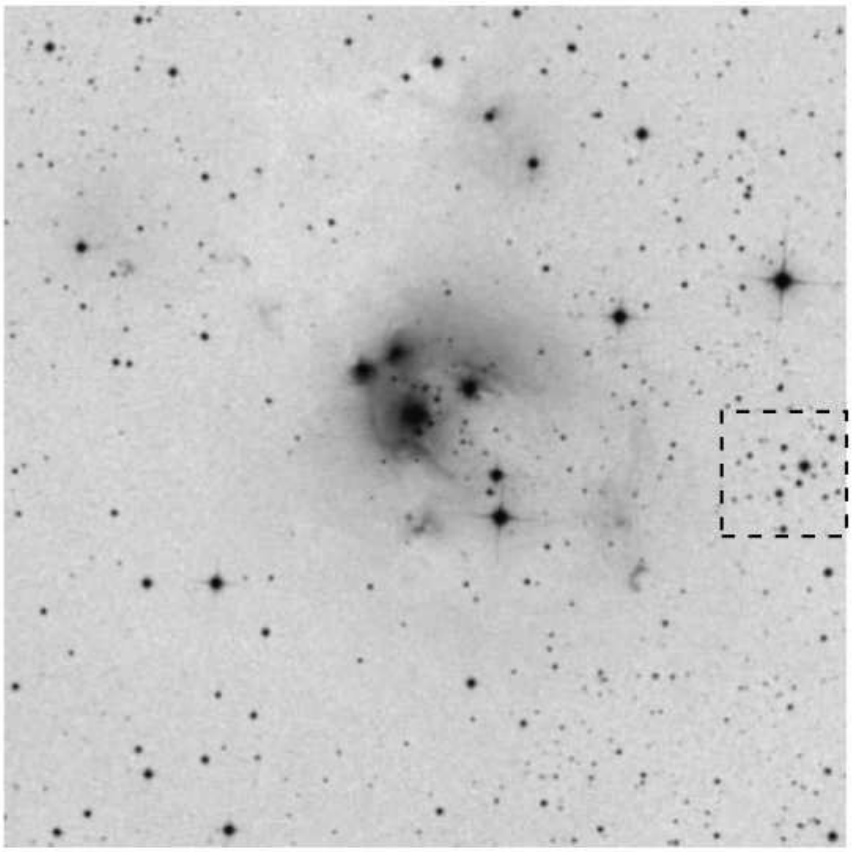

Figure 4.1.: Area of the cluster NGC 7129 observed in the Vilnius photometric system with VATT (13 $\times$ 13). The 2 $\times$ 2 square surrounds a group of stars which was suspected by Bica et al. (2003) as an infrared cluster. The DSS2 Red map from SkyView.

small and well known, and the NGC 7142 stars in our study are individually dereddened, we may directly intercompare intrinsic colour indices of stars at the turn-off points. In our earlier study (Boyle et al. 1998) it was found that the turn-off point of M67 is at $(Y-V)_0$ = 0.50, this corresponds to the spectral class close to F8, while in the present paper for NGC 7142 we have this colour at 0.46 and the spectral class at F5. This can be interpreted that M67 is really older because metallicities of both clusters are similar.

Another feature in the colour-magnitude diagram, depending on the age is the presence or absence of stars on the horizontal part of the sequence of subgiants joining the hook above the turn-off point and the lower part of the giant sequence. This sequence in the clusters younger than M67 is located in the lower part of the Hertzsprung gap and is empty. In NGC 7142 such stars are absent too, while in M67 the subgiant sequence is well populated. The stars on the subgiant sequence

of NGC 7142 could not be lost in the dereddening process since the reddening lines in Fig. 3.15 are approximately parallel to this sequence.

Recently, Sandquist et al. (2013) estimated the age of the detached eclipsing binary V375 Cep, a member of NGC 7142, using the masses and radii of the components determined by modelling radial velocity and light curves of the system. The measured mass and radius of the primary component gives an age of 3.3–3.6 Gyr. The lower limit of this age is not very different from our value of 3.0 Gyr, which is also not very accurate due to the input physics computing the isochrones and their transformation to the observational CMD using the theoretical model atmospheres. Sandquist et al. (2013) accepted for the cluster $E_{B-V} = 0.29$, which is by 0.06 mag lower than the mean colour excess of the cluster estimated in the present paper. Unfortunately, the star V375 Cep is absent in our catalogue since its classification and reddening determination were impossible due to its strange color indices. Probably, our CCD frames in different filters have been exposed in different variability phases. We have attempted to estimate the reddening of V375 Cep from colour excesses of the surrounding stars Nos. 407, 425 and 454 located within $25''$ from the variable. However, their A_V are quite different: 1.04, 1.25 and 1.41 mag, respectively. The mean value is A_V = 1.23, which corresponds to $E_{B-V} = 0.39$. In close vicinity of V375 Cep, west of it, a starless patch with a diameter of $1.5'$ is seen which can be an area with a larger dust density. Thus, reddening of this star can be larger than the average. At the same time, we have classified successfully other four eclipsing variables from the Sandquist et al. (2011) list – in Fig. 3.15 they are shown as open circles. Among them No. 631 (F0 V) from Table B.5, a suspected blue straggler, is present.

Chapter 5

Main results and conclusions

1. Interstellar extinction is investigated in a 1.5 square degree area in the direction of the reflection nebula NGC 7023 at RA=21:01:37, DEC=+68:09:48. The study is based on photometric classification and the determination of interstellar extinctions and distances of 480 stars down to V = 16.5 mag from photometry in the *Vilnius* seven-color system. The dust cloud TGU 629, located in the vicinity of the reflection nebula NGC 7023, concentrates at least in two layers at 282 pc ($^{+73}_{-56}$) and 715 pc ($^{+186}_{-143}$).

2. Interstellar extinction is investigated in a 1.5 square degree area in the direction of the dark cloud TGU 619 of the Cepheus Flare at RA=20:40:00, DEC=+67:50:00. The study is based on photometric classification of 658 stars in spectral and luminosity classes down to V = 16 mag. The extinction values vary from 0.3–1.1 mag in most transparent directions, while in the darkest directions the largest extinction observed is 2.6 mag. The real extinction should be considerably larger since in the direction of some cloud clumps no stars are seen. The distribution of stars in the A_V vs. d plot gives evidence that the dust clouds are located at a distance of 286 pc ($^{+74}_{-57}$).

3. The interstellar extinction was investigated in a $20' \times 20'$ area in the direction of the open cluster NGC 7129 in Cepheus. The investigation is based on 155 stars observed and classified in spectral and luminosity classes down to V = 18.0 mag. The distance to the interstellar dust cloud TGU 645, which contains the embedded cluster NGC 7129, is 1150 pc ($^{+293}_{-226}$). The extinction A_V of the cluster area has the values between 0.6 and 2.8 mag. The extinction Av determined from 2MASS JHK photometry gives the values up to 13 mag in the densest part of the cloud.

4. For determining the age of NGC 7129, six cluster members of spectral classes B3 to A1 were plotted in the $\log L/L_\odot$ vs. $\log T_{\rm eff}$ diagram, together with the Pisa

evolution tracks. Masses of the six stars are found between 2.5 and 7.2 $M_{\odot}$ and their ages between 0.2 and 3.1 Myr show the cluster age to be up to 4 Myr.

5. The cluster distance, 2.3 kpc, is estimated using five red clump giants from their photometric data in the Vilnius systems. Taking into account the errors of absolute magnitudes ± 0.5 mag, possible members of the cluster in the range of distances between 1.8 and 2.9 kpc are selected. More members close to the red giant sequence were added from their membership estimations from radial velocities. The total number of the possible cluster members is 255.

6. In NGC 7142, 194 stars with the apparent distances between 1.8 and 2.9 kpc were selected as possible cluster members. Their plot in the dereddened color-magnitude diagram together with the Padova isochrones and the adopted distance modulus 11.8 mag gives the cluster age 3.0 ± 0.5 Gyr.

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Appendix A

Photometry of stars

A.1. Photometry of stars in the TGU 619 area

Table A.1
Results of photometry and classification of stars in the TGU 619 cloud area.

No	RA(2000)	DEC(2000)	V	U-V	P-V	X-V	Y-V	Z-V	V-S	Photom.
	h m s	° ′ ″	mag	mag	mag	mag	mag	mag	mag	sp.type
1	20 33 01.6	+67 18 34.8	8.317			1.296	0.538	0.223	0.530	f7 V
2	20 33 02.5	+67 22 59.6	14.709			2.016	0.909	0.322	0.860	g1 II
3	20 33 05.2	+67 19 09.4	15.007	2.864	2.392:	1.601	0.747	0.317	0.763	g1-g5 IV-V
4	20 33 05.4	+67 20 59.9	15.657			2.161	0.904	0.397	0.826	k0 IV-V
5	20 33 06.7	+67 16 52.9	13.185		2.337	1.649	0.742	0.291	0.721	g0 IV-V
6	20 33 10.2	+67 21 20.8	14.961		3.838:	2.483	0.968	0.561	0.954	k5 V
7	20 33 13.6	+67 17 23.6	11.564	3.863	3.224	2.251	0.980	0.370	0.909	g7 IV
8	20 33 13.8	+67 18 29.9	15.341	3.242:	2.632:	1.873	0.831	0.314	0.736	g2 IV
9	20 33 16.4	+67 24 55.7	16.357			1.937	1.051	0.387	0.822	a0 IV-V
10	20 33 17.2	+67 43 34.1	12.158			1.938	0.888	0.303	0.883	f9.5 IV-V
11	20 33 18.2	+67 46 15.1	12.972			3.412	1.355	0.595	1.243	k3.5 III
12	20 33 19.0	+67 36 01.5	14.398	3.636:	3.096	2.215	1.011	0.368	0.912	g4-g8 V
13	20 33 20.7	+67 29 42.3	15.214	3.315:	2.746:	1.992	0.936	0.312	0.850	g1 V
14	20 33 20.9	+67 16 58.3	15.779	3.055:	2.527:	1.718	0.762	0.280	0.810	g5-g1 IV-V
15	20 33 21.5	+67 34 06.2	15.861			2.206	1.005	0.454	0.960	g8 d? IV-V
16	20 33 22.9	+67 28 07.1	15.836			2.382	1.020	0.461	0.991	k1 V
17	20 33 27.2	+67 18 26.0	16.589		2.106::	1.696	0.822	0.430	0.654	- -
18	20 33 28.6	+67 14 24.1	15.595		2.691:	1.847	0.832	0.308	0.860	g0-f5 V
19	20 33 29.9	+67 37 22.3	15.577		2.938::	2.083	0.951	0.357	0.858	g1-g4 IV
20	20 33 30.0	+67 18 17.2	13.672	3.253	2.818	1.843	0.714	0.338	0.720	k1 V
21	20 33 31.7	+67 15 10.5	15.612	3.081:	2.420:	1.783	0.825	0.344	0.804	f8 V
22	20 33 31.8	+67 58 59.2	15.315	3.630:		2.044	0.935	0.374	0.911	g5.5-g0 V
23	20 33 33.3	+67 39 13.7	13.694	4.416	3.784	2.733	1.061	0.638	1.154	m2-k8 md V
24	20 33 33.8	+67 50 13.4	14.239	4.265:	3.579:	2.472	1.039	0.432	0.985	k0 III
25	20 33 35.4	+67 23 46.3	15.242		3.575::	2.566	0.899	0.633	1.010	k7 V
26	20 33 35.5	+68 00 03.2	15.027	3.643:		2.099	0.921	0.325	0.903	g2.5-g8 III
27	20 33 35.6	+68 00 59.3	14.705	3.388	2.686	1.870	0.856	0.306	0.795	f9 IV
28	20 33 35.7	+67 24 08.8	14.993	3.592	2.972	2.059	0.887	0.351	0.879	g7 IV-V
29	20 33 36.3	+68 09 45.5	12.589	2.947		1.556	0.713	0.259	0.665	f6 md IV-V

Continued **Table A.1**

No	RA(2000)	DEC(2000)	V	U-V	P-V	X-V	Y-V	Z-V	V-S	Photom.
	h m s	° ′ ″	mag	mag	mag	mag	mag	mag	mag	sp.type
30	20 33 38.0	+67 56 35.1	14.751	3.914:	3.081:	2.199	1.006	0.366	0.989	g1-f9 IV-V
31	20 33 38.1	+67 15 07.0	14.845	3.171	2.434	1.806	0.795	0.321	0.668	f9 IV
32	20 33 39.2	+67 34 41.6	14.062	3.722	2.794	1.937	0.918	0.309	0.843	f6 III
33	20 33 39.7	+67 18 26.1	16.422		2.348:	1.817	0.832	0.314	0.666	f9.5 md V
34	20 33 40.2	+67 56 32.1	14.302	3.739	2.939	2.081	0.910	0.359	0.910	g0 -
35	20 33 40.3	+68 03 15.3	15.918		2.668:	1.956	0.877	0.337	0.838	g1.5-g6 V
36	20 33 41.5	+67 23 53.6	16.035		2.792	2.030	0.975	0.361	0.820	f6-f9 V
37	20 33 43.7	+67 15 15.5	16.097			2.001	0.838	0.321	0.796	g5-g0 IV
38	20 33 44.1	+67 22 32.5	15.395	3.408	2.765:	1.901	0.882	0.349	0.802	g0 IV-V
39	20 33 44.5	+67 59 55.1	12.745	2.902	2.454	1.668	0.700	0.287	0.689	g6-k0 V
40	20 33 45.8	+67 46 03.5	13.490	3.309	2.642	1.877	0.854	0.330	0.786	f9.5 d? IV-V
41	20 33 46.4	+67 21 05.3	13.917	2.898	2.218	1.492	0.709	0.251	0.643	f2 IV-V
42	20 33 46.7	+67 28 32.5	14.086		4.703:	3.384	1.447	0.611	1.246	k1.5 III
43	20 33 46.9	+67 24 28.2	16.018		2.734::	1.972	0.945	0.382	0.812	f8 IV-V
44	20 33 47.2	+68 13 38.5	15.823			2.087	0.931	0.370	0.834	g5-g8 IV-V
45	20 33 47.3	+67 18 53.7	15.708		3.079::	1.995	0.865	0.344	0.834	- -
46	20 33 47.7	+67 59 57.5	13.976	3.167	2.342	1.522	0.696	0.258	0.683	f3 III
47	20 33 48.5	+68 18 54.0	9.785	3.285	2.863	1.836	0.691	0.361	0.711	k2 V
48	20 33 48.9	+68 02 29.5	14.884	3.512::	2.876:	1.997	0.921	0.300	0.888	g1.5 IV-V
49	20 33 50.1	+67 25 28.9	14.790	3.925:	3.172:	2.185	0.989	0.379	0.931	g1.5 IV
50	20 33 50.4	+68 10 04.2	14.580	3.399	2.616	1.957	0.888	0.342	0.847	f9.5-g4 IV
51	20 33 51.0	+67 20 16.6	16.315		2.621::	1.954	0.900	0.417	0.804	g0 V
52	20 33 51.9	+67 58 28.5	15.046	4.142::	3.532:	2.388	1.075	0.395	1.076	g9.5 IV
53	20 33 53.2	+67 14 19.4	15.318			2.702	1.110	0.459	1.005	k0.7 III
54	20 33 53.6	+68 00 19.8	11.216	3.060	2.271	1.490	0.684	0.233	0.638	f5-f1 III
55	20 33 56.1	+68 19 59.0	15.179	3.661:	2.838	2.058	0.906	0.305	0.921	f9 II
56	20 33 58.1	+67 40 16.7	16.041			2.565	1.080	0.475	1.104	k1.5 d? V
57	20 33 58.3	+67 30 24.1	14.134	4.129:	3.239	2.362	1.118	0.403	1.074	f8 II
58	20 33 59.0	+68 03 54.1	13.884			3.469	1.405	0.572	1.318	- -
59	20 34 00.1	+67 39 01.3	16.510		2.639:	2.141	1.039	0.377	1.051	- -
60	20 34 00.2	+67 39 38.8	15.789		2.938::	2.111	0.962	0.343	0.887	g1 IV-V
61	20 34 00.8	+67 18 39.1	15.450	3.053	2.377:	1.676	0.810	0.296	0.682	f4 V
62	20 34 01.2	+68 15 04.7	13.987	3.598	2.952	2.024	0.908	0.335	0.855	g2.5-g5 IV
63	20 34 03.8	+67 18 30.9	14.215	2.873	2.324	1.626	0.739	0.277	0.698	f9 V
64	20 34 04.0	+67 45 46.5	13.698	4.292	3.588	2.565	1.163	0.434	1.100	g7 IV
65	20 34 04.3	+67 59 53.9	13.659	3.271	2.556	1.800	0.815	0.295	0.780	f9 IV
66	20 34 05.2	+67 44 16.5	16.080			2.543	1.160	0.496	1.057	k0 md V
67	20 34 05.3	+67 48 39.2	15.142	3.814:	3.320	2.276	0.937	0.436	0.938	k1.7 d? V
68	20 34 06.1	+68 14 28.8	15.405		3.405::	2.326	1.011	0.461	0.964	k0.7 V
69	20 34 06.7	+67 56 10.2	13.051	3.239	2.439	1.657	0.761	0.262	0.730	f6 III
70	20 34 06.8	+68 13 47.2	13.861	3.294	2.732	1.922	0.861	0.314	0.810	g4 V
71	20 34 07.6	+68 05 48.0	15.249	3.569	2.768	2.062	0.931	0.350	0.914	f9 IV
72	20 34 09.4	+67 16 21.4	16.050		2.609:	1.865	0.858	0.343	0.765	g1 IV-V
73	20 34 10.6	+67 43 53.9	15.307	3.692::	2.819	2.096	0.987	0.391	0.896	f8 IV
74	20 34 10.7	+67 27 08.0	15.153			2.687	0.997	0.665	1.071	k9-k4 md V
75	20 34 10.9	+67 21 28.5	15.736	3.199::	2.651::	1.908	0.881	0.327	0.818	g1 V

Continued **Table A.1**

No	RA(2000)	DEC(2000)	V	U-V	P-V	X-V	Y-V	Z-V	V-S	Photom.
	h m s	° ′ ″	mag	mag	mag	mag	mag	mag	mag	sp.type
76	20 34 12.2	+67 23 51.7	16.377			2.329	1.014	0.385	0.983	g8 IV
77	20 34 13.3	+68 01 55.2	15.944	3.143::	2.596:	1.811	0.808	0.304	0.814	g3 V
78	20 34 15.3	+67 48 01.5	11.230	2.889	2.140	1.237	0.544	0.188	0.440	a5 V
79	20 34 16.1	+67 30 53.4	14.671	3.762:	2.974	2.128	1.036	0.379	0.974	f7 IV
80	20 34 16.5	+68 16 36.0	16.363		2.536::	1.756	0.802	0.356	0.781	g1 V
81	20 34 17.7	+67 41 09.9	16.005			2.242	1.057	0.359	0.982	g0 d? V
82	20 34 17.8	+67 20 39.8	15.050	3.227:	2.661	1.905	0.880	0.318	0.801	g1 V
83	20 34 18.6	+68 01 13.9	16.300		2.821:	1.933	0.907	0.367	0.813	f4 -
84	20 34 19.2	+67 14 30.1	14.478	2.800	2.184	1.578	0.735	0.292	0.663	f6 V
85	20 34 20.0	+67 21 17.9	11.431	2.548	2.141	1.413	0.575	0.231	0.582	g5 V
86	20 34 20.1	+68 09 00.0	14.592	4.472::	3.817::	2.604	1.104	0.428	1.042	k0 III
87	20 34 21.0	+67 40 52.6	15.737		2.918	2.213	1.036	0.331	0.992	- -
88	20 34 21.5	+67 49 16.1	14.538	2.867	2.266	1.606	0.751	0.261	0.688	f6 V
89	20 34 21.5	+67 42 17.9	13.935	4.605	3.879	2.697	1.170	0.425	1.078	g8.5 III
90	20 34 22.7	+67 55 25.3	13.551	4.657:	4.050	2.770	1.113	0.456	1.060	k2.2 III
91	20 34 23.4	+67 56 51.3	16.631			2.050	0.863	0.322	0.917	g5-g2 IV-V
92	20 34 23.7	+67 57 22.2	16.409			2.067	0.955	0.372	0.914	g2 V
93	20 34 23.8	+68 14 23.7	15.041	3.562:	2.870	1.976	0.863	0.350	0.830	g2 III
94	20 34 24.0	+67 49 46.9	14.999	3.288	2.590	1.854	0.846	0.310	0.811	f9 IV
95	20 34 24.5	+67 54 54.0	10.646	5.985	5.221	3.669	1.436	0.673	1.350	k4.5 III
96	20 34 24.6	+67 43 48.2	15.238	3.455:	2.799	2.012	0.932	0.318	0.875	g1 IV-V
97	20 34 24.8	+68 16 50.8	16.463			2.077	0.869	0.354	0.875	g9 IV-V
98	20 34 25.9	+67 56 07.3	16.693			1.884	0.868	0.357	0.820	g1 V
99	20 34 26.6	+68 05 12.9	14.410	2.263	1.558	0.831	0.392	0.131	0.309	b9.5 IV
100	20 34 29.3	+68 01 26.1	13.637	4.241	3.655	2.490	1.078	0.404	1.009	g9.5-k2 IV
101	20 34 30.1	+67 50 25.3	15.425		2.939:	2.114	0.989	0.362	0.984	g1.5 V
102	20 34 30.7	+68 11 20.1	11.121	2.834	2.192	1.441	0.634	0.229	0.604	f6-f2 IV
103	20 34 31.8	+68 06 35.6	15.897	2.915:	2.562:	1.783	0.767	0.312	0.760	g9-k1 V
104	20 34 33.7	+68 07 20.4	13.963	2.803	2.258	1.581	0.723	0.252	0.686	f9 V
105	20 34 34.2	+67 42 22.5	16.240		2.530::	1.944	0.936	0.316	0.853	g0 V
106	20 34 34.5	+67 59 13.4	15.208	3.420:	2.871	1.982	0.861	0.328	0.820	g6 IV
107	20 34 35.5	+67 55 17.5	15.710		2.836	1.986	0.880	0.302	0.940	g4 IV-V
108	20 34 37.8	+68 01 53.7	16.399		2.601:	1.787	0.869	0.328	0.777	f2 IV-V
109	20 34 38.4	+67 48 43.0	15.570		3.400::	2.369	1.106	0.377	1.056	g1 II
110	20 34 38.8	+67 53 25.5	15.987			2.441	1.197	0.447	1.129	f8 IV-V
111	20 34 39.1	+67 46 59.6	14.261	3.284	2.631	1.903	0.890	0.312	0.817	f8 V
112	20 34 39.2	+67 59 05.4	15.092	3.355::	2.747	1.860	0.826	0.294	0.777	g3 IV
113	20 34 40.2	+68 18 13.6	11.805	4.237	3.565	2.486	1.062	0.398	1.018	g8.5 IV
114	20 34 40.5	+68 20 02.4	16.637			2.067	0.878	0.345	0.926	g8 V
115	20 34 41.2	+67 48 39.8	14.915			2.936	1.213	0.520	1.175	k1.5 III
116	20 34 42.0	+67 56 54.7	10.503	2.984	2.057	1.155	0.528	0.181	0.476	a6 III
117	20 34 42.3	+68 11 03.4	14.034	2.918	2.372	1.679	0.758	0.300	0.733	g0 V
118	20 34 42.9	+68 21 00.4	16.672			2.172	1.013	0.439	0.892	g8-g1 V
119	20 34 43.5	+67 16 01.4	15.189	3.210	2.482:	1.706	0.806	0.328	0.678	f4-f8 IV-V
120	20 34 44.6	+68 18 27.3	13.626	3.727	3.033	2.110	0.937	0.351	0.883	g3 III
121	20 34 45.4	+68 23 07.9	16.364			2.084	0.922	0.350	0.953	g4-g8 V

Continued **Table A.1**

No	RA(2000)	DEC(2000)	V	U-V	P-V	X-V	Y-V	Z-V	V-S	Photom.
	h m s	° ′ ″	mag	mag	mag	mag	mag	mag	mag	sp.type
122	20 34 45.9	+68 10 53.1	15.128	2.835:	2.344	1.628	0.732	0.250	0.688	g1.5 V
123	20 34 46.4	+68 13 45.9	15.735			2.271	0.974	0.456	0.964	k1.2 md V
124	20 34 48.4	+68 06 42.0	16.007		3.081:	2.245	0.922	0.423	0.880	k0.7 md V
125	20 34 48.7	+68 16 47.9	12.875	4.345	3.702	2.507	1.033	0.431	0.986	k1 IV
126	20 34 48.8	+67 42 23.3	10.995	2.170	1.749	1.175	0.503	0.188	0.493	f8 V
127	20 34 48.9	+68 14 01.3	14.293			3.307	1.321	0.614	1.227	k4 III
128	20 34 49.6	+68 03 53.3	12.637	5.397:	4.709	3.289	1.292	0.574	1.181	k3.2-k7 III
129	20 34 49.8	+68 22 15.8	15.866	3.535::	3.216:	2.197	1.063	0.505	0.827	k2-k3 V
130	20 34 49.8	+67 44 38.6	14.432	3.520	2.804	2.029	0.948	0.343	0.873	f9.5 IV
131	20 34 50.3	+67 14 47.5	15.244	3.332:	2.518	1.959	1.065	0.368	0.680	b6 III
132	20 34 52.0	+68 15 12.9	12.547	4.390	3.759	2.575	1.063	0.418	0.991	k0 III
133	20 34 52.3	+67 48 26.7	14.154	4.617::	4.010	2.795	1.208	0.448	1.151	k0.5 III
134	20 34 52.5	+67 56 24.6	15.060	3.226	2.550	1.760	0.797	0.295	0.800	f9.5 IV
135	20 34 52.7	+68 06 26.0	14.749	4.186:	3.496	2.366	0.973	0.379	0.936	k0 III
136	20 34 52.7	+67 45 32.0	14.721	4.078	3.122	2.350	1.131	0.396	1.101	f8 IV
137	20 34 52.8	+68 06 01.8	15.530	2.685	2.064	1.364	0.650	0.204	0.649	f3 V
138	20 34 53.2	+67 27 23.4	15.620	3.244:	2.948:	2.079	0.929	0.344	0.886	- -
139	20 34 53.8	+67 30 54.0	15.462			2.853	1.331	0.470	1.247	- -
140	20 34 54.0	+68 03 20.6	16.267			2.030	0.951	0.394	0.847	g1 V
141	20 34 54.0	+67 33 10.6	14.418	4.475:	3.841	2.672	1.128	0.438	1.053	k0 III
142	20 34 54.1	+67 24 34.3	13.257	3.943	3.220	2.273	1.033	0.375	0.973	g3 IV
143	20 34 54.4	+67 35 48.9	16.376		2.644:	1.999	0.888	0.358	0.907	g8-g0 md V
144	20 34 54.4	+68 07 05.2	15.051	2.911	2.290	1.618	0.736	0.262	0.739	f7 IV-V
145	20 34 54.9	+68 21 57.2	15.057		3.837::	2.654	1.125	0.455	1.117	k1.7-k0 V
146	20 34 54.9	+68 01 59.4	14.721			3.262	1.251	0.635	1.160	k4.2 III
147	20 34 56.3	+67 42 21.9	12.743	2.805	2.422	1.604	0.627	0.273	0.651	g9 V
148	20 34 56.3	+68 08 41.2	15.755	3.134	2.768	1.830	0.779	0.332	0.772	g9.5-k3 V
149	20 34 57.3	+67 43 05.1	14.196	3.632	2.866	2.038	0.938	0.333	0.875	f9.5 II
150	20 34 58.5	+67 57 55.5	16.422			2.304	1.069	0.448	1.087	g5.5 V
151	20 35 01.2	+67 17 11.1	12.925	3.730	2.871	1.941	0.897	0.314	0.895	f7-f0 IV
152	20 35 01.8	+67 33 52.6	9.795	4.118	3.531	2.336	0.900	0.410	0.860	k2 III
153	20 35 02.4	+68 18 21.6	15.677	3.472:	2.885:	2.010	0.954	0.316	0.942	g3-f9 IV
154	20 35 02.8	+68 14 26.2	16.118	2.949::	2.549:	1.752	0.799	0.271	0.751	g1.5-g5 V
155	20 35 03.2	+68 16 17.6	15.800	3.363::	2.961	1.919	0.852	0.329	0.844	k0.5-k3 V
156	20 35 04.7	+67 48 14.3	16.068			2.132	0.980	0.354	0.880	f7 V
157	20 35 05.1	+68 06 56.2	15.633	2.847	2.268	1.560	0.714	0.288	0.669	f8 IV-V
158	20 35 05.6	+67 28 43.0	16.124		2.844:	2.078	0.966	0.361	0.854	g1 IV-V
159	20 35 05.8	+68 09 13.5	16.185		2.789::	1.816	0.829	0.337	0.714	f7 d? -
160	20 35 06.7	+67 35 35.7	15.841			2.836	1.012	0.668	1.127	k9 V
161	20 35 06.9	+68 16 17.2	11.584	2.669	2.265	1.473	0.594	0.252	0.609	g7-k0 V
162	20 35 07.1	+67 36 51.2	15.376	3.467	2.728:	2.003	0.928	0.308	0.875	g0 IV
163	20 35 08.4	+68 05 29.0	14.056	2.712	2.170	1.499	0.673	0.247	0.623	f8 V
164	20 35 08.6	+67 35 34.5	16.482			2.041	0.988	0.342		f0-f4 V
165	20 35 08.8	+68 06 09.6	13.480	4.597	3.829	2.740	1.195	0.574	1.286	- -
166	20 35 11.2	+67 56 41.9	15.025	4.008::	3.342	2.460	1.113	0.382	1.081	g5.5 IV-V
167	20 35 12.4	+68 20 34.8	14.798	4.286::	3.664:	2.544	1.054	0.424	1.007	k0.5 IV

Continued **Table A.1**

No	RA(2000)	DEC(2000)	V	U-V	P-V	X-V	Y-V	Z-V	V-S	Photom.
	h m s	° ′ ″	mag	mag	mag	mag	mag	mag	mag	sp.type
168	20 35 12.8	+67 35 22.0	15.400	3.422::	2.892:	2.081	0.987	0.339	0.867	g1.5 V
169	20 35 13.2	+68 00 36.5	12.940	4.082	3.440	2.374	1.004	0.384	0.950	g8.5 IV
170	20 35 13.9	+67 43 43.3	14.295	4.308:	3.765:	2.584	1.136	0.439	1.070	k1 IV-V
171	20 35 14.0	+67 45 40.2	10.581	4.736	4.046	2.801	1.178	0.445	1.076	k0 III
172	20 35 14.9	+68 04 10.4	14.647	3.758	3.057:	2.052	0.895	0.459	0.873	g9.5 IV
173	20 35 15.6	+67 54 13.3	16.231			2.451	1.165	0.409	1.139	g1 V
174	20 35 16.6	+68 13 57.1	15.445	3.374	2.698:	1.810	0.803	0.288	0.769	g0 IV-V
175	20 35 17.6	+67 36 22.7	14.389	3.321	2.518	1.543	0.699	0.251	0.607	a7-f8 V
176	20 35 17.8	+68 13 22.6	14.717	3.154:	2.592	1.735	0.768	0.270	0.763	g3 IV-V
177	20 35 18.9	+67 27 01.2	16.617			2.125	1.033	0.432	0.855	f6 V
178	20 35 18.9	+68 18 41.9	16.650			2.008	0.931	0.383	0.845	g1 V
179	20 35 19.6	+68 06 56.8	12.540	2.653	2.010	1.270	0.564	0.204	0.498	f1 IV-V
180	20 35 19.7	+67 57 05.5	16.097			2.587	1.100	0.454	1.074	k0.5 IV
181	20 35 20.7	+68 12 20.9	14.546	3.790	3.175	2.199	0.947	0.370	0.879	g8 IV
182	20 35 21.2	+68 08 46.3	14.862	4.046::	3.614	2.414	0.905	0.521	0.944	k4.2 V
183	20 35 21.4	+68 12 54.9	15.176	3.745::	3.216:	2.173	0.889	0.347	0.891	k0 IV
184	20 35 23.6	+68 05 42.3	16.317		2.765:	2.049	0.879	0.387	0.875	g8.5-g0 md V
185	20 35 24.4	+68 03 49.9	13.935	3.285	2.902	1.855	0.719	0.377	0.742	k1.7 V
186	20 35 24.9	+67 33 42.4	14.996			2.814	1.183	0.442	1.133	g9.5 III
187	20 35 25.1	+68 22 25.2	16.003			2.662	1.094	0.626	1.286	m1-k3 md V
188	20 35 25.5	+67 56 00.7	15.408		3.369:	2.433	1.124	0.396	1.128	g4 IV
189	20 35 25.8	+68 16 04.5	15.002	2.866	2.267	1.626	0.730	0.283	0.712	f9 V
190	20 35 26.1	+68 16 34.6	16.643			1.737	0.872	0.396	0.736	f5 V
191	20 35 26.5	+67 27 05.4	14.002	3.924:	3.425	2.307	0.813	0.540	0.890	k5.5 V
192	20 35 27.5	+68 22 16.1	14.901	3.739	3.043	2.157	0.962	0.355	0.982	g2.5 IV-V
193	20 35 28.2	+67 43 13.7	12.741	3.204	2.307	1.349	0.617	0.208	0.523	a6 IV
194	20 35 29.4	+68 13 51.2	16.391		2.582:	1.801	0.813	0.331	0.718	g1 IV-V
195	20 35 29.9	+67 42 26.0	16.608			2.071	0.972	0.296	0.923	- -
196	20 35 30.1	+67 56 16.6	12.091	5.139	4.422	3.092	1.322	0.504	1.280	k1 III
197	20 35 30.1	+67 49 39.5	13.957	3.460	2.718	1.927	0.897	0.321	0.868	f9 IV
198	20 35 31.3	+68 00 14.6	14.642		3.907::	2.839	1.194	0.459	1.139	k0-g6 III
199	20 35 32.3	+68 17 07.9	13.925	3.356	2.721	1.912	0.858	0.330	0.810	g1 IV
200	20 35 33.0	+68 10 50.9	16.496		2.349:	1.600	0.781	0.262	0.718	f3 IV-V
201	20 35 33.1	+67 16 45.4	15.929			2.373	1.216	0.455	1.067	f0 IV
202	20 35 34.5	+68 14 25.6	14.542	2.888	2.285	1.595	0.705	0.257	0.692	f9 IV
203	20 35 34.5	+67 43 49.8	15.683		2.922::	2.158	1.084	0.434	0.844	f8 V
204	20 35 35.2	+67 21 30.1	12.995	3.074	2.392	1.650	0.780	0.275	0.722	f5 IV-V
205	20 35 35.5	+67 26 22.1	15.720			2.681	1.239	0.463	1.180	g5.5-g2 IV
206	20 35 35.8	+68 23 49.1	14.865	3.498	2.782:	1.887	0.849	0.311	0.809	f9.5-f0 IV-V
207	20 35 36.8	+68 00 26.3	14.207	3.677	2.966	2.098	0.927	0.353	0.939	g2 IV
208	20 35 37.2	+68 14 42.2	15.463	3.575::	3.231::	2.187	0.888	0.420	0.865	k1.5 V
209	20 35 37.6	+68 24 04.4	16.472			2.124	0.996	0.393	0.836	g1 V
210	20 35 37.6	+68 06 35.2	16.547	2.559::	1.992	1.399	0.706	0.197	0.641	- -
211	20 35 37.7	+68 14 24.0	16.503		2.300:	1.659	0.768	0.258	0.716	f7 d IV-V
212	20 35 38.0	+68 15 21.0	14.118	3.658	3.189	2.048	0.737	0.489	0.829	k3.7 md V
213	20 35 40.0	+67 48 03.2	15.559		3.221	2.314	1.042	0.367	1.029	g2-g8 II-III

Continued **Table A.1**

No	RA(2000)	DEC(2000)	V	U-V	P-V	X-V	Y-V	Z-V	V-S	Photom.
	h m s	° ′ ″	mag	mag	mag	mag	mag	mag	mag	sp.type
214	20 35 40.2	+68 09 43.1	16.181		2.867:	1.996	0.893	0.377	0.791	g7-g4 d V
215	20 35 40.8	+67 39 22.2	15.199	3.773:	3.190:	2.326	1.086	0.362	1.044	g5.5-g9 V
216	20 35 40.8	+67 25 05.6	16.092			2.129	0.945	0.385	0.893	g8 V
217	20 35 41.3	+68 10 08.1	13.224	4.663	4.001	2.666	1.041	0.464	0.983	k2.5 III
218	20 35 42.6	+68 06 12.7	16.356	2.796:		1.781	0.791	0.370	0.699	g2-g8 V
219	20 35 42.7	+68 12 10.3	15.226	3.038	2.421	1.678	0.741	0.274	0.709	f9 IV-V
220	20 35 43.2	+68 13 51.4	15.941	2.963	2.487::	1.660	0.738	0.285	0.739	g4-g7 IV-V
221	20 35 45.1	+68 10 09.1	15.391	2.794	2.244	1.584	0.721	0.276	0.719	f9 V
222	20 35 45.8	+67 25 27.2	16.470			2.225	1.031	0.383	0.977	g2.5 IV-V
223	20 35 45.9	+68 09 18.5	16.275	2.676:	2.259::	1.545	0.661	0.246	0.653	g5.5-g1 V
224	20 35 46.8	+68 02 52.2	16.199		2.532	1.818	0.780	0.323	0.802	g4-g0 md V
225	20 35 46.8	+68 09 56.7	14.315	3.510	2.965	2.024	0.868	0.348	0.815	g8.5 IV-V
226	20 35 47.1	+67 35 30.1	15.761	3.279:	2.515	1.856	0.844	0.298	0.782	f9 IV
227	20 35 48.0	+68 18 04.3	16.081		3.026::	2.051	0.891	0.400	0.855	g9 V
228	20 35 48.2	+68 04 13.4	15.750	2.897	2.417	1.715	0.774	0.278	0.730	g1 V
229	20 35 49.3	+67 21 29.2	14.716	3.216	2.548	1.792	0.819	0.306	0.771	f9 IV
230	20 35 49.9	+68 08 25.0	13.852	2.912	2.283	1.570	0.691	0.263	0.661	f9 IV
231	20 35 50.0	+68 19 53.1	15.578	3.471	2.774	2.034	0.946	0.330	0.908	f9.5 IV-V
232	20 35 51.0	+68 25 16.7	15.115	3.267:	2.543	1.836	0.831	0.306	0.814	f9.5 d IV
233	20 35 54.5	+67 36 05.7	15.608		3.194::	2.217	1.017	0.357	1.000	g1-f8 II
234	20 35 55.8	+68 20 30.9	15.792		3.277::	2.446	1.095	0.415	1.014	g3-g8 IV-V
235	20 35 55.8	+67 47 36.2	14.810			3.930	1.785	0.641	1.614	g9.5-g5 II-III
236	20 35 56.1	+67 40 17.4	13.426		4.395:	3.002	2.013	0.436	2.127	m5 III
237	20 35 57.1	+68 14 05.0	16.493		2.108:	1.452	0.754	0.308	0.600	- -
238	20 35 58.0	+67 50 47.4	15.395			2.785	1.250	0.484	1.179	g9 IV
239	20 35 58.3	+67 36 21.7	13.936	4.330::	3.648	2.541	1.114	0.427	1.072	g9 III
240	20 35 58.3	+67 32 29.0	14.786	3.837::	3.142	2.208	1.014	0.383	0.966	g3 IV
241	20 35 59.1	+68 12 47.6	16.109		2.260	1.569	0.700	0.269	0.708	g0 IV-V
242	20 35 59.2	+68 16 22.5	14.909			2.892	1.142	0.508	1.074	k2.2 III
243	20 36 00.2	+67 38 27.6	16.240			2.210	1.019	0.414	0.979	g6 V
244	20 36 01.2	+67 24 13.4	15.780		2.861	2.150	0.963	0.326	0.893	g0 V
245	20 36 01.9	+67 25 54.5	15.462	3.507::	2.975:	2.158	0.956	0.354	0.941	g5-g8 IV-V
246	20 36 02.2	+67 16 32.1	15.051	4.082:	3.271::	2.290	1.063	0.420	0.994	f9.5 IV
247	20 36 02.8	+67 52 12.5	14.914	3.759::	3.273	2.176	0.795	0.455	0.905	k3.2 V
248	20 36 03.3	+67 42 21.1	14.954	3.819:	3.151	2.282	1.029	0.358	1.023	g5 d? IV
249	20 36 03.9	+67 14 55.1	13.037	5.119	4.391	3.074	1.335	0.514	1.267	k0.7 III
250	20 36 04.0	+67 44 47.5	14.452	3.799	2.946	2.081	0.992	0.341	0.959	f8 II
251	20 36 05.1	+68 20 23.9	15.415	3.108::	2.378	1.627	0.756	0.312	0.696	f7-f3 IV
252	20 36 05.2	+67 35 37.9	13.431	3.785	3.311	2.208	0.791	0.504	0.882	k4 md V
253	20 36 06.6	+68 23 43.0	15.316	3.372:	2.663	1.844	0.857	0.337	0.774	f7 IV-V
254	20 36 07.1	+67 51 53.9	13.920		4.489:	3.184	1.408	0.539	1.416	k1-k0 III
255	20 36 07.5	+68 04 49.3	16.337	2.631	1.997::	1.397	0.652	0.233	0.573	f5 V
256	20 36 07.8	+68 07 26.6	13.975		4.671	3.297	1.241	0.616	1.173	k4.5 III
257	20 36 09.6	+68 18 45.6	16.274		2.660	1.891	0.857	0.376	0.728	g2 IV-V
258	20 36 12.0	+67 30 05.1	15.173	3.733::	2.958	2.124	1.005	0.351	0.952	g0 IV
259	20 36 12.7	+67 14 52.3	10.842	2.330	1.879	1.271	0.521	0.211	0.538	g0 V

Continued **Table A.1**

No	RA(2000)	DEC(2000)	V	U-V	P-V	X-V	Y-V	Z-V	V-S	Photom.
	h m s	° ′ ″	mag	mag	mag	mag	mag	mag	mag	sp.type
260	20 36 13.3	+67 22 22.0	15.336	3.560::	2.890	2.137	1.006	0.347	0.930	g0 V
261	20 36 13.3	+67 39 54.0	15.606			2.544	1.157	0.427	1.089	g7-g2 IV
262	20 36 13.5	+67 37 14.6	15.910			2.256	1.024	0.395	0.932	g5-g8 IV-V
263	20 36 13.5	+68 09 53.5	15.514	2.976::	2.365	1.684	0.750	0.280	0.698	f9 IV-V
264	20 36 14.5	+67 58 26.0	13.082	4.615	3.943	2.674	1.099	0.454	1.052	k1.5 III
265	20 36 14.9	+68 12 39.2	15.342	2.934:	2.319	1.604	0.748	0.293	0.686	f7 IV-V
266	20 36 14.9	+68 22 57.5	14.749	4.176::	3.595:	2.495	1.069	0.408	0.986	g9 IV
267	20 36 15.0	+67 36 30.5	13.969		4.583::	3.227	1.296	0.528	1.202	k2 III
268	20 36 16.6	+67 20 01.4	12.167	4.679	3.955	2.781	1.207	0.454	1.132	g9.5 III
269	20 36 17.1	+68 03 03.4	15.272	3.263	2.534:	1.748	0.844	0.323	0.777	f4 IV-V
270	20 36 17.2	+68 26 30.6	15.216	3.661:	3.058:	2.079	0.869	0.368	0.866	g9.5 IV-V
271	20 36 18.4	+68 21 35.8	16.368		2.542::	1.751	0.835	0.330	0.765	f6-f2 IV-V
272	20 36 19.2	+68 07 09.6	11.779	4.781	4.136	2.836	1.106	0.464	1.022	k2.2 III
273	20 36 19.2	+67 39 47.1	16.211			2.496	1.133	0.425	1.025	g2-g0 II-III
274	20 36 19.4	+68 20 10.1	12.649	4.313	3.644	2.495	1.034	0.406	0.967	k0 III
275	20 36 19.5	+67 22 49.8	15.694			2.603	1.239	0.466	1.127	g3 IV-V
276	20 36 19.8	+68 11 01.6	14.455	4.143:	3.442	2.378	1.028	0.416	0.966	g9 IV
277	20 36 19.8	+67 35 15.5	15.573	3.410::	2.666:	1.934	0.852	0.275	0.862	- -
278	20 36 20.0	+68 15 45.4	16.469		2.691:	1.843	0.845	0.302	0.790	f5 IV
279	20 36 20.3	+68 18 53.8	14.431	3.768:	3.198	2.184	0.940	0.379	0.909	k0 IV-V
280	20 36 20.4	+67 13 08.8	11.491	3.357	2.590	1.843	0.848	0.303	0.790	f8 IV
281	20 36 20.5	+68 13 18.9	16.241			2.332	0.967	0.397	0.917	k0 IV
282	20 36 21.1	+67 58 07.6	16.278			2.394	1.140	0.475	1.132	g5 V
283	20 36 23.8	+68 14 59.6	16.008		2.726::	1.892	0.857	0.315	0.795	f9 IV
284	20 36 23.8	+68 06 09.1	16.111			2.080	0.878	0.430	0.801	g9.5 IV-V
285	20 36 24.5	+68 27 03.1	14.137	5.111::	4.621:	3.191	1.248	0.573	1.205	k4.5 III
286	20 36 24.8	+68 08 07.8	16.175		2.967::	2.075	0.935	0.340	0.852	f8 -
287	20 36 25.5	+68 23 42.8	16.389		2.735::	1.978	0.855	0.372	0.868	g7-g0 md V
288	20 36 25.5	+68 27 26.0	16.251		2.319	1.631	0.729	0.301	0.736	g1 V
289	20 36 27.6	+67 59 05.7	10.272	3.250	2.575	1.817	0.819	0.289	0.770	f9.5 IV
290	20 36 27.7	+67 46 29.4	11.884	3.049	2.536	1.673	0.699	0.270	0.674	g5.5 IV
291	20 36 27.7	+68 01 38.3	14.702		3.964:	2.779	1.155	0.416	1.127	g9.5 III
292	20 36 27.8	+68 03 57.4	15.965	2.945	2.346	1.627	0.744	0.283	0.697	f8 IV-V
293	20 36 29.3	+68 16 20.3	15.345	3.091::	2.550	1.730	0.812	0.277	0.733	g0 IV-V
294	20 36 29.4	+68 13 22.4	12.301	2.932	2.299	1.590	0.718	0.256	0.665	f8 IV
295	20 36 29.9	+67 52 26.1	15.790			3.149	1.409	0.571	1.389	- -
296	20 36 30.0	+67 35 53.8	16.552			2.008	0.938	0.266	0.914	- -
297	20 36 30.0	+67 37 10.8	14.299	3.844:	3.025	2.145	0.983	0.359	0.922	f9.5 d II
298	20 36 30.3	+67 39 54.9	14.114	3.524	2.866	2.015	0.921	0.328	0.875	g2 IV-V
299	20 36 30.5	+68 16 37.0	12.250	2.891	2.096	1.233	0.548	0.200	0.510	f0 IV
300	20 36 31.1	+67 13 11.5	16.456		2.578:	1.852	0.885	0.352	0.757	f6 V
301	20 36 31.4	+67 38 22.2	15.927	3.109::	2.448::	1.731	0.820	0.323	0.777	f7 IV-V
302	20 36 31.7	+67 32 12.4	15.310			2.864	1.286	0.440	1.221	- -
303	20 36 32.1	+67 26 17.6	13.483			4.260	1.828	0.703	1.710	m3-k6 III
304	20 36 33.0	+68 06 45.9	14.658	3.385	2.839	1.898	0.825	0.324	0.806	g6 IV
305	20 36 33.2	+67 30 10.5	15.063	4.346::	3.850:	2.644	1.126	0.442	1.057	k1 IV

Continued **Table A.1**

No	RA(2000)	DEC(2000)	V	U-V	P-V	X-V	Y-V	Z-V	V-S	Photom.
	h m s	° ′ ″	mag	mag	mag	mag	mag	mag	mag	sp.type
306	20 36 33.3	+68 07 13.8	16.296		2.675::	1.791	0.778	0.328	0.708	g4-f8 IV-V
307	20 36 34.5	+67 43 25.5	15.303	3.541:	2.916	2.056	0.932	0.321	0.893	g3 IV
308	20 36 34.6	+67 59 08.8	14.383	3.543	2.990	1.998	0.874	0.356	0.867	g9 IV-V
309	20 36 36.2	+68 12 59.4	16.314		2.601	1.835	0.851	0.322	0.774	f9 IV-V
310	20 36 36.3	+67 29 12.5	14.618	3.488	2.734	1.948	0.888	0.317	0.852	f9.5 IV
311	20 36 36.3	+68 12 35.8	16.271	3.002::	2.875:	2.042	0.873	0.448	0.795	k0.5 IV-V
312	20 36 36.9	+68 16 02.5	16.535			2.081	0.854	0.330	0.925	g8 IV
313	20 36 37.5	+68 02 38.3	16.523	2.770::		1.698	0.782	0.281	0.697	f8-g1 V
314	20 36 37.5	+68 18 23.9	15.880			2.449	0.919	0.508	0.998	k3.5 V
315	20 36 37.9	+67 31 04.3	16.540		2.507:	2.079	0.996	0.316	0.884	- -
316	20 36 37.9	+68 27 41.1	15.794	3.103:	2.624::	1.831	0.805	0.269	0.819	g6-g3 V
317	20 36 38.0	+68 01 06.2	15.569	2.943:	2.274	1.575	0.731	0.302	0.637	f6 IV-V
318	20 36 38.2	+68 01 19.0	16.056			2.139	0.886	0.343	0.870	g7 IV
319	20 36 38.9	+68 04 56.3	16.376		2.590:	1.766	0.828	0.364	0.757	f7 IV-V
320	20 36 39.0	+68 07 31.5	16.350	2.692:	2.131:	1.508	0.685	0.230	0.720	f8 V
321	20 36 40.9	+68 19 55.2	13.490	4.161	3.438	2.402	1.020	0.441	0.983	k0.7-g7 IV
322	20 36 41.2	+68 11 25.5	16.259		2.841:	2.209	0.914	0.470	0.842	g9-g2 III
323	20 36 41.3	+67 14 18.4	12.594	2.973	2.256	1.531	0.701	0.261	0.627	f6 IV
324	20 36 41.3	+67 35 42.6	15.846		2.674:	1.965	0.877	0.338	0.816	g1.5-g6 V
325	20 36 41.7	+67 39 39.0	15.139	3.352::	2.781:	1.898	0.847	0.298	0.817	g5.5-g1 IV-V
326	20 36 42.4	+67 36 23.5	14.913	3.629:	2.888	2.065	0.954	0.331	0.887	f9.5 II
327	20 36 43.0	+67 16 54.3	16.358		2.668::	1.906	0.840	0.348	0.806	g4-g0 V
328	20 36 44.8	+68 07 48.6	15.092	3.163:	2.676	1.814	0.787	0.299	0.793	g6-k0 V
329	20 36 44.9	+67 18 42.6	11.856	4.247	3.602	2.531	1.098	0.404	1.048	g8.5 III
330	20 36 45.3	+67 15 41.5	15.760	3.266	2.641::	1.860	0.784	0.335	0.689	g3 IV
331	20 36 46.3	+67 59 00.1	16.159		2.929::	1.977	0.892	0.332	0.822	f7 -
332	20 36 48.1	+68 05 55.7	16.695			1.832	0.811	0.278	0.799	g1 IV
333	20 36 49.0	+68 04 03.6	15.687	2.855	2.306	1.570	0.724	0.264	0.716	f8 IV-V
334	20 36 50.0	+68 13 51.7	15.302	3.216::	2.571	1.817	0.825	0.322	0.766	f9.5 IV-V
335	20 36 50.1	+68 22 00.4	15.961			2.814	1.119	0.507	1.110	k1.5 III
336	20 36 50.6	+67 17 02.8	16.263		2.392::	1.764	0.831	0.347	0.724	f7 V
337	20 36 51.1	+67 36 41.3	15.615	3.265:	2.648:	1.893	0.883	0.351	0.830	g0 V
338	20 36 51.6	+67 17 21.7	15.418	3.214	2.571:	1.847	0.798	0.322	0.793	g1.5-f9 IV
339	20 36 51.8	+68 18 15.5	16.661			1.987	0.838	0.361	0.788	g8 V
340	20 36 52.1	+68 00 32.5	11.312	4.059	3.425	2.341	0.968	0.365	0.914	g9 III
341	20 36 53.5	+67 57 05.5	13.567	3.177	2.778	1.793	0.691	0.318	0.714	k1 V
342	20 36 53.7	+68 08 46.0	15.468	3.550	2.916:	1.987	0.836	0.345	0.805	g8-g4 IV
343	20 36 53.8	+67 14 54.4	14.541	3.423	2.932	1.976	0.842	0.350	0.810	g9.5 V
344	20 36 54.2	+68 12 42.9	15.225	3.173	2.625	1.798	0.815	0.287	0.753	g2 IV-V
345	20 36 54.3	+67 51 35.7	15.556	3.563::	2.712:	1.906	0.863	0.331	0.830	f7 IV
346	20 36 54.8	+68 09 29.3	16.327		2.578::	1.933	0.873	0.368	0.854	g0 V
347	20 36 56.7	+68 18 21.4	11.090	2.623	1.826	0.870	0.396	0.130	0.380	a4 d IV
348	20 36 57.3	+67 58 46.0	15.209		3.891::	2.692	1.078	0.463	0.982	k1.5 III
349	20 36 58.4	+67 42 21.1	14.220	3.462	2.563	1.639	0.754	0.262	0.694	f1 III
350	20 36 58.9	+67 55 22.9	14.845	3.483:	2.825	1.970	0.882	0.321	0.906	g1.5 IV-V
351	20 36 59.0	+67 35 47.4	14.068	3.449	2.793	1.969	0.899	0.330	0.810	g1.5 IV

Continued **Table A.1**

No	RA(2000)	DEC(2000)	V	U-V	P-V	X-V	Y-V	Z-V	V-S	Photom.
	h m s	° ′ ″	mag	mag	mag	mag	mag	mag	mag	sp.type
352	20 36 59.0	+67 18 36.8	15.621	3.338::	2.842::	1.981	0.877	0.303	0.825	g5.5-g9 IV-V
353	20 36 59.3	+68 13 19.6	14.245	3.223	2.705	1.856	0.797	0.317	0.798	g7 V
354	20 36 59.6	+67 54 20.6	15.449	3.232:	2.907::	2.029	0.966	0.383	0.892	- -
355	20 36 59.8	+68 06 48.3	14.636	3.063:	2.560	1.762	0.788	0.287	0.775	g4 V
356	20 37 01.0	+68 01 58.5	13.595	2.916	2.383	1.670	0.750	0.283	0.708	g1 V
357	20 37 01.1	+67 16 18.0	16.324	2.598::	2.037:	1.541	0.711	0.289	0.629	f9 md V
358	20 37 01.3	+68 16 57.1	13.254	4.529	3.855	2.678	1.090	0.437	1.021	k0.7 III
359	20 37 01.8	+68 05 07.3	15.331	3.328::	2.547	1.811	0.802	0.292	0.845	f9 IV
360	20 37 01.9	+68 03 33.8	13.394	2.863	2.088	1.295	0.557	0.205	0.517	f2 III
361	20 37 02.3	+68 24 22.0	14.352	4.548:	3.850:	2.653	1.137	0.467	1.022	k0.5 IV
362	20 37 03.3	+68 02 39.1	16.173			1.897	0.874	0.362	0.712	g1 V
363	20 37 03.4	+68 13 22.5	16.496		2.311:	1.715	0.759	0.229	0.763	f9 V
364	20 37 04.0	+67 30 15.7	7.671	1.350	0.906	0.378	0.154	0.104	0.142	b8 IV-V
365	20 37 05.4	+68 24 18.5	14.751	3.176:	2.462	1.712	0.795	0.289	0.742	f7 IV-V
366	20 37 06.0	+67 39 55.4	14.862	3.561	3.008	2.125	0.960	0.391	0.934	g8 d V
367	20 37 06.4	+68 25 05.7	14.782	3.530:	2.923	1.963	0.875	0.362	0.814	g7-g1 IV
368	20 37 06.7	+68 22 29.6	15.846	3.218:	2.511::	1.853	0.887	0.275	0.813	f6 V
369	20 37 06.8	+67 43 56.7	15.524		2.798	1.971	0.922	0.300	0.917	f8 IV-V
370	20 37 07.7	+68 13 37.1	15.518	3.406	2.791	1.906	0.795	0.284	0.835	g5 III
371	20 37 08.3	+68 22 25.9	15.273		3.248::	2.279	1.011	0.392	0.945	g7 IV
372	20 37 08.6	+68 12 03.7	15.547	2.933::	2.312	1.650	0.763	0.276	0.705	f6 V
373	20 37 08.8	+68 17 22.0	13.963	2.923	2.358	1.665	0.744	0.275	0.733	g0 V
374	20 37 09.4	+67 35 47.3	14.180	3.690	3.264	2.138	0.765	0.471	0.822	k3.7 V
375	20 37 09.6	+67 17 15.0	15.208	2.841	2.232	1.610	0.736	0.264	0.713	f7 V
376	20 37 12.1	+68 07 54.3	15.085			2.710	1.071	0.432	1.001	k1.2 III
377	20 37 13.4	+67 15 26.4	14.257	3.067	2.600	1.782	0.790	0.309	0.730	g5-g8 IV-V
378	20 37 14.1	+67 41 39.8	15.675		3.014	2.134	0.941	0.368	0.961	g7 V
379	20 37 14.4	+67 22 00.6	15.517		3.124::	2.252	1.036	0.376	1.046	g2 IV-V
380	20 37 14.5	+67 37 52.5	16.365			2.470	1.091	0.463	0.999	g9 IV
381	20 37 15.9	+67 16 39.9	13.673	3.148	2.591	1.802	0.791	0.319	0.754	g4 V
382	20 37 15.9	+68 07 32.4	12.602	3.505	2.846	1.977	0.854	0.332	0.817	g3 III
383	20 37 16.1	+67 16 55.3	16.484		2.424::	1.803	0.817	0.343	0.795	g0 V
384	20 37 18.3	+68 10 10.9	16.493		2.480:	1.772	0.793	0.276	0.781	g0 d V
385	20 37 18.7	+67 13 54.6	14.719	3.160	2.510	1.786	0.793	0.294	0.776	g0 IV
386	20 37 19.0	+67 21 33.0	14.306	3.792	3.356	2.183	0.770	0.504	0.857	k5 V
387	20 37 19.0	+68 19 01.3	16.341			1.863	0.834	0.321	0.772	g1 IV-V
388	20 37 19.2	+67 16 25.6	14.639	3.221	2.589	1.838	0.813	0.316	0.748	g1 IV
389	20 37 19.4	+67 14 24.2	15.103	2.895:	2.259	1.569	0.710	0.269	0.697	f7 IV-V
390	20 37 19.4	+67 17 00.5	15.963	2.802::	2.172	1.471	0.687	0.275	0.683	f5 IV-V
391	20 37 20.2	+68 02 51.7	15.761	2.874	2.314	1.651	0.764	0.316	0.703	f8 d? V
392	20 37 20.8	+67 58 28.3	16.384	2.634::	2.077:	1.474	0.696	0.241	0.687	f6 md V
393	20 37 21.0	+67 52 39.2	14.082	3.860	3.170	2.225	0.962	0.377	0.930	g5.5 III
394	20 37 21.1	+68 13 25.8	16.203			2.437	1.068	0.406	0.986	g7 III
395	20 37 21.3	+68 25 45.4	15.838	3.070::	2.527	1.816	0.841	0.346	0.785	g0 V
396	20 37 21.4	+68 21 12.1	15.743			2.573	1.042	0.562	1.008	k3.2 V
397	20 37 23.2	+68 26 58.4	16.170		2.663:	2.051	0.847	0.358	0.818	g8.5-g2 IV-V

Continued **Table A.1**

No	RA(2000)	DEC(2000)	V	U-V	P-V	X-V	Y-V	Z-V	V-S	Photom.
	h m s	° ′ ″	mag	mag	mag	mag	mag	mag	mag	sp.type
398	20 37 24.0	+67 37 36.3	14.117	3.442	2.769	1.982	0.905	0.333	0.851	g0 IV-V
399	20 37 25.0	+67 15 37.7	15.115	4.034::	3.914::	2.585	0.944	0.642	1.035	k4.5-m0 V
400	20 37 26.3	+67 13 46.0	15.723	3.148:	2.700:	1.948	0.809	0.310	0.813	g8 V
401	20 37 27.1	+67 55 23.8	15.673			2.501	1.080	0.384	1.020	g7 III
402	20 37 27.1	+68 07 28.6	15.690	2.820	2.219	1.548	0.728	0.255	0.684	f6 IV-V
403	20 37 27.2	+67 28 16.7	15.132			2.994	1.274	0.531	1.163	k1.5 III
404	20 37 28.6	+68 07 55.2	14.813	3.739::	3.247	2.147	0.886	0.395	0.875	k1.5 V
405	20 37 29.3	+67 39 08.0	15.881		3.255::	2.309	0.995	0.399	0.950	g9 IV-V
406	20 37 30.3	+67 34 30.6	14.807	3.385	2.702	1.941	0.894	0.344	0.819	f9.5 IV-V
407	20 37 30.7	+68 22 41.9	16.211		2.771::	1.913	0.875	0.335	0.820	f9.5 IV-V
408	20 37 30.7	+68 15 40.7	15.531	2.795:	2.201	1.507	0.724	0.269	0.683	f5 V
409	20 37 31.5	+68 04 09.8	16.074	2.930::	2.553:	1.799	0.839	0.356	0.722	- -
410	20 37 31.6	+68 18 10.5	15.724	3.137::	2.669:	1.912	0.869	0.364	0.777	g5.5-k0 V
411	20 37 32.0	+67 13 07.8	15.483	3.021:	2.255:	1.626	0.790	0.318	0.697	f4 IV-V
412	20 37 32.5	+68 16 40.1	15.191	3.995:	3.370	2.248	0.914	0.430	0.945	k1.5 V
413	20 37 34.2	+68 15 25.9	15.957		2.847::	1.913	0.862	0.336	0.821	f9-f5 II
414	20 37 34.5	+68 16 24.8	12.114	5.445	4.683	3.237	1.250	0.562	1.148	k4 III
415	20 37 34.8	+68 26 31.0	14.900	3.316:	2.601	1.833	0.803	0.316	0.774	f9 IV
416	20 37 34.9	+68 10 46.2	14.120	4.575	3.881	2.640	1.068	0.451	1.024	k1.2 III
417	20 37 36.0	+67 54 47.0	11.546	3.032	2.311	1.556	0.706	0.242	0.665	f6-f2 III
418	20 37 36.4	+67 39 00.2	14.692	3.392	2.715	1.882	0.842	0.286	0.852	g0 IV
419	20 37 36.5	+67 47 55.8	9.676	2.312	1.867	1.283	0.550	0.206	0.546	f9 V
420	20 37 36.8	+67 18 49.2	15.101	3.964:	3.104	2.190	1.024	0.377	1.008	f9 II
421	20 37 37.3	+67 17 54.1	14.791	3.195	2.466	1.767	0.820	0.300	0.776	f7 IV-V
422	20 37 37.9	+68 13 11.1	16.549		2.471	1.726	0.788	0.278	0.758	f9 IV
423	20 37 38.5	+67 39 02.0	13.859	4.571:	3.987	2.713	1.131	0.456	1.092	k2 III
424	20 37 39.2	+67 54 57.4	15.570		3.089::	2.212	0.981	0.376	0.937	g6 IV-V
425	20 37 39.3	+67 26 30.8	15.650	3.122:	2.514	1.790	0.819	0.323	0.776	g0 d? V
426	20 37 40.5	+67 25 36.9	16.044		2.902::	2.173	1.000	0.381	0.903	g0-g7 V
427	20 37 41.9	+68 25 50.2	14.004	3.135:	2.599	1.807	0.797	0.325	0.751	g4 V
428	20 37 42.3	+67 48 33.2	15.098	3.206	2.584	1.802	0.798	0.302	0.808	g1 IV-V
429	20 37 42.4	+67 53 44.8	15.821	3.109:	2.579::	1.798	0.777	0.281	0.818	g5 V
430	20 37 42.5	+67 15 28.0	13.555	4.743:	4.069	2.795	1.132	0.462	0.993	k1.2 III
431	20 37 43.8	+67 55 14.3	13.976	3.110	2.444	1.730	0.802	0.289	0.786	f7 IV-V
432	20 37 43.9	+68 13 46.1	14.972	3.240	2.627	1.817	0.838	0.283	0.776	g1 IV-V
433	20 37 43.9	+67 23 41.5	13.556	3.415	2.752	1.973	0.887	0.309	0.872	g1 IV-V
434	20 37 46.4	+67 28 00.4	16.478		2.571::	1.852	0.861	0.331	0.840	g0 V
435	20 37 46.6	+68 02 57.2	15.681	3.263::	2.628::	1.827	0.824	0.265	0.849	g0 IV-V
436	20 37 46.9	+68 11 46.9	16.495		2.601::	1.757	0.810	0.299	0.765	f5-f9 III
437	20 37 47.5	+67 53 26.1	13.980	3.502	2.821	1.974	0.893	0.336	0.835	g1 IV
438	20 37 48.1	+67 34 17.4	13.859	3.211	2.409	1.647	0.773	0.261	0.717	f6-f2 IV
439	20 37 48.2	+68 12 22.3	16.362		2.313	1.689	0.787	0.303	0.693	f7-g1 V
440	20 37 50.6	+67 27 36.0	14.464	4.056	3.540::	2.390	0.827	0.565	0.918	k5.5-k9 V
441	20 37 51.2	+67 30 17.1	10.403	6.275	5.349	3.856	1.606	0.626	1.483	k3.5-k0 II-III
442	20 37 51.3	+68 06 28.0	15.091	3.030	2.478	1.724	0.747	0.277	0.758	g3 IV-V
443	20 37 52.4	+68 18 59.6	16.114			2.393	1.002	0.475	1.000	k1.7 V

Continued **Table A.1**

No	RA(2000)	DEC(2000)	V	U-V	P-V	X-V	Y-V	Z-V	V-S	Photom.
	h m s	° ′ ″	mag	mag	mag	mag	mag	mag	mag	sp.type
444	20 37 52.8	+68 03 05.4	14.848	3.639:	3.076:	2.106	0.887	0.378	0.863	k0 V
445	20 37 53.2	+67 23 46.2	16.120		2.338	1.678	0.820	0.270	0.730	f6 V
446	20 37 53.4	+68 05 29.7	13.921	2.724	2.017	1.318	0.617	0.210	0.567	f4 IV
447	20 37 53.9	+67 48 12.0	15.308			2.895	1.266	0.497	1.196	k1.5 III
448	20 37 54.2	+67 31 03.4	15.663			2.695	1.208	0.452	1.088	g5.5-g8 III
449	20 37 55.8	+67 54 36.8	14.031	3.606	2.895	2.064	0.937	0.327	0.927	g1 IV
450	20 37 56.3	+67 37 18.7	16.479		2.504:	1.854	0.857	0.329	0.832	f9-g3 md V
451	20 37 56.9	+67 24 07.4	15.676	3.385:	2.564:	1.874	0.849	0.322	0.804	f9 IV
452	20 37 57.4	+68 13 32.3	15.965	3.078:	2.476:	1.763	0.814	0.367	0.714	g0 d V
453	20 37 57.8	+68 24 00.4	15.110	3.148	2.495	1.804	0.801	0.337	0.668	g0 d? IV
454	20 37 59.9	+68 07 07.6	15.290	3.379:	2.698	1.853	0.840	0.324	0.781	f9.5 IV
455	20 38 00.3	+67 58 56.7	12.597	3.531	2.717	1.896	0.871	0.311	0.852	f8 II
456	20 38 01.0	+67 32 53.8	15.909	3.234:	2.408	1.737	0.806	0.304	0.767	f7-g0 II
457	20 38 01.7	+68 06 01.9	15.575	2.812:	2.280	1.606	0.734	0.253	0.760	f9.5 V
458	20 38 02.5	+68 23 24.9	15.130	3.040	2.308	1.590	0.738	0.274	0.680	f6 IV
459	20 38 02.8	+68 09 32.6	11.900			3.676	1.447	0.636	1.372	k8-k4 III
460	20 38 02.9	+67 40 24.8	16.219			1.938	0.906	0.342	0.781	f8 V
461	20 38 03.3	+67 32 00.4	15.906		2.849:	1.967	0.910	0.309	0.894	f8 -
462	20 38 04.2	+67 41 15.5	15.967			2.252	0.989	0.375	0.996	g4-g2 III
463	20 38 04.5	+67 35 32.9	16.494		2.574:	2.004	0.922	0.332	0.868	- -
464	20 38 04.7	+67 49 45.0	14.942			3.197	1.382	0.518	1.323	k8 -
465	20 38 05.1	+67 16 09.4	15.960	3.044::	2.478	1.722	0.821	0.334	0.752	f9-f5 V
466	20 38 05.7	+68 27 28.8	15.505	3.566:	2.858::	1.971	0.901	0.375	0.766	g1 IV-V
467	20 38 06.6	+67 17 02.4	15.034	3.607::	2.768	2.017	0.954	0.357	0.992	f8 IV
468	20 38 07.2	+68 21 46.0	15.032	3.092	2.371	1.647	0.775	0.279	0.724	f6 IV
469	20 38 07.2	+68 13 54.6	16.162			2.226	0.958	0.398	0.892	g9 IV-V
470	20 38 07.6	+67 25 24.4	14.036	4.290	3.652	2.523	1.108	0.411	1.004	g8.5 III
471	20 38 08.1	+68 11 20.4	16.115			2.200	0.925	0.444	0.879	k1 md V
472	20 38 09.0	+68 09 14.0	16.101		2.697:	1.974	0.899	0.338	0.898	g1 V
473	20 38 09.2	+68 11 33.4	15.789	3.568::	2.890:	1.942	0.836	0.296	0.788	g1.5-g5 IV
474	20 38 10.2	+67 28 51.7	14.091	3.391:	2.684	1.940	0.904	0.321	0.823	f8 IV
475	20 38 10.9	+68 00 12.9	13.464	3.089	2.283	1.444	0.635	0.229	0.573	f3 III
476	20 38 11.4	+68 04 38.0	15.758	3.270	2.761	1.901	0.825	0.312	0.771	g6 V
477	20 38 12.7	+68 22 58.9	16.556			1.964	0.933	0.407	0.790	- -
478	20 38 12.7	+67 59 10.9	13.654	4.293	3.779	2.616	0.903	0.638	1.018	k7 V
479	20 38 12.8	+68 14 51.1	16.082		2.668	1.934	0.856	0.380	0.770	g3-g2 md V
480	20 38 12.9	+68 05 14.4	15.119	2.867	2.328	1.604	0.725	0.275	0.697	g0 V
481	20 38 15.1	+67 14 36.7	14.368	3.689	2.519::	2.136	1.003	0.363	0.985	- -
482	20 38 15.3	+68 22 57.9	14.145	2.993	2.370	1.696	0.770	0.285	0.740	f9 V
483	20 38 15.5	+68 00 13.7	12.133	3.230	2.787	1.781	0.688	0.330	0.694	k1 V
484	20 38 16.1	+67 29 00.1	15.781			2.752	1.026	0.653	1.149	k9-k4 V
485	20 38 17.1	+68 04 50.8	14.127	3.103	2.470	1.741	0.770	0.292	0.743	f9.5 IV-V
486	20 38 17.5	+67 31 25.3	15.823		2.997::	2.197	0.972	0.380	0.872	g2-g8 III
487	20 38 19.9	+68 26 39.8	15.748	3.152:	2.519	1.792	0.708	0.285	0.836	g2.5-f9 III
488	20 38 21.2	+68 14 23.7	16.407			1.798	0.791	0.282	0.800	g1 d? IV-V
489	20 38 22.8	+67 34 23.0	15.526	3.596::	3.085:	2.194	0.993	0.359	0.928	g7-k0 IV-V

Continued **Table A.1**

No	RA(2000)	DEC(2000)	V	U-V	P-V	X-V	Y-V	Z-V	V-S	Photom.
	h m s	° ′ ″	mag	mag	mag	mag	mag	mag	mag	sp.type
490	20 38 22.8	+68 24 44.9	13.345		4.700	3.337	1.781	0.467	1.740	- -
491	20 38 23.4	+67 50 15.0	12.302	5.945:	4.883	3.423	1.752	0.507	1.743	- -
492	20 38 23.5	+68 00 37.5	15.578	3.059::	2.425:	1.710	0.795	0.291	0.746	f7 IV-V
493	20 38 23.6	+67 32 14.9	13.220	4.503	3.745	2.691	1.190	0.439	1.103	g7 III
494	20 38 24.0	+67 39 19.1	14.573	4.513::	3.814:	2.671	1.150	0.444	1.113	g9.5 III
495	20 38 25.1	+67 17 16.1	9.756	2.097	1.622	1.071	0.472	0.180	0.476	f5 V
496	20 38 25.5	+68 12 19.6	12.397	2.384	1.952	1.345	0.577	0.223	0.574	g0 V
497	20 38 27.0	+68 10 15.0	14.511	2.872	2.241	1.556	0.723	0.263	0.676	f5 V
498	20 38 27.6	+68 06 30.6	15.494	2.933:	2.295:	1.617	0.755	0.312	0.664	f6 V
499	20 38 27.7	+67 26 13.6	15.144	3.203	2.498	1.808	0.823	0.297	0.789	f9 IV
500	20 38 27.8	+67 36 34.8	10.507	2.590	2.157	1.445	0.581	0.240	0.583	g5 V
501	20 38 28.3	+67 47 02.9	14.831			2.903	1.222	0.472	1.170	k0.5 III
502	20 38 28.6	+67 28 54.1	16.245			1.965	0.887	0.272	0.946	- -
503	20 38 28.7	+67 12 24.9	13.726	3.991	3.369	2.288	0.868	0.535	0.917	k3.5-m0 V
504	20 38 29.0	+67 39 44.7	11.477	3.466	2.666	1.869	0.841	0.288	0.834	f9 II
505	20 38 29.1	+68 22 37.9	16.314		2.585::	1.871	0.869	0.306	0.814	f8 V
506	20 38 29.4	+68 12 18.9	15.836	3.578::	3.174:	2.164	0.985	0.362	0.934	g5-k1 V
507	20 38 30.3	+68 06 00.8	13.023	2.852	2.441	1.621	0.649	0.282	0.653	g9 V
508	20 38 30.7	+68 19 17.7	13.913	4.766:	4.151:	2.872	1.156	0.488	1.071	k2.2 III
509	20 38 30.7	+67 38 27.7	13.530			3.650	1.446	0.596	1.405	m2-k4 III
510	20 38 31.1	+68 13 53.5	16.537			2.289	1.006	0.405	0.914	g8.5 IV-V
511	20 38 31.4	+68 23 37.1	15.787	3.715::	2.916::	2.049	1.011	0.416	0.874	f5-f2 IV
512	20 38 32.5	+67 52 18.2	14.895			3.169	1.360	0.533	1.303	k1 III
513	20 38 34.7	+68 19 02.7	16.229		2.836::	1.828	0.868	0.358	0.801	a9 III
514	20 38 35.0	+68 22 46.2	13.702	5.077::	4.373:	3.052	1.315	0.524	1.202	k0.7 III
515	20 38 36.5	+67 58 55.0	16.590			1.971	0.973	0.325	0.834	- -
516	20 38 36.8	+67 41 41.7	16.508			2.060	0.941	0.405	0.911	g5 V
517	20 38 37.9	+68 23 14.7	12.940	3.115	2.543	1.756	0.764	0.286	0.753	g2.5 IV
518	20 38 38.6	+67 50 04.1	14.405	3.437	2.674	1.929	0.897	0.318	0.854	f9 IV
519	20 38 38.8	+67 38 21.6	12.916	3.611	3.166	2.079	0.755	0.440	0.816	k3 d V
520	20 38 39.1	+68 13 44.8	15.679	3.137::	2.495	1.731	0.804	0.329	0.729	f8 IV-V
521	20 38 39.4	+68 05 03.9	13.386	5.083:	4.298	3.030	1.208	0.506	1.140	k2 III
522	20 38 40.4	+67 24 52.0	16.163		2.829:	2.142	0.996	0.385	0.841	f9.5-f6 V
523	20 38 40.8	+68 05 49.4	13.286	4.491	3.746	2.573	1.078	0.452	1.043	k0.7 IV
524	20 38 41.8	+67 33 25.4	15.525	3.402:	2.688:	1.996	0.913	0.339	0.870	f9.5 IV
525	20 38 42.8	+67 27 30.1	13.094	3.111	2.490	1.780	0.792	0.286	0.753	g0 IV-V
526	20 38 43.8	+67 53 25.7	14.433	3.295	2.675	1.875	0.854	0.294	0.837	g1 IV-V
527	20 38 43.9	+67 14 31.4	14.023	4.545	3.804	2.854	1.319	0.489	1.321	g7 V
528	20 38 44.7	+68 07 43.5	16.363		2.562:	1.758	0.771	0.291	0.741	g2-f7 IV
529	20 38 44.9	+68 14 23.3	16.171		2.754:	1.974	0.955	0.382	0.773	f8-g0 IV
530	20 38 45.8	+67 29 05.6	15.438	3.857::	3.371:	2.243	0.946	0.410	0.943	k1.2 V
531	20 38 46.0	+67 31 21.3	11.081	4.356	3.705	2.568	1.067	0.406	0.993	g9.5 III
532	20 38 46.0	+68 24 04.1	15.668	3.308::	2.773::	1.967	0.910	0.362	0.783	g2.5-g7 d? V
533	20 38 46.8	+68 17 39.3	15.869	3.096::	2.430	1.720	0.877	0.315	0.724	- -
534	20 38 47.0	+67 55 42.2	16.194			2.045	0.908	0.312	0.941	g1.5 IV
535	20 38 48.0	+68 04 56.8	15.410	3.319	2.585:	1.819	0.879	0.296	0.777	f6 IV-V

Continued **Table A.1**

No	RA(2000)	DEC(2000)	V	U-V	P-V	X-V	Y-V	Z-V	V-S	Photom.
	h m s	° ′ ″	mag	mag	mag	mag	mag	mag	mag	sp.type
536	20 38 48.5	+67 13 58.7	14.521	4.136	3.307:	2.360	1.139	0.406	1.126	f9-g2 IV
537	20 38 49.7	+68 25 10.8	14.941	4.262::	3.524	2.431	1.020	0.465	0.937	k0.7 IV
538	20 38 49.8	+67 57 09.4	11.595	3.037	2.375	1.645	0.740	0.264	0.703	f7 IV
539	20 38 49.9	+67 24 25.2	13.510	3.665	2.880	2.048	0.947	0.325	0.910	f9.5 II
540	20 38 50.0	+67 45 25.4	15.034	3.371	2.567	1.806	0.803	0.291	0.806	f9 II
541	20 38 51.0	+68 26 18.0	15.112		3.736:	2.739	1.052	0.636	1.204	m2-k8 md V
542	20 38 51.2	+67 34 49.3	15.135	3.724::	2.992	2.141	0.981	0.334	0.983	g1 IV
543	20 38 54.1	+67 49 09.1	11.416	2.201	1.754	1.184	0.503	0.185	0.488	f8 V
544	20 38 54.2	+68 09 21.6	15.540	3.231:	2.615:	1.839	0.838	0.301	0.805	g0 d? IV-V
545	20 38 54.3	+68 11 44.6	16.137		2.763	1.945	0.856	0.384	0.823	g7 V
546	20 38 54.4	+68 14 25.1	12.674	2.739	2.345	1.570	0.631	0.276	0.644	g8.5 V
547	20 38 54.8	+68 14 05.5	12.341	2.737	2.055	1.296	0.594	0.204	0.535	f1 IV-V
548	20 38 55.5	+68 08 26.8	16.568		2.319:	1.689	0.779	0.353	0.637	f6 V
549	20 38 57.4	+68 11 23.8	12.339	2.928	2.484	1.605	0.645	0.277	0.629	g9 V
550	20 39 00.6	+67 49 23.4	11.951	4.953	4.236	2.948	1.219	0.460	1.144	k0.7 III
551	20 39 00.6	+68 14 44.2	12.586	3.948	3.346	2.265	0.946	0.400	0.883	k0 IV
552	20 39 00.7	+68 23 32.0	15.294	3.271	2.569	1.865	0.874	0.327	0.797	f7 IV-V
553	20 39 01.9	+67 31 16.7	16.340		2.326:	1.813	0.813	0.297	0.827	- -
554	20 39 02.1	+67 33 16.1	13.823	3.385	2.799	1.943	0.837	0.333	0.811	g6 IV-V
555	20 39 04.7	+67 31 12.1	15.034	3.585:	2.998	2.120	0.952	0.345	0.893	g5.5 V
556	20 39 05.4	+68 20 59.9	15.376		3.130	2.166	0.978	0.378	0.921	g2-f8 IV
557	20 39 06.5	+67 35 41.9	15.372	3.210:	2.592	1.851	0.842	0.313	0.828	g0 d V
558	20 39 06.5	+68 24 26.4	15.767	3.203::	2.564	1.802	0.830	0.280	0.774	f9 IV-V
559	20 39 07.9	+67 29 12.0	13.783	3.644	3.147	2.070	0.740	0.450	0.789	k3.2 V
560	20 39 08.7	+68 22 56.1	14.306	3.078	2.429	1.708	0.794	0.285	0.738	f6 IV-V
561	20 39 08.8	+68 18 43.6	12.701	3.135	2.299	1.378	0.621	0.209	0.536	a7 IV
562	20 39 10.1	+68 22 18.6	16.111		2.813::	2.026	0.859	0.331	0.882	g7-g2 V
563	20 39 10.7	+68 07 54.4	15.486	3.122:	2.454	1.752	0.837	0.332	0.799	f6 V
564	20 39 13.5	+67 33 04.8	14.151			3.495	1.382	0.581	1.294	k9-k3 III
565	20 39 14.3	+67 50 53.1	13.871	3.237	2.472	1.716	0.799	0.279	0.760	f7-f3 IV
566	20 39 14.6	+68 16 36.7	15.946			2.238	1.003	0.426	0.968	g9 md V
567	20 39 14.8	+68 13 51.7	13.289	2.898	2.227	1.500	0.699	0.246	0.645	f3 IV-V
568	20 39 15.1	+68 19 33.7	14.599	3.491	2.809	1.945	0.865	0.337	0.820	g1.5 IV
569	20 39 17.6	+68 04 04.4	15.940			2.393	1.053	0.467	1.023	g9.5 IV-V
570	20 39 18.0	+68 10 43.9	14.814	3.191:	2.445	1.711	0.819	0.317	0.716	f4-f8 IV
571	20 39 19.0	+68 08 35.0	12.134	5.354	4.685	3.243	1.305	0.543	1.214	k3.5 III
572	20 39 19.6	+67 43 40.6	15.075	3.140:	2.545	1.774	0.796	0.300	0.738	g1 IV-V
573	20 39 21.0	+67 38 34.4	15.239	3.347:	2.626:	1.830	0.847	0.305	0.778	f8 IV
574	20 39 23.2	+67 31 41.9	13.675	4.647:	3.957:	2.771	1.163	0.467	1.089	k0.5 IV
575	20 39 23.2	+67 17 00.0	14.106	3.939	3.451:	2.331	0.871	0.521	0.985	k3.7 md V
576	20 39 23.9	+68 22 23.4	12.746	6.021:	5.032:	3.582	1.582	0.577	1.446	k0 III
577	20 39 25.0	+67 31 02.9	15.298	3.464	2.843:	1.979	0.886	0.319	0.842	g2-g5 IV-V
578	20 39 25.1	+67 34 53.6	15.717	3.483::	2.653:	1.835	0.871	0.329	0.818	f5 IV
579	20 39 25.1	+67 43 59.0	16.632		2.539::	1.968	0.840	0.265	0.846	- -
580	20 39 26.5	+68 26 49.5	14.995		3.068:	2.126	0.941	0.441	0.827	g8.5 IV-V
581	20 39 26.8	+67 37 12.2	15.812	3.186::	2.485:	1.751	0.772	0.240	0.793	- -

Continued **Table A.1**

No	RA(2000)	DEC(2000)	V	U-V	P-V	X-V	Y-V	Z-V	V-S	Photom.
	h m s	° ′ ″	mag	mag	mag	mag	mag	mag	mag	sp.type
582	20 39 27.9	+68 22 42.8	15.897	3.225::	2.558:	1.805	0.825	0.319	0.781	f8 IV-V
583	20 39 28.0	+67 57 10.2	11.570	2.833	2.428	1.593	0.626	0.269	0.624	g9 V
584	20 39 28.6	+68 06 13.2	15.806		2.982::	2.117	0.932	0.359	0.946	g7 V
585	20 39 28.7	+67 35 16.6	14.601	4.211:	3.740	2.529	0.868	0.625	0.957	k6 V
586	20 39 30.7	+67 27 53.3	15.098	3.949::	3.590:	2.392	0.992	0.444	0.987	k2 V
587	20 39 31.6	+68 14 53.2	15.549	3.161::	2.491	1.741	0.801	0.292	0.777	f8 d? IV-V
588	20 39 32.0	+68 12 37.0	13.763	2.802	2.209	1.574	0.729	0.269	0.670	f6 V
589	20 39 32.5	+67 42 23.2	14.047	4.238:	3.558	2.483	1.048	0.399	1.005	g9 IV
590	20 39 34.0	+68 22 35.4	13.778	2.844	2.205	1.482	0.682	0.251	0.612	f3 IV-V
591	20 39 34.2	+68 22 13.4	13.019	4.385	3.667	2.616	1.066	0.599	1.188	m2.5-k2 d V
592	20 39 34.2	+68 08 17.1	15.190		3.417:	2.363	1.010	0.420	0.990	k0.7 V
593	20 39 34.9	+68 10 46.5	15.720	3.297::	2.715	1.913	0.813	0.359	0.789	g7 V
594	20 39 35.0	+67 52 10.6	16.030		2.825:	2.045	0.924	0.338	0.941	g1.5 IV-V
595	20 39 36.7	+68 23 12.8	14.810	3.106	2.423	1.726	0.776	0.289	0.727	f9 IV
596	20 39 37.1	+68 20 05.2	14.958	2.928:	2.293	1.658	0.766	0.298	0.667	f7 d? V
597	20 39 37.6	+67 40 37.0	13.505	3.514	3.090	2.056	0.741	0.449	0.777	k3 V
598	20 39 38.9	+68 09 00.1	16.261	2.719::	2.358	1.700	0.737	0.252	0.743	g1.5-k0 V
599	20 39 39.9	+68 13 29.4	15.895	3.115::	2.665	1.915	0.868	0.359	0.811	g5.5-k0 V
600	20 39 42.0	+67 40 07.1	16.520		2.592:	1.807	0.840	0.310	0.792	f8 IV
601	20 39 42.6	+67 37 47.6	12.865	3.287	2.539	1.782	0.807	0.280	0.761	f9 II
602	20 39 43.3	+68 13 58.6	13.274	2.817	2.169	1.468	0.668	0.232	0.601	f6 IV-V
603	20 39 44.5	+67 20 57.2	8.360	2.105	1.650	1.082	0.467	0.180	0.454	f6 V
604	20 39 44.8	+67 58 59.7	16.007		3.020::	2.299	1.068	0.419	1.041	- -
605	20 39 44.9	+68 17 27.8	15.744		3.289::	2.343	1.034	0.435	0.994	g8.5 IV-V
606	20 39 45.5	+68 19 16.0	16.459		2.664::	1.936	0.887	0.404	0.741	g2 V
607	20 39 45.9	+68 20 33.6	15.664	2.960:	2.302:	1.583	0.752	0.264	0.691	f4 V
608	20 39 46.2	+67 55 57.0	15.741		3.169:	2.411	1.139	0.433	1.123	- -
609	20 39 46.7	+68 05 39.7	15.318		3.185:	2.203	0.966	0.371	1.008	g6-f8 IV-V
610	20 39 46.8	+67 58 51.5	15.854		2.595	1.834	0.855	0.319	0.812	f9 d IV-V
611	20 39 48.4	+68 10 37.2	16.657	2.454:	2.198::	1.540	0.756	0.351	0.686	g1.5 md V
612	20 39 49.1	+68 08 11.4	14.714	2.841	2.278	1.603	0.730	0.273	0.675	f8 V
613	20 39 49.7	+67 32 08.9	16.376			1.994	0.964	0.323	0.877	- -
614	20 39 50.3	+68 24 49.1	14.387	3.924	3.297	2.178	0.876	0.435	0.829	k1.5 d? V
615	20 39 50.3	+67 41 45.2	14.128	3.732	3.059	2.160	0.946	0.355	0.912	g4 IV
616	20 39 50.4	+67 32 49.1	15.513		3.206	2.315	1.006	0.366	0.963	g3-g0 II-III
617	20 39 50.5	+68 11 35.2	15.025	2.878	2.234	1.560	0.725	0.280	0.629	f4 V
618	20 39 50.9	+67 44 09.8	16.087			2.172	0.978	0.319	1.001	- -
619	20 39 52.2	+68 23 34.0	15.595	3.315	3.005	2.007	0.833	0.328	0.868	k0-k3 V
620	20 39 53.0	+67 38 41.6	16.583			1.928	0.909	0.334	0.907	f9.5 IV-V
621	20 39 53.2	+67 46 48.7	15.260	3.481::	2.871::	2.134	1.016	0.356	0.864	g0 V
622	20 39 54.2	+68 18 19.6	14.203	4.419	3.749::	2.595	1.127	0.450	1.051	k0 IV
623	20 39 54.5	+67 47 32.2	8.951	2.154	1.730	1.178	0.507	0.188	0.495	f8 V
624	20 39 55.3	+68 25 35.5	15.036	3.705:	3.036:	2.163	0.963	0.418	0.884	g7 V
625	20 39 55.8	+68 09 52.2	13.851	3.953	3.284	2.314	0.978	0.383	0.913	g7 d III
626	20 39 57.4	+68 00 08.8	13.482	3.498	2.803	1.976	0.905	0.323	0.864	g0 IV
627	20 39 57.5	+68 07 18.5	16.309		2.228	1.577	0.758	0.310	0.676	f5-f1 V

Continued **Table A.1**

No	RA(2000)	DEC(2000)	V	U-V	P-V	X-V	Y-V	Z-V	V-S	Photom.
	h m s	° ′ ″	mag	mag	mag	mag	mag	mag	mag	sp.type
628	20 39 58.9	+68 22 42.1	16.332			2.348	1.006	0.589	0.966	k3-k7 md V
629	20 39 59.5	+68 12 56.3	15.607		3.341::	2.538	0.967	0.645	1.052	k3.2-k9 md V
630	20 39 59.8	+68 06 28.9	16.114	2.783::	2.255	1.605	0.774	0.245	0.735	f9 md V
631	20 40 00.1	+68 12 28.2	16.312	2.675::	2.500	1.823	0.838	0.300	0.770	- -
632	20 40 00.4	+67 35 42.7	13.785	3.246	2.664	1.887	0.840	0.311	0.797	g3 V
633	20 40 01.6	+67 34 13.3	9.790	5.785	5.024	3.632	1.418	0.633	1.312	k3.7 II-III
634	20 40 02.4	+67 28 48.6	13.413	4.048	3.565	2.404	0.835	0.568	0.933	k5.5 V
635	20 40 02.8	+68 11 59.9	14.074	3.114	2.552	1.765	0.795	0.291	0.749	g1 IV-V
636	20 40 04.2	+67 36 57.8	14.453	3.187	2.432	1.669	0.772	0.250	0.731	f7 IV
637	20 40 04.5	+67 40 51.8	16.377			2.303	1.022	0.388	0.916	g0 -
638	20 40 04.7	+68 13 33.5	16.573		2.396:	1.786	0.827	0.302	0.792	f9 V
639	20 40 05.0	+67 42 59.3	15.635	3.425:	2.781	1.930	0.880	0.288	0.835	g1.5 IV
640	20 40 05.1	+68 15 05.1	16.555			2.388	1.078	0.391	1.081	g4-g2 IV
641	20 40 05.5	+68 23 05.8	12.859	5.601:	4.929	3.430	1.335	0.621	1.219	k4.2 III
642	20 40 08.1	+68 06 24.1	12.575	3.429	2.892	1.941	0.821	0.337	0.775	g8.5 IV-V
643	20 40 08.8	+67 22 58.9	12.502	3.834	3.345	2.217	0.786	0.497	0.853	k3.7 V
644	20 40 09.8	+67 40 00.0	11.721	2.209	1.798	1.226	0.518	0.195	0.515	f9 V
645	20 40 11.2	+68 06 58.9	16.471		2.560::	1.941	0.838	0.314	0.773	g2-g0 IV
646	20 40 11.3	+68 19 20.8	15.788		3.476::	2.469	1.039	0.436	0.984	k0 IV-V
647	20 40 11.4	+67 41 59.9	13.977	3.401	2.713	1.889	0.837	0.302	0.808	g0 IV
648	20 40 11.4	+67 47 03.3	13.274	3.286	2.434	1.606	0.733	0.254	0.683	f4 III
649	20 40 11.9	+67 33 22.4	13.760	3.209	2.398	1.575	0.711	0.246	0.649	f5-f0 IV
650	20 40 11.9	+67 34 12.6	15.380	3.315::	2.681	1.820	0.799	0.291	0.824	g1.5 IV-V
651	20 40 12.3	+67 17 53.5	11.514	2.640	2.232	1.512	0.617	0.271	0.612	g5.5 V
652	20 40 12.4	+67 41 08.2	14.010	3.361	2.786	1.972	0.866	0.329	0.842	g5.5 V
653	20 40 12.7	+67 33 39.1	12.842	4.005	3.370	2.328	0.986	0.381	0.938	g8.5 IV
654	20 40 12.8	+67 24 00.7	14.198	4.069	3.608	2.431	0.838	0.575	0.913	k5.5 V
655	20 40 13.9	+67 36 49.8	16.420			1.877	0.844	0.294	0.832	g1 V
656	20 40 15.0	+68 21 31.1	13.940	4.507	3.897:	2.668	1.140	0.468	1.026	k0.7 IV
657	20 40 15.0	+67 43 25.0	15.240	3.721::	3.005	2.132	0.922	0.354	0.869	g2.5 III
658	20 40 15.4	+67 32 22.4	16.176		2.628	1.954	0.843	0.300	0.871	g1-g5 V
659	20 40 15.6	+68 17 36.0	14.883	3.232	2.502	1.747	0.828	0.280	0.772	f6 IV
660	20 40 15.9	+68 01 16.8	16.391			2.101	0.989	0.411	0.880	g1 V
661	20 40 18.9	+67 41 19.4	11.138	4.657	4.008	2.755	1.103	0.438	1.020	k1.7 III
662	20 40 18.9	+67 38 27.7	16.353		2.531	1.643	0.820	0.311	0.752	f0 III
663	20 40 19.0	+67 41 49.8	15.300	3.718:	3.100:	2.152	0.939	0.344	0.893	g6 IV
664	20 40 19.0	+68 03 11.7	13.792	5.119	4.558:	3.111	1.227	0.557	1.139	k3.2 III
665	20 40 20.1	+67 53 18.0	14.734	3.369:	2.711	1.941	0.852	0.320	0.838	g1.5 IV
666	20 40 20.7	+67 50 27.1	15.579			2.454	1.042	0.426	1.044	k0 d? IV-V
667	20 40 21.4	+68 10 54.9	16.209			2.141	0.914	0.456	0.861	g9.5 IV-V
668	20 40 23.1	+68 19 36.1	15.827	3.113::	2.508:	1.769	0.827	0.336	0.721	f9 V
669	20 40 24.2	+67 32 02.1	14.366	3.669:	2.839	2.026	0.935	0.305	0.911	f8 II
670	20 40 25.1	+68 22 58.7	16.101	2.880::	2.170	1.543	0.745	0.235	0.685	f5 d? IV
671	20 40 25.1	+67 41 39.6	15.302			2.510	1.092	0.460	1.062	k0.5 d? V
672	20 40 28.0	+67 51 15.7	15.951		3.070::	2.221	0.986	0.355	0.905	g3-g8 III
673	20 40 28.6	+67 44 19.3	11.439	3.087	2.181	1.261	0.587	0.197	0.495	a6 IV

Continued **Table A.1**

No	RA(2000)	DEC(2000)	V	U-V	P-V	X-V	Y-V	Z-V	V-S	Photom.
	h m s	° ′ ″	mag	mag	mag	mag	mag	mag	mag	sp.type
674	20 40 29.0	+68 18 20.9	15.540	3.648::	3.225	2.158	0.904	0.416	0.858	k1 V
675	20 40 29.4	+68 09 22.3	13.842	3.016	2.257	1.486	0.686	0.247	0.601	f3 IV
676	20 40 31.0	+67 53 15.5	10.324	2.219	1.734	1.124	0.467	0.171	0.450	f7 IV-V
677	20 40 33.6	+68 18 29.2	15.732		2.797:	1.922	0.854	0.317	0.820	g1 IV-V
678	20 40 33.8	+68 19 48.9	15.419			2.780	1.160	0.522	1.115	k2.7 V
679	20 40 33.8	+67 37 32.7	16.141	3.119::	2.594::	1.737	0.853	0.280	0.782	f9 V
680	20 40 33.9	+68 08 03.3	16.490			2.358	0.976	0.559	0.982	k3-k7 md V
681	20 40 34.6	+67 39 09.0	16.475			2.152	0.955	0.410	0.834	g7 V
682	20 40 35.6	+67 46 51.7	11.948	2.497	2.080	1.393	0.571	0.225	0.565	g4 V
683	20 40 35.7	+68 02 56.8	16.232			1.884	0.850	0.320	0.809	g1.5 V
684	20 40 36.1	+67 42 45.2	14.658	3.502	2.901	2.075	0.909	0.376	0.837	g7 IV-V
685	20 40 36.5	+68 24 23.5	16.448		2.208::	1.520	0.674	0.174	0.742	f7 V
686	20 40 36.7	+67 51 06.0	16.549			2.126	0.973	0.465	0.893	g8 IV
687	20 40 37.7	+68 07 07.3	15.651	2.817::	2.184	1.501	0.672	0.257	0.630	f7 IV
688	20 40 40.3	+67 51 40.9	13.946	3.181	2.494	1.776	0.812	0.254	0.839	f7 d? IV-V
689	20 40 42.0	+68 04 00.7	15.631	3.134:	2.510	1.782	0.786	0.320	0.807	g0-g5 IV-V
690	20 40 42.7	+68 10 28.3	13.928	3.481	3.059	1.986	0.728	0.424	0.766	k3 V
691	20 40 43.3	+68 00 15.3	15.869		2.751::	1.981	0.937	0.337	0.929	f9.5 V
692	20 40 45.0	+67 33 30.5	13.657	4.109	3.623	2.407	0.839	0.553	0.917	k6 V
693	20 40 45.5	+68 19 46.1	15.415	3.290:	2.586	1.848	0.829	0.293	0.790	f9.5 IV
694	20 40 46.0	+68 00 06.0	15.692		2.751	2.025	0.902	0.333	0.877	g2.5 IV-V
695	20 40 47.5	+68 01 59.1	13.699	3.294	2.383	1.467	0.677	0.240	0.617	a9 IV
696	20 40 47.6	+67 14 26.6	15.214	4.069::	3.804::	2.642	1.173	0.475	1.111	k0.5 IV-V
697	20 40 48.0	+67 40 13.9	15.818	3.028::	2.421:	1.770	0.828	0.280	0.785	f8 V
698	20 40 49.1	+67 49 07.5	15.477			2.730	1.166	0.481	1.066	k0.7 IV
699	20 40 50.6	+67 54 08.3	14.178	4.389:	3.859	2.724	1.004	0.644	1.120	m0-k6 V
700	20 40 52.0	+68 06 02.1	15.966		2.806:	1.978	0.844	0.385	0.792	g8-k1 md V
701	20 40 52.2	+68 22 27.1	16.488			1.774	0.893	0.443	0.714	- -
702	20 40 52.5	+68 15 37.4	16.388		2.734:	1.980	0.927	0.336	0.869	g0 V
703	20 40 53.1	+68 25 02.0	14.729	3.243	2.691	1.808	0.753	0.301	0.749	g7 IV-V
704	20 40 55.3	+67 47 07.8	16.169		2.653	1.823	0.819	0.330	0.801	g4-g0 IV-V
705	20 40 56.7	+68 05 26.7	14.450	3.669	3.043	2.096	0.912	0.376	0.868	g8.5 IV-V
706	20 40 56.9	+68 04 31.5	15.439	3.626	3.046	2.090	0.938	0.367	0.854	g6 IV-V
707	20 40 58.1	+68 24 53.3	15.199	2.774	2.168	1.536	0.708	0.261	0.698	f6 IV-V
708	20 40 58.3	+68 15 16.3	15.526	3.459:	2.729::	1.938	0.920	0.350	0.795	f7 IV
709	20 41 00.7	+68 10 48.6	12.421	3.850	3.388	2.242	0.792	0.518	0.859	k5.5 V
710	20 41 01.0	+67 46 59.5	15.824	3.170:	2.667	1.834	0.816	0.277	0.799	g5.5 V
711	20 41 01.7	+67 44 59.0	15.356	3.472:	2.837	2.005	0.892	0.309	0.858	g2.5 IV
712	20 41 03.4	+68 04 32.5	16.320		2.532	1.745	0.814	0.268	0.699	f6-f2 IV-V
713	20 41 03.6	+67 40 58.1	14.887	3.524	2.920	2.006	0.896	0.344	0.852	g5.5 d IV-V
714	20 41 03.9	+67 17 36.9	15.375	3.189:	2.295	1.327	0.606	0.212	0.483	a6 IV
715	20 41 04.6	+68 21 22.5	15.920	2.963::	2.317:	1.699	0.789	0.313	0.757	f7 V
716	20 41 05.3	+67 11 36.5	12.975	3.696	2.912	2.082	0.949	0.336	0.919	f9.5 IV
717	20 41 05.5	+67 51 11.9	13.778	4.054	3.445	2.370	1.013	0.406	0.956	k0 IV
718	20 41 05.7	+67 27 28.4	15.581			2.794	1.123	0.661	1.164	m1 md V
719	20 41 05.9	+67 50 10.5	12.469	4.390	3.736	2.589	1.086	0.417	1.007	k0 III

Continued **Table A.1**

No	RA(2000)	DEC(2000)	V	U-V	P-V	X-V	Y-V	Z-V	V-S	Photom.
	h m s	° ′ ″	mag	mag	mag	mag	mag	mag	mag	sp.type
720	20 41 05.9	+67 16 21.0	14.637	3.170	2.512	1.802	0.839	0.304	0.793	f7 V
721	20 41 06.0	+68 18 21.7	16.124		2.560	1.823	0.899	0.324	0.786	f4-f0 V
722	20 41 06.1	+67 47 37.8	15.267	3.716:	3.215::	2.215	0.975	0.350	0.940	g9-k1 V
723	20 41 06.3	+68 20 44.3	14.062	4.232:	3.641	2.521	1.060	0.429	0.978	k0.5 IV
724	20 41 07.1	+68 11 18.4	14.625	3.408	2.553	1.634	0.756	0.267	0.681	f1 IV
725	20 41 07.5	+68 04 59.3	13.846	2.916	2.314	1.603	0.731	0.256	0.685	f8 IV-V
726	20 41 08.4	+68 06 09.6	14.420	3.233	2.659	1.825	0.819	0.315	0.774	g3 IV-V
727	20 41 09.1	+68 07 36.7	15.814	2.956	2.402:	1.722	0.803	0.318	0.755	f9.5 V
728	20 41 09.2	+67 36 45.7	15.938			2.443	1.026	0.403	1.068	k0 IV-V
729	20 41 10.0	+68 05 34.6	12.392	4.541	3.908	2.640	1.048	0.454	0.974	k2 III
730	20 41 10.6	+67 40 20.9	16.679			2.267	1.003	0.366	0.986	g5.5-g2 IV
731	20 41 12.1	+67 50 02.9	16.476		2.704::	1.997	0.930	0.374	0.869	g0 V
732	20 41 12.4	+68 05 47.8	15.694	3.155:	2.628:	1.875	0.828	0.348	0.802	g5 V
733	20 41 13.0	+67 15 53.3	14.165	3.115	2.362	1.655	0.768	0.274	0.705	f6 IV
734	20 41 16.2	+67 42 19.8	15.643	3.446::	2.950	2.097	0.924	0.363	0.894	g8 V
735	20 41 16.4	+67 17 13.3	15.527	3.245::	2.455	1.768	0.804	0.300	0.787	f8 IV
736	20 41 17.3	+67 38 20.3	15.934		3.162:	2.149	0.963	0.326	0.939	g0 II
737	20 41 17.3	+67 48 07.8	16.340			2.120	0.920	0.313	0.921	g2-g8 III
738	20 41 17.6	+67 22 56.6	15.840			2.763	1.073	0.699	1.105	m0 md V
739	20 41 18.0	+68 12 19.8	14.024	3.174	2.587	1.811	0.823	0.319	0.759	g1 IV-V
740	20 41 18.2	+67 43 46.6	16.717			2.095	0.997	0.395	0.940	- -
741	20 41 18.5	+68 24 15.2	11.637	5.687	4.959	3.464	1.343	0.645	1.234	k4.5 III
742	20 41 18.6	+68 18 24.4	13.681	3.583	2.989	1.996	0.857	0.343	0.817	g8.5 IV
743	20 41 20.1	+67 49 03.7	15.750	3.324::	2.513:	1.813	0.838	0.296	0.753	f6 III
744	20 41 20.3	+68 24 00.4	14.760	3.146	2.521	1.733	0.794	0.291	0.673	f9.5 IV
745	20 41 20.3	+68 02 44.5	16.459		2.618:	1.889	0.847	0.375	0.784	g3-g8 V
746	20 41 20.6	+68 00 31.8	15.904			2.678	1.060	0.705	1.101	m0-k3 md V
747	20 41 21.0	+68 14 34.2	15.917		2.880:	2.164	0.970	0.356	0.931	g1-g5 V
748	20 41 21.6	+68 07 48.6	14.562	3.000	2.405	1.726	0.778	0.295	0.718	f9.5 V
749	20 41 22.4	+68 25 02.1	14.482		4.126:	2.793	1.091	0.512	1.012	k3.2 III
750	20 41 23.5	+67 51 45.7	14.888	3.382	2.784	1.935	0.843	0.340	0.799	g5.5 IV-V
751	20 41 24.5	+67 31 22.1	14.733			4.103	1.906	0.629	1.847	m4.5 II-III
752	20 41 24.9	+67 16 02.0	15.212	3.140	2.454	1.708	0.781	0.289	0.740	f8 IV
753	20 41 26.3	+68 17 30.8	15.514		2.878:	2.023	0.908	0.392	0.830	g6 V
754	20 41 27.5	+68 04 00.5	15.342	3.023	2.310	1.628	0.776	0.276	0.699	f4 IV-V
755	20 41 28.5	+67 32 20.7	15.796		3.159:	2.295	1.019	0.376	0.977	g5.5-g2 IV-V
756	20 41 28.5	+68 21 48.1	15.339	3.547::	3.066::	2.014	0.827	0.388	0.825	k1 V
757	20 41 28.9	+68 16 33.5	15.175	3.722:	3.133:	2.153	0.901	0.379	0.881	k0 IV-V
758	20 41 28.9	+68 11 00.5	15.795		2.637	1.883	0.887	0.313	0.867	f8 V
759	20 41 29.7	+68 10 15.9	15.772	3.159::	2.587::	1.795	0.852	0.301	0.815	f9.5 V
760	20 41 29.9	+68 06 09.6	16.257		2.553	1.770	0.808	0.330	0.778	g0 IV-V
761	20 41 30.5	+67 57 27.8	11.523	2.689	2.267	1.493	0.600	0.241	0.598	g5.5 V
762	20 41 30.9	+68 10 50.9	14.523	3.383:	2.695	1.871	0.870	0.312	0.817	f9 IV-V
763	20 41 31.3	+67 45 50.9	13.606	3.392	2.715	1.968	0.892	0.333	0.830	g1 IV
764	20 41 32.4	+67 59 14.3	13.890	3.297	2.550	1.738	0.810	0.294	0.751	f5 IV
765	20 41 33.4	+67 53 17.4	15.554			3.126	1.390	0.489	1.373	- -

Continued **Table A.1**

No	RA(2000)	DEC(2000)	V	U-V	P-V	X-V	Y-V	Z-V	V-S	Photom.
	h m s	° ′ ″	mag	mag	mag	mag	mag	mag	mag	sp.type
766	20 41 35.5	+68 02 14.9	15.410	3.097	2.441	1.741	0.817	0.284	0.779	f6 IV-V
767	20 41 35.5	+68 23 23.3	15.017	2.673:	2.097	1.440	0.656	0.264	0.670	f6 IV-V
768	20 41 35.8	+67 59 29.1	16.571			1.882	0.845	0.329	0.861	g2 V
769	20 41 37.7	+67 14 04.0	15.970		3.043::	2.202	0.957	0.379	0.890	g7-g2 IV-V
770	20 41 39.5	+68 17 41.3	15.761	3.060::	2.514:	1.758	0.755	0.330	0.680	g4 IV-V
771	20 41 39.7	+67 38 31.5	16.364		2.694:	1.967	0.989	0.345	0.900	f6 md V
772	20 41 40.4	+68 22 08.4	15.830	3.454::	2.859:	1.970	0.861	0.377	0.819	g8 V
773	20 41 41.5	+68 08 36.7	15.525	3.315	2.818:	1.941	0.853	0.376	0.848	g8.5 V
774	20 41 41.7	+67 44 11.5	15.749		3.023::	2.175	0.967	0.360	0.912	g2.5-g8 d? IV
775	20 41 42.2	+68 07 23.0	14.849	3.210	2.560	1.807	0.812	0.293	0.763	f9.5 IV
776	20 41 42.3	+67 24 25.1	12.801	4.142	3.657	2.472	0.854	0.579	0.938	k5 V
777	20 41 42.7	+68 18 26.3	16.485			1.992	0.927	0.387	0.771	g1 V
778	20 41 42.9	+67 13 18.3	12.345	4.243	3.607	2.481	1.027	0.404	0.950	k0 III
779	20 41 43.3	+67 40 49.5	15.276	3.705:	2.914:	2.098	0.970	0.332	0.916	f9.5 II
780	20 41 43.6	+67 58 51.8	12.285	5.486	4.770	3.278	1.337	0.554	1.271	k2.7 III
781	20 41 44.6	+68 12 36.3	13.180	4.006	3.327	2.337	1.034	0.396	1.014	g7 IV
782	20 41 45.4	+67 48 49.1	12.218	4.459	3.801	2.654	1.129	0.413	1.061	g9 III
783	20 41 48.1	+68 18 58.2	14.523	3.918	3.293	2.239	0.943	0.383	0.892	g9 IV
784	20 41 50.5	+67 18 33.8	15.528	3.265	2.669:	1.880	0.907	0.369	0.801	f8 V
785	20 41 50.5	+67 45 55.5	13.746	5.371::	4.595	3.213	1.303	0.534	1.208	k2 III
786	20 41 51.3	+67 31 56.8	15.105	3.490	2.786	1.981	0.942	0.343	0.916	f9 IV-V
787	20 41 51.9	+67 33 22.2	14.149	3.459	2.772	1.982	0.914	0.334	0.898	f9 IV-V
788	20 41 51.9	+68 04 16.9	13.612	5.138:	4.353	3.008	1.162	0.553	1.066	k3 III
789	20 41 52.1	+67 15 47.7	13.359	3.200	2.578	1.853	0.820	0.329	0.785	g1.5 d IV-V
790	20 41 52.7	+68 07 25.5	15.382		3.713	2.503	0.985	0.561	1.030	k3.7 md V
791	20 41 53.1	+68 11 19.1	16.121			2.244	1.032	0.373	1.014	g1 IV
792	20 41 53.9	+67 34 37.3	15.557	3.557:	3.030	2.106	0.940	0.361	0.929	g8 V
793	20 41 53.9	+67 45 43.5	16.172			2.394	1.094	0.361	1.121	- -
794	20 41 54.9	+68 13 06.2	12.789	3.498:	2.631	1.863	0.874	0.314	0.819	f6 d IV
795	20 41 55.3	+68 18 24.3	12.374	2.815	2.267	1.567	0.687	0.261	0.654	g0 IV-V
796	20 41 55.9	+68 23 51.6	14.739	3.539::	3.096	2.011	0.810	0.386	0.805	k1.5 V
797	20 41 56.7	+67 33 31.3	15.113			2.819	1.208	0.474	1.146	g9.5-k4 III
798	20 41 57.2	+68 08 01.7	12.799	4.851	4.165	2.917	1.206	0.481	1.112	k1 III
799	20 41 57.7	+67 14 21.4	15.619	3.345::	2.793:	2.018	0.888	0.327	0.873	g5 V
800	20 41 58.0	+67 50 12.4	15.388		3.465::	2.664	1.165	0.467	1.099	g9.5-g2 IV
801	20 41 58.3	+68 22 35.8	15.348	2.629	2.093	1.514	0.656	0.236	0.672	f9 V
802	20 41 58.5	+67 24 05.6	15.318		3.424	2.513	1.162	0.451	1.181	g5.5-g0 d IV-V
803	20 41 58.5	+67 15 01.3	14.866	3.279	2.593	1.875	0.846	0.316	0.781	g0 IV
804	20 42 00.6	+67 36 15.9	13.983	3.749	3.035	2.141	0.950	0.347	0.903	g2 III
805	20 42 01.1	+67 39 46.1	12.819	4.193	3.700	2.529	0.888	0.608	0.990	k5.5 d? V
806	20 42 01.3	+68 08 46.8	15.895			2.890	1.157	0.516	1.112	k1.7 III
807	20 42 02.7	+67 15 25.2	15.197	3.038	2.303	1.589	0.739	0.291	0.695	f6 IV
808	20 42 02.7	+67 17 27.2	16.665			1.963	0.910	0.407	0.830	- -
809	20 42 02.9	+67 31 17.8	14.888	4.119::	3.415:	2.421	1.110	0.418	1.060	g5.5 IV
810	20 42 03.8	+67 50 33.2	15.711		2.859:	2.051	0.919	0.355	0.899	g5-g0 V
811	20 42 05.4	+68 19 33.6	15.636	3.055:	2.633:	1.780	0.753	0.347	0.726	g9 V

Continued **Table A.1**

No	RA(2000)	DEC(2000)	V	U-V	P-V	X-V	Y-V	Z-V	V-S	Photom.
	h m s	° ′ ″	mag	mag	mag	mag	mag	mag	mag	sp.type
812	20 42 07.0	+67 50 25.7	16.071			2.236	1.034	0.371	0.992	g1-g5 IV
813	20 42 07.4	+68 21 22.7	12.630	3.561	2.998	1.989	0.806	0.355	0.770	k0 IV-V
814	20 42 08.5	+67 33 09.7	15.192			2.798	1.238	0.452	1.176	g8 III
815	20 42 09.7	+67 50 34.3	16.457			2.436	1.119	0.430	1.094	g7 V
816	20 42 09.8	+68 21 01.8	14.898	2.603:	2.029	1.422	0.664	0.253	0.608	f6 V
817	20 42 10.4	+68 06 16.2	15.539	3.131::	2.572	1.812	0.841	0.274	0.756	g1.5-f8 IV-V
818	20 42 11.1	+68 13 50.8	13.744	3.022	2.404	1.717	0.783	0.281	0.739	f8 V
819	20 42 11.7	+67 37 07.5	13.943	4.012	3.529	2.333	0.826	0.567	0.914	k8-k3 V
820	20 42 11.9	+68 23 56.7	14.434	2.664	2.117	1.472	0.681	0.256	0.673	f7 V
821	20 42 12.7	+68 15 43.3	15.903	3.005:	2.461:	1.714	0.801	0.372	0.686	g1 V
822	20 42 13.4	+68 20 43.5	14.195	3.049	2.542	1.738	0.740	0.316	0.707	g7 V
823	20 42 14.0	+67 59 14.9	15.958		3.213::	2.246	1.038	0.408	1.009	g5.5-f8 V
824	20 42 14.1	+67 19 43.4	15.814		2.753	2.075	0.937	0.424	0.864	g3 d V
825	20 42 14.4	+68 25 01.3	15.275	2.849:	2.346:	1.583	0.690	0.281	0.694	g4-g1 V
826	20 42 14.9	+67 17 41.7	16.316		2.494	1.847	0.857	0.313	0.833	f9 V
827	20 42 15.5	+67 32 16.3	14.944	3.968:	3.236:	2.324	1.090	0.409	1.065	g1-g4 IV
828	20 42 15.8	+67 11 44.2	15.306	3.410	2.851	1.927	0.845	0.353	0.772	g7 V
829	20 42 15.9	+67 49 59.8	14.778	3.700	2.911	2.056	0.997	0.334	0.992	f8-f2 d IV
830	20 42 16.1	+67 44 21.3	14.731	4.153	3.697	2.545	0.865	0.594	0.969	k6 V
831	20 42 16.5	+68 03 28.8	16.027	3.104:	2.454:	1.745	0.783	0.288	0.771	f9.5 IV
832	20 42 17.7	+68 14 08.2	15.903	3.187::	2.663:	1.904	0.850	0.371	0.785	g5 V
833	20 42 20.1	+68 04 29.4	16.256			2.424	1.118	0.438	0.993	g6 IV-V
834	20 42 20.8	+68 24 25.2	13.075	2.540	1.980	1.320	0.589	0.221	0.581	f5 IV-V
835	20 42 21.0	+67 12 40.6	15.689		2.895	2.095	0.917	0.328	0.839	g2-g8 md III
836	20 42 23.3	+67 15 23.1	13.698	2.842	2.261	1.627	0.763	0.277	0.705	f8 V
837	20 42 23.5	+68 08 43.0	16.003			2.535	0.973	0.520	1.083	k3.2 d? V
838	20 42 25.1	+68 18 03.2	15.794	2.930	2.248:	1.563	0.736	0.293	0.707	f4 d V
839	20 42 25.4	+68 17 18.2	11.771	3.850	3.197	2.201	0.937	0.369	0.874	g8 IV
840	20 42 25.7	+67 58 22.1	13.367	5.619::	5.054	3.481	1.398	0.599	1.293	k3.2-k8 III
841	20 42 26.2	+67 32 06.5	15.319	3.939::	3.079	2.243	1.040	0.339	1.048	- -
842	20 42 26.5	+67 31 25.7	13.886	4.065:	3.167	2.303	1.120	0.399	1.080	f9 IV
843	20 42 27.7	+67 48 11.2	14.834	4.105	3.403:	2.436	1.085	0.408	1.059	g6 IV
844	20 42 27.9	+68 23 45.9	14.752	2.983:	2.489	1.652	0.694	0.296	0.698	g6 V
845	20 42 28.8	+67 12 28.0	16.548			1.882	0.913	0.326	0.817	f3 IV-V
846	20 42 29.5	+68 11 45.2	16.199		2.651:	1.745	0.848	0.317	0.811	f1 IV
847	20 42 31.3	+68 15 04.7	15.855	2.833	2.202	1.511	0.694	0.242	0.721	f5-f9 V
848	20 42 32.5	+67 13 06.1	14.800	3.538:	2.976	2.098	0.925	0.365	0.862	g8 V
849	20 42 33.4	+68 13 16.6	15.395	2.911:	2.326	1.638	0.718	0.285	0.706	g0 V
850	20 42 33.5	+67 37 17.6	16.294			2.104	0.900	0.412	0.903	g9 IV-V
851	20 42 34.7	+67 14 27.2	16.567			2.144	0.945	0.454	0.927	g7 d III
852	20 42 34.9	+67 10 33.0	16.561		2.284:	1.749	0.851	0.367	0.781	g1 V
853	20 42 35.1	+67 12 46.8	14.067	4.413:	3.750:	2.614	1.106	0.412	1.016	g9 III
854	20 42 35.2	+68 18 23.7	13.131	2.516	2.000	1.352	0.601	0.217	0.569	f7 V
855	20 42 35.5	+68 20 10.9	14.801	3.036	2.455	1.738	0.782	0.327	0.729	g1 V
856	20 42 35.7	+67 36 35.4	10.034	2.193	1.591	0.822	0.338	0.118	0.283	a7 V
857	20 42 36.3	+67 17 39.1	14.142	4.323	3.603	2.459	1.017	0.442	0.962	k0.7 III

Continued **Table A.1**

No	RA(2000)	DEC(2000)	V	U-V	P-V	X-V	Y-V	Z-V	V-S	Photom.
	h m s	° ′ ″	mag	mag	mag	mag	mag	mag	mag	sp.type
858	20 42 36.3	+68 13 11.6	13.980	3.143	2.481	1.753	0.786	0.285	0.749	f9.5 IV
859	20 42 36.8	+68 20 55.8	15.580	3.730::	3.216::	2.107	0.915	0.386	0.835	k0.5 V
860	20 42 37.0	+67 21 45.9	16.069		2.599:	1.748	0.844	0.300	0.784	f2 IV-V
861	20 42 37.3	+68 00 09.4	15.906	2.997::	2.507::	1.778	0.835	0.258	0.785	g0 V
862	20 42 37.8	+68 23 14.9	15.699	2.537:	2.103:	1.413	0.634	0.223	0.642	g0 md V
863	20 42 38.5	+68 05 12.4	15.097	3.534	2.840	1.983	0.891	0.320	0.865	g1 IV
864	20 42 39.0	+67 49 18.7	14.340		4.560:	3.519	1.538	0.589	1.460	k1-g2 III
865	20 42 39.3	+68 01 34.5	15.680			2.578	1.096	0.459	1.029	k0.5 IV
866	20 42 39.4	+67 10 39.0	15.494	3.039:	2.292:	1.490	0.668	0.252	0.688	f5-f1 III
867	20 42 40.2	+67 53 42.6	16.031			2.402	1.166	0.450	1.103	g0 V
868	20 42 40.3	+68 12 31.5	15.167	2.814:	2.261	1.652	0.745	0.290	0.703	f9 V
869	20 42 41.0	+68 15 16.2	15.063		3.728:	2.546	0.880	0.605	0.989	k6 V
870	20 42 41.1	+68 09 14.4	14.045	3.122	2.452	1.696	0.775	0.278	0.696	f7 IV
871	20 42 42.3	+67 15 48.0	15.963		2.974:	2.065	0.943	0.385	0.867	g5.5 V
872	20 42 42.7	+67 15 18.8	14.559	3.352	2.695	1.855	0.861	0.338	0.756	f9.5 IV-V
873	20 42 43.1	+68 22 53.3	12.772	4.073	3.477	2.367	0.949	0.404	0.885	k0.7 IV
874	20 42 43.5	+68 03 15.2	15.141	3.890:	3.124:	2.215	1.002	0.385	0.954	g1.5 II
875	20 42 43.5	+67 10 03.7	14.899	2.990	2.317	1.709	0.770	0.290	0.702	f8-f5 V
876	20 42 44.7	+68 03 32.1	15.525		3.585:	2.621	1.014	0.594	1.053	k3.2-m0 md V
877	20 42 44.7	+68 11 29.4	15.506			2.622	0.954	0.601	1.012	k7-m0 V
878	20 42 45.4	+68 05 05.1	16.504			2.418	0.998	0.406	0.991	k0-k3 III
879	20 42 45.6	+68 07 18.8	13.860	3.418	2.793	1.972	0.883	0.331	0.824	g3 IV
880	20 42 45.8	+67 36 04.5	14.569		3.997:	2.787	1.159	0.473	1.149	k2-k0 III
881	20 42 46.6	+68 12 09.4	16.601	2.727		1.751	0.805	0.293	0.786	f9 V
882	20 42 46.6	+68 10 52.6	13.402	4.778:	4.057	2.817	1.160	0.466	1.085	k1 III
883	20 42 48.2	+67 37 41.4	16.037			2.802	1.189	0.474	1.067	k0 III
884	20 42 48.7	+68 12 30.6	11.050	3.781	3.152	2.160	0.893	0.342	0.829	g8 III
885	20 42 49.0	+68 17 58.7	14.064	4.783::	3.976:	2.752	1.080	0.480	0.998	k2 III
886	20 42 49.5	+68 06 24.7	15.564	3.411:	2.637:	1.865	0.871	0.292	0.816	f7 II
887	20 42 50.4	+68 08 37.5	13.017	2.961	2.553	1.669	0.656	0.281	0.661	k0 V
888	20 42 51.7	+67 21 57.7	16.273		2.644:	1.870	0.873	0.346	0.855	g0 IV-V
889	20 42 52.3	+68 23 39.3	15.919	3.062:	2.417:	1.691	0.721	0.289	0.722	g0 IV
890	20 42 53.2	+68 03 59.6	14.539	2.872	2.289	1.608	0.735	0.263	0.691	f8 V
891	20 42 53.6	+67 10 19.6	13.972	3.106	2.330	1.551	0.749	0.283	0.565	f4-a9 d III
892	20 42 54.7	+67 23 16.1	14.316	3.597	2.949	2.021	0.909	0.339	0.852	g3 IV
893	20 42 55.0	+67 15 36.3	14.235	4.491::	3.765	2.767	1.098	0.632	1.197	m2 md V
894	20 42 55.1	+68 19 19.2	16.351		2.504:	1.699	0.769	0.310	0.704	g1.5-f6 IV
895	20 42 55.2	+68 01 14.0	14.007	3.179	2.522	1.764	0.756	0.309	0.764	g0 IV
896	20 42 55.3	+68 01 36.8	14.605	3.092	2.371	1.637	0.765	0.262	0.703	f6 IV
897	20 42 57.3	+68 06 38.6	15.196			2.939	1.194	0.500	1.102	k1.5 III
898	20 42 58.1	+67 24 26.5	16.684			1.967	0.913	0.336	0.924	g1 V
899	20 42 59.7	+68 23 52.8	15.850		2.896:	1.808	0.744	0.385	0.773	k1.5 V
900	20 43 00.6	+67 53 27.5	13.997	3.142	2.730	1.793	0.711	0.373	0.725	k2-m3 V
901	20 43 00.6	+67 25 00.8	15.358	3.784:	3.124:	2.266	1.022	0.371	0.988	g5 IV-V
902	20 43 00.8	+67 15 09.6	15.893	3.223:	2.553:	1.818	0.811	0.300	0.826	g0 IV
903	20 43 01.7	+68 06 52.9	15.433			2.785	1.092	0.699	1.145	k9 md V

Continued **Table A.1**

No	RA(2000)	DEC(2000)	V	U-V	P-V	X-V	Y-V	Z-V	V-S	Photom.
	h m s	° ′ ″	mag	mag	mag	mag	mag	mag	mag	sp.type
904	20 43 01.8	+67 13 53.8	16.136			2.463	1.036	0.502	0.977	k2 V
905	20 43 02.6	+68 08 24.8	14.017	3.571	3.153	2.076	0.754	0.428	0.814	k3 V
906	20 43 02.8	+67 24 25.5	15.168	3.660::	3.023	2.092	0.950	0.383	0.894	g5.5 IV-V
907	20 43 03.3	+67 21 44.1	13.036	2.977	2.344	1.644	0.753	0.273	0.701	f7 IV-V
908	20 43 03.8	+67 24 00.1	15.438	3.604:	2.971:	2.051	0.917	0.347	0.865	g4 IV
909	20 43 04.0	+68 15 04.3	16.067	2.853:	2.343:	1.702	0.731	0.290	0.748	g1-g7 md V
910	20 43 04.1	+68 18 07.2	16.444	2.891::	2.514	1.693	0.793	0.331	0.726	- -
911	20 43 04.4	+68 06 48.6	13.756	3.018	2.311	1.589	0.741	0.267	0.703	f6 IV
912	20 43 04.6	+68 11 25.2	13.461	4.335:	3.678	2.492	1.017	0.411	0.958	k0.7 IV
913	20 43 05.1	+67 31 53.4	14.119	4.313:	3.413	2.525	1.186	0.426	1.187	g0-f8 md II
914	20 43 06.3	+67 28 07.8	14.445	3.763	2.996	2.201	1.023	0.375	0.986	g0 IV
915	20 43 07.1	+67 16 39.4	15.897	3.194::	2.471:	1.750	0.797	0.274	0.780	f8-g2 IV
916	20 43 07.2	+67 36 53.5	15.896			2.884	1.225	0.558	1.163	k2.7 V
917	20 43 08.4	+67 57 19.2	14.738	3.385	2.672	1.926	0.907	0.328	0.874	f9-f5 IV-V
918	20 43 09.2	+68 09 06.6	15.307	3.012	2.359	1.647	0.764	0.298	0.725	f7 IV-V
919	20 43 09.6	+67 24 48.0	15.563	3.512:	2.925:	2.047	0.923	0.348	0.893	g5.5 V
920	20 43 10.0	+67 21 12.2	16.170		2.834	1.892	0.871	0.381	0.822	- -
921	20 43 10.4	+67 11 54.0	14.967	2.714	1.897	1.076	0.543	0.195	0.392	b9.5 IV
922	20 43 11.4	+68 15 33.8	14.396	2.504	1.967	1.401	0.646	0.237	0.619	f8 md V
923	20 43 12.0	+67 14 48.1	12.777	3.521	2.620	1.841	0.806	0.291	0.761	f8-g4 II
924	20 43 12.1	+67 12 02.9	14.730	4.460::	3.743:	2.621	1.103	0.424	1.002	g9.5 III
925	20 43 12.9	+68 23 19.6	13.968	2.966	2.480	1.717	0.722	0.309	0.703	g6 V
926	20 43 14.3	+67 12 20.6	16.531			2.007	0.929	0.404	0.792	- -
927	20 43 14.4	+67 10 25.7	14.718	3.099	2.380	1.670	0.786	0.294	0.707	f5 IV-V
928	20 43 14.6	+68 10 49.4	16.107		3.007	2.183	0.947	0.393	0.886	g7-g2 V
929	20 43 16.6	+67 14 45.7	15.501			2.607	1.077	0.460	1.012	k1 IV
930	20 43 17.1	+68 11 45.7	14.365	3.036	2.378	1.646	0.744	0.266	0.693	f7 IV
931	20 43 17.9	+68 08 34.1	15.865	3.094::	2.375:	1.734	0.830	0.302	0.768	f5 IV-V
932	20 43 18.5	+68 19 48.3	16.041	2.901::	2.467	1.704	0.741	0.311	0.738	g5-g8 IV-V
933	20 43 19.3	+67 24 09.4	16.144	3.049::	2.752::	1.949	0.918	0.365	0.914	- -
934	20 43 20.4	+68 15 37.9	13.507	3.191	2.689	1.784	0.764	0.318	0.711	g8 V
935	20 43 20.9	+67 15 31.2	13.557	3.049	2.434	1.743	0.778	0.285	0.719	g0 IV
936	20 43 21.0	+68 16 03.5	14.100	3.639	3.066	2.069	0.891	0.364	0.840	g9 IV
937	20 43 21.5	+68 23 50.0	14.901	2.848	2.221	1.530	0.723	0.289	0.647	f4 V
938	20 43 21.6	+68 20 32.0	15.333	2.891:	2.309	1.586	0.723	0.289	0.682	f9 IV-V
939	20 43 23.8	+67 16 45.0	15.819		2.753:	1.918	0.825	0.337	0.801	g7 V
940	20 43 24.8	+67 14 53.5	15.433		3.648:	2.521	1.061	0.407	0.950	g9 III
941	20 43 25.5	+67 11 34.9	15.812			2.208	0.945	0.419	0.886	g9 IV-V
942	20 43 26.8	+68 20 21.0	13.129	3.621	3.041	2.005	0.808	0.368	0.783	k0.5 IV-V
943	20 43 27.0	+67 20 59.5	15.277	3.043	2.407	1.666	0.814	0.301	0.722	f4 V
944	20 43 27.2	+68 11 34.3	16.352	2.890::	2.344::	1.708	0.776	0.304	0.701	f9.5 V
945	20 43 28.3	+68 16 33.8	16.422	2.491:	2.019:	1.392	0.668	0.215	0.702	f8 md V
946	20 43 29.1	+68 22 04.2	13.948	2.547	2.017	1.406	0.623	0.241	0.626	f8 V
947	20 43 29.6	+67 58 31.0	16.309			2.251	1.005	0.416	0.988	g8.5 md V
948	20 43 30.1	+67 42 05.3	15.090			3.565	1.480	0.583	1.463	m3-k9 III
949	20 43 30.5	+67 39 45.0	15.223	4.064::	3.350	2.358	1.107	0.394	1.097	g3 IV-V

Continued **Table A.1**

No	RA(2000)	DEC(2000)	V	U-V	P-V	X-V	Y-V	Z-V	V-S	Photom.
	h m s	° ′ ″	mag	mag	mag	mag	mag	mag	mag	sp.type
950	20 43 30.8	+67 27 59.2	15.303		3.499::	2.328	1.031	0.415	0.943	g9.5 IV-V
951	20 43 31.8	+67 23 14.9	15.930	3.221::	2.631:	1.914	0.863	0.365	0.829	g2.5-f8 V
952	20 43 32.0	+68 07 15.4	14.130	3.169	2.546	1.768	0.807	0.293	0.770	f9.5 IV-V
953	20 43 32.0	+68 06 35.4	15.025		3.880::	2.682	1.122	0.438	1.086	k0 III
954	20 43 32.5	+67 31 25.5	16.488			1.931	0.946	0.376	0.851	f0-f5 V
955	20 43 33.1	+67 22 11.6	15.951			2.252	0.965	0.415	0.905	k0-g6 V
956	20 43 34.0	+67 19 45.1	15.512	3.873::	3.291::	2.262	0.967	0.375	0.896	k0-g6 IV
957	20 43 34.7	+68 02 42.6	14.944	3.082	2.487:	1.768	0.796	0.287	0.791	g0 V
958	20 43 34.9	+67 39 20.1	13.933	4.424:	3.815	2.738	1.059	0.622	1.144	m1-k4 md V
959	20 43 35.8	+68 05 59.0	14.456		4.337	3.030	1.232	0.536	1.166	k2 III
960	20 43 35.8	+68 04 07.4	16.306			2.088	0.920	0.361	0.968	g5.5 IV-V
961	20 43 36.6	+68 01 54.5	14.160	4.253:	3.507:	2.469	1.052	0.407	1.003	g8.5 III
962	20 43 37.2	+67 19 25.1	16.196		2.475:	1.806	0.830	0.324	0.723	f8 V
963	20 43 37.6	+67 22 05.2	16.511			2.268	0.948	0.380	0.887	g9 IV
964	20 43 37.9	+68 11 23.1	15.910	2.945::	2.301:	1.624	0.702	0.288	0.695	g0 IV
965	20 43 38.2	+68 20 13.8	12.788	4.253	3.600	2.438	0.995	0.416	0.907	k0.5 IV
966	20 43 38.6	+67 23 10.8	16.346		2.669::	1.915	0.912	0.328	0.833	f7 V
967	20 43 39.3	+68 08 42.2	13.869	3.584	3.016	2.071	0.884	0.355	0.848	g8.5 IV-V
968	20 43 40.1	+67 24 41.3	15.104	3.686	3.224::	2.184	0.911	0.395	0.879	k0.7 V
969	20 43 40.2	+68 23 38.1	13.955	2.677	2.039	1.386	0.637	0.257	0.572	f4 V
970	20 43 40.5	+68 06 13.4	15.262	3.437::	2.732	1.882	0.864	0.298	0.833	f9.5-f2 IV
971	20 43 40.5	+68 17 32.4	13.845	2.797	2.248	1.529	0.687	0.258	0.627	f9.5 IV-V
972	20 43 40.6	+68 16 33.3	16.509			1.817	0.764	0.346	0.754	g9 d V
973	20 43 43.0	+67 19 23.2	16.503			1.823	0.774	0.347	0.809	g8.5 md V
974	20 43 43.4	+68 08 31.3	16.654			1.920	0.806	0.367	0.891	g9 d V
975	20 43 43.6	+67 12 29.2	16.680		2.653:	1.958	0.850	0.376	0.772	g8-g2 md V
976	20 43 43.8	+68 14 10.1	16.459			2.462	0.897	0.593	1.009	k5.5 md V
977	20 43 43.9	+68 07 15.2	15.056	3.767	3.067	2.211	0.965	0.364	0.941	g3 IV
978	20 43 44.0	+68 17 53.2	14.156	2.691	2.107	1.457	0.665	0.254	0.588	f5 IV-V
979	20 43 44.1	+67 09 04.9	15.441			2.570	1.032	0.496	0.997	k3 V
980	20 43 44.5	+67 15 23.8	12.369	4.451	3.792	2.569	1.019	0.449	0.951	k1.5 III
981	20 43 44.9	+68 04 48.2	15.588	3.172::	2.529:	1.791	0.854	0.312	0.774	f6 V
982	20 43 45.1	+67 56 40.6	13.477	3.051	2.679	1.759	0.682	0.322	0.688	k0.5 d V
983	20 43 45.8	+67 10 17.4	15.460	3.009:	2.423	1.695	0.764	0.295	0.747	g0 V
984	20 43 46.2	+67 14 27.4	15.645	3.477:	2.932	2.036	0.875	0.366	0.843	g8.5 d V
985	20 43 46.3	+67 25 23.3	12.022	5.375	4.631	3.200	1.246	0.542	1.122	k3 III
986	20 43 46.8	+68 09 25.7	16.200		2.582::	1.797	0.846	0.364	0.749	f9.5 IV-V
987	20 43 47.3	+67 10 39.8	12.243	2.363	1.963	1.366	0.563	0.229	0.564	g1-g5 V
988	20 43 48.7	+67 10 11.2	13.991	3.284	2.551	1.838	0.799	0.311	0.745	g0 IV
989	20 43 48.8	+67 25 39.9	15.958	3.111::	2.451:	1.726	0.789	0.291	0.756	f8 IV
990	20 43 48.8	+67 41 57.7	15.959		3.189:	2.613	1.250	0.465	1.282	- -
991	20 43 49.4	+68 06 18.5	16.238			2.502	1.015	0.570	1.034	k3.2 V
992	20 43 49.4	+67 16 37.5	15.887	2.919:	2.297	1.652	0.777	0.330	0.704	f6 V
993	20 43 49.6	+68 20 27.3	13.823	2.416	1.902	1.306	0.602	0.227	0.583	f6 V
994	20 43 50.4	+67 29 21.5	12.710	2.852	2.206	1.518	0.694	0.246	0.640	f6 IV-V
995	20 43 50.5	+67 21 53.7	16.306		2.831:	1.975	0.822	0.335	0.884	g8.5 V

Continued **Table A.1**

No	RA(2000)	DEC(2000)	V	U-V	P-V	X-V	Y-V	Z-V	V-S	Photom.
	h m s	° ′ ″	mag	mag	mag	mag	mag	mag	mag	sp.type
996	20 43 51.7	+68 01 47.0	13.390	3.192	2.524	1.761	0.792	0.301	0.751	f9 IV
997	20 43 51.7	+67 43 14.3	16.123		2.887::	2.011	0.919	0.353	0.897	g3 V
998	20 43 52.4	+67 11 44.4	14.848	3.092	2.378	1.725	0.790	0.312	0.715	f8 IV
999	20 43 52.5	+67 24 24.9	13.952	5.062::	4.544:	3.231	1.296	0.579	1.197	k4.5 III
1000	20 43 52.8	+67 43 45.1	12.790	3.685	2.796	1.930	0.895	0.322	0.873	f7-g0 II
1001	20 43 53.4	+68 14 24.5	16.213		3.098::	2.252	0.925	0.424	0.847	k0.5 IV-V
1002	20 43 53.9	+67 15 04.6	14.959			2.746	1.090	0.502	1.008	k2.2 III
1003	20 43 55.2	+67 28 01.2	15.757		3.158::	2.253	1.007	0.380	0.918	g5-g8 IV
1004	20 43 55.3	+67 28 32.9	14.931	3.511	2.958	2.011	0.866	0.351	0.835	g9 IV-V
1005	20 43 56.1	+67 43 06.1	14.444	3.939:	3.308	2.278	1.011	0.407	0.942	g8.5 IV
1006	20 43 56.7	+67 41 57.3	13.216	4.265	3.723	2.575	0.921	0.641	1.010	k7-m0 V
1007	20 43 58.4	+68 06 17.8	13.729	3.395	2.832	1.972	0.861	0.326	0.836	g6 IV-V
1008	20 43 58.9	+68 19 38.3	15.160	3.702:	3.300	2.156	0.921	0.374	0.821	k1.5 V
1009	20 43 59.2	+67 56 48.2	16.439			1.941	0.927	0.373	0.859	f6 V
1010	20 43 59.3	+68 00 00.8	14.556	3.614::	2.727:	1.847	0.877	0.559	0.643	g1 IV-V
1011	20 43 59.5	+67 10 30.8	14.309		4.180:	2.937	1.145	0.508	1.076	k2.2 III
1012	20 43 59.7	+68 03 12.3	15.575	3.199::	2.512	1.726	0.816	0.304	0.740	f4 IV-V
1013	20 43 59.9	+68 08 33.1	15.120	3.187::	2.376:	1.672	0.823	0.379	0.693	f6-f8 IV
1014	20 43 59.9	+68 21 58.6	10.094	4.760	4.109	2.802	1.053	0.490	0.963	k3 III
1015	20 43 59.9	+67 09 18.2	14.331	4.179:	3.673:	2.426	0.983	0.439	0.944	k2 III
1016	20 44 00.4	+67 21 31.7	15.929		3.102::	2.106	0.929	0.410	0.852	g9 V
1017	20 44 03.0	+68 03 57.7	13.959	3.461	2.700	1.957	0.887	0.316	0.870	f9 II
1018	20 44 03.3	+68 12 21.6	14.751	3.207:	2.654	1.847	0.814	0.311	0.793	g5 IV-V
1019	20 44 03.6	+68 17 21.9	16.111		2.411::	1.714	0.721	0.324	0.692	g5-g0 md V
1020	20 44 04.0	+67 21 18.8	14.422	3.093	2.471	1.761	0.808	0.297	0.765	f9 d? V
1021	20 44 04.2	+67 16 34.0	16.437			2.033	0.919	0.380	0.833	g5-g2 IV-V
1022	20 44 04.9	+68 12 36.4	15.507		3.560:	2.274	0.874	0.528	0.873	k3.7 V
1023	20 44 05.4	+68 01 03.6	16.499			1.934	0.885	0.366	0.816	g1.5 V
1024	20 44 05.5	+67 59 32.7	12.363	3.001	2.294	1.566	0.702	0.253	0.699	f6 IV
1025	20 44 06.7	+68 20 44.1	15.724	2.745:	2.148	1.507	0.678	0.267	0.591	f6 IV-V
1026	20 44 07.1	+68 00 03.1	15.910			2.217	0.910	0.385	0.895	k0.5 IV-V
1027	20 44 07.3	+67 56 56.6	14.267	3.193	2.633	1.893	0.878	0.328	0.842	g1 V
1028	20 44 07.8	+68 01 44.4	15.316		3.573:	2.607	1.131	0.454	1.056	g9.5 IV
1029	20 44 08.8	+68 15 42.0	14.654	3.548	2.916	2.044	0.868	0.340	0.821	g5 III
1030	20 44 09.0	+67 31 49.8	15.764		3.151	2.108	0.937	0.422	0.854	g9.5 V
1031	20 44 09.0	+67 32 37.1	16.015	3.078:	2.241:	1.370	0.629	0.237	0.617	f0 IV
1032	20 44 09.8	+67 20 24.4	14.239	4.695::	3.477	2.531	1.617	0.310	1.606	b9.5 Ib
1033	20 44 10.0	+68 20 43.2	16.544		2.030	1.509	0.731	0.323	0.641	f9.5 V
1034	20 44 10.6	+67 58 25.4	15.763	3.223::	2.379:	1.753	0.801	0.286	0.804	f8-g0 IV
1035	20 44 10.8	+67 29 24.2	16.273		2.250	1.610	0.747	0.293	0.735	f8 V
1036	20 44 11.0	+67 09 01.4	10.779	3.456		1.960	0.754	0.353	0.707	k1 V
1037	20 44 12.3	+67 23 39.3	14.976	3.266	2.624	1.829	0.799	0.315	0.759	g1 IV-V
1038	20 44 12.7	+67 35 13.9	15.633		2.911	2.102	0.989	0.342	0.951	g1 d IV-V
1039	20 44 12.8	+68 10 42.9	14.827	3.445:	3.005:	1.955	0.798	0.355	0.762	k1.2 V
1040	20 44 13.0	+67 22 31.4	14.544	3.226	2.501	1.763	0.819	0.284	0.753	f8-f5 IV
1041	20 44 13.0	+68 23 33.2	14.961	2.898	2.363	1.668	0.752	0.264	0.707	g0 IV-V

Continued **Table A.1**

No	RA(2000)	DEC(2000)	V	U-V	P-V	X-V	Y-V	Z-V	V-S	Photom.
	h m s	° ′ ″	mag	mag	mag	mag	mag	mag	mag	sp.type
1042	20 44 13.9	+67 26 46.4	15.892	2.805:	2.370	1.601	0.731	0.294	0.669	g1.5-g5 V
1043	20 44 14.0	+68 16 55.4	16.038		2.832::	1.928	0.766	0.409	0.755	k1.2 V
1044	20 44 14.1	+67 43 46.8	14.858	3.780	3.014	2.180	1.025	0.350	1.007	f9.5 IV
1045	20 44 14.3	+67 30 44.4	16.427		2.510::	1.729	0.768	0.328	0.780	g4-g0 V
1046	20 44 14.6	+68 14 16.2	15.575	2.631	2.049	1.452	0.641	0.184	0.679	f7 IV-V
1047	20 44 14.9	+67 13 53.8	14.763		3.881	2.668	1.065	0.429	0.997	k1.2 III
1048	20 44 15.0	+67 23 03.6	13.369	2.915	2.298	1.626	0.744	0.269	0.695	f7 V
1049	20 44 15.8	+67 27 52.8	16.341		2.512:	1.875	0.830	0.376	0.738	g2-g8 V
1050	20 44 15.9	+67 20 27.3	14.731	4.193:	3.460	2.465	1.040	0.420	0.989	g9.5 IV
1051	20 44 16.1	+68 22 04.8	15.525	2.976::	2.398::	1.690	0.753	0.223	0.682	f9 V
1052	20 44 17.4	+67 59 22.6	16.070		2.910::	2.047	0.925	0.412	0.866	g6 V
1053	20 44 17.9	+67 29 22.1	15.951	2.780::	2.356:	1.641	0.763	0.281	0.749	g1.5-f8 md V
1054	20 44 19.5	+67 19 16.8	14.676	4.019:	3.405	2.389	1.037	0.404	0.969	g9 IV
1055	20 44 20.2	+67 12 28.1	13.951	3.415	2.829	1.944	0.850	0.330	0.793	g5.5 IV-V
1056	20 44 20.4	+67 28 16.3	13.828	2.787	2.243	1.594	0.716	0.247	0.689	f9 V
1057	20 44 20.5	+67 13 26.6	16.322			2.170	0.864	0.460	0.865	k2.2 V
1058	20 44 21.1	+67 19 34.2	15.855	3.077::	2.383	1.669	0.812	0.265	0.688	f6 IV-V
1059	20 44 21.2	+67 36 42.4	15.912	3.522::	3.179::	2.243	0.998	0.409	0.931	k0-k3 IV-V
1060	20 44 21.4	+67 14 09.1	13.916	4.593::	3.929	2.707	1.094	0.457	1.027	k1.2 III
1061	20 44 21.4	+67 46 09.4	15.670		3.237:	2.208	1.011	0.402	0.987	g4-f5 IV
1062	20 44 22.4	+68 07 49.7	13.947	3.829	3.207	2.138	0.901	0.370	0.857	g8.5 IV
1063	20 44 22.8	+67 46 32.4	14.515			3.600	1.438	0.609	1.367	k9-k3 III
1064	20 44 23.2	+68 15 49.1	13.498	3.153	2.607	1.758	0.748	0.306	0.710	g6 d? IV-V
1065	20 44 23.3	+67 45 01.5	15.945		2.717	2.036	0.940	0.300	1.065	f9 V
1066	20 44 23.9	+67 16 29.1	14.761	4.128::	3.267	2.266	0.987	0.365	0.892	g1 -
1067	20 44 24.6	+68 14 21.0	13.487	3.014	2.493	1.687	0.722	0.297	0.671	g5 V
1068	20 44 24.9	+67 20 57.3	15.022	2.991	2.334	1.665	0.766	0.263	0.724	f7 IV-V
1069	20 44 25.2	+67 31 48.9	15.626	3.311:	2.612	1.856	0.853	0.341	0.766	f9 IV
1070	20 44 25.3	+67 21 16.3	15.290	3.711::	3.012	2.111	0.905	0.330	0.853	g4 III
1071	20 44 25.3	+67 25 06.1	14.924	3.121	2.558	1.749	0.762	0.290	0.746	g3 IV-V
1072	20 44 26.1	+67 13 27.5	14.685	3.082	2.412	1.677	0.765	0.272	0.643	f6 IV
1073	20 44 27.6	+67 35 27.1	15.732		3.284::	2.237	0.946	0.401	0.989	k0.5-g7 V
1074	20 44 27.8	+67 58 15.2	15.937			2.409	1.046	0.420	1.061	g8 IV-V
1075	20 44 27.9	+67 28 33.8	14.495	2.969	2.400	1.712	0.782	0.310	0.736	f9.5 V
1076	20 44 27.9	+67 22 47.5	14.604	3.366::	2.843	1.977	0.822	0.368	0.850	k0 d? V
1077	20 44 28.8	+67 10 35.4	12.351	2.796	2.170	1.491	0.667	0.253	0.606	f7 IV
1078	20 44 29.0	+67 29 44.2	15.698			2.694	1.009	0.655	1.062	m1-k5 md V
1079	20 44 29.2	+67 30 01.3	14.031	4.322	3.670	2.455	1.048	0.404	0.964	g9 III
1080	20 44 30.0	+68 16 28.2	16.180		2.501	1.683	0.744	0.328	0.675	g2-g4 IV
1081	20 44 30.1	+67 22 00.4	12.588	4.959	4.255	2.881	1.103	0.516	1.028	k3 III
1082	20 44 30.3	+67 32 49.5	16.654		2.301::	1.573	0.729	0.244	0.687	f6 IV-V
1083	20 44 30.4	+67 10 17.8	13.888	3.525	3.054	2.051	0.775	0.357	0.724	k1.5 V
1084	20 44 30.6	+68 07 37.3	14.022	2.919	2.376	1.694	0.739	0.302	0.737	g1.5 V
1085	20 44 30.6	+67 17 34.4	15.937	2.870	2.240:	1.510	0.760	0.285	0.651	f3 d? V
1086	20 44 30.9	+68 18 03.5	14.376	3.603	3.144	2.059	0.699	0.457	0.804	k3.5 V
1087	20 44 31.0	+67 55 32.4	14.653	3.061	2.390	1.636	0.765	0.277	0.731	f6-f2 IV-V

Continued **Table A.1**

No	RA(2000)	DEC(2000)	V	U-V	P-V	X-V	Y-V	Z-V	V-S	Photom.
	h m s	° ′ ″	mag	mag	mag	mag	mag	mag	mag	sp.type
1088	20 44 31.8	+67 45 02.9	14.105	4.118	3.200	2.331	1.107	0.380	1.123	f9 II
1089	20 44 32.0	+68 13 28.8	16.252	2.744::	2.298:	1.579	0.711	0.287	0.670	g1-g5 V
1090	20 44 33.1	+68 17 37.4	15.533	2.758:	2.242	1.594	0.719	0.322	0.695	g0 V
1091	20 44 33.2	+68 11 01.0	10.505	3.982	3.385	2.253	0.884	0.377	0.834	k1 IV
1092	20 44 33.2	+67 52 55.6	15.490			2.894	1.243	0.478	1.262	- -
1093	20 44 33.9	+67 23 27.6	16.570		2.456::	1.668	0.762	0.294	0.760	f8-f5 V
1094	20 44 34.0	+68 20 38.6	16.417		2.377::	1.686	0.769	0.299	0.635	f7-g1 IV
1095	20 44 34.4	+68 12 31.0	15.325	2.533	1.887	1.265	0.572	0.187	0.572	f6 III
1096	20 44 34.6	+67 20 26.9	13.400	3.018	2.455	1.726	0.765	0.279	0.711	g1.5 V
1097	20 44 34.8	+67 13 44.9	15.642	2.993	2.383	1.753	0.810	0.353	0.677	f9 V
1098	20 44 34.9	+68 09 44.0	14.585	2.631	1.897	1.144	0.527	0.189	0.464	f1 III
1099	20 44 35.1	+67 38 00.9	14.928		3.898::	2.763	1.001	0.691	1.079	k8-m2 V
1100	20 44 35.8	+68 08 03.0	14.167	3.321	2.828	1.892	0.809	0.328	0.757	g8.5 V
1101	20 44 36.0	+67 12 48.5	13.876	4.609:	3.899	2.655	1.092	0.454	1.004	k1 III
1102	20 44 36.0	+67 26 17.4	15.210	3.482:	2.925	1.979	0.875	0.335	0.832	g6-g3 IV-V
1103	20 44 36.8	+68 15 20.8	10.792	4.369	3.746	2.510	0.958	0.413	0.868	k2 III
1104	20 44 37.0	+67 19 30.4	15.253	2.921	2.270	1.642	0.771	0.272	0.696	f6 V
1105	20 44 37.2	+67 25 12.0	15.120	2.725	2.190	1.557	0.706	0.263	0.694	f8 V
1106	20 44 37.2	+68 00 06.0	15.752	3.344::	2.776	1.971	0.920	0.306	0.944	g2 V
1107	20 44 37.3	+67 25 50.4	15.106	3.281	2.630	1.811	0.803	0.281	0.749	g1 II
1108	20 44 37.6	+67 32 11.6	15.808			2.607	1.069	0.461	1.016	k1.5 V
1109	20 44 38.4	+67 33 00.2	14.391	2.489	1.713	0.939	0.456	0.170	0.345	b9.5 IV
1110	20 44 38.5	+67 33 51.9	16.566		2.489:	1.736	0.859	0.289	0.805	f4 V
1111	20 44 38.8	+67 22 57.9	15.685	3.034::	2.454:	1.693	0.763	0.294	0.734	g0 IV-V
1112	20 44 39.0	+68 08 00.3	12.722	5.817:	4.856	3.441	1.529	0.510	1.460	- -
1113	20 44 39.2	+67 23 54.7	16.194			2.187	0.939	0.433	0.888	g9.5 IV-V
1114	20 44 39.4	+67 48 23.3	15.687			3.053	1.291	0.538	1.248	- -
1115	20 44 39.7	+67 27 13.5	15.274	3.701::	3.145	2.092	0.874	0.390	0.883	k0.5 V
1116	20 44 40.8	+68 01 41.8	15.796			2.479	0.915	0.620	1.001	k5.5 md V
1117	20 44 41.3	+68 00 50.5	16.618		2.569::	1.841	0.852	0.383	0.839	g1.5 V
1118	20 44 42.6	+68 03 26.4	12.923	2.801	2.384	1.585	0.630	0.267	0.642	g8.5 V
1119	20 44 43.0	+68 16 01.3	16.046		2.581:	1.745	0.708	0.341	0.673	g9 V
1120	20 44 43.4	+67 12 08.2	15.368	2.716:	1.956	0.993	0.461	0.171	0.413	a3 IV-V
1121	20 44 43.8	+68 17 54.2	15.569		3.332::	2.223	0.853	0.510	0.874	k3.5 V
1122	20 44 44.2	+68 04 45.9	16.161			2.484	0.990	0.410	1.002	k0.5 IV
1123	20 44 44.4	+68 19 41.9	14.275	4.040:	3.306	2.291	0.916	0.401	0.881	k0.7 IV
1124	20 44 45.3	+68 01 30.2	16.113		2.615:	2.027	0.949	0.364	0.907	- -
1125	20 44 45.7	+67 35 41.8	11.198	4.941	4.230	2.924	1.175	0.474	1.072	k1.7 III
1126	20 44 46.7	+68 09 49.1	14.473	3.075	2.588	1.741	0.730	0.300	0.726	g7 V
1127	20 44 46.9	+68 13 31.9	15.879	2.699	2.159	1.490	0.659	0.249	0.685	f9 V
1128	20 44 47.2	+68 14 03.0	16.534		2.319:	1.655	0.707	0.294	0.748	g3 V
1129	20 44 47.3	+67 24 27.6	15.882	2.926::	2.346	1.643	0.796	0.289	0.638	f6 V
1130	20 44 47.3	+67 20 38.8	13.877	2.871	2.223	1.568	0.738	0.267	0.654	f5 IV-V
1131	20 44 47.4	+68 02 01.6	16.002		2.655	1.863	0.884	0.300	0.855	f7 IV
1132	20 44 47.6	+67 31 01.3	15.741	3.253::	2.574:	1.815	0.848	0.288	0.830	f8-f5 IV-V
1133	20 44 47.6	+68 16 34.5	14.970		3.773	2.520	0.972	0.437	0.921	k2.7 III

Continued **Table A.1**

No	RA(2000)	DEC(2000)	V	U-V	P-V	X-V	Y-V	Z-V	V-S	Photom.
	h m s	° ′ ″	mag	mag	mag	mag	mag	mag	mag	sp.type
1134	20 44 47.8	+67 55 16.9	15.476	3.676::	3.150::	2.232	1.004	0.379	1.003	g7-k0 V
1135	20 44 49.7	+68 18 25.4	16.140		2.901:	1.984	0.850	0.390	0.790	g9 V
1136	20 44 49.8	+68 09 34.4	14.554	3.213	2.748	1.823	0.729	0.312	0.634	g9.5 IV
1137	20 44 49.9	+67 28 11.3	14.170	4.433:	3.705:	2.689	1.176	0.548	1.287	k2-k0 V
1138	20 44 50.9	+68 05 08.0	16.228			2.034	0.962	0.357	0.849	f9 IV-V
1139	20 44 51.2	+68 18 39.8	14.973	2.719	2.141	1.488	0.654	0.247	0.623	f8 IV-V
1140	20 44 51.7	+68 19 40.1	16.090	2.638	2.162:	1.482	0.666	0.293	0.613	g0 V
1141	20 44 52.0	+67 56 42.9	16.123		2.760::	1.908	0.888	0.301	0.822	f7 IV
1142	20 44 52.5	+67 22 21.5	16.409	2.993::	2.537:	1.890	0.869	0.302	0.825	g1.5-f8 md V
1143	20 44 52.7	+67 39 01.6	15.486		3.311::	2.458	1.106	0.430	1.145	g7-g0 V
1144	20 44 53.3	+67 16 25.7	14.727	2.890	2.248	1.555	0.729	0.275	0.661	f5 V
1145	20 44 53.8	+67 31 02.1	14.661	3.393	2.672	1.935	0.883	0.320	0.874	g0 IV
1146	20 44 54.7	+67 23 56.8	14.455	3.115	2.469	1.800	0.815	0.302	0.766	f9.5 IV-V
1147	20 44 54.8	+67 13 29.7	15.113	3.507	2.930	1.961	0.832	0.351	0.807	g8.5 IV
1148	20 44 55.5	+68 04 53.2	14.460	2.894	2.316	1.647	0.733	0.277	0.693	f9.5 V
1149	20 44 55.8	+68 17 53.2	15.820	2.971::	2.452	1.660	0.699	0.291	0.693	g5.5-g2 IV-V
1150	20 44 55.9	+68 13 37.5	14.414	3.077	2.638	1.771	0.736	0.316	0.733	g9 V
1151	20 44 56.1	+67 33 00.3	15.662	3.067::	2.372	1.642	0.791	0.250	0.738	f5 V
1152	20 44 56.4	+67 35 21.8	15.853		2.752	2.001	0.925	0.341	0.920	g1 V
1153	20 44 56.6	+67 25 41.9	15.571	3.013:	2.311:	1.626	0.726	0.276	0.686	f8 IV-V
1154	20 44 56.7	+67 26 02.9	16.035	2.928:	2.290	1.579	0.715	0.258	0.665	f7 IV-V
1155	20 44 56.8	+67 31 53.3	14.677	3.007	2.289	1.605	0.739	0.260	0.723	f7 IV
1156	20 44 57.2	+67 59 13.7	14.935	4.084	3.421:	2.371	1.008	0.446	1.002	k1.2 V
1157	20 44 57.4	+68 06 49.9	16.600			2.243	0.923	0.401	0.935	k1 V
1158	20 44 58.6	+67 28 50.0	15.663	3.267:	2.716:	1.880	0.839	0.299	0.786	g3-g7 IV-V
1159	20 44 59.8	+68 08 05.2	16.503		2.448	1.696	0.732	0.309	0.718	g4 V
1160	20 45 00.1	+68 09 00.7	15.994	2.703:	2.267	1.562	0.710	0.307	0.641	g0 V
1161	20 45 01.4	+68 21 59.5	15.453	2.657	2.197	1.574	0.677	0.321	0.613	g2-g5 V
1162	20 45 01.8	+67 36 40.4	15.566	3.372::	2.709	1.897	0.856	0.290	0.911	g1 IV-V
1163	20 45 02.1	+68 07 39.8	12.976	2.591	2.043	1.389	0.619	0.225	0.586	f6 V
1164	20 45 03.3	+68 16 28.7	16.169	2.585	1.854	1.149	0.517	0.263	0.444	f2 IV
1165	20 45 03.4	+68 20 36.4	14.241	3.112	2.368	1.712	0.783	0.301	0.764	f8 IV
1166	20 45 04.1	+67 56 58.8	13.347	3.351	2.701	1.885	0.837	0.309	0.785	g1 IV
1167	20 45 04.1	+68 14 57.1	15.002	2.959::	2.465	1.693	0.714	0.269	0.724	g5.5 V
1168	20 45 04.2	+67 36 52.3	14.752	3.486:	2.744:	1.964	0.948	0.368	0.854	f7 IV-V
1169	20 45 04.3	+68 08 40.2	14.508	2.880	2.331	1.598	0.693	0.274	0.665	g1 IV-V
1170	20 45 06.0	+67 14 32.7	14.940	3.466	2.664	1.962	0.874	0.343	0.792	f9 IV
1171	20 45 06.2	+67 20 20.0	15.705		3.219::	2.354	0.956	0.365	0.958	g6-g2 III
1172	20 45 06.3	+67 36 39.9	13.411	4.733:	4.011	2.771	1.149	0.467	1.082	k1.2 III
1173	20 45 06.3	+68 11 02.7	15.394	2.557	2.043	1.415	0.665	0.267	0.615	f7 V
1174	20 45 06.5	+67 24 05.3	16.200		2.751::	2.096	0.875	0.335	0.853	g4-g2 IV-V
1175	20 45 08.5	+68 17 53.8	16.431			2.313	0.877	0.640	0.875	k3.7-k9 md V
1176	20 45 08.6	+68 08 49.4	16.214		2.731:	1.775	0.770	0.353	0.726	- -
1177	20 45 09.1	+68 05 16.7	15.237	2.874	2.295	1.639	0.742	0.286	0.695	f8 V
1178	20 45 09.2	+68 06 17.6	16.339		2.413:	1.615	0.702	0.263	0.755	f7 -
1179	20 45 09.6	+67 33 41.5	15.815	3.415:	2.672::	1.912	0.888	0.288	0.867	f7 IV

Continued **Table A.1**

No	RA(2000)	DEC(2000)	V	U-V	P-V	X-V	Y-V	Z-V	V-S	Photom.
	h m s	° ′ ″	mag	mag	mag	mag	mag	mag	mag	sp.type
1180	20 45 09.8	+68 04 10.9	15.333	2.794	2.202:	1.509	0.670	0.250	0.648	f8 IV-V
1181	20 45 10.3	+67 21 28.9	16.087	3.033::	2.313	1.608	0.771	0.251	0.769	f5 IV-V
1182	20 45 10.5	+67 56 13.8	15.897			2.263	1.037	0.451	0.889	g8 md V
1183	20 45 11.9	+68 12 02.4	14.118		4.332	2.903	1.075	0.520	0.981	k4.5 III
1184	20 45 12.2	+67 28 32.8	16.195		2.581::	1.906	0.943	0.350	0.722	f8 md V
1185	20 45 13.2	+67 17 43.8	15.791	3.207::	2.528::	1.791	0.849	0.333	0.804	f7 IV-V
1186	20 45 13.9	+67 23 24.0	14.199	2.991	2.363	1.655	0.757	0.290	0.682	f8 IV-V
1187	20 45 14.8	+67 29 06.6	14.896	2.935:	2.250	1.566	0.723	0.253	0.686	f6 IV
1188	20 45 15.2	+68 05 39.3	10.357	4.304	3.645	2.474	1.001	0.419	0.951	k1 IV
1189	20 45 15.5	+68 18 40.7	14.428	3.106	2.560	1.688	0.696	0.299	0.684	g7 IV-V
1190	20 45 16.0	+68 12 27.6	15.536	3.484::	3.015::	1.954	0.779	0.402	0.753	k1.5 V
1191	20 45 16.1	+68 03 48.5	15.992	2.857:	2.389	1.616	0.722	0.275	0.755	g2.5 V
1192	20 45 16.1	+68 01 27.2	16.231		1.623:	1.986	0.876	0.394	0.909	- -
1193	20 45 16.6	+68 04 04.1	14.518	3.283:	2.720	1.848	0.785	0.315	0.759	g6 d IV-V
1194	20 45 16.9	+67 33 53.5	12.551	4.946	4.222	2.884	1.157	0.479	1.058	k2.5 III
1195	20 45 17.3	+68 11 03.6	16.423		2.121::	1.455	0.654	0.279	0.588	f8 IV-V
1196	20 45 17.7	+68 23 23.3	15.215	2.733:	2.118	1.427	0.637	0.284	0.580	f7 IV-V
1197	20 45 18.2	+68 14 06.0	16.457		2.257	1.606	0.676	0.321	0.712	- -
1198	20 45 18.7	+67 25 18.6	15.714	2.859:	2.194:	1.558	0.685	0.285	0.713	f9 IV
1199	20 45 18.7	+67 16 01.1	14.986	3.038:	2.432	1.688	0.774	0.286	0.665	f9-f4 IV
1200	20 45 19.4	+68 07 12.4	11.524	3.771	3.158	2.173	0.903	0.345	0.846	g8 III
1201	20 45 19.7	+67 22 11.2	13.461	2.983	2.472	1.719	0.738	0.274	0.717	g4 V
1202	20 45 19.9	+67 31 35.1	13.899	3.004	2.403	1.691	0.789	0.272	0.723	f8 V
1203	20 45 20.1	+68 06 20.5	16.677		2.233:	1.616	0.763	0.364	0.673	f7 V
1204	20 45 20.7	+67 33 25.6	16.566		2.537:	1.837	0.866	0.304	0.766	f8 V
1205	20 45 21.6	+67 28 38.0	15.050	3.163:	2.461:	1.657	0.761	0.237	0.742	f4-f2 IV-V
1206	20 45 21.7	+67 25 07.2	13.875	3.018	2.497	1.702	0.740	0.267	0.676	g3 IV-V
1207	20 45 23.1	+67 44 51.6	12.548	6.391::	5.667	4.031	1.601	0.735	1.595	k7-k4 III
1208	20 45 24.1	+67 44 23.3	13.553	3.886	3.135	2.302	1.063	0.381	1.081	g0-g4 d? IV
1209	20 45 25.2	+68 18 30.9	15.361	3.655::	3.293	2.062	0.816	0.443	0.809	k2.7 V
1210	20 45 25.5	+67 11 25.3	11.817		2.800	1.801	0.829	0.319	0.837	- -
1211	20 45 26.2	+67 35 58.4	14.844	3.890:	3.156	2.095	0.901	0.358	0.886	g8-g4 IV
1212	20 45 26.5	+67 27 57.9	14.281	3.216	2.691	1.879	0.827	0.308	0.798	g5 V
1213	20 45 26.5	+68 17 45.4	12.801	5.553::	4.628	3.177	1.343	0.559	1.322	k5-k2 III
1214	20 45 26.7	+68 15 52.6	11.966	4.143	3.518	2.385	0.940	0.376	0.880	k0.7 III
1215	20 45 27.6	+67 35 12.8	14.784	3.351	2.620	1.830	0.842	0.307	0.826	f9 IV-V
1216	20 45 28.2	+67 19 55.8	16.053		2.328	1.617	0.760	0.277	0.762	f6 IV-V
1217	20 45 28.6	+67 21 31.4	13.735	2.875	2.336	1.657	0.697	0.285	0.675	g2.5 V
1218	20 45 29.1	+67 13 20.1	14.819	3.443:	2.696:	1.956	0.864	0.294	0.780	f9.5 II
1219	20 45 29.3	+67 19 12.4	15.576		2.762:	1.978	0.814	0.362	0.744	g8 IV-V
1220	20 45 29.4	+67 19 43.5	15.708	3.291::	3.199:	2.004	0.909	0.398	0.737	- -
1221	20 45 29.5	+67 59 02.6	15.992		2.642::	1.855	0.863	0.324	0.814	f8 IV-V
1222	20 45 30.1	+67 41 23.5	14.449			3.510	1.452	0.626	1.373	- -
1223	20 45 30.4	+68 09 04.1	14.951	2.624	2.186	1.535	0.661	0.253	0.645	g1-g5 V
1224	20 45 31.0	+67 32 59.4	11.356	2.186	1.736	1.160	0.495	0.186	0.479	f7 V
1225	20 45 31.9	+68 10 40.0	15.953	2.693::	2.111	1.445	0.609	0.213	0.627	f9.5 IV

Continued **Table A.1**

No	RA(2000)	DEC(2000)	V	U-V	P-V	X-V	Y-V	Z-V	V-S	Photom.
	h m s	° ′ ″	mag	mag	mag	mag	mag	mag	mag	sp.type
1226	20 45 32.0	+68 14 37.7	15.907	3.000:	2.439:	1.725	0.712	0.326	0.656	g4 IV-V
1227	20 45 32.7	+68 04 07.7	15.238	3.056:	2.599:	1.778	0.814	0.345	0.743	g4-g8 IV-V
1228	20 45 33.0	+68 16 07.0	12.069	5.035	4.318	2.945	1.093	0.558	1.037	k4.5 III
1229	20 45 33.2	+67 23 23.0	13.677	2.748	2.178	1.551	0.702	0.256	0.672	f8 V
1230	20 45 34.2	+68 17 58.6	13.029	3.837	3.213	2.190	0.897	0.359	0.843	g9 IV
1231	20 45 34.8	+68 09 24.2	16.197	2.462::	2.039	1.449	0.674	0.264	0.647	f9 md V
1232	20 45 35.0	+67 46 09.4	12.845	3.080	2.374	1.626	0.744	0.266	0.707	f7-f3 IV
1233	20 45 35.1	+68 13 26.6	13.402	2.707	2.142	1.464	0.653	0.260	0.610	f8 IV-V
1234	20 45 35.5	+67 18 07.4	14.474	2.912	2.263	1.546	0.714	0.279	0.640	f5 d? IV-V
1235	20 45 36.0	+68 06 38.3	13.260	2.520	1.891	1.189	0.532	0.195	0.510	f2 IV-V
1236	20 45 36.8	+68 21 50.5	12.922	2.520	2.038	1.386	0.607	0.267	0.614	f9 V
1237	20 45 36.9	+68 10 18.4	15.953	3.032::	2.682:	1.779	0.740	0.349	0.721	g9.5-k3 d? V
1238	20 45 37.3	+67 34 03.3	15.626		2.861:	1.899	0.829	0.327	0.860	- -
1239	20 45 37.7	+68 17 07.7	15.748	3.097::	2.666:	1.744	0.756	0.351	0.687	g8.5 V
1240	20 45 37.7	+68 04 04.0	16.463	2.580::	2.504::	1.683	0.730	0.284	0.753	g8-k5 V
1241	20 45 37.7	+67 18 26.5	15.179		3.313:	2.453	0.881	0.614	0.919	k4-m0 md V
1242	20 45 38.0	+67 43 56.7	14.336	4.517:	3.731:	2.751	1.199	0.448	1.209	g8.5-g5 III
1243	20 45 38.2	+67 19 23.5	14.323	3.812:	3.165	2.179	0.904	0.370	0.852	g9 IV
1244	20 45 38.2	+68 07 44.8	16.184			2.149	0.887	0.427	0.855	k1 md V
1245	20 45 39.1	+67 30 27.8	14.473	3.434:	2.643	1.824	0.814	0.307	0.763	f8 II
1246	20 45 40.8	+68 01 56.8	16.660		2.451:	1.738	0.713	0.293	0.773	g5-g0 IV-V
1247	20 45 41.9	+68 00 05.1	15.649		3.137:	2.233	0.977	0.456	0.906	g9 V
1248	20 45 43.4	+67 23 28.7	15.016		2.767:	1.960	0.780	0.326	0.754	g8 IV
1249	20 45 44.1	+67 26 25.2	16.354			1.825	0.890	0.368	0.687	a5 V
1250	20 45 44.4	+68 08 34.6	15.682	3.025:	2.475:	1.693	0.747	0.276	0.688	g1.5-g5 IV-V
1251	20 45 45.3	+67 30 39.2	12.158	4.279	3.602	2.462	0.994	0.395	0.944	k0.5 III
1252	20 45 45.4	+67 28 22.1	15.759		2.954:	1.992	0.865	0.340	0.806	g8-f8 IV-V
1253	20 45 46.0	+67 44 48.4	13.640	5.037::	4.355	3.000	1.209	0.476	1.133	k3.7-k2 III
1254	20 45 48.1	+67 26 42.7	13.898		0.953:	0.772	0.529	0.197	0.240	b0 III
1255	20 45 48.4	+67 59 12.4	15.059	3.054:	2.432	1.729	0.801	0.303	0.795	f9 V
1256	20 45 48.6	+67 32 20.3	14.718	2.928	2.338:	1.660	0.750	0.266	0.732	f9 V
1257	20 45 48.8	+68 11 48.1	11.680	4.315	3.686	2.468	0.957	0.422	0.897	k1.7 III
1258	20 45 49.6	+67 30 53.1	13.302	4.540	3.889:	2.609	1.061	0.438	0.956	k2 III
1259	20 45 49.6	+67 41 12.6	14.769	4.125	3.372:	2.462	1.182	0.411	1.131	g1.5 IV-V
1260	20 45 49.9	+67 39 53.1	15.631	3.239::	2.464:	1.848	0.831	0.270	0.800	f9 II
1261	20 45 51.7	+68 16 25.3	14.783	3.609	3.077	2.035	0.840	0.385	0.840	k0.7 V
1262	20 45 52.0	+68 03 20.2	15.624	2.761::	2.214	1.475	0.684	0.295	0.619	f9-f5 IV-V
1263	20 45 52.4	+68 17 20.9	14.730	2.767	2.197	1.518	0.655	0.272	0.638	f9 IV-V
1264	20 45 54.9	+67 40 12.5	13.915		4.443:	3.114	1.276	0.541	1.229	k2.5-k1 III
1265	20 45 55.1	+68 05 07.6	10.510	4.286	3.671	2.458	0.945	0.401	0.882	k1.2-k4 III
1266	20 45 55.1	+68 10 35.1	12.041	4.483	3.876	2.577	0.978	0.440	1.008	k2.7 III
1267	20 45 57.0	+67 50 29.3	15.556	3.550:	3.197:	2.197	0.975	0.346	1.001	- -
1268	20 45 57.6	+68 02 44.1	15.684	3.660::	3.255:	2.213	0.932	0.381	0.883	k0.7-k4 IV-V
1269	20 45 59.6	+68 05 27.5	14.234	4.183:	3.501	2.384	0.956	0.401	0.917	k0.7 IV
1270	20 45 59.8	+67 46 45.5	13.247	3.168	2.469	1.730	0.778	0.285	0.735	f9 IV
1271	20 46 00.8	+67 42 51.2	12.905	4.974	4.294	2.937	1.152	0.508	1.078	k2.7 III

Continued **Table A.1**

No	RA(2000)	DEC(2000)	V	U-V	P-V	X-V	Y-V	Z-V	V-S	Photom.
	h m s	° ′ ″	mag	mag	mag	mag	mag	mag	mag	sp.type
1272	20 46 03.5	+67 48 10.9	15.849		2.871::	1.820	0.881	0.329	0.840	f1-a7 II
1273	20 46 03.6	+67 45 09.3	12.174	2.809	2.275	1.569	0.675	0.253	0.669	g1 IV-V
1274	20 46 03.7	+68 09 54.8	15.173	3.049	2.623	1.716	0.716	0.330	0.722	g9.5 V
1275	20 46 06.6	+68 11 05.6	13.524	5.582::	4.708:	3.241	1.200	0.630	1.116	k6 III
1276	20 46 08.6	+67 49 03.8	15.666	3.088:	2.611	1.871	0.880	0.320	0.766	f9.5-g3 md V
1277	20 46 08.6	+68 05 49.0	15.308	2.750:	2.217	1.516	0.593	0.161	0.755	g2-g8 IV
1278	20 46 09.5	+68 03 39.3	14.294	2.803	2.242	1.540	0.680	0.262	0.628	f9 IV-V
1279	20 46 10.1	+68 12 53.2	14.408	2.646	2.091	1.406	0.599	0.231	0.614	f9 IV-V
1280	20 46 10.5	+67 55 44.3	14.987		3.771::	2.604	0.903	0.614	0.997	k7-m0 V
1281	20 46 11.2	+68 00 01.3	13.194	4.462	3.798	2.589	1.018	0.425	0.955	k1.2 III
1282	20 46 13.9	+68 18 03.6	14.638	2.583	1.978	1.313	0.617	0.226	0.602	f3 V
1283	20 46 14.2	+68 02 49.6	14.111	2.542	2.046	1.411	0.619	0.249	0.611	f9.5 V
1284	20 46 14.6	+68 09 57.5	15.257	3.562:	3.407::	2.233	0.906	0.496	0.836	k3.2 V
1285	20 46 14.8	+68 04 34.2	14.751	2.403	1.926	1.421	0.666	0.245	0.621	- -
1286	20 46 15.5	+68 21 12.7	15.591		2.911:	1.910	0.777	0.375	0.711	k0.7 V
1287	20 46 16.5	+68 13 58.9	15.464	2.903::	2.129	1.522	0.732	0.292	0.557	f3 IV
1288	20 46 18.1	+67 50 47.9	14.586			2.791	1.133	0.494	1.095	k2 III
1289	20 46 20.3	+68 01 57.4	13.966	2.548	2.002	1.409	0.650	0.249	0.608	f6 V
1290	20 46 21.2	+68 18 57.8	14.493	3.350:	2.830	1.863	0.803	0.335	0.776	g9 IV-V
1291	20 46 21.7	+67 57 24.1	10.403	3.980	3.474	2.305	0.788	0.515	0.843	k5.5 V
1292	20 46 22.4	+67 54 56.1	15.701		2.926::	2.049	0.833	0.366	0.942	k0 V
1293	20 46 24.7	+68 11 49.9	15.303	3.725:	3.160:	2.169	0.889	0.389	0.826	k0.5 V
1294	20 46 26.5	+67 58 12.0	14.577		3.198:	2.062	0.735	0.455	0.818	k3.7 V
1295	20 46 26.6	+68 11 35.8	14.947	2.829:	2.309	1.554	0.674	0.258	0.679	g1.5-g5 IV-V
1296	20 46 26.9	+68 00 59.5	11.814		4.847	3.421	1.273	0.588	1.178	k5.5 III
1297	20 46 28.9	+67 59 05.6	14.051		2.089	1.347	0.599	0.216	0.624	f4 III
1298	20 46 29.2	+68 14 41.3	13.637	3.593	2.914	2.017	0.834	0.333	0.834	g5-g8 III
1299	20 46 29.5	+68 18 31.8	13.466	4.475	3.855	2.552	0.993	0.444	1.124	k2.7 III
1300	20 46 30.3	+68 09 15.8	14.364	1.774	1.262	0.628	0.308	0.104	0.231	b8 V
1301	20 46 31.8	+68 13 23.9	14.635	3.032:	2.590	1.734	0.743	0.308	0.670	g7-k0 V
1302	20 46 34.7	+68 02 28.3	13.134		2.685	1.733	0.663	0.300	0.691	k0.5 V
1303	20 46 36.8	+68 05 41.0	15.157		2.382	1.655	0.733	0.273	0.677	g0 IV-V
1304	20 46 38.7	+68 11 51.8	14.322	2.556	2.014	1.371	0.585	0.248	0.582	f9 IV-V

Notes:

4: binary, sep.7”. 13: image asymmetric, prob. binary. 15: image asymmetric, prob. binary. 16: image asymmetric, prob. binary. 37: image asymmetric. 44: binary, sep.7”, secondary mush fainter. 66: image asymmetric, prob. binary. 68: image asymmetric. 94: image asymmetric, prob. binary. 95: binary, sep.4”, secondary much fainter. 119: binary, sep.7”, secondary mush fainter. 123: image asymmetric, prob. binary. 132: image asymmetric, prob. binary. 159: binary, sep.7”, secondary mush fainter. 166: image asymmetric. 209: image asymmetric, prob. binary. 211: image asymmetric, prob. binary. 224: binary, sep.7”, secondary fainter. 232: image asymmetric, prob. binary. 271: binary, sep.6”, secondary fainter. 274: triple, components at 7” and 9”, 291: binary, sep.7”, secondary fainter. 297: image asymmetric, prob. binary. 322: binary, sep.6”, secondary much fainter. 347: image asymmetric, prob. binary, sep.2”. 366: image asymmetric, prob. binary. 373: binary, sep.6”, secondary much fainter. 376: binary, sep.7”, secondary much fainter. 380: binary, sep.7”, secondary fainter. 384:

image asymmetric, prob. binary. 397: binary, sep.6”, secondary much fainter. 409: image asymmetric, prob. binary. 423: binary, sep.7”, secondary much fainter. 425: image asymmetric, prob. binary. 452: binary, sep.5”, secondary fainter. 453: binary, sep.7”, secondary fainter. 488: binary, sep.5”, secondary much fainter. 519: image asymmetric, prob. binary. 544: binary, sep.7”, secondary much fainter. 557: image asymmetric, prob. binary. 582: binary, sep.6”, secondary much fainter. 591: image asymmetric, prob. binary. 596: binary, sep.7”, secondary fainter. 617: binary, sep.7”, secondary much fainter. 625: image asymmetric, prob. binary. 628: binary, sep.7”, secondary much fainter. 629: binary, sep.6”, secondary much fainter. 655: image asymmetric, prob. binary. 666: image asymmetric, prob. binary. 670: binary, sep.7”, secondary mush fainter and the image of the central star is asymmetric. 671: binary, sep.7”, secondary much fainter. 679: binary, sep.7”, secondary much fainter. 684: image asymmetric, prob. binary. 688: binary, sep.7”, secondary fainter 1.3mag. 693: binary, sep.6”, secondary much fainter. 713: image asymmetric, prob. binary. 768: binary, sep.7”, secondary much fainter. 774: image asymmetric, prob. binary. 780: binary, sep.10”, secondary fainter. 789: image asymmetric, prob. binary. 794: image asymmetric, prob. binary. 802: binary, sep.5”, secondary much fainter. 805: image asymmetric, prob. binary. 811: binary, sep.6”, secondary much fainter. 824: image asymmetric, prob. binary. 826: triple, components at 6” and 7”. 829: binary, sep.7”. 836: image asymmetric, prob. binary. 837: triple, components at 6” and 10”. 838: image asymmetric, prob. binary. 844: binary, sep.6”, secondary fainter. 851: image asymmetric, prob. binary. 879: image asymmetric, prob. binary. 885: image asymmetric, prob. binary. 912: binary, sep.7”, secondary much fainter. 917: image asymmetric, prob. binary. 946: image asymmetric, prob. binary. 972: image asymmetric, prob. binary. 974: triple, components at 5” and 7”. 982: image asymmetric, prob. binary. 984: image asymmetric, prob. binary. 990: image asymmetric, prob. binary. 1020: image asymmetric, prob. binary. 1038: image asymmetric, prob. binary. 1049: image asymmetric, prob. binary. 1064: image asymmetric, prob. binary. 1065: image asymmetric, prob. binary. 1073: binary, sep.6”, secondary fainter. 1076: image asymmetric, prob. binary. 1106: binary, sep.6”, secondary much fainter. 1108: image asymmetric, prob. binary. 1148: binary, sep.7”, secondary fainter. 1155: image asymmetric, prob. binary. 1171: image asymmetric, prob. binary. 1180: binary, sep.7”, secondary fainter. 1193: image asymmetric, prob. binary. 1198: image asymmetric, prob. binary. 1208: triple, components at 7” and 8”. 1209: binary, sep.7”, secondary much fainter. 1213: image asymmetric, prob. binary. 1218: binary, sep.7”, secondary much fainter. 1223: binary, sep.7”, secondary much fainter. 1225: triple, components at 7” and 9”, 1234: image asymmetric, prob. binary. 1237: image asymmetric, prob. binary. 1250: image asymmetric, prob. binary. 1259: image asymmetric, prob. binary. 1263: image asymmetric, prob. binary. 1296: binary, sep.7”, secondary much fainter. 1302: image asymmetric, prob. binary.

A.2. Photometry of stars in the directions of NGC 7129 and NGC 7142

Table A.2

Results of photometry and classification of stars in the direction of NGC 7129 and NGC 7142 area. The stars with two asterisks in the last column were not classified since their images in DSS2 are asymmetrical, i.e., these stars are double or multiple.

No	RA(2000)	DEC(2000)	V	U-V	P-V	X-V	Y-V	Z-V	V-S	Photom.
	h m s	° ′ ″	mag	mag	mag	mag	mag	mag	mag	sp.type
1	21 38 28.14	+66 13 51.1	15.77		2.40	1.69	0.73	0.29	0.70	g3
2	21 38 31.14	+66 09 17.7	14.99			3.40	1.38	0.63	1.19	k3.2 III
3	21 38 32.86	+66 15 15.3	13.66	2.56	2.02	1.39	0.60	0.23	0.54	f8 IV
4	21 38 33.74	+66 08 42.0	15.36	3.23	2.46	1.79	0.83	0.33	0.75	f4 V
5	21 38 33.96	+66 20 08.3	14.26	2.95	2.47	1.67	0.68	0.29	0.69	g5.5 IV
6	21 38 35.13	+65 58 23.7	12.96	2.43	1.84	1.21	0.51	0.16	0.49	**
7	21 38 35.49	+65 55 49.8	14.85	2.57	2.02	1.39	0.59	0.20	0.61	f7 V

Continued **Table A.2**

No	RA(2000)	DEC(2000)	V	U-V	P-V	X-V	Y-V	Z-V	V-S	Photom.
	h m s	° ′ ″	mag	mag	mag	mag	mag	mag	mag	sp.type
8	21 38 37.26	+66 15 08.7	15.60		2.83	2.01	0.94	0.39	0.82	g0
9	21 38 37.77	+66 07 25.9	10.71	2.67	2.09	1.47	0.62	0.23	0.60	f7 V
10	21 38 39.57	+65 52 59.6	10.94	3.50	2.89	2.01	0.80	0.29	0.79	g5.5 III
11	21 38 40.56	+66 06 55.5	15.79			2.93	1.24	0.51	1.09	**
12	21 38 40.92	+65 58 57.9	15.51			2.41	0.81	0.55	0.89	k9 V
13	21 38 41.50	+66 19 02.9	13.36	2.32	1.79	1.23	0.54	0.20	0.51	f5 V
14	21 38 42.15	+66 19 44.0	12.03	2.48	1.82	1.19	0.51	0.19	0.50	f2 IV
15	21 38 42.67	+65 46 49.4	12.86	2.61	2.17	1.47	0.60	0.26	0.58	g5.5 V
16	21 38 43.85	+66 25 55.3	14.49	3.26	2.78	1.90	0.75	0.38	0.76	k1 V
17	21 38 44.26	+65 51 44.7	11.42	3.63	3.01	2.08	0.83	0.32	0.80	g7 III
18	21 38 44.78	+66 02 47.0	13.89	2.67	2.09	1.43	0.62	0.23	0.62	f8 IV
19	21 38 45.40	+66 11 22.0	11.34	2.49	2.03	1.39	0.55	0.22	0.57	g3 V
20	21 38 46.09	+65 45 08.3	14.55	2.51	1.98	1.37	0.60	0.20	0.63	**
21	21 38 46.25	+66 01 50.8	14.50			3.40	1.34	0.55	1.22	m2.5 III
22	21 38 46.88	+66 23 24.5	15.47		2.86	2.05	1.02	0.37	0.84	f4
23	21 38 49.36	+65 49 31.3	14.60	3.00	2.31	1.64	0.78	0.27	0.68	f4 V
24	21 38 49.47	+66 03 41.9	15.71			2.11	0.79	0.46	0.79	k3.2 V
25	21 38 50.52	+66 13 27.4	15.86			2.15	0.79	0.45	0.84	k3.5 V
26	21 38 51.01	+66 19 02.6	15.05			3.46	1.44	0.63	1.26	k2.7 III
27	21 38 51.69	+66 24 57.0	13.65	2.80	2.27	1.55	0.66	0.23	0.65	g0 IV
28	21 38 51.79	+66 25 38.4	14.28	2.57	2.05	1.41	0.60	0.22	0.59	f9 V
29	21 38 52.08	+66 06 06.1	13.90		4.34	3.04	1.24	0.51	1.14	k1.7 III
30	21 38 52.27	+66 02 30.2	15.13	2.79	2.25	1.53	0.66	0.24	0.62	f9 IV
31	21 38 52.44	+66 11 31.1	14.97			3.40	1.43	0.63	1.30	k2.2 III
32	21 38 53.95	+65 49 20.9	14.69	3.08	2.60	1.75	0.70	0.31	0.67	g9 V
33	21 38 54.63	+65 26 14.5	15.25		2.92	1.95	0.80	0.37	0.79	k0.7 V
34	21 38 55.61	+66 00 52.0	15.68			2.55	1.07	0.43	0.98	g9
35	21 38 55.63	+65 56 45.3	15.11			3.04	1.22	0.55	1.11	**
36	21 38 55.89	+65 47 49.8	15.32	2.82	2.33	1.58	0.69	0.25	0.66	**
37	21 38 57.17	+65 26 57.2	14.66			2.99	1.36	0.49	1.24	g7
38	21 38 58.09	+66 22 37.8	14.58			3.90	1.63	0.69	1.46	k3.5 III
39	21 38 58.54	+65 56 47.4	16.59			2.19	0.79	0.48	0.88	k3.7 V
40	21 38 58.80	+66 12 50.5	13.72	4.85	3.99	2.85	1.23	0.47	1.08	g7 III
41	21 38 59.13	+66 09 43.0	14.11	3.14	2.25	1.35	0.62	0.22	0.53	a7 III
42	21 38 59.63	+65 41 05.8	16.20			2.07	0.80	0.42	0.81	k2.2 V
43	21 38 59.79	+66 00 28.1	15.59	2.78	2.29	1.57	0.67	0.22	0.63	g2.5 V
44	21 39 00.77	+65 47 36.2	14.13	2.59	2.04	1.41	0.62	0.21	0.62	**
45	21 39 01.18	+65 38 40.1	15.75		2.51	1.76	0.72	0.28	0.70	g2.5
46	21 39 01.97	+66 18 47.5	14.83			3.42	1.48	0.60	1.32	k1.5 III
47	21 39 02.01	+66 17 12.5	15.19	3.24	2.56	1.79	0.83	0.32	0.83	**
48	21 39 02.05	+65 40 44.6	16.52			2.04	0.96	0.31	0.89	g2.5
49	21 39 03.17	+65 41 57.9	14.15	2.89	2.40	1.64	0.68	0.28	0.69	g6 V
50	21 39 03.43	+65 59 37.8	13.43	2.34	1.79	1.19	0.51	0.18	0.56	f4 V
51	21 39 03.71	+65 39 24.7	15.37	2.86	2.25	1.60	0.73	0.28	0.67	f7 V
52	21 39 03.80	+66 04 19.0	16.32			2.09	0.84	0.40	0.73	k1.2 V
53	21 39 05.29	+66 15 35.7	13.11	2.66	2.19	1.49	0.60	0.24	0.60	g5 V

Continued **Table A.2**

No	RA(2000)	DEC(2000)	V	U-V	P-V	X-V	Y-V	Z-V	V-S	Photom.
	h m s	° ′ ″	mag	mag	mag	mag	mag	mag	mag	sp.type
54	21 39 05.30	+66 20 31.0	13.28	3.29	2.86	1.89	0.69	0.37	0.72	k2.2 V
55	21 39 05.42	+65 36 44.0	16.62			2.19	0.86	0.47	0.81	k2.7 V
56	21 39 05.54	+65 59 33.5	13.59	2.48	1.97	1.34	0.56	0.19	0.54	**
57	21 39 05.84	+65 30 56.0	15.50	2.90	2.35	1.64	0.70	0.27	0.67	g2.5 V
58	21 39 06.63	+65 44 45.8	16.64			1.79	0.85	0.28	0.81	f7
59	21 39 07.29	+66 10 47.4	14.37	2.46	1.92	1.32	0.59	0.23	0.57	f6 V
60	21 39 07.43	+65 53 39.7	14.60	2.84	2.27	1.56	0.66	0.23	0.64	f9.5 IV
61	21 39 07.46	+65 57 41.5	13.62	2.45	1.91	1.31	0.57	0.20	0.53	f6 V
62	21 39 07.52	+65 25 10.1	13.41	2.35	1.83	1.26	0.58	0.19	0.56	**
63	21 39 07.60	+65 33 18.5	13.28	2.49	1.89	1.25	0.56	0.19	0.51	**
64	21 39 07.65	+65 48 05.0	15.24			2.37	0.84	0.55	0.89	**
65	21 39 08.28	+65 23 13.0	15.17			3.20	1.40	0.60	1.21	k1 IV
66	21 39 08.35	+65 59 48.9	15.63	3.13	2.44	1.77	0.80	0.32	0.64	**
67	21 39 08.52	+66 03 29.5	16.60			1.94	0.90	0.36	0.79	f9
68	21 39 09.00	+66 24 20.8	15.05	2.66	2.21	1.55	0.67	0.25	0.63	**
69	21 39 09.05	+65 50 18.5	10.50	2.38	1.68	0.95	0.39	0.13	0.41	**
70	21 39 09.78	+65 41 53.2	13.32	2.83	2.27	1.57	0.66	0.24	0.65	f9.5 IV
71	21 39 09.79	+65 52 45.4	16.41			1.63	0.81	0.32	0.70	a3
72	21 39 10.08	+66 23 54.4	13.11	2.30	1.79	1.23	0.54	0.20	0.50	f5 V
73	21 39 10.81	+65 33 28.2	15.03	2.51	1.97	1.39	0.64	0.23	0.62	f6 V
74	21 39 11.10	+65 50 00.4	13.96	2.70	2.15	1.54	0.66	0.27	0.66	g0 V
75	21 39 11.23	+65 52 58.7	15.48			2.66	1.13	0.45	1.04	k0
76	21 39 11.89	+65 35 43.3	16.84			2.03	1.01	0.35	0.87	**
77	21 39 11.90	+66 11 31.4	15.50		2.52	1.84	0.88	0.31	0.79	f5
78	21 39 11.94	+65 39 36.2	13.04	3.25	2.80	1.83	0.68	0.34	0.69	k1.5 V
79	21 39 13.11	+65 37 06.2	15.03	3.55	2.82	1.97	0.93	0.33	0.92	**
80	21 39 13.47	+66 20 38.0	15.24	3.01	2.56	1.68	0.69	0.31	0.68	g9 V
81	21 39 15.04	+66 14 12.8	14.28	3.05	2.21	1.29	0.60	0.22	0.49	**
82	21 39 15.14	+66 02 35.6	14.39	2.68	2.15	1.49	0.64	0.24	0.60	f9 V
83	21 39 15.86	+65 49 46.1	11.61	2.46	1.73	0.99	0.40	0.14	0.38	f1 III
84	21 39 16.30	+65 30 32.2	12.86	3.54	2.95	2.05	0.85	0.31	0.83	g5 III
85	21 39 16.30	+66 20 11.2	15.27			3.13	1.36	0.53	1.23	k0.7 III
86	21 39 16.39	+65 59 09.0	16.23			1.82	0.85	0.32	0.70	f7
87	21 39 16.40	+66 32 22.3	12.80	2.36	1.86	1.24	0.53	0.18	0.57	**
88	21 39 17.97	+65 48 37.7	11.15	2.32	1.81	1.24	0.51	0.20	0.51	f7 V
89	21 39 18.29	+65 22 58.3	14.28	2.57	1.99	1.34	0.61	0.21	0.56	f4 V
90	21 39 18.32	+66 02 48.7	16.54			1.70	0.79	0.29	0.76	f6
91	21 39 19.38	+66 15 45.7	14.53	2.57	2.00	1.32	0.60	0.20	0.63	**
92	21 39 19.89	+66 01 50.0	11.74	2.21	1.73	1.16	0.49	0.19	0.47	f7 V
93	21 39 20.48	+65 30 33.2	15.29	3.30	2.44	1.66	0.81	0.28	0.72	b8.5 IV
94	21 39 20.67	+66 06 05.2	15.64		2.39	1.72	0.80	0.33	0.69	f8
95	21 39 20.72	+65 52 34.2	15.92		2.45	1.54	0.70	0.28	0.75	f2
96	21 39 21.10	+65 55 16.7	16.14			1.80	0.81	0.28	0.72	f9.5
97	21 39 21.17	+66 00 45.0	15.93		2.24	1.62	0.74	0.24	0.68	f5
98	21 39 21.30	+66 14 24.2	11.38	2.49	1.70	0.87	0.36	0.12	0.30	a1.5 III
99	21 39 21.58	+66 14 49.0	12.53	2.72	2.25	1.53	0.60	0.27	0.58	g5.5 IV

Continued **Table A.2**

No	RA(2000) h m s	DEC(2000) ° ′ ″	V mag	U-V mag	P-V mag	X-V mag	Y-V mag	Z-V mag	V-S mag	Photom. sp.type
100	21 39 21.62	+66 04 13.3	13.95	2.43	1.90	1.29	0.56	0.19	0.61	f6 V
101	21 39 22.00	+65 55 52.3	15.70	2.98	2.58	1.75	0.74	0.32	0.69	g8.5 V
102	21 39 22.37	+66 00 04.7	15.30	2.86	2.35	1.64	0.70	0.29	0.69	g4 V
103	21 39 23.05	+65 54 17.3	15.28	2.09	1.66	1.20	0.59	0.21	0.51	b3.5 IV
104	21 39 23.97	+65 33 25.5	13.72	2.57	2.02	1.39	0.62	0.20	0.59	**
105	21 39 24.41	+66 05 09.6	15.48			2.97	1.25	0.55	1.13	**
106	21 39 24.63	+65 53 28.8	15.62	2.89	2.26	1.62	0.76	0.28	0.66	**
107	21 39 25.77	+65 44 04.4	16.10			2.40	1.02	0.39	1.07	**
108	21 39 28.17	+65 33 29.5	16.21			1.97	0.94	0.37	0.87	f8
109	21 39 29.69	+65 32 43.3	13.28	4.36	3.63	2.59	1.13	0.42	0.96	g7 III
110	21 39 31.02	+66 19 37.5	14.24	2.95	2.49	1.68	0.68	0.29	0.68	g8.5 V
111	21 39 31.35	+65 45 24.7	15.69			2.06	0.84	0.39	0.75	k1 V
112	21 39 31.74	+65 48 42.4	12.20	2.55	1.81	1.01	0.41	0.14	0.37	**
113	21 39 32.34	+65 39 09.9	15.10			2.52	1.10	0.41	1.02	g6
114	21 39 32.63	+65 47 05.1	15.82		2.55	1.85	0.85	0.36	0.82	**
115	21 39 32.90	+65 40 21.7	13.44	2.50	1.96	1.34	0.59	0.19	0.57	**
116	21 39 33.20	+66 23 43.1	15.10	3.05	2.59	1.71	0.69	0.29	0.65	g8.5 V
117	21 39 33.53	+65 44 49.5	15.77		2.55	1.72	0.76	0.32	0.72	f7
118	21 39 33.88	+65 24 49.6	15.81		2.79	2.03	0.97	0.36	0.82	**
119	21 39 33.95	+65 41 02.6	13.45	2.41	1.89	1.27	0.55	0.18	0.56	f6 V
120	21 39 34.19	+65 50 21.8	14.71	3.10	2.62	1.77	0.72	0.29	0.69	g8.5 V
121	21 39 34.53	+66 05 49.7	11.80	3.77	3.17	2.16	0.85	0.35	0.80	g9.5 III
122	21 39 34.81	+65 51 48.7	16.07			1.78	0.80	0.33	0.76	f9
123	21 39 34.88	+66 03 11.6	14.70	2.85	2.33	1.59	0.69	0.25	0.65	g0 IV
124	21 39 34.99	+66 06 48.5	16.11			2.45	1.09	0.43	1.03	g4
125	21 39 35.53	+65 36 44.2	14.70		3.71	2.65	1.18	0.43	1.07	g5.5
126	21 39 35.53	+66 12 37.3	13.99	2.63	2.07	1.42	0.64	0.22	0.62	f5 V
127	21 39 36.09	+65 43 02.4	14.70			3.15	1.25	0.58	1.16	k2.7 III
128	21 39 37.04	+66 10 41.8	12.14	2.23	1.67	1.05	0.46	0.15	0.45	**
129	21 39 37.17	+66 27 57.0	11.25	2.41	1.94	1.30	0.52	0.20	0.54	f9.5 IV
130	21 39 37.63	+66 21 04.1	13.69	2.56	2.07	1.44	0.62	0.23	0.61	g0 V
131	21 39 38.15	+65 31 40.3	16.68			2.00	0.97	0.32	0.93	f6
132	21 39 38.16	+65 30 49.0	15.32	3.01	2.44	1.68	0.71	0.28	0.69	g1 IV
133	21 39 38.35	+66 02 51.9	13.53	2.41	1.85	1.26	0.55	0.22	0.50	f4 V
134	21 39 39.05	+65 39 09.8	16.11		2.51	1.79	0.79	0.25	0.79	f9
135	21 39 39.46	+65 24 54.3	15.54		2.67	1.91	0.90	0.35	0.73:	f8
136	21 39 41.30	+65 29 28.2	16.06			3.06	1.26	0.52	1.20	**
137	21 39 41.34	+66 03 24.8	15.13	3.44	2.91	1.96	0.73	0.33	0.73	g9.5 III
138	21 39 41.52	+65 32 19.8	14.72	3.12	2.61	1.75	0.73	0.29	0.70	**
139	21 39 42.03	+66 14 06.8	14.39			2.93	1.20	0.52	1.13	k1.5 III
140	21 39 42.08	+65 50 48.8	15.67		2.80	1.87	0.83	0.33	0.77	**
141	21 39 42.31	+65 59 54.5	14.71	3.58	3.07	2.19	0.98	0.39	0.88	g8.5 V
142	21 39 43.21	+66 12 34.0	14.20	3.36	2.82	1.91	0.80	0.31	0.76	g7 IV
143	21 39 43.94	+65 42 30.4	15.59		2.83	1.90	0.79	0.39	0.76	k0.7 V
144	21 39 43.96	+65 54 39.7	13.66	2.75	1.96	1.15	0.52	0.17	0.45	f1 III
145	21 39 44.00	+66 23 44.5	15.92			1.94	0.74	0.32	0.74	g9

Continued **Table A.2**

No	RA(2000)	DEC(2000)	V	U-V	P-V	X-V	Y-V	Z-V	V-S	Photom.
	h m s	° ′ ″	mag	mag	mag	mag	mag	mag	mag	sp.type
146	21 39 44.39	+65 49 37.0	15.52			2.57	1.09	0.45	0.93	g9
147	21 39 44.72	+65 27 24.7	15.79			2.15	0.80	0.45	0.86	**
148*	21 39 44.74	+65 55 44.0	9.73	2.07	1.57	1.06	0.42	0.15	0.44	f5 V
149	21 39 44.97	+66 05 30.8	14.34			3.84	1.51	0.69	1.36	k4.5 III
150	21 39 45.26	+65 53 38.5	12.80	2.83	2.38	1.56	0.61	0.27	0.60	g8.5 V
151	21 39 45.91	+65 40 21.8	15.81		2.64	1.85	0.85	0.29	0.82	**
152	21 39 46.00	+66 03 31.4	16.32			2.56	0.85	0.70	0.80	**
153	21 39 46.03	+65 56 27.3	12.44	2.41	1.72	1.00	0.42	0.16	0.37	f3 III
154	21 39 46.21	+66 27 45.4	15.77			2.49	0.90	0.58	0.91	k4.5 V
155	21 39 46.71	+65 52 54.9	15.93		2.26	1.55	0.74	0.31	0.64	f3
156	21 39 46.90	+66 17 02.1	13.17	2.54	1.96	1.34	0.56	0.19	0.56	f7 IV
157	21 39 47.69	+65 58 13.7	14.59	4.01	3.29	2.34	1.03	0.36	0.95	g4 III
158	21 39 48.14	+66 02 14.0	12.29	2.24	1.77	1.19	0.50	0.19	0.50	f7 V
159	21 39 48.42	+65 52 15.9	13.35	2.50	1.96	1.36	0.58	0.21	0.55	f7 V
160	21 39 48.97	+66 02 40.5	12.43	2.46	1.90	1.31	0.58	0.21	0.59	**
161	21 39 49.14	+65 42 21.8	14.43	2.99	2.27	1.52	0.71	0.25	0.67	**
162	21 39 49.50	+65 50 04.6	14.47	2.60	2.08	1.43	0.62	0.22	0.61	f9 V
163	21 39 49.57	+65 34 27.6	16.26			2.35	1.05	0.41	0.99	g8.5
164	21 39 50.25	+65 31 13.8	15.84			2.80	1.17	0.49	1.18	**
165	21 39 50.29	+65 28 08.3	14.39	4.10	3.40	2.42	1.08	0.39	1.02	g4 III
166	21 39 50.32	+65 49 35.3	14.48	2.47	1.90	1.31	0.60	0.19	0.56	f5 V
167	21 39 50.92	+66 13 22.5	13.68	2.41	1.88	1.26	0.53	0.20	0.53	f7 IV
168	21 39 51.22	+66 02 54.7	15.68	2.92	2.24	1.58	0.72	0.29	0.65	f4 V
169	21 39 51.26	+65 34 44.2	15.24			2.87	1.25	0.49	1.13	g9.5
170	21 39 51.64	+65 46 43.9	15.85			2.68	1.08	0.51	1.04	k1 IV
171	21 39 51.94	+65 38 15.1	14.69			3.04	1.27	0.51	1.13	k1.7 III
172	21 39 52.20	+65 22 57.1	13.76	2.61	2.09	1.44	0.64	0.23	0.58	f8 V
173	21 39 52.27	+66 24 34.3	14.24	3.40	2.53	1.55	0.70	0.24	0.61	a6 V
174	21 39 53.48	+66 09 28.3	11.52	2.30	1.61	0.90	0.37	0.13	0.35	f3 III
175	21 39 54.06	+66 06 24.7	14.66			2.84	1.18	0.44	1.12	m3.5 III
176	21 39 54.20	+65 50 00.6	14.38	2.79	2.11	1.38	0.62	0.21	0.59	f2 IV
177	21 39 54.27	+65 30 04.9	14.53		3.74	2.69	1.16	0.43	1.08	g8
178	21 39 54.80	+65 31 43.4	16.67			1.78	0.81	0.24	0.85	g2.5
179	21 39 54.92	+65 43 46.0	12.48	2.59	2.03	1.38	0.57	0.21	0.61	f9 IV
180	21 39 55.20	+66 04 07.1	15.21	2.99	2.54	1.71	0.69	0.35	0.69	k0 V
181	21 39 55.24	+66 06 04.6	12.94	2.48	1.91	1.28	0.54	0.17	0.49	**
182	21 39 55.31	+65 28 35.2	16.15			2.71	1.17	0.45	1.14	g9.5
183	21 39 56.11	+66 06 48.9	15.36			2.67	1.15	0.43	1.06	g8
184	21 39 56.34	+66 12 50.2	14.21	2.61	2.06	1.45	0.64	0.23	0.63	f7 V
185	21 39 56.40	+65 37 37.7	13.71	2.84	2.26	1.57	0.70	0.24	0.67	**
186	21 39 57.23	+65 22 57.9	15.21	2.94	2.37	1.66	0.72	0.27	0.69	f9.5 IV
187	21 39 57.39	+66 02 24.3	14.21	3.06	2.62	1.74	0.67	0.31	0.69	k0.7 V
188	21 39 58.05	+66 31 05.3	11.18	2.27	1.62	0.91	0.37	0.14	0.35	a9 IV
189	21 39 58.87	+65 26 09.9	16.29			1.97	0.91	0.32	0.87	f9.5
190	21 39 59.07	+65 38 02.9	14.76	3.32	2.71	1.91	0.87	0.33	0.79	**
191	21 39 59.26	+65 45 58.2	14.05	2.53	1.99	1.43	0.63	0.21	0.61	f6 V

Continued **Table A.2**

No	RA(2000)	DEC(2000)	V	U-V	P-V	X-V	Y-V	Z-V	V-S	Photom.
	h m s	° ′ ″	mag	mag	mag	mag	mag	mag	mag	sp.type
192	21 39 59.63	+66 25 33.7	15.81		2.84	1.88	0.73	0.37	0.70	k1.2 V
193	21 40 00.63	+66 18 23.4	14.02	3.14	2.64	1.74	0.68	0.29	0.69	g6 III
194	21 40 00.86	+65 46 34.3	16.35			2.03	0.76	0.46	0.81	k3 V
195	21 40 01.56	+65 31 46.4	16.70			2.00	0.90	0.36	0.88	g4
196	21 40 01.75	+65 34 35.2	12.85	2.43	1.89	1.30	0.58	0.20	0.55	f5 V
197	21 40 01.82	+65 28 18.7	16.85			1.87	0.89	0.43	0.79	f6 III
198	21 40 02.20	+65 51 49.6	14.93	2.67	2.12	1.48	0.66	0.26	0.56	f7 V
199	21 40 02.50	+65 26 01.1	13.27	4.29	3.55	2.51	1.12	0.41	1.06	g5 III
200	21 40 02.88	+65 57 07.5	16.06			2.05	0.76	0.40	0.80	k2.5 V
201	21 40 02.91	+66 18 44.4	13.96	3.12	2.69	1.77	0.68	0.32	0.70	k0.7 V
202	21 40 03.25	+65 41 26.2	16.08			2.34	1.05	0.47	0.93	g9
203	21 40 03.56	+65 39 37.8	15.22		3.28	2.18	0.82	0.46	0.83	k3.5 V
204	21 40 03.67	+65 57 44.0	10.29	3.79	3.16	2.18	0.84	0.33	0.80	g9 III
205	21 40 04.04	+65 47 09.8	11.55	4.77	4.07	2.77	1.03	0.46	0.98	k2.7 III
206	21 40 04.04	+65 46 56.7	14.36	4.13	3.45	2.43	1.03	0.38	1.03	**
207	21 40 04.23	+66 11 45.4	15.63			2.98	1.26	0.52	1.11	k1.2 III
208	21 40 04.52	+65 52 58.2	15.61	2.88	2.26	1.55	0.75	0.28	0.57	**
209	21 40 04.86	+66 05 21.4	14.39		3.76	2.62	1.09	0.44	1.00	**
210	21 40 05.60	+65 53 24.5	14.65	2.80	2.29	1.57	0.66	0.26	0.68	g4 V
211	21 40 05.92	+65 57 25.7	15.44	3.17	2.43	1.78	0.83	0.32	0.79	f5 V
212	21 40 05.99	+65 22 35.9	14.39	3.28	2.74	1.86	0.80	0.30	0.80	g5 IV
213	21 40 06.54	+65 51 54.7	15.55			2.72	1.08	0.60	1.18	m2 V
214	21 40 07.73	+65 25 32.8	15.90			2.66	1.18	0.44	1.03	g7
215	21 40 07.76	+66 11 34.8	14.77	3.37	2.81	1.86	0.72	0.33	0.70	g8.5 III
216	21 40 07.99	+65 40 35.3	16.63			2.01	0.81	0.41	0.83	k1 Vp
217	21 40 08.11	+65 28 59.3	16.14	2.42	2.06	1.46	0.64	0.20	0.73	f9 V
218	21 40 09.19	+66 05 21.6	14.72	2.83	2.15	1.46	0.65	0.20	0.69	f4 IV
219	21 40 09.29	+65 36 58.5	14.06	2.62	2.09	1.44	0.64	0.23	0.61	f7 V
220	21 40 09.53	+66 10 26.6	15.12	3.34	2.85	1.92	0.77	0.30	0.85	**
221	21 40 09.61	+65 52 07.5	13.75	3.93	3.45	2.33	0.81	0.55	0.87	k4.5 V
222	21 40 09.63	+66 03 24.6	14.65	2.59	2.08	1.43	0.62	0.22	0.59	f9 V
223	21 40 09.69	+65 21 55.1	13.25		1.99	1.11	0.55	0.17		b9.5
224	21 40 10.13	+65 37 32.1	14.21	2.81	2.30	1.62	0.70	0.28	0.68	g2 V
225	21 40 10.17	+65 50 33.5	13.93	3.24	2.66	1.87	0.80	0.30	0.75	g3 IV
226	21 40 10.36	+65 28 58.7	16.95			1.80	0.87	0.35	0.79	f2
227	21 40 10.85	+65 48 06.4	15.31	2.84	2.23	1.56	0.70	0.25	0.71	f7 IV
228	21 40 11.09	+66 19 48.7	15.12	2.93	2.41	1.62	0.66	0.26	0.67	g4 IV
229	21 40 11.50	+65 59 06.7	12.97	2.50	1.98	1.37	0.61	0.21	0.60	**
230	21 40 11.87	+66 05 44.2	14.22	3.14	2.62	1.89	0.82	0.24	0.89	**
231	21 40 12.16	+66 12 32.6	15.08	2.71	2.18	1.51	0.67	0.24	0.65	f9 V
232	21 40 12.23	+66 08 01.9	15.10	3.21	2.66	1.82	0.76	0.34	0.69	g6 IV
233	21 40 12.42	+65 37 59.9	16.31			1.75	0.79	0.28	0.80	g0
234	21 40 12.70	+66 03 57.1	15.12	3.39	2.89	1.88	0.75	0.35	0.75	k1 V
235	21 40 12.90	+66 07 48.8	15.46	3.03	2.39	1.65	0.79	0.34	0.62	**
236	21 40 13.37	+66 32 08.8	14.00			4.15	1.75	0.75	1.61	m2.5 III
237	21 40 13.90	+65 51 41.9	16.37			1.86	0.75	0.33	0.75	g8

Continued **Table A.2**

No	RA(2000)	DEC(2000)	V	U-V	P-V	X-V	Y-V	Z-V	V-S	Photom.
	h m s	° ′ ″	mag	mag	mag	mag	mag	mag	mag	sp.type
238	21 40 14.13	+65 32 01.2	15.52			3.32	1.28	0.62	1.21	m2.5 III
239	21 40 14.22	+65 57 41.8	12.65	4.13	3.46	2.41	0.99	0.40	0.94	g9 III
240	21 40 14.30	+65 28 45.9	11.54	3.59	2.99	2.09	0.86	0.32	0.84	g5.5 III
241	21 40 14.33	+65 58 36.2	15.45	3.00	2.45	1.79	0.78	0.33	0.78	g2.5 V
242	21 40 15.39	+65 32 12.9	15.95			2.08	0.80	0.42	0.82	k2.2 V
243	21 40 15.90	+65 23 15.2	14.15	2.72	2.20	1.55	0.68	0.24	0.68	g0 V
244	21 40 15.92	+65 33 24.1	13.74	2.51	1.99	1.39	0.62	0.21	0.59	f7 V
245	21 40 16.10	+65 34 36.5	14.78	2.76	2.24	1.56	0.68	0.25	0.65	g0 V
246	21 40 16.53	+65 53 41.7	15.58			2.49	1.06	0.40	0.97	g7
247	21 40 16.88	+65 29 13.0	15.60			2.82	1.15	0.47	1.11	k1.2 III
248	21 40 18.24	+65 55 21.4	15.92			2.34	0.85	0.53	0.86	m2 V
249	21 40 18.55	+65 35 35.7	16.04			2.66	1.12	0.51	1.03	k2.5 V
250	21 40 18.64	+65 40 58.8	13.07	2.58	1.89	1.20	0.54	0.19	0.52	f2 IV
251	21 40 18.79	+65 32 27.1	13.67	2.46	1.90	1.27	0.57	0.19	0.55	**
252	21 40 19.07	+65 51 08.2	14.91			2.49	0.83	0.58	1.00	k6 V
253	21 40 19.11	+65 43 38.8	16.16		2.44	1.72	0.77	0.24	0.78	f9
254	21 40 19.50	+65 48 17.8	15.48			2.71	1.09	0.45	1.05	k1.2 III
255	21 40 19.60	+65 42 01.0	14.66	2.84	2.37	1.64	0.69	0.25	0.68	g4 V
256	21 40 19.61	+66 17 02.5	15.23	3.39	2.86	1.90	0.70	0.36	0.73	k0.5 III
257	21 40 19.82	+65 37 16.5	15.97		2.45	1.64	0.70	0.26	0.69	g5
258	21 40 21.55	+65 35 26.7	16.19		2.36	1.68	0.83	0.30	0.76	f5
259	21 40 21.56	+66 09 48.4	16.22			2.59	1.15	0.43	1.00	g7
260	21 40 21.60	+65 40 29.8	15.01	3.06	2.54	1.75	0.74	0.30	0.71	g6 V
261	21 40 22.35	+65 41 50.1	13.94	3.01	2.49	1.67	0.70	0.27	0.67	g4 IV
262	21 40 22.87	+65 26 46.1	16.44			1.95	0.94	0.35	0.87	**
263	21 40 23.00	+65 29 34.7	16.60			2.12	0.81	0.43	0.86	**
264	21 40 23.35	+66 05 41.4	14.99	3.20	2.53	1.79	0.83	0.28	0.77	f6 V
265	21 40 23.72	+65 26 09.2	16.68			1.93	0.90	0.30	0.80	f9
266	21 40 24.04	+65 49 38.7	13.84	2.57	2.01	1.38	0.60	0.22	0.61	f7 IV
267	21 40 24.26	+65 50 43.3	15.07	2.83	2.27	1.56	0.68	0.26	0.64	f9 IV
268	21 40 24.33	+66 01 33.3	14.13	2.86	2.36	1.59	0.67	0.27	0.64	g2 IV
269	21 40 24.83	+66 08 05.4	15.37	2.93	2.34	1.66	0.77	0.26	0.73	f7 V
270	21 40 24.88	+65 34 16.7	15.12			2.58	1.09	0.42	1.03	g9.5
271	21 40 25.42	+65 24 17.1	15.05	3.02	2.28	1.55	0.76	0.24	0.71	f4 IV
272	21 40 25.75	+66 19 47.9	14.42	2.73	2.17	1.47	0.63	0.21	0.63	**
273	21 40 25.79	+65 33 16.4	15.79		2.44	1.57	0.73	0.22	0.79	**
274	21 40 25.79	+66 13 50.7	14.56	2.65	2.20	1.54	0.66	0.26	0.64	g2 V
275	21 40 27.00	+66 09 15.9	15.64		2.55	1.82	0.86	0.31	0.77	f6
276	21 40 27.96	+65 55 18.7	16.00		2.27	1.61	0.75	0.29	0.70	f5
277	21 40 28.12	+65 40 35.0	13.09	2.82	2.22	1.56	0.68	0.24	0.65	f8 IV
278	21 40 28.21	+66 05 53.0	15.90		2.52	1.75	0.83	0.34	0.73	f7
279	21 40 28.47	+65 47 11.4	15.85			2.45	1.08	0.41	1.01	k0
280	21 40 28.50	+65 40 02.9	16.20		2.47	1.77	0.84	0.31	0.71	**
281	21 40 28.62	+65 31 14.6	16.11			2.33	0.86	0.54	0.94	m2 V
282	21 40 29.92	+65 46 28.4	12.66	3.40	2.83	1.95	0.81	0.34	0.78	g8 IV
283	21 40 30.06	+65 48 22.6	14.83			3.01	1.15	0.54	1.09	m3 III

Continued **Table A.2**

No	RA(2000)	DEC(2000)	V	U-V	P-V	X-V	Y-V	Z-V	V-S	Photom.
	h m s	° ′ ″	mag	mag	mag	mag	mag	mag	mag	sp.type
284	21 40 30.13	+66 28 48.6	12.53	2.23	1.67	1.09	0.48	0.18	0.45	f3 V
285	21 40 30.18	+65 41 57.1	12.17	5.84	4.92	3.44	1.33	0.60	1.28	**
286	21 40 30.45	+65 55 24.7	15.15			2.79	1.13	0.51	1.02	**
287	21 40 30.82	+65 56 51.0	16.02		2.53	1.84	0.81	0.31	0.73	g1
288	21 40 31.40	+66 10 16.8	15.38			2.86	1.17	0.46	1.15	k1 III
289	21 40 31.89	+65 58 38.1	13.98	2.67	2.03	1.35	0.63	0.24	0.56	f4 IV
290	21 40 31.94	+65 38 00.7	15.43			2.40	1.00	0.40	1.00	g9
291	21 40 32.71	+65 37 08.1	14.79	3.93	3.22	2.34	0.99	0.41	0.95	g5.5 III
292	21 40 32.79	+66 09 50.0	15.19	3.02	2.51	1.71	0.66	0.27	0.69	g7 IV
293	21 40 33.10	+65 33 06.3	16.15		2.34	1.65	0.78	0.28	0.77	**
294	21 40 33.32	+65 33 22.8	14.64	2.65	2.15	1.48	0.63	0.22	0.62	f9.5 V
295	21 40 34.53	+65 56 13.5	15.48		2.75	1.87	0.75	0.34	0.70	k0 V
296	21 40 34.55	+65 32 24.7	13.85	3.42	2.91	1.97	0.76	0.37	0.76	k1.2 V
297	21 40 34.58	+65 43 57.3	14.92	2.98	2.30	1.59	0.77	0.26	0.69	f4 IV
298	21 40 35.38	+65 42 09.6	14.95			3.08	1.25	0.49	1.21	m3.5 III
299	21 40 35.48	+65 32 42.5	14.76	3.43	2.86	1.92	0.74	0.37	0.78	**
300	21 40 35.70	+66 08 05.7	16.20			2.40	1.08	0.43	0.96	g9
301	21 40 35.80	+65 43 30.4	15.04		3.41	2.28	0.89	0.47	0.83	k3.2 V
302	21 40 35.84	+66 03 35.2	12.93	2.37	1.80	1.19	0.53	0.18	0.50	**
303	21 40 35.92	+66 13 45.0	14.93	3.49	2.68	1.75	0.86	0.29	0.71	**
304	21 40 36.30	+65 49 56.1	14.89	2.62	2.03	1.42	0.64	0.24	0.59	f5 V
305	21 40 36.31	+65 45 59.6	15.56		2.91	1.90	0.73	0.35	0.79	k1.5 V
306	21 40 36.44	+65 31 21.2	15.43	2.75	2.18	1.54	0.69	0.23	0.65	f7 V
307	21 40 36.75	+66 26 26.0	14.94	3.17	2.66	1.74	0.71	0.30	0.68	g6 III
308	21 40 37.30	+66 05 29.9	15.50			2.42	1.08	0.43	0.96	g9
309	21 40 37.59	+65 30 16.4	16.27			2.50	1.05	0.37	1.03	m4 III
310	21 40 37.60	+65 32 08.3	16.45			1.94	0.91	0.37	0.77	**
311	21 40 37.62	+66 04 07.8	14.10	2.53	1.88	1.21	0.55	0.19	0.51	f2 IV
312	21 40 38.09	+65 39 14.8	13.53	4.46	3.71	2.63	1.07	0.42	1.00	**
313	21 40 38.14	+65 25 18.1	13.03		5.04	3.59	1.43	0.63	1.33	k3.5 III
314	21 40 39.22	+66 33 36.5	16.60			2.04	0.91	0.27	0.88	m4.5 III
315	21 40 39.62	+65 31 26.2	15.41	2.78	2.21	1.55	0.67	0.23	0.66	f8 V
316	21 40 39.76	+65 40 19.4	15.28	3.01	2.34	1.62	0.75	0.28	0.65	f6 IV
317	21 40 39.78	+65 27 42.8	15.68			2.80	1.15	0.46	1.09	**
318	21 40 40.33	+66 07 40.8	15.89			3.11	1.22	0.56	1.09	k2.7 III
319	21 40 40.58	+65 28 33.4	13.63	4.49	3.77	2.61	1.12	0.44	1.05	g9.5 III
320	21 40 40.73	+66 00 31.8	12.84	2.52	2.03	1.40	0.60	0.22	0.57	**
321	21 40 40.90	+65 53 44.1	15.23			3.40	1.32	0.62	1.22	k3.7 III
322	21 40 41.13	+65 39 10.2	15.79	2.98	2.30	1.48	0.65	0.24	0.66	f4 IV
323	21 40 41.67	+65 34 59.0	16.47			1.83	0.78	0.31	0.81	g3
324	21 40 43.05	+65 29 52.7	16.00			1.93	0.76	0.31	0.81	g9.5
325	21 40 43.11	+65 26 09.4	14.95	2.68	2.19	1.52	0.64	0.22	0.65	g1 V
326	21 40 43.56	+66 10 01.9	14.55	3.20	2.51	1.82	0.84	0.31	0.77	f7 V
327	21 40 44.04	+66 09 44.0	14.75	2.96	2.42	1.67	0.70	0.29	0.67	g2 IV
328	21 40 44.12	+65 25 40.1	15.79			2.13	0.96	0.35	0.88	g6
329	21 40 44.98	+66 14 17.0	15.07	2.85	2.45	1.66	0.69	0.30	0.67	**

Continued **Table A.2**

No	RA(2000)	DEC(2000)	V	U-V	P-V	X-V	Y-V	Z-V	V-S	Photom.
	h m s	° ′ ″	mag	mag	mag	mag	mag	mag	mag	sp.type
330	21 40 45.42	+66 08 46.1	16.41			2.18	1.05	0.36	0.89	f9
331	21 40 45.76	+65 54 36.0	12.96	4.36	3.64	2.54	1.01	0.42	0.96	k0.7 III
332	21 40 46.94	+66 07 28.5	14.13	2.52	1.89	1.29	0.57	0.21	0.54	f4 V
333	21 40 47.14	+66 14 48.0	15.27			2.22	0.82	0.48	0.83	k3.5 V
334	21 40 47.43	+65 37 57.7	14.05	2.91	2.47	1.66	0.65	0.28	0.68	g9 V
335	21 40 47.61	+65 22 09.9	14.98			2.49	1.06	0.44	0.97	k0 IV
336	21 40 47.82	+65 58 10.8	13.82	2.61	2.03	1.42	0.63	0.23	0.59	f6 V
337	21 40 48.03	+65 35 19.9	11.31	3.51	2.93	2.06	0.85	0.30	0.82	**
338	21 40 48.06	+65 34 12.6	14.05	2.49	1.91	1.33	0.61	0.20	0.57	f5 V
339*	21 40 48.73	+66 19 18.0	8.54	4.54	3.85	2.69	0.99	0.43	0.94	k2.2 III
340	21 40 49.09	+65 41 33.2	14.94	3.02	2.54	1.73	0.73	0.31	0.70	g7 V
341	21 40 49.19	+65 39 25.0	14.92	2.65	2.12	1.45	0.64	0.23	0.63	f8 IV
342	21 40 49.20	+66 33 07.7	16.34			2.24	0.80	0.50	0.76	k3.7 V
343	21 40 49.26	+66 08 28.7	11.70	2.53	1.99	1.37	0.58	0.22	0.57	f7 V
344	21 40 49.33	+65 52 51.4	14.93	3.29	2.80	1.89	0.75	0.35	0.72	k0.7 V
345	21 40 50.08	+66 11 40.0	15.81		2.59	1.75	0.70	0.30	0.67	g9
346	21 40 51.47	+65 46 23.0	14.12	3.55	2.96	2.10	0.91	0.34	0.87	g7 V
347	21 40 52.06	+66 02 56.7	14.72	3.16	2.56	1.75	0.80	0.30	0.74	f9 IV
348	21 40 52.23	+65 51 08.1	13.73	2.55	1.94	1.31	0.57	0.20	0.59	**
349	21 40 52.78	+65 53 32.1	13.05	2.41	1.82	1.21	0.56	0.18	0.53	**
350	21 40 52.93	+66 20 27.5	12.06	2.43	1.97	1.34	0.55	0.22	0.56	g1.5 V
351	21 40 53.72	+65 57 05.4	15.16	2.81	2.25	1.56	0.71	0.24	0.65	f7 V
352	21 40 54.37	+65 35 22.8	15.03	3.42	2.77	1.88	0.75	0.34	0.80	g2 I
353	21 40 54.77	+65 37 40.1	14.23	3.08	2.57	1.74	0.73	0.29	0.71	**
354	21 40 54.90	+66 13 39.2	14.96			3.88	1.56	0.66	1.41	**
355	21 40 55.16	+65 53 53.6	15.88			2.69	0.95	0.65	1.12	k6 V
356	21 40 56.16	+66 29 37.1	13.32	2.52	2.06	1.42	0.60	0.23	0.57	g1 V
357	21 40 56.49	+65 29 30.7	14.55	2.57	1.99	1.39	0.63	0.22	0.57	f5 V
358	21 40 56.63	+65 47 28.4	14.56	3.22	2.51	1.80	0.78	0.29	0.85	f9 IV
359	21 40 56.84	+65 51 59.5	15.98		2.41	1.66	0.76	0.28	0.69	f7
360	21 40 57.55	+65 39 30.2	13.73	2.96	2.52	1.67	0.67	0.29	0.65	g9 V
361	21 40 57.67	+66 02 25.3	14.10			3.56	1.62	0.47	1.63	m4 III
362	21 40 57.91	+66 12 29.8	15.53			2.35	1.07	0.42	1.04	g7
363	21 40 58.30	+65 46 42.6	16.84			1.70	0.74	0.57	0.90	**
364	21 40 58.92	+66 06 07.6	14.32	2.93	2.14	1.40	0.65	0.21	0.59	f1 IV
365	21 40 59.95	+65 31 38.8	15.05	2.87	2.23	1.54	0.75	0.26	0.68	f4 V
366	21 41 00.16	+66 04 27.5	15.91			2.57	1.08	0.41	1.00	g9
367	21 41 00.41	+65 43 55.3	15.93			1.93	0.83	0.36	0.79	**
368	21 41 00.80	+65 35 47.6	16.22			1.70	0.81	0.27	0.81	f5
369	21 41 00.84	+65 37 13.5	11.22	2.37	1.67	0.89	0.35	0.12	0.31	f0 III
370	21 41 00.86	+65 53 21.7	12.45	4.09	3.43	2.39	1.00	0.39	0.93	g8.5 III
371	21 41 00.97	+66 20 27.3	14.11	3.08	2.57	1.76	0.72	0.30	0.72	g8 V
372	21 41 01.15	+65 47 29.0	16.12		2.26	1.50	0.70	0.22	0.68	f4
373	21 41 01.89	+65 55 51.1	14.26	2.70	2.12	1.50	0.64	0.27	0.61	f9.5 V
374	21 41 02.33	+66 17 25.7	15.19			2.66	1.09	0.59	1.17	m1 V
375	21 41 02.54	+65 51 09.0	16.12			1.90	0.84	0.36	0.77	g2

Continued **Table A.2**

No	RA(2000)	DEC(2000)	V	U-V	P-V	X-V	Y-V	Z-V	V-S	Photom.
	h m s	° ′ ″	mag	mag	mag	mag	mag	mag	mag	sp.type
376	21 41 02.72	+65 36 03.3	15.43		2.92	1.96	0.80	0.36	0.76	**
377	21 41 02.81	+66 19 25.3	14.49	3.18	2.66	1.79	0.70	0.28	0.74	g6 III
378	21 41 02.86	+65 33 08.9	16.16			1.96	0.88	0.39	0.84	g1
379	21 41 03.17	+66 15 14.6	16.09			1.97	0.99	0.35	0.86	a5
380	21 41 04.49	+66 15 59.5	15.48		2.55	1.88	0.90	0.32	0.74	f5
381	21 41 04.74	+66 12 41.5	14.75			3.12	1.30	0.50	1.18	m3.5 III
382	21 41 04.81	+65 59 56.9	12.03	2.39	1.90	1.28	0.54	0.21	0.52	f8 IV
383	21 41 05.16	+65 23 35.3	15.68			2.33	1.00	0.40	0.94	g8.5
384	21 41 05.31	+65 38 12.3	15.92		2.17	1.53	0.73	0.27	0.62	f5
385	21 41 05.41	+66 06 46.3	15.03	2.91	2.34	1.66	0.72	0.28	0.72	g1 V
386	21 41 05.75	+66 05 02.9	15.09	2.87	2.39	1.65	0.71	0.30	0.68	g5 V
387	21 41 06.06	+65 46 09.8	15.17	2.86	2.29	1.62	0.67	0.23	0.69	**
388	21 41 06.51	+65 50 29.9	16.03			2.04	0.81	0.43	0.74	k1.5 V
389	21 41 07.04	+66 01 32.8	12.38	2.36	1.85	1.27	0.56	0.22	0.53	f7 V
390	21 41 07.51	+66 21 30.1	15.20	2.56	2.10	1.50	0.64	0.23	0.62	g0 V
391	21 41 08.40	+65 26 26.8	11.91	2.41	1.83	1.23	0.53	0.19	0.53	f4 V
392	21 41 08.56	+65 39 41.6	16.30			1.98	0.78	0.31	0.81	k0
393	21 41 09.27	+65 33 45.2	15.47	2.98	2.17	1.38	0.62	0.24	0.64	**
394	21 41 09.57	+65 23 27.0	16.30			2.32	0.86	0.49	0.90	**
395	21 41 09.90	+65 28 51.5	15.67			3.27	1.31	0.58	1.26	m3 III
396	21 41 10.61	+65 58 01.6	13.79	2.82	2.15	1.49	0.70	0.28	0.63	f4 IV
397	21 41 11.38	+65 45 16.9	15.64	2.81	2.20	1.56	0.70	0.24	0.65	f6 V
398	21 41 12.09	+65 47 48.6	16.39			2.17	1.00	0.38	0.84	**
399	21 41 12.18	+65 45 34.0	15.51	2.94	2.41	1.71	0.74	0.24	0.74	g0 V
400	21 41 12.20	+65 34 38.1	15.02	2.79	2.24	1.54	0.66	0.24	0.73	**
401	21 41 13.01	+65 55 40.5	14.84	3.25	2.77	1.82	0.73	0.30	0.69	g8.5 IV
402	21 41 13.28	+65 49 35.4	15.85			2.45	1.00	0.38	0.97	k0
403	21 41 13.47	+65 28 45.5	14.35		4.16	2.83	1.13	0.45	1.10	k1.7 III
404	21 41 13.69	+66 17 45.8	14.90			3.00	1.28	0.50	1.19	k0.7 III
405	21 41 13.78	+66 11 02.7	13.66	2.60	2.03	1.41	0.62	0.23	0.60	f7 V
406	21 41 14.24	+65 30 15.8	13.42	3.43	2.92	1.94	0.72	0.37	0.78	k0.5 IV
407	21 41 14.66	+65 45 45.4	15.08	2.78	2.17	1.52	0.73	0.27	0.66	f5 V
408	21 41 14.85	+66 19 49.2	13.79	2.66	2.18	1.48	0.63	0.23	0.61	g2 V
409	21 41 15.27	+66 23 29.1	15.76			2.38	0.89	0.51	0.86	k3.7 V
410	21 41 15.41	+65 55 17.3	15.00			2.50	1.07	0.40	0.98	g8
411	21 41 15.66	+65 42 35.7	14.53	2.91	2.34	1.62	0.71	0.28	0.69	**
412	21 41 15.97	+65 34 56.4	14.54	2.71	2.14	1.48	0.65	0.22	0.62	f6 V
413	21 41 16.04	+65 23 25.6	14.66	2.87	2.33	1.61	0.69	0.25	0.65	f9.5 IV
414	21 41 16.63	+65 56 29.5	12.59	2.76	2.32	1.51	0.60	0.24	0.61	**
415	21 41 16.65	+65 41 48.9	13.86	3.85	3.20	2.25	0.97	0.37	0.91	g5 III
416	21 41 16.89	+65 39 34.4	14.11	2.85	2.28	1.59	0.71	0.25	0.67	f9 V
417	21 41 18.68	+65 43 43.0	16.09			2.42	1.01	0.41	0.89	g9
418	21 41 18.80	+65 24 45.2	11.78	2.44	1.85	1.24	0.53	0.18	0.55	**
419	21 41 18.80	+66 15 33.7	12.86	5.43	4.54	3.22	1.33	0.55	1.20	k2 III
420	21 41 19.09	+65 44 02.7	15.69		2.40	1.66	0.74	0.27	0.71	f0 IV
421	21 41 19.74	+66 30 15.5	11.31	4.36	3.68	2.53	0.98	0.41	0.89	k1.5 III

Continued **Table A.2**

No	RA(2000)	DEC(2000)	V	U-V	P-V	X-V	Y-V	Z-V	V-S	Photom.
	h m s	° ′ ″	mag	mag	mag	mag	mag	mag	mag	sp.type
422	21 41 19.95	+65 26 14.2	14.27	2.60	2.05	1.45	0.66	0.24	0.62	f6 V
423	21 41 20.29	+65 25 04.7	16.41			2.32	1.06	0.42	0.96	g7
424	21 41 20.65	+65 28 55.6	14.86	2.87	2.36	1.59	0.68	0.28	0.69	**
425	21 41 21.62	+65 30 25.4	13.01	2.41	1.90	1.33	0.59	0.21	0.56	f6 V
426	21 41 22.14	+65 44 17.1	15.49			2.59	1.10	0.48	1.02	**
427	21 41 22.29	+66 01 38.5	14.75	2.74	2.30	1.60	0.65	0.28	0.69	g5.5 V
428	21 41 22.87	+65 53 00.4	15.41	3.13	2.45	1.75	0.81	0.27	0.78	**
429	21 41 22.98	+66 33 56.8	15.52	2.65	2.24	1.55	0.64	0.25	0.62	g4 V
430	21 41 23.15	+65 25 16.1	16.69			1.97	0.87	0.33	0.82	g6
431	21 41 23.44	+65 39 55.6	16.08			2.43	1.01	0.42	1.01	g9.5
432	21 41 23.54	+65 35 06.5	14.95			2.88	1.15	0.50	1.08	**
433	21 41 23.88	+65 57 29.9	15.78		2.49	1.70	0.79	0.31	0.61	f3
434	21 41 23.96	+66 25 06.2	15.64			2.05	0.79	0.42	0.78	k2 V
435	21 41 24.52	+65 56 29.0	14.52	2.83	2.33	1.58	0.70	0.30	0.51	**
436	21 41 25.28	+65 34 17.6	14.75	2.73	2.18	1.51	0.65	0.23	0.64	f9 V
437	21 41 25.62	+65 29 47.5	15.25			2.55	1.04	0.43	0.99	k0.7 IV
438	21 41 26.21	+65 55 04.3	14.73	2.77	2.25	1.56	0.68	0.33	0.62	g1.5 IV
439	21 41 26.28	+65 33 52.0	12.58	4.53	3.82	2.63	1.05	0.43	1.00	k1.2 III
440	21 41 26.34	+65 31 40.8	14.65	3.08	2.30	1.52	0.73	0.25	0.64	f1 IV
441	21 41 26.43	+65 53 40.3	16.23			2.06	0.83	0.41	0.76	**
442	21 41 26.98	+65 50 55.1	15.62			2.70	1.23	0.56	1.07	**
443	21 41 27.08	+65 46 33.0	13.48	3.41	2.94	1.95	0.72	0.39	0.76	**
444	21 41 27.36	+65 29 07.3	16.33			1.83	0.85	0.31	0.81	f9
445	21 41 27.49	+65 25 44.1	16.73			1.81	0.86	0.26	0.84	g2
446	21 41 27.51	+65 47 03.6	15.26	2.64	2.15	1.52	0.67	0.25	0.63	g0 V
447	21 41 27.58	+65 44 24.6	16.01			2.30	0.87	0.55	0.91	k3.7 V
448	21 41 27.71	+65 50 14.9	13.19	3.01	2.17	1.39	0.64	0.24	0.60	f1 III
449	21 41 28.00	+65 40 19.3	13.80	2.87	2.07	1.24	0.55	0.19	0.45	**
450	21 41 29.71	+66 23 12.6	13.93	3.81	2.84	2.00	0.93	0.31	0.88	f4 III
451	21 41 30.12	+65 30 09.2	14.38	2.91	2.39	1.64	0.71	0.26	0.69	g4 V
452	21 41 30.21	+66 04 03.3	11.10	1.85	1.24	0.55	0.23	0.08	0.17	b9 V
453	21 41 31.62	+66 06 29.2	15.20	3.07	2.30	1.64	0.77	0.26	0.73	f4 V
454	21 41 31.65	+65 43 36.4	13.31	2.40	1.86	1.30	0.58	0.20	0.56	f5 V
455	21 41 31.81	+65 57 37.9	14.94	2.77	2.09	1.55	0.69	0.23	0.65	f5 V
456	21 41 31.93	+65 33 02.6	15.23	2.55	2.03	1.47	0.66	0.26	0.63	f8 V
457	21 41 32.00	+65 37 39.5	13.80	2.86	2.17	1.43	0.66	0.24	0.62	**
458	21 41 32.78	+65 23 25.1	15.64			2.57	1.08	0.43	1.03	k0
459	21 41 32.98	+66 13 43.6	15.93			2.68	1.23	0.46	1.07	g4
460*	21 41 33.17	+66 22 20.5	15.70			2.83	1.28	0.60	1.33	YSO
461	21 41 33.19	+65 38 24.1	14.50	3.03	2.63	1.79	0.70	0.38	0.69	k0.5 V
462	21 41 33.38	+66 04 59.7	13.88	2.48	1.99	1.37	0.61	0.22	0.60	f8 V
463	21 41 33.47	+65 40 32.1	16.31			2.48	1.02	0.36	1.01	m4 III
464	21 41 33.59	+65 41 02.0	15.92			2.37	1.00	0.35	0.94	g7
465	21 41 34.02	+66 09 24.2	12.93	3.36	2.81	1.91	0.77	0.31	0.74	g6 III
466	21 41 34.16	+65 32 43.1	16.38			1.84	0.85	0.32	0.78	g0
467	21 41 34.55	+65 54 34.3	16.25			2.12	1.00	0.37	0.91	f9

Continued **Table A.2**

No	RA(2000)	DEC(2000)	V	U-V	P-V	X-V	Y-V	Z-V	V-S	Photom.
	h m s	° ′ ″	mag	mag	mag	mag	mag	mag	mag	sp.type
468	21 41 34.81	+66 11 25.6	16.21			2.12	0.91	0.36	0.85	g9
469	21 41 36.07	+65 34 54.4	14.95		3.32	2.29	0.97	0.37	0.93	g6
470	21 41 36.31	+65 27 53.1	16.34			2.30	0.98	0.35	1.04	**
471	21 41 36.35	+66 21 49.9	15.57		2.99	1.97	0.77	0.37	0.76	k1.5 V
472	21 41 36.59	+65 24 38.1	15.37		3.41	2.31	1.00	0.37	0.96	g7
473	21 41 36.94	+66 08 26.1	16.19			2.01	0.86	0.38	0.77	g9
474	21 41 38.37	+65 42 29.1	13.30	2.74	1.97	1.26	0.54	0.20	0.51	f3 III
475	21 41 39.64	+65 36 13.8	13.98	4.03	3.33	2.35	0.98	0.35	0.92	g7 III
476	21 41 39.67	+65 26 32.9	15.43		2.87	2.01	0.91	0.33	0.86	g1
477	21 41 40.04	+66 00 12.4	15.64		2.39	1.68	0.78	0.32	0.69	f8
478	21 41 41.13	+65 28 36.1	13.12	2.76	1.92	1.04	0.46	0.16	0.40	a1 IV
479	21 41 41.45	+65 31 16.8	14.33			3.15	1.21	0.55	1.20	**
480	21 41 41.81	+65 56 58.9	15.26	3.09	2.43	1.69	0.79	0.30	0.76	**
481	21 41 42.04	+65 44 14.0	14.26	3.38	2.94	1.92	0.73	0.39	0.72	**
482	21 41 42.50	+66 02 35.9	13.50	2.60	1.98	1.32	0.61	0.21	0.59	**
483	21 41 42.67	+65 32 25.8	14.45	2.85	2.18	1.49	0.70	0.24	0.66	**
484	21 41 42.91	+66 01 14.5	15.34			2.80	1.16	0.50	1.08	k1.2 III
485	21 41 43.16	+65 28 21.3	16.16			2.50	0.99	0.42	1.07	k1 IV
486	21 41 43.68	+65 30 26.1	15.13	2.60	2.07	1.43	0.63	0.22	0.61	f7 V
487	21 41 44.27	+65 53 24.5	16.52			2.01	0.95	0.38	0.84	f9.5
488	21 41 44.32	+65 39 35.4	14.24			2.85	1.10	0.49	1.01	k2.2 III
489	21 41 45.38	+65 44 50.1	15.62	2.87	2.24	1.59	0.73	0.29	0.64	f5 V
490	21 41 46.03	+65 29 55.6	12.78	2.51	1.86	1.21	0.53	0.18	0.51	f2 IV
491	21 41 46.46	+65 57 31.0	14.50	3.64	3.10	2.09	0.75	0.44	0.77	k1.7 III
492	21 41 46.69	+65 27 00.4	15.49	2.98	2.21	1.56	0.72	0.29	0.58	**
493	21 41 46.80	+65 58 54.7	11.70	2.80	2.38	1.59	0.61	0.29	0.63	g9 V
494	21 41 46.88	+66 29 26.1	15.80		2.71	1.84	0.91	0.34	0.81	f1
495	21 41 46.94	+65 42 11.7	16.22			2.08	0.91	0.31	0.87	g0
496	21 41 46.96	+65 25 45.2	15.89			1.94	0.76	0.32	0.71	k0 IV
497	21 41 47.56	+65 34 41.6	12.03	2.68	1.94	1.22	0.53	0.18	0.51	f3 III
498	21 41 47.80	+65 29 21.9	13.18	2.34	1.77	1.14	0.50	0.15	0.49	**
499	21 41 48.07	+65 33 29.6	15.80		2.36	1.70	0.79	0.32	0.71	f7
500	21 41 48.64	+65 36 45.3	15.15	2.75	2.10	1.44	0.64	0.23	0.63	f4 V
501	21 41 49.06	+65 24 21.6	15.32	2.95	2.36	1.65	0.71	0.27	0.67	f9.5 IV
502	21 41 49.55	+65 25 35.1	15.91		2.42	1.71	0.78	0.28	0.73	f9
503	21 41 49.55	+66 34 10.0	12.84	5.41	4.71	3.32	1.50	0.60	1.27	k1 IV
504	21 41 49.65	+65 32 19.8	15.62		2.44	1.72	0.77	0.28	0.76	f8
505	21 41 50.24	+65 26 03.0	12.04	6.07	5.10	3.62	1.41	0.69	1.31	k4.5 III
506	21 41 50.85	+65 31 48.3	15.97			2.76	1.09	0.45	1.05	**
507	21 41 51.10	+65 59 30.7	13.96	3.00	2.18	1.39	0.63	0.22	0.58	f2 III
508	21 41 51.21	+66 04 02.0	16.11		2.45	1.69	0.78	0.29	0.72	f7 III
509	21 41 51.23	+65 56 38.0	11.41	2.23	1.49	0.69	0.28	0.09	0.22	a0.5 III
510	21 41 51.46	+65 27 32.0	15.58	2.89	2.20	1.54	0.71	0.25	0.71	**
511	21 41 51.48	+65 54 52.6	15.24			2.83	1.21	0.51	1.09	k0.7 IV
512	21 41 51.49	+65 53 19.9	14.33	2.66	2.14	1.49	0.66	0.24	0.62	f9 V
513	21 41 51.89	+65 33 33.8	16.54			1.86	0.82	0.33	0.80	g1.5

Continued **Table A.2**

No	RA(2000)	DEC(2000)	V	U-V	P-V	X-V	Y-V	Z-V	V-S	Photom.
	h m s	° ′ ″	mag	mag	mag	mag	mag	mag	mag	sp.type
514	21 41 51.96	+65 43 52.8	15.21	2.89	2.37	1.63	0.69	0.27	0.68	g1.5 IV
515	21 41 52.65	+65 35 04.3	15.24	2.87	2.35	1.63	0.70	0.28	0.69	g4 V
516	21 41 52.89	+65 27 17.8	14.86	3.25	2.72	1.85	0.78	0.29	0.79	**
517	21 41 52.93	+66 10 14.6	16.35			2.11	1.01	0.36	0.89	f8
518	21 41 53.54	+65 48 02.9	14.77	2.76	2.13	1.45	0.68	0.25	0.60	**
519	21 41 53.72	+65 54 35.2	13.23	3.02	2.20	1.38	0.64	0.22	0.59	**
520	21 41 54.32	+65 59 33.3	14.04			3.86	1.53	0.67	1.39	k4.5 III
521	21 41 54.73	+65 48 31.1	15.79			2.00	0.79	0.38	0.81	k1.2 V
522	21 41 54.84	+66 03 41.8	14.10	3.01	2.39	1.68	0.75	0.28	0.72	f8 IV
523	21 41 55.03	+66 00 34.7	15.76			2.78	0.99	0.69	0.92	k7 V
524	21 41 55.11	+66 25 03.4	13.77	3.15	2.43	1.72	0.80	0.27	0.76	f4 V
525	21 41 55.27	+65 32 54.4	13.45	4.04	3.41	2.30	0.92	0.39	0.85	k0.5 III
526	21 41 55.44	+65 47 43.8	16.50			2.24	1.00	0.39	0.90	g5
527	21 41 55.97	+66 25 54.7	15.84			2.15	0.82	0.48	0.78	k3.2 V
528	21 41 56.18	+65 41 46.0	13.66	2.47	1.97	1.37	0.61	0.21	0.59	**
529	21 41 56.20	+65 25 31.8	14.34		3.91	2.67	1.11	0.44	1.04	k0.7 III
530	21 41 56.66	+65 39 23.6	15.58	2.83	2.19	1.53	0.69	0.30	0.65	f6 IV
531	21 41 57.45	+65 30 42.6	14.21	2.43	1.87	1.25	0.54	0.16	0.58	f4 V
532	21 41 58.10	+66 13 35.9	13.26	2.98	2.16	1.34	0.67	0.22	0.55	**
533	21 41 58.13	+65 53 48.9	14.84	3.24	2.72	1.84	0.75	0.34	0.74	g8.5 IV
534	21 41 58.22	+65 56 57.1	13.60	2.98	2.53	1.67	0.64	0.30	0.65	k0 V
535	21 41 58.37	+65 31 13.9	14.98	3.18	2.59	1.84	0.81	0.28	0.81	g2.5 V
536	21 41 58.43	+66 05 21.7	12.17	2.49	1.92	1.29	0.56	0.21	0.54	f6 IV
537	21 41 59.13	+65 39 11.4	16.38			2.27	0.90	0.29	0.95	m4 III
538	21 41 59.27	+66 05 05.9	15.28	3.21	2.81	2.00	0.81	0.39	0.72	k0.7 V
539	21 41 59.48	+65 43 50.4	15.04	2.95	2.49	1.69	0.72	0.29	0.68	g5.5 V
540	21 41 59.66	+65 27 03.7	13.86	2.88	2.24	1.58	0.71	0.24	0.68	f5 V
541	21 42 00.21	+65 49 09.1	16.15			2.22	0.96	0.40	0.85	g8
542	21 42 00.22	+65 36 40.8	15.85		2.22	1.58	0.69	0.23	0.70	f7
543	21 42 00.42	+66 24 14.5	15.08			2.86	1.22	0.46	1.14	k0.5 III
544	21 42 01.37	+65 40 13.7	14.08	4.13	3.48	2.41	1.01	0.38	0.92	g8 III
545	21 42 01.56	+66 05 39.2	15.81			2.43	0.81	0.53	0.92	k9 V
546	21 42 01.60	+65 31 58.1	15.21			2.55	1.09	0.45	1.02	k1.2 V
547	21 42 01.65	+66 10 17.1	16.35			2.21	1.06	0.34	0.95	g2.5
548*	21 42 01.67	+66 08 16.0	9.27	3.82	3.21	2.17	0.80	0.34	0.79	k0.7 III
549	21 42 01.76	+66 04 22.4	15.28	3.04	2.35	1.64	0.81	0.29	0.67	f4 V
550	21 42 01.95	+65 39 09.8	12.03	2.55	2.10	1.41	0.56	0.23	0.58	g5.5 V
551	21 42 02.02	+65 44 38.8	14.56	2.77	2.13	1.47	0.65	0.25	0.63	**
552	21 42 02.34	+66 04 56.1	14.31	3.00	2.25	1.49	0.70	0.25	0.56	f1 IV
553	21 42 02.35	+65 39 44.9	16.07		2.48	1.69	0.72	0.31	0.67	g4
554	21 42 02.43	+65 58 53.6	11.65	5.37	4.56	3.21	1.25	0.55	1.14	k3 III
555	21 42 03.32	+65 51 52.3	15.41	2.93	2.42	1.66	0.76	0.28	0.72	f9.5 V
556	21 42 04.26	+66 23 45.5	12.28	2.33	1.75	1.16	0.50	0.19	0.49	f4 IV
557	21 42 04.40	+65 45 48.0	16.34			1.82	0.71	0.30	0.76	g8.5
558	21 42 04.63	+66 16 11.5	13.38	2.58	2.05	1.45	0.62	0.22	0.61	f8 V
559	21 42 05.15	+65 47 39.9	14.35	2.68	2.04	1.38	0.63	0.22	0.58	f4 IV

Continued **Table A.2**

No	RA(2000)	DEC(2000)	V	U-V	P-V	X-V	Y-V	Z-V	V-S	Photom.
	h m s	° ′ ″	mag	mag	mag	mag	mag	mag	mag	sp.type
560	21 42 05.17	+65 37 52.9	10.84	2.16	1.69	1.14	0.47	0.17	0.47	f7 V
561	21 42 05.33	+65 39 01.7	13.87	2.57	2.08	1.42	0.59	0.19	0.65	**
562	21 42 05.76	+65 43 18.1	13.84	2.47	1.92	1.33	0.60	0.22	0.52	f5 V
563	21 42 06.06	+65 42 38.4	15.41	2.86	2.03	1.26	0.56	0.20	0.53	f0 III
564	21 42 06.10	+65 48 14.6	15.42	2.88	2.36	1.66	0.71	0.32	0.63	g4 V
565	21 42 06.45	+65 59 13.0	14.63	3.88	3.36	2.24	0.85	0.51	0.83	**
566	21 42 06.55	+66 29 40.3	13.35	2.43	1.87	1.28	0.53	0.19	0.51	f5 V
567	21 42 06.61	+65 43 31.9	12.16	2.44	1.76	1.05	0.47	0.19	0.47	f1 IV
568	21 42 06.66	+65 40 20.2	15.07		3.31	2.34	1.00	0.37	0.95	g6
569	21 42 06.68	+65 29 55.5	16.51			2.03	0.86	0.50	0.81	**
570	21 42 06.85	+66 05 31.9	16.63			1.94	0.87	0.37	0.87	g1
571	21 42 07.02	+65 52 19.0	14.45	2.89	2.20	1.57	0.72	0.27	0.67	f4 V
572	21 42 07.41	+66 12 29.6	15.69		2.87	2.09	1.00	0.36	0.92	f8
573	21 42 07.53	+66 29 56.2	14.79	3.05	2.39	1.73	0.78	0.27	0.77	f7 V
574	21 42 07.88	+66 10 34.6	15.09			2.90	1.32	0.48	1.19	**
575	21 42 08.92	+65 45 33.1	16.54			2.13	0.87	0.49	0.75	k1.7 V
576	21 42 09.37	+65 44 18.3	14.57	2.48	1.91	1.33	0.61	0.22	0.54	f5 V
577	21 42 09.46	+65 35 47.6	12.82	3.90	3.27	2.29	0.95	0.35	0.90	g7 III
578	21 42 09.54	+65 48 02.5	14.19	3.91	3.33	2.35	1.00	0.36	0.93	g6 III
579	21 42 10.01	+65 26 33.4	15.31		3.28	2.16	0.81	0.44	0.82	**
580	21 42 10.80	+65 54 02.0	14.68	2.89	2.34	1.62	0.70	0.29	0.67	g0 IV
581	21 42 10.86	+65 30 59.3	11.28	2.49	1.89	1.28	0.56	0.20	0.54	f4 V
582	21 42 10.90	+65 39 43.0	15.49	2.84	2.18	1.48	0.68	0.23	0.64	f4 IV
583	21 42 11.53	+65 42 55.7	15.66	2.92	2.32	1.61	0.70	0.26	0.76	f9 IV
584	21 42 11.64	+65 48 24.5	15.67		2.50	1.71	0.74	0.29	0.71	g2
585*	21 42 11.78	+66 29 03.5	10.80	2.45	1.83	1.24	0.54	0.19	0.52	f4 IV
586	21 42 11.78	+66 22 24.1	14.83			3.51	1.49	0.61	1.36	k2.2 III
587	21 42 13.07	+65 47 23.9	14.27	3.16	2.59	1.77	0.72	0.30	0.68	g6 IV
588	21 42 13.66	+65 42 59.2	15.22	3.00	2.47	1.68	0.68	0.30	0.74	g6 IV
589	21 42 13.92	+65 29 12.0	16.41			2.13	0.78	0.31	0.83	k0.5 III
590	21 42 15.45	+65 47 09.8	12.86	4.47	3.77	2.59	1.04	0.43	0.97	k0.7 III
591	21 42 15.61	+66 26 59.8	15.28	2.90	2.39	1.66	0.68	0.27	0.63	g6 V
592	21 42 16.26	+65 56 46.5	15.25	3.39	2.82	1.98	0.89	0.32	0.82	g5 V
593	21 42 16.51	+65 29 24.1	13.47	4.11	3.47	2.42	1.00	0.38	0.95	g8.5 III
594	21 42 16.62	+65 51 25.7	15.82			2.63	1.15	0.47	1.05	**
595	21 42 16.88	+66 08 12.8	16.11			2.11	0.78	0.42	0.86	k3.2 V
596	21 42 17.06	+65 37 27.2	16.24			2.35	1.01	0.41	0.88	g8
597	21 42 17.15	+65 35 17.8	15.77			3.16	1.30	0.50	1.18	g7
598	21 42 17.27	+65 54 41.4	15.06	2.99	2.52	1.71	0.69	0.34	0.68	**
599	21 42 17.48	+65 36 00.3	14.44	2.52	1.95	1.37	0.63	0.22	0.61	f5 V
600	21 42 19.29	+65 35 29.9	15.22	3.12	2.56	1.76	0.76	0.26	0.78	g1.5 IV
601	21 42 19.38	+65 33 01.0	14.81		3.51	2.43	1.02	0.41	0.96	g9
602	21 42 19.61	+65 33 33.7	12.22	2.56	1.82	1.13	0.50	0.18	0.48	f1 III
603	21 42 20.02	+65 58 37.1	16.90			1.85	0.88	0.34	0.82	f5
604	21 42 20.23	+66 31 52.6	13.06	2.36	1.78	1.18	0.50	0.18	0.47	f4 IV
605	21 42 20.99	+65 36 47.6	14.77	2.92	2.36	1.63	0.71	0.25	0.68	f9.5 IV

Continued **Table A.2**

No	RA(2000)	DEC(2000)	V	U-V	P-V	X-V	Y-V	Z-V	V-S	Photom.
	h m s	° ′ ″	mag	mag	mag	mag	mag	mag	mag	sp.type
606	21 42 21.02	+65 57 28.0	13.97		4.19	2.97	1.28	0.49	1.21	k0 III
607	21 42 21.40	+65 44 04.5	15.80		2.29	1.63	0.78	0.31	0.69	f5
608	21 42 21.96	+65 51 16.0	16.19			2.03	0.89	0.43	0.79	g9
609	21 42 21.98	+66 31 11.6	14.24	2.95	2.45	1.62	0.67	0.26	0.63	g4 IV
610	21 42 22.03	+65 52 36.3	16.46			2.44	1.10	0.41	1.00	g9
611	21 42 22.18	+66 32 18.8	15.31	2.83	2.37	1.64	0.62	0.25	0.64	g7 IV
612	21 42 22.98	+65 34 59.0	13.81	3.69	3.08	2.15	0.91	0.36	0.85	g8 IV
613	21 42 23.44	+66 10 34.5	11.85	2.80	2.32	1.53	0.60	0.26	0.59	g5.5 IV
614	21 42 23.59	+66 33 18.0	13.82	2.60	2.12	1.47	0.61	0.23	0.58	g1.5 V
615	21 42 24.24	+66 15 58.1	13.95	2.54	1.99	1.38	0.61	0.21	0.58	f6 V
616*	21 42 26.33	+66 21 44.0	7.93	2.03	1.38	0.68	0.22	0.08	0.20	f0 III
617	21 42 26.92	+66 07 42.7	10.52	3.64	3.01	2.07	0.82	0.32	0.78	g7 III
618	21 42 27.25	+65 52 59.8	16.73			1.92	0.97	0.35	0.85	a5
619	21 42 27.46	+65 31 49.1	15.63			2.30	0.94	0.36	0.97	g9
620	21 42 27.56	+65 40 01.8	14.34	2.59	2.03	1.41	0.63	0.26	0.60	f6 V
621	21 42 27.58	+66 16 51.6	16.67			2.24	1.08	0.38	0.98	g0
622	21 42 29.09	+65 30 12.4	15.65	2.78	2.18	1.46	0.67	0.26	0.60	**
623	21 42 29.13	+65 25 34.8	14.85	3.08	2.41	1.70	0.77	0.27	0.74	f7 IV
624	21 42 29.91	+66 26 14.8	14.39	2.79	2.29	1.55	0.64	0.24	0.62	g4 V
625	21 42 30.50	+65 55 20.4	12.14	3.81	3.07	2.17	0.98	0.35	0.92	**
626	21 42 30.63	+65 33 41.1	15.67	2.82	2.29	1.57	0.70	0.25	0.70	f9 V
627	21 42 30.84	+66 29 47.0	13.48	2.56	2.07	1.45	0.63	0.24	0.59	g0 V
628	21 42 32.90	+65 26 43.3	15.72		2.64	1.85	0.82	0.32	0.82	g4
629	21 42 33.16	+66 32 10.5	13.46	2.36	1.85	1.29	0.56	0.20	0.53	f7 V
630	21 42 34.29	+66 11 55.8	14.03	2.62	2.09	1.45	0.63	0.22	0.61	f8 V
631	21 42 34.56	+65 27 58.2	13.25	4.81	4.07	2.79	1.09	0.46	0.98	k2 III
632	21 42 34.67	+65 33 17.7	16.49			1.97	0.84	0.35	0.80	g6
633	21 42 35.20	+65 51 20.6	13.99	2.73	2.19	1.54	0.68	0.25	0.64	**
634	21 42 35.82	+66 13 54.2	16.18			2.10	0.97	0.38	0.87	g3
635	21 42 37.21	+65 40 37.7	13.11	4.69	3.95	2.76	1.11	0.44	1.02	k1 III
636	21 42 38.70	+65 37 04.4	13.26	2.78	2.23	1.51	0.62	0.22	0.67	g1 IV
637	21 42 39.10	+65 24 51.1	12.65	2.54	2.04	1.40	0.58	0.23	0.60	f9.5 IV
638	21 42 40.00	+65 23 40.2	14.99			2.55	0.85	0.60	0.98	k7 V
639	21 42 40.13	+65 51 23.3	14.18	2.97	2.13	1.28	0.59	0.20	0.51	a9 III
640	21 42 41.03	+65 36 42.7	15.73	3.00	2.49	1.72	0.76	0.33	0.75	**
641	21 42 41.32	+66 25 28.1	10.91	3.66	3.02	2.12	0.85	0.32	0.82	g7 III
642	21 42 42.13	+65 58 21.2	16.22			2.44	0.88	0.53	0.98	k4.2 V
643	21 42 42.18	+66 28 34.2	14.70	3.33	2.56	1.85	0.88	0.31	0.81	f4 V
644	21 42 42.25	+66 33 01.5	13.33	2.71	2.23	1.52	0.60	0.22	0.59	g5 V
645	21 42 42.33	+65 24 36.6	14.95	2.83	2.24	1.54	0.67	0.22	0.69	f8 IV
646	21 42 43.40	+65 36 09.3	16.56			1.86	0.82	0.34	0.81	g5
647	21 42 43.72	+65 28 00.2	15.50			2.74	1.11	0.43	1.07	m3.5 III
648	21 42 44.28	+65 47 05.9	15.12			2.46	1.03	0.40	0.96	g9
649	21 42 44.34	+66 18 30.8	12.61	2.28	1.72	1.15	0.52	0.20	0.50	f4 V
650	21 42 44.79	+65 43 48.3	16.05		2.22	1.49	0.75	0.27	0.64	b8
651	21 42 45.01	+65 27 02.5	16.59			2.08	0.79	0.33	0.83	k0 III

Continued **Table A.2**

No	RA(2000)	DEC(2000)	V	U-V	P-V	X-V	Y-V	Z-V	V-S	Photom.
	h m s	° ′ ″	mag	mag	mag	mag	mag	mag	mag	sp.type
652	21 42 45.41	+65 41 37.1	13.99	4.13	3.56	2.52	1.02	0.40	0.92	**
653*	21 42 45.51	+66 04 34.5	9.75	3.47	2.90	1.96	0.73	0.31	0.72	g9.5 III
654*	21 42 46.03	+66 05 13.8	10.80	2.08	1.55	0.98	0.40	0.14	0.40	YSO
655	21 42 46.20	+65 33 22.7	15.47		2.68	1.82	0.76	0.32	0.73	g8
656	21 42 46.49	+65 36 46.6	16.79			2.26	1.01	0.37	0.84	g5
657	21 42 47.24	+65 25 49.4	15.12		3.30	2.33	0.99	0.35	0.95	g2
658	21 42 47.60	+65 28 15.3	16.39			1.83	0.84	0.30	0.77	g0
659	21 42 47.66	+66 29 38.1	14.77	3.16	2.36	1.62	0.75	0.25	0.71	f2 IV
660	21 42 47.80	+65 27 06.5	15.26	2.84	2.20	1.58	0.72	0.25	0.67	f5 V
661	21 42 48.37	+65 30 53.2	15.47			2.47	1.02	0.40	0.99	k0
662	21 42 49.97	+66 01 58.2	13.20	2.45	1.86	1.28	0.57	0.20	0.55	f4 V
663*	21 42 50.18	+66 06 35.2	10.03	1.65	1.28	0.90	0.47	0.16	0.66	B2ne, YSO
664	21 42 52.16	+65 47 56.3	15.41	2.91	2.12	1.39	0.61	0.21	0.64	f3 III
665	21 42 52.75	+65 46 11.4	16.07		2.15	1.53	0.67	0.24	0.65	f8
666	21 42 52.98	+65 40 48.7	15.88		2.30	1.64	0.73	0.29	0.60	g0
667	21 42 53.06	+65 34 09.4	11.04	5.77	4.84	3.41	1.32	0.61	1.23	k3.7 III
668	21 42 53.17	+66 28 45.1	12.85	2.90	2.37	1.61	0.66	0.26	0.63	g2 IV
669	21 42 53.72	+65 28 24.3	15.03			3.15	1.24	0.52	1.16	k3 III
670	21 42 54.84	+65 59 57.6	14.97	2.92	2.40	1.62	0.69	0.27	0.69	g1.5 IV
671	21 42 55.02	+66 20 02.7	15.01	2.84	2.38	1.60	0.68	0.26	0.65	g5.5 V
672*	21 42 55.20	+66 11 42.6	12.48	3.43	2.88	1.96	0.80	0.34	0.75	g, YSO:
673	21 42 55.73	+66 30 53.5	14.88	2.68	2.20	1.53	0.65	0.25	0.63	g2 V
674	21 42 56.80	+65 38 49.2	15.76		2.65	1.79	0.73	0.28	0.80	g7
675	21 42 57.24	+65 32 56.2	16.09		2.55	1.70	0.75	0.31	0.77	**
676	21 42 57.37	+65 50 14.2	16.14			1.92	0.93	0.37	0.76	f0
677	21 42 57.87	+66 22 22.0	14.89	3.43	2.88	1.91	0.72	0.37	0.72	**
678	21 42 58.01	+65 51 25.5	14.77	3.22	2.54	1.82	0.86	0.34	0.69	**
679	21 42 58.09	+65 55 19.8	13.97	2.51	1.99	1.35	0.59	0.21	0.56	**
680	21 42 58.35	+65 25 32.7	13.36	2.85	2.08	1.33	0.60	0.21	0.56	f3 III
681	21 42 58.90	+65 32 06.8	14.72	2.82	2.15	1.49	0.67	0.22	0.69	f4 V
682	21 43 00.50	+65 27 38.5	15.30	2.69	2.10	1.45	0.69	0.24	0.65	f5 V
683	21 43 00.52	+65 38 39.7	15.94		2.38	1.66	0.65	0.29	0.71	**
684	21 43 01.13	+66 30 17.1	15.38	3.23	2.68	1.92	0.88	0.33	0.78	**
685	21 43 01.58	+65 32 08.7	15.64	3.05	2.39	1.64	0.74	0.31	0.66	f6 IV
686	21 43 02.79	+65 27 13.8	16.29			2.36	0.98	0.38	0.99	g9
687	21 43 03.67	+65 33 25.1	15.54	2.95	2.53	1.72	0.70	0.29	0.68	g8.5 V
688	21 43 04.03	+65 45 38.6	12.73	2.66	2.19	1.50	0.60	0.29	0.61	g6 V
689	21 43 04.06	+65 37 27.1	11.46	2.16	1.62	1.05	0.45	0.16	0.43	f4 V
690	21 43 05.28	+65 54 14.5	15.39			2.60	1.09	0.46	1.00	k0.5 IV
691	21 43 05.75	+66 22 55.5	14.01	2.45	1.91	1.30	0.55	0.16	0.57	**
692	21 43 06.06	+65 28 02.9	15.30			2.42	0.99	0.42	0.93	**
693	21 43 06.14	+65 30 20.2	16.11		2.29	1.61	0.70	0.25	0.70	g0
694	21 43 06.33	+65 40 04.2	15.03	2.67	2.06	1.42	0.65	0.28	0.63	f4 V
695	21 43 06.44	+65 27 12.4	13.21	2.38	1.84	1.27	0.57	0.20	0.54	f5 V
696	21 43 06.45	+65 34 05.8	15.09			2.55	1.04	0.41	1.00	k0 III
697	21 43 06.67	+66 26 13.3	15.23	3.03	2.61	1.75	0.71	0.30	0.63	k0 V

Continued **Table A.2**

No	RA(2000)	DEC(2000)	V	U-V	P-V	X-V	Y-V	Z-V	V-S	Photom.
	h m s	° ′ ″	mag	mag	mag	mag	mag	mag	mag	sp.type
698	21 43 06.74	+66 23 57.2	15.77			2.66	1.16	0.46	1.05	k0 IV
699*	21 43 06.82	+66 06 54.2	12.36	2.65	2.02	1.55	0.82	0.26	0.95	B7e, YSO
700	21 43 06.91	+65 33 44.6	15.85			2.41	1.03	0.44	0.93	k1 V
701	21 43 07.39	+66 21 05.6	15.45			2.67	1.19	0.46	1.07	**
702	21 43 07.50	+65 51 46.1	14.78	2.60	2.00	1.36	0.62	0.23	0.58	f4 V
703	21 43 08.98	+66 12 01.7	15.40	2.59	2.12	1.50	0.65	0.24	0.65	g0 V
704	21 43 11.29	+65 28 52.8	14.26	3.53	2.87	2.02	0.87	0.33	0.83	g3 III
705	21 43 11.80	+66 22 18.4	12.18	2.41	1.95	1.35	0.58	0.21	0.57	**
706	21 43 12.59	+65 36 22.2	15.21	3.29	2.64	1.85	0.85	0.33	0.80	f9 IV
707	21 43 13.70	+65 23 00.5	13.56	2.95	2.08	1.24	0.56	0.18	0.46	a0.5 III
708	21 43 14.14	+65 28 53.1	15.82	2.89	2.39	1.65	0.73	0.26	0.69	g2 V
709	21 43 14.67	+66 21 30.0	16.27			2.29	1.11	0.40	0.95	f9
710	21 43 14.69	+66 27 20.1	15.52			2.92	1.26	0.50	1.07	k0.5 III
711	21 43 14.79	+65 34 27.1	16.50			2.04	0.92	0.41	0.89	**
712	21 43 14.83	+65 23 15.0	14.16	2.59	2.07	1.46	0.62	0.22	0.61	g0 V
713	21 43 15.25	+65 45 26.8	15.70			2.63	1.05	0.57	0.96	k3.7 V
714	21 43 15.29	+65 53 28.3	16.20			2.24	0.87	0.51	0.91	k3.2 V
715	21 43 16.39	+66 27 37.7	15.50	2.93	2.38	1.70	0.76	0.28	0.70	g0 V
716	21 43 17.11	+65 47 59.9	13.52	2.90	2.49	1.67	0.65	0.31	0.68	k0 V
717	21 43 17.14	+66 30 32.0	15.33			2.39	0.86	0.55	0.88	k4.2 V
718	21 43 17.64	+66 34 09.8	14.90	3.37	2.89	1.91	0.73	0.34	0.71	k0.5 IV
719	21 43 17.78	+65 36 19.1	12.70	2.48	1.86	1.21	0.55	0.18	0.52	**
720	21 43 18.45	+65 31 32.7	16.02			1.91	0.77	0.38	0.71	k0.7 V
721	21 43 19.05	+65 23 33.6	16.16			1.83	0.81	0.29	0.81	**
722	21 43 19.16	+65 27 36.6	14.69		3.21	2.25	0.96	0.37	0.91	g6
723*	21 43 19.19	+65 25 33.6	13.94	3.07	2.54	1.83	0.77	0.29	0.93	YSO:
724	21 43 20.40	+66 15 45.5	15.73			2.80	1.15	0.63	1.24	k3.7 V
725	21 43 21.70	+66 02 46.1	14.28	2.61	2.07	1.42	0.62	0.23	0.58	f8 IV
726	21 43 21.91	+66 13 00.7	15.05	2.91	2.41	1.70	0.73	0.31	0.67	g4 V
727	21 43 22.41	+65 51 45.3	15.57	3.03	2.55	1.72	0.74	0.29	0.68	g4 IV
728	21 43 22.96	+65 43 30.5	14.40	2.50	1.93	1.29	0.58	0.20	0.55	f4 V
729	21 43 23.20	+65 51 03.0	14.36			3.91	1.59	0.68	1.45	k4.2 III
730	21 43 23.54	+66 01 27.9	15.57			2.67	0.99	0.63	1.05	m0 V
731	21 43 23.98	+66 17 51.7	14.54			3.44	1.43	0.62	1.34	m3 III
732	21 43 24.10	+65 54 21.1	12.03	4.22	3.53	2.46	1.03	0.41	0.97	g9 III
733	21 43 24.69	+65 37 17.5	12.72	2.34	1.59	0.78	0.36	0.11	0.28	**
734	21 43 25.02	+65 39 06.5	15.37	3.21	2.68	1.79	0.79	0.35	0.76	g4 IV
735	21 43 26.19	+65 53 23.3	15.56			2.69	1.16	0.47	1.08	g9.5
736	21 43 26.32	+65 25 29.6	15.98			2.35	0.99	0.35	0.92	g7
737	21 43 26.36	+65 23 13.1	13.35	2.40	1.88	1.34	0.60	0.20	0.61	f7 V
738	21 43 26.51	+65 54 00.5	15.26			2.68	1.12	0.49	1.03	k0.7 IV
739	21 43 26.60	+65 34 48.1	14.96	2.73	2.00	1.32	0.61	0.20	0.58	f4 IV
740	21 43 27.30	+65 59 39.9	11.92	2.48	1.87	1.24	0.54	0.21	0.51	f4 IV
741	21 43 27.52	+65 40 57.8	15.45			2.44	1.06	0.44	0.96	k0.7 V
742	21 43 27.53	+65 39 01.7	15.11	3.60	2.93	2.06	0.89	0.31	0.86	g2.5 III
743	21 43 27.63	+65 56 02.6	12.99	4.18	3.52	2.38	0.91	0.43	0.85	k1.2 III

Continued **Table A.2**

No	RA(2000)	DEC(2000)	V	U-V	P-V	X-V	Y-V	Z-V	V-S	Photom.
	h m s	° ′ ″	mag	mag	mag	mag	mag	mag	mag	sp.type
744	21 43 27.93	+65 26 47.2	15.20	2.75	2.12	1.46	0.67	0.23	0.62	f4 V
745	21 43 28.46	+66 25 54.2	13.89	2.48	1.93	1.33	0.58	0.21	0.54	f6 V
746	21 43 28.69	+65 28 07.7	15.79			2.67	1.08	0.45	1.01	k1 IV
747	21 43 28.90	+65 39 56.3	11.15	2.48	1.88	1.27	0.55	0.20	0.52	f4 V
748	21 43 29.01	+66 01 47.0	16.13			2.29	0.84	0.49	0.85	k3.7 V
749	21 43 29.22	+65 37 48.9	13.97	3.57	2.99	2.05	0.86	0.34	0.81	g8 IV
750	21 43 29.90	+66 22 23.0	15.10			2.57	1.14	0.41	1.05	g5
751	21 43 30.28	+65 46 01.5	13.99	2.56	2.01	1.38	0.62	0.24	0.57	f6 V
752	21 43 30.37	+65 41 36.1	14.28	2.48	1.95	1.36	0.60	0.22	0.56	f7 V
753	21 43 31.01	+66 00 45.9	14.48	2.72	2.18	1.52	0.67	0.25	0.60	f9 V
754	21 43 31.22	+66 07 24.1	14.54	3.25	2.80	1.87	0.75	0.34	0.74	k0.7 V
755	21 43 31.36	+65 22 25.9	13.56		4.12	2.87	1.15	0.47		k1.5 III
756	21 43 31.40	+65 31 38.2	15.19	2.75	2.21	1.51	0.65	0.25	0.61	f9.5 IV
757	21 43 31.77	+65 26 03.2	15.15	2.88	2.28	1.59	0.71	0.24	0.69	f7 IV
758	21 43 31.81	+65 26 37.9	15.23	2.71	2.03	1.25	0.57	0.17	0.61	**
759	21 43 31.95	+65 32 18.1	15.28	2.76	2.04	1.34	0.62	0.22	0.57	f2 IV
760	21 43 31.98	+65 48 44.4	14.03	2.57	1.99	1.37	0.59	0.20	0.61	**
761	21 43 32.10	+65 40 52.7	13.06	2.61	2.16	1.43	0.59	0.21	0.60	**
762	21 43 32.30	+65 34 47.5	15.88	3.07	2.59	1.80	0.79	0.36	0.73	g6 V
763	21 43 32.41	+66 30 26.8	12.26	2.40	1.89	1.30	0.54	0.20	0.54	f7 V
764	21 43 32.76	+65 36 15.9	15.27	2.55	1.99	1.32	0.61	0.20	0.57	f4 V
765	21 43 32.92	+65 36 46.2	13.54	2.78	2.23	1.52	0.65	0.24	0.61	f9 IV
766	21 43 33.40	+65 24 31.5	15.51			2.62	0.98	0.62	0.95	**
767	21 43 34.81	+65 37 50.2	15.50			2.69	1.06	0.43	0.98	k1.7 III
768	21 43 35.48	+66 25 56.9	12.84	2.38	1.84	1.26	0.54	0.20	0.51	f5 V
769	21 43 35.76	+66 30 26.9	16.42			1.96	0.92	0.35	0.86	g0
770	21 43 36.83	+65 55 00.8	14.24	2.89	2.18	1.52	0.71	0.29	0.66	**
771	21 43 37.19	+65 43 25.2	15.74			2.27	0.99	0.46	0.82	**
772	21 43 37.24	+66 34 00.0	15.13	2.94	2.35	1.65	0.76	0.29	0.70	f7 V
773	21 43 37.43	+66 12 55.7	15.41	2.96	2.39	1.66	0.69	0.26	0.65	g1 IV
774	21 43 37.64	+65 23 15.9	12.46	4.12	3.45	2.40	0.98	0.39	0.93	g9.5 III
775	21 43 37.73	+65 51 54.2	15.51			2.45	1.01	0.39	0.93	k0
776	21 43 37.98	+65 42 24.6	11.82	2.52	2.01	1.36	0.56	0.20	0.56	f9 IV
777	21 43 38.17	+65 38 17.7	13.59	3.90	3.31	2.27	0.96	0.35	0.88	**
778	21 43 39.05	+65 33 58.9	13.23	2.68	2.20	1.49	0.62	0.23	0.60	g4 V
779	21 43 39.29	+66 31 56.2	13.22	5.18	4.28	3.02	1.26	0.53	1.14	k1.2 III
780	21 43 39.75	+66 00 32.4	13.89		4.02	2.89	1.34	0.49	1.27	g5
781	21 43 39.91	+66 12 53.4	15.81			2.88	1.25	0.49	1.07	k0 III
782	21 43 39.92	+65 26 51.4	14.77	2.81	2.11	1.43	0.65	0.22	0.61	f4 IV
783	21 43 40.03	+65 40 12.6	14.68	2.79	2.12	1.51	0.67	0.26	0.65	f5 V
784	21 43 40.04	+66 03 31.7	12.89	2.57	2.01	1.38	0.60	0.22	0.57	f6 V
785	21 43 40.16	+65 46 31.9	15.20		3.07	2.06	0.78	0.37	0.78	k2.2 V
786	21 43 40.27	+65 49 00.6	16.43			1.88	0.85	0.32	0.76	g2.5
787	21 43 41.00	+65 23 39.2	15.05	2.85	2.31	1.59	0.70	0.25	0.67	f9.5 IV
788	21 43 41.06	+65 49 45.9	13.25	4.18	3.55	2.48	1.03	0.39	0.96	g9.5 III
789	21 43 41.20	+65 28 30.3	14.35	2.56	1.99	1.36	0.60	0.21	0.58	f5 V

Continued **Table A.2**

No	RA(2000)	DEC(2000)	V	U-V	P-V	X-V	Y-V	Z-V	V-S	Photom.
	h m s	° ′ ″	mag	mag	mag	mag	mag	mag	mag	sp.type
790	21 43 41.30	+66 00 55.2	15.24	3.15	2.73	1.86	0.75	0.35	0.72	k0 V
791	21 43 41.43	+65 54 40.4	16.78			1.98	0.90	0.34	0.86	g2.5
792	21 43 41.61	+66 12 22.0	14.40	2.66	2.15	1.52	0.66	0.28	0.61	g0 V
793	21 43 41.83	+66 33 11.7	14.08	3.28	2.40	1.58	0.74	0.25	0.69	f3 III
794	21 43 41.96	+65 30 06.9	15.17	2.82	2.19	1.52	0.70	0.25	0.67	f4 V
795	21 43 42.53	+65 36 17.3	15.19			2.56	1.02	0.41	0.92	k0.7 III
796	21 43 42.91	+66 06 58.2	16.13			2.41	0.90	0.58	1.01	m2 V
797	21 43 43.26	+65 43 47.0	13.29	2.59	1.94	1.31	0.58	0.20	0.57	f4 IV
798	21 43 43.38	+66 22 50.1	16.01			1.95	0.87	0.30	0.81	**
799	21 43 43.66	+65 50 14.7	15.28			2.49	1.03	0.41	0.97	k0
800	21 43 43.70	+65 47 44.1	15.97		2.44	1.76	0.76	0.27	0.70	g1
801	21 43 43.85	+65 40 22.0	16.48			2.13	0.90	0.35	0.91	g8
802	21 43 43.86	+65 46 53.2	15.85		2.40	1.66	0.77	0.31	0.63	f8
803	21 43 44.22	+65 52 32.8	15.21	2.99	2.19	1.38	0.62	0.25	0.56	a7 V
804	21 43 44.92	+66 06 59.8	15.33			2.28	1.08	0.43	0.92	g2
805	21 43 45.26	+65 50 25.0	15.90		2.50	1.68	0.76	0.32	0.66	f5
806	21 43 45.83	+65 52 17.7	14.60	3.10	2.42	1.71	0.77	0.27	0.74	f7 IV
807	21 43 45.84	+66 16 47.4	16.22			2.15	1.07	0.37	0.98	f5
808	21 43 46.01	+66 20 05.1	13.39	4.71	3.93	2.82	1.25	0.47	1.12	g8 III
809	21 43 46.60	+66 12 45.8	15.29			2.79	1.25	0.47	1.11	g8.5
810	21 43 46.84	+65 45 28.4	14.47	3.03	2.39	1.67	0.74	0.27	0.71	f8 IV
811	21 43 46.93	+65 32 32.6	15.56	2.95	2.33	1.62	0.72	0.27	0.71	**
812	21 43 46.95	+65 47 16.0	15.35	2.94	2.43	1.65	0.70	0.26	0.68	g1.5 IV
813	21 43 47.14	+65 58 01.5	12.83	3.50	2.94	2.00	0.80	0.34	0.78	g9 IV
814	21 43 47.44	+65 54 18.1	14.85	3.09	2.53	1.73	0.70	0.32	0.70	g6 IV
815	21 43 47.95	+66 28 09.3	14.69	3.00	2.51	1.73	0.70	0.27	0.69	g7 V
816	21 43 47.99	+65 46 29.9	15.30	3.15	2.37	1.70	0.75	0.27	0.65	f7 III
817	21 43 48.22	+66 18 38.1	15.19	2.75	2.24	1.55	0.65	0.27	0.64	g3 V
818	21 43 48.29	+65 51 35.5	14.06	3.02	2.20	1.35	0.61	0.23	0.57	f0 III
819	21 43 48.37	+65 48 38.1	15.65			2.24	0.94	0.39	0.94	g9
820	21 43 48.79	+66 21 56.2	16.06		2.38	1.75	0.86	0.31	0.69	b6
821	21 43 49.00	+65 38 53.4	15.66			2.54	1.04	0.45	0.95	**
822	21 43 49.01	+66 26 20.8	14.76	3.19	2.45	1.76	0.82	0.26	0.76	f4 V
823	21 43 49.12	+65 59 55.0	15.12		3.53	2.44	0.84	0.60	0.95	k5.5 V
824	21 43 49.55	+65 36 02.2	14.81	2.82	2.33	1.59	0.68	0.25	0.67	**
825	21 43 50.58	+65 32 13.2	15.42	2.99	2.31	1.62	0.73	0.25	0.67	f4 V
826	21 43 50.73	+65 35 13.3	14.78		3.41	2.38	0.99	0.38	0.93	g8
827	21 43 51.08	+65 46 16.4	16.05			2.68	1.12	0.42	0.97	k0.5 III
828	21 43 52.85	+65 54 27.7	14.22			4.02	1.69	0.74	1.43	k3.7 III
829	21 43 53.21	+65 32 36.5	16.41			2.26	0.96	0.41	0.82	k0
830	21 43 53.76	+66 25 18.8	16.14			2.71	1.02	0.67	1.00	k5 V
831	21 43 53.79	+65 59 37.3	13.94	2.48	1.91	1.32	0.59	0.22	0.56	f5 V
832	21 43 54.79	+65 50 03.6	14.60	2.93	2.51	1.71	0.70	0.29	0.65	g8 V
833	21 43 55.42	+66 11 56.0	12.99	1.68	1.36	0.97	0.46	0.17	0.45	b3 IV
834	21 43 55.42	+66 23 39.4	14.71		3.70	2.62	1.19	0.42	1.08	g5
835	21 43 55.81	+65 49 28.4	15.97		2.32	1.63	0.76	0.28	0.65	f6

Continued **Table A.2**

No	RA(2000)	DEC(2000)	V	U-V	P-V	X-V	Y-V	Z-V	V-S	Photom.
	h m s	° ′ ″	mag	mag	mag	mag	mag	mag	mag	sp.type
836	21 43 56.01	+66 03 05.2	15.71		2.74	1.90	0.75	0.35	0.77	g9
837	21 43 56.65	+66 22 56.6	10.77	2.23	1.76	1.21	0.49	0.19	0.49	f8 V
838	21 43 56.74	+65 24 18.4	15.92	2.70	2.08	1.52	0.68	0.25	0.70	f5 V
839	21 43 56.75	+66 25 12.0	13.15	2.43	1.86	1.26	0.57	0.19	0.55	**
840	21 43 57.52	+65 48 26.7	14.69			2.78	1.08	0.46	1.05	k2 III
841	21 43 57.76	+65 57 16.7	16.30			1.90	0.89	0.32	0.88	f9
842	21 43 57.83	+66 23 20.2	15.68	3.09	2.48	1.75	0.81	0.31	0.75	f8 IV
843	21 43 58.08	+65 31 33.7	16.28			2.23	0.91	0.32	0.91	**
844	21 43 58.96	+65 27 50.1	15.57	2.86	2.35	1.61	0.64	0.28	0.68	g3 IV
845	21 43 59.17	+65 28 43.3	14.39	2.73	2.18	1.49	0.65	0.23	0.62	f8 IV
846	21 43 59.83	+65 29 59.0	15.33	3.05	2.56	1.70	0.72	0.28	0.70	**
847	21 44 00.05	+66 19 41.6	16.25			2.09	0.81	0.42	0.80	k2 V
848	21 44 00.26	+65 39 17.0	14.38		4.02	2.80	1.08	0.45	1.04	k2 III
849	21 44 00.30	+66 01 54.1	14.82	2.68	2.17	1.50	0.66	0.24	0.60	f9 V
850	21 44 00.45	+65 22 40.6	13.20	3.28	2.71	1.88	0.78	0.29	0.79	g5.5 IV
851	21 44 00.73	+65 40 02.7	15.64	2.83	2.18	1.57	0.71	0.28	0.62	f5 V
852	21 44 01.46	+65 44 53.6	16.42			2.16	0.82	0.38	0.87	k0.7 IV
853	21 44 01.65	+65 48 57.9	16.50			1.80	0.81	0.30	0.69	g2
854	21 44 01.96	+65 37 31.0	15.97		2.51	1.82	0.80	0.29	0.82	g1
855	21 44 02.44	+65 34 18.3	15.58			2.18	0.92	0.37	0.86	g8
856	21 44 02.50	+65 27 02.7	15.17			2.67	1.09	0.46	1.03	**
857	21 44 02.82	+65 42 25.1	15.17		3.00	2.17	0.92	0.34	0.87	g4
858	21 44 03.02	+65 48 28.2	15.82		2.57	1.81	0.78	0.31	0.74	**
859	21 44 03.09	+66 22 32.4	16.43			2.22	0.93	0.36	0.96	g8.5
860	21 44 03.74	+65 48 07.8	14.45		3.73	2.53	1.02	0.42	0.95	**
861	21 44 04.13	+65 31 00.7	14.46	3.92	3.38	2.36	0.89	0.48	0.94	k3.2 V
862	21 44 04.61	+65 51 58.9	15.39	2.99	2.31	1.57	0.69	0.28	0.67	**
863	21 44 04.85	+65 41 02.4	15.83	2.74	2.18	1.57	0.73	0.28	0.63	f7 V
864	21 44 05.04	+65 25 22.8	14.50	2.52	2.01	1.40	0.62	0.19	0.60	f7 V
865	21 44 05.96	+65 52 58.0	11.33	2.79	2.30	1.53	0.62	0.25	0.63	g4 IV
866	21 44 06.17	+65 33 19.9	16.07		2.34	1.62	0.74	0.27	0.69	f7
867	21 44 06.30	+66 13 05.3	15.56	2.94	2.49	1.69	0.70	0.29	0.70	g7 V
868	21 44 06.35	+65 27 48.6	16.85			2.13	0.94	0.31	0.85	g5.5
869	21 44 06.36	+66 00 56.2	15.81			2.41	0.96	0.52	1.03	k3.2 V
870	21 44 06.52	+65 43 05.5	14.34	3.04	2.48	1.67	0.71	0.28	0.67	g1.5 IV
871	21 44 06.80	+65 26 07.1	13.88	2.41	1.81	1.19	0.53	0.18	0.50	f4 IV
872	21 44 06.85	+65 50 07.1	15.37			2.57	1.07	0.45	0.97	k0.7 IV
873	21 44 07.10	+65 46 51.8	15.18			2.45	1.00	0.43	0.93	k0.5 IV
874	21 44 07.84	+65 58 35.1	14.73	2.53	2.00	1.39	0.63	0.22	0.60	f6 V
875	21 44 08.12	+65 38 43.2	14.14			3.68	1.40	0.60	1.34	m2 III
876	21 44 08.21	+65 40 54.9	14.06		4.27	2.91	1.12	0.49	1.01	**
877	21 44 08.35	+66 22 17.5	14.77	2.53	1.96	1.38	0.65	0.24	0.54	f5 V
878	21 44 08.49	+65 25 50.0	16.13			2.40	0.85	0.54	0.94	k4.5 V
879	21 44 08.50	+65 37 01.7	13.87	2.49	1.87	1.23	0.55	0.20	0.51	f4 IV
880	21 44 08.55	+65 24 47.9	14.52	2.84	2.06	1.29	0.59	0.19	0.57	f3 III
881	21 44 09.04	+65 34 08.2	14.60	2.57	2.01	1.38	0.62	0.22	0.60	f5 V

Continued **Table A.2**

No	RA(2000) h m s	DEC(2000) ° ′ ″	V mag	U-V mag	P-V mag	X-V mag	Y-V mag	Z-V mag	V-S mag	Photom. sp.type
882	21 44 09.59	+66 22 48.9	14.88	3.20	2.44	1.75	0.84	0.28	0.77	f4 V
883	21 44 09.63	+65 57 11.2	16.26		2.57	1.83	0.81	0.33	0.94	g3
884	21 44 09.70	+65 58 56.0	14.48	2.98	2.29	1.56	0.74	0.25	0.70	**
885	21 44 10.87	+65 42 28.0	14.72	2.68	2.12	1.48	0.67	0.24	0.59	f7 V
886	21 44 11.07	+65 27 18.4	11.35	2.58	1.79	0.99	0.42	0.14	0.37	a9 III
887	21 44 11.21	+65 46 21.0	13.69	2.54	1.88	1.23	0.55	0.18	0.50	f2 IV
888	21 44 11.84	+65 26 18.2	16.48			2.42	1.03	0.38	1.07	g7
889	21 44 12.71	+65 39 52.2	12.73	3.92	3.27	2.28	0.94	0.35	0.89	g7 III
890	21 44 13.02	+65 44 12.1	14.74	2.60	2.10	1.46	0.63	0.26	0.65	f9.5 V
891	21 44 13.21	+65 45 01.4	15.84		2.35	1.66	0.88	0.27	0.71	b5
892*	21 44 13.50	+65 52 38.3	10.05	2.35	1.91	1.29	0.52	0.18	0.55	g0 V
893	21 44 14.05	+65 59 10.1	16.34			1.98	0.92	0.33	0.86	f9
894	21 44 14.13	+65 30 26.8	15.64		3.28	2.27	0.90	0.33	0.95	g8
895	21 44 14.32	+66 08 19.1	15.06	2.74	2.23	1.55	0.71	0.26	0.62	f9 V
896	21 44 14.69	+65 49 14.9	15.38		2.78	2.01	0.92	0.42	0.82	**
897	21 44 14.98	+66 10 16.3	13.90		4.18	3.05	1.38	0.47	1.22	**
898	21 44 15.33	+65 37 20.8	15.92			2.53	1.09	0.45	0.94	**
899	21 44 15.37	+65 44 49.8	15.19	3.05	2.54	1.73	0.71	0.30	0.70	g5.5 IV
900	21 44 15.46	+65 54 38.5	15.91			1.90	0.88	0.33	0.76	g0
901	21 44 15.62	+65 44 20.7	13.78	2.88	2.24	1.56	0.72	0.26	0.65	**
902	21 44 15.96	+65 41 38.9	14.51	2.86	2.36	1.61	0.69	0.27	0.65	g4 V
903	21 44 16.03	+66 24 16.1	16.03			1.98	0.94	0.32	0.85	f8
904	21 44 16.51	+66 01 04.4	13.08	2.37	1.78	1.17	0.51	0.19	0.52	f4 IV
905	21 44 17.64	+66 13 41.0	14.21	3.40	2.93	1.94	0.73	0.38	0.75	k1.7 V
906	21 44 17.93	+66 01 53.1	16.25			2.00	0.94	0.34	0.88	f9
907	21 44 18.97	+65 47 10.8	15.56			2.47	1.02	0.43	0.91	k0
908	21 44 19.26	+66 19 18.8	14.13	3.01	2.37	1.65	0.74	0.25	0.71	f7 IV
909	21 44 19.36	+65 32 18.7	15.55	2.90	2.46	1.68	0.72	0.29	0.69	g5.5 V
910	21 44 19.90	+65 52 33.7	15.98		2.35	1.65	0.69	0.28	0.70	g2
911	21 44 19.99	+66 08 32.3	16.16			2.35	0.86	0.55	0.90	k4 V
912	21 44 20.06	+65 48 04.1	15.76		2.33	1.63	0.72	0.24	0.71	g0
913	21 44 20.07	+65 58 04.9	15.85		2.66	1.91	0.89	0.32	0.75	**
914	21 44 20.28	+65 33 40.7	14.70	3.54	2.99	2.07	0.85	0.34	0.92	k0 V
915	21 44 20.28	+65 40 46.5	15.22			2.68	1.06	0.47	1.00	k1.5 III
916	21 44 20.77	+65 39 05.4	15.98		2.25	1.52	0.68	0.24	0.69	f7
917	21 44 20.82	+65 35 12.4	13.69	2.52	2.07	1.44	0.61	0.20	0.62	**
918	21 44 20.99	+66 29 53.9	14.86	3.27	2.41	1.57	0.72	0.25	0.62	f2 III
919	21 44 21.48	+66 04 14.9	14.43	2.85	2.34	1.64	0.69	0.26	0.66	g3 V
920	21 44 22.75	+66 26 03.4	13.33	3.42	2.86	1.94	0.79	0.33	0.75	g8.5 IV
921	21 44 22.76	+65 53 50.6	16.22			2.01	0.82	0.36	0.75	g9.5
922	21 44 22.95	+65 34 19.5	14.27	2.84	2.32	1.58	0.65	0.26	0.64	g2 IV
923	21 44 23.56	+65 32 33.2	15.23	2.82	2.14	1.47	0.62	0.25	0.72	**
924	21 44 24.01	+65 43 22.5	14.21	2.82	2.15	1.47	0.66	0.26	0.61	f4 IV
925	21 44 24.49	+66 35 12.5	12.74	4.09	3.43	2.44	1.04	0.40	0.97	g9.5 IV
926*	21 44 24.49	+66 18 39.5	16.36			2.01	0.97	0.39	0.80	Be:
927	21 44 24.80	+66 08 58.8	15.53		2.80	1.97	0.92	0.33	0.89	f9

Continued **Table A.2**

No	RA(2000)	DEC(2000)	V	U-V	P-V	X-V	Y-V	Z-V	V-S	Photom.
	h m s	° ′ ″	mag	mag	mag	mag	mag	mag	mag	sp.type
928	21 44 24.84	+65 24 25.8	15.99		2.70	1.85	0.80	0.28	0.77	g6
929	21 44 25.55	+65 52 42.0	15.51		2.44	1.67	0.77	0.29	0.73	f7
930	21 44 25.80	+65 31 52.6	15.78		2.53	1.70	0.72	0.27	0.72	g2
931	21 44 25.94	+65 46 19.0	16.45			2.15	0.81	0.41	0.88	k2.7 V
932	21 44 26.01	+66 16 01.4	14.42			3.16	1.39	0.51	1.27	g4
933	21 44 26.31	+65 30 27.5	14.19			3.47	1.31	0.56	1.28	m2 III
934	21 44 26.37	+65 46 36.7	14.68			2.81	1.15	0.47	1.06	k1.2 III
935	21 44 26.69	+65 43 31.1	13.43	2.57	2.03	1.44	0.65	0.23	0.63	f7 V
936	21 44 26.76	+65 29 59.0	14.31	4.13	3.58	2.40	0.97	0.40	0.93	k0.7 IV
937	21 44 26.97	+65 44 30.5	15.80		2.22	1.54	0.74	0.28	0.61	f5
938	21 44 27.25	+65 34 46.4	13.44	2.47	1.92	1.35	0.61	0.21	0.59	f5 V
939	21 44 27.28	+65 53 59.6	15.63			3.00	1.28	0.58	1.18	**
940	21 44 27.42	+65 31 01.4	13.63	2.45	1.88	1.29	0.58	0.19	0.55	f5 V
941	21 44 28.03	+65 49 16.6	15.50			2.36	1.01	0.39	0.92	g8.5
942	21 44 28.31	+66 28 35.2	12.69	4.49	3.77	2.67	1.15	0.44	1.04	g8.5 III
943	21 44 29.06	+65 34 01.2	15.74	2.85	2.34	1.61	0.63	0.23	0.78	**
944	21 44 29.22	+65 45 15.9	14.61	3.06	2.50	1.77	0.76	0.32	0.72	g5 V
945	21 44 29.56	+65 50 30.5	16.15		2.29	1.67	0.75	0.30	0.70	f8
946	21 44 29.62	+66 09 09.2	14.65	3.72	2.73	1.83	0.88	0.28	0.74	f0 III
947	21 44 29.62	+65 48 43.9	15.37	2.92	2.19	1.52	0.69	0.27	0.64	f4 IV
948	21 44 30.05	+65 34 34.0	14.29	2.72	2.10	1.47	0.66	0.23	0.63	f5 V
949	21 44 30.06	+65 54 39.5	15.84			2.51	1.12	0.44	1.06	g8
950	21 44 30.23	+65 56 44.5	15.39			2.73	1.16	0.51	1.08	k0.7 IV
951	21 44 30.71	+65 30 00.3	15.58	2.76	2.15	1.52	0.71	0.25	0.63	f5 V
952	21 44 31.89	+65 46 34.0	16.00			2.04	0.89	0.35	0.83	g7
953	21 44 31.95	+66 30 37.6	14.62	2.70	2.19	1.55	0.66	0.25	0.62	g1 V
954	21 44 32.02	+65 53 03.1	15.80	2.86	2.26	1.62	0.67	0.22	0.81	g1 IV
955	21 44 32.23	+65 40 38.3	16.21			2.21	0.94	0.43	0.88	k0.7 V
956	21 44 32.31	+66 23 23.6	12.08	4.89	4.14	2.88	1.14	0.52	1.05	k2 III
957	21 44 32.42	+66 23 07.0	13.89	2.75	2.06	1.33	0.58	0.21	0.60	f6 III
958	21 44 32.47	+65 36 23.2	14.35		3.89	2.66	1.03	0.46	1.00	k1.7 III
959	21 44 32.51	+65 23 39.4	15.79			2.37	0.85	0.51	0.89	k4 V
960	21 44 32.70	+65 40 03.6	14.21	2.99	2.50	1.67	0.67	0.27	0.68	g5.5 IV
961	21 44 32.88	+65 45 26.3	14.92	2.73	2.13	1.50	0.71	0.26	0.69	f5 V
962	21 44 32.97	+65 38 03.7	12.92	2.53	1.92	1.33	0.58	0.20	0.57	f4 V
963	21 44 33.16	+66 00 54.3	14.86	3.32	2.44	1.63	0.77	0.27	0.70	f3 III
964	21 44 33.27	+65 50 02.2	15.59	3.12	2.54	1.78	0.82	0.33	0.65	f9.5 IV
965	21 44 33.58	+65 56 52.2	13.13	2.49	1.93	1.32	0.57	0.21	0.58	f5 V
966	21 44 33.91	+65 57 46.7	16.79			1.84	0.83	0.33	0.86	g2 V
967	21 44 33.96	+65 26 06.0	15.31	2.78	2.14	1.50	0.70	0.24	0.63	f4 V
968	21 44 34.21	+66 04 46.4	14.81	2.96	2.48	1.71	0.73	0.28	0.69	g5.5 V
969	21 44 34.31	+65 46 25.5	15.84		2.51	1.77	0.79	0.32	0.71	g3
970	21 44 34.44	+65 48 42.8	15.64		2.62	1.77	0.73	0.31	0.69	g8
971	21 44 35.26	+66 26 18.4	14.01			3.77	1.57	0.68	1.41	k3.5 III
972	21 44 35.45	+65 29 02.0	13.65	4.58	3.90	2.71	1.10	0.41	1.03	**
973	21 44 35.51	+66 28 34.9	15.71			2.60	1.11	0.45	1.01	k0

Continued **Table A.2**

No	RA(2000)	DEC(2000)	V	U-V	P-V	X-V	Y-V	Z-V	V-S	Photom.
	h m s	° ′ ″	mag	mag	mag	mag	mag	mag	mag	sp.type
974	21 44 35.61	+65 47 08.8	15.46	2.81	2.30	1.56	0.68	0.27	0.65	**
975	21 44 36.44	+66 03 46.5	13.22	2.43	1.82	1.20	0.54	0.21	0.54	f4 IV
976	21 44 36.47	+65 53 29.2	12.49	3.09	2.47	1.76	0.78	0.31	0.77	f9 IV
977	21 44 36.63	+66 11 35.9	13.04	2.47	1.95	1.35	0.59	0.21	0.57	f7 V
978	21 44 36.64	+66 03 33.8	12.81	2.40	1.79	1.13	0.50	0.17	0.52	**
979	21 44 36.70	+65 43 19.1	13.52	4.12	3.41	2.43	1.04	0.39	0.94	g7 III
980	21 44 36.91	+66 28 56.6	14.91	3.44	2.83	1.94	0.79	0.35	0.71	g6 III
981	21 44 37.52	+65 47 41.2	15.95		2.36	1.65	0.75	0.29	0.66	f8
982	21 44 37.88	+65 36 14.4	16.20			2.30	0.99	0.38	0.90	g6
983	21 44 38.03	+65 45 38.0	16.04		2.30	1.60	0.73	0.23	0.69	f7
984	21 44 38.75	+66 23 53.9	14.87	3.24	2.77	1.88	0.75	0.33	0.73	k0 V
985	21 44 38.79	+65 46 38.3	14.00	4.33	3.69	2.62	1.01	0.42	0.98	**
986	21 44 39.73	+66 30 12.8	14.11	2.55	2.03	1.43	0.62	0.22	0.59	f8 V
987	21 44 39.93	+65 54 28.0	15.41			2.38	1.01	0.34	1.04	**
988	21 44 40.23	+66 15 32.0	15.80		2.79	1.98	0.95	0.29	0.86	f7
989	21 44 40.41	+66 04 46.4	15.16	2.57	2.07	1.46	0.64	0.24	0.63	f8 V
990	21 44 40.71	+65 53 58.8	13.97	2.64	2.11	1.47	0.64	0.24	0.61	f9 V
991	21 44 40.79	+65 32 45.7	16.55			2.28	1.00	0.37	0.94	g4
992	21 44 41.25	+65 28 35.8	16.80			2.15	0.83	0.45	0.88	k2.7 V
993	21 44 41.64	+65 47 49.7	14.13	3.80	3.12	2.16	0.92	0.36	0.87	**
994	21 44 42.18	+65 45 24.5	15.65	2.92	2.40	1.71	0.73	0.34	0.72	**
995	21 44 43.70	+65 47 20.2	14.93	2.86	2.09	1.27	0.55	0.23	0.44	a6 V
996	21 44 43.83	+65 46 42.5	14.14		3.80	2.65	1.05	0.45	0.96	k1 III
997	21 44 44.49	+66 24 20.6	15.10	3.24	2.33	1.47	0.64	0.21	0.69	**
998	21 44 44.71	+65 57 05.7	14.47	2.85	2.23	1.53	0.69	0.23	0.68	**
999	21 44 44.80	+65 55 47.7	15.83			2.56	0.91	0.62	1.02	k9 V
1000	21 44 44.99	+65 49 14.4	12.80	5.36	4.49	3.15	1.22	0.54	1.12	k3 III
1001	21 44 45.36	+65 33 13.2	16.05		2.32	1.63	0.73	0.28	0.65	g0
1002	21 44 45.51	+65 37 17.7	14.57	2.66	1.93	1.16	0.52	0.17	0.45	a9 IV
1003	21 44 45.55	+66 11 39.0	15.01		3.18	2.33	1.11	0.42	0.88	g2
1004	21 44 45.64	+66 14 31.5	15.67			2.19	1.05	0.37	0.93	g0
1005	21 44 45.86	+66 08 24.3	14.68			3.67	1.52	0.65	1.40	k3 III
1006	21 44 46.16	+65 28 13.7	15.57	2.78	2.15	1.50	0.71	0.24	0.65	**
1007*	21 44 46.35	+65 36 18.8	16.03		2.24	1.57	0.67	0.27	0.75	Be:
1008	21 44 46.38	+65 47 37.4	14.93		3.12	2.12	0.91	0.37	0.80	**
1009	21 44 46.77	+65 25 41.3	15.19	2.92	2.19	1.52	0.70	0.25	0.65	**
1010	21 44 47.13	+65 39 59.2	15.80			2.44	1.03	0.42	0.93	k0 IV
1011	21 44 47.31	+66 07 16.6	16.53			2.31	1.12	0.46	1.05	g0
1012	21 44 48.39	+65 32 45.8	15.29			2.40	0.96	0.39	0.96	k0 III
1013	21 44 48.88	+65 55 34.0	14.83	2.73	2.12	1.49	0.67	0.23	0.64	f5 V
1014	21 44 49.42	+65 32 21.5	16.36			2.11	0.87	0.40	0.86	k0.5 V
1015	21 44 49.66	+65 39 51.5	15.93		2.37	1.63	0.73	0.25	0.68	f8
1016	21 44 49.77	+66 21 00.7	15.52		2.63	1.91	0.90	0.32	0.83	f7
1017	21 44 49.97	+65 32 32.9	15.39	2.72	2.20	1.55	0.65	0.25	0.68	g1 V
1018	21 44 49.99	+66 03 46.6	15.48		2.94	2.18	1.06	0.38	0.94	f7
1019	21 44 50.43	+66 19 20.7	15.47			2.27	0.79	0.46	0.92	k4 V

Continued **Table A.2**

No	RA(2000)	DEC(2000)	V	U-V	P-V	X-V	Y-V	Z-V	V-S	Photom.
	h m s	° ′ ″	mag	mag	mag	mag	mag	mag	mag	sp.type
1020	21 44 50.47	+65 49 01.1	15.42	2.79	2.18	1.50	0.70	0.27	0.61	f4 V
1021	21 44 50.68	+65 27 51.0	13.75	2.54	1.91	1.29	0.59	0.21	0.54	f4 V
1022	21 44 50.80	+65 26 06.8	12.30	3.93	3.27	2.31	0.94	0.35	0.90	g7 III
1023	21 44 51.02	+66 07 26.9	15.90			3.03	1.37	0.48	1.24	g2
1024	21 44 51.11	+66 30 35.5	14.78	3.16	2.62	1.77	0.73	0.33	0.70	g7 IV
1025	21 44 51.58	+65 26 41.7	14.18	2.90	2.26	1.61	0.74	0.26	0.68	f5 V
1026	21 44 51.61	+65 51 06.6	14.22	2.95	2.39	1.66	0.72	0.27	0.67	g0 IV
1027	21 44 51.74	+65 24 10.7	10.26	2.17	1.67	1.12	0.46	0.15	0.46	f5 V
1028	21 44 51.75	+66 16 39.0	14.03	2.50	1.95	1.35	0.59	0.21	0.56	f5 V
1029	21 44 52.17	+65 32 37.0	16.10		2.42	1.65	0.73	0.28	0.75	g0
1030	21 44 52.98	+66 30 41.9	15.83			2.01	0.76	0.40	0.75	k2.2 V
1031	21 44 53.04	+65 44 50.2	15.22	2.89	2.11	1.39	0.58	0.21	0.63	**
1032	21 44 53.07	+65 35 02.7	13.75	2.67	2.06	1.40	0.63	0.21	0.58	**
1033	21 44 53.45	+65 47 00.3	15.79	2.72	2.23	1.64	0.73	0.33	0.68	**
1034	21 44 53.54	+66 15 36.5	12.07	2.31	1.79	1.23	0.52	0.19	0.53	f6 V
1035	21 44 53.72	+65 59 21.2	16.42			1.91	0.87	0.36	0.76	f9
1036	21 44 53.90	+66 10 51.6	13.31			3.64	1.49	0.66	1.36	m2.5 III
1037	21 44 54.20	+65 48 02.4	15.81			1.86	0.77	0.29	0.82	g6
1038	21 44 54.71	+65 25 44.1	16.10		2.26	1.64	0.75	0.25	0.73	f5
1039	21 44 55.01	+65 40 07.6	16.14			2.26	0.96	0.53	0.96	**
1040	21 44 55.40	+65 30 14.4	15.41	2.81	2.21	1.53	0.70	0.26	0.68	**
1041	21 44 55.42	+65 42 35.3	12.78	2.63	1.86	1.01	0.45	0.15	0.40	**
1042	21 44 55.46	+65 33 05.8	14.94	2.71	2.13	1.49	0.66	0.23	0.65	f7 V
1043	21 44 55.50	+65 51 20.6	15.80		2.48	1.71	0.79	0.33	0.70	g0
1044	21 44 55.79	+66 01 31.7	15.37	3.08	2.44	1.63	0.76	0.30	0.71	f6 IV
1045	21 44 56.25	+65 36 36.6	14.60	3.19	2.56	1.75	0.75	0.30	0.76	g1 IV
1046	21 44 56.37	+65 47 46.8	16.14		2.26	1.55	0.69	0.28	0.69	f8
1047	21 44 56.70	+65 51 53.1	16.09		2.44	1.68	0.75	0.32	0.75	g0
1048	21 44 56.91	+65 44 13.2	15.55	2.96	2.28	1.53	0.70	0.23	0.70	f3 IV
1049	21 44 57.03	+66 16 57.7	15.75		2.69	1.97	0.96	0.31	0.82	f5
1050	21 44 57.34	+65 44 57.0	15.80		2.55	1.76	0.79	0.34	0.72	**
1051	21 44 57.52	+65 50 21.5	15.92		2.26	1.61	0.74	0.27	0.65	f7
1052	21 44 57.52	+66 23 59.7	13.90	2.58	2.01	1.40	0.62	0.22	0.59	f6 V
1053	21 44 57.60	+65 48 36.8	13.70		3.49	2.41	1.00	0.41	0.90	k0
1054	21 44 57.88	+65 48 25.1	13.48	2.44	1.86	1.28	0.55	0.18	0.58	f5 V
1055	21 44 58.05	+65 29 51.3	12.59	3.88	3.28	2.25	1.01	0.35	0.89	**
1056	21 44 58.79	+65 55 52.6	13.99	4.13	3.46	2.40	1.04	0.41	0.95	**
1057	21 44 58.83	+66 12 03.0	15.77			2.43	1.14	0.43	1.01	g5
1058	21 44 58.92	+65 52 18.1	15.56	3.18	2.57	1.81	0.79	0.27	0.79	g1.5 III
1059	21 44 59.70	+65 43 11.0	15.46	2.73	2.14	1.45	0.68	0.25	0.63	f5 IV
1060	21 44 59.80	+66 18 23.1	14.95	2.97	2.28	1.60	0.76	0.25	0.71	f4 V
1061	21 45 00.44	+66 16 05.0	13.86	3.11	2.36	1.63	0.76	0.25	0.72	f4 IV
1062	21 45 00.61	+66 25 33.3	15.73			2.52	1.12	0.42	1.01	k1 IV
1063	21 45 00.72	+65 45 56.6	13.47	4.34	3.62	2.50	1.01	0.39	0.94	k0 III
1064	21 45 00.88	+65 24 22.0	16.33			2.22	0.87	0.52	0.88	k3 V
1065	21 45 01.31	+65 44 10.0	15.89		2.34	1.65	0.75	0.28	0.68	f9

Continued **Table A.2**

No	RA(2000)	DEC(2000)	V	U-V	P-V	X-V	Y-V	Z-V	V-S	Photom.
	h m s	° ′ ″	mag	mag	mag	mag	mag	mag	mag	sp.type
1066	21 45 02.28	+65 32 33.3	14.28	2.60	2.05	1.46	0.66	0.24	0.64	f6 V
1067	21 45 02.56	+65 45 39.9	12.12	5.82	4.91	3.44	1.29	0.60	1.22	k4.5 III
1068	21 45 02.59	+66 23 23.6	11.67	2.97	2.43	1.71	0.73	0.29	0.69	g4 V
1069	21 45 03.14	+65 43 58.1	15.82			1.88	0.75	0.36	0.77	g9.5
1070	21 45 03.22	+65 26 52.8	15.98			2.10	0.86	0.44	0.78	k1.2 V
1071	21 45 03.63	+65 39 49.4	15.41	2.74	2.12	1.45	0.64	0.24	0.69	f6 IV
1072	21 45 03.64	+65 41 00.3	16.00		2.36	1.63	0.72	0.27	0.68	f9
1073	21 45 03.80	+66 34 28.3	13.08	3.09	2.64	1.75	0.66	0.32	0.67	k1 V
1074	21 45 03.86	+65 25 22.3	16.12			1.80	0.73	0.30	0.75	g3
1075	21 45 03.97	+65 56 31.4	12.98		4.96	3.58	1.49	0.58	1.46	k3.7 III
1076	21 45 04.01	+65 45 08.4	13.62	2.67	2.16	1.49	0.63	0.25	0.63	g1.5 V
1077	21 45 04.07	+65 42 42.8	12.57	5.89	4.94	3.52	1.32	0.61	1.27	k4.5 III
1078	21 45 04.18	+66 21 15.9	15.64		2.55	1.82	0.82	0.32	0.72	g1
1079	21 45 04.67	+65 36 55.8	14.18		4.12	2.91	1.14	0.48	1.05	k1.7 III
1080	21 45 05.01	+65 44 45.4	13.60	2.62	2.05	1.40	0.61	0.22	0.57	f7 IV
1081	21 45 05.08	+66 17 14.4	16.44			1.85	0.87	0.29	0.83	f8
1082	21 45 05.84	+65 46 08.5	15.86		2.40	1.74	0.79	0.28	0.61	f7
1083	21 45 06.10	+65 32 19.8	16.44			1.76	0.79	0.30	0.75	f9
1084	21 45 06.31	+66 28 40.1	14.64			3.50	1.41	0.63	1.26	k3.5 III
1085	21 45 06.74	+65 43 04.7	13.80	2.74	2.26	1.54	0.66	0.25	0.62	**
1086	21 45 06.81	+65 43 33.2	15.75		2.78	1.92	0.84	0.33	0.88	**
1087	21 45 06.90	+65 27 27.5	14.68	3.40	2.82	1.97	0.86	0.31	0.81	g5.5 V
1088	21 45 07.35	+66 18 43.4	13.73	2.55	2.02	1.40	0.61	0.22	0.59	f7 V
1089	21 45 07.62	+66 25 45.0	13.49	4.02	3.32	2.35	1.01	0.38	0.96	g6 III
1090	21 45 08.04	+65 44 21.4	15.65		2.40	1.70	0.75	0.33	0.66	g2.5
1091	21 45 08.12	+66 01 34.0	16.22			2.41	0.98	0.42	1.09	k1.7 V
1092	21 45 08.20	+65 35 09.2	15.12	2.69	2.08	1.42	0.66	0.21	0.61	f4 V
1093	21 45 08.36	+65 48 36.6	16.08		2.44	1.68	0.74	0.27	0.69	g0
1094	21 45 08.40	+65 52 59.0	16.03			2.20	0.98	0.38	0.86	g5
1095	21 45 08.71	+65 47 34.9	15.54	2.92	2.25	1.57	0.68	0.24	0.75	f7 IV
1096	21 45 08.88	+66 17 38.0	15.00		3.69	2.65	1.19	0.42	1.12	**
1097	21 45 09.49	+65 25 59.2	14.05		4.55	3.17	1.23	0.51	1.15	**
1098	21 45 09.69	+65 50 31.7	16.42			1.87	0.75	0.32	0.74	g8
1099	21 45 09.71	+65 51 58.7	16.12		2.28	1.68	0.75	0.31	0.67	f8
1100	21 45 09.80	+66 34 44.3	13.19	1.94	1.47	1.00	0.52	0.17	0.34:	b3.5 IV
1101	21 45 09.99	+65 45 03.8	15.23	2.93	2.33	1.60	0.74	0.30	0.67	**
1102	21 45 10.05	+65 51 16.6	12.77	5.44	4.63	3.23	1.24	0.56	1.15	k3.5 III
1103	21 45 10.10	+65 53 31.2	15.84		2.76	1.82	0.75	0.33	0.70	k0 V
1104	21 45 10.31	+65 46 38.1	12.93	2.44	1.92	1.29	0.56	0.22	0.56	f7 IV
1105	21 45 10.59	+66 00 04.5	15.60			2.69	1.10	0.46	1.06	k1 III
1106	21 45 10.77	+65 44 41.3	16.03			1.67	0.75	0.30	0.68	g0
1107	21 45 11.54	+65 58 05.9	14.66		3.64	2.60	1.12	0.41	1.09	g7
1108	21 45 12.40	+65 48 31.8	13.49	2.53	1.99	1.36	0.58	0.20	0.60	**
1109	21 45 12.60	+66 28 39.4	13.77	2.98	2.36	1.71	0.73	0.43	0.56	g2 III
1110	21 45 12.84	+65 37 34.5	15.88		2.46	1.77	0.79	0.30	0.75	g1
1111	21 45 12.97	+65 49 39.3	14.19	3.92	3.24	2.29	0.96	0.39	0.93	g7 III

Continued **Table A.2**

No	RA(2000)	DEC(2000)	V	U-V	P-V	X-V	Y-V	Z-V	V-S	Photom.
	h m s	° ′ ″	mag	mag	mag	mag	mag	mag	mag	sp.type
1112	21 45 13.13	+65 44 58.1	15.62	3.02	2.43	1.68	0.73	0.28	0.75	**
1113	21 45 13.39	+66 19 16.1	15.56		2.69	1.82	0.72	0.33	0.72	k0 V
1114	21 45 13.49	+65 47 37.4	14.82	3.16	2.49	1.76	0.73	0.28	0.79	**
1115	21 45 13.60	+66 06 12.7	14.55			3.44	1.44	0.55	1.25	g8
1116	21 45 13.79	+65 27 43.7	13.69	2.73	2.17	1.51	0.66	0.24	0.64	f8 IV
1117	21 45 13.79	+65 44 25.5	15.30		3.11	2.09	0.78	0.43	0.89	k3 V
1118	21 45 13.94	+65 32 42.8	14.58	2.96	2.32	1.60	0.70	0.25	0.73	**
1119	21 45 13.98	+65 41 39.6	14.49	2.56	1.92	1.32	0.63	0.22	0.57	f4 V
1120	21 45 14.01	+66 17 29.1	13.23	2.50	1.96	1.34	0.60	0.22	0.57	**
1121	21 45 14.16	+65 51 31.6	14.86			2.94	1.13	0.53	1.10	m3 III
1122	21 45 14.36	+65 38 44.7	16.19		2.23	1.62	0.71	0.28	0.73	g0
1123*	21 45 14.60	+66 31 17.3	9.57	2.25	1.75	1.21	0.48	0.17	0.50	f7 V
1124	21 45 15.16	+65 49 24.3	15.38	2.93	2.17	1.36	0.64	0.24	0.59	f1 IV
1125	21 45 15.43	+66 01 31.3	15.98		2.50	1.79	0.85	0.34	0.72	f8
1126	21 45 15.57	+65 23 47.9	14.09	3.73	3.20	2.16	0.76	0.45	0.85	m1 V
1127	21 45 15.61	+65 22 45.4	14.77	2.93	2.36	1.65	0.70	0.27	0.66	f9.5 IV
1128	21 45 15.65	+65 48 32.2	16.35			1.78	0.75	0.26	0.82	g2
1129	21 45 16.27	+66 00 55.4	15.12	2.87	2.31	1.66	0.72	0.28	0.67	g1 V
1130	21 45 16.68	+65 38 27.7	15.74		2.27	1.63	0.74	0.25	0.67	f7
1131	21 45 17.35	+65 32 33.8	13.34	3.00	2.44	1.68	0.72	0.27	0.73	**
1132	21 45 17.61	+65 34 41.6	15.67	2.81	2.19	1.53	0.70	0.25	0.64	f5 V
1133	21 45 17.64	+65 43 18.1	14.87			2.89	1.14	0.51	1.11	**
1134	21 45 18.21	+65 36 54.1	14.37	3.56	3.01	2.01	0.82	0.35	0.77	g8 III
1135	21 45 18.58	+65 46 38.6	15.06	3.03	2.21	1.28	0.57	0.24	0.50	a6 V
1136	21 45 18.63	+65 44 00.7	15.88		2.39	1.68	0.76	0.31	0.70	g0
1137*	21 45 18.65	+65 49 59.1	10.73	4.08	3.41	2.38	0.94	0.37	0.89	k0 III
1138	21 45 19.19	+65 28 49.7	14.56			3.28	1.26	0.55	1.19	k3.5 III
1139	21 45 19.24	+65 54 42.7	14.56	2.71	2.03	1.37	0.63	0.24	0.56	f4 IV
1140	21 45 19.40	+65 37 47.6	13.44	2.78	2.23	1.51	0.65	0.24	0.62	f9 IV
1141	21 45 19.65	+66 27 17.5	13.05	2.97	2.47	1.75	0.81	0.38		**
1142	21 45 19.72	+65 44 22.3	15.61	2.90	2.36	1.68	0.73	0.30	0.70	g1.5 V
1143	21 45 20.18	+65 36 42.9	15.39		3.13	2.19	0.92	0.31	0.91	g2
1144	21 45 20.43	+65 48 31.0	13.77	4.25	3.53	2.51	1.03	0.42	0.97	g9 III
1145	21 45 20.46	+65 51 07.0	12.99	2.89	2.30	1.57	0.67	0.25	0.65	f9 IV
1146	21 45 20.89	+65 47 39.9	12.75	4.59	3.92	2.68	1.07	0.42	1.00	**
1147	21 45 20.91	+65 46 39.5	15.52	2.97	2.42	1.67	0.74	0.28	0.69	f9.5 IV
1148	21 45 21.10	+65 42 02.2	14.02	3.64	3.04	2.07	0.83	0.36	0.82	g8.5 III
1149	21 45 22.18	+65 33 59.0	13.15	2.95	2.24	1.55	0.69	0.24	0.67	**
1150*	21 45 22.34	+66 29 55.8	9.20	1.70	1.14	0.62	0.27	0.09	0.16	b8 III
1151	21 45 22.48	+65 55 07.6	14.66	2.54	2.03	1.41	0.63	0.23	0.60	f8 V
1152	21 45 22.82	+66 16 29.0	15.83		2.44	1.72	0.80	0.29	0.69	f9
1153	21 45 22.89	+65 27 10.2	14.55		3.72	2.53	1.01	0.40	0.96	k0.7 III
1154	21 45 22.91	+66 15 16.0	15.77			2.30	0.83	0.58	0.88	**
1155	21 45 23.01	+65 53 17.6	16.63			1.90	0.86	0.34	0.86	g2
1156	21 45 23.22	+66 27 42.3	15.93		2.80	1.93	0.84	0.34	0.75	g7
1157	21 45 23.31	+66 21 14.7	14.26	2.62	2.07	1.45	0.63	0.21	0.61	f7 V

Continued **Table A.2**

No	RA(2000)	DEC(2000)	V	U-V	P-V	X-V	Y-V	Z-V	V-S	Photom.
	h m s	° ′ ″	mag	mag	mag	mag	mag	mag	mag	sp.type
1158	21 45 23.43	+65 48 15.7	14.58	3.06	2.18	1.38	0.60	0.20	0.62	**
1159	21 45 23.97	+65 49 38.3	15.39	2.88	2.26	1.51	0.67	0.26	0.59	**
1160	21 45 24.19	+65 49 56.8	15.16	2.98	2.33	1.63	0.70	0.24	0.76	f9 IV
1161	21 45 24.37	+65 39 47.0	16.02		2.22	1.53	0.68	0.26	0.67	f8
1162	21 45 25.79	+65 41 18.7	16.52			2.08	0.91	0.35	0.85	g5
1163	21 45 25.91	+66 02 07.7	14.83	2.94	2.28	1.62	0.77	0.26	0.70	f5 V
1164	21 45 26.19	+65 45 26.2	14.95	2.62	2.07	1.48	0.64	0.26	0.66	f8 V
1165	21 45 26.39	+66 34 41.3	12.35	2.49	1.99	1.36	0.56	0.22	0.59	f9.5 V
1166	21 45 26.68	+66 32 21.4	11.72	2.46	1.87	1.24	0.50	0.15	0.45:	f5 IV
1167	21 45 26.73	+66 28 49.7	15.78			2.41	0.91	0.52	0.89	k3.7 V
1168	21 45 26.96	+65 35 12.6	14.08	2.59	2.03	1.39	0.60	0.19	0.61	f6 V
1169	21 45 27.03	+65 36 03.7	14.90		3.37	2.27	0.80	0.52	0.86	k4.2 V
1170	21 45 27.08	+65 36 36.1	14.87	3.01	2.52	1.71	0.74	0.34	0.70	**
1171	21 45 27.60	+65 47 30.0	15.44	3.08	2.47	1.71	0.78	0.28	0.72	f8 IV
1172	21 45 27.99	+65 41 09.6	15.93		2.42	1.64	0.76	0.28	0.69	f7
1173	21 45 28.03	+65 45 06.4	14.25		3.80	2.59	1.00	0.43	0.97	k1.5 III
1174	21 45 28.29	+65 49 28.2	15.08	2.88	2.09	1.20	0.55	0.24	0.48	**
1175	21 45 28.51	+65 43 22.9	13.69	2.60	1.98	1.37	0.62	0.22	0.59	f4 V
1176	21 45 28.57	+65 54 32.5	13.99	2.45	1.85	1.25	0.55	0.18	0.57	f4 V
1177	21 45 28.62	+65 34 45.4	15.52			2.13	0.88	0.35	0.85	g8
1178	21 45 28.77	+65 42 03.6	13.92	2.67	1.99	1.30	0.60	0.21	0.56	**
1179	21 45 29.19	+66 06 59.0	16.13			1.97	0.88	0.34	0.81	g2
1180	21 45 29.40	+65 32 07.9	15.35	3.10	2.60	1.75	0.73	0.28	0.73	g5 IV
1181	21 45 29.53	+65 46 29.4	13.48	4.82	4.04	2.83	1.09	0.44	1.03	k2 III
1182	21 45 29.73	+66 14 09.7	15.79		2.60	1.88	0.83	0.35	0.75	g3
1183	21 45 29.94	+65 56 10.3	15.27			2.64	1.12	0.46	0.99	k0.5 IV
1184	21 45 30.45	+65 40 32.5	15.62	2.87	2.29	1.62	0.73	0.28	0.67	f8 V
1185	21 45 30.93	+65 24 49.4	14.50	2.75	2.15	1.47	0.66	0.26	0.57	f6 IV
1186	21 45 31.36	+65 48 18.2	15.69		2.40	1.73	0.81	0.31	0.69	f7
1187	21 45 32.09	+65 48 36.6	16.04			2.15	0.83	0.44	0.82	k2.5 V
1188	21 45 32.37	+66 17 07.5	10.63	4.17	3.49	2.39	0.93	0.37	0.86	k0.5 III
1189	21 45 32.67	+65 46 17.4	16.08			2.17	0.93	0.38	0.87	g8
1190	21 45 32.93	+65 47 31.0	13.65	3.88	3.16	2.22	0.94	0.35	0.89	**
1191	21 45 32.94	+66 21 31.0	15.91		2.77	2.01	0.88	0.32	0.83	g3
1192	21 45 33.15	+65 50 07.2	15.49			2.40	0.97	0.37	0.99	k0
1193	21 45 33.47	+66 19 49.2	15.24			2.73	1.17	0.47	1.07	k0
1194	21 45 33.71	+65 32 32.9	14.95	2.78	2.09	1.48	0.67	0.27	0.61	f4 V
1195	21 45 34.29	+65 44 28.6	14.44		3.87	2.68	1.07	0.44	1.00	k1.2 III
1196	21 45 35.35	+66 05 51.2	15.73		2.69	1.88	0.83	0.33	0.74	g5
1197	21 45 35.66	+65 44 59.1	13.14	5.14	4.32	2.98	1.15	0.51	1.07	k2.7 III
1198	21 45 35.97	+65 27 36.5	14.20	3.00	2.48	1.67	0.71	0.26	0.70	g1.5 IV
1199	21 45 36.34	+66 33 40.5	14.51	2.77	2.22	1.55	0.66	0.24	0.66	f9.5 V
1200	21 45 36.54	+65 28 19.1	13.57	2.50	1.91	1.32	0.58	0.20	0.55	f4 V
1201	21 45 36.58	+65 35 29.0	14.18	2.70	1.81	0.97	0.46	0.16	0.40	a0.5 III
1202	21 45 36.63	+65 59 08.0	15.11	3.21	2.67	1.79	0.77	0.31	0.73	g4 IV
1203	21 45 36.66	+65 29 54.9	15.55	2.88	2.26	1.59	0.70	0.23	0.67	f7 V

Continued **Table A.2**

No	RA(2000)	DEC(2000)	V	U-V	P-V	X-V	Y-V	Z-V	V-S	Photom.
	h m s	° ′ ″	mag	mag	mag	mag	mag	mag	mag	sp.type
1204	21 45 36.88	+65 31 50.4	15.57		2.81	1.88	0.78	0.34	0.78	k0 V
1205	21 45 36.88	+65 45 51.9	13.43	2.66	2.06	1.33	0.58	0.22	0.57	**
1206	21 45 37.55	+65 39 45.9	15.45	2.84	2.14	1.39	0.64	0.23	0.61	f2 IV
1207	21 45 38.00	+66 01 29.8	14.96	2.70	2.14	1.50	0.71	0.25	0.67	f5 V
1208	21 45 38.24	+65 58 17.5	15.96		2.39	1.68	0.72	0.29	0.71	g3
1209	21 45 38.48	+65 26 04.1	15.17	2.81	2.34	1.57	0.67	0.27	0.65	**
1210	21 45 38.96	+66 06 52.1	14.88		3.83	2.74	1.13	0.45	1.08	k0 III
1211	21 45 39.36	+65 32 57.2	15.27			2.33	0.96	0.35	0.94	**
1212	21 45 39.56	+65 36 27.8	16.46			2.34	0.93	0.41	0.91	k0.5 IV
1213	21 45 39.63	+65 47 00.5	12.46	2.41	1.86	1.27	0.56	0.21	0.54	f5 V
1214	21 45 40.22	+65 44 14.0	14.91	2.80	2.04	1.31	0.60	0.22	0.57	f1 IV
1215	21 45 40.34	+65 34 48.7	12.39	4.09	3.41	2.37	0.97	0.40	0.91	g9 III
1216	21 45 40.37	+66 29 00.3	14.67			3.16	1.36	0.55	1.18	k1.2 III
1217	21 45 40.52	+65 44 56.3	12.74	5.00	4.24	3.01	1.17	0.52	1.08	k2.2 III
1218	21 45 40.75	+65 38 30.9	15.70			2.28	0.84	0.50	0.81	k3.5 V
1219	21 45 41.45	+66 18 44.6	16.35			1.83	0.91	0.32	0.79	a7
1220	21 45 41.55	+65 24 04.3	14.24	2.73	2.17	1.49	0.65	0.23	0.63	f8 IV
1221	21 45 41.58	+65 24 24.5	14.32	2.69	2.13	1.48	0.65	0.23	0.63	**
1222	21 45 41.74	+65 45 45.0	15.24			2.37	0.97	0.43	0.90	k1.5 V
1223	21 45 41.87	+65 27 02.9	14.99	3.15	2.61	1.81	0.80	0.29	0.75	g4 V
1224	21 45 41.95	+66 32 35.9	14.34	2.90	2.40	1.71	0.71	0.28	0.68	g3 V
1225	21 45 41.96	+66 03 53.2	16.12		2.39	1.73	0.81	0.28	0.72	f5
1226	21 45 42.31	+66 28 08.2	12.56	2.58	1.88	1.18	0.52	0.20	0.48	f1 IV
1227	21 45 42.32	+65 49 37.2	15.18	3.04	2.45	1.73	0.78	0.28	0.73	f9.5 V
1228	21 45 42.94	+66 23 46.6	15.43			2.34	0.90	0.49	0.86	k3.5 V
1229	21 45 43.57	+65 34 30.3	16.61			2.04	0.86	0.33	0.84	g9
1230	21 45 43.99	+65 46 54.2	16.25			1.66	0.71	0.29	0.71	g2
1231	21 45 45.07	+66 23 10.5	16.83			1.97	0.86	0.30	0.92	g2
1232	21 45 45.96	+65 59 11.0	11.76	2.73	1.95	1.24	0.55	0.20	0.52	f3 III
1233	21 45 46.08	+65 46 59.1	15.08	2.97	2.38	1.67	0.74	0.29	0.75	f9.5 IV
1234	21 45 46.32	+66 11 24.1	15.64			2.78	1.23	0.46	1.12	g8
1235	21 45 46.48	+65 45 18.0	16.06			2.11	0.78	0.44	0.83	k3.2 V
1236	21 45 46.59	+65 49 19.6	15.49			2.40	1.00	0.39	0.92	g8
1237	21 45 46.93	+65 45 43.5	15.46			2.62	1.09	0.49	0.98	**
1238	21 45 47.32	+66 07 58.5	14.14			3.81	1.50	0.67	1.39	k4.5 III
1239	21 45 47.42	+66 07 00.7	15.30	3.13	2.63	1.84	0.76	0.30	0.71	g8 V
1240	21 45 48.05	+65 54 05.6	15.70			2.38	1.00	0.44	0.91	k1.2 V
1241	21 45 48.43	+65 24 41.5	13.67	4.09	3.42	2.40	1.00	0.38	0.93	g8 III
1242	21 45 50.22	+65 26 15.2	16.13			2.23	0.94	0.37	0.89	g8
1243	21 45 50.24	+65 46 43.6	16.16			1.68	0.77	0.30	0.72	f6
1244	21 45 50.56	+65 43 49.8	14.05	4.63	3.92	2.69	1.08	0.49	0.98	k1.2 III
1245	21 45 50.85	+65 48 17.6	15.39		2.86	2.02	0.88	0.33	0.88	**
1246	21 45 51.11	+65 46 17.6	15.25	3.01	2.57	1.74	0.73	0.27	0.66	g7 V
1247	21 45 51.33	+65 35 00.5	15.95		2.36	1.63	0.75	0.31	0.66	f7
1248	21 45 51.94	+66 08 07.0	15.15			2.71	1.17	0.46	1.11	g9
1249	21 45 52.31	+66 14 41.5	16.28			2.01	0.93	0.31	0.87	g2

Continued **Table A.2**

No	RA(2000)	DEC(2000)	V	U-V	P-V	X-V	Y-V	Z-V	V-S	Photom.
	h m s	° ′ ″	mag	mag	mag	mag	mag	mag	mag	sp.type
1250	21 45 52.36	+65 32 35.5	12.45	2.51	2.05	1.38	0.56	0.23	0.55	g1 IV
1251	21 45 52.39	+65 43 44.2	14.98	3.41	2.78	1.97	0.85	0.31	0.89	g2.5 III
1252	21 45 53.45	+66 30 50.2	12.07	2.52	1.73	0.89	0.38	0.13	0.26	a1.5 III
1253	21 45 53.53	+65 58 53.2	15.38			2.44	0.83	0.53	0.95	k5 V
1254	21 45 53.56	+65 35 17.1	15.70			2.01	0.79	0.36	0.82	k1 V
1255	21 45 54.40	+65 50 49.6	14.47	2.67	2.01	1.34	0.62	0.21	0.56	f4 IV
1256	21 45 54.57	+66 09 34.8	16.20			1.92	0.90	0.30	0.80	f9
1257	21 45 54.62	+65 57 53.4	14.91	2.68	2.11	1.49	0.67	0.26	0.67	f7 V
1258	21 45 54.67	+65 27 12.4	15.76			2.42	0.99	0.41	0.91	g9
1259	21 45 54.79	+66 23 46.0	14.79	2.75	2.25	1.59	0.71	0.25	0.64	g0 V
1260	21 45 55.62	+66 27 49.6	10.59	2.65	1.81	0.99	0.41	0.14	0.36	a2 III
1261	21 45 56.09	+66 35 37.9	14.68			3.76	1.49	0.68	1.35	k4.2 III
1262	21 45 56.28	+66 06 06.8	13.63	2.88	2.18	1.50	0.68	0.23	0.65	f4 IV
1263	21 45 56.30	+65 29 37.9	16.56			2.09	0.79	0.37	0.88	k2 V
1264	21 45 56.73	+65 58 11.8	13.86			3.65	1.41	0.66	1.32	m2 III
1265	21 45 56.95	+65 39 25.7	15.00	3.09	2.45	1.76	0.78	0.30	0.77	f9 IV
1266	21 45 57.02	+65 44 10.6	13.73	4.47	3.73	2.58	1.03	0.40	0.96	k0.5 III
1267	21 45 57.43	+65 30 18.0	16.34			1.80	0.76	0.29	0.76	g6
1268	21 45 57.80	+65 36 28.9	14.78	4.11	3.43	2.37	0.94	0.37	0.92	k0 III
1269	21 45 57.90	+65 43 43.5	13.02	2.60	2.11	1.44	0.60	0.23	0.59	g2.5 V
1270	21 45 57.92	+65 23 59.8	16.03		2.27	1.57	0.69	0.21	0.70	f9
1271	21 45 58.06	+65 31 28.1	14.29	2.63	1.99	1.37	0.61	0.20	0.61	f4 V
1272	21 45 58.13	+66 05 14.5	13.89	2.83	2.27	1.57	0.68	0.25	0.65	**
1273	21 45 58.22	+65 51 24.6	15.24	2.95	2.39	1.65	0.70	0.28	0.64	g1 IV
1274	21 45 58.26	+65 27 03.3	16.35			1.89	0.80	0.28	0.76	f9
1275*	21 45 58.30	+65 47 35.8	13.67	2.47	1.94	1.21	0.49	0.14	0.57	**
1276	21 45 59.15	+66 06 29.6	13.24	3.15	2.38	1.67	0.78	0.28	0.71	f4 IV
1277	21 45 59.74	+66 05 31.2	16.05			2.19	0.86	0.39	0.83	k0.5 IV
1278	21 46 00.56	+65 43 42.0	16.07			2.19	0.93	0.36	0.90	g9
1279	21 46 00.81	+65 33 21.5	12.94	2.48	1.89	1.28	0.58	0.19	0.57	**
1280	21 46 00.92	+65 49 06.9	13.92	4.24	3.56	2.46	1.01	0.38	0.94	**
1281	21 46 01.48	+66 00 46.2	11.97	4.27	3.56	2.51	1.05	0.41	0.98	g8.5 III
1282	21 46 01.78	+66 01 18.9	14.99	3.16	2.49	1.78	0.82	0.31	0.72	f8 IV
1283	21 46 01.91	+65 29 29.7	13.27	2.71	2.15	1.48	0.64	0.23	0.61	f8 IV
1284	21 46 02.44	+65 48 34.9	12.65	2.77	2.25	1.54	0.63	0.28	0.62	g1 IV
1285	21 46 02.57	+65 35 36.0	16.07			2.45	0.88	0.49	0.91	k4 V
1286	21 46 02.71	+65 43 20.1	15.60		2.34	1.60	0.70	0.25	0.70	f9
1287	21 46 03.03	+65 46 49.1	14.76	2.83	2.14	1.48	0.69	0.25	0.66	f4 IV
1288	21 46 03.04	+65 47 25.6	15.80			2.38	1.01	0.41	0.97	k0 IV
1289	21 46 03.07	+65 43 59.7	13.57	4.88	3.86	2.86	1.30	0.48	1.36	g0 I
1290	21 46 03.10	+65 32 04.7	14.86			2.81	1.09	0.44	1.01	k2.2 III
1291	21 46 03.20	+65 38 32.9	15.26	2.96	2.43	1.67	0.73	0.27	0.72	g4 V
1292	21 46 03.33	+65 27 40.9	14.26	3.29	2.73	1.92	0.83	0.31	0.81	g6 V
1293	21 46 03.71	+65 49 20.4	15.69	2.80	2.11	1.55	0.66	0.24	0.70	f6 V
1294	21 46 04.27	+65 51 03.8	14.81		3.35	2.25	0.80	0.49	0.88	k4 V
1295	21 46 04.55	+65 46 37.0	14.04	2.95	2.41	1.63	0.68	0.27	0.69	**

Continued **Table A.2**

No	RA(2000)	DEC(2000)	V	U-V	P-V	X-V	Y-V	Z-V	V-S	Photom.
	h m s	° ′ ″	mag	mag	mag	mag	mag	mag	mag	sp.type
1296*	21 46 04.73	+65 56 25.4	8.41	2.12	1.41	0.71	0.23	0.08	0.22	a9 III
1297	21 46 05.14	+65 55 37.8	15.11		3.37	2.23	0.94	0.40	0.96	k1 IV
1298	21 46 05.30	+66 08 33.0	14.35	3.60	3.13	2.07	0.76	0.43	0.78	k2.5 V
1299	21 46 05.54	+65 29 36.8	16.42			2.14	0.94	0.29	0.97	m4.5 III
1300	21 46 06.17	+65 45 33.8	15.89		2.49	1.77	0.81	0.38	0.68	**
1301	21 46 06.45	+65 59 15.4	15.01	2.75	2.13	1.51	0.66	0.22	0.65	f5 V
1302	21 46 07.54	+65 54 25.3	14.77	2.74	2.17	1.47	0.68	0.24	0.61	f6 IV
1303	21 46 07.57	+66 02 54.7	12.61	2.58	1.87	1.19	0.52	0.20	0.50	f1 IV
1304	21 46 07.78	+65 25 20.2	14.60	2.76	2.16	1.49	0.68	0.29	0.61	**
1305	21 46 08.41	+65 36 11.0	15.24			2.50	1.01	0.45	0.97	k1 IV
1306	21 46 08.58	+65 54 58.9	14.16	4.14	3.40	2.38	1.02	0.37	0.95	**
1307	21 46 08.94	+65 49 32.8	13.28		5.00	3.62	1.42	0.65	1.32	**
1308	21 46 09.06	+66 12 34.2	14.14		3.94	2.83	1.20	0.46	1.10	g9
1309	21 46 09.12	+66 24 22.5	15.90			2.18	0.83	0.41	0.85	k2.5 V
1310	21 46 09.34	+66 18 15.4	13.16	2.62	2.14	1.46	0.62	0.21	0.62	**
1311	21 46 09.70	+65 38 52.9	14.15	4.13	3.40	2.36	0.97	0.38	0.88	g9 III
1312	21 46 09.76	+66 16 46.4	13.74	3.66	3.13	2.10	0.74	0.45	0.80	k1 IV
1313	21 46 10.28	+66 02 14.7	15.78			2.10	0.82	0.45	0.82	k2.2 V
1314	21 46 10.50	+65 30 56.5	13.26	2.52	1.94	1.35	0.61	0.22	0.56	f5 V
1315	21 46 10.97	+65 42 24.6	16.33			2.11	0.85	0.30	0.93	g7
1316	21 46 11.50	+65 44 46.1	13.90	2.60	2.08	1.46	0.65	0.24	0.63	**
1317	21 46 11.55	+66 19 41.6	16.04		2.41	1.72	0.81	0.29	0.76	f5
1318	21 46 11.76	+66 10 24.7	12.70	2.53	1.98	1.37	0.59	0.21	0.58	f7 V
1319	21 46 11.88	+65 25 44.4	14.05	2.81	2.14	1.49	0.68	0.23	0.65	f4 V
1320	21 46 12.19	+65 59 14.3	16.44			2.00	0.81	0.35	0.76	g8
1321	21 46 12.39	+66 09 30.4	15.53	3.10	2.49	1.75	0.77	0.26	0.81	f9.5 IV
1322	21 46 12.55	+65 23 45.3	12.62	5.68	4.85	3.41	1.28	0.60	1.18	k4.5 III
1323	21 46 12.72	+65 58 43.5	14.15	2.73	2.05	1.38	0.64	0.21	0.59	f4 IV
1324	21 46 12.92	+66 09 19.2	15.55	3.08	2.48	1.74	0.74	0.27	0.78	g1 IV
1325	21 46 13.20	+65 33 45.6	15.66	2.88	2.27	1.59	0.70	0.26	0.71	f8 IV
1326	21 46 13.22	+66 25 34.4	16.44			2.25	1.06	0.35	1.02	g2
1327	21 46 13.66	+66 31 16.4	15.03	3.12	2.44	1.73	0.77	0.25	0.77	f8 IV
1328	21 46 13.99	+65 44 00.7	12.53	3.90	3.26	2.26	0.92	0.37	0.85	g8.5 III
1329	21 46 14.30	+65 39 08.7	15.77			2.26	0.94	0.37	0.93	g9.5
1330	21 46 14.54	+66 24 20.4	15.94			1.99	0.77	0.33	0.77	k0 IV
1331	21 46 15.24	+65 38 02.2	15.03	3.61	3.01	2.05	0.88	0.36	0.83	g7 IV
1332	21 46 15.24	+65 46 35.7	14.66	2.84	2.31	1.58	0.69	0.24	0.65	f9.5 IV
1333	21 46 15.69	+65 43 09.6	10.36	5.53	4.68	3.32	1.24	0.56	1.15	k3.7 III
1334	21 46 16.08	+65 52 41.6	14.62		3.87	2.64	1.07	0.43	0.99	k1 III
1335	21 46 16.16	+66 21 30.2	14.13	3.00	2.46	1.69	0.70	0.28	0.68	g3 IV
1336	21 46 16.24	+65 31 39.6	15.97	2.68	2.26	1.54	0.62	0.25	0.68	g6 V
1337	21 46 16.49	+65 55 47.6	15.41	2.59	2.16	1.47	0.66	0.23	0.61	f9 V
1338	21 46 16.88	+65 49 18.5	15.43		2.81	1.89	0.74	0.34	0.68	k1 V
1339	21 46 16.97	+66 25 19.6	13.05	4.78	4.01	2.83	1.18	0.47	1.08	k0.5 III
1340	21 46 16.97	+66 16 47.3	14.24	2.70	2.14	1.49	0.65	0.24	0.62	f8 V
1341	21 46 17.02	+66 29 02.8	16.06		2.48	1.79	0.86	0.31	0.74	f5

Continued **Table A.2**

No	RA(2000)	DEC(2000)	V	U-V	P-V	X-V	Y-V	Z-V	V-S	Photom.
	h m s	° ′ ″	mag	mag	mag	mag	mag	mag	mag	sp.type
1342	21 46 17.16	+65 42 41.2	14.10	4.14	3.49	2.37	0.94	0.42	0.90	k0.7 III
1343	21 46 17.45	+66 18 46.5	11.94	2.39	1.67	0.86	0.34	0.13	0.29	a8 III
1344	21 46 17.48	+65 31 49.6	15.78			2.40	0.88	0.62	0.90	**
1345	21 46 17.49	+66 21 07.2	14.56	2.55	2.04	1.43	0.65	0.23	0.62	**
1346	21 46 17.66	+65 29 12.2	15.88		2.60	1.82	0.82	0.32	0.70	**
1347	21 46 17.66	+66 28 20.1	15.85		2.42	1.77	0.78	0.28	0.75	g0
1348	21 46 18.07	+66 10 10.7	14.92	2.77	2.21	1.56	0.71	0.23	0.64	f7 V
1349	21 46 19.01	+65 38 27.3	15.47	2.81	2.12	1.48	0.69	0.26	0.62	f4 IV
1350	21 46 19.15	+66 13 28.1	15.45			3.31	1.39	0.60	1.22	k2.2 III
1351	21 46 19.32	+65 45 33.7	15.29	2.85	2.23	1.57	0.70	0.27	0.69	f8 IV
1352	21 46 19.80	+66 19 36.9	14.22	2.55	2.06	1.45	0.64	0.23	0.60	**
1353	21 46 19.95	+65 41 25.8	14.78	2.95	2.28	1.63	0.75	0.26	0.69	f5 V
1354	21 46 20.10	+65 36 00.0	13.38	2.57	1.97	1.36	0.61	0.22	0.56	f4 V
1355	21 46 20.11	+65 30 08.8	15.60			2.29	0.99	0.38	0.93	g8
1356	21 46 20.62	+65 42 04.6	15.49	2.66	2.17	1.50	0.65	0.23	0.63	g0 V
1357	21 46 20.72	+65 34 03.0	13.25	2.75	2.20	1.50	0.65	0.23	0.62	**
1358	21 46 20.95	+65 58 00.2	15.95			2.68	1.03	0.63	1.09	**
1359	21 46 20.96	+66 33 31.3	14.62			3.51	1.49	0.61	1.30	k2.5 III
1360	21 46 21.17	+66 27 55.6	13.92	2.69	2.15	1.53	0.68	0.25	0.63	f8 V
1361	21 46 22.78	+65 29 56.9	15.53			2.25	0.91	0.40	0.90	k1.2 V
1362	21 46 22.88	+65 46 28.9	14.62	2.91	2.32	1.60	0.73	0.26	0.67	**
1363	21 46 23.04	+66 02 51.0	14.28	3.12	2.28	1.56	0.73	0.28	0.64	**
1364	21 46 23.31	+66 23 48.7	11.66	2.40	1.85	1.25	0.55	0.19	0.53	**
1365	21 46 23.35	+65 35 34.8	14.47	2.71	2.04	1.41	0.65	0.22	0.63	f4 V
1366	21 46 23.80	+65 56 59.1	14.91			3.03	1.23	0.46	1.13	**
1367	21 46 23.90	+66 04 36.4	15.16	3.36	2.59	1.83	0.83	0.29	0.84	**
1368	21 46 24.12	+65 48 04.5	13.70	4.53	3.73	2.58	1.04	0.41	0.95	k0.5 III
1369	21 46 24.24	+65 27 40.8	14.61	2.90	2.31	1.59	0.70	0.24	0.69	f8 IV
1370	21 46 24.27	+66 09 39.7	15.85			2.57	1.22	0.43	0.99	g2
1371	21 46 24.39	+65 53 49.2	12.83	2.54	1.93	1.34	0.60	0.22	0.56	f4 V
1372	21 46 24.49	+65 37 00.1	14.16	4.10	3.46	2.39	0.99	0.38	0.95	**
1373	21 46 24.70	+66 28 13.3	14.37	2.96	2.39	1.66	0.72	0.26	0.69	f9.5 IV
1374	21 46 24.88	+66 33 26.6	11.97	2.46	1.91	1.29	0.56	0.19	0.54	**
1375	21 46 25.29	+65 45 34.1	13.65	4.10	3.45	2.40	1.00	0.37	0.94	g8 III
1376	21 46 25.46	+65 26 35.2	15.11		3.27	2.28	0.98	0.36	0.90	g6
1377	21 46 25.88	+66 18 20.3	16.33			2.34	0.88	0.55	0.89	k3.7 V
1378	21 46 26.21	+65 34 19.0	13.18	2.51	1.86	1.20	0.52	0.17	0.52	f2 IV
1379	21 46 26.23	+65 41 23.8	14.21	2.72	2.04	1.33	0.61	0.21	0.57	**
1380	21 46 26.63	+66 00 46.7	15.89			2.27	1.03	0.37	0.98	g5
1381	21 46 26.78	+65 28 14.4	14.21		3.97	2.76	1.13	0.43	1.05	k0.5 III
1382	21 46 26.85	+66 10 18.4	15.22			2.38	0.87	0.50	0.92	k4 V
1383	21 46 27.46	+66 10 46.8	13.13	3.01	2.53	1.69	0.64	0.26	0.70	g8 IV
1384	21 46 28.04	+66 14 37.6	15.57		2.50	1.67	0.81	0.27	0.70	f2
1385	21 46 28.57	+65 58 48.7	15.74			2.18	0.79	0.44	0.86	k3.5 V
1386	21 46 29.03	+65 50 57.3	15.38	2.93	2.45	1.71	0.75	0.28	0.71	g2.5 V
1387	21 46 29.13	+66 09 30.5	15.71		2.59	1.83	0.79	0.32	0.70	g5

Continued **Table A.2**

No	RA(2000)	DEC(2000)	V	U-V	P-V	X-V	Y-V	Z-V	V-S	Photom.
	h m s	° ′ ″	mag	mag	mag	mag	mag	mag	mag	sp.type
1388	21 46 30.09	+65 46 00.6	13.59	4.66	3.95	2.82	1.13	0.46	1.04	g8 III
1389	21 46 30.09	+66 15 21.9	13.90	3.22	2.67	1.86	0.79	0.31	0.74	g7 V
1390	21 46 30.33	+66 10 14.5	13.25		4.75	3.35	1.36	0.60	1.25	k2.7 III
1391	21 46 30.64	+66 12 31.8	15.59			2.87	1.27	0.49	1.22	g8
1392	21 46 30.96	+65 56 15.6	14.65	2.62	1.98	1.35	0.63	0.22	0.58	f4 V
1393	21 46 31.19	+65 48 04.1	15.24	2.86	2.18	1.45	0.66	0.23	0.67	f3 IV
1394	21 46 31.95	+66 00 32.7	10.04	4.51	3.80	2.61	0.99	0.42	0.91	k2 III
1395	21 46 31.97	+65 56 40.4	15.77			2.39	1.01	0.41	0.97	k0 IV
1396	21 46 32.14	+66 27 06.2	15.78			2.05	0.82	0.34	0.80	g9.5
1397	21 46 32.22	+66 23 43.1	14.73	2.85	2.20	1.52	0.70	0.23	0.68	f4 V
1398	21 46 32.38	+66 06 20.0	16.15			1.94	0.91	0.33	0.82	g0
1399	21 46 32.51	+66 30 38.1	15.04	3.09	2.31	1.51	0.72	0.25	0.67	f1 IV
1400	21 46 33.02	+65 39 18.5	13.70			3.50	1.32	0.59	1.33	**
1401	21 46 33.40	+66 16 12.5	15.41		2.53	1.82	0.85	0.30	0.78	f7
1402	21 46 33.46	+66 14 45.1	13.25	2.73	2.15	1.51	0.65	0.23	0.65	f7 V
1403	21 46 33.85	+66 02 35.0	13.06	2.76	2.17	1.50	0.65	0.23	0.64	f8 IV
1404	21 46 33.93	+65 47 58.4	15.91			2.42	1.06	0.46	0.91	k0.7 V
1405	21 46 34.50	+66 34 55.0	14.98	2.87	2.28	1.60	0.72	0.25	0.74	f7 V
1406	21 46 34.56	+65 36 11.0	15.56			2.50	1.03	0.37	0.96	m4 III
1407	21 46 34.60	+65 30 05.6	14.51	3.04	2.50	1.73	0.70	0.29	0.72	g3 III
1408	21 46 34.65	+66 34 01.9	14.49			4.12	1.65	0.69	1.53	k6 I
1409	21 46 35.02	+65 27 39.1	13.91	2.98	2.33	1.68	0.78	0.28	0.74	f5 V
1410	21 46 35.28	+65 46 09.9	15.00	2.86	2.23	1.58	0.71	0.25	0.65	f5 V
1411	21 46 35.29	+65 40 58.7	15.51		2.39	1.70	0.76	0.28	0.74	g0
1412	21 46 35.57	+65 34 37.9	14.47	3.11	2.51	1.75	0.77	0.26	0.76	**
1413	21 46 35.58	+65 43 20.6	16.18			2.23	0.94	0.38	0.89	g8
1414	21 46 35.59	+65 55 16.7	16.08			2.41	1.03	0.38	0.99	g6
1415	21 46 35.62	+65 54 26.0	12.52	2.46	1.86	1.25	0.55	0.21	0.51	f4 IV
1416	21 46 36.29	+65 39 30.8	14.82			2.86	1.11	0.46	1.05	k2.2 III
1417	21 46 36.36	+65 26 00.7	16.60			1.95	0.78	0.36	0.82	k0.7 V
1418	21 46 36.66	+65 28 56.2	15.82			2.35	1.02	0.35	0.91	g2
1419	21 46 36.77	+66 02 21.9	14.11	2.73	2.07	1.42	0.64	0.23	0.60	f4 IV
1420	21 46 36.80	+65 38 45.5	13.43	4.91	4.23	2.94	1.15	0.48	1.09	k2.5 III
1421	21 46 37.16	+65 43 01.4	16.14			2.51	1.04	0.38	0.99	m4 III
1422	21 46 37.23	+65 56 15.6	11.66	2.15	1.41	0.67	0.29	0.10	0.25	b9.5 III
1423	21 46 37.55	+65 33 25.1	15.98		2.58	1.79	0.78	0.30	0.76	**
1424	21 46 38.33	+65 37 03.3	14.98	2.74	2.10	1.42	0.65	0.23	0.64	f4 IV
1425	21 46 38.47	+66 12 24.0	15.80			2.49	1.12	0.38	1.04	g5
1426	21 46 38.52	+65 38 05.4	16.18		2.34	1.58	0.70	0.28	0.73	g0
1427	21 46 38.53	+65 26 19.1	15.97			1.90	0.76	0.31	0.73	g8
1428	21 46 38.63	+65 34 22.7	15.81		2.23	1.58	0.69	0.25	0.68	g0
1429	21 46 38.91	+66 16 18.5	15.90			1.89	0.80	0.32	0.74	g5
1430	21 46 39.67	+65 55 48.2	16.32			2.33	0.84	0.40	0.95	k1.7 III
1431	21 46 39.77	+66 30 39.3	12.44	2.52	1.79	1.08	0.45	0.18	0.44	f2 III
1432	21 46 40.28	+65 47 36.2	15.13			2.45	1.01	0.39	0.95	g9
1433	21 46 40.71	+65 43 58.4	16.47			1.98	0.77	0.38	0.81	k1.2 V

Continued **Table A.2**

No	RA(2000)	DEC(2000)	V	U-V	P-V	X-V	Y-V	Z-V	V-S	Photom.
	h m s	° ′ ″	mag	mag	mag	mag	mag	mag	mag	sp.type
1434	21 46 40.74	+66 13 15.7	15.77		2.41	1.74	0.87	0.31	0.75	b6
1435	21 46 40.82	+65 33 44.3	15.73	2.85	2.16	1.49	0.68	0.26	0.65	f4 IV
1436	21 46 40.92	+65 35 21.2	15.20			2.94	1.14	0.51	1.12	m3 III
1437	21 46 41.03	+65 32 19.8	16.40			1.94	0.83	0.40	0.73	g8
1438	21 46 41.08	+66 27 57.0	13.81	4.48	3.81	2.69	1.13	0.40	1.04	g9.5 III
1439	21 46 41.29	+65 54 40.5	11.46	2.36	1.82	1.23	0.51	0.19	0.50	f7 V
1440	21 46 41.88	+65 23 50.3	14.35	2.68	2.06	1.41	0.63	0.21	0.60	f4 V
1441	21 46 42.20	+66 10 04.3	14.22	2.79	2.17	1.53	0.69	0.24	0.67	f5 V
1442	21 46 42.34	+66 16 05.1	15.58			2.48	1.09	0.45	1.07	g8
1443	21 46 42.55	+65 56 53.0	13.74	2.89	2.32	1.65	0.72	0.27	0.71	g1 V
1444	21 46 43.18	+65 41 28.8	15.31			2.49	1.02	0.40	0.96	k0 III
1445	21 46 43.41	+65 39 27.0	15.39	3.09	2.47	1.67	0.74	0.28	0.72	**
1446	21 46 43.42	+66 18 08.4	14.41	2.70	2.18	1.56	0.69	0.25	0.67	**
1447	21 46 43.51	+66 13 43.7	16.50			2.28	0.87	0.47	0.87	k3.2 V
1448	21 46 43.58	+66 26 12.4	15.51	2.96	2.41	1.69	0.78	0.29	0.74	f9 V
1449	21 46 44.52	+65 59 22.9	13.75	3.34	2.79	1.97	0.85	0.33	0.79	g7 V
1450	21 46 44.58	+65 48 07.9	15.38		3.09	2.24	1.00	0.41	0.91	g2
1451	21 46 45.43	+65 56 09.6	15.90		2.53	1.74	0.77	0.31	0.68	g2
1452	21 46 45.54	+66 25 51.9	15.71			2.57	1.05	0.49	0.99	**
1453	21 46 45.79	+66 16 28.0	15.61		2.28	1.63	0.75	0.25	0.74	f5
1454	21 46 46.38	+65 42 24.4	14.95	3.10	2.45	1.68	0.71	0.26	0.76	f9.5 IV
1455	21 46 46.65	+65 51 35.8	15.05	3.14	2.27	1.46	0.64	0.23	0.54	f0 III
1456	21 46 47.67	+65 49 58.5	16.00			1.80	0.75	0.29	0.74	g2
1457	21 46 47.94	+65 41 09.6	16.26		2.34	1.60	0.70	0.26	0.67	f9
1458	21 46 48.07	+66 29 32.7	14.14	4.43	3.76	2.62	1.10	0.44	0.98	k0 III
1459	21 46 48.11	+66 26 40.6	15.93			2.08	0.85	0.40	0.81	k1 V
1460	21 46 48.28	+66 09 22.9	15.42			3.03	1.30	0.52	1.16	k0.7 III
1461	21 46 48.52	+65 33 34.0	11.33	2.40	1.66	0.82	0.33	0.11	0.29	**
1462	21 46 48.56	+65 38 28.1	15.65			2.56	1.02	0.45	0.99	**
1463	21 46 48.88	+66 04 25.5	16.56			2.24	1.03	0.41	0.93	g6
1464	21 46 49.01	+66 12 12.6	15.81		2.53	1.80	0.80	0.32	0.75	g2
1465	21 46 49.05	+65 36 52.0	14.65			2.86	1.12	0.49	1.02	k2.2 III
1466	21 46 49.30	+65 46 09.6	12.54	5.67	4.80	3.38	1.28	0.60	1.20	k3.7 III
1467	21 46 49.75	+65 27 08.7	14.69	3.09	2.48	1.75	0.75	0.31	0.76	g1.5 III
1468	21 46 49.98	+66 03 31.8	12.40	2.36	1.91	1.30	0.54	0.22	0.52	f9.5 V
1469	21 46 50.42	+66 18 10.5	15.67		2.66	1.86	0.83	0.33	0.76	g1
1470	21 46 50.92	+65 26 35.2	15.32			2.69	1.02	0.48	0.99	k2 III
1471	21 46 50.93	+65 47 22.7	14.90	2.72	2.07	1.43	0.66	0.23	0.62	f4 V
1472	21 46 51.22	+65 37 19.6	13.90	2.52	2.00	1.38	0.62	0.21	0.58	**
1473	21 46 51.23	+65 34 29.9	15.50	2.81	2.17	1.54	0.72	0.26	0.66	f5 V
1474	21 46 51.48	+65 36 26.0	16.22			1.84	0.76	0.38	0.80	g9
1475	21 46 51.89	+65 39 20.3	10.41	3.73	3.11	2.15	0.85	0.34	0.80	g8.5 III
1476	21 46 52.25	+66 23 28.4	14.15		4.13	2.90	1.23	0.47	1.12	k0.5 III
1477	21 46 52.77	+66 14 55.2	15.70			2.78	1.25	0.48	1.10	g9
1478	21 46 52.97	+66 03 06.7	15.61			2.51	1.10	0.43	1.00	g8
1479	21 46 53.52	+65 49 09.0	16.26			2.36	1.00	0.38	0.92	g6

Continued **Table A.2**

No	RA(2000)	DEC(2000)	V	U-V	P-V	X-V	Y-V	Z-V	V-S	Photom.
	h m s	° ′ ″	mag	mag	mag	mag	mag	mag	mag	sp.type
1480	21 46 53.88	+65 23 08.8	14.10	2.74	2.01	1.19	0.54	0.17	0.48	**
1481	21 46 54.03	+66 26 15.3	15.66		2.74	1.90	0.77	0.35	0.69	**
1482	21 46 54.44	+66 13 23.8	13.51	2.34	1.84	1.30	0.59	0.19	0.56	**
1483	21 46 54.80	+65 27 40.9	13.88	2.53	1.95	1.33	0.60	0.20	0.57	**
1484	21 46 54.82	+65 37 31.9	15.93			2.09	0.82	0.40	0.78	k1.7 V
1485	21 46 54.83	+65 43 18.5	14.01		4.03	2.80	1.12	0.46	1.05	k1.5 III
1486	21 46 55.68	+66 12 21.1	14.58	3.08	2.42	1.69	0.81	0.27	0.75	f4 V
1487	21 46 56.20	+65 28 30.9	15.81			2.66	0.94	0.57	1.03	**
1488	21 46 56.21	+66 00 44.8	14.99		3.39	2.44	1.03	0.40	0.96	**
1489	21 46 56.29	+65 46 17.4	15.74			2.74	1.11	0.41	1.06	m3 III
1490	21 46 56.29	+66 15 53.3	14.87	2.57	2.03	1.45	0.64	0.25	0.62	f8 V
1491	21 46 56.92	+66 11 25.2	15.94		2.55	1.78	0.86	0.30	0.79	f5
1492	21 46 57.53	+66 10 20.5	13.56	2.87	2.38	1.62	0.68	0.24	0.69	**
1493	21 46 58.16	+65 35 45.0	10.20	5.21	4.38	3.08	1.15	0.54	1.10	k3.2 III
1494	21 46 58.62	+66 34 31.3	14.79	2.76	2.25	1.55	0.67	0.23	0.67	f9.5 V
1495	21 46 58.97	+65 59 47.5	16.03			2.38	1.04	0.38	0.98	g5
1496	21 46 59.19	+65 34 30.4	15.27			2.83	1.13	0.46	1.04	k1.7 III
1497	21 46 59.26	+66 20 23.6	16.05			2.82	1.24	0.50	1.09	g9
1498	21 46 59.85	+66 35 08.6	14.36	3.13	2.56	1.77	0.72	0.30	0.78	**
1499	21 47 00.17	+65 27 24.7	15.99		2.40	1.67	0.75	0.26	0.74	f8
1500	21 47 00.26	+66 16 53.0	15.56			3.07	1.34	0.53	1.20	k0.5 III
1501	21 47 00.52	+66 02 45.3	15.70			2.10	0.83	0.39	0.78	k1.2 V
1502	21 47 00.75	+65 23 31.8	14.79	2.63	2.05	1.42	0.62	0.20	0.61	f6 V
1503	21 47 00.92	+66 28 05.5	13.22	2.63	2.07	1.46	0.65	0.24	0.47:	f7 V
1504	21 47 00.93	+65 45 52.8	15.23	3.19	2.54	1.84	0.80	0.30	0.76:	g1.5 V
1505	21 47 02.16	+65 57 37.2	15.28			3.23	1.25	0.56	1.09	k3.5 III
1506	21 47 02.28	+65 44 34.4	13.72	2.55	1.97	1.33	0.60	0.20	0.62	**
1507	21 47 02.41	+66 31 19.1	15.41		3.35	2.33	0.87	0.46	0.87	k3.2 V
1508	21 47 02.54	+65 35 11.0	15.99			2.50	1.03	0.40	1.12	k0
1509	21 47 02.55	+65 36 18.3	14.78	2.79	2.29	1.58	0.66	0.25	0.70	g4 V
1510	21 47 03.19	+66 10 25.4	13.91	2.59	2.04	1.42	0.64	0.22	0.61	f6 V
1511	21 47 03.36	+65 34 53.3	16.51			2.24	0.97	0.36	0.95	g4
1512	21 47 03.45	+66 17 27.8	15.00			2.99	1.26	0.49	1.14	**
1513	21 47 03.67	+66 08 56.0	14.52			3.16	1.30	0.54	1.17	k2 III
1514	21 47 04.74	+65 26 05.5	11.37	4.63	3.92	2.69	1.01	0.44	0.94	k2.2 III
1515	21 47 04.78	+66 20 10.4	11.03	2.28	1.52	0.75	0.31	0.11	0.21	a0.5 III
1516	21 47 04.93	+65 47 23.1	15.21			2.43	1.04	0.42	0.95	k0 IV
1517	21 47 05.39	+66 33 09.0	14.79	3.26	2.67	1.84	0.77	0.31	0.73	g5 IV
1518	21 47 06.91	+66 07 31.9	15.36	3.16	2.44	1.72	0.83	0.29	0.76	f4 IV
1519	21 47 07.60	+66 26 15.7	16.29			2.04	0.90	0.39	0.77	**
1520	21 47 08.13	+65 59 00.8	14.90		3.53	2.41	0.84	0.61	0.90	k5 V
1521	21 47 08.20	+65 59 53.3	16.13			2.53	1.07	0.48	1.00	**
1522	21 47 08.23	+65 36 07.2	15.65	2.86	2.28	1.55	0.72	0.28	0.71	f7 IV
1523	21 47 08.29	+66 06 08.3	11.49	2.42	1.66	0.83	0.34	0.12	0.28	a1.5 IV
1524	21 47 08.48	+66 01 43.0	13.98	4.26	3.59	2.55	1.08	0.39	1.03	g8 III
1525	21 47 08.63	+66 10 51.9	14.89	3.34	2.59	1.86	0.91	0.31	0.80	f4 V

Continued **Table A.2**

No	RA(2000)	DEC(2000)	V	U-V	P-V	X-V	Y-V	Z-V	V-S	Photom.
	h m s	° ′ ″	mag	mag	mag	mag	mag	mag	mag	sp.type
1526	21 47 09.19	+66 14 46.2	12.69		5.51	3.98	1.63	0.70	1.51	k3.7 III
1527	21 47 09.68	+65 52 31.7	16.26			1.81	0.77	0.28	0.76	g6
1528	21 47 10.14	+66 08 41.9	12.49	2.57	1.84	1.02	0.42	0.16	0.36	a6 V
1529	21 47 10.54	+66 01 35.0	15.50			2.75	1.16	0.45	1.04	k0 III
1530	21 47 11.46	+66 22 55.5	15.63			2.06	0.80	0.38	0.77	k1.5 V
1531	21 47 11.48	+65 58 58.7	15.55			2.29	0.97	0.38	0.91	g8
1532	21 47 11.80	+65 53 18.5	13.78	2.78	2.25	1.58	0.68	0.26	0.65	g1 V
1533	21 47 11.84	+65 24 19.0	12.73	2.46	1.89	1.28	0.56	0.19	0.53	f4 V
1534	21 47 12.73	+66 18 35.5	15.30			2.59	1.11	0.41	1.04	g8
1535	21 47 12.75	+65 33 36.8	16.76			2.01	0.77	0.29	0.87	g8
1536	21 47 13.16	+65 45 43.4	15.98			2.05	0.81	0.40	0.83	k1.2 V
1537	21 47 14.22	+66 13 08.9	14.54	4.20	3.48	2.46	1.08	0.41	1.01	g6 III
1538	21 47 14.58	+66 22 29.7	15.13	2.93	2.25	1.54	0.69	0.23	0.66	f4 IV
1539	21 47 14.61	+66 25 08.3	14.67	3.32	2.54	1.86	0.90	0.30	0.86	**
1540	21 47 15.59	+65 53 29.1	14.99			2.76	1.11	0.45	1.00	k1.5 III
1541	21 47 15.59	+66 03 47.3	14.86			3.13	1.23	0.51	1.12	k3 III
1542	21 47 15.65	+66 04 01.5	16.37			2.14	0.83	0.36	0.82	k0.5 IV
1543	21 47 15.87	+66 11 13.0	12.62		5.42	3.94	1.63	0.69	1.49	k3.5 III
1544	21 47 15.90	+66 30 28.2	10.71	2.67	1.78	0.95	0.41	0.14	0.29	a1 III
1545	21 47 16.12	+65 35 21.9	15.84		2.64	1.72	0.73	0.30	0.71	g8
1546	21 47 16.24	+65 22 55.1	14.21	2.67	2.06	1.41	0.63	0.22	0.60	f4 V
1547	21 47 16.26	+65 30 06.1	10.99	2.35	1.64	0.89	0.37	0.12	0.30	f1 III
1548	21 47 16.30	+65 56 07.0	14.40	3.31	2.75	1.91	0.80	0.32	0.77	g6 IV
1549	21 47 16.59	+66 17 58.9	16.29			2.41	1.09	0.46	0.96	g9
1550	21 47 16.71	+65 55 33.3	16.34			2.09	0.77	0.41	0.79	k3.2 V
1551	21 47 16.72	+65 25 28.1	15.40			2.37	1.00	0.35	0.95	g7
1552	21 47 16.72	+66 13 19.2	14.14	2.78	2.14	1.48	0.67	0.26	0.61	f4 V
1553	21 47 16.99	+66 14 11.8	15.96			2.55	1.07	0.39	1.06	g8
1554	21 47 17.03	+65 52 09.5	15.03	2.91	2.05	1.23	0.52	0.20	0.49	a5 III
1555	21 47 17.16	+66 24 03.9	15.50			2.82	1.25	0.48	1.13	k0 IV
1556	21 47 17.24	+66 25 51.8	14.88	3.26	2.90	1.96	0.79	0.35	0.79	k1 V
1557	21 47 17.25	+65 59 34.0	15.89		2.35	1.69	0.78	0.26	0.72	f5
1558	21 47 17.55	+65 54 58.5	14.01		3.93	2.72	1.08	0.44	0.96	k1.5 III
1559	21 47 17.73	+66 00 09.0	15.01		2.33	1.51	0.67	0.24	0.68	g0
1560	21 47 17.77	+65 54 34.1	14.88		3.33	2.36	1.00	0.38	0.92	g7
1561*	21 47 17.96	+65 28 57.3	9.31	2.24	1.65	1.08	0.43	0.15	0.44	f4 IV
1562	21 47 18.55	+65 39 16.7	13.95	2.58	2.00	1.38	0.62	0.22	0.60	f5 V
1563	21 47 18.79	+66 24 35.7	12.64	2.74	2.15	1.48	0.64	0.23	0.62	**
1564	21 47 19.21	+65 51 21.3	14.70			2.86	1.14	0.51	1.06	k1.5 III
1565	21 47 19.29	+66 18 44.4	15.22	2.78	2.31	1.60	0.68	0.27	0.68	**
1566	21 47 19.42	+66 33 23.8	16.09			2.06	0.91	0.35	0.82	g3
1567	21 47 19.56	+66 00 11.9	14.82	2.77	2.19	1.55	0.70	0.27	0.65	f7 V
1568	21 47 20.58	+66 03 27.1	16.18			1.85	0.87	0.29	0.83	f8
1569	21 47 20.62	+66 21 33.9	13.20		4.97	3.48	1.38	0.63	1.30	m2.5 III
1570	21 47 20.87	+65 57 41.9	16.65			1.96	0.81	0.36	0.78	g9
1571	21 47 21.20	+66 06 47.1	16.29		2.34	1.78	0.81	0.28	0.76	f5

Continued **Table A.2**

No	RA(2000)	DEC(2000)	V	U-V	P-V	X-V	Y-V	Z-V	V-S	Photom.
	h m s	° ′ ″	mag	mag	mag	mag	mag	mag	mag	sp.type
1572	21 47 21.61	+66 26 53.3	13.07	2.95	2.28	1.61	0.71	0.26	0.69	f6 IV
1573	21 47 22.13	+65 33 01.6	14.75	2.90	2.39	1.65	0.71	0.27	0.69	g4 V
1574	21 47 22.65	+66 10 52.7	13.60	2.57	2.04	1.43	0.63	0.23	0.58	f7 V
1575	21 47 22.73	+65 59 21.0	16.28			1.96	0.89	0.31	0.79	g2.5
1576	21 47 23.20	+65 25 17.7	15.61			2.62	1.09	0.42	1.12	k0 III
1577	21 47 24.63	+66 10 20.4	15.35	3.12	2.51	1.77	0.85	0.28	0.77	f6 V
1578	21 47 25.28	+65 59 09.5	14.09	2.76	2.20	1.55	0.68	0.25	0.64	f9 V
1579	21 47 25.55	+66 10 01.1	15.95			2.03	0.85	0.38	0.78	k0 V
1580	21 47 26.11	+65 46 35.1	15.52	2.96	2.31	1.63	0.75	0.29	0.61	f5 V
1581	21 47 26.24	+65 54 27.8	14.70	2.99	2.41	1.70	0.72	0.26	0.70	g2.5 V
1582	21 47 26.37	+66 21 51.2	14.31		3.93	2.73	1.17	0.43	1.07	k0
1583	21 47 26.41	+65 56 06.4	14.20	2.54	2.03	1.41	0.64	0.22	0.59	**
1584	21 47 27.22	+65 43 53.8	15.62			2.37	0.98	0.38	0.94	g9
1585	21 47 27.24	+65 57 34.1	15.09	2.92	2.29	1.61	0.70	0.26	0.68	f8 IV
1586	21 47 27.34	+66 19 17.9	16.21			2.53	1.11	0.47	1.00	k0.5 V
1587	21 47 27.42	+65 36 08.7	16.17		2.58	1.82	0.79	0.31	0.75	g5
1588	21 47 28.03	+66 13 31.7	16.46			1.69	0.78	0.24	0.77	f8
1589	21 47 28.34	+65 28 27.1	15.42	3.02	2.22	1.45	0.68	0.25	0.57	f1 IV
1590	21 47 28.50	+65 55 37.7	12.22	2.40	1.77	1.14	0.50	0.19	0.46	f3 IV
1591	21 47 28.58	+65 48 13.7	15.14	2.88	2.26	1.61	0.74	0.28	0.66	f7 V
1592	21 47 29.09	+66 02 10.2	14.70			3.04	1.25	0.48	1.16	m3.5 III
1593	21 47 29.61	+66 23 07.2	16.12		2.36	1.67	0.75	0.27	0.67	g0
1594	21 47 29.63	+66 04 11.0	13.87	2.69	2.05	1.44	0.62	0.19	0.66	f4 V
1595	21 47 29.82	+65 30 11.5	14.66	3.03	2.50	1.74	0.72	0.29	0.78	g7 V
1596	21 47 31.36	+65 47 57.2	11.30	2.50	1.92	1.32	0.56	0.21	0.55	f5 V
1597	21 47 31.62	+66 18 35.0	14.91	2.92	2.45	1.67	0.72	0.28	0.63	**
1598	21 47 32.42	+66 04 11.1	13.24	4.26	3.56	2.49	1.01	0.35	1.00	**
1599	21 47 32.69	+65 58 40.2	15.38	3.02	2.40	1.67	0.74	0.26	0.72	f8 IV
1600	21 47 32.72	+65 32 15.3	16.67			2.11	0.92	0.31	0.90	g4
1601	21 47 32.81	+66 25 03.5	13.74	3.12	2.66	1.79	0.70	0.33	0.73	k0 V
1602	21 47 33.72	+65 58 20.7	12.98	3.63	2.98	2.11	0.92	0.34	0.84	g3 III
1603	21 47 34.10	+66 01 24.3	13.29	4.72	3.98	2.76	1.10	0.45	1.04	k1.5 III
1604	21 47 34.15	+65 22 54.1	12.73	2.60	1.86	1.06	0.49	0.17	0.43	b9.5 V
1605	21 47 34.36	+65 50 11.0	16.11			2.60	1.12	0.42	1.01	g8
1606	21 47 34.37	+65 38 51.0	12.44	4.79	4.03	2.76	1.07	0.47	0.97	k2 III
1607	21 47 34.50	+66 15 05.8	14.46	2.88	2.38	1.62	0.66	0.26	0.66	g4 IV
1608	21 47 35.38	+66 10 58.0	14.93	2.98	2.22	1.49	0.70	0.23	0.67	f2 IV
1609	21 47 35.70	+66 25 14.9	15.88			3.10	1.38	0.57	1.19	k0.5 IV
1610	21 47 35.84	+66 09 26.3	15.70			2.58	1.12	0.43	1.03:	g6
1611	21 47 35.94	+65 33 22.6	15.74			2.44	0.91	0.62	0.99:	k4.5 V
1612	21 47 35.94	+65 40 05.5	15.94			2.66	0.98	0.64	1.02	k5 V
1613	21 47 36.32	+65 46 37.8	14.87	3.01	2.38	1.72	0.79	0.27	0.76	f7 V
1614	21 47 36.72	+65 51 38.7	14.68	2.94	2.41	1.67	0.71	0.29	0.68	**
1615	21 47 36.82	+65 56 45.0	12.74	5.57	4.77	3.37	1.30	0.58	1.22	k3.5 III
1616	21 47 36.89	+66 15 07.2	15.52	3.08	2.57	1.79	0.75	0.34	0.70	g7 V
1617	21 47 37.17	+66 10 11.0	15.24		2.89	1.99	0.83	0.38	0.81	k0 V

Continued **Table A.2**

No	RA(2000)	DEC(2000)	V	U-V	P-V	X-V	Y-V	Z-V	V-S	Photom.
	h m s	° ′ ″	mag	mag	mag	mag	mag	mag	mag	sp.type
1618	21 47 37.38	+66 11 32.0	16.66			1.84	0.87	0.29	0.78	f7
1619	21 47 37.59	+65 54 07.6	14.73	3.00	2.28	1.54	0.71	0.26	0.64	f3 IV
1620	21 47 37.79	+65 23 42.7	16.03			2.42	0.96	0.40	0.93	k0.7 IV
1621	21 47 38.03	+65 50 53.7	14.93	3.10	2.43	1.71	0.79	0.29	0.71	**
1622	21 47 38.35	+66 05 42.3	15.72			2.85	1.16	0.44	1.11	m3.5 III
1623	21 47 38.41	+66 10 44.6	13.46	2.89	2.39	1.66	0.68	0.28	0.66	g6 V
1624	21 47 38.47	+66 04 25.6	15.30			2.44	1.06	0.37	0.98	g2
1625	21 47 38.88	+66 06 29.0	15.95			2.43	1.04	0.34	1.01	m4 III
1626	21 47 38.97	+65 30 06.6	15.59	2.90	2.23	1.56	0.72	0.23	0.69	f4 V
1627	21 47 38.97	+66 31 25.7	15.35			3.15	1.33	0.50	1.27	m3.5 III
1628	21 47 39.18	+66 11 12.5	15.35			2.67	1.13	0.43	1.07	g9.5
1629	21 47 40.05	+66 11 43.6	12.69	2.64	2.08	1.43	0.62	0.24	0.62	f8 IV
1630	21 47 40.21	+65 29 43.6	15.76			2.49	1.02	0.37	1.00	m4 III
1631	21 47 40.49	+65 27 20.3	14.04	4.14	3.45	2.39	1.01	0.38	0.97	g8 III
1632	21 47 40.85	+65 29 01.0	16.56			2.13	0.97	0.38	0.89	**
1633	21 47 41.05	+65 26 17.7	16.25			2.68	1.08	0.45	0.95	k1 III
1634	21 47 41.34	+65 50 55.8	15.09	2.78	2.22	1.54	0.69	0.26	0.64	f8 IV
1635	21 47 41.45	+65 42 58.8	14.59		3.57	2.47	1.02	0.41	0.97	k0 III
1636	21 47 43.00	+66 22 20.2	16.69			2.13	0.96	0.42	0.88	g5
1637	21 47 43.05	+65 39 34.9	15.40			2.30	0.98	0.35	0.94	g5
1638	21 47 43.14	+65 48 50.0	12.98	2.71	1.86	1.04	0.48	0.17	0.41	a0.5 III
1639	21 47 43.67	+65 58 49.1	14.85	2.83	2.17	1.52	0.71	0.25	0.66	**
1640	21 47 44.07	+66 15 56.9	15.60	2.82	2.26	1.59	0.73	0.27	0.71	f7 V
1641	21 47 44.26	+66 09 50.1	16.06			2.05	0.86	0.41	0.77	k0 V
1642	21 47 44.42	+65 25 01.2	13.70	2.50	1.90	1.32	0.59	0.20	0.52	f4 V
1643	21 47 44.44	+65 26 32.0	14.59	2.85	2.06	1.32	0.60	0.19	0.59	**
1644	21 47 44.66	+65 49 05.5	15.31	2.81	2.29	1.58	0.63	0.24	0.70	g2 III
1645	21 47 44.81	+65 53 00.1	15.59	2.89	2.31	1.63	0.74	0.28	0.67	**
1646	21 47 44.96	+65 30 06.2	13.20	2.85	2.22	1.49	0.65	0.22	0.64	**
1647	21 47 44.97	+65 31 11.3	16.27			2.37	0.97	0.35	1.00	g3
1648	21 47 45.18	+65 41 47.0	16.03			2.51	1.00	0.38	1.00	k0.5 III
1649	21 47 45.27	+66 15 34.4	13.65	4.20	3.68	2.59	0.91	0.61	1.01	k8 V
1650	21 47 45.31	+65 50 32.4	15.23	3.31	2.72	1.89	0.82	0.33	0.77	g3 IV
1651	21 47 46.21	+65 37 33.4	12.28	2.66	1.91	1.20	0.54	0.20	0.51	f2 III
1652	21 47 46.31	+66 24 20.5	14.82	2.99	2.48	1.74	0.74	0.31	0.65	g5 V
1653	21 47 46.47	+66 21 49.3	13.83	2.59	1.97	1.32	0.60	0.22	0.57	f4 IV
1654	21 47 46.85	+66 00 15.1	13.98	2.61	2.00	1.37	0.61	0.20	0.58	f4 V
1655	21 47 46.98	+66 03 48.6	15.71			2.19	0.95	0.35	0.89	g9
1656	21 47 47.50	+66 05 13.5	13.42	2.78	2.29	1.55	0.66	0.25	0.65	**
1657	21 47 47.66	+65 23 35.6	14.23		3.93	2.72	1.09	0.43	1.02	k1 III
1658	21 47 47.70	+65 51 23.0	15.77		2.64	1.80	0.79	0.30	0.76	g2
1659	21 47 47.73	+65 33 16.5	15.45			2.65	1.11	0.47	0.99	k0.7 IV
1660	21 47 48.48	+65 47 46.5	15.03	3.06	2.53	1.72	0.72	0.30	0.69	g4 IV
1661	21 47 49.13	+65 27 44.9	16.11			2.25	0.89	0.43	0.93	k2.2 V
1662	21 47 49.36	+65 31 42.2	15.38			2.45	1.02	0.40	0.94	g9
1663	21 47 49.39	+65 47 10.2	14.80			3.22	1.25	0.60	1.16	k3.5 III

Continued **Table A.2**

No	RA(2000)	DEC(2000)	V	U-V	P-V	X-V	Y-V	Z-V	V-S	Photom.
	h m s	° ′ ″	mag	mag	mag	mag	mag	mag	mag	sp.type
1664	21 47 49.53	+65 41 03.5	14.40	4.13	3.52	2.38	0.82	0.54	0.91	k3.2 III
1665	21 47 49.57	+65 30 40.2	16.53			1.93	0.79	0.30	0.75	g4
1666	21 47 49.93	+66 01 46.9	15.11			2.72	1.17	0.44	1.07	**
1667	21 47 50.98	+65 53 19.5	13.77		4.46	3.13	1.22	0.54	1.13	m3 III
1668	21 47 51.37	+65 35 29.1	15.21			2.51	1.07	0.40	1.00	g8
1669	21 47 51.55	+66 08 31.2	14.97	3.21	2.30	1.36	0.63	0.25	0.49	a4 III
1670	21 47 51.61	+66 22 09.4	14.70			3.70	1.46	0.65	1.31	k4.2 III
1671	21 47 51.66	+65 24 37.5	15.20	2.77	2.17	1.56	0.68	0.27	0.70	f7 V
1672	21 47 52.30	+65 40 11.4	13.94	2.97	2.33	1.62	0.73	0.27	0.65	f6 IV
1673	21 47 52.56	+65 42 51.0	15.55			2.70	1.14	0.45	1.03	k0 III
1674	21 47 52.77	+65 22 46.0	14.81		2.11	1.45	0.67	0.24		f4
1675	21 47 53.41	+65 49 50.8	15.54	2.96	2.32	1.65	0.73	0.23	0.72	f7 V
1676	21 47 53.87	+65 38 45.7	13.17	3.93	3.31	2.27	0.93	0.36	0.87	**
1677	21 47 54.08	+65 47 24.9	15.43	2.75	2.23	1.57	0.72	0.26	0.64	**
1678	21 47 54.40	+65 48 15.6	16.42			2.51	1.03	0.43	0.99	**
1679	21 47 54.63	+65 39 56.5	16.02			1.89	0.75	0.36	0.77	k0.5 V
1680	21 47 54.83	+66 02 01.0	15.94		2.39	1.68	0.76	0.27	0.72	f9
1681	21 47 54.90	+66 13 28.4	15.34	3.07	2.40	1.71	0.78	0.25	0.74	f7 V
1682	21 47 55.03	+65 52 02.6	13.93	2.74	1.97	1.16	0.51	0.18	0.45	f1 III
1683	21 47 55.23	+66 13 44.7	15.50			3.42	1.40	0.55	1.22	g9
1684	21 47 55.37	+65 52 30.9	13.37	2.55	2.00	1.37	0.59	0.20	0.60	f7 V
1685	21 47 55.46	+65 49 38.7	15.05			3.13	1.24	0.53	1.15	k2.7 III
1686	21 47 55.46	+66 01 22.0	16.23			2.09	0.83	0.33	0.82	k0 IV
1687	21 47 55.47	+65 39 05.9	14.65	2.85	2.12	1.44	0.67	0.24	0.64	f4 IV
1688	21 47 56.57	+66 00 51.2	15.94			2.77	1.17	0.49	1.07	k0.7 IV
1689	21 47 57.14	+65 56 48.5	15.26	2.72	2.07	1.45	0.66	0.23	0.61	f4 V
1690	21 47 57.43	+66 20 09.6	16.51			2.23	1.04	0.42	0.88	g3
1691	21 47 57.52	+66 17 20.5	16.20			1.89	0.87	0.38	0.87	g0
1692	21 47 57.63	+65 23 28.1	12.77	2.84	2.23	1.58	0.70	0.25	0.66	f7 V
1693	21 47 58.02	+66 34 23.7	13.60	2.88	2.29	1.60	0.69	0.24	0.70	**
1694	21 47 58.49	+65 52 37.4	15.49	2.90	2.40	1.64	0.68	0.26	0.72	**
1695	21 47 58.79	+65 50 48.9	15.19	2.86	2.30	1.60	0.69	0.28	0.68	f9.5 IV
1696	21 47 59.01	+65 24 45.4	16.06			2.53	0.94	0.57	0.99	k4.2 V
1697	21 47 59.05	+65 35 29.9	12.84	2.75	2.01	1.26	0.55	0.18	0.53	**
1698	21 47 59.08	+65 32 19.6	13.24		5.07	3.68	1.54	0.58	1.41	g9
1699	21 47 59.44	+66 23 11.7	12.44	2.42	1.86	1.29	0.58	0.22	0.55	f5 V
1700	21 47 59.60	+65 29 30.8	15.37			2.36	1.02	0.39	0.91	g5
1701	21 47 59.80	+65 27 25.9	15.29	2.92	2.26	1.60	0.71	0.27	0.68	f4 V
1702	21 47 59.91	+66 10 39.3	16.62			1.94	0.83	0.34	0.80	g5
1703	21 47 59.99	+65 26 54.4	11.31	3.78	3.12	2.17	0.89	0.33	0.84	g7 III
1704	21 48 00.14	+66 20 06.2	12.80	2.43	1.77	1.12	0.50	0.17	0.48	f1 IV
1705	21 48 00.84	+65 38 00.4	16.02			2.30	0.88	0.43	0.80	k1 IV
1706	21 48 01.31	+66 05 55.6	14.75	2.87	2.25	1.60	0.74	0.26	0.66	f6 V
1707	21 48 01.82	+65 27 54.1	16.23			1.66	0.74	0.25	0.73	f9
1708	21 48 01.89	+65 35 55.5	13.72	4.13	3.50	2.41	0.99	0.39	0.93	**
1709	21 48 01.98	+66 10 10.4	15.86			2.82	1.20	0.49	1.05	k0.5 III

Continued **Table A.2**

No	RA(2000)	DEC(2000)	V	U-V	P-V	X-V	Y-V	Z-V	V-S	Photom.
	h m s	° ′ ″	mag	mag	mag	mag	mag	mag	mag	sp.type
1710	21 48 02.47	+66 06 53.2	15.17			3.51	1.40	0.63	1.26	**
1711	21 48 02.91	+65 42 59.8	15.07	2.93	2.45	1.68	0.73	0.31	0.68	g5.5 V
1712	21 48 03.29	+65 30 07.3	14.52	2.86	2.21	1.54	0.74	0.30	0.47	**
1713	21 48 03.72	+65 53 02.7	14.94			2.94	1.19	0.47	1.09	m3.5 III
1714	21 48 03.75	+66 04 26.9	15.74		2.49	1.70	0.74	0.26	0.75	g3
1715	21 48 03.93	+65 40 45.2	15.50			2.33	0.98	0.41	0.91	k0 IV
1716	21 48 04.64	+65 49 21.9	15.59	2.76	2.20	1.57	0.70	0.25	0.66	f8 V
1717	21 48 04.68	+66 25 29.2	10.56	2.67	2.22	1.52	0.59	0.24	0.62	g6 V
1718	21 48 04.78	+65 37 27.0	13.12	4.58	3.79	2.67	1.09	0.43	1.01	k0.5 III
1719	21 48 04.86	+65 24 26.7	15.59			2.60	0.89	0.56	0.99	k5.5 V
1720	21 48 04.86	+66 29 33.9	15.38			2.29	1.08	0.36	1.00	g2
1721	21 48 04.90	+66 06 45.4	15.81		2.62	1.86	0.88	0.31	0.82	f6
1722	21 48 05.77	+66 15 20.8	13.45	2.77	2.03	1.28	0.57	0.19	0.55	**
1723	21 48 05.81	+65 54 39.4	15.52	2.68	2.09	1.45	0.66	0.21	0.61	f5 V
1724	21 48 05.83	+65 44 27.5	13.99	3.06	2.64	1.77	0.67	0.33	0.70	**
1725	21 48 06.21	+65 28 52.8	15.12	3.28	2.83	1.90	0.75	0.34	0.79	**
1726	21 48 06.33	+65 58 20.4	11.06	2.31	1.78	1.22	0.51	0.18	0.50	f5 V
1727	21 48 06.46	+66 24 37.4	15.92		2.48	1.78	0.82	0.30	0.78	f8
1728	21 48 06.89	+65 31 48.0	13.26	2.96	2.33	1.63	0.70	0.25	0.68	f9 IV
1729	21 48 07.48	+65 37 26.0	13.34	2.58	1.93	1.30	0.59	0.22	0.53	**
1730	21 48 07.63	+66 13 53.3	15.07	3.13	2.39	1.75	0.80	0.30	0.74	f4 V
1731	21 48 08.08	+66 08 05.4	15.89		2.67	1.89	0.93	0.32	0.79	f4
1732	21 48 08.16	+65 55 35.0	15.40			2.63	1.07	0.45	1.02	k1 IV
1733	21 48 08.69	+65 27 51.5	13.72	2.62	2.07	1.45	0.65	0.25	0.59	f7 V
1734	21 48 08.84	+65 48 45.2	14.85	3.56	3.00	2.05	0.77	0.41	0.76	**
1735	21 48 09.68	+65 40 55.2	13.25	2.45	1.92	1.33	0.57	0.20	0.56	f7 V
1736	21 48 10.12	+65 38 29.3	15.08			2.95	1.20	0.47	1.07	g6
1737	21 48 10.23	+65 40 25.9	14.63			2.84	1.13	0.49	1.04	**
1738	21 48 10.30	+65 42 34.4	14.90	2.96	2.36	1.64	0.74	0.27	0.70	f8 IV
1739	21 48 10.64	+65 58 39.0	13.35	2.96	2.39	1.65	0.69	0.26	0.67	g1 IV
1740	21 48 11.20	+65 35 19.1	13.49	2.67	2.07	1.43	0.64	0.21	0.62	**
1741	21 48 11.53	+65 43 45.7	16.20			2.26	1.01	0.36	0.92	g2
1742	21 48 11.86	+66 21 00.9	16.02			2.77	0.92	0.58	1.05	k5 III
1743	21 48 12.08	+66 02 49.6	15.12	3.11	2.36	1.64	0.78	0.25	0.65	f4 IV
1744	21 48 12.46	+65 56 21.0	14.94	3.09	2.51	1.70	0.70	0.27	0.69	g3 IV
1745	21 48 12.76	+65 28 41.5	13.70	2.76	2.20	1.51	0.66	0.24	0.62	f8 IV
1746	21 48 12.84	+65 45 11.4	16.17			2.65	0.94	0.61	1.01	k5.5 V
1747	21 48 12.91	+65 24 00.6	13.28	4.11	3.45	2.41	1.01	0.37	0.93	**
1748	21 48 13.13	+65 58 28.5	16.33			2.37	1.03	0.42	1.00	g8
1749	21 48 13.72	+65 27 57.0	14.32	2.92	2.47	1.67	0.68	0.28	0.68	**
1750	21 48 13.94	+65 34 24.0	14.62	2.98	2.49	1.66	0.68	0.28	0.68	**
1751	21 48 14.22	+65 34 35.6	14.77	2.87	2.09	1.36	0.61	0.20	0.61	f3 III
1752	21 48 14.61	+66 27 31.8	11.87	2.52	1.93	1.32	0.55	0.19	0.55	f4 V
1753	21 48 14.66	+65 29 52.6	13.56	4.26	3.47	2.47	1.02	0.40	0.96	g8.5 III
1754	21 48 14.82	+65 55 02.7	14.03	2.63	2.11	1.46	0.64	0.24	0.61	f9 V
1755	21 48 15.63	+66 28 23.2	14.67	3.70	3.15	2.11	0.89	0.35	0.85	g9 IV

Continued **Table A.2**

No	RA(2000)	DEC(2000)	V	U-V	P-V	X-V	Y-V	Z-V	V-S	Photom.
	h m s	° ′ ″	mag	mag	mag	mag	mag	mag	mag	sp.type
1756	21 48 15.63	+66 28 05.9	16.42			2.03	0.85	0.35	0.77	g8
1757	21 48 15.69	+65 52 54.5	15.64	2.98	2.46	1.67	0.74	0.27	0.76	**
1758	21 48 15.71	+65 27 12.1	15.71		2.50	1.77	0.76	0.29	0.71	g4
1759	21 48 16.34	+66 19 47.8	11.71	3.73	3.23	2.19	0.74	0.48	0.86	k1 IV
1760	21 48 16.93	+66 07 51.2	13.73	2.75	2.19	1.53	0.67	0.23	0.64	f8 V
1761	21 48 17.14	+66 20 25.4	14.28	2.67	2.14	1.49	0.64	0.23	0.64	f9 V
1762	21 48 17.32	+66 33 13.7	16.44			2.23	0.86	0.48	0.94	k3.2 V
1763	21 48 18.31	+66 12 39.1	14.59	2.96	2.41	1.72	0.74	0.32	0.72	g3 V
1764	21 48 18.50	+65 54 02.0	15.24			2.57	0.90	0.63	0.95	k8 V
1765	21 48 18.54	+65 43 40.3	14.36	2.60	2.06	1.45	0.63	0.23	0.62	f8 V
1766	21 48 18.80	+65 35 27.0	15.05	2.71	2.13	1.49	0.66	0.24	0.62	f7 V
1767	21 48 19.39	+66 05 33.0	13.72	2.69	2.06	1.43	0.66	0.23	0.64	**
1768	21 48 19.41	+66 14 52.7	14.40	2.71	2.16	1.52	0.69	0.25	0.66	f7 V
1769	21 48 19.44	+65 56 02.0	15.29	2.87	2.43	1.70	0.73	0.25	0.69	g3 V
1770	21 48 19.83	+66 30 24.9	15.07			2.82	1.03	0.66	1.11	k8 V
1771	21 48 19.89	+65 51 06.8	16.30		2.36	1.68	0.78	0.30	0.73	f7
1772	21 48 20.06	+65 24 29.4	13.36	4.38	3.70	2.57	1.05	0.41	0.97	k0 III
1773	21 48 20.23	+66 28 05.4	15.94		2.63	1.82	0.77	0.32	0.73	g7
1774	21 48 20.43	+65 34 59.3	12.96	2.37	1.80	1.26	0.58	0.21	0.53	f6 V
1775	21 48 20.68	+65 36 29.9	15.13	2.90	2.39	1.61	0.65	0.23	0.73	g2 IV
1776	21 48 20.80	+66 17 08.5	14.56	3.17	2.39	1.67	0.78	0.23	0.84	**
1777	21 48 20.86	+65 42 07.9	15.85		2.67	1.83	0.81	0.32	0.71	g5
1778	21 48 21.17	+65 58 46.2	15.92		2.34	1.74	0.81	0.33	0.69	**
1779	21 48 21.19	+66 26 33.1	16.54			2.01	0.88	0.32	0.81	**
1780	21 48 21.26	+66 15 55.5	15.08	3.32	2.56	1.85	0.86	0.30	0.81	f4 V
1781	21 48 21.58	+65 52 27.2	16.24		2.41	1.72	0.76	0.27	0.72	g0
1782	21 48 21.68	+65 30 52.7	15.27			2.64	1.05	0.42	0.99	k1 III
1783	21 48 22.09	+66 26 06.5	15.91		2.46	1.82	0.87	0.32	0.77	f5
1784	21 48 22.78	+65 31 51.9	16.16			1.84	0.81	0.29	0.79	g1
1785	21 48 22.88	+65 52 39.9	15.84			2.29	0.86	0.55	0.87	k3.7 V
1786	21 48 23.04	+66 12 30.9	15.36	3.22	2.48	1.76	0.83	0.29	0.80	f4 V
1787	21 48 23.80	+65 53 13.8	15.87		2.46	1.76	0.80	0.32	0.69	g0
1788*	21 48 23.87	+66 14 09.4	16.36			1.97	0.88	0.40	0.81	Be:
1789	21 48 23.88	+65 24 21.7	15.40			2.66	1.08	0.41	1.03	k0.5 III
1790	21 48 24.03	+66 10 16.0	16.19			1.79	0.89	0.29	0.82	a5
1791	21 48 24.71	+65 52 03.6	15.25	3.03	2.28	1.59	0.75	0.29	0.68	f4 IV
1792	21 48 24.98	+65 42 04.9	14.49	3.48	2.91	1.94	0.79	0.35	0.77	g9 IV
1793	21 48 25.25	+65 47 36.4	16.39			1.69	0.75	0.27	0.69	g0
1794	21 48 26.14	+66 18 59.3	16.08		2.56	1.69	0.79	0.28	0.71	f2 III
1795	21 48 26.31	+66 08 17.5	16.47			1.96	0.98	0.31	0.84	a6
1796	21 48 26.44	+65 48 33.8	15.66	2.76	2.24	1.60	0.70	0.25	0.66	g0 V
1797	21 48 27.61	+65 40 03.7	14.56	2.93	2.41	1.73	0.77	0.29	0.71	g1 V
1798	21 48 27.65	+66 14 23.2	15.25			2.58	1.13	0.43	1.03	k0
1799	21 48 28.18	+66 34 08.2	16.20			1.70	0.72	0.24	0.78	g2
1800	21 48 28.24	+65 46 49.2	15.75	2.82	2.16	1.54	0.69	0.24	0.64	f5 V
1801*	21 48 29.15	+65 33 21.0	10.38	2.17	1.66	1.10	0.45	0.16	0.44	f5 V

Continued **Table A.2**

No	RA(2000)	DEC(2000)	V	U-V	P-V	X-V	Y-V	Z-V	V-S	Photom.
	h m s	° ′ ″	mag	mag	mag	mag	mag	mag	mag	sp.type
1802	21 48 29.38	+65 49 32.3	14.53	2.67	2.08	1.44	0.63	0.21	0.60	f5 V
1803	21 48 29.61	+65 39 36.7	15.71	2.82	2.24	1.60	0.69	0.28	0.65	f9.5 V
1804	21 48 29.78	+66 29 57.7	16.27			2.22	1.04	0.33	0.92	g0
1805	21 48 29.81	+65 52 25.4	16.08			2.65	1.08	0.40	1.03	m3.5 III
1806	21 48 30.99	+66 02 46.4	15.11		3.31	2.35	1.02	0.39	0.96	g8
1807	21 48 31.20	+65 41 36.5	14.18			3.22	1.24	0.55	1.16	k3.5 III
1808	21 48 32.00	+65 37 56.7	14.29	2.69	2.17	1.53	0.65	0.24	0.64	g0 V
1809	21 48 32.05	+66 34 37.7	13.54	2.46	1.86	1.27	0.58	0.19	0.60	f4 V
1810	21 48 34.44	+65 50 48.4	14.96	2.73	2.25	1.57	0.69	0.26	0.66	g1 V
1811	21 48 35.08	+66 29 59.6	14.29	2.93	2.29	1.61	0.72	0.25	0.70	f7 IV
1812	21 48 35.41	+65 54 25.3	15.95	2.92	2.39	1.62	0.73	0.25	0.73	f9 V
1813	21 48 35.84	+65 57 54.9	16.50			2.31	1.05	0.40	0.91	g5
1814	21 48 35.89	+65 26 57.3	13.88	2.55	1.95	1.31	0.59	0.22	0.56	**
1815	21 48 36.08	+65 45 30.6	12.55	2.50	1.74	0.89	0.38	0.11	0.33	**
1816	21 48 36.12	+66 13 25.6	15.67			3.24	1.32	0.57	1.21	k2.5 III
1817	21 48 36.24	+65 49 53.0	13.40	2.55	1.94	1.33	0.60	0.21	0.57	f4 V
1818	21 48 36.50	+65 25 04.4	15.39	2.80	2.18	1.50	0.70	0.20	0.66	f4 V
1819	21 48 36.50	+66 22 01.2	15.78		2.63	1.80	0.77	0.27	0.71	g5
1820	21 48 36.84	+65 29 33.4	14.84			2.64	1.05	0.41	1.00	k1 III
1821	21 48 37.01	+65 29 11.2	14.80	2.89	2.28	1.66	0.74	0.27	0.71	**
1822	21 48 37.30	+65 31 28.3	14.03	2.61	2.02	1.37	0.61	0.20	0.60	**
1823	21 48 37.47	+65 59 58.1	13.31	2.64	2.04	1.40	0.60	0.21	0.58	f6 IV
1824	21 48 37.57	+65 53 15.6	14.15			2.44	1.01	0.35	0.93	**
1825	21 48 37.97	+65 58 29.4	15.40	2.80	2.18	1.51	0.68	0.24	0.65	**
1826	21 48 38.18	+65 54 30.6	13.22	3.00	2.53	1.68	0.67	0.26	0.68	**
1827	21 48 38.31	+66 18 19.9	14.76	3.64	3.05	2.03	0.78	0.37	0.75	k0 III
1828	21 48 38.64	+65 40 26.1	16.33			2.20	0.95	0.40	0.87	**
1829	21 48 38.78	+66 27 04.8	14.60	2.98	2.44	1.72	0.77	0.27	0.73	g1 V
1830	21 48 39.01	+66 23 46.9	16.30			2.13	0.84	0.40	0.83	k1.5 V
1831	21 48 39.17	+65 47 21.6	16.13			2.35	0.97	0.45	0.88	k1.5 V
1832	21 48 39.53	+65 27 46.3	14.75	3.16	2.35	1.49	0.66	0.24	0.59	a7 V
1833	21 48 40.62	+65 46 36.6	15.51	2.74	2.14	1.49	0.69	0.24	0.60	f5 V
1834	21 48 40.63	+65 45 34.4	14.57	2.84	2.06	1.32	0.60	0.19	0.60	**
1835*	21 48 41.08	+66 32 45.8	8.92	2.28	1.51	0.76	0.28	0.10	0.26	a1.5 III
1836	21 48 41.63	+65 34 06.8	15.15	2.76	2.18	1.47	0.67	0.24	0.66	**
1837	21 48 41.80	+65 49 23.2	11.60	2.54	1.99	1.39	0.59	0.22	0.59	f7 V
1838	21 48 42.44	+65 57 23.3	11.94	2.63	1.96	1.32	0.57	0.21	0.55	f7 III
1839	21 48 42.74	+66 31 42.3	16.18			2.29	1.09	0.37	0.91	g0
1840	21 48 43.15	+66 31 12.0	13.92	3.42	2.45	1.46	0.69	0.20	0.62	a1.5 III
1841	21 48 43.22	+66 08 05.9	13.97	2.69	2.13	1.47	0.64	0.23	0.62	f8 IV
1842	21 48 43.25	+66 18 33.6	16.33			1.91	0.92	0.34	0.88	f5
1843	21 48 43.29	+65 44 57.4	15.01	2.80	2.29	1.56	0.70	0.25	0.61	f9.5 IV
1844	21 48 43.31	+66 09 56.4	14.70		3.56	2.43	0.84	0.56	0.92	k5 V
1845	21 48 44.86	+66 24 01.9	14.69			2.91	1.26	0.47	1.17	k0 III
1846	21 48 46.46	+65 29 09.5	14.47	3.31	2.60	1.82	0.79	0.35	0.72	f9.5 I
1847	21 48 46.98	+65 30 36.6	15.60		2.66	1.82	0.77	0.26	0.75	g2.5

Continued **Table A.2**

No	RA(2000)	DEC(2000)	V	U-V	P-V	X-V	Y-V	Z-V	V-S	Photom.
	h m s	° ′ ″	mag	mag	mag	mag	mag	mag	mag	sp.type
1848	21 48 46.98	+66 18 11.1	15.73			2.93	1.26	0.46	1.19	m4 III
1849	21 48 47.15	+65 40 03.9	15.77		2.39	1.68	0.77	0.29	0.66	f8
1850	21 48 47.34	+65 34 46.3	15.72			2.25	0.95	0.33	0.92	g1.5
1851	21 48 47.41	+65 41 24.4	14.60	2.94	2.16	1.40	0.62	0.22	0.58	f3 III
1852	21 48 47.56	+65 54 37.3	13.93	2.79	2.25	1.53	0.65	0.24	0.63	**
1853	21 48 47.69	+66 15 57.5	16.73			2.03	1.01	0.33	0.88	a9
1854	21 48 47.86	+66 18 53.9	15.56		2.82	1.93	0.89	0.31	0.84	**
1855	21 48 48.03	+65 44 38.7	11.86	3.95	3.31	2.26	0.90	0.35	0.87	**
1856	21 48 48.14	+66 34 24.5	16.16			2.31	0.89	0.51	0.85	k3.2 V
1857	21 48 48.24	+66 01 19.8	13.85	2.82	2.22	1.56	0.67	0.24	0.67	f8 IV
1858	21 48 48.84	+65 34 30.2	12.79	2.67	1.94	1.20	0.52	0.18	0.48	f0 IV
1859	21 48 49.08	+66 26 22.4	16.06			2.20	0.85	0.41	0.85	k2.5 V
1860	21 48 49.33	+65 25 24.9	15.40	2.89	2.33	1.61	0.73	0.28	0.71	f8 IV
1861	21 48 49.74	+65 59 25.7	14.47	3.85	3.20	2.26	0.96	0.35	0.89	**
1862	21 48 49.82	+66 21 36.6	16.22			2.05	0.81	0.40	0.83	k1.2 V
1863	21 48 49.99	+65 30 51.6	16.28			1.83	0.81	0.32	0.79	g3
1864	21 48 50.14	+66 08 25.6	12.85	2.51	2.05	1.41	0.57	0.23	0.57	g2.5 V
1865	21 48 50.62	+65 42 20.4	16.33			2.10	0.91	0.35	0.85	g2
1866	21 48 51.14	+66 32 06.5	13.99	2.65	2.03	1.37	0.60	0.24		f5
1867	21 48 51.21	+65 51 02.9	14.92	2.63	2.12	1.47	0.63	0.21	0.63	f9 V
1868	21 48 51.60	+66 32 18.9	14.47	2.70	2.14	1.48	0.61	0.23	0.80:	f9 IV
1869	21 48 52.14	+65 53 13.2	13.85	3.64	2.98	2.09	0.87	0.32	0.85	g4 III
1870	21 48 52.24	+66 10 39.9	15.76		2.79	2.04	0.94	0.34	0.86	g0
1871	21 48 52.49	+66 11 55.8	13.79	2.98	2.39	1.65	0.73	0.25	0.69	f9 IV
1872	21 48 52.59	+66 19 18.8	11.85	2.73	1.96	1.27	0.57	0.20	0.56	f1 IV
1873	21 48 52.82	+66 20 26.0	14.96	2.67	2.13	1.50	0.68	0.23	0.66	f7 V
1874	21 48 53.14	+66 13 42.6	16.32			1.77	0.88	0.35	0.74	a4
1875	21 48 53.16	+66 05 44.8	15.45		2.80	1.87	0.77	0.33	0.73	k0 V
1876	21 48 53.87	+65 33 24.1	15.66			2.34	0.98	0.34	0.93	g2
1877	21 48 54.21	+66 15 12.2	14.73	2.71	2.19	1.52	0.66	0.22	0.66	f9 V
1878	21 48 55.13	+65 31 50.7	15.26	3.05	2.52	1.74	0.72	0.28	0.81	**
1879	21 48 55.26	+65 40 34.5	13.26	3.49	2.94	2.02	0.82	0.34	0.79	g9 IV
1880	21 48 55.35	+65 46 04.9	16.11			1.94	0.79	0.38	0.74	**
1881	21 48 55.62	+66 21 16.5	15.22	3.00	2.34	1.65	0.74	0.31	0.64	f8 IV
1882	21 48 55.65	+65 55 32.6	12.10	2.45	1.85	1.26	0.56	0.20	0.55	f4 V
1883	21 48 55.72	+65 48 19.5	15.82			1.96	0.84	0.32	0.77	g5
1884	21 48 55.87	+65 51 42.7	16.19			1.88	0.83	0.34	0.77	g4
1885	21 48 56.14	+65 22 38.0	13.70		2.27	1.55	0.66	0.24		g0
1886	21 48 56.24	+65 38 28.1	15.39	3.17	2.69	1.82	0.73	0.32	0.76	k0 V
1887	21 48 56.37	+65 43 11.5	12.41	2.42	1.75	1.09	0.47	0.16	0.46	f2 IV
1888	21 48 56.94	+65 40 18.1	14.73	2.75	2.19	1.52	0.65	0.25	0.64	f9 IV
1889	21 48 56.95	+65 56 35.5	16.21			2.31	1.01	0.35	0.94	g5
1890	21 48 56.95	+66 21 02.9	16.65			2.23	1.12	0.41	0.79:	f3
1891	21 48 57.09	+66 20 23.8	15.57			3.03	1.30	0.45	1.18	g5
1892	21 48 57.27	+65 31 54.0	15.79			2.14	0.85	0.42	0.84	k1.7 V
1893	21 48 57.68	+65 45 49.3	14.31	2.65	2.07	1.43	0.64	0.26	0.57	f6 V

Continued **Table A.2**

No	RA(2000)	DEC(2000)	V	U-V	P-V	X-V	Y-V	Z-V	V-S	Photom.
	h m s	° ′ ″	mag	mag	mag	mag	mag	mag	mag	sp.type
1894	21 48 57.93	+66 03 02.7	13.34	4.77	4.06	2.81	1.13	0.46	1.04	k1.7 III
1895	21 48 58.21	+65 51 21.3	15.89			2.44	0.99	0.38	0.93	k0 III
1896	21 48 58.33	+66 14 38.2	16.25			2.30	0.86	0.47	0.84	k3.5 V
1897	21 48 58.90	+65 30 27.8	15.51			2.58	1.03	0.38	1.03	m3.5 III
1898	21 48 59.60	+66 04 46.3	16.30			1.96	0.81	0.40	0.75	k0.7 V
1899	21 48 59.91	+65 38 26.1	15.42	3.01	2.42	1.67	0.75	0.27	0.69	f9 IV
1900	21 49 00.01	+65 45 03.8	15.85		2.45	1.68	0.73	0.25	0.71	g3
1901	21 49 00.03	+65 40 33.1	14.73	2.57	2.03	1.39	0.61	0.18	0.64	f7 V
1902	21 49 00.16	+65 53 40.2	14.02	2.76	2.07	1.41	0.64	0.22	0.60	f4 IV
1903	21 49 00.73	+65 41 32.2	15.71	2.86	2.18	1.58	0.70	0.28	0.66	f7 V
1904	21 49 00.76	+65 50 33.0	15.64	2.93	2.29	1.61	0.72	0.24	0.70	f5 V
1905	21 49 01.83	+65 55 03.4	13.31	4.58	3.84	2.67	1.09	0.44	1.00	k0.7 III
1906	21 49 01.92	+65 54 35.7	15.84			2.08	0.92	0.31	0.87	f9.5
1907	21 49 02.02	+65 35 27.4	13.56	3.84	3.10	2.21	0.94	0.33	0.88	g4 III
1908	21 49 02.35	+66 01 37.3	14.81		3.43	2.52	1.13	0.38	1.07	g4
1909	21 49 02.54	+66 12 26.7	11.31	2.55	1.92	1.30	0.55	0.20	0.53	f4 IV
1910	21 49 03.32	+65 35 05.2	13.28	4.01	3.36	2.33	0.95	0.37	0.89	g9 III
1911	21 49 03.72	+66 10 35.8	16.82			2.03	0.84	0.29	0.85	g5.5
1912	21 49 03.95	+66 19 01.0	15.80	2.87	2.30	1.65	0.71	0.24	0.72	g0 V
1913	21 49 03.99	+65 58 40.8	14.75	3.35	2.93	1.94	0.78	0.35	0.72	**
1914	21 49 04.04	+65 32 32.1	13.64	3.86	3.19	2.24	0.97	0.36	0.94	g6 IV
1915	21 49 04.12	+66 05 58.6	11.44	2.58	1.97	1.36	0.57	0.20	0.58	f6 IV
1916	21 49 04.82	+66 08 46.7	13.43	2.76	2.32	1.57	0.61	0.26	0.65	g8 V
1917	21 49 04.82	+66 13 03.6	15.92			2.56	1.16	0.40	1.00	**
1918	21 49 04.99	+65 42 01.2	16.52			1.84	0.74	0.32	0.77	g9
1919	21 49 06.29	+65 22 54.6	11.87	4.19	3.50	2.41	0.97	0.38	0.90	k0 III
1920	21 49 06.32	+65 36 27.0	15.59			2.43	0.99	0.36	0.96	g8
1921	21 49 07.03	+65 24 01.2	12.22	2.43	1.71	0.90	0.37	0.13	0.31	a6 IV
1922	21 49 07.28	+66 20 04.3	16.49			1.98	0.97	0.30	0.91	f0
1923	21 49 07.42	+65 44 10.1	15.53	2.75	2.25	1.57	0.69	0.27	0.66	g0 V
1924	21 49 08.06	+66 10 35.9	13.24	2.85	2.30	1.65	0.69	0.24	0.71	g1 V
1925	21 49 08.06	+65 55 49.2	11.81	2.50	2.06	1.38	0.55	0.21	0.59	**
1926	21 49 08.49	+66 03 45.4	15.98		2.43	1.67	0.80	0.21	0.72	b7
1927	21 49 09.69	+65 43 35.7	12.42	2.70	1.87	1.01	0.46	0.15	0.39	**
1928	21 49 10.16	+65 47 00.9	15.28	2.72	2.20	1.48	0.62	0.23	0.65	g0 IV
1929	21 49 10.22	+66 19 49.7	16.37			1.95	0.81	0.34	0.84	g9
1930	21 49 10.37	+65 59 31.5	15.39	2.80	2.22	1.59	0.66	0.25	0.66	g1 V
1931	21 49 10.49	+65 28 49.4	13.17	4.05	3.42	2.36	0.96	0.39	0.92	g9.5 III
1932	21 49 10.51	+65 53 27.1	15.21			2.49	0.87	0.58	0.89	k5 V
1933	21 49 10.53	+66 16 14.0	15.05	3.18	2.57	1.77	0.75	0.26	0.71	g1.5 III
1934	21 49 10.78	+65 35 13.2	13.94	2.68	2.14	1.48	0.64	0.22	0.62	f9 V
1935	21 49 11.39	+66 02 05.3	15.26	3.29	2.52	1.84	0.86	0.28	0.78	f4 V
1936	21 49 11.85	+65 49 10.6	13.70	4.42	3.75	2.59	1.05	0.41	0.95	k0.5 III
1937	21 49 11.96	+65 58 23.9	16.77			1.95	0.84	0.32	0.90	g5
1938	21 49 12.26	+65 41 25.7	15.30	2.70	2.07	1.41	0.65	0.23	0.63	f4 V
1939	21 49 12.38	+65 23 22.2	13.74	2.58	1.99	1.39	0.63	0.21	0.60	f5 V

Continued **Table A.2**

No	RA(2000)	DEC(2000)	V	U-V	P-V	X-V	Y-V	Z-V	V-S	Photom.
	h m s	° ′ ″	mag	mag	mag	mag	mag	mag	mag	sp.type
1940	21 49 13.29	+65 43 20.7	15.98			2.82	1.14	0.51	0.99	k1.5 III
1941	21 49 13.72	+65 40 05.0	15.17	2.79	2.01	1.21	0.52	0.18	0.43	f0 III
1942	21 49 13.90	+66 12 00.3	14.13	3.31	2.42	1.55	0.70	0.22	0.63	f0 III
1943	21 49 14.10	+65 34 36.2	16.29			1.78	0.74	0.25	0.80	f9.5
1944	21 49 14.27	+66 21 48.5	13.92	3.34	2.83	1.89	0.69	0.35	0.74	k0 III
1945	21 49 14.48	+65 52 15.0	15.56		2.66	1.87	0.82	0.30	0.78	g4
1946	21 49 14.90	+65 39 18.1	15.43	2.92	2.34	1.58	0.64	0.23	0.68	g1 IV
1947	21 49 15.02	+65 37 33.6	15.27	2.92	2.32	1.61	0.72	0.26	0.64	**
1948	21 49 15.36	+66 12 35.9	14.10	2.97	2.37	1.61	0.68	0.25	0.67	f9.5 IV
1949	21 49 15.44	+65 25 36.0	15.58	2.81	2.34	1.64	0.74	0.31		g1.5 V
1950	21 49 15.71	+65 49 47.3	14.40	2.94	2.19	1.46	0.63	0.21	0.58	f6 III
1951	21 49 15.94	+66 14 43.7	12.40	3.29	2.84	1.95	0.73	0.43	0.69	k2.2 V
1952	21 49 16.24	+66 28 38.8	16.68			2.34	1.09	0.43	1.07	g5
1953	21 49 16.29	+65 42 20.9	15.69	2.84	2.23	1.61	0.72	0.25	0.67	**
1954	21 49 16.40	+65 43 10.9	13.44	2.41	1.85	1.24	0.55	0.19	0.53	f4 V
1955	21 49 16.93	+65 55 27.9	13.20	3.92	3.41	2.31	0.78	0.53	0.88	k7 V
1956	21 49 17.22	+65 36 56.9	13.87	3.80	3.15	2.21	0.95	0.34	0.91	g4 III
1957	21 49 17.47	+66 28 55.2	14.84	3.05	2.45	1.76	0.77	0.28	0.74	g1 V
1958	21 49 17.64	+66 13 37.9	14.74			3.13	1.34	0.49	1.22	**
1959	21 49 17.80	+65 28 31.3	14.92	3.23	2.70	1.79	0.73	0.28	0.71	**
1960	21 49 18.03	+65 40 33.8	14.18			3.48	1.31	0.62	1.21	m2 III
1961	21 49 18.66	+65 29 23.5	14.21	2.94	2.45	1.61	0.67	0.25	0.68	**
1962	21 49 18.98	+65 31 06.7	16.35			1.84	0.80	0.28	0.79	g5
1963	21 49 19.11	+65 39 56.0	15.86		2.48	1.66	0.73	0.24	0.76	**
1964	21 49 19.39	+65 27 35.5	14.05	3.20	2.74	1.79	0.68	0.30	0.70	k1 V
1965	21 49 19.53	+65 43 31.1	15.24	2.67	2.10	1.47	0.62	0.25	0.59	f9 IV
1966	21 49 20.67	+65 27 16.5	15.63	2.92	2.33	1.59	0.71	0.24	0.69	**
1967	21 49 20.85	+65 55 36.7	15.53	2.77	2.22	1.57	0.67	0.24	0.66	g0 V
1968	21 49 21.04	+65 57 09.1	16.28			2.66	1.12	0.51	0.99	**
1969	21 49 21.14	+66 22 44.3	12.57	2.77	2.04	1.31	0.56	0.22	0.54	f5 III
1970	21 49 21.29	+65 59 53.5	12.73	4.12	3.50	2.36	0.89	0.42	0.86	k1.5 III
1971	21 49 21.31	+65 42 13.1	15.08			2.36	0.93	0.40	0.91	**
1972	21 49 21.34	+65 38 33.6	13.96	3.67	3.01	2.11	0.90	0.33	0.85	g3 III
1973	21 49 21.70	+65 43 27.1	15.37	2.68	2.07	1.40	0.61	0.20	0.66	f5 IV
1974	21 49 22.15	+65 36 39.5	15.19	2.86	2.19	1.48	0.69	0.24	0.65	f4 IV
1975	21 49 22.29	+65 34 25.4	15.07			2.48	1.01	0.38	1.00	**
1976	21 49 22.71	+66 10 13.6	16.16			2.15	0.87	0.45	0.83	k1.7 V
1977	21 49 22.82	+65 48 14.3	15.54	3.10	2.66	1.77	0.72	0.28	0.72	g9 V
1978	21 49 22.96	+66 29 54.7	16.08			2.05	0.78	0.32	0.88	**
1979	21 49 23.38	+65 47 18.8	15.74		2.67	1.83	0.79	0.31	0.74	**
1980	21 49 24.34	+65 50 48.0	13.79	2.50	1.87	1.21	0.55	0.17	0.50	f4 IV
1981	21 49 24.79	+66 07 35.0	13.86	2.93	2.38	1.65	0.71	0.25	0.69	f9.5 IV
1982	21 49 24.98	+66 29 35.4	14.32	2.73	2.11	1.44	0.64	0.21	0.64	f4 V
1983	21 49 25.20	+66 25 23.0	16.36			2.35	1.14	0.39	0.94	g0
1984	21 49 25.25	+65 39 11.8	12.57	2.90	2.46	1.65	0.63	0.33	0.65	k0 V
1985	21 49 25.25	+65 53 41.7	14.53			2.70	1.11	0.42	1.05	k0.5 III

Continued **Table A.2**

No	RA(2000)	DEC(2000)	V	U-V	P-V	X-V	Y-V	Z-V	V-S	Photom.
	h m s	° ′ ″	mag	mag	mag	mag	mag	mag	mag	sp.type
1986	21 49 25.25	+66 12 37.7	16.02			2.05	0.98	0.38	0.81	f8
1987	21 49 25.42	+66 14 07.4	15.10			2.82	1.28	0.45	1.17	g2
1988	21 49 26.05	+66 21 02.5	14.58	2.88	2.35	1.64	0.69	0.25	0.69	g3 V
1989	21 49 26.06	+65 53 14.0	13.84	2.58	2.05	1.45	0.61	0.22	0.60	f8 V
1990	21 49 26.08	+65 46 03.1	13.25	2.80	2.31	1.56	0.63	0.24	0.64	g4 IV
1991	21 49 26.13	+65 28 05.4	15.20	3.34	2.90	1.91	0.81	0.35	0.69	k0 V
1992	21 49 26.23	+65 41 07.0	15.73			1.86	0.77	0.33	0.73	g6
1993	21 49 26.66	+66 01 49.2	12.85	2.76	1.96	1.13	0.47	0.16	0.45	a8 III
1994	21 49 26.71	+65 35 11.4	15.35	2.91	2.21	1.62	0.75	0.27	0.70	f5 V
1995	21 49 27.14	+65 43 38.9	13.20	2.60	1.97	1.35	0.61	0.22	0.57	f4 IV
1996	21 49 27.70	+65 36 17.0	14.87	3.04	2.50	1.69	0.72	0.25	0.70	g1.5 IV
1997	21 49 27.91	+66 11 18.0	13.47	4.89	4.15	2.91	1.26	0.47	1.10	k0 III
1998	21 49 27.94	+65 59 16.5	13.33	3.88	3.24	2.20	0.88	0.34	0.86	g9 III
1999	21 49 28.04	+65 30 00.2	14.53	2.91	2.15	1.36	0.62	0.23	0.58	**
2000	21 49 28.27	+65 38 19.5	15.29			2.95	1.19	0.52	1.07	k2 III
2001	21 49 28.30	+65 53 09.6	12.41	3.58	3.00	2.05	0.83	0.35	0.77	g8 III
2002*	21 49 29.11	+66 03 53.8		2.14	1.54	0.94	0.39	0.14	0.38	f2 IV
2003	21 49 29.66	+66 19 29.0	15.78			3.05	1.32	0.44	1.22	g5
2004	21 49 30.50	+66 18 21.6	14.99			3.20	1.30	0.53	1.22	**
2005	21 49 30.74	+66 09 16.1	15.42			2.82	1.16	0.47	1.02:	k1 III
2006	21 49 30.81	+66 28 42.8	16.35			2.16	0.99	0.36	0.91	g5
2007	21 49 31.88	+65 30 07.4	14.81	2.86	2.34	1.67	0.74	0.29	0.68	g1 V
2008	21 49 33.08	+65 58 46.7	15.95			2.58	1.15	0.42	1.06	g5
2009	21 49 33.26	+66 05 14.6	14.34	2.63	2.05	1.43	0.63	0.21	0.62	f5 V
2010	21 49 33.73	+66 16 33.1	13.64	2.55	2.04	1.46	0.64	0.22	0.64	f8 V
2011	21 49 33.94	+65 59 55.6	13.03	2.67	2.03	1.38	0.62	0.22	0.60	f4 IV
2012	21 49 35.37	+65 52 32.6	15.30	2.88	2.40	1.63	0.70	0.25	0.67	**
2013	21 49 35.56	+65 48 17.0	15.43	2.80	2.29	1.58	0.67	0.25	0.62	g2.5 V
2014	21 49 35.83	+65 31 45.5	15.03	2.82	2.18	1.48	0.66	0.20	0.64	f7 IV
2015	21 49 36.28	+66 24 49.4	15.34		3.21	2.30	0.95	0.43	0.83	k1 V
2016	21 49 36.32	+65 46 31.1	15.72			2.18	0.77	0.50	0.87	k4 V
2017	21 49 36.66	+66 18 44.2	16.08			2.09	0.84	0.41	0.70	k1.2 V
2018	21 49 36.67	+65 42 33.1	14.89			2.81	1.13	0.49	1.03	k1.5 III
2019	21 49 36.72	+65 53 05.2	13.96	2.64	2.06	1.41	0.62	0.22	0.61	f7 IV
2020	21 49 36.79	+66 11 46.1	15.80			2.12	0.82	0.38	0.81	k1.7 V
2021	21 49 37.09	+65 32 27.2	14.59			3.05	1.22	0.54	1.08	**
2022	21 49 37.90	+66 01 08.1	16.52			1.96	0.92	0.30	0.86	f9
2023	21 49 38.73	+65 50 33.1	15.35	2.75	2.12	1.48	0.65	0.27	0.57	f6 IV
2024	21 49 39.02	+65 39 07.4	13.11	2.50	1.88	1.25	0.56	0.20	0.53	f4 IV
2025	21 49 39.73	+65 29 20.3	14.31	2.88	2.29	1.66	0.75	0.28	0.67	f8 V
2026	21 49 40.01	+65 32 14.9	13.57	2.53	2.07	1.46	0.64	0.23	0.62	f9 V
2027	21 49 40.25	+66 06 35.1	14.72			3.07	1.36	0.50	1.23	g9
2028	21 49 40.73	+65 37 52.1	15.40			2.46	1.04	0.41	0.97	**
2029	21 49 40.97	+65 50 47.9	14.22	2.71	2.02	1.29	0.60	0.19	0.56	**
2030	21 49 41.27	+66 11 11.1	14.06	4.39	3.64	2.53	1.11	0.41	1.01	g7 III
2031	21 49 42.26	+65 44 37.1	16.18			1.86	0.83	0.31	0.77	g2

Continued **Table A.2**

No	RA(2000)	DEC(2000)	V	U-V	P-V	X-V	Y-V	Z-V	V-S	Photom.
	h m s	° ′ ″	mag	mag	mag	mag	mag	mag	mag	sp.type
2032	21 49 43.15	+65 50 32.7	15.88	2.92	2.41	1.64	0.70	0.26	0.71	g1.5 IV
2033	21 49 43.42	+65 47 10.4	14.08	2.43	1.86	1.26	0.57	0.19	0.53	f4 V
2034	21 49 43.81	+65 41 29.1	12.96	3.56	2.97	2.04	0.83	0.34	0.78	g8.5 IV
2035	21 49 44.94	+66 01 11.9	13.03	2.91	2.19	1.51	0.68	0.23	0.65	f4 IV
2036	21 49 45.00	+65 54 47.9	15.04	3.13	2.69	1.82	0.74	0.36	0.76	k0.7 V
2037	21 49 45.11	+65 37 39.2	16.61			2.15	0.92	0.36	0.86	g4
2038	21 49 45.18	+65 48 56.8	15.07	2.70	2.11	1.48	0.66	0.20	0.71	f7 V
2039*	21 49 45.21	+66 15 12.0	14.69	2.21	1.70	1.27	0.68	0.20	0.83	Be:
2040	21 49 45.60	+65 42 03.6	16.20			2.32	1.01	0.37	0.95	g5
2041	21 49 45.82	+65 30 18.8	15.71			2.48	1.00	0.44	0.99	k0.7 IV
2042	21 49 45.88	+66 19 12.4	16.33			2.04	0.97	0.32	0.87	f9
2043	21 49 45.99	+65 43 54.4	12.27	2.44	1.83	1.21	0.53	0.19	0.50	f4 IV
2044	21 49 46.57	+66 02 39.2	16.29			2.05	0.93	0.36	0.90	g1.5
2045	21 49 47.01	+66 03 19.7	15.86			2.23	0.90	0.41	0.86	k1.5 V
2046	21 49 47.46	+65 58 00.2	15.47	3.29	2.74	1.84	0.76	0.30	0.77	g7 IV
2047	21 49 47.78	+65 57 45.7	12.57	2.57	1.96	1.33	0.57	0.21	0.56	f4 V
2048	21 49 47.96	+65 52 49.9	12.71	2.56	2.13	1.46	0.59	0.25	0.59	g4 V
2049	21 49 48.05	+65 41 55.3	14.77	2.85	2.11	1.39	0.66	0.22	0.59	f4 IV
2050	21 49 48.29	+66 13 58.3	15.39		2.86	1.93	0.81	0.36	0.75	**
2051	21 49 48.73	+65 47 23.4	13.21	2.45	1.87	1.27	0.56	0.19	0.54	f4 V
2052	21 49 48.94	+65 49 36.7	14.39	2.82	2.28	1.58	0.68	0.25	0.65	**
2053	21 49 49.09	+65 37 21.8	14.60		3.49	2.40	1.02	0.37	0.93	g8
2054	21 49 49.28	+65 40 09.0	15.07	2.90	2.14	1.48	0.67	0.21	0.72	**
2055	21 49 49.46	+65 53 31.9	14.70	3.10	2.44	1.70	0.74	0.25	0.73	f8 IV
2056	21 49 49.55	+66 23 11.5	16.42			2.04	0.85	0.32	0.81	g4
2057	21 49 49.73	+65 59 29.6	15.86			2.80	1.22	0.45	1.14	g8
2058	21 49 50.54	+65 54 29.4	15.21	3.06	2.31	1.60	0.77	0.27	0.62	f4 IV
2059	21 49 50.57	+65 26 31.6	11.78	5.71	4.87	3.42	1.33	0.59	1.23	k3.7 III
2060	21 49 50.57	+65 29 51.3	16.44			2.39	0.84	0.52	0.88	**
2061	21 49 50.76	+66 10 50.4	15.75		2.66	1.82	0.87	0.31	0.83	**
2062	21 49 50.87	+65 48 57.2	16.49			1.92	0.82	0.36	0.72	g2:
2063	21 49 51.35	+66 04 07.7	16.02			2.37	1.13	0.42	1.05	g2
2064	21 49 51.47	+65 46 09.4	15.31	2.94	2.34	1.61	0.69	0.25	0.64	f9 IV
2065	21 49 51.52	+65 54 59.9	15.81		2.35	1.66	0.79	0.27	0.70	f5
2066	21 49 52.73	+66 16 57.7	14.53	2.66	2.08	1.47	0.65	0.22	0.61	f7 V
2067	21 49 52.86	+66 02 31.2	16.08			2.06	0.94	0.29	0.89	g0
2068	21 49 53.29	+65 36 50.4	13.55	2.70	2.18	1.49	0.66	0.25	0.67	**
2069	21 49 53.31	+66 05 37.4	14.51	2.97	2.44	1.68	0.71	0.26	0.74	g4 V
2070	21 49 53.37	+66 10 01.6	15.01		3.61	2.40	0.83	0.51	0.93	k5 V
2071	21 49 53.53	+66 25 05.8	16.22			1.93	0.84	0.33	0.83	g3
2072	21 49 53.97	+66 06 33.0	15.46		2.85	1.92	0.82	0.32	0.79	g8
2073	21 49 54.12	+66 14 58.1	16.43			2.05	0.95	0.30	0.98	g2
2074	21 49 55.05	+66 11 20.7	13.44			3.90	1.56	0.67	1.40	m2 III
2075	21 49 55.75	+65 45 11.9	13.81		4.71	3.25	1.30	0.57	1.18	k3 III
2076	21 49 55.78	+66 03 06.3	16.74			2.00	0.92	0.32	0.89	g2
2077	21 49 55.80	+65 27 37.5	15.40			2.60	1.11	0.40	1.01	g2

Continued **Table A.2**

No	RA(2000)	DEC(2000)	V	U-V	P-V	X-V	Y-V	Z-V	V-S	Photom.
	h m s	° ′ ″	mag	mag	mag	mag	mag	mag	mag	sp.type
2078	21 49 55.80	+66 07 43.4	16.03			2.08	0.81	0.38	0.84	k1.5 V
2079	21 49 56.03	+65 48 00.9	14.26	2.90	2.42	1.66	0.66	0.27	0.63	**
2080	21 49 56.47	+65 55 40.2	15.54		2.87	1.98	0.89	0.31	0.87	g2
2081	21 49 56.89	+65 57 45.1	16.21			2.50	1.13	0.47	1.04	g3
2082	21 49 57.06	+65 37 17.7	15.33	2.85	2.15	1.39	0.64	0.22	0.58	f2 IV
2083	21 49 57.60	+65 40 55.4	15.80		2.47	1.73	0.82	0.32	0.71	**
2084	21 49 57.66	+65 51 12.3	13.58	2.62	2.06	1.44	0.63	0.21	0.62	f7 V
2085	21 49 57.87	+66 15 37.5	12.01	2.66	1.92	1.20	0.50	0.18	0.50	f3 III
2086	21 49 58.19	+65 41 45.1	13.44	2.57	1.91	1.14	0.49	0.16	0.45	**
2087	21 49 58.43	+66 03 14.8	14.05	2.74	2.11	1.44	0.67	0.22	0.64	**
2088	21 49 58.69	+65 38 43.5	16.13			2.18	0.86	0.43	0.73	k2 V
2089	21 49 58.78	+65 41 16.1	15.62	2.78	2.27	1.53	0.70	0.24	0.64	f9 V
2090	21 49 58.83	+66 06 11.8	14.77	3.54	2.81	1.97	0.86	0.30	0.84	g1.5 III
2091	21 49 59.23	+65 35 25.8	16.05		2.58	1.80	0.77	0.28	0.73	g2
2092*	21 49 59.98	+65 52 42.7	10.83	2.48	1.70	0.93	0.38	0.16	0.37	a5 III
2093*	21 50 00.17	+66 08 18.7	9.92	2.34	1.77	1.20	0.50	0.17	0.50	f4 V
2094	21 50 00.44	+66 09 02.4	14.91	3.76	3.17	2.13	0.82	0.36	0.81	k0 III
2095	21 50 00.47	+66 00 53.7	15.29			2.69	1.15	0.45	1.11	**
2096	21 50 00.85	+66 25 51.2	15.97			2.37	1.11	0.37	1.01	g2
2097	21 50 01.05	+65 44 24.2	13.64	3.92	3.21	2.31	1.02	0.37	0.94	g4 III
2098	21 50 01.59	+65 43 13.6	16.28			1.81	0.86	0.38	0.73	**
2099	21 50 03.35	+65 43 58.8	16.20			2.76	1.12	0.50	1.04	k1.5 III
2100	21 50 03.63	+65 56 27.0	16.81			1.83	0.78	0.23	0.83	m4.5 III
2101	21 50 03.95	+66 11 56.1	14.98	2.81	2.26	1.59	0.70	0.24	0.65	**
2102	21 50 04.85	+66 04 00.4	14.79	2.85	2.21	1.55	0.70	0.23	0.71	f5 V
2103	21 50 05.69	+65 25 48.9	15.73			2.75	1.27	0.47	1.09	**
2104	21 50 06.16	+65 28 57.2	15.27	3.03	2.46	1.75	0.79	0.29		**
2105	21 50 06.38	+66 05 04.2	13.50	2.98	2.37	1.67	0.74	0.25	0.67	f8 IV
2106	21 50 08.88	+65 35 43.4	16.10			2.27	0.85	0.42	0.91	**
2107	21 50 08.98	+65 40 23.3	15.24	3.17	2.55	1.84	0.82	0.30	0.78	g0 V
2108	21 50 09.02	+66 05 42.7	15.88			1.96	0.80	0.29	0.79	g5
2109	21 50 09.14	+65 56 34.5	14.29	2.61	2.05	1.40	0.62	0.21	0.61	**
2110	21 50 09.67	+65 35 21.9	12.06	2.35	1.85	1.25	0.53	0.19	0.53	f7 V
2111	21 50 11.27	+65 36 18.1	15.64	2.97	2.47	1.72	0.82	0.28	0.73	**
2112	21 50 11.48	+65 29 24.9	14.10	4.42	3.76	2.62	1.11	0.41	1.05	g9.5 III
2113	21 50 11.64	+65 45 05.8	15.56	3.04	2.45	1.67	0.71	0.28	0.68	g1 IV
2114	21 50 11.99	+66 02 55.4	15.89			2.27	1.05	0.39	0.90	g5
2115	21 50 12.08	+65 54 36.5	12.44	2.53	1.92	1.29	0.56	0.20	0.55	f4 IV
2116	21 50 12.14	+66 15 04.8	13.73	2.64	2.08	1.47	0.65	0.22	0.63	f7 V
2117	21 50 12.18	+65 50 07.6	12.82	2.47	1.91	1.31	0.57	0.20	0.57	f5 V
2118	21 50 12.45	+65 52 55.9	16.47			1.69	0.72	0.29	0.79	g5
2119	21 50 12.70	+66 09 37.0	16.52			2.16	1.05	0.37	0.89	f6
2120	21 50 13.14	+65 40 32.3	15.53	3.11	2.58	1.83	0.77	0.33		g7 V
2121	21 50 13.33	+65 49 01.4	13.74		4.40	3.00	1.17	0.50	1.08	k2.7 III
2122	21 50 13.48	+66 15 54.1	15.98		2.41	1.67	0.73	0.24	0.71	g0
2123	21 50 13.71	+65 59 21.9	15.99			2.18	0.88	0.40	0.79	k1.2 V

Continued **Table A.2**

No	RA(2000) h m s	DEC(2000) ° ′ ″	V mag	U-V mag	P-V mag	X-V mag	Y-V mag	Z-V mag	V-S mag	Photom. sp.type
2124	21 50 14.57	+66 08 50.2	16.20			2.13	0.85	0.44	0.81	k1.7 V
2125	21 50 14.92	+65 51 51.5	13.95	2.38	1.84	1.25	0.57	0.19	0.56	**
2126	21 50 14.99	+65 44 50.1	15.41	2.81	2.22	1.51	0.69	0.24	0.65	f6 IV
2127	21 50 15.46	+66 10 50.6	16.72			2.02	0.92	0.28	0.94	g0
2128	21 50 15.48	+65 55 10.1	14.94		3.60	2.47	0.97	0.40	0.95:	k0.7 III
2129	21 50 16.76	+66 15 13.4	16.28			2.19	0.79	0.45	0.92	k3.5 V
2130	21 50 17.72	+65 48 47.8	13.45	4.04	3.37	2.38	1.00	0.38	0.92	**
2131	21 50 18.08	+65 50 20.8	16.24			1.85	0.83	0.28	0.68	**
2132*	21 50 18.45	+65 53 23.8	9.01	1.80	1.18	0.58	0.24	0.07	0.22	b8.5 III
2133	21 50 18.50	+65 48 37.0	13.56			3.30	1.25	0.58	1.20	m2.5 III
2134	21 50 20.06	+66 22 16.4	16.16			2.04	0.94	0.28	0.91	g8
2135	21 50 20.48	+65 59 10.3	16.32			1.81	0.81	0.25	0.86:	g0
2136	21 50 20.65	+65 58 16.7	14.75	2.87	2.35	1.64	0.71	0.26	0.71	**
2137	21 50 21.17	+66 22 48.6	16.41			2.02	0.83	0.26	0.84	**
2138	21 50 21.49	+65 35 26.3	13.18	4.20	3.44	2.42	1.04	0.36	1.01	**
2139	21 50 22.11	+66 06 17.5	14.25	2.96	2.36	1.67	0.74	0.24	0.73	f9 V
2140	21 50 27.78	+66 20 52.7	12.59	2.60	2.01	1.36	0.66	0.19	0.58	f4 V

Notes:

148: BD+65 1625. 339: BD+65 1627. 460: 2MASS J21413315+6622204, IRAS 21404+6608, emission-line star (Kun 1998), YSO status confirmed from 2MASS and WISE (this paper). 548: BD+65 1631. 585: BD+65 1632. 616: HD 206897. 653: BD+65 1635. 654: 2MASS J21424603+6605137, YSO (Stelzer & Scholz 2009). 663: BD+65 1637 = V361 Cep (INA type). 672: 2MASS J21425520+6611422, possible YSO (Strom et al. 1976; Hartigan & Lada 1985). 699: LkHα 234 = V373 Cep (INA type). 723: YSO from 2MASS and WISE (this paper), image asymmetrical. 892: BD+65 1640. 926: Possible Be star from 2MASS. 1007: Possible Be star from 2MASS. 1123: BD+65 1643. 1137: BD+65 1642. 1150: BD+65 1644. 1275: BD+65 1645B. 1296: HD 207416. 1561: BD+64 1590. 1788: Possible Be star from 2MASS. 1801: BD+64 1595. 1835: BD+65 1654. 2002: BD+65 1656. 2039: Possible Be star from Vilnius and 2MASS photometry. 2092: BD+65 1658. 2093: BD+65 1659. 2132: HD 207965.

A.3. Deep photometry of stars in the NGC 7129 area

Table A.3

Results of photometry and classification of stars in the direction of NGC 7129 area. The stars with two asterisks in the last column were not classified since their images are asymmetrical, i.e., these stars are double or multiple.

No	RA(2000) h m s	DEC(2000) ° ′ ″	V mag	U-V mag	P-V mag	X-V mag	Y-V mag	Z-V mag	V-S mag	Photom. sp.type
1	21 41 53.28	+66 04 57.5	17.345			2.378:	1.001	0.412:	1.103:	g-k
2	21 41 54.10	+66 05 48.1	14.686	3.241	2.382	1.448	0.661	0.239	0.629	a7 IV
3	21 41 54.84	+66 03 41.8	14.082	3.045	2.408	1.697	0.748	0.279	0.770	f9 IV-V

Continued **Table A.3**

No	RA(2000)	DEC(2000)	V	U-V	P-V	X-V	Y-V	Z-V	V-S	Photom.
	h m s	° ′ ″	mag	mag	mag	mag	mag	mag	mag	sp.type
4	21 41 55.22	+66 04 52.5	17.028		3.640	2.535	1.082	0.504	1.116	k1: V
5	21 41 55.31	+66 05 23.0	17.514		3.272:	2.517:	0.878	0.389:	1.081	k1: V
6	21 41 55.53	+66 02 39.9	16.454	4.092	3.415	2.431	1.076	0.414	1.088	g8 IV:
7	21 41 55.84	+66 05 57.5	18.128		2.509:	1.946:	0.600	0.175:	0.959:	
8	21 41 56.99	+66 05 12.5	17.880	3.190:	2.634:	1.599:	0.898	0.062:	0.965	
9	21 41 57.11	+66 10 53.0	17.591		3.830:	2.832:	1.045	0.574	1.171	k5: V
10	21 41 58.43	+66 05 21.7	12.172	2.500	1.936	1.341	0.559	0.203	0.540	f8 IV
11	21 41 59.27	+66 05 05.9	15.320	3.228	2.697	1.922	0.763	0.335	0.803	k0 V
12	21 42 00.15	+66 01 53.4	18.428		2.310:	1.668:	0.548	0.258:	0.915:	
13*	21 42 00.77	+66 01 35.3	17.105	3.284	2.616	1.962	0.844	0.247	0.998	
14	21 42 00.82	+66 06 15.4	18.493			2.305:	1.156	0.481:	0.911:	
15	21 42 01.32	+66 07 00.2	18.063		3.012:	2.284:	1.059	0.388:	0.959	g
16	21 42 01.57	+66 05 39.5	15.731	4.106	3.564	2.544	0.934	0.523	0.968	K4 V:
17	21 42 01.65	+66 10 17.1	16.306	3.821	2.986	2.224	1.079	0.379	1.006	f-g
18	21 42 01.67	+66 08 16.0	9.304	3.943	3.324	2.254	0.837	0.363	0.769	k1 III
19	21 42 01.76	+66 04 22.4	15.259	2.980	2.311	1.631	0.804	0.279	0.739	f5:
20	21 42 01.76	+66 05 20.7	17.184	4.320:	3.765	2.786	1.114	0.588	1.236	k3: V
21*	21 42 02.06	+66 06 36.1	16.313	3.698	3.122	2.263	0.937	0.428	0.862	
22	21 42 02.34	+66 04 56.1	14.290	3.044	2.297	1.489	0.705	0.245	0.638	f0 V
23	21 42 04.51	+66 03 23.4	18.410			2.457:	1.033	0.518:	1.051	k2: V
24	21 42 05.11	+66 05 46.1	18.329		2.820:	2.142:	0.748	0.328:	0.906	
25	21 42 06.83	+66 09 43.5	16.778	3.575	2.768	2.068	1.048	0.351	0.947	f-g, md:
26	21 42 06.85	+66 05 31.9	16.514	3.285	2.660	1.972	0.904	0.347	0.855	g0 V
27*	21 42 06.89	+66 04 53.1	18.397		2.657:	1.987:	0.939	0.354:	0.935	YSO:
28	21 42 07.08	+66 09 36.5	15.984	4.967	4.187	3.065	1.378	0.500	1.246	g8 III
29	21 42 07.88	+66 10 34.6	15.068	4.884	4.014	2.944	1.359	0.493	1.208	g5 III
30	21 42 07.91	+66 08 10.0	16.188	4.037	3.493	2.450	0.930	0.532	0.894	k3.5 V:
31	21 42 08.05	+66 08 46.6	16.806	3.790	3.048	2.251	1.058	0.379	1.010	g0 V
32	21 42 08.21	+66 09 51.9	16.976	3.972	3.232	2.423	1.178	0.433	1.048	g0 V
33	21 42 08.44	+66 01 52.9	18.409		2.519:	1.715:	0.884	0.379:	0.867:	
34	21 42 08.57	+66 05 25.4	18.212		2.830	2.035:	0.950	0.344:	0.951	g0 V
35	21 42 08.62	+66 06 25.9	16.696	3.300	2.618	1.941	1.009	0.345	0.878	f5, md:
36	21 42 09.29	+66 04 50.5	18.146		3.019:	2.294:	0.725	0.358:	0.986	
37	21 42 09.45	+66 08 57.1	17.271	3.649:	2.994	2.186	0.870	0.393	0.937	k1: V
38	21 42 09.67	+66 10 12.7	18.813			2.427:	0.635	0.354:	1.178:	
39	21 42 10.19	+66 07 53.9	18.646		2.697:	2.092:	0.676	0.338:	0.851:	
40	21 42 10.29	+66 06 18.2	18.338			2.189:	1.122	0.381:	1.011	
41	21 42 10.64	+66 01 23.4	18.375		2.774:	1.998:	0.912	0.474:	0.877	g:
42	21 42 11.38	+66 11 30.3	18.020			2.705:	1.004	0.504:	1.137	k3: V
43*	21 42 12.03	+66 00 25.5	17.034	3.906	3.372	2.604	1.080	0.592	1.327	k3:, YSO
44	21 42 13.57	+65 59 56.0	18.388			1.848:	0.925	0.289:	1.060	
45	21 42 14.14	+66 08 49.2	16.997	3.717	3.040	2.185	0.976	0.384	1.005	g
46	21 42 14.23	+66 10 15.3	18.035			2.757:	1.366	0.351:		
47	21 42 14.58	+66 06 31.4	18.576		2.994:	1.940:	0.824	0.409:	0.933:	
48	21 42 14.81	+66 07 13.2	17.778			2.636:	1.109	0.451	1.147	k
49	21 42 16.73	+66 00 06.5	18.709		2.475:	1.844:	0.745	0.319:	0.946:	

Continued **Table A.3**

No	RA(2000)	DEC(2000)	V	U-V	P-V	X-V	Y-V	Z-V	V-S	Photom.
	h m s	° ′ ″	mag	mag	mag	mag	mag	mag	mag	sp.type
50	21 42 16.88	+66 08 12.8	15.989	3.615	3.105	2.110	0.823	0.407	0.805	k2 V
51	21 42 17.27	+66 03 24.1	18.445		2.982:	2.114:	1.036	0.400:	0.844	
52	21 42 17.72	+66 09 14.0	17.161	3.839:	2.919	1.800	0.969	0.331	0.827	a0 V
53	21 42 18.70	+66 05 42.4	17.219	3.900:	3.199	2.303	1.147	0.409	1.031	g0 V
54	21 42 18.91	+66 02 04.0	17.452	3.277	2.738	1.947	0.830	0.296	0.902	g5 V
55	21 42 19.09	+66 05 29.8	17.227	3.937:	3.019	1.911	0.917	0.337	0.825	a5 V, am:
56	21 42 19.78	+66 06 20.3	18.160			2.224:	0.918	0.456:	1.081	k3: V
57	21 42 20.08	+66 02 54.5	16.383	3.331	2.699	1.912	0.965	0.361	0.878	f6 V
58	21 42 21.54	+66 02 05.0	16.629	3.272	2.696	1.931	0.919	0.312	0.856	g0: V
59	21 42 22.69	+66 11 47.7	17.410	3.713:	3.150	2.304	1.129	0.414	0.976	g, md:
60	21 42 22.81	+66 07 52.9	16.625	3.961	3.241	2.263	1.060	0.402	0.983	g3 IV:
61	21 42 23.18	+66 06 42.3	18.601			2.776:	1.044	0.532:	1.111:	k3: V
62	21 42 23.39	+66 08 47.3	17.366		3.929	2.815	1.044	0.665	1.173	k7: V
63	21 42 23.44	+66 10 34.5	11.842	2.837	2.350	1.588	0.621	0.255	0.584	g6 IV
64	21 42 23.47	+66 00 31.5	17.219		3.999	2.824	1.164	0.621	1.306	m2: V
65	21 42 23.57	+66 00 24.7	18.226	3.251:	2.705:	1.975:	0.847	0.284:	0.964	g
66	21 42 24.69	+66 04 55.2	18.608			2.573:	0.959	0.393:	1.101:	g-k
67	21 42 24.80	+66 06 21.4	17.601			2.970:	1.426	0.540	1.393	g
68	21 42 25.26	+66 10 08.8	18.011		3.252	2.371:	1.084	0.370:	1.010	g
69	21 42 26.12	+66 11 21.7	17.333			3.318:	1.534	0.601	1.505	k0 IV:
70	21 42 26.22	+66 06 56.3	17.678		3.414	2.445:	1.054	0.451	1.032	k1 V
71	21 42 26.45	+66 11 47.9	17.949		3.163	2.112:	1.003	0.368:	0.912	f-g
72	21 42 26.92	+66 07 42.7	10.539	3.717	3.097	2.116	0.837	0.319	0.757	g8.5 III
73	21 42 27.20	+66 00 53.6	17.199	3.480	2.824	1.982	0.970	0.335	0.941	f5 V
74	21 42 27.89	+66 06 29.7	18.666			2.241:	1.035	0.338:	0.923:	g
75	21 42 28.42	+66 04 09.0	18.211			2.345:	1.007	0.419:	0.975	k0: V
76	21 42 29.42	+66 02 01.7	18.226	3.329:	2.695:	1.784:	0.970	0.248:	1.040	
77	21 42 30.01	+66 02 08.3	17.605			2.681:	1.207	0.451	1.204	g
78	21 42 31.05	+66 00 42.2	18.441		2.804:	2.019:	0.885	0.287:	1.020:	
79	21 42 31.55	+66 00 29.3	17.788		3.382	2.349:	1.053	0.465	1.127	k0: V
80	21 42 31.93	+66 07 08.6	17.230	4.035:	3.291	2.349	1.288	0.428	1.102	b5:
81	21 42 32.41	+66 04 59.2	18.514		2.807:	2.056:	0.849	0.296:	0.964:	
82	21 42 32.64	+66 10 24.6	18.448			2.358:	1.226	0.365:	1.096	
83*	21 42 34.29	+66 11 55.8	13.988	2.655	2.107	1.501	0.654	0.245	0.566	
84*	21 42 34.72	+66 05 18.7	17.704		3.752:	2.476:	1.158	0.550	1.397	k-m, YSO
85	21 42 35.11	+66 04 09.7	18.317		2.774:	1.944:	0.919	0.368:	0.932	f-g
86	21 42 35.75	+66 05 49.2	17.423		3.989:	2.780:	1.201	0.495	1.221	k2 V:
87	21 42 35.99	+66 01 16.7	18.397			3.091:	0.971	0.560:	1.343	k
88	21 42 36.91	+66 00 30.4	18.142			2.457:	0.886	0.515:	1.108	k-m
89	21 42 37.03	+66 02 13.7	17.307	3.740:	3.081	2.161	1.097	0.388	1.048	f5 V
90	21 42 37.59	+66 02 43.3	18.473			2.212:	1.039	0.398:	1.050	g
91	21 42 37.91	+66 02 29.9	17.948		2.993	2.103:	0.892	0.428:	0.992	k2: V
92	21 42 38.23	+66 04 06.4	16.847	4.446:	3.811	2.626	1.169	0.483	1.120	k1 V:
93*	21 42 38.35	+66 08 28.1	16.098			3.838	1.723	0.683	1.546	k2 III:
94	21 42 38.60	+66 11 33.7	16.389	3.957	3.413	2.389	0.957	0.508	0.932	k3 V
95	21 42 38.80	+66 00 05.1	16.175		4.586	3.123	1.387	0.568	1.320	k1 IV

Continued **Table A.3**

No	RA(2000)	DEC(2000)	V	U-V	P-V	X-V	Y-V	Z-V	V-S	Photom.
	h m s	° ′ ″	mag	mag	mag	mag	mag	mag	mag	sp.type
96*	21 42 40.32	+66 10 06.9	12.351	2.775	2.050	1.151	0.551	0.195	0.475	a1 IV-V,YSO
97	21 42 41.33	+66 03 33.7	15.994	3.465	2.709	1.927	0.946	0.342	0.927	f3 V
98	21 42 41.92	+66 01 20.1	15.717	3.756	2.873	1.842	0.924	0.349	0.861	a7 V
99	21 42 43.37	+66 02 08.8	18.368			3.210:	0.908	0.535:	1.223	
100	21 42 45.51	+66 04 34.5	9.783	3.551	2.985	2.024	0.757	0.307	0.702	k0 III
101*	21 42 46.03	+66 05 13.8	10.815	2.080	1.578	1.006	0.412	0.150	0.379	f5 V, YSO:
102	21 42 46.08	+66 00 07.1	17.924			2.979:	0.978	0.670:	1.180	k7: V
103*	21 42 46.09	+66 05 56.3	18.220			2.908:	1.392	0.574:	1.503	YSO
104	21 42 47.04	+66 04 58.0	15.601	4.466	3.714	2.662	1.165	0.544	1.216	k1, YSO
105	21 42 47.05	+66 10 51.3	13.335	2.940	2.209	1.377	0.734	0.258	0.644	b8 V, YSO
106	21 42 47.79	+66 05 35.0	17.786		3.359:	2.434:	0.997	0.517:	1.096	k-m V
107	21 42 49.97	+66 01 58.2	13.177	2.450	1.885	1.273	0.586	0.210	0.534	f5 V
108*	21 42 50.18	+66 06 35.2	10.099	1.638	1.288	0.904	0.495	0.166	0.632	b2, YSO
109	21 42 50.70	+66 03 31.3	16.903	3.956	3.377	2.316	0.896	0.455	0.917	k3 V
110	21 42 50.93	+66 06 03.7	17.566			2.950:	1.194	0.621	1.339	k3, YSO
111	21 42 51.21	+66 05 45.2	17.240	3.117	2.295	1.436	0.768	0.328	0.709	b9
112	21 42 51.99	+66 09 44.7	17.934			2.829:	1.036	0.638:	1.182	m0: V
113	21 42 53.50	+66 08 05.3	17.518		4.205:	3.067:	1.323	0.665	1.414	k-m, YSO
114	21 42 54.84	+65 59 57.6	14.938	2.933	2.405	1.645	0.711	0.280	0.690	g4 V
115	21 42 55.20	+66 11 42.6	12.460	3.494	2.924	2.012	0.814	0.331	0.731	g8 III-IV
116	21 42 59.98	+66 01 01.1	18.146			2.783:	1.051	1.043:	0.648:	
117*	21 43 00.01	+66 11 28.0	16.611	2.423	1.956	1.579	1.202	0.333	1.410	YSO
118*	21 43 03.42	+66 05 26.5	17.949	2.916	2.406	2.014:	1.011	0.426	1.619	YSO
119	21 43 05.57	+66 03 28.5	16.882	4.419:	3.824	2.663	1.009	0.620	1.015	k5: V
120	21 43 05.61	+66 12 24.6	18.136		3.451:	2.701:	1.091	0.570:	1.269	k-m
121	21 43 07.09	+66 02 19.4	17.684		3.896:	2.782:	0.969	0.633	1.269	k8 V
122	21 43 08.98	+66 12 01.7	15.337	2.615	2.124	1.533	0.683	0.269	0.649	g0 V
123*	21 43 11.61	+66 09 11.5	16.343	4.310	3.665	2.802	1.213	0.637	1.280	YSO
124	21 43 14.96	+66 09 06.8	17.927			2.843:	1.012	0.596:	1.243	k5: V
125*	21 43 16.83	+66 05 48.7	18.400			3.552:	1.132	0.564:	1.527	YSO
126	21 43 20.87	+66 03 37.0	17.487			2.702	1.078	0.605	1.249	m1 V
127*	21 43 21.24	+66 06 23.8	17.456		3.944:	2.984:	1.203	0.531	1.426	
128	21 43 21.70	+66 02 46.1	14.240	2.592	2.067	1.442	0.624	0.232	0.602	f8 V
129*	21 43 22.90	+66 10 00.1	18.327			3.079:	1.346	0.509:	1.469	k0, YSO
130	21 43 23.54	+66 01 27.9	15.542	4.392	3.817	2.692	1.014	0.615	1.108	m0 V
131*	21 43 26.95	+66 09 36.6	16.542	4.114	3.636	2.537	1.024	0.519	1.069	k3:, YSO
132	21 43 29.01	+66 01 47.0	16.094	3.802	3.311	2.250	0.839	0.444	0.894	k3 V
133*	21 43 29.34	+66 03 31.9	11.124	2.339	1.782	1.184	0.516	0.181	0.497	f5 V, YSO:
134	21 43 31.01	+66 00 45.9	14.474	2.679	2.170	1.494	0.638	0.238	0.623	g0 V
135	21 43 31.21	+66 09 54.2	15.743	5.402:	4.470	3.195	1.544	0.565	1.479	g5:
136	21 43 31.22	+66 07 24.1	14.488	3.284	2.789	1.912	0.760	0.347	0.749	k0.5 V
137*	21 43 31.82	+66 08 50.7	17.866	3.213:	2.876:	2.177:	1.254	0.564:	1.554	YSO
138*	21 43 36.25	+66 11 33.0	13.575	3.071	2.531	1.775	0.753	0.307	0.718	
139	21 43 39.75	+66 00 32.4	13.934	5.082	4.076	2.799	1.362	0.488	1.304	f5:
140	21 43 39.98	+66 12 22.0	17.792			2.543:	1.389	0.531:	1.129	b-a
141	21 43 40.04	+66 03 31.7	12.877	2.569	2.028	1.398	0.609	0.219	0.586	f7 V

Continued **Table A.3**

No	RA(2000) h m s	DEC(2000) ° ′ ″	V mag	U-V mag	P-V mag	X-V mag	Y-V mag	Z-V mag	V-S mag	Photom. sp.type
142	21 43 41.30	+66 00 55.2	15.252	3.176	2.655	1.831	0.746	0.305	0.773	g8 V
143	21 43 41.30	+66 09 06.1	16.918	4.498:	3.746	2.642	1.189	0.568	1.298	k-m V
144	21 43 41.61	+66 12 22.0	14.394	2.674	2.123	1.608	0.675	0.324	0.636	g2:
145	21 43 41.77	+66 11 35.7	18.031			2.262:	1.276	0.412:	1.153	
146*	21 43 42.91	+66 06 58.2	16.056	4.042	3.502	2.458	0.935	0.630	1.004	k-m V, YSO:
147*	21 43 43.44	+66 07 30.8	18.430			3.065:	0.967	0.578:	1.569	k5: V, e
148	21 43 44.92	+66 06 59.8	15.365	4.582	3.431	2.106	1.070	0.377	1.018	a3: Vp
149	21 43 45.13	+66 04 37.9	15.533	3.081	2.571	1.765	0.746	0.298	0.718	g5: IV
150	21 43 45.41	+66 08 22.5	17.448		3.987:	2.801	1.004	0.550	1.329	k3.5 V
151	21 43 48.95	+66 11 23.6	17.983		3.204	2.356:	0.954	0.314:	1.171	k
152	21 43 49.12	+65 59 55.0	15.122	4.184	3.554	2.479	0.840	0.479	0.814	k4 V
153	21 43 50.02	+66 07 51.7	16.792	4.381:	3.737	2.617	1.172	0.497	1.466	k1 V
154	21 43 50.36	+66 08 47.7	12.280	2.359	1.806	1.135	0.593	0.210	0.552	b7 V
155	21 43 55.15	+66 10 05.1	17.340	3.878:	3.136	2.284:	1.028	0.393	1.027	g3 V:
156	21 43 55.59	+66 08 16.5	18.435			2.701:	0.839	0.521:	1.159:	k
157	21 43 56.01	+66 03 05.2	15.688	3.248	2.715	1.838	0.791	0.337	0.779	g5 V
158	21 43 56.75	+66 10 14.4	18.164			2.731:	1.012	0.551:	1.355	k-m
159	21 43 59.99	+66 04 36.7	16.814		3.695	2.510:	0.969	0.531	0.881	k4 V

Notes:

13, 21, 83, 127, 138 binaries; 27. YSO, WISE class II [6]; 43. YSO, Spitzer + WISE class II [6]; 84. YSO, class III [3]; 93. Strong IR (Strom et al. 1976); 96. YSO, class II [3]; 101. BD+65 1636, YSO?, class III [3]; 103. YSO, class III [3]; 104. YSO, class III [3], var. S08669, type BY: [4]; 105. YSO (WISE, class II) [6]; 108. BD+65 1637, V361 Cep (INA, B2nne), YSO, class II [2,3], WISE class II [6]; 110. YSO, class III [3]; 113. YSO, class III [3], var. S08672, type INT: [4]; 117. V350 Cep, INT type, YSO, class II [1,2], WISE class I [6], BVRI photometry, spectral class M0 [5]; 118. YSO, class II [2]; 123. YSO, class II [1,2,3], var. S08678, type INT [4], WISE class II [6], *BVRI* photometry, spectral class M1 [5]; 125. YSO, class III [1,3], var. S08679, type INT: [4]; 129. YSO, class II [2], var. S08680, type LB: [4], WISE class II [6]; 131. YSO, class III [3], var. S08681, type IN: [4]; 133. YSO, class III [3]; 137. YSO, class II [1,3], var. S08682, type INT [4], WISE class II [6]; 138. YSO, class III [3], var. S08683, type BY: [4]; 146. can be YSO from Spitzer MIPS 1 [6]; WISE photometry in W3 and W4 is affected by the star No. 148; 147. YSO, class II [1,3], WISE class II [6].

References:

1. Magakian et al. (2004); 2. Gutermuth et al. (2004, 2009); 3. Stelzer & Scholz (2009); 4. Zejda et al. (2012); 5. Kun et al. (2009); 6. This paper investigation.

A.4. Deep photometry of stars in the NGC 7142 area

Table A.4

Results of photometry and classification of stars in the direction of NGC 7142 area. The stars with two asterisks in the last column were not classified since their images are asymmetrical, i.e., these stars are double or multiple.

No	RA(2000) h m s	DEC(2000) ° ′ ″	V mag	U-V mag	P-V mag	X-V mag	Y-V mag	Z-V mag	V-S mag	Photom. sp.type	Mem	Notes
1	21 43 57.75	+65 47 04.7	16.804			1.631	0.718	0.226	0.802	g0 V		

Continued **Table A.4**

No	RA(2000)	DEC(2000)	V	U-V	P-V	X-V	Y-V	Z-V	V-S	Photom.	Mem	Notes
	h m s	° ′ ″	mag	mag	mag	mag	mag	mag	mag	sp.type		
2	21 43 58.02	+65 45 47.9	18.406			1.661	0.752	0.261	0.794	f9 V		
3	21 43 58.48	+65 45 41.6	18.729			1.956	0.736	0.284	0.954			
4	21 43 58.88	+65 42 00.7	19.237			2.116:	0.745	0.235	1.135			
5	21 43 59.34	+65 48 06.8	18.852			2.675	0.990	0.525	1.131			
6	21 43 59.37	+65 47 45.3	19.616			1.614:	0.707	0.294:	0.767:			
7	21 43 59.43	+65 48 46.1	18.664	2.619:	2.124	1.446	0.630	0.183	0.770			
8	21 44 00.96	+65 44 23.6	18.037	2.668	2.152	1.519	0.665	0.197	0.745	g		
9	21 44 01.04	+65 49 55.8	18.197	2.865	2.311	1.695	0.804	0.271	0.778	f8 V		
10	21 44 01.21	+65 48 43.0	19.378			1.625	0.760	0.237	0.904			
11	21 44 01.30	+65 46 35.0	17.092	3.836	3.189	2.265	0.961	0.341	0.968	g5 III		
12	21 44 01.36	+65 46 10.3	17.498	4.146:	3.631:	2.467	1.009	0.367	1.018	k0		
13	21 44 01.46	+65 44 53.6	16.330	3.659	3.164	2.183	0.844	0.389	0.951	k2 V		
14	21 44 02.06	+65 47 54.7	18.781	2.748:	2.215	1.563	0.707	0.237	0.752			
15	21 44 02.07	+65 41 22.2	18.716	2.852:	2.536:	1.675	0.639	0.142	0.990			
16	21 44 02.10	+65 43 27.7	16.550	2.827	2.248	1.555	0.673	0.211	0.751	f9 IV		
17	21 44 02.15	+65 46 02.9	18.731			2.081	0.841	0.321	0.913			
18	21 44 02.23	+65 44 40.5	19.706			2.600:	0.928	0.475	1.114			
19	21 44 02.48	+65 45 13.9	17.106	4.026	3.553	2.433	0.888	0.475	0.989	k3 V		
20	21 44 02.56	+65 46 26.5	16.738	4.172	3.527	2.446	1.042	0.389	0.980	g8 III		
21	21 44 02.57	+65 44 18.9	17.428	3.453	3.047	2.026	0.793	0.313	0.876	g9 IV		
22	21 44 02.70	+65 46 49.5	18.917	2.783:	2.252:	1.612	0.764	0.255	0.726			
23	21 44 02.82	+65 45 01.3	19.249			1.839	0.761	0.278	0.818			
24	21 44 02.89	+65 45 34.5	16.626	3.291	2.705	1.863	0.808	0.290	0.814	g3 V		
25	21 44 03.00	+65 47 13.9	19.332			2.311	0.912	0.427	1.032			
26	21 44 03.35	+65 41 44.2	19.801			1.621:	0.577	0.188:	0.885:			
27	21 44 03.37	+65 43 54.0	19.722			2.818	1.085	0.514	1.465			
28	21 44 03.39	+65 48 40.3	17.269	2.786	2.208	1.606	0.718	0.245	0.766	f8 V		
29	21 44 03.74	+65 48 07.8	14.449	4.277	3.599	2.501	1.023	0.406	0.951	k0 III	m	
30	21 44 04.17	+65 48 24.7	18.323			2.417	0.947	0.469	0.995	k3 V		
31	21 44 04.29	+65 50 57.7	19.128			1.797	0.791	0.247	0.932			
32	21 44 04.53	+65 48 02.8	18.506			2.612	1.072	0.537				
33	21 44 04.72	+65 45 07.8	17.957	3.178	2.517	1.784	0.783	0.256	0.808	g0 V		
34	21 44 04.77	+65 50 32.6	18.440	2.905:	2.214	1.593	0.733	0.240	0.792	f-g		
35	21 44 05.06	+65 49 48.6	18.900			2.164	0.879	0.358	0.929			
36	21 44 05.12	+65 47 10.8	18.768	2.940:	2.339	1.722	0.798	0.294	0.762			
37	21 44 05.30	+65 47 25.9	17.563	3.258:	2.750	1.916	0.809	0.303	0.834	g5 IV		
38	21 44 05.45	+65 41 11.3	19.446			1.823	0.686	0.164	1.043			
39	21 44 05.55	+65 45 47.1	18.930			1.648	0.727	0.243	0.766			
40	21 44 05.71	+65 43 53.4	18.436			2.274	0.891	0.402	1.019			
41	21 44 05.93	+65 46 48.3	18.812		2.533:	1.828	0.853	0.320	0.725			
42	21 44 06.21	+65 44 52.1	19.669			2.541	1.314	0.559	1.499			
43	21 44 06.24	+65 42 07.5	19.625			2.033	0.868	0.271	0.937			
44	21 44 06.33	+65 46 08.4	17.831	2.805	2.203	1.554	0.736	0.265	0.685	f5 V		
45	21 44 06.85	+65 50 07.1	15.354	4.329	3.591	2.521	1.092	0.411	0.988	g8 III	m	
46	21 44 06.99	+65 51 24.9	18.326			2.557	1.009	0.476	1.025	k3 V		4
47	21 44 07.05	+65 47 39.3	19.299			1.616	0.711	0.252	0.759			

Continued **Table A.4**

No	RA(2000)	DEC(2000)	V	U-V	P-V	X-V	Y-V	Z-V	V-S	Photom.	Mem	Notes
	h m s	° ′ ″	mag	mag	mag	mag	mag	mag	mag	sp.type		
48	21 44 07.10	+65 46 51.8	15.179	4.172	3.495	2.428	1.027	0.394	0.946	g8 III	m	
49	21 44 07.12	+65 46 42.2	19.245			2.162	0.890	0.376	0.887			
50	21 44 07.14	+65 47 53.1	19.756			1.637:	0.961	0.290	0.676:			
51	21 44 07.58	+65 48 46.5	17.563	2.826	2.258	1.612	0.725	0.261	0.705	f8 V		
52	21 44 07.80	+65 49 03.4	19.533			1.760	0.772	0.260	0.774			
53	21 44 07.99	+65 47 12.1	19.341			1.889	0.843	0.367	0.771			
54	21 44 08.17	+65 43 21.2	19.509			2.028	0.795	0.324	0.856			
55	21 44 08.48	+65 49 24.3	19.495			1.799	0.858	0.285	0.825			
56	21 44 08.66	+65 46 42.8	18.616	3.175:	2.623:	1.911	0.854	0.327	0.837			
57	21 44 09.01	+65 46 08.1	19.123			1.840	0.776	0.280	0.805			
58	21 44 09.29	+65 44 36.8	19.536			1.749	0.828	0.346	0.777			
59	21 44 09.51	+65 49 14.8	18.721	2.899:	2.390	1.739	0.755	0.247	0.811			
60	21 44 09.54	+65 51 25.0	19.391			2.196	0.861	0.335	0.909			
61	21 44 09.61	+65 50 07.7	17.564	3.026	2.422	1.754	0.803	0.284	0.790	f8 V		
62	21 44 09.64	+65 42 05.9	18.593			1.333	0.672	0.214				
63	21 44 09.75	+65 45 59.2	16.391	3.282	2.769	1.936	0.810	0.325	0.794	g8 V		
64	21 44 10.43	+65 51 05.0	19.647			2.544:	0.963	0.567	0.960			
65	21 44 10.46	+65 45 10.2	18.084			2.593	0.986	0.522	1.003	k3 V		
66	21 44 10.67	+65 48 22.8	19.504		1.954:	1.451	0.725	0.243	0.671			
67	21 44 10.87	+65 42 28.0	14.720	2.624	2.099	1.465	0.644	0.226	0.614	f8 V		
68	21 44 10.98	+65 51 14.4	18.900			2.137	0.926	0.333	0.919			
69	21 44 11.09	+65 48 42.3	19.558			1.787	0.837	0.321	0.718			
70	21 44 11.20	+65 47 20.7	18.648			2.076	0.909	0.349	0.846			
71	21 44 11.21	+65 46 21.0	13.667	2.513	1.911	1.225	0.547	0.194	0.485	f2 V		
72	21 44 11.21	+65 45 28.6	19.912			1.877:	0.990	0.407	0.590:			
73	21 44 11.74	+65 45 17.2	17.394	2.896	2.342	1.646	0.753	0.268	0.724	f9 V	m	
74	21 44 11.88	+65 49 39.5	19.078			2.204	0.927	0.393	0.854			
75	21 44 11.93	+65 47 24.6	18.013	3.171	2.627	1.818	0.809	0.293	0.768	g4 V	m	
76	21 44 11.99	+65 51 40.8	20.033			1.591:	0.673	0.231:	0.652:			
77	21 44 12.45	+65 43 42.8	18.783	3.017:	2.400	1.736	0.801	0.271	0.809			
78	21 44 12.53	+65 40 37.0	18.910			2.072	0.745	0.220	1.032			
79	21 44 12.69	+65 47 46.6	19.254		2.313:	1.769	0.848	0.308	0.814			
80	21 44 13.02	+65 44 12.1	14.708	2.599	2.096	1.485	0.648	0.234	0.629	f9 V		
81	21 44 13.09	+65 44 26.9	16.738	2.952	2.265	1.525	0.711	0.256	0.682	f3 IV		
82	21 44 13.13	+65 47 56.7	19.279			1.942	0.857	0.308	0.838			
83	21 44 13.14	+65 46 34.0	18.900			2.305	0.922	0.428	0.959			
84	21 44 13.21	+65 45 01.4	15.782	2.955	2.290	1.639	0.979	0.311	0.586			6
85	21 44 13.68	+65 47 21.0	19.451			1.981	0.953	0.395	0.833			
86	21 44 14.07	+65 45 34.4	19.542			2.501	1.138	0.530	0.952			
87	21 44 14.40	+65 45 27.3	16.148	2.962	2.355	1.661	0.761	0.276	0.710	f8 V	m	
88	21 44 14.49	+65 42 17.0	17.715	2.825	2.280	1.585	0.735	0.250	0.754	f8 V		
89	21 44 14.57	+65 50 51.3	16.570	2.749	2.092	1.464	0.694	0.237	0.669	g0, md:		
90	21 44 14.68	+65 48 28.4	19.463			1.964	0.919	0.325	0.919			
91	21 44 15.07	+65 45 46.2	18.994	2.869:	2.227:	1.623	0.845	0.263	0.782			
92	21 44 15.34	+65 41 52.9	17.977			2.888	1.089	0.612	1.268	k7 V		
93	21 44 15.37	+65 44 49.8	15.138	3.014	2.512	1.730	0.733	0.282	0.699	g6 V		

Continued **Table A.4**

No	RA(2000)	DEC(2000)	V	U-V	P-V	X-V	Y-V	Z-V	V-S	Photom.	Mem	Notes
	h m s	° ′ ″	mag	mag	mag	mag	mag	mag	mag	sp.type		
94	21 44 15.46	+65 46 47.2	19.295			2.261	0.985	0.416	0.879			
95	21 44 15.78	+65 52 10.3	19.007		2.413:	1.749	0.796	0.282	0.734			
96	21 44 15.96	+65 41 38.9	14.501	2.818	2.327	1.607	0.685	0.251	0.665	g3 V		
97	21 44 16.25	+65 49 31.6	19.573			1.811	0.852	0.300	0.823			
98	21 44 16.29	+65 48 52.5	16.422	2.907	2.299	1.621	0.739	0.268	0.686	f7 V	m	
99	21 44 16.72	+65 48 00.0	17.348	2.779	2.190	1.532	0.723	0.255	0.692	f5 V		
100	21 44 16.78	+65 43 40.3	17.533	2.859	2.252	1.559	0.730	0.256	0.725	f5 V		
101	21 44 16.84	+65 47 26.3	19.303			2.263	0.921	0.402	0.966			
102	21 44 16.86	+65 47 53.6	19.025			2.819	1.267	0.613	1.346			
103	21 44 17.19	+65 51 49.4	17.841	2.805	2.116	1.552	0.703	0.232	0.717	f-g		
104	21 44 17.26	+65 40 20.5	19.400		2.033:	1.524	0.602	0.157	0.811			
105	21 44 17.42	+65 51 42.8	19.038			2.729	0.998	0.437	1.168			
106	21 44 17.55	+65 41 17.4	19.351			2.083	0.801	0.333	0.977			
107	21 44 17.62	+65 45 41.7	18.920	2.788:	2.167	1.545	0.722	0.261	0.734			
108	21 44 17.87	+65 45 11.3	16.604	3.783	3.105	2.237	1.007	0.361	0.950	g2 IV		
109	21 44 17.89	+65 50 05.1	18.033		2.773	2.034	0.829	0.352	0.873:	k0 V:	m	6
110	21 44 17.97	+65 42 49.1	19.742			1.526:	0.702	0.227	0.670:			
111	21 44 18.16	+65 45 54.8	19.654			1.706	0.746	0.258	0.860			
112	21 44 18.26	+65 46 56.0	17.505	4.400:	3.651:	2.639	1.134	0.428	1.054	g8 III		
113	21 44 18.33	+65 41 00.3	19.030			1.888	0.758	0.214	0.950			
114	21 44 18.36	+65 41 25.2	17.153	3.541	2.982	2.084	0.894	0.306	0.933	g		
115	21 44 18.36	+65 43 38.7	18.209	3.820:	3.196:	2.193	0.920	0.383	0.930	g9 IV		
116	21 44 18.74	+65 48 18.7	16.652	2.937	2.272	1.592	0.757	0.245	0.684	f5 V	m	4
117	21 44 18.97	+65 47 10.8	15.501	4.145	3.471	2.407	1.023	0.401	0.935	g8 III		
118	21 44 19.32	+65 43 00.4	19.395			1.689	0.922	0.272	0.744			
119	21 44 19.36	+65 49 44.7	19.395			1.578	0.684	0.233	0.755			
120	21 44 19.41	+65 47 24.9	18.041	3.211	2.692	1.872	0.807	0.305	0.811	g6 V	m	
121	21 44 19.51	+65 45 25.9	16.816	3.828	3.137	2.244	1.015	0.363	0.956	g2 IV		
122	21 44 19.68	+65 45 17.6	18.781	3.065:	2.520:	1.812	0.827	0.308	0.809			
123	21 44 19.93	+65 50 45.4	17.932	3.629:	3.102	2.217	0.980	0.350	0.939	g5 IV:		
124	21 44 19.97	+65 43 51.3	20.060			2.005:	0.841	0.350:	0.996:			
125	21 44 20.06	+65 48 04.1	15.686	2.952	2.315	1.639	0.757	0.279	0.694	f6 V	m	
126	21 44 20.09	+65 47 52.5	19.210			2.767	1.077	0.599	1.109			
127	21 44 20.11	+65 48 13.3	18.478	3.420:	2.849:	1.972	0.863	0.325	0.843	g5 IV-V		
128	21 44 20.14	+65 48 46.3	19.572			2.792	1.031	0.615	1.088			
129	21 44 20.20	+65 46 44.2	16.127	2.989	2.356	1.659	0.772	0.276	0.705	f5 V	m	
130	21 44 20.20	+65 41 51.9	17.979	3.166	2.685	1.885	0.807	0.284	0.845	g5 V	m	
131	21 44 20.23	+65 45 43.3	16.525	4.557	3.817	2.681	1.136	0.435	1.057	g9.5 III		
132	21 44 20.23	+65 46 21.7	18.544	2.871:	2.215	1.583	0.778	0.285	0.708			
133	21 44 20.63	+65 46 54.3	18.418	2.745	2.185	1.500	0.746	0.255	0.720	f5:		
134	21 44 20.64	+65 44 59.1	18.555	3.153:	2.419	1.786	0.986	0.331	0.727			6
135	21 44 20.64	+65 44 53.6	19.504			1.626	0.857	0.308	0.683			
136	21 44 20.65	+65 49 10.0	19.232			1.688	0.821	0.290	0.668			
137	21 44 20.92	+65 41 02.9	18.174			2.861	1.070	0.583	1.181	k4 V		
138	21 44 21.03	+65 47 35.2	18.956			1.534	1.349	0.475	1.242			
139	21 44 21.60	+65 48 51.6	19.281			1.638	0.757	0.273	0.820			

Continued **Table A.4**

No	RA(2000)	DEC(2000)	V	U-V	P-V	X-V	Y-V	Z-V	V-S	Photom.	Mem	Notes
	h m s	° ′ ″	mag	mag	mag	mag	mag	mag	mag	sp.type		
140	21 44 21.66	+65 48 30.8	19.648			1.686	0.816	0.309	0.715			
141	21 44 21.67	+65 41 24.3	19.345			1.632	0.710	0.234	0.756			
142	21 44 21.74	+65 50 55.3	16.434	2.931	2.396	1.732	0.762	0.280	0.739	g2 V		
143	21 44 21.81	+65 51 53.7	18.368	2.775	2.198	1.508	0.709	0.239	0.720	f6 V		
144	21 44 21.89	+65 47 47.9	19.088			2.845	1.084	0.525	1.280			
145	21 44 21.93	+65 44 17.0	19.223			1.846	0.845	0.292	0.790			
146	21 44 22.03	+65 51 21.9	17.946	3.142	2.584	1.869	0.837	0.308	0.815	g1 V	m	
147	21 44 22.04	+65 43 04.1	18.355	3.271:	2.795:	1.956	0.863	0.310	0.846	g5 V	m	
148	21 44 22.15	+65 43 44.1	18.705	2.775:	2.279	1.613	0.725	0.253	0.755			
149	21 44 22.15	+65 48 21.9	18.799	2.811:	2.242	1.605	0.766	0.285	0.697			
150	21 44 22.26	+65 42 52.4	17.636	3.125	2.538	1.716	0.788	0.282	0.756	g2 V	m	
151	21 44 22.46	+65 42 14.9	17.034	2.807	2.219	1.513	0.701	0.238	0.706	f5 V		
152	21 44 22.59	+65 50 50.3	18.196	3.689:	3.062:	2.242	1.015	0.360	0.926	g5 V		
153	21 44 22.60	+65 50 12.8	19.610			1.789	0.849	0.263	0.885			
154	21 44 22.65	+65 46 30.7	17.316	3.062	2.445	1.746	0.824	0.289	0.730	f6 V	m	
155	21 44 23.11	+65 43 12.2	18.639	3.010:	2.718:	1.841	0.803	0.271	0.846			
156	21 44 23.27	+65 48 30.0	19.308		2.061:	1.527	0.732	0.262	0.706			
157	21 44 23.37	+65 45 29.4	19.509			2.066	0.943	0.367	0.846			
158	21 44 23.39	+65 51 44.3	19.044		2.376:	1.730	0.769	0.273	0.774			
159	21 44 23.51	+65 42 20.2	19.256			2.314	0.941	0.397	0.913			
160	21 44 23.67	+65 50 21.6	17.935	3.143	2.657	1.869	0.847	0.316	0.795	g3 V	m	
161	21 44 23.69	+65 41 26.6	19.385			2.517	0.927	0.566	1.021			
162	21 44 23.70	+65 49 34.5	19.549			2.279	1.052	0.455	0.875			
163	21 44 23.76	+65 44 37.6	19.975			1.955:	0.889	0.342:	0.930:			
164	21 44 23.99	+65 45 42.5	16.275	3.054	2.442	1.718	0.799	0.292	0.743	f8 IV		
165	21 44 24.01	+65 43 22.5	14.199	2.771	2.149	1.457	0.665	0.237	0.609	f4 V		
166	21 44 24.09	+65 45 52.4	19.092		2.463:	1.863	0.929	0.362	0.759			
167	21 44 24.30	+65 41 45.6	19.551		2.020:	1.433	0.642	0.194	0.663			
168	21 44 24.63	+65 46 13.8	18.765	2.881:	2.426:	1.713	0.818	0.294	0.749			
169	21 44 24.68	+65 40 47.6	19.823			1.689:	0.754	0.251:	0.823:			
170	21 44 24.75	+65 47 57.3	15.978	3.128	2.458	1.735	0.804	0.295	0.748	f7 IV-V		
171	21 44 24.77	+65 47 19.5	19.802			1.908:	0.914	0.350	0.838			
172	21 44 24.85	+65 50 27.1	19.355		2.273:	1.613	0.757	0.275	0.714			
173	21 44 24.87	+65 41 18.8	19.753			1.758:	0.801	0.226	0.858			
174	21 44 24.93	+65 48 49.5	19.642			2.144	0.841	0.336	0.934			
175	21 44 25.08	+65 49 04.8	18.562	2.899:	2.124	1.448	0.708	0.252	0.671			
176	21 44 25.16	+65 49 41.9	17.321	2.905	2.347	1.718	0.798	0.292	0.753	g0 V	m	
177	21 44 25.19	+65 49 24.3	18.454	2.901:	2.353	1.681	0.782	0.285	0.760	f8 V		
178	21 44 25.24	+65 40 29.7	19.460		2.172::	1.623	0.653	0.237	0.743			
179	21 44 25.32	+65 48 18.0	17.676	2.944	2.422	1.756	0.829	0.304	0.756	f8 V		
180	21 44 25.39	+65 50 55.7	19.863			1.735:	0.805	0.280	0.775:			
181	21 44 25.49	+65 48 34.5	17.982	2.919	2.296	1.630	0.770	0.270	0.718	f6 V		
182	21 44 25.74	+65 50 40.7	19.667			1.780:	0.920	0.315	0.782			
183	21 44 25.94	+65 46 19.0	16.378	3.613	3.086	2.093	0.852	0.363	0.828	k0 IV		
184	21 44 26.22	+65 39 52.4	18.913	2.522:	2.154	1.318	0.511	0.075	0.868			
185	21 44 26.35	+65 49 22.8	18.289	2.885	2.351	1.694	0.761	0.292	0.762	g1 V		

Continued **Table A.4**

No	RA(2000)	DEC(2000)	V	U-V	P-V	X-V	Y-V	Z-V	V-S	Photom.	Mem	Notes
	h m s	° ′ ″	mag	mag	mag	mag	mag	mag	mag	sp.type		
186	21 44 26.37	+65 46 36.7	14.646	4.688	3.924	2.785	1.170	0.451	1.062	k0 III		
187	21 44 26.42	+65 46 04.4	18.819	2.854:	2.276	1.685	0.833	0.299	0.754			
188	21 44 26.54	+65 52 10.5	19.132		2.171:	1.606	0.688	0.247	0.803			
189	21 44 26.58	+65 40 03.6	17.865	2.667	2.194	1.496	0.579	0.146	0.852			
190	21 44 26.61	+65 41 17.6	17.685	3.424	2.850	2.004	0.866	0.307	0.871	g5 IV		
191	21 44 26.64	+65 51 47.7	19.284			1.975	0.857	0.339	0.846			
192	21 44 26.69	+65 43 31.1	13.431	2.546	2.018	1.446	0.649	0.230	0.626	f9 V		1
193	21 44 26.85	+65 47 31.8	19.074	2.767:	2.246:	1.662	0.797	0.282	0.796			
194	21 44 26.93	+65 43 52.9	16.376	2.996	2.400	1.708	0.782	0.281	0.737	f8 V	m	
195	21 44 26.97	+65 44 30.5	15.763	2.817	2.195	1.517	0.714	0.256	0.663	f5 V	m	
196	21 44 27.07	+65 51 27.0	17.122	3.084	2.544	1.801	0.797	0.296	0.771	g2 V	m	
197	21 44 27.15	+65 50 10.2	18.884	2.795:	2.175	1.447	0.727	0.258	0.610			
198	21 44 27.40	+65 46 21.4	18.951			2.282	0.922	0.412	0.920			
199	21 44 27.52	+65 48 33.4	18.509			2.229	0.886	0.375	0.935			
200	21 44 27.62	+65 40 29.3	18.072	2.912	2.435	1.709	0.669	0.211	0.886			
201	21 44 27.67	+65 47 50.2	18.493		2.977:	2.090	0.920	0.335	0.900	g3 IV		
202	21 44 27.89	+65 48 27.4	17.464	2.796	2.201	1.487	0.696	0.259	0.658	f5 V		
203	21 44 28.00	+65 42 37.3	18.520	3.238:	2.755:	1.942	0.825	0.310	0.866			
204	21 44 28.03	+65 49 16.6	15.453	3.929	3.229	2.317	1.022	0.376	0.938	g5 III	m	
205	21 44 28.27	+65 47 58.3	18.903			2.210	0.909	0.390	0.946			
206	21 44 28.32	+65 42 14.8	18.607	2.881:	2.468	1.752	0.751	0.269	0.799			
207	21 44 28.37	+65 47 42.2	17.367	3.048	2.467	1.747	0.789	0.301	0.754	g0 V	m	
208	21 44 28.37	+65 49 59.0	18.021	2.921	2.271	1.550	0.717	0.242	0.700	f4 V		
209	21 44 28.43	+65 46 36.6	17.705	3.583	2.683	2.014	1.208	0.569	0.525			6
210	21 44 28.67	+65 45 24.8	19.301			1.835	0.820	0.274	0.810			
211	21 44 28.70	+65 46 26.1	18.553	3.279:	2.940:	2.009	0.865	0.346	0.848			
212	21 44 28.88	+65 45 44.4	19.044		2.699:	1.936	0.895	0.329	0.823			
213	21 44 29.03	+65 46 16.1	16.301	2.996	2.380	1.682	0.766	0.286	0.729	f8 IV-V		
214	21 44 29.07	+65 48 03.8	18.240	2.960	2.340	1.691	0.796	0.285	0.779	f7 V		
215	21 44 29.10	+65 42 06.0	16.274	2.895	2.281	1.594	0.746	0.256	0.705	f6 V	m	
216	21 44 29.22	+65 45 15.9	14.592	3.002	2.464	1.756	0.754	0.294	0.748	g4 V		
217	21 44 29.29	+65 40 52.4	19.677			2.015:	0.877	0.380	0.935			
218	21 44 29.56	+65 50 30.5	16.060	2.977	2.344	1.665	0.766	0.277	0.708	f7 V	m	
219	21 44 29.62	+65 48 43.9	15.295	2.834	2.197	1.516	0.702	0.257	0.637	f5 V	m	6
220	21 44 29.64	+65 42 55.2	17.560	2.852	2.281	1.590	0.737	0.268	0.726	f7 V		
221	21 44 29.69	+65 49 26.4	16.594	2.871	2.256	1.592	0.754	0.277	0.697	f6 V	m	
222	21 44 29.79	+65 47 09.2	17.790	2.892	2.301	1.640	0.756	0.283	0.733	f6 V		
223	21 44 30.40	+65 51 19.8	20.020			1.657:	0.736	0.293:	0.684:			
224	21 44 30.42	+65 43 42.4	17.717	2.938	2.344	1.707	0.801	0.280	0.772	f8 V		
225	21 44 30.54	+65 46 58.5	19.921			1.585:	0.866	0.337:	0.659:			
226	21 44 30.72	+65 46 19.1	19.423			1.724	0.816	0.298	0.825			
227	21 44 30.81	+65 48 16.8	17.648	2.843	2.253	1.648	0.766	0.278	0.755	f5 V:		
228	21 44 31.20	+65 48 55.9	19.462			2.282	0.943	0.462	0.919			
229	21 44 31.27	+65 41 23.0	18.177	3.090	2.641	1.866	0.830	0.302	0.816	g5 V:	m	
230	21 44 31.33	+65 49 26.8	18.789		2.871:	2.025	0.877	0.344	0.877			
231	21 44 31.43	+65 41 45.3	19.441			1.877	0.875	0.329	0.783			

Continued **Table A.4**

No	RA(2000)	DEC(2000)	V	U-V	P-V	X-V	Y-V	Z-V	V-S	Photom.	Mem	Notes
	h m s	° ′ ″	mag	mag	mag	mag	mag	mag	mag	sp.type		
232	21 44 31.89	+65 46 34.0	15.931	3.486	2.843	2.015	0.899	0.338	0.840	g2 V		
233	21 44 32.03	+65 44 37.7	16.960	3.062	2.468	1.809	0.840	0.304	0.816	f9 V	m	
234	21 44 32.23	+65 40 38.3	16.219	3.761	3.209	2.199	0.904	0.337	0.922	g8 III-IV		
235	21 44 32.48	+65 41 05.3	18.997	2.746:	2.238:	1.635	0.733	0.243	0.768			
236	21 44 32.58	+65 51 02.0	18.759	2.855:	2.329	1.732	0.828	0.295	0.736	f7 V		
237	21 44 32.77	+65 46 00.5	19.770			1.663:	0.838	0.387	0.614			
238	21 44 32.80	+65 47 53.4	16.113	2.938	2.307	1.630	0.751	0.282	0.697	f7 V	m	
239	21 44 32.88	+65 45 26.3	14.881	2.742	2.139	1.535	0.714	0.281	0.662	f5 V	m	6
240	21 44 32.96	+65 51 39.9	18.091	3.242:	2.658	1.928	0.843	0.326	0.805	g3 V	m	
241	21 44 33.03	+65 47 27.3	17.470	3.383	2.860	1.986	0.883	0.344	0.822	g6 V		
242	21 44 33.27	+65 50 02.2	15.576	3.104	2.447	1.743	0.803	0.296	0.734	f8 IV		
243	21 44 33.84	+65 47 43.0	14.922	4.182	3.469	2.403	1.014	0.387	0.933	g8.5 III	m	
244	21 44 33.90	+65 42 59.8	16.907	3.179	2.613	1.815	0.829	0.299	0.768	g0 V	m	
245	21 44 34.10	+65 48 53.6	19.223			2.423	1.001	0.449	0.982			
246	21 44 34.31	+65 46 25.5	15.773	3.062	2.480	1.765	0.787	0.295	0.752	g0 V	m	
247	21 44 34.38	+65 45 34.9	17.731	3.386	2.864	1.968	0.875	0.336	0.834	g6 V	m	
248	21 44 34.42	+65 50 10.5	18.177	3.305:	2.738	1.920	0.854	0.325	0.799	g5 V	m	
249	21 44 34.44	+65 48 42.8	15.545	3.091	2.588	1.786	0.737	0.303	0.693	g7 V		
250	21 44 34.49	+65 43 06.5	17.268	2.932	2.376	1.706	0.798	0.280	0.781	f9 V	m	
251	21 44 34.50	+65 40 51.0	17.947	3.496:	2.948	2.030	0.894	0.285	0.926			
252	21 44 34.54	+65 49 48.4	15.867	2.953	2.335	1.665	0.765	0.284	0.718	f7 V	m	
253	21 44 34.63	+65 46 57.3	18.114	3.392:	2.879	2.049	0.872	0.356	0.842	g9 V	m	
254	21 44 34.69	+65 44 01.8	16.149	3.053	2.405	1.710	0.786	0.279	0.736	f7 IV-V		
255	21 44 34.80	+65 49 13.7	19.000	2.827:	2.357:	1.715	0.761	0.271	0.808			
256	21 44 34.93	+65 47 52.8	15.751	3.971	3.277	2.325	0.917	0.468	0.933	k2: V		
257	21 44 35.56	+65 45 49.5	18.204	3.260:	2.784	1.961	0.831	0.320	0.822	g8 V	m	
258	21 44 35.58	+65 51 46.8	17.021	2.789	2.193	1.566	0.750	0.264	0.714	f8 V	m	
259	21 44 35.59	+65 41 24.2	19.222			2.021	0.854	0.311	0.916			
260	21 44 35.67	+65 40 41.8	19.699			2.096:	0.946	0.400	0.966			
261	21 44 35.72	+65 45 04.7	17.348	3.343	2.735	1.964	0.892	0.352	0.873	g2 V	m	6
262	21 44 35.85	+65 49 40.6	16.436	3.004	2.385	1.689	0.773	0.288	0.712	f8 IV-V		
263	21 44 35.98	+65 42 05.1	17.851			2.835	1.189	0.487	1.093	k1 III		
264	21 44 35.99	+65 46 53.9	16.478	2.952	2.333	1.635	0.750	0.269	0.710	f7 IV-V		
265	21 44 35.99	+65 42 33.8	17.402	2.951	2.395	1.750	0.813	0.290	0.777	f0 V		
266	21 44 36.20	+65 49 24.1	16.051	2.970	2.342	1.650	0.778	0.261	0.700	f6 V	m	4
267	21 44 36.37	+65 50 10.5	18.159	3.190:	2.727	1.967	0.840	0.342	0.819	g7 V	m	
268	21 44 36.38	+65 45 17.9	17.567	3.097	2.485	1.807	0.817	0.302	0.762	g0 V	m	
269	21 44 36.66	+65 44 31.7	19.024			2.335	1.012	0.457	0.893			
270	21 44 36.70	+65 43 19.1	13.530	4.071	3.372	2.387	1.042	0.381	0.960	g5 III		1
271	21 44 36.78	+65 50 36.2	17.043	4.439:	3.776	2.735	1.057	0.601	1.080	k-m V		
272	21 44 36.85	+65 45 42.0	19.401			1.511	0.733	0.264	0.695			
273	21 44 36.98	+65 51 27.4	19.314			1.772	0.769	0.319	0.794			
274	21 44 36.99	+65 46 50.5	15.783	3.406	2.779	1.971	0.878	0.333	0.836	g5 V		
275	21 44 37.00	+65 41 54.5	19.667			2.273	1.023	0.445	0.961			
276	21 44 37.11	+65 49 01.8	16.476	2.900	2.282	1.624	0.734	0.273	0.664	f7 V	m	4
277	21 44 37.13	+65 47 01.6	18.316	3.550:	3.170:	2.136	0.908	0.360	0.902	k0 V:	m	

Continued **Table A.4**

No	RA(2000)	DEC(2000)	V	U-V	P-V	X-V	Y-V	Z-V	V-S	Photom.	Mem	Notes
	h m s	° ′ ″	mag	mag	mag	mag	mag	mag	mag	sp.type		
278	21 44 37.17	+65 51 54.7	18.796	3.253:	2.830:	1.996	0.875	0.346	0.812			
279	21 44 37.29	+65 48 03.6	19.307			1.924	0.846	0.338	0.814			
280	21 44 37.36	+65 42 55.1	18.231	3.550:	3.037:	2.173	0.976	0.373	0.894	g6 V		
281	21 44 37.44	+65 50 01.5	19.557			2.018	0.952	0.383	0.805			
282	21 44 37.47	+65 42 43.1	18.759			2.059	0.954	0.347	0.932			
283	21 44 37.52	+65 47 41.2	15.878	2.926	2.280	1.611	0.748	0.275	0.682	f6 V	m	
284	21 44 37.53	+65 48 34.7	18.573	2.905:	2.288	1.615	0.780	0.283	0.690			
285	21 44 37.86	+65 43 44.5	19.647			1.666:	0.829	0.231	0.783			
286	21 44 38.03	+65 45 38.0	15.957	2.935	2.304	1.619	0.755	0.273	0.700	f5 V	m	
287	21 44 38.07	+65 47 07.5	19.550			2.703	1.108	0.629	1.134			
288	21 44 38.30	+65 52 14.6	18.261			2.863	1.077	0.620	1.186	k5 V		
289	21 44 38.36	+65 44 16.4	18.884			1.953	0.860	0.350	0.848			
290	21 44 38.55	+65 49 18.8	19.214			2.006	0.876	0.373	0.805			
291	21 44 38.56	+65 50 12.7	18.329	3.035:	2.390	1.752	0.841	0.298	0.750	f7 V		
292	21 44 38.60	+65 50 31.2	19.112			1.612	0.838	0.221	0.756			
293	21 44 38.85	+65 41 56.1	17.698	3.297	2.651	1.918	0.914	0.322	0.872	f8 V		
294	21 44 38.85	+65 42 47.2	18.435	2.946:	2.407	1.740	0.823	0.303	0.764	f8 V		
295	21 44 38.86	+65 50 20.2	16.745	2.914	2.248	1.543	0.743	0.272	0.682	f4 V	m	
296	21 44 39.07	+65 41 37.5	19.109			1.849	0.883	0.321	0.818			
297	21 44 39.26	+65 48 51.5	19.753			2.028:	0.926	0.393	0.808			
298	21 44 39.53	+65 45 48.7	17.100	3.178	2.573	1.819	0.818	0.300	0.774	g1 V	m	
299	21 44 39.59	+65 51 16.1	19.684			1.708:	0.875	0.331	0.722			
300	21 44 39.78	+65 41 00.7	19.253			1.698	0.761	0.259	0.774			
301	21 44 39.84	+65 42 14.4	18.056	3.190	2.590	1.861	0.862	0.299	0.856	g0 V		
302	21 44 40.27	+65 40 06.7	19.466			1.702	0.829	0.256	0.807			
303	21 44 40.28	+65 52 00.0	19.757			1.780:	0.885	0.303	0.788			
304	21 44 40.31	+65 42 35.4	19.867			1.509:	0.731	0.210	0.849			
305	21 44 40.44	+65 50 12.6	16.393	3.029	2.407	1.718	0.813	0.302	0.733	f7 V	m	
306	21 44 40.67	+65 47 24.3	17.342	2.963	2.400	1.695	0.756	0.280	0.728	f9 V	m	
307	21 44 40.85	+65 47 32.5	18.324	2.788	2.209	1.561	0.705	0.261	0.704	f7 V		
308	21 44 40.93	+65 42 25.3	19.064			1.794	0.883	0.327	0.830			
309	21 44 40.98	+65 51 30.8	19.236			1.556	0.735	0.264	0.712			
310	21 44 41.10	+65 46 06.8	16.444	2.993	2.384	1.696	0.772	0.284	0.732	f8 V	m	
311	21 44 41.11	+65 41 07.6	19.279			2.107	0.900	0.347	0.954			
312	21 44 41.25	+65 51 44.3	18.395			2.771	1.023	0.573	1.070	k5 V		
313	21 44 41.34	+65 41 23.7	18.387	3.434:	2.887:	2.058	0.905	0.350	0.907	g7 V	m	
314	21 44 41.64	+65 47 49.7	14.212	3.879	3.088	2.169	0.950	0.340	0.887	g0 Ib-II		
315	21 44 41.64	+65 48 57.0	17.123	3.023	2.413	1.729	0.788	0.296	0.755	f8 V	m	
316	21 44 41.66	+65 45 29.6	19.586			1.932	1.156	0.417	0.903			
317	21 44 41.68	+65 44 58.6	17.882	3.274	2.788	1.971	0.865	0.336	0.833	g6 V	m	
318	21 44 42.01	+65 44 12.4	19.174		2.340:	1.823	0.835	0.362	0.763			
319	21 44 42.06	+65 41 07.5	16.731	3.246	2.776	1.936	0.806	0.313	0.798	g8 V		
320	21 44 42.21	+65 48 43.1	19.676		2.164:	1.578	0.737	0.256	0.830			
321	21 44 42.46	+65 42 04.4	18.953		2.584:	1.900	0.855	0.299	0.872			
322	21 44 42.47	+65 40 41.2	18.479	3.128:	2.533	1.830	0.791	0.280	0.815	g3 IV-V		
323	21 44 42.53	+65 48 08.0	19.481			1.723	0.800	0.311	0.838			

Continued **Table A.4**

No	RA(2000)	DEC(2000)	V	U-V	P-V	X-V	Y-V	Z-V	V-S	Photom.	Mem	Notes
	h m s	° ′ ″	mag	mag	mag	mag	mag	mag	mag	sp.type		
324	21 44 42.67	+65 41 38.9	18.345	2.959	2.340	1.639	0.794	0.285	0.755	f5 V		
325	21 44 42.67	+65 44 24.0	18.625		2.876:	2.117	0.952	0.368	0.841			
326	21 44 42.71	+65 42 51.7	17.426	3.063	2.488	1.780	0.820	0.291	0.764	g0 V	m	
327	21 44 42.71	+65 45 53.1	19.321			1.955	0.899	0.336	0.831			
328	21 44 43.20	+65 43 05.2	18.695	3.203:	2.580:	1.962	0.878	0.329	0.870			
329	21 44 43.28	+65 42 28.4	17.533	2.932	2.334	1.694	0.803	0.299	0.780	f7 V		
330	21 44 43.32	+65 44 46.0	17.318	3.292	2.713	1.913	0.851	0.322	0.824	g4 V	m	
331	21 44 43.32	+65 45 04.3	18.815	3.169:	2.583:	1.832	0.842	0.288	0.812			
332	21 44 43.49	+65 48 32.9	15.764	2.971	2.334	1.656	0.761	0.285	0.697	f8 V	m	
333	21 44 43.50	+65 42 39.1	17.748	3.107	2.451	1.749	0.805	0.298	0.767	f8 V		
334	21 44 43.52	+65 50 28.0	18.603			2.303	0.973	0.418	0.958			
335	21 44 43.63	+65 47 31.6	18.103	3.631:	3.188:	2.187	0.943	0.380	0.876	k0 V		
336	21 44 43.66	+65 45 22.0	16.081	3.702	3.139	2.182	0.929	0.367	0.897	g8.5 IV	m	
337	21 44 43.70	+65 47 20.2	14.884	2.815	2.110	1.253	0.546	0.209	0.472	a7 V	m	
338	21 44 43.83	+65 46 42.5	14.108	4.519	3.786	2.619	1.064	0.431	0.966	k0.5 III	m	2
339	21 44 43.92	+65 44 04.4	19.731			1.854:	0.787	0.303	0.858			
340	21 44 44.14	+65 51 22.3	16.859	3.088	2.494	1.772	0.805	0.297	0.739	g0 V	m	
341	21 44 44.20	+65 46 23.7	16.636	2.876	2.272	1.605	0.743	0.276	0.694	f7 V	m	
342	21 44 44.23	+65 52 04.8	19.030		2.286:	1.672	0.808	0.283	0.723			
343	21 44 44.49	+65 48 37.3	19.127	2.853:	2.100:	1.601	0.803	0.298	0.707			
344	21 44 44.51	+65 49 51.0	17.822	3.674:	3.125	2.227	0.991	0.381	0.923	g8 IV-V		
345	21 44 44.77	+65 44 48.1	17.125	2.935	2.324	1.650	0.765	0.270	0.709	f7 V	m	
346	21 44 44.82	+65 50 56.8	19.571			1.599	0.816	0.303	0.753			
347	21 44 44.89	+65 40 37.1	18.800			2.751	1.025	0.557	1.040			
348	21 44 44.99	+65 49 14.4	12.798	5.292	4.460	3.136	1.241	0.522	1.091	k2.5 III	m	2
349	21 44 45.13	+65 40 46.4	18.933	2.888:	2.296:	1.609	0.799	0.268	0.774			
350	21 44 45.19	+65 45 40.2	17.315	3.238	2.686	1.901	0.840	0.334	0.784	g5 V		
351	21 44 45.40	+65 50 00.7	16.911	2.979	2.350	1.666	0.781	0.286	0.702	f6 V	m	
352	21 44 45.47	+65 51 38.2	19.638			2.612	1.084	0.572	1.066			
353	21 44 45.49	+65 47 11.2	17.054	2.804	2.209	1.562	0.730	0.268	0.673	f6 V		
354	21 44 45.72	+65 50 33.6	16.951	3.017	2.475	1.741	0.799	0.306	0.750	g0 V	m	
355	21 44 45.98	+65 47 22.1	16.275	2.829	2.223	1.557	0.714	0.263	0.660	f7 V	m	
356	21 44 46.40	+65 40 52.3	19.020	2.833:	2.136:	1.526	0.679	0.235	0.703			
357	21 44 46.44	+65 44 48.0	19.660			1.654	0.753	0.273	0.822			
358	21 44 46.47	+65 50 03.6	19.201			1.641	0.826	0.263	0.763			
359	21 44 46.53	+65 41 57.6	18.632	3.107:	2.596:	1.946	0.880	0.326	0.819			
360	21 44 46.72	+65 46 34.6	15.406	3.015	2.373	1.683	0.766	0.281	0.718	f8 IV		
361	21 44 46.85	+65 50 17.0	19.396			2.192	0.925	0.350	0.968			
362	21 44 46.94	+65 41 45.3	17.805	3.075	2.556	1.836	0.852	0.312	0.872	g1 V	m	
363	21 44 46.94	+65 49 26.7	19.944			1.838:	0.807	0.306:	0.818:			
364	21 44 46.95	+65 44 16.9	20.087			1.694:	0.792	0.294:	0.724:			
365	21 44 47.03	+65 46 54.7	18.457	3.353:	2.878:	1.987	0.858	0.346	0.822	g8 V	m	
366	21 44 47.08	+65 43 09.7	19.761			1.747:	0.880	0.266	0.898			
367	21 44 47.21	+65 45 02.7	17.072	3.126	2.552	1.818	0.839	0.311	0.763	g1 V	m	
368	21 44 47.21	+65 42 21.4	19.645			1.779:	0.920	0.339	0.760			
369	21 44 47.25	+65 41 00.4	17.650	3.807:	3.236	2.262	0.981	0.355	0.957	g8 III-IV		

Continued **Table A.4**

No	RA(2000)	DEC(2000)	V	U-V	P-V	X-V	Y-V	Z-V	V-S	Photom.	Mem	Notes
	h m s	° ′ ″	mag	mag	mag	mag	mag	mag	mag	sp.type		
370	21 44 47.36	+65 49 19.0	17.850	2.970	2.310	1.638	0.787	0.289	0.696	f6 V		
371	21 44 47.75	+65 50 21.5	19.168			1.963	0.857	0.320	0.832			
372	21 44 48.28	+65 49 50.0	17.008	3.155	2.604	1.844	0.819	0.320	0.755	g3 V		
373	21 44 48.32	+65 47 14.9	17.404	2.931	2.421	1.703	0.755	0.288	0.719	g2 V	m	
374	21 44 48.43	+65 45 15.3	17.443	2.867	2.280	1.590	0.743	0.271	0.691	f6 V		
375	21 44 48.50	+65 40 23.6	19.005			1.979	0.836	0.300	0.882			
376	21 44 48.54	+65 48 44.7	16.909	2.940	2.323	1.648	0.755	0.278	0.699	f7 V	m	
377	21 44 48.56	+65 45 50.5	18.593	2.667	2.201	1.534	0.713	0.274	0.698			
378	21 44 48.60	+65 44 35.9	16.967	3.060	2.476	1.769	0.803	0.294	0.758	g0 V	m	
379	21 44 48.98	+65 51 21.9	17.973	3.221	2.662	1.903	0.851	0.314	0.771	g2 V	m	
380	21 44 49.04	+65 41 16.4	19.127			1.617	0.778	0.284	0.739			
381	21 44 49.09	+65 46 39.9	16.094	3.247	2.652	1.875	0.835	0.316	0.793	g3 V		
382	21 44 49.29	+65 49 04.9	18.883	2.885:	2.387:	1.707	0.825	0.266	0.756			
383	21 44 49.36	+65 42 46.1	19.643			1.863	0.828	0.295	0.856			
384	21 44 49.55	+65 51 57.2	18.247	3.142:	2.600	1.881	0.852	0.310	0.825	g1 V		
385	21 44 49.64	+65 49 42.8	15.861	3.631	3.100	2.118	0.833	0.394	0.784	k1.5 V		4
386	21 44 49.68	+65 40 42.9	19.163		1.840	1.424	0.736	0.198	0.771			
387	21 44 49.81	+65 43 55.0	19.741			2.392:	0.997	0.439	0.981			
388	21 44 49.84	+65 47 27.6	17.918	2.764	2.247	1.575	0.749	0.277	0.668	f7 V		
389	21 44 50.05	+65 49 48.6	16.582	2.912	2.192	1.356	0.643	0.246	0.542	a8 V		
390	21 44 50.05	+65 51 01.9	19.681			1.857:	0.943	0.327	0.692			
391	21 44 50.17	+65 40 39.1	17.515	2.845:	2.270	1.603	0.742	0.255	0.741	f8 V		
392	21 44 50.40	+65 44 00.3	18.955	2.873:	2.299	1.640	0.747	0.260	0.814			
393	21 44 50.40	+65 45 24.7	19.561			1.868	0.823	0.298	0.874			
394	21 44 50.41	+65 40 00.4	18.115	3.628:	3.374:	2.174	0.819	0.353	0.971	k1		
395	21 44 50.46	+65 50 20.6	17.087	2.990	2.251	1.380	0.630	0.236	0.556	a7 V		
396	21 44 50.47	+65 49 01.1	15.369	2.741	2.140	1.499	0.701	0.258	0.625	f5 V	m	
397	21 44 51.07	+65 40 30.4	19.576			1.936	0.702	0.283	0.948			
398	21 44 51.10	+65 48 39.1	18.550			2.696	1.071	0.603	1.127			
399	21 44 51.24	+65 50 36.4	18.675		2.779:	2.029	0.886	0.345	0.856			
400	21 44 51.39	+65 42 49.1	19.277			2.605	1.098	0.557	1.015			
401	21 44 51.70	+65 47 14.6	16.067	2.849	2.237	1.565	0.716	0.262	0.661	f6 V	m	
402	21 44 51.88	+65 41 21.6	19.100			2.027	0.912	0.350	0.830			
403	21 44 51.96	+65 45 53.3	17.047	2.954	2.384	1.672	0.783	0.289	0.710	f8 V	m	
404	21 44 52.06	+65 45 30.7	18.138			2.577	0.895	0.275	1.049	k2.5 V		
405	21 44 52.14	+65 40 20.8	17.701	2.973	2.437	1.708	0.751	0.257	0.779	g1 V		
406	21 44 52.15	+65 43 45.8	18.782	2.648:	2.027	1.463	0.745	0.255	0.725			
407	21 44 52.19	+65 43 37.3	18.277	3.339:	2.884	2.013	0.862	0.340	0.861	g8 V	m	
408	21 44 52.26	+65 49 50.6	19.606			1.552	0.808	0.278	0.693			
409	21 44 52.27	+65 45 02.5	17.269	3.217	2.666	1.868	0.809	0.329	0.781	g6 V		
410	21 44 52.38	+65 40 36.9	19.670			1.517	0.753	0.217	0.780			
411	21 44 52.48	+65 46 18.7	14.467	2.559	1.751	0.887	0.427	0.140	0.342	a1 IV		
412	21 44 52.52	+65 42 28.3	19.765			1.788:	0.758	0.302	0.818			
413	21 44 52.64	+65 42 12.4	19.117	2.882:	2.216:	1.585	0.811	0.289	0.718			
414	21 44 52.67	+65 51 55.6	19.374			1.827	0.832	0.347	0.751			
415	21 44 52.96	+65 52 13.1	19.866			1.752:	0.843	0.308	0.753:			

Continued **Table A.4**

No	RA(2000)	DEC(2000)	V	U-V	P-V	X-V	Y-V	Z-V	V-S	Photom.	Mem	Notes
	h m s	° ′ ″	mag	mag	mag	mag	mag	mag	mag	sp.type		
416	21 44 53.02	+65 48 58.0	19.155			3.123	1.229	0.728	1.227			
417	21 44 53.03	+65 40 56.2	19.305			1.885	0.836	0.307	0.842			
418	21 44 53.04	+65 44 50.2	15.206	2.788	2.107	1.374	0.635	0.230	0.591	f2 IV-V	m	
419	21 44 53.04	+65 50 16.3	16.049			1.658	0.765	0.260		f8 V:		
420	21 44 53.14	+65 42 45.8	18.005	3.562:	2.937	2.145	0.967	0.373	0.897	g4 V:		
421	21 44 53.40	+65 45 29.3	16.577	4.265	3.570	2.498	1.058	0.410	0.978	g8.5 III		
422	21 44 53.42	+65 43 02.5	18.070	2.787	2.242	1.605	0.735	0.256	0.743	f9 V		
423	21 44 53.45	+65 47 00.3	15.754	2.777	2.186	1.590	0.733	0.268	0.704	f-g		
424	21 44 53.51	+65 49 47.4	19.343			1.746	0.809	0.294	0.808			
425	21 44 53.61	+65 43 39.7	17.124	3.424	2.810	1.982	0.860	0.335	0.827	g3 IV-V		
426	21 44 53.74	+65 47 25.6	19.571			2.389:	0.974	0.519	0.887			
427	21 44 53.78	+65 47 52.4	18.129	3.459:	2.896	1.996	0.835	0.332	0.825	g8 IV		
428	21 44 53.86	+65 40 03.3	19.459			2.580	0.994	0.464	1.057			
429	21 44 53.91	+65 46 45.9	18.965			2.582	1.017	0.532	1.082			
430	21 44 54.05	+65 45 39.6	18.372	3.274:	2.858	1.923	0.819	0.311	0.859	g9 V	m	
431	21 44 54.15	+65 46 23.3	17.043	3.144	2.595	1.805	0.816	0.309	0.770	g2 V	m	
432	21 44 54.20	+65 48 02.4	15.729	3.274	2.704	1.898	0.812	0.333	0.786	g7 V		
433	21 44 54.29	+65 46 40.4	17.103	2.856	2.250	1.609	0.759	0.279	0.694	f6 V	m	
434	21 44 54.29	+65 51 54.7	18.716		3.055:	2.273	0.941	0.407	0.975			
435	21 44 54.42	+65 47 03.9	19.018			2.235	1.018	0.457	0.860			
436	21 44 54.45	+65 47 43.0	18.650	2.851:	2.128	1.537	0.723	0.269	0.719			
437	21 44 54.80	+65 50 42.8	18.065	3.069	2.519	1.826	0.846	0.326	0.738	g0 V		
438	21 44 55.00	+65 47 32.1	19.727			2.523:	0.971	0.525	1.056			
439	21 44 55.06	+65 46 17.3	18.286	2.866	2.263	1.590	0.735	0.261	0.700	f6 V		
440	21 44 55.13	+65 50 07.2	17.526	3.102	2.539	1.783	0.819	0.300	0.740	g1 V	m	
441	21 44 55.25	+65 47 20.3	17.124	2.903	2.333	1.653	0.762	0.282	0.693	f9 V	m	
442	21 44 55.42	+65 42 35.3	12.897	2.562	1.845	0.930	0.423	0.135	0.377	a4 V		4
443	21 44 55.50	+65 51 20.6	15.748	3.039	2.398	1.700	0.799	0.293	0.691	f6 V	m	
444	21 44 55..51	+65 50 12.7	18.339	2.833:	2.245	1.564	0.757	0.256	0.713	f5 V		
445	21 44 55.98	+65 45 49.9	15.675	5.772:	4.956	3.498	1.433	0.556	1.309	k3		6
446	21 44 55.98	+65 49 04.9	19.185			2.804	1.081	0.644	1.157			
447	21 44 56.35	+65 40 54.6	19.138		2.440:	1.702	0.842	0.280	0.814			
448	21 44 56.35	+65 46 17.4	19.415			1.615	0.691	0.244	0.794			
449	21 44 56.37	+65 47 46.8	16.025	2.844	2.206	1.560	0.729	0.266	0.675	f5 V	m	
450	21 44 56.46	+65 45 42.9	17.565	3.041	2.392	1.751	0.785	0.308	0.740	f8 V		
451	21 44 56.53	+65 42 19.5	17.928	2.830	2.263	1.630	0.766	0.275	0.753	f9 V		4
452	21 44 56.56	+65 40 34.7	18.675		2.682:	1.868	0.797	0.286	0.832			
453	21 44 56.70	+65 51 53.1	16.000	3.006	2.375	1.687	0.785	0.290	0.699	f7 V	m	
454	21 44 56.91	+65 44 13.2	15.454	2.914	2.238	1.554	0.726	0.261	0.674	f5 IV		
455	21 44 56.91	+65 41 04.6	17.088	2.954	2.376	1.664	0.763	0.259	0.755	f8 V	m	
456	21 44 57.01	+65 51 15.9	18.027	3.203	2.658	1.889	0.835	0.318	0.792	g5 V	m	
457	21 44 57.01	+65 44 39.2	18.808	2.951:	2.445:	1.756	0.819	0.321	0.743			
458	21 44 57.22	+65 46 35.0	16.135	2.914	2.294	1.592	0.742	0.276	0.682	f5 V	m	
459	21 44 57.27	+65 41 31.1	19.015			2.348	0.980	0.421	0.964			
460	21 44 57.52	+65 50 21.5	15.823	2.929	2.295	1.618	0.752	0.279	0.675	f6 V	m	
461	21 44 57.60	+65 48 36.8	13.724	4.089	3.392	2.370	0.991	0.374	0.899	g8 III	m	3

Continued **Table A.4**

No	RA(2000)	DEC(2000)	V	U-V	P-V	X-V	Y-V	Z-V	V-S	Photom.	Mem	Notes
	h m s	° ′ ″	mag	mag	mag	mag	mag	mag	mag	sp.type		
462	21 44 57.62	+65 51 45.5	18.632		2.936:	2.110	0.968	0.372	0.861			
463	21 44 57.66	+65 39 47.9	19.483			1.607	0.624	0.167	0.836			
464	21 44 57.83	+65 45 47.5	15.880	2.959	2.339	1.634	0.753	0.273	0.717	f7 V	m	
465	21 44 57.86	+65 52 08.2	17.446	3.397	2.900	2.017	0.831	0.355	0.801	k0 V		
466	21 44 57.87	+65 43 51.3	19.841			2.451:	0.986	0.467	0.980			
467	21 44 57.88	+65 48 25.1	13.459	2.407	1.860	1.288	0.570	0.206	0.536	f6 V		1
468	21 44 58.02	+65 42 58.4	18.809	2.959:	2.404	1.785	0.817	0.309	0.749			
469	21 44 58.05	+65 44 28.7	18.828	2.768:	2.099	1.565	0.722	0.252	0.747			
470	21 44 58.48	+65 41 14.2	18.116	2.742	2.212	1.536	0.736	0.260	0.709	f6 V		
471	21 44 58.60	+65 44 23.6	16.909	2.917	2.347	1.650	0.747	0.281	0.709	f8 V	m	
472	21 44 58.75	+65 42 40.6	18.117	2.987	2.430	1.790	0.822	0.290	0.801	g0 V		
473	21 44 58.79	+65 44 59.2	18.739	2.986:	2.432:	1.783	0.807	0.303	0.770			
474	21 44 58.85	+65 50 53.3	19.617			2.808	1.287	0.706	1.097			
475	21 44 58.91	+65 49 06.7	16.732	2.980	2.388	1.703	0.789	0.291	0.711	f8 V	m	
476	21 44 58.92	+65 52 18.1	15.493	3.172	2.541	1.812	0.824	0.304	0.735	f9 IV-V	m	
477	21 44 58.93	+65 47 44.7	19.145	2.796:	2.299:	1.745	0.821	0.314	0.754			
478	21 44 59.49	+65 40 14.9	18.346	2.791	2.309	1.577	0.716	0.233	0.772	f9 V		
479	21 44 59.55	+65 39 52.2	19.672			1.401:	0.650	0.131:	0.790:			
480	21 44 59.60	+65 40 27.4	19.737			2.385:	0.840	0.364:	0.932:			
481	21 44 59.70	+65 43 11.0	15.401	2.653	2.073	1.467	0.684	0.247	0.640	f6 V	m	
482	21 44 59.70	+65 49 13.4	19.274			1.621	0.730	0.284	0.721			
483	21 44 59.76	+65 46 47.3	17.199	2.943	2.317	1.646	0.798	0.285	0.755	f6 V	m	
484	21 44 59.81	+65 45 15.4	16.373	2.851	2.255	1.592	0.734	0.277	0.705	f6 V	m	
485	21 44 59.83	+65 51 36.2	19.261			2.315	1.015	0.413	0.859			
486	21 45 00.02	+65 51 27.2	17.456	2.940	2.269	1.665	0.807	0.291	0.720	f-g		
487	21 45 00.31	+65 47 08.9	18.901			2.702	1.030	0.586	1.039			
488	21 45 00.52	+65 41 22.3	19.511			1.939	0.813	0.325	0.770			
489	21 45 00.58	+65 47 46.6	16.259	2.718	2.086	1.429	0.684	0.243	0.628	f5 V	m	
490	21 45 00.59	+65 46 32.7	18.567			2.208	1.002	0.380	0.912			
491	21 45 00.62	+65 50 22.4	18.450			3.009	1.188	0.616	1.293	k-m V		
492	21 45 00.63	+65 40 35.2	17.648	3.832:	3.394	2.357	0.886	0.477	0.931	k3.5 V		
493	21 45 00.72	+65 45 56.6	13.497	4.279	3.573	2.476	1.026	0.386	0.942	g9 III	m	1,3
494	21 45 00.85	+65 52 02.4	19.552			1.972	0.915	0.344	0.756			
495	21 45 01.01	+65 42 13.5	18.901			2.255	0.937	0.400	0.975			
496	21 45 01.08	+65 50 07.9	16.298	2.695	2.149	1.549	0.725	0.277	0.637	f7 V	m	
497	21 45 01.14	+65 46 45.5	16.740	2.904	2.316	1.631	0.765	0.284	0.706	f7 V	m	
498	21 45 01.31	+65 44 10.0	15.871	2.921	2.283	1.608	0.740	0.268	0.686	f5 V	m	
499	21 45 01.37	+65 46 14.0	19.936			1.751:	0.840	0.265:	0.859:			
500	21 45 01.41	+65 40 16.0	19.989			1.518:	0.680	0.220:	0.726:			
501	21 45 01.62	+65 44 00.1	16.948	3.010	2.463	1.711	0.783	0.269	0.747	g0 V	m	
502	21 45 01.80	+65 49 46.7	16.075	2.711	2.117	1.471	0.710	0.245	0.645	f5 V	m	
503	21 45 01.82	+65 51 01.8	17.565	3.009	2.489	1.778	0.798	0.311	0.721	g2 V	m	
504	21 45 01.96	+65 42 42.1	18.189	2.855	2.224	1.524	0.756	0.227	0.745	f		
505	21 45 02.11	+65 46 00.8	18.653			1.878	0.828	0.330	0.753			
506	21 45 02.17	+65 44 35.9	16.938	3.194	2.629	1.849	0.819	0.311	0.777	g4 V		
507	21 45 02.35	+65 49 57.0	18.838	2.956:	2.544:	1.739	0.804	0.298	0.743			

Continued **Table A.4**

No	RA(2000)	DEC(2000)	V	U-V	P-V	X-V	Y-V	Z-V	V-S	Photom.	Mem	Notes
	h m s	° ′ ″	mag	mag	mag	mag	mag	mag	mag	sp.type		
508	21 45 02.49	+65 40 30.8	17.373	3.253	2.819	1.916	0.804	0.308	0.833	g8 V:		
509	21 45 02.52	+65 45 24.7	16.064	2.939	2.360	1.669	0.761	0.286	0.740	f8 V	m	
510	21 45 02.56	+65 45 39.9	12.160	5.739	4.865	3.447	1.328	0.573	1.231	k5: III		2
511	21 45 02.75	+65 51 19.1	19.938			1.746:	0.618	0.281:	0.797:			
512	21 45 02.79	+65 50 34.3	17.747	3.884:	3.303	2.293	0.902	0.451	0.881	k2.5 V		
513	21 45 02.85	+65 42 34.7	18.027	2.848	2.255	1.599	0.759	0.247	0.758	f6 V		
514	21 45 02.99	+65 49 11.3	19.938			1.471:	0.651	0.256:	0.686:			
515	21 45 03.08	+65 43 15.9	17.934	2.983	2.433	1.765	0.775	0.295	0.733	g1 V		
516	21 45 03.14	+65 43 58.1	15.802	3.296	2.770	1.885	0.775	0.317	0.747	g8 IV		
517	21 45 03.33	+65 51 57.6	17.861	3.445:	2.898	2.053	0.892	0.364	0.841	g8 V		
518	21 45 03.37	+65 47 53.4	16.525	3.499	2.979	2.044	0.832	0.411	0.811	k1 V		
519	21 45 03.45	+65 45 19.2	16.992	3.190	2.599	1.847	0.844	0.345	0.766	g1 V	m	
520	21 45 03.48	+65 44 29.4	17.023	2.928	2.259	1.635	0.752	0.279	0.692	f5 V:		
521	21 45 03.51	+65 51 06.7	17.076	3.767	3.134	2.226	0.991	0.363	0.909	g5 III-IV		
522	21 45 03.53	+65 46 34.6	16.011	2.914	2.288	1.598	0.761	0.274	0.692	f5 V	m	
523	21 45 03.53	+65 43 31.9	16.750	2.773	2.166	1.568	0.753	0.276	0.702	f8, md:		
524	21 45 03.55	+65 48 17.0	18.943			2.096	0.899	0.364	0.896			
525	21 45 03.64	+65 41 00.3	15.952	2.879	2.281	1.585	0.727	0.257	0.695	f7 V	m	
526	21 45 03.65	+65 48 26.1	17.838	3.028	2.362	1.746	0.806	0.288	0.753	g, md:		
527	21 45 03.83	+65 48 59.8	16.517	2.959	2.359	1.684	0.783	0.285	0.712	f8 V	m	
528	21 45 03.84	+65 46 17.2	16.047	2.915	2.301	1.597	0.737	0.275	0.694	f6 V	m	
529	21 45 04.01	+65 45 08.4	13.617	2.622	2.140	1.507	0.641	0.245	0.619	g1 V		
530	21 45 04.04	+65 50 31.8	18.042	2.776	2.285	1.624	0.771	0.287	0.705	f8:		
531	21 45 04.22	+65 46 00.6	16.066	3.167	2.701	1.863	0.771	0.348	0.755	g9 V		
532	21 45 04.40	+65 48 43.5	18.867			2.555	1.011	0.483	1.023			
533	21 45 04.42	+65 48 09.3	19.992			1.624:	0.730	0.297:	0.720:			
534	21 45 04.53	+65 51 36.3	16.552	2.813	2.199	1.509	0.712	0.262	0.624	f4 V	m	
535	21 45 04.63	+65 48 48.6	19.772			3.132:	0.922	0.538:	1.080			
536	21 45 04.83	+65 48 25.7	15.434	2.920	2.292	1.618	0.749	0.274	0.683	f6 V	m	
537	21 45 05.01	+65 44 45.4	13.607	2.568	2.033	1.402	0.607	0.222	0.569	f7 V		1
538	21 45 05.15	+65 50 25.3	16.388	2.878	2.265	1.598	0.738	0.277	0.649	f7 V	m	4
539	21 45 05.38	+65 43 39.9	17.833	3.376	2.818	1.982	0.892	0.366	0.810	g6 V	m	
540	21 45 05.39	+65 43 14.7	18.521	3.000:	2.465	1.850	0.860	0.329	0.798			
541	21 45 05.44	+65 49 25.4	16.762	3.119	2.526	1.796	0.819	0.311	0.740	g0 V	m	
542	21 45 05.45	+65 47 20.7	19.377			1.537	0.677	0.256	0.753			
543	21 45 05.50	+65 48 19.2	18.160			2.792	1.282	0.591	1.409			
544	21 45 05.55	+65 50 04.7	19.271			1.819	0.728	0.319	0.830			
545	21 45 05.72	+65 51 42.5	19.174			2.096	0.867	0.367	0.822			
546	21 45 05.84	+65 46 08.5	15.908	2.936	2.309	1.619	0.739	0.276	0.709	f7 V	m	
547	21 45 06.11	+65 42 53.9	16.937	2.608	2.033	1.408	0.658	0.228	0.640	f5 V		
548	21 45 06.12	+65 41 19.0	19.051			2.760	1.051	0.599	1.161			
549	21 45 06.18	+65 44 40.3	17.561	3.078	2.407	1.697	0.787	0.290	0.741	f6 V		
550	21 45 06.19	+65 47 21.6	18.723			2.565	1.040	0.518	1.032			
551	21 45 06.19	+65 40 07.9	19.516			1.604	0.721	0.289	0.666			
552	21 45 06.28	+65 40 07.2	19.451			1.731	0.794	0.346	0.580			
553	21 45 06.29	+65 41 50.1	18.520	2.605	2.023	1.415	0.684	0.222	0.679			

Continued **Table A.4**

No	RA(2000)	DEC(2000)	V	U-V	P-V	X-V	Y-V	Z-V	V-S	Photom.	Mem	Notes
	h m s	° ′ ″	mag	mag	mag	mag	mag	mag	mag	sp.type		
554	21 45 06.30	+65 47 43.3	15.171	2.988	2.402	1.725	0.774	0.287	0.742	g0 V	m	
555	21 45 06.41	+65 48 25.4	15.093	4.161	3.421	2.378	1.002	0.372	0.947	g8 II-III		4
556	21 45 06.46	+65 39 50.0	18.453			1.473	0.589	0.165	0.785			
557	21 45 06.74	+65 43 04.7	13.805	2.705	2.177	1.534	0.673	0.252	0.622	f9 V		
558	21 45 06.74	+65 46 21.4	17.275	3.237	2.730	1.878	0.831	0.308	0.801	g5 V		
559	21 45 06.81	+65 43 33.2	15.777	3.351	2.709	1.913	0.863	0.316	0.807	g1 IV-V		4
560	21 45 06.96	+65 49 08.0	18.999			2.412	0.964	0.449	0.878			
561	21 45 07.19	+65 49 36.5	16.343	2.915	2.277	1.622	0.743	0.278	0.665	f6 V	m	
562	21 45 07.52	+65 40 45.5	17.006	2.808	2.299	1.604	0.716	0.252	0.723	g0 V	m	
563	21 45 07.53	+65 51 46.7	19.656		2.123:	1.390	0.675	0.232	0.723			
564	21 45 07.54	+65 47 44.5	16.136	2.866	2.248	1.604	0.721	0.257	0.674	f7 V	m	
565	21 45 07.56	+65 40 29.2	19.172			1.852	0.765	0.289	0.906			
566	21 45 07.58	+65 41 22.4	18.888		2.693:	1.987	0.829	0.360	0.831			
567	21 45 07.85	+65 46 44.1	15.272	2.900	2.282	1.614	0.733	0.269	0.702	f8 V	m	
568	21 45 07.88	+65 43 39.6	19.018			2.274	0.912	0.428	0.891			
569	21 45 07.91	+65 46 01.2	17.804	3.663:	3.306	2.257	0.915	0.432	0.903	k2: V		
570	21 45 07.95	+65 40 07.4	19.131			2.300	0.894	0.413	0.935			
571	21 45 07.97	+65 44 30.9	17.937	3.187	2.680	1.889	0.821	0.325	0.778	g7 V	m	
572	21 45 07.97	+65 51 14.2	19.396			1.697	0.811	0.278	0.651			
573	21 45 08.04	+65 44 21.4	15.631	2.978	2.342	1.653	0.755	0.275	0.710	f7 V	m	
574	21 45 08.05	+65 45 28.5	16.985	3.336	2.754	1.950	0.854	0.351	0.816	g5 V		
575	21 45 08.23	+65 50 11.5	19.755			2.187:	0.988	0.429	0.715			
576	21 45 08.36	+65 48 36.6	16.005	2.950	2.315	1.638	0.758	0.273	0.711	f6 V	m	
577	21 45 08.42	+65 43 59.9	18.875	2.896:	2.378:	1.732	0.780	0.287	0.768			
578	21 45 08.57	+65 49 19.2	19.352			2.320	0.920	0.429	0.935			
579	21 45 08.61	+65 46 31.7	16.065	2.938	2.306	1.611	0.754	0.282	0.705	f5 V	m	
580	21 45 08.71	+65 47 34.9	15.450	2.860	2.237	1.579	0.727	0.264	0.678	f6 V	m	
581	21 45 08.71	+65 51 02.6	19.462	2.388:	2.005:	1.462	0.693	0.291	0.733			
582	21 45 09.18	+65 42 13.0	17.575	2.923	2.351	1.644	0.742	0.247	0.752	f8 V		
583	21 45 09.67	+65 49 06.7	19.114			1.809	0.782	0.293	0.826			
584	21 45 09.69	+65 50 31.7	16.282	3.288	2.791	1.941	0.797	0.344	0.737	k0 V		
585	21 45 09.71	+65 51 58.7	16.046	2.952	2.317	1.644	0.772	0.284	0.671	f6 V	m	
586	21 45 09.72	+65 46 59.9	19.598			1.827	0.796	0.292	0.809			
587	21 45 09.99	+65 45 03.8	15.208	2.878	2.260	1.584	0.731	0.265	0.682	f6 V	m	
588	21 45 10.31	+65 46 38.1	12.946	2.406	1.905	1.305	0.560	0.200	0.540	f8 V		
589	21 45 10.31	+65 45 45.9	16.925	3.727	3.053	2.172	0.957	0.353	0.918	g5, md:		
590	21 45 10.40	+65 50 49.5	18.707	2.936:	2.423	1.738	0.815	0.320	0.710			
591	21 45 10.47	+65 51 44.3	19.153			2.241	1.029	0.440	0.830			
592	21 45 10.48	+65 42 57.8	19.155			2.088	0.861	0.348	0.874			
593	21 45 10.55	+65 42 09.5	18.622			2.978	1.082	0.622	1.220			
594	21 45 10.77	+65 44 41.3	15.951	2.932	2.338	1.657	0.764	0.287	0.712	f8 V	m	6
595	21 45 11.01	+65 47 33.1	19.762			2.296:	0.918	0.463	0.846			
596	21 45 11.34	+65 41 44.3	19.088			2.142	0.883	0.381	0.884			
597	21 45 11.40	+65 51 34.2	19.441			2.463	0.951	0.453	0.994			
598	21 45 11.47	+65 47 17.6	15.865	2.935	2.301	1.632	0.760	0.282	0.710	f6 V	m	
599	21 45 11.47	+65 51 45.9	18.270	2.833	2.123	1.250	0.605	0.210	0.532	a		

Continued **Table A.4**

No	RA(2000)	DEC(2000)	V	U-V	P-V	X-V	Y-V	Z-V	V-S	Photom.	Mem	Notes
	h m s	° ′ ″	mag	mag	mag	mag	mag	mag	mag	sp.type		
600	21 45 11.64	+65 43 55.6	17.968	3.318	2.743	1.953	0.842	0.340	0.842	g7 V	m	
601	21 45 11.76	+65 41 24.5	19.663			1.871	0.747	0.321	0.729			
602	21 45 11.79	+65 49 35.1	18.771			2.352	1.073	0.569	0.942			
603	21 45 11.81	+65 52 26.2	16.768	2.656	2.084	1.560	0.695	0.264	0.652	f-g		
604	21 45 12.27	+65 50 45.0	19.371			2.698	1.240	0.651	1.238			
605	21 45 12.31	+65 45 08.8	16.850			1.614	0.726	0.211:	0.714	f8 V	m	
606	21 45 12.40	+65 47 11.9	17.057	2.920	2.299	1.617	0.763	0.249	0.707	f6 V	m	
607	21 45 12.78	+65 45 13.3	17.230	2.742	2.098	1.519	0.737	0.268	0.647	f-g		
608	21 45 12.84	+65 46 10.9	16.425	2.942	2.314	1.633	0.772	0.280	0.710	f5 V	m	
609	21 45 12.90	+65 40 37.9	18.385	2.785	2.358	1.674	0.748	0.267	0.741	g0 V		
610	21 45 12.97	+65 49 39.3	14.166	3.899	3.192	2.273	0.975	0.384	0.906	g6 III		
611	21 45 13.00	+65 45 50.8	15.881	2.832	2.221	1.547	0.726	0.256	0.676	f6 V	m	
612	21 45 13.06	+65 42 30.6	17.483	2.707	2.179	1.506	0.701	0.264	0.704	f7 V		
613	21 45 13.11	+65 50 13.2	18.377	2.893	2.315	1.715	0.816	0.300	0.694	f8 V		
614	21 45 13.12	+65 48 19.4	17.889	3.213	2.658	1.917	0.844	0.314	0.817	g4 V	m	
615	21 45 13.13	+65 44 58.1	15.570	2.990	2.375	1.678	0.768	0.280	0.713	f7 V	m	
616	21 45 13.36	+65 46 52.2	18.273	3.363:	2.816:	2.000	0.831	0.336	0.893	g8 V	m	
617	21 45 13.37	+65 42 46.0	19.668			1.635:	0.783	0.333	0.755			
618	21 45 13.73	+65 49 59.9	17.748			2.514	0.959	0.503	0.932	k2.5 V		
619	21 45 13.76	+65 43 11.3	18.854			2.318	0.915	0.434	0.928			
620	21 45 13.79	+65 44 25.5	15.234	3.579	3.075	2.117	0.824	0.402	0.829	k2 V		
621	21 45 13.83	+65 40 57.8	16.460	3.747	3.193	2.194	0.930	0.363	0.906	g8 IV	m	
622	21 45 13.98	+65 41 39.6	14.479	2.500	1.931	1.288	0.623	0.217	0.572	f5, md:		
623	21 45 14.14	+65 46 22.6	17.766	3.358	2.805	1.962	0.862	0.351	0.849	g6 V	m	
624	21 45 14.49	+65 46 08.1	16.957	3.015	2.395	1.712	0.789	0.299	0.741	f7 V	m	
625	21 45 14.66	+65 46 13.8	18.129	3.347:	2.898:	1.931	0.904	0.350	0.827	g		
626	21 45 14.75	+65 50 01.6	16.558	2.948	2.384	1.716	0.776	0.298	0.710	g0 V	m	
627	21 45 14.78	+65 47 45.6	17.223	3.137	2.544	1.796	0.819	0.313	0.812	g0 V	m	
628	21 45 14.81	+65 48 44.9	16.448	2.981	2.368	1.695	0.763	0.276	0.759	f9 V	m	
629	21 45 14.83	+65 47 23.2	19.607			2.701:	0.935	0.520	1.152			
630	21 45 15.10	+65 44 33.6	16.568	2.947	2.339	1.655	0.747	0.278	0.710	f7 IV-V		
631	21 45 15.16	+65 49 24.3	15.356	2.832	2.148	1.360	0.654	0.216	0.558	f0 V	m	6
632	21 45 15.26	+65 46 19.0	16.602	3.080	2.457	1.738	0.788	0.286	0.772	f9 V	m	
633	21 45 15.29	+65 43 07.0	19.228			2.114	0.781	0.355	0.866			
634	21 45 15.31	+65 50 43.7	18.020	3.030	2.579	1.845	0.858	0.324	0.764	g0 V		
635	21 45 15.47	+65 52 01.9	16.262	2.962	2.472	1.740	0.745	0.293	0.698	g5 V		
636	21 45 15.58	+65 46 57.2	19.308			1.581	0.765	0.309	0.689			
637	21 45 15.65	+65 48 32.2	16.247	3.113	2.436	1.734	0.799	0.285	0.772	f7 IV-V		
638	21 45 15.75	+65 41 12.9	18.409	2.754	2.186	1.495	0.674	0.239	0.707	f7 IV-V		
639	21 45 15.82	+65 46 33.9	17.992	3.452:	2.774	1.970	0.876	0.333	0.834	g2 IV-V		
640	21 45 16.08	+65 43 17.9	19.883			2.003:	0.772	0.291:	0.860:			
641	21 45 16.09	+65 45 01.4	16.127	2.808	2.189	1.543	0.732	0.266	0.681	f6 V	m	
642	21 45 16.37	+65 43 44.2	19.416			2.229	0.948	0.393	0.961			
643	21 45 16.39	+65 46 01.2	18.108	3.147	2.690	1.958	0.827	0.332	0.823	g6 V	m	
644	21 45 16.43	+65 46 17.2	17.200	2.926	2.332	1.748	0.782	0.291	0.664	f9 V	m	
645	21 45 16.44	+65 46 42.7	16.960	2.987	2.402	1.705	0.786	0.288	0.740	f8 V	m	

Continued **Table A.4**

No	RA(2000)	DEC(2000)	V	U-V	P-V	X-V	Y-V	Z-V	V-S	Photom.	Mem	Notes
	h m s	° ′ ″	mag	mag	mag	mag	mag	mag	mag	sp.type		
646	21 45 16.46	+65 47 31.0	17.025	3.036	2.423	1.724	0.797	0.291	0.723	f8 V	m	
647	21 45 16.50	+65 41 14.4	19.156			1.828	0.734	0.271	0.844			
648	21 45 16.52	+65 41 48.0	17.622	2.955	2.502	1.736	0.727	0.271	0.762	g5 V		
649	21 45 16.69	+65 42 22.1	19.042	2.599:	2.098:	1.504	0.696	0.205	0.722			
650	21 45 16.90	+65 51 55.4	18.387	3.496:	2.935:	2.047	0.876	0.350	0.832	g8 IV-V		
651	21 45 16.92	+65 47 54.1	19.745			1.781:	0.841	0.370:	0.744:			
652	21 45 17.09	+65 47 12.4	19.897			2.133:	0.914	0.453:	0.928:			
653	21 45 17.17	+65 45 08.1	18.741			2.298	0.925	0.478	0.942			
654	21 45 17.30	+65 45 28.1	18.224	3.135:	2.537	1.879	0.863	0.329	0.861	g0 V		
655	21 45 17.34	+65 40 11.1	19.182			1.868	0.735	0.269	0.928			
656	21 45 17.36	+65 52 15.7	19.669			1.853:	0.776	0.303	0.783			
657	21 45 17.73	+65 46 09.3	15.558	2.892	2.267	1.618	0.756	0.276	0.711	f6 V	m	
658	21 45 17.84	+65 41 21.7	17.033	2.819	2.322	1.640	0.733	0.269	0.720	g0 V	m	
659	21 45 18.06	+65 42 09.4	17.454	3.618	3.069	2.171	0.917	0.348	0.905	g8 IV		
660	21 45 18.15	+65 48 50.7	19.834			1.850:	0.912	0.391	0.743:			
661	21 45 18.21	+65 47 38.7	18.745	2.754:	2.297	1.599	0.717	0.269	0.713			
662	21 45 18.32	+65 42 38.3	17.775	2.807	2.225	1.554	0.699	0.253	0.698	f8 V		
663	21 45 18.51	+65 41 16.5	16.700	2.809	2.266	1.574	0.714	0.249	0.680	f8 V	m	
664	21 45 18.58	+65 46 38.6	15.026	2.942	2.191	1.286	0.585	0.215	0.517	a5 V	m	
665	21 45 18.62	+65 43 01.4	19.701			1.815:	0.868	0.330	0.759			
666	21 45 18.63	+65 44 00.7	15.818	2.941	2.374	1.686	0.756	0.285	0.718	g0 V	m	
667	21 45 18.64	+65 49 20.8	17.709	3.089	2.538	1.777	0.778	0.269	0.788	g2 V	m	
668	21 45 18.65	+65 49 59.1	10.783	4.057	3.390	2.375	0.949	0.358	0.890	g8 III		1,5
669	21 45 18.65	+65 44 52.6	18.488			2.948	1.148	0.657	1.173	k5 V		
670	21 45 18.69	+65 41 27.9	18.697	2.970:	2.329:	1.780	0.768	0.288	0.783			
671	21 45 18.79	+65 42 00.0	19.128			2.359	0.902	0.439	0.966			
672	21 45 18.83	+65 52 08.5	16.366	2.671	2.116	1.532	0.712	0.265	0.662	f8 V	m	
673	21 45 18.96	+65 44 39.5	15.454	2.939	2.285	1.598	0.748	0.277	0.698	f5 V	m	
674	21 45 19.03	+65 45 25.8	16.286	2.907	2.309	1.620	0.752	0.278	0.697	f6 V	m	
675	21 45 19.09	+65 50 30.1	19.586			1.936	0.868	0.361	0.812			
676	21 45 19.30	+65 51 15.4	18.125	2.937	2.240	1.587	0.746	0.272	0.705	f5 V		
677	21 45 19.72	+65 44 22.3	15.611	2.874	2.265	1.599	0.749	0.269	0.680	f6 V	m	
678	21 45 19.92	+65 46 10.6	16.207	2.897	2.310	1.638	0.751	0.276	0.714	f8 V	m	
679	21 45 20.07	+65 43 02.1	19.691			1.815:	0.833	0.358	0.768			
680	21 45 20.19	+65 41 10.0	19.448			1.503	0.692	0.214	0.738			
681	21 45 20.28	+65 48 10.2	16.836	2.933	2.322	1.665	0.776	0.272	0.780	f7 V	m	
682	21 45 20.34	+65 41 30.9	18.513	3.002:	2.626	1.827	0.737	0.269	0.841			
683	21 45 20.43	+65 48 31.0	13.779	4.171	3.447	2.449	1.031	0.381	0.982	g8 III	m	1,2,3
684	21 45 20.46	+65 51 07.0	12.982	2.883	2.304	1.586	0.698	0.262	0.620	f9 IV-V		1
685	21 45 20.88	+65 48 41.5	17.395	3.101	2.551	1.817	0.829	0.308	0.802	g0 V	m	
686	21 45 20.89	+65 47 39.9	12.792			2.705	1.082	0.415	0.923	g5 II		1,2
687	21 45 20.91	+65 46 39.5	15.528	2.955	2.308	1.625	0.751	0.249	0.732	f4 V		
688	21 45 20.94	+65 49 13.6	18.471	2.815	2.226	1.629	0.754	0.274	0.753	f-g, md:		
689	21 45 21.08	+65 47 02.8	16.619	3.018	2.422	1.737	0.781	0.290	0.730	f9 V	m	
690	21 45 21.10	+65 42 02.2	14.020	3.591	3.044	2.070	0.844	0.342	0.814	k0 IV		
691	21 45 21.11	+65 48 06.0	16.925	3.512	2.948	2.041	0.854	0.345	0.862	g8 IV		

Continued **Table A.4**

No	RA(2000)	DEC(2000)	V	U-V	P-V	X-V	Y-V	Z-V	V-S	Photom.	Mem	Notes
	h m s	° ′ ″	mag	mag	mag	mag	mag	mag	mag	sp.type		
692	21 45 21.15	+65 51 40.4	16.766	2.820	2.243	1.608	0.751	0.279	0.695	f7 V	m	
693	21 45 21.23	+65 40 55.9	19.304			2.002	0.823	0.320	0.815			
694	21 45 21.32	+65 45 08.9	16.438	2.878	2.269	1.597	0.737	0.272	0.682	f7 V	m	
695	21 45 21.32	+65 44 11.9	18.434	2.897:	2.406	1.743	0.786	0.285	0.758	g1 V		
696	21 45 21.48	+65 39 54.4	18.502	2.600	2.166	1.489	0.571	0.150	0.856			
697	21 45 21.71	+65 45 31.3	18.532	3.251:	2.668	1.983	0.833	0.333	0.829			
698	21 45 21.72	+65 42 55.9	17.060	2.957	2.396	1.675	0.751	0.275	0.727	g0 V	m	
699	21 45 21.80	+65 42 16.3	19.094	2.601:	2.138:	1.471	0.634	0.218	0.741			
700	21 45 22.13	+65 48 31.3	18.216	3.742:	3.155:	2.164	0.900	0.355	0.948	k0 V:		
701	21 45 22.13	+65 41 34.9	19.107		2.605:	1.845	0.770	0.310	0.809			
702	21 45 22.28	+65 41 46.3	17.437	2.753	2.272	1.582	0.708	0.255	0.694	g0 V		
703	21 45 22.39	+65 44 45.3	18.220	3.397:	2.554	1.999	0.843	0.302	0.832	f-g		
704	21 45 22.52	+65 44 34.5	15.715	2.930	2.299	1.638	0.761	0.277	0.708	f6 V	m	
705	21 45 22.61	+65 41 07.6	19.920			1.862:	0.836	0.367:	0.788:			
706	21 45 22.65	+65 46 25.2	17.665	3.007	2.442	1.767	0.793	0.304	0.745	g1 V	m	
707	21 45 22.74	+65 51 22.7	18.300	3.509:	3.000:	2.079	0.885	0.379	0.872	k0 V	m	
708	21 45 22.94	+65 44 50.1	16.301	2.873	2.282	1.602	0.744	0.269	0.702	f6 V	m	
709	21 45 22.99	+65 44 03.3	19.005			2.743	1.010	0.572	0.980			
710	21 45 23.09	+65 40 51.8	17.962	2.797	2.216	1.527	0.677	0.239	0.718	f8 IV-V		
711	21 45 23.32	+65 46 41.9	15.169	2.793	2.268	1.600	0.692	0.256	0.668	g1 V		
712	21 45 23.41	+65 43 34.6	19.539			2.090	0.739	0.348	0.933			
713	21 45 23.59	+65 44 57.6	17.462	2.802	2.255	1.563	0.744	0.255	0.679	f7 V		
714	21 45 23.61	+65 51 09.7	17.845	3.807:	3.176	2.292	0.980	0.387	0.945	g8 IV		
715	21 45 23.67	+65 46 50.3	15.833	2.973	2.382	1.683	0.771	0.285	0.720	f8 V	m	
716	21 45 23.67	+65 51 34.6	19.282			2.395	0.924	0.478	0.937			
717	21 45 23.72	+65 47 45.7	17.209	2.945	2.337	1.651	0.740	0.269	0.718	f8 IV-V		
718	21 45 23.74	+65 49 01.7	17.647	3.965:	3.544	2.473	0.963	0.478	0.950	k3 V		
719	21 45 23.92	+65 47 10.8	17.361	2.968	2.380	1.711	0.769	0.285	0.737	f9 V	m	
720	21 45 24.10	+65 50 21.0	19.003	2.789:	2.223	1.675	0.798	0.308	0.706			
721	21 45 24.19	+65 49 56.8	15.111	2.918	2.300	1.626	0.745	0.263	0.715	f6 V	m	
722	21 45 24.86	+65 46 52.9	16.871	3.065	2.494	1.791	0.807	0.302	0.756	g1 V	m	
723	21 45 25.08	+65 42 49.5	18.322	2.792	2.185	1.529	0.721	0.264	0.678	f6 V		
724	21 45 25.19	+65 43 15.1	17.347	2.984	2.432	1.715	0.757	0.285	0.742	g1 V	m	
725	21 45 25.33	+65 44 45.5	17.980	3.437:	2.956	2.053	0.878	0.365	0.876	g9 V		
726	21 45 25.35	+65 47 18.3	17.314	3.010	2.457	1.759	0.798	0.297	0.736	g1 V	m	
727	21 45 25.38	+65 52 04.2	18.652	2.959:	2.363	1.740	0.801	0.282	0.747			
728	21 45 25.40	+65 47 07.4	19.757			1.890:	0.752	0.285	0.770:			
729	21 45 25.51	+65 46 32.4	19.657			2.638:	0.994	0.602	1.184			
730	21 45 25.74	+65 51 02.7	18.792	3.035:	2.416:	1.772	0.809	0.285	0.778			
731	21 45 25.79	+65 41 18.7	16.466	3.408	2.844	2.018	0.879	0.330	0.871	g6 IV-V		
732	21 45 25.83	+65 43 38.6	17.307	2.754	2.202	1.589	0.748	0.266	0.723	f8 V		
733	21 45 25.90	+65 41 01.0	18.951			1.751	0.769	0.265	0.904			
734	21 45 26.19	+65 45 26.2	14.907	2.588	2.049	1.485	0.670	0.247	0.639	f8 V		
735	21 45 26.20	+65 45 12.7	16.387	2.855	2.261	1.587	0.735	0.267	0.695	f6 V	m	
736	21 45 26.24	+65 48 10.3	17.681	3.001	2.469	1.767	0.761	0.267	0.797	g3 IV-V		
737	21 45 26.37	+65 50 24.5	16.503	3.019	2.492	1.743	0.791	0.298	0.700	g2 V		

Continued **Table A.4**

No	RA(2000)	DEC(2000)	V	U-V	P-V	X-V	Y-V	Z-V	V-S	Photom.	Mem	Notes
	h m s	° ′ ″	mag	mag	mag	mag	mag	mag	mag	sp.type		
738	21 45 26.52	+65 48 31.7	18.891	2.947:	2.398:	1.756	0.802	0.306	0.764			
739	21 45 26.56	+65 41 40.8	18.940	2.639:	2.098:	1.516	0.745	0.257	0.623			
740	21 45 27.15	+65 46 00.7	16.475	2.795	2.183	1.539	0.706	0.259	0.662	f6 V	m	
741	21 45 27.19	+65 49 18.6	17.553	2.859	2.152	1.304	0.602	0.210	0.579	f0 V		
742	21 45 27.21	+65 44 09.7	18.793	2.870:	2.364:	1.773	0.833	0.308	0.815			
743	21 45 27.28	+65 45 49.0	17.636	3.048	2.383	1.729	0.766	0.281	0.754	f-g		
744	21 45 27.52	+65 43 09.4	19.006	2.751:	2.344:	1.696	0.716	0.299	0.747			
745	21 45 27.52	+65 41 55.8	19.255			1.457	0.742	0.203	0.754			
746	21 45 27.60	+65 47 30.0	15.355	3.066	2.422	1.728	0.790	0.290	0.726	f7 IV-V		
747	21 45 27.61	+65 51 38.6	19.894			1.640:	0.922	0.348	0.653:			
748	21 45 27.62	+65 45 54.6	16.618	2.831	2.246	1.584	0.729	0.268	0.683	f7 V	m	
749	21 45 27.99	+65 41 09.6	15.961	2.905	2.301	1.602	0.730	0.248	0.712	f7 V	m	
750	21 45 28.03	+65 45 06.4	14.246	4.394	3.689	2.556	1.050	0.414	0.960	k0 III	m	2
751	21 45 28.15	+65 48 09.2	16.404	2.980	2.361	1.668	0.760	0.273	0.740	f8 IV-V		
752	21 45 28.21	+65 49 48.5	19.915			2.098:	0.856	0.388:	0.905:			
753	21 45 28.22	+65 52 02.0	16.760	2.803	2.282	1.667	0.754	0.294	0.734	g0 V	m	
754	21 45 28.29	+65 49 28.2	15.086	2.785	2.060	1.177	0.536	0.183	0.502	a5 V	m	
755	21 45 28.32	+65 40 16.2	18.711			2.297	0.867	0.410	1.001			
756	21 45 28.51	+65 43 22.9	13.678	2.552	1.994	1.379	0.628	0.223	0.594	f6 V		1
757	21 45 28.64	+65 47 01.4	19.901			2.160:	0.945	0.340	0.979			
758	21 45 28.77	+65 42 03.6	13.949	2.623	1.991	1.279	0.596	0.203	0.570	f1 V		
759	21 45 28.81	+65 43 49.5	19.323			2.781	1.210	0.564	1.449			
760	21 45 28.85	+65 42 54.7	18.527	2.766	2.275	1.575	0.728	0.260	0.745			
761	21 45 28.98	+65 45 29.8	19.986			2.266:	0.778	0.291:	0.909:			
762	21 45 29.01	+65 50 36.9	19.965			1.913:	0.891	0.390:	0.810:			
763	21 45 29.12	+65 48 36.2	16.467	3.003	2.365	1.630	0.746	0.259	0.711	f5 IV-V	m	
764	21 45 29.15	+65 44 05.0	16.460	2.865	2.275	1.603	0.731	0.259	0.689	f7 V	m	
765	21 45 29.34	+65 49 41.6	16.743	2.927	2.261	1.545	0.763	0.195	0.707			4
766	21 45 29.48	+65 42 45.3	19.632			2.118	0.879	0.419	0.876			
767	21 45 29.72	+65 50 06.5	16.433	2.691	2.096	1.435	0.685	0.246	0.629	f5 V	m	
768	21 45 29.72	+65 45 34.2	19.219			2.203	0.910	0.386	1.032			
769	21 45 29.74	+65 48 06.5	18.728	2.847:	2.304	1.701	0.765	0.273	0.783			
770	21 45 29.82	+65 45 56.7	18.126	3.016	2.517	1.802	0.794	0.293	0.795	g3 V		
771	21 45 30.21	+65 47 48.9	18.233	3.130:	2.528	1.795	0.811	0.290	0.789	g0 V		
772	21 45 30.25	+65 51 17.2	19.316			2.183	0.954	0.420	0.887			
773	21 45 30.52	+65 45 51.5	17.111	3.145	2.589	1.824	0.819	0.312	0.764	g2 V	m	
774	21 45 30.53	+65 45 39.8	18.977	2.919:	2.419:	1.719	0.756	0.304	0.754			
775	21 45 30.56	+65 44 59.8	18.260	3.186:	2.657	1.923	0.836	0.316	0.789	g5 V	m	
776	21 45 30.58	+65 52 26.4	16.483	2.945	2.292	1.647	0.780	0.281	0.706	f5 V	m	
777	21 45 30.67	+65 41 41.7	18.110	2.760	2.232	1.539	0.716	0.238	0.727	f7 V		
778	21 45 30.68	+65 51 34.5	18.847	3.136:	2.644:	1.918	0.841	0.319	0.856			
779	21 45 30.87	+65 41 12.4	18.276	3.700:	3.167:	2.242	0.881	0.376	0.934	k0 IV		
780	21 45 30.97	+65 41 55.9	18.107	2.875	2.292	1.592	0.702	0.242	0.747	g0 V		
781	21 45 30.99	+65 50 44.3	17.703	3.917:	3.530:	2.437	0.920	0.496	0.929	k3 V		
782	21 45 31.03	+65 47 35.8	17.818	2.964	2.415	1.719	0.808	0.283	0.754	g0, md:		
783	21 45 31.11	+65 44 32.8	17.839	3.149	2.589	1.841	0.843	0.301	0.803	g0 V	m	

Continued **Table A.4**

No	RA(2000)	DEC(2000)	V	U-V	P-V	X-V	Y-V	Z-V	V-S	Photom.	Mem	Notes
	h m s	° ′ ″	mag	mag	mag	mag	mag	mag	mag	sp.type		
784	21 45 31.20	+65 41 30.5	17.818	3.660:	2.966	2.175	0.932	0.335	0.973	g		
785	21 45 31.36	+65 48 18.2	15.670	3.001	2.361	1.671	0.766	0.273	0.724	f6 V	m	
786	21 45 31.83	+65 47 05.5	19.055			1.947	0.883	0.357	0.781			
787	21 45 31.94	+65 49 21.0	19.252			1.847	0.757	0.294	0.886			
788	21 45 31.96	+65 51 35.6	18.809			2.513	0.955	0.464	0.971			
789	21 45 31.97	+65 40 21.6	19.620			1.668	0.723	0.242	0.844			
790	21 45 31.98	+65 51 04.8	18.459			2.247	0.974	0.372	0.898	g		
791	21 45 32.09	+65 48 36.6	15.982	3.606	3.115	2.119	0.822	0.382	0.823	k2 V		
792	21 45 32.11	+65 49 58.9	17.659	3.631	2.986	2.173	0.943	0.342	0.939	g		
793	21 45 32.12	+65 46 45.6	19.957			1.959:	0.813	0.381:	0.771:			
794	21 45 32.67	+65 46 17.4	15.996	3.759	3.138	2.188	0.950	0.372	0.881	g8 IV	m	
795	21 45 32.68	+65 45 17.5	16.054	2.737	2.135	1.469	0.679	0.248	0.622	f5 V	m	
796	21 45 32.78	+65 46 41.9	18.465	3.116:	2.563	1.879	0.835	0.311	0.795	g2 V		
797	21 45 32.84	+65 51 27.5	17.231	3.001	2.422	1.728	0.790	0.278	0.737	g0 IV-V		
798	21 45 32.91	+65 43 23.8	20.024			1.966:	0.823	0.342:	0.824:			
799	21 45 32.93	+65 47 31.0	13.820			2.254	1.009	0.354	0.912	f-g		1,3,4
800	21 45 32.94	+65 48 25.4	18.320	3.457:	2.766	2.029	0.877	0.355	0.834	g5 IV:		
801	21 45 33.05	+65 41 04.2	17.050	3.913	3.388	2.285	0.867	0.389	0.967	k3 V:		
802	21 45 33.43	+65 50 31.6	17.462	2.787	2.227	1.598	0.753	0.285	0.703	f7 V		
803	21 45 33.75	+65 51 44.6	18.782	2.840:	2.269:	1.695	0.782	0.289	0.733			
804	21 45 33.85	+65 51 15.0	19.589			2.142	0.894	0.406	0.781			
805	21 45 33.99	+65 40 45.9	19.034			2.025	0.823	0.288	0.941			
806	21 45 34.19	+65 50 58.6	16.710	2.837	2.264	1.601	0.730	0.271	0.677	f9 V	m	
807	21 45 34.26	+65 45 31.2	18.099	3.167	2.608	1.866	0.823	0.320	0.800	g3 V	m	
808	21 45 34.29	+65 44 28.6	14.426	4.525	3.808	2.643	1.087	0.437	1.002	k0.5 III		
809	21 45 34.55	+65 46 46.0	17.352	2.789	2.212	1.581	0.750	0.277	0.710	f7 V		
810	21 45 34.63	+65 45 46.2	17.221	2.752	2.188	1.576	0.726	0.269	0.704	f8 V	m	
811	21 45 34.65	+65 51 44.3	19.458			1.740	0.731	0.264	0.859			
812	21 45 34.72	+65 43 38.9	17.445	2.962	2.448	1.735	0.787	0.284	0.760	g0 V	m	
813	21 45 34.75	+65 48 19.3	17.364	3.236	2.702	1.898	0.856	0.319	0.815	g5 V		
814	21 45 34.78	+65 42 23.1	16.875	2.792	2.210	1.569	0.716	0.248	0.721	f7 V	m	
815	21 45 35.01	+65 46 53.9	19.097			1.748	0.756	0.236	0.803			
816	21 45 35.23	+65 48 13.5	17.150	3.015	2.428	1.724	0.790	0.294	0.718	f8 V	m	
817	21 45 35.24	+65 46 13.0	19.744			1.529:	0.631	0.215:	0.681:			
818	21 45 35.36	+65 51 29.2	19.057			2.225	0.869	0.406	0.897			
819	21 45 35.44	+65 47 01.9	19.320			1.630	0.698	0.285	0.727			
820	21 45 35.66	+65 44 59.1	13.153	4.995	4.224	2.956	1.179	0.487	1.065	k1.5 III	m	1,2
821	21 45 35.66	+65 50 57.2	17.903	2.819	2.354	1.637	0.728	0.282	0.703	g2 V		
822	21 45 35.71	+65 46 33.1	19.043	2.791:	2.080	1.400	0.678	0.234	0.709			
823	21 45 35.93	+65 49 41.7	18.508	3.260:	2.577	1.775	0.779	0.290	0.793			
824	21 45 36.09	+65 46 05.8	14.759	4.155	3.476	2.437	1.026	0.401	0.957	g8 III-IV		2
825	21 45 36.13	+65 46 28.8	19.009			2.743	1.052	0.589	1.045			
826	21 45 36.29	+65 51 42.1	19.458			2.528	1.021	0.524	1.086			
827	21 45 36.37	+65 44 34.3	17.522	3.066	2.510	1.816	0.829	0.292	0.830	g1 V	m	
828	21 45 36.56	+65 47 53.2	18.810		2.589:	1.854	0.816	0.299	0.783			
829	21 45 36.62	+65 40 56.3	17.707	2.730	2.113	1.391	0.630	0.203	0.638	f2 V		

Continued **Table A.4**

No	RA(2000)	DEC(2000)	V	U-V	P-V	X-V	Y-V	Z-V	V-S	Photom.	Mem	Notes
	h m s	° ′ ″	mag	mag	mag	mag	mag	mag	mag	sp.type		
830	21 45 36.62	+65 51 13.4	19.475			1.939	0.805	0.350	0.810			
831	21 45 37.07	+65 49 09.3	18.908	2.793:	2.232	1.690	0.750	0.269	0.754			
832	21 45 37.24	+65 44 18.9	17.338	2.974	2.421	1.696	0.765	0.275	0.735	f9 V	m	
833	21 45 37.30	+65 46 23.3	19.300		2.177:	1.618	0.703	0.247	0.733			
834	21 45 37.31	+65 47 14.5	14.705	3.129	2.600	1.791	0.759	0.312	0.711	g5 IV:		
835	21 45 37.46	+65 46 57.9	19.365			1.981	0.885	0.389	0.824			
836	21 45 37.56	+65 50 55.4	18.488	2.741	2.290	1.630	0.757	0.278	0.728	f8 V:		
837	21 45 37.57	+65 48 20.4	18.025	3.054	2.525	1.818	0.830	0.310	0.795	g1 V		
838	21 45 37.69	+65 48 01.1	17.620	3.325	2.736	1.905	0.833	0.314	0.810	g5 V	m	
839	21 45 37.72	+65 43 11.0	17.604	2.694	2.163	1.526	0.722	0.248	0.707	f7 V		
840	21 45 37.73	+65 51 08.8	18.494		2.620:	1.980	0.794	0.284	0.827	g		
841	21 45 37.94	+65 47 09.8	18.688			2.067	0.931	0.352	0.915			
842	21 45 38.15	+65 47 55.2	17.044	2.953	2.405	1.687	0.768	0.288	0.699	g0 V	m	
843	21 45 38.22	+65 48 31.0	16.984	3.015	2.435	1.727	0.794	0.298	0.729	f9 V	m	
844	21 45 38.27	+65 51 11.3	19.514			1.683	0.829	0.355	0.661			
845	21 45 38.32	+65 48 06.1	17.598	3.259	2.606	1.870	0.836	0.319	0.790	g0 IV		
846	21 45 38.41	+65 44 44.5	18.551	3.411:	2.762:	2.036	0.856	0.353	0.849			
847	21 45 38.44	+65 50 32.4	18.861	2.923:	2.394:	1.723	0.762	0.285	0.754			
848	21 45 38.67	+65 45 24.3	18.989		2.451:	1.790	0.785	0.283	0.801			
849	21 45 38.79	+65 51 59.1	17.791	3.156	2.464	1.790	0.796	0.285	0.808	g0 IV:		
850	21 45 38.94	+65 45 48.3	18.498	2.856:	2.349	1.664	0.733	0.269	0.722	g1 V		
851	21 45 38.94	+65 41 38.0	19.129			2.170	0.816	0.309	0.962			
852	21 45 39.05	+65 51 00.2	19.592			1.531	0.711	0.285	0.616			
853	21 45 39.19	+65 42 19.3	19.732			2.042:	0.803	0.357	0.844			
854	21 45 39.27	+65 45 27.2	19.072			2.401	0.942	0.467	0.919			
855	21 45 39.34	+65 47 27.6	19.376			1.819	0.821	0.324	0.829			
856	21 45 39.37	+65 42 27.2	19.341			1.652	0.712	0.267	0.801			
857	21 45 39.38	+65 44 07.7	19.140			1.684	0.759	0.221	0.909			
858	21 45 39.40	+65 50 24.0	16.609	2.689	2.110	1.432	0.679	0.247	0.626	f5 V	m	
859	21 45 39.49	+65 40 32.7	19.330			1.989	0.809	0.280	0.930			
860	21 45 39.53	+65 47 50.4	18.649	3.231:	2.737:	1.880	0.827	0.303	0.818			
861	21 45 39.55	+65 43 35.3	16.385	2.896	2.313	1.613	0.747	0.265	0.714	f7 V	m	
862	21 45 39.58	+65 41 11.2	19.178			1.533	0.657	0.225	0.734			
863	21 45 39.63	+65 47 00.5	12.469	2.398	1.874	1.283	0.575	0.213	0.519	f6 V		
864	21 45 39.65	+65 41 42.6	18.764	2.623:	2.193	1.520	0.661	0.231	0.747			
865	21 45 39.72	+65 41 02.9	19.389			1.718	0.725	0.271	0.779			
866	21 45 39.73	+65 40 16.4	19.646			1.625:	0.857	0.204:	0.814:			
867	21 45 39.74	+65 49 12.2	17.862	2.987	2.458	1.758	0.798	0.302	0.758	g1 V		
868	21 45 39.97	+65 43 54.5	18.504	2.897:	2.283	1.635	0.748	0.267	0.711			
869	21 45 40.17	+65 44 03.7	18.908			2.288	0.900	0.384	0.946			
870	21 45 40.22	+65 44 14.0	14.888	2.723	2.059	1.302	0.620	0.217	0.563	f0 V		
871	21 45 40.24	+65 45 12.7	19.265			3.040	1.097	0.651	1.236			
872	21 45 40.32	+65 50 16.7	19.208			2.181	0.913	0.322	0.869			
873	21 45 40.36	+65 46 00.2	16.375	2.906	2.293	1.619	0.746	0.267	0.693	f6 V	m	
874	21 45 40.52	+65 44 56.3	12.801	5.091	4.239	2.985	1.202	0.487	1.090	k1.5 III		
875	21 45 40.72	+65 43 40.0	17.757	3.773:	3.251	2.289	0.946	0.414	1.002	k1 V		6

Continued **Table A.4**

No	RA(2000)	DEC(2000)	V	U-V	P-V	X-V	Y-V	Z-V	V-S	Photom.	Mem	Notes
	h m s	° ′ ″	mag	mag	mag	mag	mag	mag	mag	sp.type		
876	21 45 40.95	+65 46 12.6	18.737			2.036	0.874	0.349	0.868			
877	21 45 40.98	+65 46 43.1	15.794	2.980	2.340	1.659	0.784	0.284	0.720	f6 IV-V	m	
878	21 45 41.00	+65 50 03.2	19.732			1.604:	0.745	0.266	0.811			
879	21 45 41.31	+65 48 40.8	18.220	2.961	2.333	1.666	0.794	0.280	0.754	f6 V		
880	21 45 41.53	+65 52 14.3	17.758	3.209	2.740	1.936	0.828	0.316	0.813	g7 V	m	
881	21 45 41.62	+65 45 06.0	16.427	3.092	2.507	1.736	0.792	0.290	0.700	g0 IV-V		
882	21 45 41.69	+65 50 40.7	19.451			1.980	0.877	0.367	0.788			
883	21 45 41.72	+65 46 25.6	19.042		2.550:	1.858	0.795	0.315	0.765			
884	21 45 41.74	+65 45 45.0	15.248	4.039	3.401	2.353	0.990	0.385	0.913	g8 III-IV	m	2
885	21 45 42.09	+65 52 01.2	19.017			1.872	0.816	0.294	0.822			
886	21 45 42.20	+65 49 49.3	19.267			2.367	0.902	0.466	0.942			
887	21 45 42.27	+65 51 53.7	19.398			1.844	0.771	0.278	0.847			
888	21 45 42.32	+65 49 37.2	15.133	3.042	2.430	1.715	0.794	0.293	0.713	f8 V	m	
889	21 45 42.37	+65 49 59.7	19.288			2.461	0.956	0.496	0.937			
890	21 45 42.41	+65 45 24.6	19.179			2.553	0.904	0.457	1.022			
891	21 45 42.70	+65 47 55.5	17.440	3.059	2.560	1.823	0.811	0.316	0.766	g3 V	m	
892	21 45 42.79	+65 46 42.3	18.670			2.066	0.881	0.369	0.838			
893	21 45 43.18	+65 40 51.1	19.287		2.170:	1.545	0.652	0.211	0.768			
894	21 45 43.34	+65 50 10.7	17.655	2.839	2.252	1.600	0.739	0.279	0.699	f7 V		
895	21 45 43.36	+65 49 57.4	18.451	2.980:	2.377	1.703	0.763	0.286	0.732	f9 IV-V		
896	21 45 43.60	+65 49 28.8	18.655	3.214:	2.658:	1.953	0.815	0.333	0.830			
897	21 45 43.72	+65 49 14.0	19.212			2.791	0.965	0.575	1.080			
898	21 45 43.99	+65 46 54.2	16.146	2.838	2.337	1.680	0.750	0.287	0.721	g1 V	m	
899	21 45 43.99	+65 51 28.1	17.301	3.384	2.870	2.029	0.825	0.336	0.823	g9 IV		
900	21 45 44.17	+65 43 51.0	17.033	2.912	2.344	1.656	0.748	0.272	0.732	f9 V	m	
901	21 45 44.19	+65 46 31.0	19.458		2.113:	1.578	0.766	0.251	0.744			
902	21 45 45.17	+65 49 47.3	19.366			2.013	0.815	0.348	0.891			
903	21 45 45.28	+65 40 50.1	18.227	2.554	2.067	1.369	0.528	0.123	0.767			4
904	21 45 45.30	+65 48 00.8	18.728			2.162	0.877	0.386	0.893			
905	21 45 45.39	+65 43 59.1	17.795	3.588:	3.055	2.114	0.885	0.347	0.919	k0 V:		
906	21 45 45.42	+65 51 42.9	17.008	2.958	2.399	1.686	0.756	0.266	0.754	g0 V	m	
907	21 45 45.43	+65 41 21.2	18.161	2.632	2.072	1.436	0.640	0.203	0.725	f7 V		
908	21 45 45.64	+65 44 22.9	19.317			1.590	0.725	0.261	0.735			
909	21 45 45.68	+65 50 24.5	19.432			2.143	0.836	0.377	0.815			
910	21 45 45.78	+65 46 38.2	18.622			2.866	1.134	0.648	1.179			
911	21 45 45.83	+65 45 08.7	19.427			1.633	0.738	0.261	0.726			
912	21 45 45.84	+65 46 13.3	19.126			2.670	1.182	0.650	1.012			
913	21 45 46.08	+65 46 59.1	15.072	2.970	2.354	1.644	0.763	0.277	0.712	f7 V	m	
914	21 45 46.29	+65 48 47.0	19.193			1.966	0.863	0.345	0.912			
915	21 45 46.38	+65 43 00.6	18.047	2.846	2.204	1.492	0.682	0.237	0.693	f4 V		
916	21 45 46.48	+65 45 18.0	16.002	3.703	3.213	2.169	0.826	0.398	0.810	k2 V		
917	21 45 46.51	+65 45 09.5	18.047			1.921	0.796	0.303	0.810	g7		
918	21 45 46.55	+65 42 11.1	18.477			2.483	0.954	0.496	1.019	k4 V		
919	21 45 46.59	+65 49 19.6	15.446	4.034	3.427	2.374	0.999	0.392	0.934	k0 IV	m	
920	21 45 46.65	+65 46 50.5	18.293	3.060:	2.405	1.750	0.800	0.295	0.765	f8 V		
921	21 45 46.71	+65 42 31.8	18.877			2.490	0.915	0.453	1.034			

Continued **Table A.4**

No	RA(2000)	DEC(2000)	V	U-V	P-V	X-V	Y-V	Z-V	V-S	Photom.	Mem	Notes
	h m s	° ′ ″	mag	mag	mag	mag	mag	mag	mag	sp.type		
922	21 45 46.81	+65 44 59.4	17.292	2.818	2.242	1.555	0.725	0.261	0.689	f6 V		
923	21 45 46.91	+65 48 29.0	19.023		2.395:	1.687	0.765	0.279	0.772			
924	21 45 47.02	+65 47 45.8	18.539			2.453	1.011	0.461	1.011			
925	21 45 47.11	+65 44 11.1	17.798	2.895	2.309	1.670	0.783	0.273	0.742	f8 V		
926	21 45 47.58	+65 52 18.0	17.656	3.695:	3.283:	2.262	0.844	0.411	0.824	k2: V		
927	21 45 47.97	+65 42 48.6	19.265			1.819	0.763	0.278	0.836			
928	21 45 48.06	+65 51 27.2	17.232	3.051	2.467	1.824	0.865	0.300	0.857	f8 V	m	
929	21 45 48.12	+65 41 48.0	18.577	2.826:	2.367	1.696	0.693	0.226	0.794			
930	21 45 48.41	+65 44 41.6	20.007			2.227:	0.929	0.399:	0.813:			
931	21 45 48.50	+65 41 59.0	19.614			2.358	0.867	0.415	0.978			
932	21 45 48.97	+65 49 03.7	18.451	2.859:	2.296	1.620	0.761	0.273	0.725	f7 V		
933	21 45 49.01	+65 48 09.9	18.009	3.893:	3.204	2.271	0.936	0.410	0.928	k0		
934	21 45 49.31	+65 51 44.5	17.405	2.942	2.403	1.752	0.795	0.282	0.752	g0 V	m	
935	21 45 49.47	+65 44 03.1	18.043	3.745:	3.144:	2.210	0.862	0.389	0.902	k1 V		
936	21 45 49.68	+65 42 38.1	20.144			1.705:	0.676	0.234:	0.771:			
937	21 45 49.69	+65 51 04.8	18.309	2.637	2.108	1.509	0.742	0.240	0.706			
938	21 45 49.83	+65 47 07.7	17.869	3.179	2.714	1.926	0.846	0.322	0.817	g7 V	m	
939	21 45 49.86	+65 51 53.9	17.286	3.013	2.365	1.753	0.800	0.285	0.793	g		
940	21 45 49.95	+65 45 44.1	19.276			2.366	0.934	0.431	0.939			
941	21 45 49.97	+65 41 34.1	18.452	2.775:	2.148	1.273	0.646	0.222	0.765			
942	21 45 49.97	+65 49 20.5	18.651			2.849	1.071	0.607	1.138			
943	21 45 50.24	+65 46 43.6	16.066	3.030	2.397	1.687	0.792	0.290	0.725	f7 IV-V		
944	21 45 50.24	+65 44 21.6	18.760	2.972:	2.403	1.723	0.763	0.273	0.822			
945	21 45 50.36	+65 51 41.6	18.942		2.565:	1.908	0.836	0.322	0.804			
946	21 45 50.39	+65 47 36.6	18.400	3.551:	2.861:	2.057	0.897	0.337	0.886	g2 V:		
947	21 45 50.54	+65 41 19.0	19.645			2.027:	0.826	0.322	0.868			
948	21 45 50.56	+65 43 49.8	14.081	4.549	3.837	2.648	1.091	0.437	1.028	k0 III	m	
949	21 45 50.75	+65 49 08.9	18.285	3.003	2.480	1.779	0.776	0.306	0.767	g3 V:		
950	21 45 50.83	+65 47 18.0	18.593	2.992:	2.401:	1.707	0.780	0.289	0.784			
951	21 45 50.85	+65 48 17.6	15.355	3.473	2.835	2.029	0.916	0.349	0.849	g4 V		
952	21 45 50.88	+65 45 04.4	18.678	2.700:	2.173	1.533	0.714	0.248	0.735			
953	21 45 50.91	+65 42 58.8	17.675			2.372	1.002	0.401	0.996	g-k		
954	21 45 50.91	+65 50 35.5	19.916			1.650:	0.816	0.317	0.744:			
955	21 45 51.11	+65 46 17.6	15.178	3.028	2.539	1.762	0.727	0.295	0.692	g8 V		
956	21 45 51.13	+65 45 58.9	19.495			1.706	0.767	0.308	0.724			
957	21 45 51.37	+65 47 32.8	19.243			1.912	0.846	0.326	0.769			
958	21 45 51.38	+65 48 26.7	19.302			1.842	0.849	0.355	0.758			
959	21 45 51.41	+65 46 56.2	18.839	2.853:	2.418:	1.704	0.768	0.277	0.792			
960	21 45 51.57	+65 47 13.5	16.290	3.043	2.458	1.746	0.785	0.293	0.737	g0 V	m	
961	21 45 51.86	+65 43 24.5	17.229	3.027	2.452	1.732	0.765	0.273	0.760	g1 IV-V		
962	21 45 51.92	+65 49 35.0	19.846			1.608:	0.665	0.275	0.751:			
963	21 45 51.99	+65 44 06.8	18.457	3.133:	2.646	1.944	0.776	0.279	0.841	g		
964	21 45 52.05	+65 48 54.7	20.052			2.104:	0.790	0.325:	0.807:			
965	21 45 52.23	+65 49 21.2	18.510	3.000:	2.396	1.730	0.748	0.285	0.764			
966	21 45 52.32	+65 47 45.3	19.841			2.106:	0.908	0.397:	0.977:			
967	21 45 52.37	+65 49 46.3	15.882	4.322	3.651	2.584	1.090	0.410	1.020	g8 III		

Continued **Table A.4**

No	RA(2000)	DEC(2000)	V	U-V	P-V	X-V	Y-V	Z-V	V-S	Photom.	Mem	Notes
	h m s	° ′ ″	mag	mag	mag	mag	mag	mag	mag	sp.type		
968	21 45 52.39	+65 43 44.2	14.993	3.339	2.717	1.954	0.866	0.308	0.855	g3 IV	m	
969	21 45 52.50	+65 44 15.4	14.712	4.263	3.735	2.633	0.939	0.577	1.011	k5 V		
970	21 45 52.57	+65 46 36.3	17.933	2.889	2.308	1.695	0.769	0.282	0.768	f9 V		
971	21 45 52.57	+65 48 08.8	18.830	3.075:	2.379:	1.876	0.754	0.288	0.873	g		
972	21 45 52.62	+65 45 34.0	19.537			2.006	0.968	0.384	0.957			
973	21 45 52.85	+65 51 22.9	19.436			1.751	0.742	0.249	0.797			
974	21 45 53.20	+65 45 00.5	17.937	3.207	2.697	1.912	0.834	0.309	0.805	g6 V	m	
975	21 45 53.38	+65 43 29.9	19.952			1.879:	0.737	0.302:	0.781:			
976	21 45 53.53	+65 48 43.7	17.855	3.085	2.537	1.819	0.804	0.300	0.780	g2 V	m	
977	21 45 53.59	+65 50 27.1	19.207			1.783	0.736	0.249	0.841			
978	21 45 53.65	+65 49 47.9	18.780	2.751:	2.346:	1.619	0.720	0.262	0.721			
979	21 45 53.73	+65 44 46.7	18.711			2.241	0.913	0.363	0.928			
980	21 45 53.83	+65 44 34.7	18.181	3.276:	2.575	1.788	0.806	0.223	0.877			
981	21 45 54.40	+65 50 49.6	14.459	2.643	2.032	1.324	0.619	0.221	0.593	f2 V		4
982	21 45 54.48	+65 44 07.5	19.924			1.665:	0.724	0.281:	0.698:			
983	21 45 54.54	+65 42 50.8	18.969			2.199	0.881	0.339	0.959			
984	21 45 54.66	+65 43 02.1	19.314			1.702	0.748	0.256	0.756			
985	21 45 54.86	+65 46 32.9	17.580	4.252:	3.701:	2.614	0.950	0.562	1.012	k4 V		
986	21 45 54.87	+65 44 42.2	17.423	3.276	2.746	1.954	0.846	0.293	0.860	g5 V:		
987	21 45 55.35	+65 46 42.5	17.804	3.158	2.680	1.835	0.809	0.303	0.804	g5 V	m	
988	21 45 55.52	+65 45 06.1	18.466	2.944:	2.292	1.646	0.758	0.274	0.742	f6 V		
989	21 45 55.81	+65 50 13.5	17.544	3.426	2.993	2.050	0.847	0.334	0.822	g9 IV		
990	21 45 56.14	+65 41 49.6	19.121			2.211	0.852	0.341	0.950			
991	21 45 56.41	+65 44 35.6	18.236	3.252:	2.634	1.858	0.788	0.279	0.818	g		
992	21 45 56.55	+65 47 18.5	18.734	2.931:	2.265:	1.640	0.776	0.285	0.734			
993	21 45 56.75	+65 48 52.0	17.387	2.938	2.437	1.724	0.760	0.294	0.732	g3 V	m	
994	21 45 56.82	+65 40 58.7	19.385			1.662:	0.714	0.224:	0.828:			
995	21 45 56.85	+65 50 23.2	16.816	3.331	2.782	1.966	0.809	0.322	0.859	g8 V		
996	21 45 56.96	+65 49 36.1	16.506	2.811	2.214	1.547	0.705	0.250	0.686	f6 V	m	
997	21 45 56.96	+65 44 19.5	19.808			1.651:	0.662	0.146:	0.833:			
998	21 45 57.02	+65 44 10.6	13.761	4.355	3.656	2.531	1.037	0.386	0.981	g9 III	m	3
999	21 45 57.02	+65 49 48.6	17.333	3.600	3.138	2.173	0.819	0.414	0.885	k2 V		
1000	21 45 57.02	+65 44 40.0	18.981			2.242	0.899	0.315	0.971			
1001	21 45 57.18	+65 44 50.1	15.561	3.107	2.457	1.735	0.787	0.277	0.745	f8 IV		
1002	21 45 57.18	+65 43 11.7	19.093	2.871:	2.288:	1.569	0.666	0.204	0.747			
1003	21 45 57.37	+65 42 30.7	18.375	2.841	2.506:	1.661	0.698	0.226	0.802			
1004	21 45 57.37	+65 48 33.4	18.423			2.371	0.914	0.429	0.976	k3 V		
1005	21 45 57.60	+65 48 23.8	17.530	2.982	2.345	1.696	0.798	0.294	0.747	f6 V		4
1006	21 45 57.65	+65 46 36.9	19.274		2.440:	1.769	0.832	0.294	0.787			
1007	21 45 57.90	+65 49 06.1	18.879		2.372	1.774	0.768	0.299	0.759			
1008	21 45 57.92	+65 41 01.9	19.228			1.784	0.742	0.146	0.996			
1009	21 45 58.09	+65 49 36.6	19.370			1.333	0.734	0.104	0.795:			
1010	21 45 58.20	+65 51 24.4	15.272	2.873	2.319	1.656	0.683	0.281	0.660	g5 V		
1011	21 45 58.49	+65 41 36.5	18.830	2.604:	2.147:	1.517	0.665	0.144	0.840			
1012	21 45 58.54	+65 41 30.3	19.141			2.449:	0.742	0.313	1.307			
1013	21 45 58.58	+65 48 50.6	19.073			2.787	1.004	0.599	1.204			

Continued **Table A.4**

No	RA(2000)	DEC(2000)	V	U-V	P-V	X-V	Y-V	Z-V	V-S	Photom.	Mem	Notes
	h m s	° ′ ″	mag	mag	mag	mag	mag	mag	mag	sp.type		
1014	21 45 58.63	+65 48 08.5	19.448			1.573:	0.723	0.253	0.710			
1015	21 45 58.87	+65 42 01.9	19.160			1.878	0.774	0.242	0.937			
1016	21 45 58.95	+65 50 46.4	16.392	2.890	2.344	1.625	0.761	0.262	0.692	f8 V	m	
1017	21 45 59.82	+65 46 05.4	19.386			1.663	0.677	0.276	0.739			
1018	21 45 59.89	+65 47 15.9	18.875	2.906:	2.162:	1.605	0.691	0.249	0.794			
1019	21 45 59.94	+65 42 35.3	19.372			1.717	0.809	0.299	0.717			
1020	21 46 00.02	+65 50 38.5	17.768	3.006	2.507	1.746	0.752	0.275	0.724	g5 V	m	
1021	21 46 00.12	+65 50 16.6	18.942			1.968	0.813	0.285	0.887			
1022	21 46 00.42	+65 48 51.9	16.662	2.860	2.258	1.598	0.711	0.265	0.721	f8 V	m	
1023	21 46 00.56	+65 43 42.0	16.092	3.670	2.997	2.119	0.924	0.325	0.961	g2 III		
1024	21 46 00.70	+65 45 04.5	16.890	2.936	2.370	1.711	0.740	0.277	0.697	g1 V	m	
1025	21 46 00.84	+65 48 44.3	18.312			2.359	0.915	0.423	1.000			
1026	21 46 00.92	+65 49 06.9	13.953	4.164	3.472	2.431	1.013	0.391	0.949	g8 III	m	3
1027	21 46 01.07	+65 50 54.9	17.571	2.659	1.969	1.362	0.639	0.218	0.677	g, md:		
1028	21 46 01.16	+65 48 23.4	19.749			1.735:	0.734	0.299:	0.678:			
1029	21 46 01.70	+65 43 08.2	19.300			2.130:	0.797	0.299	0.844			
1030	21 46 01.77	+65 49 27.7	16.969	4.631:	3.693:	2.807	1.171	0.570	1.299	k-m		
1031	21 46 01.78	+65 44 42.8	18.554			1.989:	0.952	0.433:	0.661:			
1032	21 46 01.92	+65 45 20.2	17.821	3.145	2.482	1.867	0.841	0.288	0.853	g, md:		
1033	21 46 01.98	+65 48 02.5	15.988	3.038	2.512	1.759	0.743	0.299	0.730	g5 V		
1034	21 46 03.04	+65 47 25.6	15.811	4.081	3.400	2.386	1.123	0.396	0.906	g		
1035	21 46 03.07	+65 42 22.0	18.967			1.734	0.791	0.243	0.823			
1036	21 46 03.71	+65 49 20.4	15.676	2.681	2.096	1.484	0.678	0.258	0.694	f6 V	m	
1037	21 46 04.03	+65 50 10.5	16.939	3.398:	2.778	1.934	0.844	0.307	0.822	g2 V		

Notes:

1. Radial velocities and metallicities determined by Jacobson et al. (2007, 2008);
2. Radial velocities and metallicities determined by Friel et al. (1989) and Friel & Janes (1993);
3. Red clump giants of NGC 7142 (Sandquist et al. 2011 and this paper);
4. Images are asymmetrical or with close neighbours, double or multiple stars;
5. BD+65 1642;
6. Variable (Sandquist et al. 2011, 2013).

Appendix B

Classification of stars

B.1. Classification of stars in the NGC 7023 area

Table B.1

Classification of stars around NGC 7023 area with most reliable spectral types determined from *Vilnius* photometry. The column *p* gives the accuracy estimates of spectral types.

No	V mag	Sp	p	Mv mag	Av mag	d pc	Subarea.
5	15.75	g2.5 V	1.0	4.59	1.36	910	I
6	12.91	g8 III	1.0	0.78	1.25	1500	I
11	15.77	f6 V	0.9	3.73	1.13	1520	I
12	15.39	f5 III	0.9	1.79	1.07	3200	I
14	15.70	k0.5 V	0.8	5.95	1.31	488	I
15	14.56	g0 IV	0.9	3.10	1.09	1190	I
16	15.29	g1 V	0.8	4.76	1.14	760	I
23	15.70	g7 V	1.0	5.40	1.00	720	I
33	13.70	f7 IV	0.9	2.10	1.11	1250	I
34	11.75	f8 V	0.9	3.84	0.24	342	I
40	15.62	g5.5 V	1.0	4.91	1.73	630	I
47	15.84	g2.5 V	0.8	4.85	1.18	920	I
50	12.56	g2 V	1.0	4.47	0.79	289	I
51	14.98	f8 IV	0.9	2.40	1.13	1950	I
53	13.65	f1 III	0.9	1.20	1.20	1780	I
54	15.41	g9 III	0.8	1.35	1.18	3760	I
56	15.68	g8 III	0.8	0.61	2.03	4060	
57	15.90	g7 V	1.0	5.24	1.12	810	I
63	14.33	k0 III	1.0	0.50	1.49	2950	IV
68	13.91	g8 V	1.0	5.35	0.84	350	I
71	15.26	f8 IV	0.9	2.22	1.14	2390	I
72	16.62	f7 V	0.7	4.07	1.16	1900	I
75	9.71	f5 IV	0.9	2.71	0.09	241	IV
76	12.40	f3 V	0.9	3.16	0.74	500	I
79	11.69	g1 V	0.8	4.59	0.00	263	I
82	15.19	g4 V	1.0	4.71	1.00	790	I
83	14.49	g1.5 V	1.0	4.48	0.41	830	I
84	13.90	f8 IV	0.9	1.96	1.51	1220	IV

Continued **Table B.1**

No	V mag	Sp	p	Mv mag	Av mag	d pc	Subarea.
86	15.59	f5 V	0.9	3.56	0.99	1610	I
87	13.38	g9.5 III	1.0	0.75	1.18	1950	I
88	14.39	f4 V	0.9	3.40	1.09	960	I
89	10.15	f3 V	0.9	3.24	0.01	240	I
101	13.82	g8 III	1.0	1.59	1.54	1370	IV
103	12.42	k2 III	1.0	0.70	1.05	1360	I
104	12.38	f4 III	0.9	1.96	1.31	660	IV
105	13.13	k1 IV	1.0	3.11	1.15	590	I
108	15.80	g3 V	0.8	4.87	1.06	940	I
110	15.71	g1.5 V	0.8	4.45	1.22	1020	I
117	15.19	g9.5 III	0.8	0.70	1.85	3380	IV
125	16.08	k1.5 V	0.7	6.37	0.86	590	I
126	14.99	f5 V	0.9	3.64	1.11	1120	I
134	14.69	f5 IV	0.9	2.23	1.66	1450	IV
135	14.59	g9 IV	1.0	2.64	1.48	1240	IV
136	14.63	k1.2 V	1.0	5.46	0.92	447	I
138	16.42	g3 IV	0.7	2.89	1.16	2980	I
141	16.15	g1.5 IV	0.7	3.09	1.50	2040	I
143	15.41	k1 IV	0.8	3.64	1.38	1190	I
144	16.18	g3 IV	0.7	3.44	1.60	1690	IV
147	15.52	g8 V	1.0	5.01	1.19	730	IV
149	16.07	k0.5 IV	0.8	3.19	1.16	2210	I
150	14.98	k0.5 V	1.0	5.84	0.56	520	I
153	13.03	k3.5 III	1.0	0.48	1.07	1980	I
158	15.96	g9.5 IV	0.8	2.75	1.26	2450	I
160	14.45	a5 IV	0.9	1.24	1.78	1930	IV
161	11.60	g8 III	1.0	0.83	1.50	710	I
162	15.04	k0.5 V	1.0	5.63	0.79	530	I
168	13.30	g9.5 III	1.0	0.54	2.13	1340	IV
174	15.54	f6 IV	0.9	2.62	1.63	1820	I
176	16.14	g1 V	0.8	4.56	0.83	1410	I
177	15.61	g3 V	0.8	4.80	1.50	730	I
178	14.98	k0.5 IV	0.8	2.77	1.10	1660	I
179	13.79	f6 IV	0.9	2.85	1.27	860	IV
181	15.93	g2 V	0.8	4.70	1.29	970	I
182	13.11	g9 III	1.0	0.73	1.65	1400	IV
184	15.09	g1.5 IV	1.0	3.23	1.21	1340	I
185	15.32	k0 III	0.8	1.08	1.58	3400	IV
188	15.09	k3.2 III	0.8	0.73	1.25	4170	
190	9.80	k3 III	1.0	0.29	1.62	720	I
194	11.56	g3 V	1.0	4.82	0.15	209	IV
199	15.45	g1 IV	0.7	3.02	1.85	1310	IV
200	12.78	k0.7 III	1.0	0.79	1.67	1150	IV
202	15.58	g7 V	1.0	5.47	1.23	600	I
204	15.22	g0 V	1.0	4.00	1.45	900	IV
205	14.52	g3 V	1.0	4.87	1.08	520	I

Continued **Table B.1**

No	V mag	Sp	p	Mv mag	Av mag	d pc	Subarea.
207	13.08	g0 IV	0.9	2.54	0.97	820	IV
208	15.67	k1 IV	0.8	3.66	1.34	1370	IV
209	14.36	g3 V	1.0	4.86	0.86	530	I
215	12.61	f3 IV	0.9	2.54	0.83	710	I
216	15.68	g1.5 V	1.0	4.44	1.34	960	I
217	14.56	f8 IV	0.9	2.38	1.53	1350	IV
223	15.53	g5 IV	0.7	3.04	1.36	1680	I
225	14.50	g9 IV	1.0	3.48	1.15	940	I
226	16.47	f5 V	0.7	3.66	1.41	1900	IV
228	13.64	g8 IV	1.0	3.01	1.47	680	IV
231	15.02	g2 IV	1.0	3.02	1.63	1190	IV
233	15.41	k2.5 V	0.8	5.92	0.49	630	I
235	11.72	k0 III	1.0	0.72	1.16	930	IV
241	15.47	g6 III	0.7	1.01	2.15	2890	IV
242	13.66	g0 V	1.0	4.20	0.65	580	I
249	14.67	k0.5 III	0.8	0.59	1.93	2700	IV
250	14.49	k1.7 III	0.8	0.67	1.56	2820	IV
251	13.49	g2.5 V	1.0	4.40	1.09	400	I
252	15.45	g9.5 V	1.0	5.36	1.20	600	IV
254	14.00	k3 V	0.8	6.63	0.71	214	IV
258	14.16	f7 IV	0.9	2.70	1.39	1030	IV
259	13.52	f7 V	0.8	3.71	0.67	670	I
266	7.70	k3 III	1.0	0.70	0.28	221	IV
267	14.98	g9 IV	1.0	3.51	1.43	1020	IV
274	15.78	g2 V	1.0	4.59	1.45	890	I
275	12.98	g5.5 III	1.0	0.71	1.54	1400	IV
277	15.06	g9.5 IV	0.8	2.90	1.70	1240	I
284	15.52	g8 V	1.0	5.20	1.36	620	I
285	12.51	g8 V	1.0	5.24	0.08	274	I
286	13.56	k3.5 III	0.8	0.45	1.75	1880	I
290	14.45	k0.7 IV	1.0	2.63	1.94	950	IV
292	15.35	g9 V	1.0	5.67	1.43	448	IV
293	14.97	f7 IV	0.9	2.37	1.21	1890	I
300	11.65	f6 III	0.9	2.00	0.76	600	I
301	14.19	g9.5 IV	1.0	2.48	1.32	1200	IV
302	12.51	f5 IV	0.9	1.77	1.19	820	IV
304	11.37	g6 V	1.0	5.14	0.13	165	IV
305	14.15	f6 IV	0.9	2.52	1.62	1010	IV
307	16.09	f8 V	0.8	4.15	1.11	1460	I
308	12.53	f7 IV	0.9	2.74	1.29	500	I
309	13.42	g5.5 V	1.0	4.83	0.74	371	I
310	15.51	k0.5 V	1.0	5.92	1.31	453	IV
312	14.74	k2 III	0.8	1.16	2.15	1930	IV
314	15.68	g3 V	0.8	4.71	1.46	800	IV
315	15.65	k0 V	0.8	5.77	1.32	520	IV
321	13.06	f0 IV	0.9	2.11	1.23	880	IV

Continued **Table B.1**

No	V mag	Sp	p	Mv mag	Av mag	d pc	Subarea.
323	14.12	f9.5 IV	0.9	2.94	1.36	920	IV
324	14.70	g1.5 IV	1.0	2.51	1.10	1660	IV
325	15.94	f7 V	0.7	3.94	2.09	960	IV
331	14.07	g9.5 IV	1.0	2.89	2.46	560	IV
333	15.26	f9 IV	0.9	2.36	1.44	1960	IV
335	15.81	f9.5 V	0.7	4.36	1.65	910	IV
337	15.35	f9.5 V	0.9	4.23	1.11	1000	I
339	13.78	k0 III	1.0	0.95	1.53	1820	IV
348	13.93	a8 III	0.9	1.02	1.29	2110	IV
349	14.48	g9.5 III	1.0	1.00	1.62	2350	I
350	15.55	f7 IV	0.9	2.68	2.02	1480	IV
351	11.44	g9 III	1.0	0.27	1.61	820	IV
352	15.35	f9 IV	0.9	2.71	1.92	1400	IV
353	15.25	g2.5 V	1.0	4.60	1.63	640	IV
356	12.41	k0.5 III	1.0	0.73	1.55	1060	IV
360	14.05	b7 V	1.0	-0.11	2.20	2460	IV
362	15.77	g0 V	0.8	4.45	1.57	890	IV
363	14.39	g9.5 IV	1.0	2.77	2.05	820	IV
369	12.68	f4 IV	0.9	2.38	0.97	740	IV
373	14.02	g2.5 IV	1.0	3.01	1.68	740	IV
377	13.10	a7 IV	0.9	1.34	1.82	970	IV
378	15.20	k0.7 III	0.8	0.78	1.57	3710	IV
380	14.49	f7 V	0.9	3.95	0.85	870	I
383	14.87	k1.2 III	0.8	0.33	2.55	2500	IV
384	14.94	g1 V	0.9	4.25	1.23	780	IV
386	15.57	g4 V	1.0	4.77	1.24	820	
391	14.67	k7 V	0.8	8.15	0.00	201	I
394	15.21	g1 IV	1.0	2.81	1.51	1500	IV
395	12.55	g6 V	1.0	5.14	0.11	288	IV
398	15.45	f9 V	0.9	4.13	1.39	970	IV
400	13.51	f8 IV	0.9	2.68	1.01	920	IV
403	12.80	f3 III	0.8	1.60	1.46	890	IV
409	14.75	k5 V	1.0	7.16	0.45	268	IV
411	13.37	f8 IV	0.9	1.88	1.18	1150	IV
415	15.65	g1 IV	0.9	2.21	1.39	2560	IV
418	12.75	f1 IV	0.9	1.89	1.24	840	IV
422	15.23	g3 V	1.0	4.86	1.27	660	IV
423	15.65	g1 IV	0.5	3.04	1.76	1480	IV
424	14.68	f9 IV	0.9	1.49	1.51	2170	IV
426	11.18	f4 III	0.9	1.82	1.37	395	V
428	12.22	a5 IV	0.9	0.93	1.33	990	IV
431	13.33	k2.2 V	0.8	6.25	0.15	243	V
434	15.36	g2.5 IV	0.9	2.53	1.56	1800	IV
437	16.43	f7 V	0.7	3.91	1.60	1520	IV
439	10.70	f0 IV	0.9	1.84	1.04	366	IV
443	14.83	f7 IV	0.9	2.43	1.42	1570	IV

Continued **Table B.1**

No	V mag	Sp	p	Mv mag	Av mag	d pc	Subarea.
446	15.57	g6 IV	0.8	3.17	1.45	1550	IV
448	11.71	g9 III	1.0	0.73	1.56	770	IV
451	14.00	f7 IV	0.9	2.82	1.24	970	IV
456	15.60	k0 III	0.8	0.68	1.92	3990	IV
457	15.35	g0 IV	0.9	2.75	1.42	1720	IV
460	16.35	g2 V	0.7	4.44	1.50	1210	IV
464	14.96	m2.5 V	0.8	10.06	0.25	85	IV
466	16.55	g7 V	0.8	5.40	1.24	960	IV
469	14.49	k0 IV	1.0	3.56	1.27	860	IV
473	12.23	g0 V	0.9	4.33	0.18	349	V
476	13.74	g7 V	1.0	5.37	0.64	352	IV
477	12.57	f5 V	0.9	2.17	1.29	660	IV
480	13.74	k3.5 III	0.7	0.65	1.53	2060	
482	15.66	g6 III	0.8	0.85	2.10	3480	IV
485	13.09	k0.7 IV	1.0	3.12	0.94	640	I
494	16.24	g2.5 V	0.7	4.71	1.93	830	IV
495	15.22	g1 V	0.9	4.51	0.74	990	I
496	13.92	g1 IV	1.0	2.27	1.56	1040	IV
497	15.82	m2 V	0.8	7.37	1.83	211	IV
498	11.02	f4 V	0.9	3.45	0.14	307	V
499	12.81	m0 III	1.0	-0.68	1.63	2360	IV
500	13.65	f9 IV	0.9	2.71	1.08	940	I
501	11.95	f3 IV	0.9	2.37	0.85	560	I
504	15.65	f8 IV	0.8	2.72	1.78	1700	V
506	15.15	k0.5 IV	0.8	3.26	1.39	1260	IV
511	16.31	f7 V	0.7	3.90	1.44	1560	I
513	16.00	f9.5 V	0.7	4.37	1.66	980	IV
514	15.98	g8 V	1.0	5.56	0.91	800	I
516	15.82	f6 V	0.7	3.94	1.98	960	IV
519	15.33	g5.5 V	1.0	3.05	1.42	670	IV
521	14.56	k2.5 V	0.8	6.45	0.67	309	I
523	12.54	k1.5 III	1.0	0.90	1.34	1150	IV
527	14.30	f6 V	0.9	3.26	1.14	950	I
531	15.71	f8 V	0.5	4.21	1.96	810	V
533	13.61	g0 IV	1.0	2.38	1.44	910	IV
537	16.18	k3 V	0.8	6.56	0.99	530	IV
538	15.91	g3 V	0.7	4.51	2.36	640	V
540	15.16	g9.5 V	1.0	5.55	0.86	560	I
541	13.20	k0.7 V	1.0	5.77	0.27	272	IV
544	12.27	g2 V	0.8	4.69	0.12	311	IV
545	15.50	f8 V	0.7	4.11	2.11	720	IV
554	12.86	k3 III	1.0	0.67	1.22	1560	I
560	14.89	f7 V	0.8	3.92	1.25	880	IV
562	14.30	g2.5 III	1.0	0.84	1.95	2000	V
563	14.04	k1 V	1.0	6.03	0.44	327	V
565	14.97	g5 V	1.0	4.81	1.25	610	IV

Continued **Table B.1**

No	V mag	Sp	p	Mv mag	Av mag	d pc	Subarea.
567	15.73	a9 IV	0.8	1.97	1.86	2400	V
569	13.99	k2.2 III	0.8	0.50	2.71	1430	V
570	14.10	k0 IV	1.0	2.82	1.13	1070	I
572	14.56	f6 V	0.7	3.79	1.00	900	I
574	12.44	k2.5 III	0.7	1.41	1.11	970	I
576	15.01	g8 III	0.8	0.89	3.07	1630	V
577	14.04	k0 V	0.8	6.02	0.50	320	V
578	16.23	g1.5 V	0.7	4.46	1.30	1240	I
581	15.48	f8 IV	0.9	2.37	1.49	2100	I
582	15.43	g7 III	0.8	0.71	1.57	4280	I
583	14.29	g1.5 V	0.8	4.64	0.80	590	I
595	13.18	k2 V	1.0	6.34	1.56	114	V
597	13.31	k0.5 IV	1.0	2.54	1.46	730	I
598	15.53	k2 V	0.8	6.26	0.85	483	I
602	16.56	f7 IV	0.7	2.21	1.86	3150	I
604	15.67	f9 IV	0.9	2.95	1.53	1730	IV
607	14.73	f7 IV	0.9	1.88	1.98	1490	IV
609	14.57	k1.2 V	1.0	5.47	1.63	314	V
611	9.11	m0 III	1.0	-0.66	1.10	540	I
615	14.96	a1 IV	1.0	0.47	1.51	3940	II
622	13.47	k0 III	0.7	0.38	2.57	1270	V
623	14.17	k1 IV	0.8	2.54	1.75	950	II
626	12.83	f5 IV	0.9	2.36	1.73	560	V
632	11.82	k0.7 V	1.0	6.00	0.20	133	V
633	15.36	g8.5 V	1.0	5.66	1.50	437	V
634	13.95	g8.5 IV	1.0	3.16	1.44	740	II
636	14.57	k6 V	0.6	7.83	0.55	173	V
638	13.05	k1 V	1.0	6.12	0.18	224	II
640	9.76	k2.2 III	0.8	0.82	0.83	420	II
643	12.94	g4 V	1.0	4.94	0.30	346	II
644	16.15	g1 IV	0.7	3.76	1.68	1390	IV
649	12.10	k3.7 III	1.0	0.27	1.70	1070	II
652	13.82	k3.2 V	0.8	6.69	0.18	245	V
656	13.67	g4 V	1.0	4.55	0.70	485	II
657	12.95	k0 V	1.0	5.57	0.15	279	V
659	14.53	g9.5 III	0.8	1.23	1.98	1840	IV
660	11.67	g4 V	1.0	4.95	0.19	202	V
662	16.55	f8 V	0.7	3.84	1.78	1530	IV
669	14.23	f7 V	0.9	3.74	0.95	810	II
671	14.24	k1.2 III	0.8	1.07	2.20	1560	IV
674	15.54	g5 IV	1.0	3.48	1.22	1470	IV
676	16.05	g8 V	0.8	5.43	1.28	740	IV
682	14.06	g8 V	1.0	5.13	0.58	469	II
693	15.01	f3 V	0.6	3.14	2.53	740	V
694	14.28	f6 III	0.9	1.58	1.81	1510	IV
695	14.93	f6 IV	0.9	2.16	1.66	1660	IV

Continued **Table B.1**

No	V mag	Sp	p	Mv mag	Av mag	d pc	Subarea.
696	15.34	g8 V	1.0	5.06	0.84	770	IV
698	14.34	g9 III	1.0	0.71	1.89	2230	IV
700	12.58	f4 IV	0.9	2.56	0.73	720	II
703	13.86	f4 IV	0.9	2.43	1.09	1160	II
705	15.04	f7 IV	0.9	2.54	1.33	1710	II
706	15.75	f4 V	0.8	3.31	1.19	1780	II
708	11.81	f9 V	0.8	4.15	0.18	312	V
709	15.08	g6 V	1.0	4.92	0.82	740	II
710	15.85	f9.5 V	0.9	4.26	1.39	1100	IV
711	14.76	f8 IV	0.9	1.88	2.11	1420	IV
712	14.60	f8 IV	0.9	2.86	1.15	1310	IV
714	12.18	k2.7 V	1.0	6.47	0.29	121	V
719	15.21	f7 IV	0.9	2.00	1.29	2420	II
720	16.10	g1 V	0.7	4.45	1.76	950	IV
722	15.21	g2 V	1.0	4.67	0.44	1050	II
727	14.93	k0.5 V	1.0	5.89	0.73	460	II
731	12.66	k2 V	1.0	6.33	0.23	166	IV
738	15.76	g8 IV	0.8	2.65	1.90	1740	IV
739	16.01	k1.2 V	0.8	6.22	0.90	600	IV
742	15.61	g3 V	0.8	4.75	1.24	840	IV
750	14.49	f6 IV	0.9	2.69	1.54	1130	IV
754	11.69	k4.2 III	1.0	0.21	1.16	1160	II
757	12.77	a5 IV	0.9	1.32	1.42	1010	IV
760	14.01	f6 IV	0.9	2.42	1.15	1220	IV
769	15.88	g4 V	1.0	5.02	1.34	800	IV
770	12.95	f8 IV	0.9	2.75	0.88	730	IV
775	16.36	g2 V	0.7	4.80	1.39	1080	IV
776	15.88	f6 III	0.7	1.54	2.13	2770	IV
778	13.81	f7 IV	0.9	2.73	0.95	1060	IV
780	14.27	k0 III	1.0	0.81	2.01	1940	IV
786	16.28	g0 IV	0.7	3.10	1.74	1940	IV
789	13.86	f7 IV	0.9	2.05	1.07	1400	IV
793	15.87	f9 V	0.8	4.04	1.39	1230	IV
797	14.05	f6 IV	0.9	2.60	1.39	1030	IV
798	14.35	k0.7 V	1.0	5.73	0.36	447	II
799	15.09	g5.5 III	1.0	0.80	1.58	3490	II
800	15.79	f4 III	0.7	1.92	2.02	2350	IV
803	14.71	f0 IV	0.9	2.02	1.51	1720	IV
804	14.04	g4 V	1.0	4.15	0.17	880	II
805	14.72	g9.5 V	1.0	5.63	0.84	447	IV
810	14.57	a8 IV	0.9	1.70	2.01	1490	IV
811	12.13	g2.5 IV	1.0	3.35	0.51	449	IV
812	15.53	g2.5 V	1.0	4.61	1.21	870	IV
814	15.96	f7 IV	0.7	2.48	1.93	2050	IV
815	16.01	g2 V	0.7	4.78	1.42	920	IV
820	14.63	g1 V	0.9	4.45	0.85	730	IV

Continued **Table B.1**

No	V mag	Sp	p	Mv mag	Av mag	d pc	Subarea.
821	8.99	f8 V	0.8	4.03	0.08	95	IV
823	15.93	k2.5 V	0.8	6.35	1.00	520	IV
825	13.74	g1.5 V	0.9	4.56	0.66	510	III
826	15.44	k1.2 V	1.0	5.72	1.00	560	IV
828	14.09	k0 IV	1.0	2.64	1.82	840	IV
831	11.42	f8 V	0.8	4.03	0.15	281	IV
835	14.94	f9 IV	0.9	2.10	1.42	1920	IV
839	14.33	f8 V	0.9	3.96	0.61	900	IV
844	13.03	g8 III	1.0	0.84	1.15	1610	II
846	14.70	f9 IV	0.9	2.10	1.54	1630	III
847	15.61	g1 V	1.0	4.41	0.94	1130	IV
855	15.71	g0 IV	0.9	2.57	1.51	2120	IV
857	13.53	f9 V	0.9	4.05	0.58	600	III
861	14.91	g0 IV	1.0	2.85	1.83	1110	II
868	12.05	g8.5 III	1.0	0.75	1.18	1060	IV
871	12.02	f7 IV	0.9	3.00	0.79	442	IV
876	15.34	f7 IV	0.8	2.27	1.73	1860	IV
881	14.76	f5 IV	0.9	2.63	1.37	1420	IV
887	11.51	g1 V	0.9	4.35	0.02	268	III
893	15.48	f8 V	0.8	3.91	1.09	1250	II
895	14.99	f4 V	0.9	3.49	0.96	1280	IV
896	14.10	k0.5 III	1.0	0.78	1.63	2190	IV
903	12.54	f8 IV	0.9	2.32	1.10	670	
905	15.24	f9 V	0.9	4.08	0.67	1250	II
906	14.52	g4 V	1.0	5.07	0.79	540	II
910	13.79	f3 III	0.8	0.90	1.60	1810	III
911	13.69	f4 IV	0.9	2.44	1.12	1060	II
915	13.83	g1 IV	1.0	2.77	0.94	1060	II
917	15.52	g6 V	1.0	5.14	0.55	920	IV
923	14.53	g0 V	1.0	4.55	0.66	730	II
924	15.36	f7 IV	0.9	2.61	1.19	2050	II
925	14.64	a8 IV	1.0	1.66	1.76	1760	
926	15.93	f8 V	0.8	3.97	0.87	1660	II
928	13.04	k1.2 III	1.0	0.80	1.07	1710	II
932	14.03	g6 V	1.0	4.78	0.46	570	II
935	14.69	g4 V	1.0	4.74	0.57	750	III
936	14.21	g5.5 IV	1.0	2.41	1.38	1210	II
939	14.40	k0.5 V	1.0	5.84	0.59	392	II
943	13.06	g7 III	1.0	0.77	1.78	1260	III
946	13.48	g2 V	1.0	4.42	0.37	550	III
950	14.92	g3 V	1.0	4.86	0.57	790	II
952	11.49	f7 IV	0.9	2.52	0.37	530	III
953	11.40	f5 V	0.9	3.56	0.28	324	II
954	15.35	k2.7 V	1.0	6.58	0.77	398	III
956	10.90	g0 V	0.8	4.18	0.15	206	III
957	14.28	g0 V	0.8	4.35	0.68	710	II

Continued **Table B.1**

No	V mag	Sp	p	Mv mag	Av mag	d pc	Subarea.
958	15.95	g2.5 V	0.8	4.69	1.31	970	III
959	13.90	g3 IV	0.8	3.36	0.54	1000	II
962	16.10	f8 IV	0.7	1.85	2.11	2670	IV
963	13.38	k2.5 III	1.0	1.11	1.36	1520	IV
966	13.59	a8 IV	0.9	1.60	1.52	1240	
971	14.78	f5 IV	0.9	2.57	1.23	1570	II
972	12.51	g6 V	1.0	5.15	0.15	276	II
973	12.63	k0.5 III	1.0	0.10	1.85	1370	III
977	14.66	k1.7 V	0.8	6.09	0.35	440	II
978	15.32	f5 IV	0.9	2.68	1.38	1790	II
980	13.76	g1 V	0.9	4.41	0.54	580	III
983	14.85	k0.5 V	1.0	6.00	0.47	473	III
984	13.81	f8 IV	0.9	2.71	1.45	850	III
987	15.45	g9.5 V	1.0	5.54	0.89	640	III
988	14.11	f8 V	0.9	4.00	0.46	850	II
989	10.28	a7 V	0.9	2.29	0.60	300	II
991	15.13	g1.5 V	1.0	4.43	0.94	900	II
992	15.86	k2 V	0.7	6.40	0.78	550	IV
993	15.23	g8.5 IV	1.0	3.49	1.06	1370	II
995	14.48	g7 V	1.0	5.18	0.30	630	II
996	16.01	k1.2 V	0.8	5.51	0.35	1070	II
998	14.42	g8.5 V	1.0	5.56	0.53	463	II
1000	12.50	f5 V	0.9	3.50	0.52	495	III
1001	12.63	k0.5 V	1.0	5.74	0.09	229	II
1007	15.04	g1 IV	0.9	3.12	0.77	1700	II
1010	14.74	k0 IV	1.0	2.73	1.30	1390	II
1012	11.77	g4 V	1.0	4.94	0.14	218	
1013	15.41	g9 III	0.8	1.22	1.81	2990	III
1017	14.86	f9 V	0.8	4.47	0.74	850	II
1018	11.54	f5 V	0.9	3.43	0.38	352	III
1020	16.67	f7 V	0.7	4.09	1.23	1860	II
1021	14.45	g8 III	1.0	0.88	2.06	2000	III
1023	14.21	g8.5 IV	1.0	3.17	1.16	950	II
1024	12.38	k5.5 V	0.8	7.37	0.22	91	III
1026	14.90	g8 IV	1.0	3.07	1.83	1000	III
1029	15.85	k2.7 V	0.8	6.52	0.59	560	II
1031	13.31	f8 IV	0.9	2.57	1.03	880	
1032	11.83	f8 IV	0.9	2.92	0.31	520	III
1033	13.68	k0.5 III	1.0	0.82	1.60	1780	III
1040	16.30	f9.5 V	0.8	4.40	0.98	1530	II
1041	15.39	g7 III	0.8	0.15	2.06	4320	III
1043	16.50	g4 V	0.7	5.20	1.14	1080	III
1044	15.28	k0.5 V	1.0	5.89	0.50	600	III
1047	14.74	f8 V	0.9	3.90	1.03	910	II
1054	14.68	f9 V	0.8	4.19	0.88	840	III
1055	13.96	g0 V	1.0	4.48	0.32	680	II

Continued **Table B.1**

No	V mag	Sp	p	Mv mag	Av mag	d pc	Subarea.
1056	14.68	k4.5 V	1.0	7.08	0.50	264	III
1059	16.12	g3 V	1.0	4.84	0.86	1210	II
1061	12.45	a8 V	0.9	2.45	0.74	710	III
1067	12.63	f0 III	0.9	1.37	1.06	1100	II
1070	13.93	g1.5 V	1.0	4.51	0.45	620	III
1071	11.32	k2.2 III	0.8	1.40	0.25	860	II
1074	14.29	k2.2 III	0.8	0.96	1.47	2360	II
1076	10.00	k0.5 III	1.0	0.52	0.42	650	II
1077	14.14	g8 III	1.0	1.10	1.44	2090	II
1078	15.90	k2 V	0.7	6.31	0.48	660	II
1081	13.57	g2 V	0.8	4.55	0.39	530	II
1087	15.58	k0 V	0.7	5.79	0.64	680	III
1089	15.04	f5 V	0.9	3.45	1.01	1310	II
1090	13.43	g5 V	1.0	5.03	0.43	393	II
1093	14.05	g5 V	1.0	4.95	0.51	520	III
1096	14.54	k1 III	0.8	1.02	1.72	2290	III
1101	15.68	k1.2 V	0.8	6.12	0.40	680	II
1102	11.35	g9.5 III	1.0	0.88	0.79	860	II
1105	15.83	g8 V	1.0	5.00	0.62	1100	II
1106	15.04	g5 IV	1.0	2.72	1.86	1240	III
1111	15.29	g9 V	1.0	5.79	0.44	650	III
1113	9.14	k0 IV	1.0	2.78	0.30	164	II
1114	13.87	f9 V	0.9	4.14	0.40	730	III
1116	14.54	g1 V	0.9	4.37	0.98	690	II
1117	14.68	k1.5 V	1.0	6.16	0.45	412	III
1120	13.02	g1 IV	0.9	2.82	0.79	760	III
1122	15.74	g4 V	1.0	4.74	1.03	990	II
1123	15.39	g9.5 IV	0.8	3.47	1.60	1160	II
1125	14.29	f1 IV	0.9	2.09	1.34	1490	II
1130	12.20	a8 V	0.9	2.25	0.74	700	III
1131	14.56	k0.5 V	1.0	5.72	0.37	494	II
1134	13.54	f6 V	0.8	3.97	0.39	690	II
1135	13.40	k1 III	1.0	0.58	1.66	1700	II
1140	12.75	k3 III	1.0	0.27	1.91	1300	III
1141	12.86	g3 V	0.8	4.80	0.25	364	III
1144	14.69	k1 V	1.0	5.91	0.57	437	III
1145	15.67	g6 V	1.0	5.01	0.77	950	II
1148	16.01	k3 V	0.7	6.69	0.43	600	II
1149	11.90	g3 V	1.0	4.92	0.12	236	III
1152	15.14	k8 V	0.8	7.49	0.00	339	III
1153	8.09	f0 V	0.9	2.63	0.09	118	II
1155	14.88	k3.2 V	0.8	6.72	0.41	355	II
1157	11.76	a9 IV	0.9	2.00	0.63	670	II
1158	14.81	k0 IV	1.0	3.05	1.41	1170	II
1161	13.76	f9 V	0.8	4.26	0.30	690	II
1162	12.28	g0 V	0.8	4.20	0.31	359	II

Continued **Table B.1**

No	V mag	Sp	p	Mv mag	Av mag	d pc	Subarea.
1163	14.44	k0 V	1.0	5.91	0.25	453	III
1164	14.99	k0.7 V	1.0	5.66	0.37	620	II
1166	15.76	f3 V	0.8	3.16	1.54	1630	II
1168	16.20	f1 V	0.8	2.95	1.65	2090	II
1170	15.39	k3 V	0.8	6.64	0.27	497	II
1173	12.62	f3 V	0.9	3.16	0.44	640	II
1175	13.24	g8.5 IV	1.0	3.66	0.43	670	II
1177	15.09	g2 V	0.8	4.67	1.15	710	III
1178	14.79	f6 V	0.8	3.92	0.86	1000	II
1180	14.45	f9.5 IV	0.9	2.18	1.08	1730	II
1183	15.91	g1 V	0.8	4.58	0.84	1250	II
1186	14.58	g5 V	1.0	4.84	0.60	670	II
1187	14.55	g2 V	0.9	4.71	0.41	770	III
1188	14.58	g1.5 V	1.0	4.51	0.31	900	II
1190	14.93	f6 IV	0.9	2.43	1.56	1540	III
1194	15.76	k2.5 V	0.8	6.49	0.32	610	II
1202	13.91	g0 V	1.0	4.30	0.79	580	II
1203	13.74	g0 V	0.9	4.28	0.38	650	II
1205	15.02	f8 V	0.8	4.15	1.38	790	II
1209	15.43	k0 V	1.0	5.90	0.68	590	III
1214	12.51	k0.5 III	1.0	1.06	1.34	1050	II
1215	13.29	g9.5 III	1.0	0.75	1.46	1650	II
1217	14.63	g9.5 V	1.0	5.49	0.29	590	II
1218	15.95	f9 V	0.9	4.07	1.28	1320	II
1219	16.01	k3 V	0.8	6.53	0.40	660	II
1221	10.54	f0 IV	0.9	2.14	0.28	421	II
1222	14.49	g0 V	0.9	4.21	0.39	950	II
1224	15.94	k3 V	0.8	6.50	0.47	620	II
1225	15.32	g2 V	0.8	4.67	0.62	1010	II
1226	12.63	g1 V	0.9	4.31	0.23	414	II
1227	13.32	g5.5 V	1.0	5.10	0.37	372	II
1228	14.31	g7 V	1.0	5.23	0.65	486	II
1233	14.78	f9.5 V	0.8	4.39	0.29	1050	II
1236	12.95	g1.5 V	1.0	4.42	0.37	427	II
1238	15.84	k3.5 V	0.7	6.89	0.51	488	II
1239	12.99	f8 V	0.9	3.95	0.29	560	II
1240	13.63	g1 V	0.8	4.56	0.22	590	II
1243	13.67	g3 V	1.0	4.70	0.31	540	II

B.2. Classification of stars in the TGU 619 cloud area

Table B.2

Stars in the investigated TGU 619 cloud area with most reliable spectral types determined from *Vilnius* photometry.

No	RA(2000) h m s	DEC(2000) ° ′ ″	V mag	Y-V mag	Sp	Av mag	d pc.
8	20:33:13.8	+67:18:30	15.34	0.83	g2 IV	1.02	1900
11	20:33:18.2	+67:46:15	12.97	1.36	k3.5 III	1.69	1470
13	20:33:20.7	+67:29:42	15.21	0.94	f9.5 V	1.72	740
14	20:33:20.9	+67:16:58	15.78	0.76	g2.5 V	0.88	1210
16	20:33:22.9	+67:28:07	15.84	1.02	k1 V	1.52	436
20	20:33:30.0	+67:18:17	13.67	0.71	k1 V	0.25	290
21	20:33:31.7	+67:15:11	15.61	0.82	f8 V	1.31	1180
25	20:33:35.4	+67:23:46	15.24	0.90	k7 V	0.00	280
27	20:33:35.6	+68:00:59	14.70	0.86	f9 IV	1.39	1260
28	20:33:35.7	+67:24:09	14.99	0.89	g7 IV-V	1.06	990
30	20:33:38.0	+67:56:35	14.75	1.01	g1.5 IV	1.89	890
38	20:33:44.1	+67:22:33	15.40	0.88	g0 IV-V	1.46	1300
39	20:33:44.5	+67:59:55	12.74	0.70	g7 V	0.41	257
40	20:33:45.8	+67:46:04	13.49	0.85	f9.5 IV-V	1.36	550
41	20:33:46.4	+67:21:05	13.92	0.71	f2 IV-V	1.29	960
42	20:33:46.7	+67:28:33	14.09	1.45	k1.5 III	2.55	1590
46	20:33:47.7	+67:59:58	13.98	0.70	f3 III	1.22	1580
47	20:33:48.5	+68:18:54	9.78	0.69	k2 V	0.05	46
53	20:33:53.2	+67:14:19	15.32	1.11	k0.7 III	1.32	4580
54	20:33:53.6	+68:00:20	11.22	0.68	f2 III-IV	1.19	415
56	20:33:58.1	+67:40:17	16.04	1.08	k1.7 V	1.69	405
61	20:34:00.8	+67:18:39	15.45	0.81	f4 IV-V	1.51	1580
62	20:34:01.2	+68:15:05	13.99	0.91	g4 IV	1.27	970
63	20:34:03.8	+67:18:31	14.22	0.74	f9 V	0.92	690
64	20:34:04.0	+67:45:47	13.70	1.16	g7 IV	2.11	520
67	20:34:05.3	+67:48:39	15.14	0.94	k1.7 V	1.08	351
68	20:34:06.1	+68:14:29	15.40	1.01	k0.7 V	1.48	381
69	20:34:06.7	+67:56:10	13.05	0.76	f5 III	1.31	920
70	20:34:06.8	+68:13:47	13.86	0.86	g4 V	1.22	362
73	20:34:10.6	+67:43:54	15.31	0.99	f9.5 IV-V	1.89	920
75	20:34:10.9	+67:21:29	15.74	0.88	g1 V	1.39	970
77	20:34:13.3	+68:01:55	15.94	0.81	g2.5 V	1.07	1110
78	20:34:15.3	+67:48:02	11.23	0.54	a6 V	1.17	418
79	20:34:16.1	+67:30:53	14.67	1.04	f6 IV-V	2.34	740
82	20:34:17.8	+67:20:40	15.05	0.88	g0 V	1.44	720
84	20:34:19.2	+67:14:30	14.48	0.74	f7 V	1.00	910
86	20:34:20.1	+68:09:00	14.59	1.10	k0 III	1.39	3150
88	20:34:21.5	+67:49:16	14.54	0.75	f6 V	1.12	900
89	20:34:21.5	+67:42:18	13.94	1.17	g8.5 III	1.82	1860
94	20:34:24.0	+67:49:47	15.00	0.85	f8 IV	1.41	1420
95	20:34:24.5	+67:54:54	10.65	1.44	k6 III	1.50	670
96	20:34:24.6	+67:43:48	15.24	0.93	g0 IV-V	1.66	970
99	20:34:26.6	+68:05:13	14.41	0.39	b9 IV	1.00	4710
102	20:34:30.7	+68:11:20	11.12	0.63	f4 IV	0.85	415

Continued **Table B.2**

No	RA(2000)	DEC(2000)	V	Y-V	Sp	Av	d
	h m s	° ′ ″	mag	mag		mag	pc.
104	20:34:33.7	+68:07:20	13.96	0.72	f9 V	0.84	630
106	20:34:34.5	+67:59:13	15.21	0.86	g5.5 IV	0.99	1640
111	20:34:39.1	+67:47:00	14.26	0.89	f8 V	1.61	560
112	20:34:39.2	+67:59:05	15.09	0.83	g3 IV	0.97	1690
116	20:34:42.0	+67:56:55	10.50	0.53	a5 III	1.18	510
117	20:34:42.3	+68:11:03	14.03	0.76	g0 V	0.95	570
119	20:34:43.5	+67:16:01	15.19	0.81	f4 IV-V	1.52	1450
120	20:34:44.6	+68:18:27	13.63	0.94	g3 III-IV	1.36	1320
123	20:34:46.4	+68:13:46	15.73	0.97	k1.2 V	1.27	459
124	20:34:48.4	+68:06:42	16.01	0.92	k1 V	1.13	580
125	20:34:48.7	+68:16:48	12.88	1.03	k1 IV	1.08	550
126	20:34:48.8	+67:42:23	10.99	0.50	f7 V	0.00	266
127	20:34:48.9	+68:14:01	14.29	1.32	k3.7 III	1.43	3070
130	20:34:49.8	+67:44:39	14.43	0.95	f9 IV	1.76	950
133	20:34:52.3	+67:48:27	14.15	1.21	k0 III	1.84	2100
134	20:34:52.5	+67:56:25	15.06	0.80	f9 IV-V	1.16	1350
135	20:34:52.7	+68:06:26	14.75	0.97	g9.5 III	0.90	4060
137	20:34:52.8	+68:06:02	15.53	0.65	f3 V	0.95	1920
141	20:34:54.0	+67:33:11	14.42	1.13	k0 III	1.50	2870
142	20:34:54.1	+67:24:34	13.26	1.03	g3 IV	1.82	540
144	20:34:54.4	+68:07:05	15.05	0.74	f7 IV-V	1.03	1350
147	20:34:56.3	+67:42:22	12.74	0.63	g9 V	0.03	252
148	20:34:56.3	+68:08:41	15.76	0.78	k0 V	0.56	720
157	20:35:05.1	+68:06:56	15.63	0.71	f8 IV-V	0.88	1960
160	20:35:06.7	+67:35:36	15.84	1.01	k8 V	0.37	280
162	20:35:07.1	+67:36:51	15.38	0.93	f9 IV-V	1.71	1130
163	20:35:08.4	+68:05:29	14.06	0.67	f8 V	0.68	760
167	20:35:12.4	+68:20:35	14.80	1.05	k0.5 IV	1.25	1390
168	20:35:12.8	+67:35:22	15.40	0.99	g0 V	1.89	690
170	20:35:13.9	+67:43:43	14.30	1.14	g9.5 IV	1.78	730
171	20:35:14.0	+67:45:40	10.58	1.18	k0.5 III	1.64	444
176	20:35:17.8	+68:13:23	14.72	0.77	g2 IV-V	0.90	1050
179	20:35:19.6	+68:06:57	12.54	0.56	f0 V	0.90	630
182	20:35:21.2	+68:08:46	14.86	0.90	k4 V	0.69	287
183	20:35:21.4	+68:12:55	15.18	0.89	g9 IV	0.77	2010
185	20:35:24.4	+68:03:50	13.94	0.72	k1.7 V	0.17	307
189	20:35:25.8	+68:16:05	15.00	0.73	f8 V	0.92	1030
193	20:35:28.2	+67:43:14	12.74	0.62	a6 III-IV	1.50	1050
197	20:35:30.1	+67:49:40	13.96	0.90	f9 IV-V	1.60	660
199	20:35:32.3	+68:17:08	13.93	0.86	g1 IV	1.26	910
202	20:35:34.5	+68:14:26	14.54	0.70	f8 IV	0.80	1530
204	20:35:35.2	+67:21:30	12.99	0.78	f4 V	1.40	465
207	20:35:36.8	+68:00:26	14.21	0.93	g2.5 III-IV	1.37	1570
208	20:35:37.2	+68:14:42	15.46	0.89	k1.5 V	0.91	457
212	20:35:38.0	+68:15:21	14.12	0.74	k3.7 V	0.03	284
217	20:35:41.3	+68:10:08	13.22	1.04	k2.2 III	0.72	2350

Continued **Table B.2**

No	RA(2000) h m s	DEC(2000) ° ′ ″	V mag	Y-V mag	Sp	Av mag	d pc.
219	20:35:42.7	+68:12:10	15.23	0.74	f9 IV-V	0.93	1550
221	20:35:45.1	+68:10:09	15.39	0.72	f8 V	0.87	1260
223	20:35:45.9	+68:09:19	16.27	0.66	g3 V	0.41	1670
225	20:35:46.8	+68:09:57	14.31	0.87	g8 IV	0.81	1140
228	20:35:48.2	+68:04:13	15.75	0.77	g1 V	0.94	1200
229	20:35:49.3	+67:21:29	14.72	0.82	f8 IV	1.29	1350
230	20:35:49.9	+68:08:25	13.85	0.69	f8 IV	0.76	1150
231	20:35:50.0	+68:19:53	15.58	0.95	f9.5 IV-V	1.75	1080
232	20:35:51.0	+68:25:17	15.11	0.83	f9 IV-V	1.32	1200
242	20:35:59.2	+68:16:23	14.91	1.14	k2.5 III	1.10	4480
245	20:36:01.9	+67:25:55	15.46	0.96	g6 V	1.51	660
247	20:36:02.8	+67:52:13	14.91	0.80	k3.2 V	0.36	379
248	20:36:03.3	+67:42:21	14.95	1.03	g4 III-IV	1.68	1890
252	20:36:05.2	+67:35:38	13.43	0.79	k4 V	0.23	184
253	20:36:06.6	+68:23:43	15.32	0.86	f8 IV-V	1.50	1320
255	20:36:07.5	+68:04:49	16.34	0.65	f5 V	0.80	2640
256	20:36:07.8	+68:07:27	13.98	1.24	k5 III	0.77	4010
258	20:36:12.0	+67:30:05	15.17	1.00	f9.5 IV-V	1.99	890
260	20:36:13.3	+67:22:22	15.34	1.01	g0 V	1.99	660
263	20:36:13.5	+68:09:54	15.51	0.75	f9 IV-V	0.95	1600
265	20:36:14.9	+68:12:39	15.34	0.75	f6 IV-V	1.12	1670
266	20:36:14.9	+68:22:58	14.75	1.07	g9 III-IV	1.41	2100
268	20:36:16.6	+67:20:01	12.17	1.21	g9 III	1.95	780
269	20:36:17.1	+68:03:03	15.27	0.84	f4 IV-V	1.68	1350
270	20:36:17.2	+68:26:31	15.22	0.87	g9.5 IV-V	0.87	880
274	20:36:19.4	+68:20:10	12.65	1.03	k0 III	1.09	1490
276	20:36:19.8	+68:11:02	14.45	1.03	g9 IV	1.38	920
279	20:36:20.3	+68:18:54	14.43	0.94	g9 IV-V	1.10	690
281	20:36:20.5	+68:13:19	16.24	0.97	k0 IV	0.98	2830
285	20:36:24.5	+68:27:03	14.14	1.25	k4 III	1.12	3450
290	20:36:27.7	+67:46:29	11.88	0.70	g5 IV	0.34	530
292	20:36:27.8	+68:03:57	15.97	0.74	f8 IV-V	1.00	2150
294	20:36:29.4	+68:13:22	12.30	0.72	f7 IV	0.93	540
298	20:36:30.3	+67:39:55	14.11	0.92	g1.5 IV-V	1.55	600
301	20:36:31.4	+67:38:22	15.93	0.82	f6 V	1.41	1540
304	20:36:33.0	+68:06:46	14.66	0.82	g6 IV	0.80	1360
305	20:36:33.2	+67:30:11	15.06	1.13	k0.5 IV	1.56	1380
307	20:36:34.5	+67:43:26	15.30	0.93	g3 IV	1.42	1440
308	20:36:34.6	+67:59:09	14.38	0.87	g8.5 IV-V	0.94	610
310	20:36:36.3	+67:29:13	14.62	0.89	f9.5 IV	1.50	1080
311	20:36:36.3	+68:12:36	16.27	0.87	k1 V	0.81	880
314	20:36:37.5	+68:18:24	15.88	0.92	k3.5 V	0.84	458
316	20:36:37.9	+68:27:41	15.79	0.81	g5 V	1.00	930
317	20:36:38.0	+68:01:06	15.57	0.73	f6 IV-V	1.04	1950
320	20:36:39.0	+68:07:32	16.35	0.69	f7 V	0.80	2210
321	20:36:40.9	+68:19:55	13.49	1.02	g9 IV	1.33	640

Continued **Table B.2**

No	RA(2000)	DEC(2000)	V	Y-V	Sp	Av	d
	h m s	° ′ ″	mag	mag		mag	pc.
323	20:36:41.3	+67:14:18	12.59	0.70	f4 IV	1.07	660
325	20:36:41.7	+67:39:39	15.14	0.85	g3 IV-V	1.19	1080
333	20:36:49.0	+68:04:04	15.69	0.72	f7 V	0.98	1620
334	20:36:50.0	+68:13:52	15.30	0.82	f9.5 IV-V	1.23	1320
337	20:36:51.1	+67:36:41	15.61	0.88	f9.5 V	1.47	960
340	20:36:52.1	+68:00:33	11.31	0.97	g9.5 III	0.90	860
341	20:36:53.5	+67:57:06	13.57	0.69	k1 V	0.14	310
342	20:36:53.7	+68:08:46	15.47	0.84	g7 IV	0.74	2440
343	20:36:53.8	+67:14:54	14.54	0.84	g9 V	0.92	382
344	20:36:54.2	+68:12:43	15.23	0.81	g2 IV-V	1.05	1250
345	20:36:54.3	+67:51:36	15.56	0.86	f6 III-IV	1.62	2190
347	20:36:56.7	+68:18:21	11.09	0.40	a3 III-IV	0.77	850
348	20:36:57.3	+67:58:46	15.21	1.08	k1.5 III	1.01	5120
349	20:36:58.4	+67:42:21	14.22	0.75	f0 III	1.65	1640
350	20:36:58.9	+67:55:23	14.85	0.88	g3 IV-V	1.35	780
351	20:36:59.0	+67:35:47	14.07	0.90	g1 IV	1.41	840
353	20:36:59.3	+68:13:20	14.24	0.80	g7 V	0.83	418
355	20:36:59.8	+68:06:48	14.64	0.79	g3 V	0.95	620
356	20:37:01.0	+68:01:59	13.60	0.75	g1 V	0.86	464
357	20:37:01.1	+67:16:18	16.32	0.71	f9 V	0.76	1930
360	20:37:01.9	+68:03:34	13.39	0.56	f1 III	0.75	1620
361	20:37:02.3	+68:24:22	14.35	1.14	k0.7 IV	1.56	980
364	20:37:04.0	+67:30:16	7.67	0.15	b8 IV-V	0.09	364
365	20:37:05.4	+68:24:19	14.75	0.80	f6 IV-V	1.34	1150
366	20:37:06.0	+67:39:55	14.86	0.96	g8 V	1.47	390
367	20:37:06.4	+68:25:06	14.78	0.88	g5.5 IV	1.02	1530
372	20:37:08.6	+68:12:04	15.55	0.76	f6 V	1.15	1370
373	20:37:08.8	+68:17:22	13.96	0.74	f9.5 V	0.89	580
374	20:37:09.4	+67:35:47	14.18	0.76	k3.7 V	0.14	280
375	20:37:09.6	+67:17:15	15.21	0.74	f7 V	0.99	1190
376	20:37:12.1	+68:07:54	15.09	1.07	k1.5 III	1.00	5010
381	20:37:15.9	+67:16:40	13.67	0.79	g4 V	0.90	411
382	20:37:15.9	+68:07:32	12.60	0.85	g3 III-IV	1.01	970
385	20:37:18.7	+67:13:55	14.72	0.79	f9.5 IV	1.07	1440
386	20:37:19.0	+67:21:33	14.31	0.77	k5 V	0.00	261
388	20:37:19.2	+67:16:26	14.64	0.81	g1 IV	1.06	1400
389	20:37:19.4	+67:14:24	15.10	0.71	f6 V	0.97	1290
390	20:37:19.4	+67:17:01	15.96	0.69	f4 V	1.05	2200
391	20:37:20.2	+68:02:52	15.76	0.76	f9 V	1.01	1360
392	20:37:20.8	+67:58:28	16.38	0.70	f6 V	0.92	2340
395	20:37:21.3	+68:25:45	15.84	0.84	g1 V	1.22	1100
396	20:37:21.4	+68:21:12	15.74	1.04	k3.5 V	1.33	346
398	20:37:24.0	+67:37:36	14.12	0.90	g0 IV-V	1.56	680
399	20:37:25.0	+67:15:38	15.11	0.94	k7 V	0.14	254
402	20:37:27.1	+68:07:29	15.69	0.73	f6 IV-V	1.04	1990
404	20:37:28.6	+68:07:55	14.81	0.89	k1.2 V	0.93	345

Continued **Table B.2**

No	RA(2000) h m s	DEC(2000) ° ′ ″	V mag	Y-V mag	Sp	Av mag	d pc.
406	20:37:30.3	+67:34:31	14.81	0.89	f9.5 IV	1.50	1180
408	20:37:30.7	+68:15:41	15.53	0.72	f4 V	1.14	1600
412	20:37:32.5	+68:16:40	15.19	0.91	k1.7 V	0.98	420
414	20:37:34.5	+68:16:25	12.11	1.25	k4.2 III	1.06	1420
415	20:37:34.8	+68:26:31	14.90	0.80	f9.5 IV	1.11	1560
417	20:37:36.0	+67:54:47	11.55	0.71	f3 III-IV	1.25	441
418	20:37:36.4	+67:39:00	14.69	0.84	g0 IV	1.27	1230
419	20:37:36.5	+67:47:56	9.68	0.55	f9 V	0.11	122
425	20:37:39.3	+67:26:31	15.65	0.82	f9.5 V	1.22	1110
427	20:37:41.9	+68:25:50	14.00	0.80	g5 V	0.93	458
428	20:37:42.3	+67:48:33	15.10	0.80	g0. IV-V	1.11	1260
429	20:37:42.4	+67:53:45	15.82	0.78	g4 V	0.89	1030
430	20:37:42.5	+67:15:28	13.56	1.13	k1.2 III	1.31	2070
431	20:37:43.8	+67:55:14	13.98	0.80	f6 IV-V	1.35	760
435	20:37:46.6	+68:02:57	15.68	0.82	f9.5 V	1.25	1190
437	20:37:47.5	+67:53:26	13.98	0.89	g1 IV	1.40	850
440	20:37:50.6	+67:27:36	14.46	0.83	k6 V	0.08	230
442	20:37:51.3	+68:06:28	15.09	0.75	g2.5 IV-V	0.81	1170
444	20:37:52.8	+68:03:05	14.85	0.89	g9.5 V	1.08	420
446	20:37:53.4	+68:05:30	13.92	0.62	f2 IV	0.89	1450
449	20:37:55.8	+67:54:37	14.03	0.94	g0 IV	1.65	800
451	20:37:56.9	+67:24:07	15.68	0.85	f9 IV	1.37	1890
452	20:37:57.4	+68:13:32	15.97	0.81	g1 IV-V	1.11	1480
453	20:37:57.8	+68:24:00	15.11	0.80	f9.5 IV	1.09	1720
454	20:37:59.9	+68:07:08	15.29	0.84	g0 IV	1.25	1740
457	20:38:01.7	+68:06:02	15.57	0.73	f9 V	0.88	1290
458	20:38:02.5	+68:23:25	15.13	0.74	f5 IV	1.19	1900
465	20:38:05.1	+67:16:09	15.96	0.82	f6 IV-V	1.41	1880
466	20:38:05.7	+68:27:29	15.51	0.90	g1.5 IV	1.38	1700
467	20:38:06.6	+67:17:02	15.03	0.95	f9 IV-V	1.81	920
468	20:38:07.2	+68:21:46	15.03	0.77	f5 IV	1.32	1670
470	20:38:07.6	+67:25:24	14.04	1.11	g8 III	1.63	2040
474	20:38:10.2	+67:28:52	14.09	0.90	f8 IV-V	1.67	670
478	20:38:12.7	+67:59:11	13.65	0.90	k7 V	0.02	138
480	20:38:12.9	+68:05:14	15.12	0.73	f9 V	0.86	1080
482	20:38:15.3	+68:22:58	14.15	0.77	f8 V	1.10	660
483	20:38:15.5	+68:00:14	12.13	0.69	k1 V	0.14	167
485	20:38:17.1	+68:04:51	14.13	0.77	f9.5 IV-V	1.02	870
492	20:38:23.5	+68:00:38	15.58	0.80	f7 V	1.26	1330
493	20:38:23.6	+67:32:15	13.22	1.19	g6 III	2.13	1110
496	20:38:25.5	+68:12:20	12.40	0.58	g0 V	0.17	380
497	20:38:27.0	+68:10:15	14.51	0.72	f5 V	1.10	1000
498	20:38:27.6	+68:06:31	15.49	0.75	f6 IV-V	1.13	1740
501	20:38:28.3	+67:47:03	14.83	1.22	k1 IV	2.00	880
507	20:38:30.3	+68:06:01	13.02	0.65	g8.5 V	0.16	287
508	20:38:30.7	+68:19:18	13.91	1.16	k1.7 III	1.30	2400

Continued **Table B.2**

No	RA(2000) h m s	DEC(2000) ° ′ ″	V mag	Y-V mag	Sp	Av mag	d pc.
511	20:38:31.4	+68:23:37	15.79	1.01	f4 IV-V	2.36	1350
517	20:38:37.9	+68:23:15	12.94	0.76	g2 IV	0.76	720
519	20:38:38.8	+67:38:22	12.92	0.75	k3 V	0.22	165
520	20:38:39.1	+68:13:45	15.68	0.80	f8 IV-V	1.25	1700
521	20:38:39.4	+68:05:04	13.39	1.21	k2 III	1.46	1850
523	20:38:40.8	+68:05:49	13.29	1.08	k0.7 IV	1.32	690
524	20:38:41.8	+67:33:25	15.52	0.91	g0 IV-V	1.57	1210
525	20:38:42.8	+67:27:30	13.09	0.79	g0 IV-V	1.09	475
526	20:38:43.8	+67:53:26	14.43	0.85	g0 IV-V	1.34	840
530	20:38:45.8	+67:29:06	15.44	0.95	k1.2 V	1.17	414
531	20:38:46.0	+67:31:21	11.08	1.07	g9.5 III	1.31	650
535	20:38:48.0	+68:04:57	15.41	0.88	f5 IV-V	1.75	1400
537	20:38:49.7	+68:25:11	14.94	1.02	k0.5 IV	1.14	1310
538	20:38:49.8	+67:57:09	11.60	0.74	f6 IV	1.11	381
541	20:38:51.0	+68:26:18	15.11	1.05	m0 V	0.41	140
542	20:38:51.2	+67:34:49	15.14	0.98	g2 IV-V	1.76	850
543	20:38:54.1	+67:49:09	11.42	0.50	f8 V	0.00	305
544	20:38:54.2	+68:09:22	15.54	0.84	g0 IV-V	1.29	1410
546	20:38:54.4	+68:14:25	12.67	0.63	g8 V	0.06	291
547	20:38:54.8	+68:14:06	12.34	0.59	f1 IV-V	0.97	600
549	20:38:57.4	+68:11:24	12.34	0.64	g8.5 V	0.12	224
550	20:39:00.6	+67:49:23	11.95	1.22	k1 III	1.73	800
552	20:39:00.7	+68:23:32	15.29	0.87	f7 IV-V	1.58	1180
554	20:39:02.1	+67:33:16	13.82	0.84	g5.5 IV-V	0.99	650
555	20:39:04.7	+67:31:12	15.03	0.95	g5 IV-V	1.46	850
557	20:39:06.5	+67:35:42	15.37	0.84	f9 IV-V	1.34	1110
558	20:39:06.5	+68:24:26	15.77	0.83	f8 IV-V	1.38	1700
559	20:39:07.9	+67:29:12	13.78	0.74	k3.2 V	0.09	253
560	20:39:08.7	+68:22:56	14.31	0.79	f6 V	1.33	790
563	20:39:10.7	+68:07:54	15.49	0.84	f6 V	1.50	1160
568	20:39:15.1	+68:19:34	14.60	0.87	g3 IV	1.14	1360
569	20:39:17.6	+68:04:04	15.94	1.05	k0 IV-V	1.57	840
570	20:39:18.0	+68:10:44	14.81	0.82	f5 IV	1.53	1410
571	20:39:19.0	+68:08:35	12.13	1.30	k4.2 III	1.34	1220
573	20:39:21.0	+67:38:34	15.24	0.85	f8 IV	1.43	1670
576	20:39:23.9	+68:22:23	12.75	1.58	k0 III	3.39	540
577	20:39:25.0	+67:31:03	15.30	0.89	g2.5 IV-V	1.37	1170
578	20:39:25.1	+67:34:54	15.72	0.87	f5 III-IV	1.76	2280
582	20:39:27.9	+68:22:43	15.90	0.82	f8 IV-V	1.33	1810
585	20:39:28.7	+67:35:17	14.60	0.87	k6 V	0.22	228
586	20:39:30.7	+67:27:53	15.10	0.99	k1.7 V	1.31	310
587	20:39:31.6	+68:14:53	15.55	0.80	f7 IV-V	1.29	1640
588	20:39:32.0	+68:12:37	13.76	0.73	f7 V	0.95	620
590	20:39:34.0	+68:22:35	13.78	0.68	f3 IV-V	1.09	980
592	20:39:34.2	+68:08:17	15.19	1.01	k1.7 V	1.44	326
595	20:39:36.7	+68:23:13	14.81	0.78	f8 IV	1.12	1490

Continued **Table B.2**

No	RA(2000) h m s	DEC(2000) ° ′ ″	V mag	Y-V mag	Sp	Av mag	d pc.
596	20:39:37.1	+68:20:05	14.96	0.77	f7 V	1.11	1000
597	20:39:37.6	+67:40:37	13.51	0.74	k3.2 V	0.10	223
602	20:39:43.3	+68:13:59	13.27	0.67	f5 IV-V	0.88	770
607	20:39:45.9	+68:20:34	15.66	0.75	f4 V	1.29	1660
612	20:39:49.1	+68:08:11	14.71	0.73	f8 V	0.92	910
615	20:39:50.3	+67:41:45	14.13	0.95	g4 III-IV	1.34	1530
617	20:39:50.5	+68:11:35	15.02	0.73	f5 IV-V	1.13	1690
619	20:39:52.2	+68:23:34	15.60	0.83	k0 V	0.77	680
621	20:39:53.2	+67:46:49	15.26	1.02	f9.5 V	2.03	630
622	20:39:54.2	+68:18:20	14.20	1.13	k0 IV	1.65	800
625	20:39:55.8	+68:09:52	13.85	0.98	g8 III-IV	1.17	1500
626	20:39:57.4	+68:00:09	13.48	0.90	f9 IV	1.58	640
632	20:40:00.4	+67:35:43	13.78	0.84	g3 V	1.16	378
634	20:40:02.4	+67:28:49	13.41	0.83	k5 V	0.22	156
635	20:40:02.8	+68:12:00	14.07	0.80	g1 IV-V	1.07	780
641	20:40:05.5	+68:23:06	12.86	1.34	k4.5 III	1.27	1830
642	20:40:08.1	+68:06:24	12.57	0.82	g8.5 IV	0.59	550
643	20:40:08.8	+67:22:59	12.50	0.79	k3.7 V	0.23	123
646	20:40:11.3	+68:19:21	15.79	1.04	k0 IV-V	1.42	1080
647	20:40:11.4	+67:42:00	13.98	0.84	g1 IV	1.19	920
648	20:40:11.4	+67:47:03	13.27	0.73	f3 III	1.33	1060
649	20:40:11.9	+67:33:22	13.76	0.71	f2 IV	1.33	1230
650	20:40:11.9	+67:34:13	15.38	0.80	g2 IV	0.93	1940
652	20:40:12.4	+67:41:08	14.01	0.87	g5.5 V	1.22	385
653	20:40:12.7	+67:33:39	12.84	0.99	g9.5 IV	1.16	580
654	20:40:12.8	+67:24:01	14.20	0.84	k5 V	0.24	225
656	20:40:15.0	+68:21:31	13.94	1.14	k1 IV	1.50	780
659	20:40:15.6	+68:17:36	14.88	0.83	f5 IV	1.58	1460
661	20:40:18.9	+67:41:19	11.14	1.10	k1.5 III	1.13	740
663	20:40:19.0	+67:41:50	15.30	0.94	g5 IV	1.31	1820
664	20:40:19.0	+68:03:12	13.79	1.23	k3 III	1.29	2520
667	20:40:21.4	+68:10:55	16.21	0.91	k0 IV-V	0.93	1350
668	20:40:23.1	+68:19:36	15.83	0.83	f8 IV-V	1.33	1630
671	20:40:25.1	+67:41:40	15.30	1.09	k0.5 V	1.88	307
673	20:40:28.6	+67:44:19	11.44	0.59	a5 III-IV	1.41	640
674	20:40:29.0	+68:18:21	15.54	0.90	k1.2 V	0.97	520
675	20:40:29.4	+68:09:22	13.84	0.69	f2 III-IV	1.21	1320
678	20:40:33.8	+68:19:49	15.42	1.16	k2.5 V	1.98	245
680	20:40:33.9	+68:08:03	16.49	0.98	k3.5 V	1.05	550
684	20:40:36.1	+67:42:45	14.66	0.91	g7 IV-V	1.14	720
687	20:40:37.7	+68:07:07	15.65	0.67	f7 IV-V	0.75	2350
689	20:40:42.0	+68:04:01	15.63	0.79	g2.5 V	1.00	1090
690	20:40:42.7	+68:10:28	13.93	0.73	k3 V	0.11	278
692	20:40:45.0	+67:33:31	13.66	0.84	k5.5 V	0.22	163
693	20:40:45.5	+68:19:46	15.41	0.83	g0 IV	1.22	1760
695	20:40:47.5	+68:01:59	13.70	0.68	a9 III-IV	1.50	1340

Continued **Table B.2**

No	RA(2000) h m s	DEC(2000) ° ′ ″	V mag	Y-V mag	Sp	Av mag	d pc.
698	20:40:49.1	+67:49:08	15.48	1.17	k0.7 IV	1.70	1370
699	20:40:50.6	+67:54:08	14.18	1.00	k8 V	0.34	129
703	20:40:53.1	+68:25:02	14.73	0.75	g7 IV-V	0.48	1150
705	20:40:56.7	+68:05:27	14.45	0.91	g8 IV-V	1.09	700
706	20:40:56.9	+68:04:32	15.44	0.94	g5.5 IV-V	1.40	1130
707	20:40:58.1	+68:24:53	15.20	0.71	f6 IV-V	0.96	1590
708	20:40:58.3	+68:15:16	15.53	0.92	f8 IV	1.72	1680
709	20:41:00.7	+68:10:49	12.42	0.79	k5 V	0.05	105
711	20:41:01.7	+67:44:59	15.36	0.89	g2.5 IV	1.31	1630
713	20:41:03.6	+67:40:58	14.89	0.90	g5 IV-V	1.24	960
714	20:41:03.9	+67:17:37	15.38	0.61	a5 IV-V	1.49	3070
715	20:41:04.6	+68:21:23	15.92	0.79	f7 V	1.19	1490
716	20:41:05.3	+67:11:37	12.98	0.95	f9 IV	1.80	454
717	20:41:05.5	+67:51:12	13.78	1.01	k0 IV	1.15	810
719	20:41:05.9	+67:50:11	12.47	1.09	k0 III	1.33	1220
720	20:41:05.9	+67:16:21	14.64	0.84	f7 V	1.42	750
723	20:41:06.3	+68:20:44	14.06	1.06	k0.5 IV	1.28	970
724	20:41:07.1	+68:11:18	14.63	0.76	a9 IV-V	1.83	1260
725	20:41:07.5	+68:04:59	13.85	0.73	f7 IV-V	0.99	860
726	20:41:08.4	+68:06:10	14.42	0.82	g2.5 IV-V	1.10	830
727	20:41:09.1	+68:07:37	15.81	0.80	f9 V	1.17	1280
728	20:41:09.2	+67:36:46	15.94	1.03	k0 IV	1.31	1880
732	20:41:12.4	+68:05:48	15.69	0.83	g5.5 V	1.06	830
733	20:41:13.0	+67:15:53	14.16	0.77	f5 IV	1.31	1170
734	20:41:16.2	+67:42:20	15.64	0.92	g7 V	1.35	610
739	20:41:18.0	+68:12:20	14.02	0.82	g1 IV-V	1.15	710
741	20:41:18.5	+68:24:15	11.64	1.34	k5 III	1.18	1110
742	20:41:18.6	+68:18:24	13.68	0.86	g8 IV	0.74	930
743	20:41:20.1	+67:49:04	15.75	0.84	f8 IV	1.44	2230
744	20:41:20.3	+68:24:00	14.76	0.79	f9 IV	1.09	1480
748	20:41:21.6	+68:07:49	14.56	0.78	f9.5 V	1.04	720
749	20:41:22.4	+68:25:02	14.48	1.09	k2.7 III	0.78	4320
750	20:41:23.5	+67:51:46	14.89	0.84	g5 IV-V	1.00	1120
752	20:41:24.9	+67:16:02	15.21	0.78	f7 IV	1.19	1800
754	20:41:27.5	+68:04:01	15.34	0.78	f4 IV-V	1.39	1590
756	20:41:28.5	+68:21:48	15.34	0.83	k1 V	0.73	520
759	20:41:29.7	+68:10:16	15.77	0.85	f9 V	1.37	1120
762	20:41:30.9	+68:10:51	14.52	0.87	f9 IV	1.45	1070
764	20:41:32.4	+67:59:14	13.89	0.81	f4 III-IV	1.60	1180
766	20:41:35.5	+68:02:15	15.41	0.82	f6 V	1.42	1240
767	20:41:35.5	+68:23:23	15.02	0.66	f6 V	0.75	1390
772	20:41:40.4	+68:22:08	15.83	0.86	g7 V	1.05	850
773	20:41:41.5	+68:08:37	15.52	0.85	g8 V	1.02	650
775	20:41:42.2	+68:07:23	14.85	0.81	f9.5 IV	1.15	1500
776	20:41:42.3	+67:24:25	12.80	0.85	k5 V	0.31	116
778	20:41:42.9	+67:13:18	12.35	1.03	k0 III	1.07	1360

Continued **Table B.2**

No	RA(2000) h m s	DEC(2000) ° ′ ″	V mag	Y-V mag	Sp	Av mag	d pc.
780	20:41:43.6	+67:58:52	12.28	1.34	k3.2 III	1.75	1040
781	20:41:44.6	+68:12:36	13.18	1.03	g7 IV	1.59	570
782	20:41:45.4	+67:48:49	12.22	1.13	g9 III	1.60	940
783	20:41:48.1	+68:18:58	14.52	0.94	g9.5 IV	0.95	1290
784	20:41:50.5	+67:18:34	15.53	0.91	f7 IV-V	1.71	1270
785	20:41:50.5	+67:45:56	13.75	1.30	k2.2 III	1.84	1730
786	20:41:51.3	+67:31:57	15.10	0.94	f8 V	1.79	770
787	20:41:51.9	+67:33:22	14.15	0.91	f9.5 V	1.63	490
788	20:41:51.9	+68:04:17	13.61	1.16	k3 III	1.01	2630
790	20:41:52.7	+68:07:26	15.38	0.99	k3.7 V	1.08	317
792	20:41:53.9	+67:34:37	15.56	0.94	g7 V	1.41	590
794	20:41:54.9	+68:13:06	12.79	0.87	f7 IV	1.59	550
795	20:41:55.3	+68:18:24	12.37	0.69	f9.5 IV-V	0.68	453
796	20:41:55.9	+68:23:52	14.74	0.81	k1.7 V	0.55	375
798	20:41:57.2	+68:08:02	12.80	1.21	k1 III	1.65	1230
799	20:41:57.7	+67:14:21	15.62	0.89	g4 V	1.34	790
801	20:41:58.3	+68:22:36	15.35	0.66	f9.5 V	0.53	1310
803	20:41:58.5	+67:15:01	14.87	0.85	f9.5 IV	1.29	1450
804	20:42:00.6	+67:36:16	13.98	0.95	g2.5 III	1.40	1930
806	20:42:01.3	+68:08:47	15.90	1.16	k2 III	1.26	6390
809	20:42:02.9	+67:31:18	14.89	1.11	g5 IV	2.03	980
811	20:42:05.4	+68:19:34	15.64	0.75	g9 V	0.51	800
813	20:42:07.4	+68:21:23	12.63	0.81	g9.5 IV-V	0.54	385
816	20:42:09.8	+68:21:02	14.90	0.66	f6 V	0.76	1270
817	20:42:10.4	+68:06:16	15.54	0.84	f9 IV-V	1.35	1470
818	20:42:11.1	+68:13:51	13.74	0.78	f8 V	1.14	540
819	20:42:11.7	+67:37:08	13.94	0.83	k6 V	0.12	180
820	20:42:11.9	+68:23:57	14.43	0.68	f6 V	0.82	1000
822	20:42:13.4	+68:20:44	14.19	0.74	g7 V	0.57	471
825	20:42:14.4	+68:25:01	15.27	0.69	g2.5 V	0.55	1020
830	20:42:16.1	+67:44:21	14.73	0.87	k7 V	–0.03	227
831	20:42:16.5	+68:03:29	16.03	0.78	f9.5 IV-V	1.06	1990
832	20:42:17.7	+68:14:08	15.90	0.85	g5.5 V	1.13	880
834	20:42:20.8	+68:24:25	13.07	0.59	f5 V	0.56	680
836	20:42:23.3	+67:15:23	13.70	0.76	f8 V	1.04	550
838	20:42:25.1	+68:18:03	15.79	0.74	f4 V	1.25	1830
839	20:42:25.4	+68:17:18	11.77	0.94	g7 III-IV	1.05	630
840	20:42:25.7	+67:58:22	13.37	1.40	k5.5 III	1.47	2290
844	20:42:27.9	+68:23:46	14.75	0.69	g6 V	0.41	690
847	20:42:31.3	+68:15:05	15.85	0.69	f5 V	0.98	1930
849	20:42:33.4	+68:13:17	15.40	0.72	g0 V	0.77	1150
853	20:42:35.1	+67:12:47	14.07	1.11	g9 III	1.50	2440
854	20:42:35.2	+68:18:24	13.13	0.60	f7 V	0.44	600
855	20:42:35.5	+68:20:11	14.80	0.78	g1 V	0.96	750
856	20:42:35.7	+67:36:35	10.03	0.34	a7 V	0.26	328
858	20:42:36.3	+68:13:12	13.98	0.79	f9 IV	1.10	1060

Continued **Table B.2**

No	RA(2000) h m s	DEC(2000) ° ′ ″	V mag	Y-V mag	Sp	Av mag	d pc.
862	20:42:37.8	+68:23:15	15.70	0.63	f9 V	0.47	1650
863	20:42:38.5	+68:05:12	15.10	0.89	g2 IV	1.31	1410
865	20:42:39.3	+68:01:35	15.68	1.10	k0 IV	1.51	1830
868	20:42:40.3	+68:12:32	15.17	0.75	f9 V	0.94	1040
869	20:42:41.0	+68:15:16	15.06	0.88	k6 V	0.27	277
870	20:42:41.1	+68:09:14	14.05	0.77	f6 IV	1.24	1100
872	20:42:42.7	+67:15:19	14.56	0.86	f9.5 IV-V	1.37	960
873	20:42:43.1	+68:22:53	12.77	0.95	k0.7 IV	0.79	630
879	20:42:45.6	+68:07:19	13.86	0.88	g2.5 IV	1.26	840
882	20:42:46.6	+68:10:53	13.40	1.16	k1 III	1.47	1760
883	20:42:48.2	+67:37:41	16.04	1.19	k1 IV	1.76	1710
884	20:42:48.7	+68:12:31	11.05	0.89	g8 III	0.75	790
885	20:42:49.0	+68:17:59	14.06	1.08	k2 III	0.92	3110
887	20:42:50.4	+68:08:38	13.02	0.66	g9.5 V	0.11	271
889	20:42:52.3	+68:23:39	15.92	0.72	f9.5 IV	0.79	2870
890	20:42:53.2	+68:04:00	14.54	0.74	f7 V	1.00	870
891	20:42:53.6	+67:10:20	13.97	0.75	f1 III-IV	1.55	1360
892	20:42:54.7	+67:23:16	14.32	0.91	g4 IV	1.27	1170
893	20:42:55.0	+67:15:36	14.23	1.10	m2 V	0.00	74
896	20:42:55.3	+68:01:37	14.60	0.76	f5 IV	1.29	1440
899	20:42:59.7	+68:23:53	15.85	0.74	k1 V	0.31	880
904	20:43:01.8	+67:13:54	16.14	1.04	k2 V	1.48	449
905	20:43:02.6	+68:08:25	14.02	0.75	k3 V	0.21	275
906	20:43:02.8	+67:24:26	15.17	0.95	g5 IV-V	1.45	910
907	20:43:03.3	+67:21:44	13.04	0.75	f6 V	1.13	459
908	20:43:03.8	+67:24:00	15.44	0.92	g4 IV	1.29	1750
909	20:43:04.0	+68:15:04	16.07	0.73	g3 V	0.71	1340
911	20:43:04.4	+68:06:49	13.76	0.74	f5 IV	1.21	1000
912	20:43:04.6	+68:11:25	13.46	1.02	k1 IV	1.06	690
914	20:43:06.3	+67:28:08	14.44	1.02	g0 IV-V	2.03	630
916	20:43:07.2	+67:36:54	15.90	1.23	k2.5 V	2.25	269
917	20:43:08.4	+67:57:19	14.74	0.91	f7 V	1.73	720
918	20:43:09.2	+68:09:07	15.31	0.76	f6 IV-V	1.17	1630
919	20:43:09.6	+67:24:48	15.56	0.92	g5 V	1.46	660
921	20:43:10.4	+67:11:54	14.97	0.54	b9.5 IV	1.58	4400
922	20:43:11.4	+68:15:34	14.40	0.65	f8 V	0.55	950
924	20:43:12.1	+67:12:03	14.73	1.10	g9 III	1.49	3150
925	20:43:12.9	+68:23:20	13.97	0.72	g7 V	0.52	437
927	20:43:14.4	+67:10:26	14.72	0.79	f4 IV-V	1.43	1250
929	20:43:16.6	+67:14:46	15.50	1.08	k0.7 IV	1.32	1710
930	20:43:17.1	+68:11:46	14.36	0.74	f7 IV	1.05	1380
931	20:43:17.9	+68:08:34	15.86	0.83	f5 IV-V	1.52	1790
932	20:43:18.5	+68:19:48	16.04	0.74	g5 V	0.66	1330
935	20:43:20.9	+67:15:31	13.56	0.78	f9.5 IV-V	1.03	730
936	20:43:21.0	+68:16:04	14.10	0.89	g8.5 IV	0.84	1050
937	20:43:21.5	+68:23:50	14.90	0.72	f5 IV-V	1.10	1440

Continued **Table B.2**

No	RA(2000) h m s	DEC(2000) ° ′ ″	V mag	Y-V mag	Sp	Av mag	d pc.
938	20:43:21.6	+68:20:32	15.33	0.72	f8 IV-V	0.90	1670
943	20:43:27.0	+67:21:00	15.28	0.81	f5 IV-V	1.48	1460
944	20:43:27.2	+68:11:34	16.35	0.78	f9 V	1.07	1680
945	20:43:28.3	+68:16:34	16.42	0.67	f7 V	0.69	2400
946	20:43:29.1	+68:22:04	13.95	0.62	f8 V	0.48	800
949	20:43:30.5	+67:39:45	15.22	1.11	g3 IV-V	2.27	700
951	20:43:31.8	+67:23:15	15.93	0.86	g1.5 V	1.32	1070
952	20:43:32.0	+68:07:15	14.13	0.81	f9 IV-V	1.20	830
957	20:43:34.7	+68:02:43	14.94	0.80	g0 V	1.13	810
959	20:43:35.8	+68:05:59	14.46	1.23	k2 III	1.56	2760
964	20:43:37.9	+68:11:23	15.91	0.70	g1 IV-V	0.67	2070
967	20:43:39.3	+68:08:42	13.87	0.88	g8 IV-V	0.95	620
968	20:43:40.1	+67:24:41	15.10	0.91	k0.7 V	1.08	394
969	20:43:40.2	+68:23:38	13.95	0.64	f4 IV-V	0.80	1120
970	20:43:40.5	+68:06:13	15.26	0.86	f6 III-IV	1.66	1810
971	20:43:40.5	+68:17:32	13.85	0.69	f9 IV-V	0.70	940
977	20:43:43.9	+68:07:15	15.06	0.96	g3 III-IV	1.43	2360
978	20:43:44.0	+68:17:53	14.16	0.67	f5 IV-V	0.85	1190
979	20:43:44.1	+67:09:05	15.44	1.03	k3 V	1.37	312
981	20:43:44.9	+68:04:48	15.59	0.85	f6 V	1.54	1180
982	20:43:45.1	+67:56:41	13.48	0.68	k0.5 V	0.15	291
983	20:43:45.8	+67:10:17	15.46	0.76	f9.5 V	0.99	1150
984	20:43:46.2	+67:14:27	15.65	0.88	g8.5 V	1.13	610
985	20:43:46.3	+67:25:23	12.02	1.25	k3 III	1.39	1060
989	20:43:48.8	+67:25:40	15.96	0.79	f8 IV	1.17	2460
991	20:43:49.4	+68:06:19	16.24	1.01	k3.5 V	1.19	457
992	20:43:49.4	+67:16:38	15.89	0.78	f6 V	1.23	1570
993	20:43:49.6	+68:20:27	13.82	0.60	f6 V	0.49	860
994	20:43:50.4	+67:29:22	12.71	0.69	f5 V	0.99	473
996	20:43:51.7	+68:01:47	13.39	0.79	f9 IV	1.12	800
1002	20:43:53.9	+67:15:05	14.96	1.09	k2 III	0.94	4830
1004	20:43:55.3	+67:28:33	14.93	0.87	g8 IV-V	0.89	950
1005	20:43:56.1	+67:43:06	14.44	1.01	g8.5 IV	1.36	970
1006	20:43:56.7	+67:41:57	13.22	0.92	k7 V	0.08	108
1007	20:43:58.4	+68:06:18	13.73	0.86	g5.5 IV-V	1.08	590
1011	20:43:59.5	+67:10:31	14.31	1.14	k2.2 III	1.13	3320
1012	20:43:59.7	+68:03:12	15.57	0.82	f4 IV-V	1.59	1700
1014	20:43:59.9	+68:21:59	10.09	1.05	k3 III	0.59	630
1018	20:44:03.3	+68:12:22	14.75	0.81	g5 IV-V	0.88	910
1020	20:44:04.0	+67:21:19	14.42	0.81	f8 V	1.25	690
1022	20:44:04.9	+68:12:36	15.51	0.87	k3.7 V	0.57	422
1024	20:44:05.5	+67:59:33	12.36	0.70	f6 III-IV	0.94	690
1025	20:44:06.7	+68:20:44	15.72	0.68	f7 IV-V	0.78	2360
1026	20:44:07.1	+68:00:03	15.91	0.91	k0.7 IV-V	0.78	1230
1027	20:44:07.3	+67:56:57	14.27	0.88	g0 V	1.43	500
1031	20:44:09.0	+67:32:37	16.01	0.63	a9 III-IV	1.28	4130

Continued **Table B.2**

No	RA(2000) h m s	DEC(2000) ° ′ ″	V mag	Y-V mag	Sp	Av mag	d pc.
1036	20:44:11.0	+67:09:01	10.78	0.75	k0 IV	0.22	309
1037	20:44:12.3	+67:23:39	14.98	0.80	g1.5 IV-V	1.04	1250
1039	20:44:12.8	+68:10:43	14.83	0.80	k0.7 V	0.57	500
1043	20:44:14.0	+68:16:55	16.04	0.77	k1 V	0.44	810
1044	20:44:14.1	+67:43:47	14.86	1.02	f9 IV-V	2.10	710
1046	20:44:14.6	+68:14:16	15.57	0.64	f6 IV-V	0.69	2140
1047	20:44:14.9	+67:13:54	14.76	1.07	k1 III	1.08	3950
1048	20:44:15.0	+67:23:04	13.37	0.74	f7 V	1.02	510
1050	20:44:15.9	+67:20:27	14.73	1.04	g9.5 IV	1.37	1200
1051	20:44:16.1	+68:22:05	15.52	0.75	f8 IV-V	1.06	1640
1053	20:44:17.9	+67:29:22	15.95	0.76	g0 V	0.95	1380
1054	20:44:19.5	+67:19:17	14.68	1.04	g8.5 IV	1.46	1110
1055	20:44:20.2	+67:12:28	13.95	0.85	g5.5 IV	0.97	920
1056	20:44:20.4	+67:28:16	13.83	0.72	f9 V	0.83	600
1057	20:44:20.5	+67:13:27	16.32	0.86	k2 V	0.75	680
1058	20:44:21.1	+67:19:34	15.85	0.81	f5 IV-V	1.43	1930
1060	20:44:21.4	+67:14:09	13.92	1.09	k1 III	1.17	2490
1062	20:44:22.4	+68:07:50	13.95	0.90	g9 IV	0.82	1060
1064	20:44:23.2	+68:15:49	13.50	0.75	g6 IV	0.50	880
1068	20:44:24.9	+67:20:57	15.02	0.77	f6 V	1.23	1130
1069	20:44:25.2	+67:31:49	15.63	0.85	f9 IV	1.35	1920
1071	20:44:25.3	+67:25:06	14.92	0.76	g2.5 IV-V	0.87	1220
1072	20:44:26.1	+67:13:28	14.69	0.76	f6 IV	1.19	1480
1075	20:44:27.9	+67:28:34	14.49	0.78	f9 V	1.08	760
1076	20:44:27.9	+67:22:48	14.60	0.82	g9 V	0.83	410
1077	20:44:28.8	+67:10:35	12.35	0.67	f6 IV	0.80	590
1078	20:44:29.0	+67:29:44	15.70	1.01	k7 V	0.45	286
1079	20:44:29.2	+67:30:01	14.03	1.05	g9.5 III	1.24	2470
1081	20:44:30.1	+67:22:00	12.59	1.10	k3 III	0.81	1800
1087	20:44:31.0	+67:55:32	14.65	0.76	f3 V	1.41	1050
1089	20:44:32.0	+68:13:29	16.25	0.71	g1.5 V	0.65	1640
1090	20:44:33.1	+68:17:37	15.53	0.72	g1 V	0.71	1210
1091	20:44:33.2	+68:11:01	10.51	0.88	k1 IV	0.45	246
1096	20:44:34.6	+67:20:27	13.40	0.76	g1 IV-V	0.93	560
1097	20:44:34.8	+67:13:45	15.64	0.81	g1 IV-V	1.08	1360
1098	20:44:34.9	+68:09:44	14.59	0.53	f1 III	0.62	3000
1099	20:44:35.1	+67:38:01	14.93	1.00	k8 V	0.36	186
1102	20:44:36.0	+67:26:17	15.21	0.88	g5 IV	1.10	1590
1103	20:44:36.8	+68:15:21	10.79	0.96	k2 III	0.42	900
1104	20:44:37.0	+67:19:30	15.25	0.77	f6 V	1.22	1200
1105	20:44:37.2	+67:25:12	15.12	0.71	f8 V	0.81	1150
1106	20:44:37.2	+68:00:06	15.75	0.92	g0 V	1.63	910
1109	20:44:38.4	+67:33:00	14.39	0.46	b9.5 IV	1.25	4040
1111	20:44:38.8	+67:22:58	15.69	0.76	f9 IV-V	1.01	1820
1120	20:44:43.4	+67:12:08	15.37	0.46	a3 V	1.02	4070
1121	20:44:43.8	+68:17:54	15.57	0.85	k3.5 V	0.55	458

Continued **Table B.2**

No	RA(2000)	DEC(2000)	V	Y-V	Sp	Av	d
	h m s	° ′ ″	mag	mag		mag	pc.
1122	20:44:44.2	+68:04:46	16.16	0.99	k0.5 IV	1.02	2870
1125	20:44:45.7	+67:35:42	11.20	1.17	k1.7 III	1.37	710
1127	20:44:46.9	+68:13:32	15.88	0.66	f9 V	0.59	1710
1129	20:44:47.3	+67:24:28	15.88	0.80	f5 IV-V	1.38	1950
1130	20:44:47.3	+67:20:39	13.88	0.74	f5 IV-V	1.14	840
1133	20:44:47.6	+68:16:35	14.97	0.97	k2 III	0.47	6060
1139	20:44:51.2	+68:18:40	14.97	0.65	f8 IV-V	0.64	1520
1140	20:44:51.7	+68:19:40	16.09	0.67	g0 V	0.55	1780
1142	20:44:52.5	+67:22:22	16.41	0.87	f9 IV-V	1.49	1820
1144	20:44:53.3	+67:16:26	14.73	0.73	f5 V	1.13	1070
1145	20:44:53.8	+67:31:02	14.66	0.88	f9 IV-V	1.53	890
1147	20:44:54.8	+67:13:30	15.11	0.83	g8.5 IV	0.63	1760
1148	20:44:55.5	+68:04:53	14.46	0.73	f9.5 V	0.84	750
1149	20:44:55.8	+68:17:53	15.82	0.70	g4 IV-V	0.52	1950
1150	20:44:55.9	+68:13:38	14.41	0.74	g9 V	0.48	446
1151	20:44:56.1	+67:33:00	15.66	0.79	f4 V	1.45	1520
1153	20:44:56.6	+67:25:42	15.57	0.73	f8 IV-V	0.95	1870
1154	20:44:56.7	+67:26:03	16.03	0.71	f7 IV	0.93	2830
1155	20:44:56.8	+67:31:53	14.68	0.74	f6 IV-V	1.12	1270
1156	20:44:57.2	+67:59:14	14.94	1.01	k1 V	1.48	304
1157	20:44:57.4	+68:06:50	16.60	0.92	k1 V	1.13	750
1158	20:44:58.6	+67:28:50	15.66	0.84	g4 IV-V	1.07	1400
1160	20:45:00.1	+68:09:01	15.99	0.71	g0 V	0.71	1550
1161	20:45:01.4	+68:22:00	15.45	0.68	g3 V	0.48	1150
1162	20:45:01.8	+67:36:40	15.57	0.86	g1 V	1.34	1000
1163	20:45:02.1	+68:07:40	12.98	0.62	f6 V	0.57	550
1164	20:45:03.3	+68:16:29	16.17	0.52	f2 III-IV	0.47	5420
1166	20:45:04.1	+67:56:59	13.35	0.84	g1.5 IV	1.13	690
1167	20:45:04.1	+68:14:57	15.00	0.71	g5.5 V	0.58	770
1168	20:45:04.2	+67:36:52	14.75	0.95	f6 IV-V	1.96	880
1169	20:45:04.3	+68:08:40	14.51	0.69	g1 IV-V	0.63	1150
1172	20:45:06.3	+67:36:40	13.41	1.15	k1 III	1.42	1810
1173	20:45:06.3	+68:11:03	15.39	0.67	f7 V	0.71	1520
1177	20:45:09.1	+68:05:17	15.24	0.74	f8 V	0.96	1140
1180	20:45:09.8	+68:04:11	15.33	0.67	f8 IV-V	0.72	1880
1181	20:45:10.3	+67:21:29	16.09	0.77	f5 IV-V	1.33	2190
1183	20:45:11.9	+68:12:02	14.12	1.08	k3.7 III	0.42	4570
1185	20:45:13.2	+67:17:44	15.79	0.85	f7 V	1.50	1330
1186	20:45:13.9	+67:23:24	14.20	0.76	f8 IV	1.04	1170
1188	20:45:15.2	+68:05:39	10.36	1.00	k1 IV	0.96	183
1190	20:45:16.0	+68:12:28	15.54	0.78	k1.5 V	0.45	590
1193	20:45:16.6	+68:04:04	14.52	0.79	g6 IV	0.66	1320
1194	20:45:16.9	+67:33:54	12.55	1.16	k2.2 III	1.21	1420
1196	20:45:17.7	+68:23:23	15.22	0.64	f6 IV-V	0.67	1970
1198	20:45:18.7	+67:25:19	15.71	0.69	f9 IV-V	0.70	2000
1199	20:45:18.7	+67:16:01	14.99	0.77	f7 IV	1.15	1720

Continued **Table B.2**

No	RA(2000) h m s	DEC(2000) ° ′ ″	V mag	Y-V mag	Sp	Av mag	d pc.
1200	20:45:19.4	+68:07:12	11.52	0.90	g7 II-III	0.74	1680
1201	20:45:19.7	+67:22:11	13.46	0.74	g4 V	0.71	376
1202	20:45:19.9	+67:31:35	13.90	0.79	f7 V	1.24	590
1206	20:45:21.7	+67:25:07	13.88	0.74	g3 IV-V	0.75	740
1209	20:45:25.2	+68:18:31	15.36	0.82	k2.7 V	0.52	454
1211	20:45:26.2	+67:35:58	14.84	0.90	g6 III-IV	1.01	2690
1212	20:45:26.5	+67:27:58	14.28	0.83	g5 V	1.06	470
1214	20:45:26.7	+68:15:53	11.97	0.94	k0.7 III-IV	0.68	910
1217	20:45:28.6	+67:21:31	13.73	0.70	g3 V	0.58	484
1223	20:45:30.4	+68:09:04	14.95	0.66	g2 V	0.44	980
1224	20:45:31.0	+67:32:59	11.36	0.50	f6 V	0.05	332
1225	20:45:31.9	+68:10:40	15.95	0.61	f9.5 IV-V	0.34	2670
1227	20:45:32.7	+68:04:08	15.24	0.81	g5 V	0.94	840
1228	20:45:33.0	+68:16:07	12.07	1.09	k4 III	0.37	1920
1229	20:45:33.2	+67:23:23	13.68	0.70	f8 V	0.81	610
1231	20:45:34.8	+68:09:24	16.20	0.67	f8 V	0.66	2020
1233	20:45:35.1	+68:13:27	13.40	0.65	f7 IV-V	0.66	820
1234	20:45:35.5	+67:18:07	14.47	0.71	f5 IV-V	1.04	1230
1235	20:45:36.0	+68:06:38	13.26	0.53	f1 IV-V	0.67	990
1236	20:45:36.8	+68:21:51	12.92	0.61	f9 V	0.35	478
1237	20:45:36.9	+68:10:18	15.95	0.74	k0 V	0.41	850
1241	20:45:37.7	+67:18:27	15.18	0.88	k6 V	0.21	273
1242	20:45:38.0	+67:43:57	14.34	1.20	g7 III-IV	2.16	1290
1243	20:45:38.2	+67:19:24	14.32	0.90	g8.5 IV	0.89	1210
1244	20:45:38.2	+68:07:45	16.18	0.89	k1 V	0.98	660
1251	20:45:45.3	+67:30:39	12.16	0.99	k0.5 III	0.88	1300
1253	20:45:46.0	+67:44:48	13.64	1.21	k2.2 III	1.41	2140
1255	20:45:48.4	+67:59:12	15.06	0.80	f8 V	1.21	930
1256	20:45:48.6	+67:32:20	14.72	0.75	f9 V	0.97	850
1257	20:45:48.8	+68:11:48	11.68	0.96	k1.7 III	0.50	1290
1259	20:45:49.6	+67:41:13	14.77	1.18	g1 IV-V	2.67	480
1261	20:45:51.7	+68:16:25	14.78	0.84	k0.7 V	0.75	444
1262	20:45:52.0	+68:03:20	15.62	0.68	f6 IV-V	0.85	2170
1263	20:45:52.4	+68:17:21	14.73	0.65	f9.5 IV-V	0.53	1430
1264	20:45:54.9	+67:40:13	13.91	1.28	k2 III	1.79	1870
1265	20:45:55.1	+68:05:08	10.51	0.94	k1.5 III	0.46	760
1266	20:45:55.1	+68:10:35	12.04	0.98	k2.2 III	0.46	1520
1268	20:45:57.6	+68:02:44	15.68	0.93	k1 V	1.13	500
1269	20:45:59.6	+68:05:28	14.23	0.96	k1 IV	0.80	1170
1270	20:45:59.8	+67:46:46	13.25	0.78	f7 IV	1.18	750
1271	20:46:00.8	+67:42:51	12.90	1.15	k2.5 III	1.11	1780
1273	20:46:03.6	+67:45:09	12.17	0.68	g1 IV-V	0.58	398
1274	20:46:03.7	+68:09:55	15.17	0.72	g8.5 V	0.44	660
1275	20:46:06.6	+68:11:06	13.52	1.20	k6 III	0.53	3910
1276	20:46:08.6	+67:49:04	15.67	0.88	g1 V	1.35	950
1278	20:46:09.5	+68:03:39	14.29	0.68	f9 IV-V	0.67	1120

Continued **Table B.2**

No	RA(2000) h m s	DEC(2000) ° ′ ″	V mag	Y-V mag	Sp	Av mag	d pc.
1279	20:46:10.1	+68:12:53	14.41	0.60	f8 IV-V	0.40	1400
1280	20:46:10.5	+67:55:44	14.99	0.90	k8 V	0.05	226
1281	20:46:11.2	+68:00:01	13.19	1.02	k1.2 III	0.87	2130
1282	20:46:13.9	+68:18:04	14.64	0.62	f3 V	0.82	1360
1283	20:46:14.2	+68:02:50	14.11	0.62	f9.5 V	0.38	810
1284	20:46:14.6	+68:09:58	15.26	0.91	k3 V	0.80	371
1289	20:46:20.3	+68:01:57	13.97	0.65	f6 V	0.69	840
1290	20:46:21.2	+68:18:58	14.49	0.80	g8 IV	0.51	1440
1291	20:46:21.7	+67:57:24	10.40	0.79	k5 V	0.06	43
1292	20:46:22.4	+67:54:56	15.70	0.83	k0 V	0.84	620
1294	20:46:26.5	+67:58:12	14.58	0.74	k3.5 V	0.06	358
1295	20:46:26.6	+68:11:36	14.95	0.67	g1.5 IV-V	0.52	1430
1296	20:46:26.9	+68:01:00	11.81	1.27	k5.5 III	0.86	1500
1298	20:46:29.2	+68:14:41	13.64	0.83	g6 III	0.62	2900
1300	20:46:30.3	+68:09:16	14.36	0.31	b8 IV-V	0.75	5730
1302	20:46:34.7	+68:02:28	13.13	0.66	k0.5 V	0.06	301

B.3. Classification of stars in the NGC 7129 area observed with VATT

Table B.3

Stars in the NGC 7129 area observed in the Vilnius photometric system with VATT and most reliable spectral types determined.

No	RA(2000) h m s	DEC(2000) ° ′ ″	V mag	Y-V mag	Photom. sp.type	Y-Vo mag	Mv mag	Av mag	d pc.
2	21 41 54.10	+66 05 48.1	14.69	0.66	a7 IV	0.29	1.60	1.53	2042
3	21 41 54.84	+66 03 41.8	14.08	0.75	f9 IV-V	0.52	3.45	0.95	860
5	21 41 55.31	+66 05 23.0	17.51	0.88	k1: V	0.65	6.10	0.95	1232
6	21 41 55.53	+66 02 39.9	16.45	1.08	g8 IV	0.65	3.10	1.78	2052
9	21 41 57.11	+66 10 53.0	17.59	1.04	k5: V	0.78	7.20	1.08	727
10	21 41 58.43	+66 05 21.7	12.17	0.56	f8 IV	0.50	2.70	0.24	698
11	21 41 59.27	+66 05 05.9	15.32	0.76	k0 V	0.64	5.90	0.49	608
16	21 42 01.57	+66 05 39.5	15.73	0.93	k4 V	0.74	6.90	0.79	405
18	21 42 01.67	+66 08 16.0	9.30	0.84	k1 III	0.81	0.70	0.12	495
22	21 42 02.34	+66 04 56.1	14.29	0.70	f0 V	0.34	2.70	1.49	1043
23	21 42 04.51	+66 03 23.4	18.41	1.03	k2: V	0.68	6.40	1.45	1290
26	21 42 06.85	+66 05 31.9	16.51	0.90	g0 V	0.53	4.30	1.53	1361
28	21 42 07.08	+66 09 36.5	15.98	1.38	g8 III	0.72	0.80	2.74	3068
29	21 42 07.88	+66 10 34.6	15.07	1.36	g5 III	0.67	0.90	2.87	1819

Continued **Table B.3**

No	RA(2000) h m s	DEC(2000) ° ′ ″	V mag	Y-V mag	Photom. sp.type	Y-Vo mag	Mv mag	Av mag	d pc.
30	21 42 07.91	+66 08 10.0	16.19	0.93	k3.5 V	0.72	6.75	0.87	516
31	21 42 08.05	+66 08 46.6	16.81	1.06	g0 V	0.53	4.30	2.20	1150
32	21 42 08.21	+66 09 51.9	16.98	1.18	g0 V	0.53	4.30	2.70	989
34	21 42 08.57	+66 05 25.4	18.21	0.95	g0 V	0.53	4.30	1.74	2707
37	21 42 09.45	+66 08 57.1	17.27	0.87	k1: V	0.65	6.10	0.91	1124
42	21 42 11.38	+66 11 30.3	18.02	1.00	k3: V	0.70	6.60	1.24	1082
50	21 42 16.88	+66 08 12.8	15.99	0.82	k2 V	0.68	6.40	0.58	633
52	21 42 17.72	+66 09 14.0	17.16	0.97	a0 V	0.17	0.70	3.32	4230
53	21 42 18.70	+66 05 42.4	17.22	1.15	g0 V	0.53	4.30	2.57	1169
54	21 42 18.91	+66 02 04.0	17.45	0.83	g5 V	0.57	5.00	1.08	1877
55	21 42 19.09	+66 05 29.8	17.23	0.92	a5 V,m:	0.26	1.80	2.74	3442
56	21 42 19.78	+66 06 20.3	18.16	0.92	k3: V	0.70	6.60	0.91	1345
57	21 42 20.08	+66 02 54.5	16.38	0.96	f6 V,md:	0.48	3.67	1.99	1388
58	21 42 21.54	+66 02 05.0	16.63	0.92	g0 V:	0.53	4.30	1.62	1385
60	21 42 22.81	+66 07 52.9	16.63	1.06	g3 IV	0.56	2.93	2.07	2108
61	21 42 23.18	+66 06 42.3	18.60	1.04	k3: V	0.70	6.60	1.41	1309
62	21 42 23.39	+66 08 47.3	17.37	1.04	k7: V	0.92	8.00	0.49	594
63	21 42 23.44	+66 10 34.5	11.84	0.62	g6 IV	0.61	3.03	0.04	567
64	21 42 23.47	+66 00 31.5	17.22	1.16	m2: V	1.12	9.90	0.16	269
70	21 42 26.22	+66 06 56.3	17.68	1.05	k0.5 V	0.64	6.00	1.70	988
72	21 42 26.92	+66 07 42.7	10.54	0.84	g8.5 III	0.73	0.77	0.45	728
73	21 42 27.20	+66 00 53.6	17.20	0.97	f5 V	0.46	3.50	2.12	2068
75	21 42 28.42	+66 04 09.0	18.21	1.01	k0: V	0.64	5.90	1.53	1426
79	21 42 31.55	+66 00 29.3	17.79	1.05	k0 V:	0.64	5.90	1.70	1088
89	21 42 37.03	+66 02 13.7	17.31	1.10	f5 V:	0.46	3.50	2.66	1696
91	21 42 37.91	+66 02 29.9	17.95	0.89	k2: V	0.68	6.40	0.87	1365
94	21 42 38.60	+66 11 33.7	16.39	0.96	k3 V	0.70	6.60	1.08	551
95	21 42 38.80	+66 00 05.1	16.17	1.39	k1 IV	0.76	3.10	2.62	1229
96	21 42 40.32	+66 10 06.9	12.35	0.55	a1 V	0.19	1.00	1.49	934
97	21 42 41.33	+66 03 33.7	15.99	0.95	f3 V	0.42	3.17	2.20	1327
98	21 42 41.92	+66 01 20.1	15.72	0.92	a7 V	0.27	2.20	2.70	1456
100	21 42 45.51	+66 04 34.5	9.78	0.76	k0 III	0.77	0.70	0.00	667
102	21 42 46.08	+66 00 07.1	17.92	0.98	k7: V	0.92	8.00	0.24	859
105	21 42 47.05	+66 10 51.3	13.34	0.73	b8 V	0.12	0.00	2.53	1447
107	21 42 49.97	+66 01 58.2	13.18	0.59	f5 V	0.46	3.50	0.54	672
109	21 42 50.70	+66 03 31.3	16.90	0.90	k3 V	0.70	6.60	0.83	782
112	21 42 51.99	+66 09 44.7	17.93	1.04	m0: V	0.92	8.80	0.49	532
114	21 42 54.84	+65 59 57.6	14.94	0.71	g4 V	0.57	4.87	0.58	789
115	21 42 55.20	+66 11 42.6	12.46	0.81	g8 III-IV	0.68	1.95	0.54	985
119	21 43 05.57	+66 03 28.5	16.88	1.01	k5: V	0.78	7.20	0.95	555
121	21 43 07.09	+66 02 19.4	17.68	0.97	k8 V	0.92	8.27	0.20	692
122	21 43 08.98	+66 12 01.7	15.34	0.68	f8 V	0.51	4.00	0.70	1338
124	21 43 14.96	+66 09 06.8	17.93	1.01	k5: V	0.78	7.20	0.95	900
126	21 43 20.87	+66 03 37.0	17.49	1.08	m1 V	1.02	9.30	0.24	387
128	21 43 21.70	+66 02 46.1	14.24	0.62	f8 V	0.51	4.00	0.45	904
130	21 43 23.54	+66 01 27.9	15.54	1.01	m0 V	0.92	8.80	0.37	187

Continued **Table B.3**

No	RA(2000) h m s	DEC(2000) ° ′ ″	V mag	Y-V mag	Photom. sp.type	Y-Vo mag	Mv mag	Av mag	d pc.
132	21 43 29.01	+66 01 47.0	16.09	0.84	k3 V	0.70	6.60	0.58	604
134	21 43 31.01	+66 00 45.9	14.47	0.64	g0 V	0.53	4.30	0.45	875
136	21 43 31.22	+66 07 24.1	14.49	0.76	k0.5 V	0.64	6.00	0.49	396
141	21 43 40.04	+66 03 31.7	12.88	0.61	f7 V	0.49	3.83	0.49	513
142	21 43 41.30	+66 00 55.2	15.25	0.75	g8 V	0.61	5.50	0.58	681
149	21 43 45.13	+66 04 37.9	15.53	0.75	g6 V	0.58	5.17	0.70	852
150	21 43 45.41	+66 08 22.5	17.45	1.00	k3.5 V	0.72	6.75	1.16	807
152	21 43 49.12	+65 59 55.0	15.12	0.84	k4 V	0.74	6.90	0.41	363
154	21 43 50.36	+66 08 47.7	12.28	0.59	b6 IV	0.11	-1.0	1.99	1805
155	21 43 55.15	+66 10 05.1	17.34	1.03	g3 V	0.56	4.73	1.95	1351
157	21 43 56.01	+66 03 05.2	15.69	0.79	g5 V	0.57	5.00	0.91	901
159	21 43 59.99	+66 04 36.7	16.81	0.97	k4 V	0.74	6.90	0.95	617

B.4. Classification of stars in the NGC 7129 area observed with Maksutov

Table B.4

Stars in the NGC 7129 area observed in the Vilnius photometric system with Maksutov and the most reliable spectral types determined.

No	RA(2000) h m s	DEC(2000) ° ′ ″	V mag	Y-V mag	Photom. sp.type	Y-Vo mag	Mv mag	Av mag	d pc.
370	21 41 00.86	+65 53 21.7	12.45	1.00	g8 III	0.72	0.80	1.16	1250
373	21 41 01.89	+65 55 51.1	14.26	0.64	f8 V	0.51	4.00	0.54	878
379	21 41 03.17	+66 15 14.6	16.09	0.99	a5 V	0.26	1.80	3.03	1780
382	21 41 04.81	+65 59 56.9	12.03	0.54	f6 V	0.48	3.67	0.24	418
385	21 41 05.41	+66 06 46.3	15.03	0.72	g0 V	0.53	4.30	0.79	972
386	21 41 05.75	+66 05 02.9	15.09	0.71	g2 V	0.56	4.60	0.62	940
389	21 41 07.04	+66 01 32.8	12.38	0.56	f6 V	0.48	3.67	0.33	473
396	21 41 10.61	+65 58 01.6	13.79	0.70	f5 V	0.46	3.50	0.99	721
405	21 41 13.78	+66 11 02.7	13.66	0.62	f6 V	0.48	3.67	0.58	761
404	21 41 13.69	+66 17 45.8	14.90	1.28	k0 III	0.77	0.70	2.12	2604
419	21 41 18.80	+66 15 33.7	12.86	1.33	k2 III	0.85	0.60	1.99	1128
427	21 41 22.29	+66 01 38.5	14.75	0.65	g4 V	0.57	4.87	0.33	811
433	21 41 23.88	+65 57 29.9	15.78	0.79	f1 IV	0.37	2.20	1.74	2325
438	21 41 26.21	+65 55 04.3	14.73	0.68	g0 V	0.53	4.30	0.62	914
452	21 41 30.21	+66 04 03.3	11.10	0.23	b9 V	0.14	0.40	0.37	1161
462	21 41 33.38	+66 04 59.7	13.88	0.61	f7 V	0.49	3.83	0.49	813
465	21 41 34.02	+66 09 24.2	12.93	0.77	g5 III-IV	0.63	1.95	0.58	1200
473	21 41 36.94	+66 08 26.1	16.19	0.86	g7 V	0.60	5.33	1.08	902

Continued **Table B.4**

No	RA(2000) h m s	DEC(2000) ° ′ ″	V mag	Y-V mag	Photom. sp.type	Y-Vo mag	Mv mag	Av mag	d pc.
477	21 41 40.04	+66 00 12.4	15.64	0.78	f3 V	0.42	3.17	1.49	1564
484	21 41 42.91	+66 01 14.5	15.34	1.16	k0 III-IV	0.73	1.90	1.78	2139
491	21 41 46.46	+65 57 31.0	14.50	0.75	k3 V	0.70	6.60	0.20	345
493	21 41 46.80	+65 58 54.7	11.70	0.61	g9 V	0.63	5.70	0.00	164
507	21 41 51.10	+65 59 30.7	13.96	0.63	f0 IV	0.33	2.10	1.24	1325
508	21 41 51.21	+66 04 02.0	16.11	0.78	f4 V	0.44	3.33	1.41	1875
512	21 41 51.49	+65 53 19.9	14.33	0.66	f8 V	0.51	4.00	0.62	873
511	21 41 51.48	+65 54 52.6	15.24	1.21	k0 III	0.77	0.70	1.83	3482
517	21 41 52.93	+66 10 14.6	16.35	1.01	f6 V	0.48	3.67	2.20	1244
520	21 41 54.32	+65 59 33.3	14.04	1.53	k5 III	1.07	0.20	1.91	2428
523	21 41 55.03	+66 00 34.7	15.76	0.99	k7 V	0.92	8.00	0.29	311
533	21 41 58.13	+65 53 48.9	14.84	0.75	g8 V	0.61	5.50	0.58	564
534	21 41 58.22	+65 56 57.1	13.60	0.64	g8 IV-V	0.63	4.30	0.04	710
554	21 42 02.43	+65 58 53.6	11.65	1.25	k3 III	0.91	0.50	1.41	885
558	21 42 04.63	+66 16 11.5	13.38	0.62	f8 V	0.51	4.00	0.45	608
572	21 42 07.41	+66 12 29.6	15.69	1.00	f6 V	0.48	3.67	2.16	936
580	21 42 10.80	+65 54 02.0	14.68	0.70	f9 V	0.52	4.15	0.74	904
603	21 42 20.02	+65 58 37.1	16.90	0.88	f3 V	0.42	3.17	1.91	2308
606	21 42 21.02	+65 57 28.0	13.97	1.28	g8 III	0.72	0.80	2.32	1472
615	21 42 24.24	+66 15 58.1	13.95	0.61	f6 V	0.48	3.67	0.54	886
621	21 42 27.58	+66 16 51.6	16.67	1.08	f7 V	0.49	3.83	2.45	1194
634	21 42 35.82	+66 13 54.2	16.18	0.97	g0 V	0.53	4.30	1.83	1023
642	21 42 42.13	+65 58 21.2	16.22	0.88	k4 V	0.74	6.90	0.58	559
690	21 43 05.28	+65 54 14.5	15.39	1.09	g9 III	0.75	0.75	1.41	4416
714	21 43 15.29	+65 53 28.3	16.20	0.87	k3 V	0.70	6.60	0.70	600
724	21 43 20.40	+66 15 45.5	15.73	1.15	m2 V	1.12	9.90	0.12	138
726	21 43 21.91	+66 13 00.7	15.05	0.73	g3 V	0.56	4.73	0.70	836
732	21 43 24.10	+65 54 21.1	12.03	1.03	g8 III	0.72	0.80	1.28	972
731	21 43 23.98	+66 17 51.7	14.54	1.43	k2 III	0.85	0.60	2.41	2020
735	21 43 26.19	+65 53 23.3	15.56	1.16	g8 III-IV	0.68	1.95	1.99	2102
738	21 43 26.51	+65 54 00.5	15.26	1.12	k0 III-IV	0.73	1.90	1.62	2225
740	21 43 27.30	+65 59 39.9	11.92	0.54	f4 IV	0.44	2.43	0.41	652
743	21 43 27.63	+65 56 02.6	12.99	0.91	k1 III-IV	0.78	1.90	0.54	1287
773	21 43 37.43	+66 12 55.7	15.41	0.69	g3 V	0.56	4.73	0.54	1066
781	21 43 39.91	+66 12 53.4	15.81	1.25	g9 III	0.75	0.75	2.08	3944
813	21 43 47.14	+65 58 01.5	12.83	0.80	g8 IV	0.65	3.10	0.62	662
814	21 43 47.44	+65 54 18.1	14.85	0.70	g5 IV-V	0.58	4.00	0.49	1175
817	21 43 48.22	+66 18 38.1	15.19	0.65	g0 V	0.53	4.30	0.49	1197
831	21 43 53.79	+65 59 37.3	13.94	0.59	f5 V	0.46	3.50	0.54	954
849	21 44 00.30	+66 01 54.1	14.82	0.66	f8 V	0.51	4.00	0.62	1094
865	21 44 05.96	+65 52 58.0	11.33	0.62	g4 V	0.57	4.87	0.20	177
874	21 44 07.84	+65 58 35.1	14.73	0.63	f6 V	0.48	3.67	0.62	1222
883	21 44 09.63	+65 57 11.2	16.26	0.81	g2 V	0.56	4.60	1.04	1330
895	21 44 14.32	+66 08 19.1	15.06	0.71	f8 V	0.51	4.00	0.83	1110
900	21 44 15.46	+65 54 38.5	15.91	0.88	f5 V	0.46	3.50	1.74	1356
904	21 44 16.51	+66 01 04.4	13.08	0.51	f3 V	0.42	3.17	0.37	807

Continued **Table B.4**

No	RA(2000) h m s	DEC(2000) ° ′ ″	V mag	Y-V mag	Photom. sp.type	Y-Vo mag	Mv mag	Av mag	d pc.
905	21 44 17.64	+66 13 41.0	14.21	0.73	k1 V	0.65	6.10	0.33	359
911	21 44 19.99	+66 08 32.3	16.16	0.86	k4 V	0.74	6.90	0.49	565
919	21 44 21.48	+66 04 14.9	14.43	0.69	g3 V	0.56	4.73	0.54	678
963	21 44 33.16	+66 00 54.3	14.86	0.77	f0 IV	0.33	2.10	1.83	1534
965	21 44 33.58	+65 56 52.2	13.13	0.57	f6 V	0.48	3.67	0.37	656
966	21 44 33.91	+65 57 46.7	16.79	0.83	g0 V	0.53	4.30	1.24	1771
968	21 44 34.21	+66 04 46.4	14.81	0.73	g5 V	0.57	5.00	0.66	674
975	21 44 36.44	+66 03 46.5	13.22	0.54	f3 V	0.42	3.17	0.49	813
977	21 44 36.63	+66 11 35.9	13.04	0.59	f5 V	0.46	3.50	0.54	630
989	21 44 40.41	+66 04 46.4	15.16	0.64	f8 V	0.51	4.00	0.54	1329
990	21 44 40.71	+65 53 58.8	13.97	0.64	f8 V	0.51	4.00	0.54	768
999	21 44 44.80	+65 55 47.7	15.83	0.91	k7 V	0.92	8.00	0.00	375
1005	21 44 45.86	+66 08 24.3	14.68	1.52	k3 III	0.91	0.50	2.53	2130
1011	21 44 47.31	+66 07 16.6	16.53	1.12	f8 V	0.51	4.00	2.53	996
1013	21 44 48.88	+65 55 34.0	14.83	0.67	f6 V	0.48	3.67	0.79	1185
1028	21 44 51.75	+66 16 39.0	14.03	0.59	f5 V	0.46	3.50	0.54	995
1034	21 44 53.54	+66 15 36.5	12.07	0.52	f6 V	0.48	3.67	0.16	443
1044	21 44 55.79	+66 01 31.7	15.37	0.76	f3 V	0.42	3.17	1.41	1435
1060	21 44 59.80	+66 18 23.1	14.95	0.76	f5 IV-V	0.46	3.00	1.24	1381

B.5. Classification of stars in the NGC 7142 area

Table B.5

Stars in the NGC 7142 area observed in the Vilnius photometric system with VATT and the most reliable spectral types determined.

No	RA(2000) h m s	DEC(2000) ° ′ ″	V mag	Y-V mag	Photom. sp.type	Y-Vo mag	Mv mag	Av mag	d pc.
1	21 43 57.75	+65 47 04.7	16.80	0.72	g0 V	0.53	4.15	0.79	2355
2	21 43 58.02	+65 45 47.9	18.41	0.75	f9 V	0.52	4.15	0.96	4579
9	21 44 01.04	+65 49 55.8	18.20	0.80	f8 V	0.51	4.00	1.21	3970
13	21 44 01.46	+65 44 53.6	16.33	0.84	k2 V	0.68	6.40	0.67	713
16	21 44 02.10	+65 43 27.7	16.55	0.67	f9 IV	0.51	2.74	0.67	4256
19	21 44 02.48	+65 45 13.9	17.11	0.89	k3 V	0.70	6.60	0.79	879
21	21 44 02.57	+65 44 18.9	17.43	0.79	g9 IV	0.67	3.10	0.50	5837
24	21 44 02.89	+65 45 34.5	16.63	0.81	g3 V	0.56	4.73	1.04	1486
28	21 44 03.39	+65 48 40.3	17.27	0.72	f8 V	0.51	4.00	0.87	3016
29	21 44 03.74	+65 48 07.8	14.45	1.02	k0 III	0.77	0.70	1.04	3483
30	21 44 04.17	+65 48 24.7	18.32	0.95	k3 V	0.70	6.60	1.04	1368
33	21 44 04.72	+65 45 07.8	17.96	0.78	g0 V	0.53	4.30	1.04	3342
37	21 44 05.30	+65 47 25.9	17.56	0.81	g5 IV	0.59	3.00	0.92	5358

Continued **Table B.5**

No	RA(2000) h m s	DEC(2000) ° ′ ″	V mag	Y-V mag	Photom. sp.type	Y-Vo mag	Mv mag	Av mag	d pc.
44	21 44 06.33	+65 46 08.4	17.83	0.74	f5 V	0.46	3.50	1.16	4297
45	21 44 06.85	+65 50 07.1	15.35	1.09	g8 III	0.72	0.80	1.54	4001
46	21 44 06.99	+65 51 24.9	18.33	1.01	k3 V	0.70	6.60	1.29	1225
48	21 44 07.10	+65 46 51.8	15.18	1.03	g8 III	0.72	0.80	1.29	4151
51	21 44 07.58	+65 48 46.5	17.56	0.72	f8 V	0.51	4.00	0.87	3447
61	21 44 09.61	+65 50 07.7	17.56	0.80	f8 V	0.51	4.00	1.21	2957
63	21 44 09.75	+65 45 59.2	16.39	0.81	g8 V	0.61	5.50	0.83	1028
65	21 44 10.46	+65 45 10.2	18.08	0.99	k3 V	0.70	6.60	1.21	1134
67	21 44 10.87	+65 42 28.0	14.72	0.64	f8 V	0.51	2.32	0.54	2355
71	21 44 11.21	+65 46 21.0	13.67	0.55	f2 V	0.40	3.00	0.62	1021
73	21 44 11.74	+65 45 17.2	17.39	0.75	f9 V	0.52	4.15	0.96	2863
75	21 44 11.93	+65 47 24.6	18.01	0.81	g4 V	0.57	4.87	1.00	2682
80	21 44 13.02	+65 44 12.1	14.71	0.65	f9 V	0.52	4.15	0.54	1009
81	21 44 13.09	+65 44 26.9	16.74	0.71	f3 IV	0.42	2.37	1.21	4293
87	21 44 14.40	+65 45 27.3	16.15	0.76	f8 V	0.51	3.25	1.04	2355
88	21 44 14.49	+65 42 17.0	17.72	0.73	f8 V	0.51	4.00	0.92	3639
92	21 44 15.34	+65 41 52.9	17.98	1.09	k7 V	0.85	7.60	1.00	752
93	21 44 15.37	+65 44 49.8	15.14	0.73	g6 V	0.58	5.17	0.62	740
96	21 44 15.96	+65 41 38.9	14.50	0.69	g3 V	0.56	4.73	0.54	701
98	21 44 16.29	+65 48 52.5	16.42	0.74	f7 V	0.49	3.55	1.04	2313
99	21 44 16.72	+65 48 00.0	17.35	0.72	f5 V	0.46	3.50	1.08	3579
100	21 44 16.78	+65 43 40.3	17.53	0.73	f5 V	0.46	3.50	1.12	3814
108	21 44 17.87	+65 45 11.3	16.60	1.01	g2 IV	0.55	2.90	1.91	2277
109	21 44 17.89	+65 50 05.1	18.03	0.83	k0 V	0.64	5.90	0.79	1854
115	21 44 18.36	+65 43 38.7	18.21	0.92	g9 IV	0.67	3.10	1.04	6516
116	21 44 18.74	+65 48 18.7	16.65	0.76	f5 V	0.46	3.50	1.25	2402
117	21 44 18.97	+65 47 10.8	15.50	1.02	g8 III	0.72	0.80	1.25	4905
120	21 44 19.41	+65 47 24.9	18.04	0.81	g6 V	0.58	5.17	0.96	2414
121	21 44 19.51	+65 45 25.9	16.82	1.01	g2 IV	0.55	2.90	1.91	2520
123	21 44 19.93	+65 50 45.4	17.93	0.98	g5 IV	0.59	3.00	1.62	4588
125	21 44 20.06	+65 48 04.1	15.69	0.76	f6 V	0.48	2.67	1.16	2351
127	21 44 20.11	+65 48 13.3	18.48	0.86	g5 IV-V	0.58	4.00	1.16	4605
129	21 44 20.20	+65 46 44.2	16.13	0.77	f5 V	0.46	3.05	1.29	2281
130	21 44 20.20	+65 41 51.9	17.98	0.81	g5 V	0.57	5.00	1.00	2491
131	21 44 20.23	+65 45 43.3	16.52	1.14	g9.5 III	0.76	0.73	1.62	6622
137	21 44 20.92	+65 41 02.9	18.17	1.07	k4 V	0.74	6.90	1.37	954
142	21 44 21.74	+65 50 55.3	16.43	0.76	g2 V	0.56	4.60	0.83	1584
143	21 44 21.81	+65 51 53.7	18.37	0.71	f6 V	0.48	3.67	0.96	5608
146	21 44 22.03	+65 51 21.9	17.95	0.84	g1 V	0.54	4.45	1.25	2822
147	21 44 22.04	+65 43 04.1	18.36	0.86	g5 V	0.57	5.00	1.21	2696
150	21 44 22.26	+65 42 52.4	17.64	0.79	g2 V	0.56	4.60	0.96	2611
151	21 44 22.46	+65 42 14.9	17.03	0.70	f5 V	0.46	3.50	1.00	3209
152	21 44 22.59	+65 50 50.3	18.20	1.01	g5 V	0.57	5.00	1.83	1879
154	21 44 22.65	+65 46 30.7	17.32	0.82	f6 V	0.48	3.67	1.41	2800
160	21 44 23.67	+65 50 21.6	17.93	0.85	g3 V	0.56	4.73	1.21	2505
164	21 44 23.99	+65 45 42.5	16.27	0.80	f8 IV	0.50	1.37	1.25	5375

Continued **Table B.5**

No	RA(2000) h m s	DEC(2000) ° ′ ″	V mag	Y-V mag	Photom. sp.type	Y-Vo mag	Mv mag	Av mag	d pc.
165	21 44 24.01	+65 43 22.5	14.20	0.67	f4 V	0.44	3.33	0.96	961
170	21 44 24.75	+65 47 57.3	15.98	0.80	f7 IV-V	0.38	2.41	1.75	2315
176	21 44 25.16	+65 49 41.9	17.32	0.80	g0 V	0.53	4.30	1.12	2396
177	21 44 25.19	+65 49 24.3	18.45	0.78	f8 V	0.51	4.00	1.12	4628
179	21 44 25.32	+65 48 18.0	17.68	0.83	f8 V	0.51	4.00	1.33	2950
181	21 44 25.49	+65 48 34.5	17.98	0.77	f6 V	0.48	3.67	1.21	4176
183	21 44 25.94	+65 46 19.0	16.38	0.85	k0 IV	0.70	3.10	0.62	3398
185	21 44 26.35	+65 49 22.8	18.29	0.76	g1 V	0.54	4.45	0.92	3846
186	21 44 26.37	+65 46 36.7	14.65	1.17	k0 III	0.77	0.70	1.66	2867
190	21 44 26.61	+65 41 17.6	17.68	0.87	g5 IV	0.59	3.00	1.16	5049
192	21 44 26.69	+65 43 31.1	13.43	0.65	f9 V	0.52	4.15	0.54	560
194	21 44 26.93	+65 43 52.9	16.38	0.78	f8 V	0.51	3.38	1.12	2374
195	21 44 26.97	+65 44 30.5	15.76	0.71	f5 V	0.46	2.95	1.04	2260
196	21 44 27.07	+65 51 27.0	17.12	0.80	g2 V	0.56	4.60	1.00	2016
201	21 44 27.67	+65 47 50.2	18.49	0.92	g3 IV	0.56	2.93	1.50	6495
202	21 44 27.89	+65 48 27.4	17.46	0.70	f5 V	0.46	3.50	1.00	3912
204	21 44 28.03	+65 49 16.6	15.45	1.02	g5 III	0.67	0.90	1.46	4159
207	21 44 28.37	+65 47 42.2	17.37	0.79	g0 V	0.53	4.30	1.08	2499
208	21 44 28.37	+65 49 59.0	18.02	0.72	f4 V	0.44	3.33	1.16	5072
213	21 44 29.03	+65 46 16.1	16.30	0.77	f8 IV-V	0.50	2.77	1.12	3030
214	21 44 29.07	+65 48 03.8	18.24	0.80	f7 V	0.49	3.83	1.29	4209
215	21 44 29.10	+65 42 06.0	16.27	0.75	f6 V	0.48	3.30	1.12	2341
216	21 44 29.22	+65 45 15.9	14.59	0.75	g4 V	0.57	4.87	0.75	623
218	21 44 29.56	+65 50 30.5	16.06	0.77	f7 V	0.49	3.07	1.16	2309
219	21 44 29.62	+65 48 43.9	15.30	0.70	f5 V	0.46	2.55	1.00	2241
220	21 44 29.64	+65 42 55.2	17.56	0.74	f7 V	0.49	3.83	1.04	3451
221	21 44 29.69	+65 49 26.4	16.59	0.75	f6 V	0.48	3.61	1.12	2352
222	21 44 29.79	+65 47 09.2	17.79	0.76	f6 V	0.48	3.67	1.16	3901
224	21 44 30.42	+65 43 42.4	17.72	0.80	f8 V	0.51	4.00	1.21	3183
227	21 44 30.81	+65 48 16.8	17.65	0.77	f5 V	0.46	3.50	1.29	3734
229	21 44 31.27	+65 41 23.0	18.18	0.83	g5 V	0.57	5.00	1.08	2629
232	21 44 31.89	+65 46 34.0	15.93	0.90	g2 V	0.56	4.60	1.41	962
233	21 44 32.03	+65 44 37.7	16.96	0.84	f9 V	0.52	3.80	1.33	2322
234	21 44 32.23	+65 40 38.3	16.22	0.90	g8 III-IV	0.69	1.95	0.87	4780
236	21 44 32.58	+65 51 02.0	18.76	0.83	f7 V	0.49	3.83	1.41	5049
238	21 44 32.80	+65 47 53.4	16.11	0.75	f7 V	0.49	3.20	1.08	2322
239	21 44 32.88	+65 45 26.3	14.88	0.71	f5 V	0.46	2.10	1.04	2229
240	21 44 32.96	+65 51 39.9	18.09	0.84	g3 V	0.56	4.73	1.16	2749
241	21 44 33.03	+65 47 27.3	17.47	0.88	g6 V	0.58	5.17	1.25	1623
242	21 44 33.27	+65 50 02.2	15.58	0.80	f8 IV	0.50	1.31	1.21	4100
243	21 44 33.84	+65 47 43.0	14.92	1.01	g8.5 III	0.73	0.77	1.16	3955
244	21 44 33.90	+65 42 59.8	16.91	0.83	g0 V	0.53	3.87	1.25	2282
246	21 44 34.31	+65 46 25.5	15.77	0.79	g0 V	0.53	2.90	1.08	2279
247	21 44 34.38	+65 45 34.9	17.73	0.88	g6 V	0.58	5.17	1.25	1830
248	21 44 34.42	+65 50 10.5	18.18	0.85	g5 V	0.57	5.00	1.16	2530
249	21 44 34.44	+65 48 42.8	15.55	0.74	g7 V	0.60	5.33	0.58	846

Continued **Table B.5**

No	RA(2000) h m s	DEC(2000) ° ′ ″	V mag	Y-V mag	Photom. sp.type	Y-Vo mag	Mv mag	Av mag	d pc.
250	21 44 34.49	+65 43 06.5	17.27	0.80	f9 V	0.52	4.15	1.16	2462
252	21 44 34.54	+65 49 48.4	15.87	0.77	f7 V	0.49	2.88	1.16	2318
253	21 44 34.63	+65 46 57.3	18.11	0.87	g9 V	0.63	5.70	1.00	1916
254	21 44 34.69	+65 44 01.8	16.15	0.79	f7 IV-V	0.38	2.41	1.71	2553
256	21 44 34.93	+65 47 52.8	15.75	0.92	k2.5 V	0.69	6.50	0.96	456
257	21 44 35.56	+65 45 49.5	18.20	0.83	g8 V	0.61	5.50	0.92	2275
258	21 44 35.58	+65 51 46.8	17.02	0.75	f8 Vsd	0.51	4.00	1.00	2537
261	21 44 35.72	+65 45 04.7	17.35	0.89	g2 V	0.56	4.60	1.37	1886
262	21 44 35.85	+65 49 40.6	16.44	0.77	f8 IV-V	0.50	2.90	1.12	3044
264	21 44 35.99	+65 46 53.9	16.48	0.75	f7 IV-V	0.38	2.41	1.54	3208
265	21 44 35.99	+65 42 33.8	17.40	0.81	f0 V	0.34	2.70	1.96	3540
266	21 44 36.20	+65 49 24.1	16.05	0.78	f6 V	0.48	2.96	1.25	2337
267	21 44 36.37	+65 50 10.5	18.16	0.84	g7 V	0.60	5.33	1.00	2325
268	21 44 36.38	+65 45 17.9	17.57	0.82	g0 V	0.53	4.30	1.21	2587
270	21 44 36.70	+65 43 19.1	13.53	1.04	g5 III	0.67	0.90	1.54	1653
274	21 44 36.99	+65 46 50.5	15.78	0.88	g5 V	0.57	5.00	1.29	791
276	21 44 37.11	+65 49 01.8	16.48	0.73	f7 V	0.49	3.66	1.00	2314
277	21 44 37.13	+65 47 01.6	18.32	0.91	k0 V	0.64	5.90	1.12	1817
280	21 44 37.36	+65 42 55.1	18.23	0.98	g6 V	0.58	5.17	1.66	1902
283	21 44 37.52	+65 47 41.2	15.88	0.75	f6 V	0.48	2.91	1.12	2341
286	21 44 38.03	+65 45 38.0	15.96	0.76	f5 V	0.46	2.95	1.25	2252
288	21 44 38.30	+65 52 14.6	18.26	1.08	k5 V	0.78	7.20	1.25	917
291	21 44 38.56	+65 50 12.7	18.33	0.84	f7 V	0.49	3.83	1.46	4064
293	21 44 38.85	+65 41 56.1	17.70	0.91	f8 V	0.51	4.00	1.66	2554
294	21 44 38.85	+65 42 47.2	18.43	0.82	f8 V	0.51	4.00	1.29	4248
295	21 44 38.86	+65 50 20.2	16.75	0.74	f4 V	0.44	3.33	1.25	2719
298	21 44 39.53	+65 45 48.7	17.10	0.82	g1 V	0.54	4.17	1.16	2246
301	21 44 39.84	+65 42 14.4	18.06	0.86	g0 V	0.53	4.30	1.37	3003
305	21 44 40.44	+65 50 12.6	16.39	0.81	f7 V	0.49	3.24	1.33	2311
306	21 44 40.67	+65 47 24.3	17.34	0.76	f9 V	0.52	4.15	1.00	2744
307	21 44 40.85	+65 47 32.5	18.32	0.70	f7 V	0.49	3.83	0.87	5289
310	21 44 41.10	+65 46 06.8	16.44	0.77	f8 V	0.51	3.48	1.08	2376
312	21 44 41.25	+65 51 44.3	18.40	1.02	k5 V	0.78	7.20	1.00	1097
313	21 44 41.34	+65 41 23.7	18.39	0.91	g7 V	0.60	5.33	1.29	2260
315	21 44 41.64	+65 48 57.0	17.12	0.79	f8 V	0.51	4.00	1.16	2462
317	21 44 41.68	+65 44 58.6	17.88	0.86	g6 V	0.58	5.17	1.16	2038
319	21 44 42.06	+65 41 07.5	16.73	0.81	g8 V	0.61	5.50	0.83	1202
322	21 44 42.47	+65 40 41.2	18.48	0.79	g3 IV-V	0.56	3.53	0.96	6292
324	21 44 42.67	+65 41 38.9	18.34	0.79	f5 V	0.46	3.50	1.37	4939
326	21 44 42.71	+65 42 51.7	17.43	0.82	g0 V	0.53	4.30	1.21	2425
329	21 44 43.28	+65 42 28.4	17.53	0.80	f7 V	0.49	3.83	1.29	3035
330	21 44 43.32	+65 44 46.0	17.32	0.85	g4 V	0.57	4.87	1.16	1808
332	21 44 43.49	+65 48 32.9	15.76	0.76	f8 V	0.51	2.87	1.04	2344
333	21 44 43.50	+65 42 39.1	17.75	0.81	f8 V	0.51	4.00	1.25	3165
335	21 44 43.63	+65 47 31.6	18.10	0.94	k0 V	0.64	5.90	1.25	1550
336	21 44 43.66	+65 45 22.0	16.08	0.93	g8.5 IV	0.66	3.10	1.12	2352

Continued **Table B.5**

No	RA(2000) h m s	DEC(2000) ° ′ ″	V mag	Y-V mag	Photom. sp.type	Y-Vo mag	Mv mag	Av mag	d pc.
337	21 44 43.70	+65 47 20.2	14.88	0.55	a7 V	0.27	2.20	1.16	2010
338	21 44 43.83	+65 46 42.5	14.11	1.06	k0.5 III	0.79	0.70	1.12	2867
340	21 44 44.14	+65 51 22.3	16.86	0.81	g0 V	0.53	3.93	1.16	2255
341	21 44 44.20	+65 46 23.7	16.64	0.74	f7 V	0.49	3.77	1.04	2313
344	21 44 44.51	+65 49 51.0	17.82	0.99	g8 IV-V	0.63	4.30	1.50	2539
345	21 44 44.77	+65 44 48.1	17.13	0.77	f7 V	0.49	3.83	1.16	2674
348	21 44 44.99	+65 49 14.4	12.80	1.24	k2.5 III	0.88	0.55	1.50	1414
350	21 44 45.19	+65 45 40.2	17.32	0.84	g5 V	0.57	5.00	1.12	1735
351	21 44 45.40	+65 50 00.7	16.91	0.78	f6 V	0.48	3.67	1.25	2504
353	21 44 45.49	+65 47 11.2	17.05	0.73	f6 V	0.48	3.67	1.04	2938
354	21 44 45.72	+65 50 33.6	16.95	0.80	g0 V	0.53	4.05	1.12	2267
355	21 44 45.98	+65 47 22.1	16.27	0.71	f7 V	0.49	3.54	0.92	2297
360	21 44 46.72	+65 46 34.6	15.41	0.77	f8 IV	0.50	1.25	1.12	4049
362	21 44 46.94	+65 41 45.3	17.81	0.85	g1 V	0.54	4.45	1.29	2595
365	21 44 47.03	+65 46 54.7	18.46	0.86	g8 V	0.61	5.50	1.04	2421
367	21 44 47.21	+65 45 02.7	17.07	0.84	g1 V	0.54	4.06	1.25	2243
370	21 44 47.36	+65 49 19.0	17.85	0.79	f6 V	0.48	3.67	1.29	3786
372	21 44 48.28	+65 49 50.0	17.01	0.82	g3 V	0.56	4.73	1.08	1737
373	21 44 48.32	+65 47 14.9	17.40	0.76	g2 V	0.56	4.60	0.83	2476
374	21 44 48.43	+65 45 15.3	17.44	0.74	f6 V	0.48	3.67	1.08	3450
376	21 44 48.54	+65 48 44.7	16.91	0.76	f7 V	0.49	3.83	1.12	2463
378	21 44 48.60	+65 44 35.9	16.97	0.80	g0 V	0.53	4.07	1.12	2267
379	21 44 48.98	+65 51 21.9	17.97	0.85	g2 V	0.56	4.60	1.21	2709
381	21 44 49.09	+65 46 39.9	16.09	0.83	g3 V	0.56	4.73	1.12	1115
384	21 44 49.55	+65 51 57.2	18.25	0.85	g1 V	0.54	4.45	1.29	3178
385	21 44 49.64	+65 49 42.8	15.86	0.83	k1.5 V	0.66	6.25	0.71	603
388	21 44 49.84	+65 47 27.6	17.92	0.75	f7 V	0.49	3.83	1.08	3998
389	21 44 50.05	+65 49 48.6	16.58	0.64	a8 V	0.29	2.37	1.46	3556
391	21 44 50.17	+65 40 39.1	17.52	0.74	f8 V	0.51	4.00	0.96	3257
395	21 44 50.46	+65 50 20.6	17.09	0.63	a7 V	0.27	2.20	1.50	4771
396	21 44 50.47	+65 49 01.1	15.37	0.70	f5 V	0.46	2.60	1.00	2262
401	21 44 51.70	+65 47 14.6	16.07	0.72	f6 V	0.48	3.22	1.00	2346
403	21 44 51.96	+65 45 53.3	17.05	0.78	f8 V	0.51	4.00	1.12	2429
404	21 44 52.06	+65 45 30.7	18.14	0.90	k2.5 V	0.69	6.50	0.87	1424
405	21 44 52.14	+65 40 20.8	17.70	0.75	g1 V	0.54	4.45	0.87	2988
407	21 44 52.19	+65 43 37.3	18.28	0.86	g8 V	0.61	5.50	1.04	2228
409	21 44 52.27	+65 45 02.5	17.27	0.81	g6 V	0.58	5.17	0.96	1694
411	21 44 52.48	+65 46 18.7	14.47	0.43	a1 IV	0.17	0.60	1.08	3612
418	21 44 53.04	+65 44 50.2	15.21	0.64	f2 IV-V	0.40	2.65	1.00	2053
419	21 44 53.04	+65 50 16.3	16.05	0.77	f8 V	0.51	3.10	1.08	2365
420	21 44 53.14	+65 42 45.8	18.00	0.97	g4 V	0.57	4.87	1.66	1964
421	21 44 53.40	+65 45 29.3	16.58	1.06	g8.5 III	0.73	0.77	1.37	7720
422	21 44 53.42	+65 43 02.5	18.07	0.73	f9 V	0.52	4.15	0.87	4068
425	21 44 53.61	+65 43 39.7	17.12	0.86	g3 IV-V	0.56	3.53	1.25	2940
427	21 44 53.78	+65 47 52.4	18.13	0.83	g8 IV	0.65	3.10	0.75	7185
430	21 44 54.05	+65 45 39.6	18.37	0.82	g9 V	0.63	5.70	0.79	2377

Continued **Table B.5**

No	RA(2000) h m s	DEC(2000) ° ′ ″	V mag	Y-V mag	Photom. sp.type	Y-Vo mag	Mv mag	Av mag	d pc.
431	21 44 54.15	+65 46 23.3	17.04	0.82	g2 V	0.56	4.60	1.08	1870
432	21 44 54.20	+65 48 02.4	15.73	0.81	g7 V	0.60	5.33	0.87	804
433	21 44 54.29	+65 46 40.4	17.10	0.76	f6 V	0.48	3.67	1.16	2839
437	21 44 54.80	+65 50 42.8	18.07	0.85	g0 V	0.53	4.30	1.33	3075
439	21 44 55.06	+65 46 17.3	18.29	0.73	f6 V	0.48	3.67	1.04	5200
440	21 44 55.13	+65 50 07.2	17.53	0.82	g1 V	0.54	4.44	1.16	2418
441	21 44 55.25	+65 47 20.3	17.12	0.76	f9 V	0.52	4.15	1.00	2480
442	21 44 55.42	+65 42 35.3	12.90	0.42	a4 V	0.24	1.60	0.75	1289
443	21 44 55.50	+65 51 20.6	15.75	0.80	f6 V	0.48	2.58	1.33	2332
444	21 44 55.51	+65 50 12.7	18.34	0.76	f5 V	0.46	3.50	1.25	5231
449	21 44 56.37	+65 47 46.8	16.02	0.73	f5 V	0.46	3.10	1.12	2288
450	21 44 56.46	+65 45 42.9	17.57	0.79	f8 V	0.51	4.00	1.16	3028
451	21 44 56.53	+65 42 19.5	17.93	0.77	f9 V	0.52	4.15	1.04	3532
453	21 44 56.70	+65 51 53.1	16.00	0.79	f7 V	0.49	2.96	1.25	2282
454	21 44 56.91	+65 44 13.2	15.45	0.73	f5 IV	0.46	1.25	1.41	3607
455	21 44 56.91	+65 41 04.6	17.09	0.76	f8 V	0.51	4.00	1.04	2570
456	21 44 57.01	+65 51 15.9	18.03	0.83	g5 V	0.57	5.00	1.08	2454
458	21 44 57.22	+65 46 35.0	16.14	0.74	f5 V	0.46	3.20	1.16	2266
460	21 44 57.52	+65 50 21.5	15.82	0.75	f6 V	0.48	2.82	1.12	2374
461	21 44 57.60	+65 48 36.8	13.72	0.99	g8 III	0.72	0.80	1.12	2288
464	21 44 57.83	+65 45 47.5	15.88	0.75	f7 V	0.49	2.98	1.08	2311
465	21 44 57.86	+65 52 08.2	17.45	0.83	k0 V	0.64	5.90	0.79	1419
467	21 44 57.88	+65 48 25.1	13.46	0.57	f6 V	0.48	3.67	0.37	764
470	21 44 58.48	+65 41 14.2	18.12	0.74	f6 V	0.48	3.67	1.08	4718
471	21 44 58.60	+65 44 23.6	16.91	0.75	f8 V	0.51	4.00	1.00	2412
472	21 44 58.75	+65 42 40.6	18.12	0.82	g0 V	0.53	4.30	1.21	3333
475	21 44 58.91	+65 49 06.7	16.73	0.79	f8 V	0.51	3.70	1.16	2362
476	21 44 58.92	+65 52 18.1	15.49	0.82	f9 IV-V	0.51	2.30	1.29	2400
478	21 44 59.49	+65 40 14.9	18.35	0.72	f9 V	0.52	4.15	0.83	4716
481	21 44 59.70	+65 43 11.0	15.40	0.68	f6 V	0.48	2.72	0.83	2342
483	21 44 59.76	+65 46 47.3	17.20	0.80	f6 V	0.48	3.67	1.33	2753
484	21 44 59.81	+65 45 15.4	16.37	0.73	f6 V	0.48	3.47	1.04	2355
489	21 45 00.58	+65 47 46.6	16.26	0.68	f5 V	0.46	3.50	0.92	2339
492	21 45 00.63	+65 40 35.2	17.65	0.89	k3.5 V	0.72	6.75	0.71	1093
493	21 45 00.72	+65 45 56.6	13.50	1.03	g9 III	0.75	0.75	1.16	2076
496	21 45 01.08	+65 50 07.9	16.30	0.72	f7 V	0.49	3.53	0.96	2296
497	21 45 01.14	+65 46 45.5	16.74	0.77	f7 V	0.49	3.76	1.16	2308
498	21 45 01.31	+65 44 10.0	15.87	0.74	f5 V	0.46	2.92	1.16	2276
501	21 45 01.62	+65 44 00.1	16.95	0.78	g0 V	0.53	4.07	1.04	2333
502	21 45 01.80	+65 49 46.7	16.07	0.71	f5 V	0.46	3.25	1.04	2271
503	21 45 01.82	+65 51 01.8	17.57	0.80	g2 V	0.56	4.60	1.00	2480
506	21 45 02.17	+65 44 35.9	16.94	0.82	g4 V	0.57	4.87	1.04	1607
508	21 45 02.49	+65 40 30.8	17.37	0.80	g8 V	0.61	5.50	0.79	1644
509	21 45 02.52	+65 45 24.7	16.06	0.76	f8 V	0.51	3.15	1.04	2366
510	21 45 02.56	+65 45 39.9	12.16	1.33	k5 III	1.07	0.20	1.08	1499
512	21 45 02.79	+65 50 34.3	17.75	0.90	k2.5 V	0.69	6.50	0.87	1190

Continued **Table B.5**

No	RA(2000) h m s	DEC(2000) ° ′ ″	V mag	Y-V mag	Photom. sp.type	Y-Vo mag	Mv mag	Av mag	d pc.
513	21 45 02.85	+65 42 34.7	18.03	0.76	f6 V	0.48	3.67	1.16	4357
515	21 45 03.08	+65 43 15.9	17.93	0.78	g1 V	0.54	4.45	1.00	3136
516	21 45 03.14	+65 43 58.1	15.80	0.78	g8 IV	0.65	3.10	0.54	2704
517	21 45 03.33	+65 51 57.6	17.86	0.89	g8 V	0.61	5.50	1.16	1735
518	21 45 03.37	+65 47 53.4	16.52	0.83	k1 V	0.65	6.10	0.75	860
519	21 45 03.45	+65 45 19.2	16.99	0.84	g1 V	0.54	4.00	1.25	2232
520	21 45 03.48	+65 44 29.4	17.02	0.75	f5 V	0.46	3.50	1.21	2903
521	21 45 03.51	+65 51 06.7	17.08	0.99	g5 III-IV	0.63	1.95	1.50	5328
522	21 45 03.53	+65 46 34.6	16.01	0.76	f5 V	0.46	3.00	1.25	2252
525	21 45 03.64	+65 41 00.3	15.95	0.73	f7 V	0.49	3.13	1.00	2314
527	21 45 03.83	+65 48 59.8	16.52	0.78	f8 V	0.51	3.53	1.12	2363
528	21 45 03.84	+65 46 17.2	16.05	0.74	f6 V	0.48	3.12	1.08	2343
529	21 45 04.01	+65 45 08.4	13.62	0.64	g1 V	0.54	4.45	0.41	564
531	21 45 04.22	+65 46 00.6	16.07	0.77	g9 V	0.63	5.70	0.58	907
534	21 45 04.53	+65 51 36.3	16.55	0.71	f4 V	0.44	3.33	1.12	2627
536	21 45 04.83	+65 48 25.7	15.43	0.75	f6 V	0.48	2.47	1.12	2330
537	21 45 05.01	+65 44 45.4	13.61	0.61	f7 V	0.49	3.83	0.50	718
538	21 45 05.15	+65 50 25.3	16.39	0.74	f7 V	0.49	3.53	1.04	2303
539	21 45 05.38	+65 43 39.9	17.83	0.89	g6 V	0.58	5.17	1.29	1880
541	21 45 05.44	+65 49 25.4	16.76	0.82	g0 V	0.53	3.77	1.21	2274
546	21 45 05.84	+65 46 08.5	15.91	0.74	f7 V	0.49	3.06	1.04	2292
547	21 45 06.11	+65 42 53.9	16.94	0.66	f5 V	0.46	3.50	0.83	3324
549	21 45 06.18	+65 44 40.3	17.56	0.79	f6 V	0.48	3.67	1.29	3313
554	21 45 06.30	+65 47 43.3	15.17	0.77	g0 V	0.53	2.45	1.00	2210
557	21 45 06.74	+65 43 04.7	13.81	0.67	f9 V	0.52	4.15	0.62	642
558	21 45 06.74	+65 46 21.4	17.27	0.83	g5 V	0.57	5.00	1.08	1729
559	21 45 06.81	+65 43 33.2	15.78	0.86	g1 IV-V	0.54	1.90	1.33	3234
561	21 45 07.19	+65 49 36.5	16.34	0.74	f6 V	0.48	3.42	1.08	2332
562	21 45 07.52	+65 40 45.5	17.01	0.72	g0 V	0.53	4.30	0.79	2421
564	21 45 07.54	+65 47 44.5	16.14	0.72	f7 V	0.49	3.36	0.96	2307
567	21 45 07.85	+65 46 44.1	15.27	0.73	f8 V	0.51	2.50	0.92	2350
569	21 45 07.91	+65 46 01.2	17.80	0.92	k2 V	0.68	6.40	1.00	1203
571	21 45 07.97	+65 44 30.9	17.94	0.82	g7 V	0.60	5.33	0.92	2183
573	21 45 08.04	+65 44 21.4	15.63	0.76	f7 V	0.49	2.68	1.12	2320
574	21 45 08.05	+65 45 28.5	16.98	0.85	g5 V	0.57	5.00	1.16	1456
576	21 45 08.36	+65 48 36.6	16.00	0.76	f6 V	0.48	2.98	1.16	2351
579	21 45 08.61	+65 46 31.7	16.07	0.75	f5 V	0.46	3.10	1.21	2253
580	21 45 08.71	+65 47 34.9	15.45	0.73	f6 V	0.48	2.57	1.04	2333
582	21 45 09.18	+65 42 13.0	17.57	0.74	f8 V	0.51	4.00	0.96	3333
584	21 45 09.69	+65 50 31.7	16.28	0.80	k0 V	0.64	5.90	0.67	877
585	21 45 09.71	+65 51 58.7	16.05	0.77	f6 V	0.48	3.00	1.21	2338
587	21 45 09.99	+65 45 03.8	15.21	0.73	f6 V	0.48	2.32	1.04	2344
588	21 45 10.31	+65 46 38.1	12.95	0.56	f8 V	0.51	4.00	0.21	560
594	21 45 10.77	+65 44 41.3	15.95	0.76	f8 V	0.51	3.05	1.04	2355
598	21 45 11.47	+65 47 17.6	15.87	0.76	f6 V	0.48	2.86	1.16	2340
600	21 45 11.64	+65 43 55.6	17.97	0.84	g7 V	0.60	5.33	1.00	2130

Continued **Table B.5**

No	RA(2000) h m s	DEC(2000) ° ′ ″	V mag	Y-V mag	Photom. sp.type	Y-Vo mag	Mv mag	Av mag	d pc.
605	21 45 12.31	+65 45 08.8	16.85	0.73	f8 V	0.51	4.00	0.92	2438
606	21 45 12.40	+65 47 11.9	17.06	0.76	f6 V	0.48	3.67	1.16	2787
608	21 45 12.84	+65 46 10.9	16.43	0.77	f5 V	0.46	3.39	1.29	2240
609	21 45 12.90	+65 40 37.9	18.39	0.75	g0 V	0.53	4.30	0.92	4315
610	21 45 12.97	+65 49 39.3	14.17	0.97	g6 III	0.69	0.87	1.16	2674
611	21 45 13.00	+65 45 50.8	15.88	0.73	f6 V	0.48	2.99	1.04	2344
612	21 45 13.06	+65 42 30.6	17.48	0.70	f7 V	0.49	3.83	0.87	3593
613	21 45 13.11	+65 50 13.2	18.38	0.82	f8 V	0.51	4.00	1.29	4151
614	21 45 13.12	+65 48 19.4	17.89	0.84	g4 V	0.57	4.87	1.12	2396
615	21 45 13.13	+65 44 58.1	15.57	0.77	f7 V	0.49	2.61	1.16	2277
616	21 45 13.36	+65 46 52.2	18.27	0.83	g8 V	0.61	5.50	0.92	2350
618	21 45 13.73	+65 49 59.9	17.75	0.96	k2.5 V	0.69	6.50	1.12	1060
620	21 45 13.79	+65 44 25.5	15.23	0.82	k2 V	0.68	6.40	0.58	446
621	21 45 13.83	+65 40 57.8	16.46	0.93	g8 IV	0.65	3.10	1.16	2749
623	21 45 14.14	+65 46 22.6	17.77	0.86	g6 V	0.58	5.17	1.16	1937
624	21 45 14.49	+65 46 08.1	16.96	0.79	f7 V	0.49	3.83	1.25	2379
626	21 45 14.75	+65 50 01.6	16.56	0.78	g0 V	0.53	3.75	1.04	2259
627	21 45 14.78	+65 47 45.6	17.22	0.82	g0 V	0.53	4.15	1.21	2359
628	21 45 14.81	+65 48 44.9	16.45	0.76	f9 V	0.52	3.65	1.00	2293
630	21 45 15.10	+65 44 33.6	16.57	0.75	f7 IV-V	0.38	2.41	1.54	3343
631	21 45 15.16	+65 49 24.3	15.36	0.65	f0 V	0.34	2.70	1.29	1880
632	21 45 15.26	+65 46 19.0	16.60	0.79	f9 V	0.52	3.65	1.12	2320
634	21 45 15.31	+65 50 43.7	18.02	0.86	g0 V	0.53	4.30	1.37	2948
635	21 45 15.47	+65 52 01.9	16.26	0.75	g5 V	0.57	5.00	0.75	1266
637	21 45 15.65	+65 48 32.2	16.25	0.80	f7 IV-V	0.38	2.41	1.75	2622
639	21 45 15.82	+65 46 33.9	17.99	0.88	g2 IV-V	0.56	3.75	1.33	3818
641	21 45 16.09	+65 45 01.4	16.13	0.73	f6 V	0.48	3.23	1.04	2355
643	21 45 16.39	+65 46 01.2	18.11	0.83	g6 V	0.58	5.17	1.04	2399
644	21 45 16.43	+65 46 17.2	17.20	0.78	f9 V	0.52	4.15	1.08	2476
645	21 45 16.44	+65 46 42.7	16.96	0.79	f8 V	0.51	3.92	1.16	2372
646	21 45 16.46	+65 47 31.0	17.02	0.80	f8 V	0.51	3.93	1.21	2381
648	21 45 16.52	+65 41 48.0	17.62	0.73	g5 V	0.57	5.00	0.67	2460
650	21 45 16.90	+65 51 55.4	18.39	0.88	g8 IV-V	0.63	4.30	1.04	4074
654	21 45 17.30	+65 45 28.1	18.22	0.86	g0 V	0.53	4.30	1.37	3233
657	21 45 17.73	+65 46 09.3	15.56	0.76	f6 V	0.48	2.54	1.16	2351
658	21 45 17.84	+65 41 21.7	17.03	0.73	g0 V	0.53	4.30	0.83	2397
659	21 45 18.06	+65 42 09.4	17.45	0.92	g8 IV	0.65	3.10	1.12	4420
662	21 45 18.32	+65 42 38.3	17.77	0.70	f8 V	0.51	4.00	0.79	3945
663	21 45 18.51	+65 41 16.5	16.70	0.71	f8 V	0.51	3.99	0.83	2376
664	21 45 18.58	+65 46 38.6	15.03	0.58	a5 V	0.26	1.80	1.33	2398
666	21 45 18.63	+65 44 00.7	15.82	0.76	g0 V	0.53	3.10	0.96	2253
667	21 45 18.64	+65 49 20.8	17.71	0.78	g2 V	0.56	4.60	0.92	2748
668	21 45 18.65	+65 49 59.1	10.78	0.95	g8 III	0.72	0.80	0.96	638
669	21 45 18.65	+65 44 52.6	18.49	1.15	k5 V	0.78	7.20	1.54	892
672	21 45 18.83	+65 52 08.5	16.37	0.71	f8 V	0.51	3.66	0.83	2376
673	21 45 18.96	+65 44 39.5	15.45	0.75	f5 V	0.46	2.45	1.21	2285

Continued **Table B.5**

No	RA(2000) h m s	DEC(2000) ° ′ ″	V mag	Y-V mag	Photom. sp.type	Y-Vo mag	Mv mag	Av mag	d pc.
674	21 45 19.03	+65 45 25.8	16.29	0.75	f6 V	0.48	3.32	1.12	2341
676	21 45 19.30	+65 51 15.4	18.13	0.75	f5 V	0.46	3.50	1.21	4839
677	21 45 19.72	+65 44 22.3	15.61	0.75	f6 V	0.48	2.62	1.12	2363
678	21 45 19.92	+65 46 10.6	16.21	0.75	f8 V	0.51	3.35	1.00	2357
681	21 45 20.28	+65 48 10.2	16.84	0.78	f7 V	0.49	3.80	1.21	2317
683	21 45 20.43	+65 48 31.0	13.78	1.03	g8 III	0.72	0.80	1.29	2179
684	21 45 20.46	+65 51 07.0	12.98	0.70	f9 IV-V	0.51	3.95	0.79	445
685	21 45 20.88	+65 48 41.5	17.40	0.83	g0 V	0.53	4.30	1.25	2346
687	21 45 20.91	+65 46 39.5	15.53	0.75	f4 V	0.44	3.33	1.29	1521
689	21 45 21.08	+65 47 02.8	16.62	0.78	f9 V	0.52	3.70	1.08	2332
690	21 45 21.10	+65 42 02.2	14.02	0.84	k0 IV	0.70	3.10	0.58	1168
691	21 45 21.11	+65 48 06.0	16.93	0.85	g8 IV	0.65	3.10	0.83	3977
692	21 45 21.15	+65 51 40.4	16.77	0.75	f7 V	0.49	3.83	1.08	2354
694	21 45 21.32	+65 45 08.9	16.44	0.74	f7 V	0.49	3.57	1.04	2313
695	21 45 21.32	+65 44 11.9	18.43	0.79	g1 V	0.54	4.45	1.04	3873
698	21 45 21.72	+65 42 55.9	17.06	0.75	g0 V	0.53	4.29	0.92	2340
700	21 45 22.13	+65 48 31.3	18.22	0.90	k0 V	0.64	5.90	1.08	1769
702	21 45 22.28	+65 41 46.3	17.44	0.71	g0 V	0.53	4.30	0.75	3009
704	21 45 22.52	+65 44 34.5	15.72	0.76	f6 V	0.48	2.72	1.16	2329
706	21 45 22.65	+65 46 25.2	17.66	0.79	g1 V	0.54	4.45	1.04	2716
707	21 45 22.74	+65 51 22.7	18.30	0.89	k0 V	0.64	5.90	1.04	1871
708	21 45 22.94	+65 44 50.1	16.30	0.74	f6 V	0.48	3.37	1.08	2343
710	21 45 23.09	+65 40 51.8	17.96	0.68	f8 IV-V	0.50	3.35	0.75	5921
711	21 45 23.32	+65 46 41.9	15.17	0.69	g1 V	0.54	2.79	0.62	2237
713	21 45 23.59	+65 44 57.6	17.46	0.74	f7 V	0.49	3.83	1.04	3296
714	21 45 23.61	+65 51 09.7	17.84	0.98	g8 IV	0.65	3.10	1.37	4716
715	21 45 23.67	+65 46 50.3	15.83	0.77	f8 V	0.51	2.89	1.08	2354
717	21 45 23.72	+65 47 45.7	17.21	0.74	f8 IV-V	0.50	3.35	1.00	3736
718	21 45 23.76	+65 49 01.7	17.65	0.96	k3 V	0.70	6.60	1.08	986
719	21 45 23.92	+65 47 10.8	17.36	0.77	f9 V	0.52	4.15	1.04	2716
721	21 45 24.19	+65 49 56.8	15.11	0.75	f6 V	0.48	2.12	1.12	2363
722	21 45 24.86	+65 46 52.9	16.87	0.81	g1 V	0.54	4.00	1.12	2236
723	21 45 25.08	+65 42 49.5	18.32	0.72	f6 V	0.48	3.67	1.00	5375
724	21 45 25.19	+65 43 15.1	17.35	0.76	g1 V	0.54	4.45	0.92	2495
725	21 45 25.33	+65 44 45.5	17.98	0.88	g9 V	0.63	5.70	1.04	1770
726	21 45 25.35	+65 47 18.3	17.31	0.80	g1 V	0.54	4.42	1.08	2291
731	21 45 25.79	+65 41 18.7	16.47	0.88	g6 IV-V	0.60	4.07	1.16	1767
732	21 45 25.83	+65 43 38.6	17.31	0.75	f8 V	0.51	4.00	1.00	2900
734	21 45 26.19	+65 45 26.2	14.91	0.67	f8 V	0.51	2.38	0.67	2360
735	21 45 26.20	+65 45 12.7	16.39	0.73	f6 V	0.48	3.51	1.04	2333
736	21 45 26.24	+65 48 10.3	17.68	0.76	g3 IV-V	0.56	3.53	0.83	4611
737	21 45 26.37	+65 50 24.5	16.50	0.79	g2 V	0.56	4.60	0.96	1545
740	21 45 27.15	+65 46 00.7	16.48	0.71	f6 V	0.48	3.67	0.96	2349
741	21 45 27.19	+65 49 18.6	17.55	0.60	f0 V	0.34	2.70	1.08	5673
746	21 45 27.60	+65 47 30.0	15.36	0.79	f7 IV-V	0.38	2.41	1.71	1774
748	21 45 27.62	+65 45 54.6	16.62	0.73	f7 V	0.49	3.79	1.00	2315

Continued **Table B.5**

No	RA(2000) h m s	DEC(2000) ° ′ ″	V mag	Y-V mag	Photom. sp.type	Y-Vo mag	Mv mag	Av mag	d pc.
749	21 45 27.99	+65 41 09.6	15.96	0.73	f7 V	0.49	3.15	1.00	2304
750	21 45 28.03	+65 45 06.4	14.25	1.05	k0 III	0.77	0.70	1.16	3001
751	21 45 28.15	+65 48 09.2	16.40	0.76	f8 IV-V	0.50	2.90	1.08	3046
753	21 45 28.22	+65 52 02.0	16.76	0.75	g0 V	0.53	4.05	0.92	2286
754	21 45 28.29	+65 49 28.2	15.09	0.54	a5 V	0.26	1.80	1.16	2662
756	21 45 28.51	+65 43 22.9	13.68	0.63	f6 V	0.48	3.67	0.62	754
758	21 45 28.77	+65 42 03.6	13.95	0.60	f1 V	0.37	2.85	0.96	1069
763	21 45 29.12	+65 48 36.2	16.47	0.75	f5 IV-V	0.46	3.00	1.21	2837
764	21 45 29.15	+65 44 05.0	16.46	0.73	f7 V	0.49	3.65	1.00	2304
767	21 45 29.72	+65 50 06.5	16.43	0.69	f5 V	0.46	3.50	0.96	2482
770	21 45 29.82	+65 45 56.7	18.13	0.79	g3 V	0.56	4.73	0.96	3082
771	21 45 30.21	+65 47 48.9	18.23	0.81	g0 V	0.53	4.30	1.16	3574
773	21 45 30.52	+65 45 51.5	17.11	0.82	g2 V	0.56	4.60	1.08	1931
775	21 45 30.56	+65 44 59.8	18.26	0.84	g5 V	0.57	5.00	1.12	2675
776	21 45 30.58	+65 52 26.4	16.48	0.78	f5 V	0.46	3.39	1.33	2248
777	21 45 30.67	+65 41 41.7	18.11	0.72	f7 V	0.49	3.83	0.96	4622
779	21 45 30.87	+65 41 12.4	18.28	0.88	k0 IV	0.70	3.10	0.75	7698
780	21 45 30.97	+65 41 55.9	18.11	0.70	g0 V	0.53	4.30	0.71	4174
781	21 45 30.99	+65 50 44.3	17.70	0.92	k3 V	0.70	6.60	0.92	1089
783	21 45 31.11	+65 44 32.8	17.84	0.84	g0 V	0.53	4.30	1.29	2820
785	21 45 31.36	+65 48 18.2	15.67	0.77	f6 V	0.48	2.62	1.21	2338
791	21 45 32.09	+65 48 36.6	15.98	0.82	k2 V	0.68	6.40	0.58	630
794	21 45 32.67	+65 46 17.4	16.00	0.95	g8 IV	0.65	3.10	1.25	2140
795	21 45 32.68	+65 45 17.5	16.05	0.68	f5 V	0.46	3.37	0.92	2254
796	21 45 32.78	+65 46 41.9	18.47	0.83	g2 V	0.56	4.60	1.12	3543
797	21 45 32.84	+65 51 27.5	17.23	0.79	g0 IV-V	0.53	3.55	1.08	3310
800	21 45 32.94	+65 48 25.4	18.32	0.88	g5 IV	0.59	3.00	1.21	6650
801	21 45 33.05	+65 41 04.2	17.05	0.87	k3 V	0.70	6.60	0.71	888
802	21 45 33.43	+65 50 31.6	17.46	0.75	f7 V	0.49	3.83	1.08	3234
806	21 45 34.19	+65 50 58.6	16.71	0.73	f9 V	0.52	4.00	0.87	2330
807	21 45 34.26	+65 45 31.2	18.10	0.82	g3 V	0.56	4.73	1.08	2869
808	21 45 34.29	+65 44 28.6	14.43	1.09	k0.5 III	0.79	0.70	1.25	3136
809	21 45 34.55	+65 46 46.0	17.35	0.75	f7 V	0.49	3.83	1.08	3075
810	21 45 34.63	+65 45 46.2	17.22	0.73	f8 V	0.51	4.00	0.92	2891
812	21 45 34.72	+65 43 38.9	17.45	0.79	g0 V	0.53	4.30	1.08	2593
813	21 45 34.75	+65 48 19.3	17.36	0.86	g5 V	0.57	5.00	1.21	1701
814	21 45 34.78	+65 42 23.1	16.88	0.72	f7 V	0.49	3.83	0.96	2623
816	21 45 35.23	+65 48 13.5	17.15	0.79	f8 V	0.51	4.00	1.16	2496
820	21 45 35.66	+65 44 59.1	13.15	1.18	k1.5 III	0.83	0.65	1.46	1618
821	21 45 35.66	+65 50 57.2	17.90	0.73	g2 V	0.56	4.60	0.71	3301
824	21 45 36.09	+65 46 05.8	14.76	1.03	g8 III-IV	0.69	1.95	1.41	1902
827	21 45 36.37	+65 44 34.3	17.52	0.83	g1 V	0.54	4.45	1.21	2359
829	21 45 36.62	+65 40 56.3	17.71	0.63	f2 V	0.40	3.00	0.96	5634
832	21 45 37.24	+65 44 18.9	17.34	0.77	f9 V	0.52	4.15	1.04	2692
834	21 45 37.31	+65 47 14.5	14.71	0.76	g5 IV	0.59	3.00	0.71	1587
836	21 45 37.56	+65 50 55.4	18.49	0.76	f8 V	0.51	4.00	1.04	4898

Continued **Table B.5**

No	RA(2000) h m s	DEC(2000) ° ′ ″	V mag	Y-V mag	Photom. sp.type	Y-Vo mag	Mv mag	Av mag	d pc.
837	21 45 37.57	+65 48 20.4	18.02	0.83	g1 V	0.54	4.45	1.21	2970
838	21 45 37.69	+65 48 01.1	17.62	0.83	g5 V	0.57	5.00	1.08	2031
839	21 45 37.72	+65 43 11.0	17.60	0.72	f7 V	0.49	3.83	0.96	3654
842	21 45 38.15	+65 47 55.2	17.04	0.77	g0 V	0.53	4.15	1.00	2390
843	21 45 38.22	+65 48 31.0	16.98	0.79	f9 V	0.52	4.02	1.12	2330
845	21 45 38.32	+65 48 06.1	17.60	0.84	g0 IV	0.53	2.80	1.29	5037
849	21 45 38.79	+65 51 59.1	17.79	0.80	g0 IV	0.53	2.80	1.12	5935
850	21 45 38.94	+65 45 48.3	18.50	0.73	g1 V	0.54	4.45	0.79	4487
858	21 45 39.40	+65 50 24.0	16.61	0.68	f5 V	0.46	3.50	0.92	2748
861	21 45 39.55	+65 43 35.3	16.39	0.75	f7 V	0.49	3.49	1.08	2311
863	21 45 39.63	+65 47 00.5	12.47	0.57	f6 V	0.48	3.67	0.37	484
867	21 45 39.74	+65 49 12.2	17.86	0.80	g1 V	0.54	4.45	1.08	2923
870	21 45 40.22	+65 44 14.0	14.89	0.62	f0 V	0.34	2.70	1.16	1604
873	21 45 40.36	+65 46 00.2	16.38	0.75	f6 V	0.48	3.42	1.12	2330
874	21 45 40.52	+65 44 56.3	12.80	1.20	k1.5 III	0.83	0.65	1.54	1325
875	21 45 40.72	+65 43 40.0	17.76	0.95	k1 V	0.65	6.10	1.25	1209
877	21 45 40.98	+65 46 43.1	15.79	0.78	f6 IV-V	0.47	2.22	1.29	2859
879	21 45 41.31	+65 48 40.8	18.22	0.79	f6 V	0.48	3.67	1.29	4490
880	21 45 41.53	+65 52 14.3	17.76	0.83	g7 V	0.60	5.33	0.96	1972
881	21 45 41.62	+65 45 06.0	16.43	0.79	g0 IV-V	0.53	2.80	1.08	3234
884	21 45 41.74	+65 45 45.0	15.25	0.99	g8 III-IV	0.69	1.95	1.25	2573
888	21 45 42.32	+65 49 37.2	15.13	0.79	f8 V	0.51	2.10	1.16	2362
891	21 45 42.70	+65 47 55.5	17.44	0.81	g3 V	0.56	4.73	1.04	2158
894	21 45 43.34	+65 50 10.7	17.66	0.74	f7 V	0.49	3.83	1.04	3614
895	21 45 43.36	+65 49 57.4	18.45	0.76	f9 IV-V	0.51	3.95	1.04	4920
898	21 45 43.99	+65 46 54.2	16.15	0.75	g1 V	0.54	3.52	0.87	2246
899	21 45 43.99	+65 51 28.1	17.30	0.82	g9 IV	0.67	3.10	0.62	5193
900	21 45 44.17	+65 43 51.0	17.03	0.75	f9 V	0.52	4.15	0.96	2425
905	21 45 45.39	+65 43 59.1	17.80	0.89	k0 V	0.64	5.90	1.04	1486
906	21 45 45.42	+65 51 42.9	17.01	0.76	g0 V	0.53	4.17	0.96	2381
907	21 45 45.43	+65 41 21.2	18.16	0.64	f7 V	0.49	3.83	0.62	5513
913	21 45 46.08	+65 46 59.1	15.07	0.76	f7 V	0.49	2.15	1.12	2278
915	21 45 46.38	+65 43 00.6	18.05	0.68	f4 V	0.44	3.33	1.00	5551
916	21 45 46.48	+65 45 18.0	16.00	0.83	k2 V	0.68	6.40	0.62	624
918	21 45 46.55	+65 42 11.1	18.48	0.95	k4 V	0.74	6.90	0.87	1385
919	21 45 46.59	+65 49 19.6	15.45	1.00	k0 IV	0.70	3.10	1.25	1661
920	21 45 46.65	+65 46 50.5	18.29	0.80	f8 V	0.51	4.00	1.21	4138
922	21 45 46.81	+65 44 59.4	17.29	0.72	f6 V	0.48	3.67	1.00	3345
925	21 45 47.11	+65 44 11.1	17.80	0.78	f8 V	0.51	4.00	1.12	3431
926	21 45 47.58	+65 52 18.0	17.66	0.84	k2 V	0.68	6.40	0.67	1315
928	21 45 48.06	+65 51 27.2	17.23	0.86	f8 V	0.51	3.91	1.46	2359
932	21 45 48.97	+65 49 03.7	18.45	0.76	f7 V	0.49	3.83	1.12	5005
934	21 45 49.31	+65 51 44.5	17.41	0.80	g0 V	0.53	4.30	1.12	2497
935	21 45 49.47	+65 44 03.1	18.04	0.86	k1 V	0.65	6.10	0.87	1635
938	21 45 49.83	+65 47 07.7	17.87	0.85	g7 V	0.60	5.33	1.04	1995
943	21 45 50.24	+65 46 43.6	16.07	0.79	f7 IV-V	0.38	2.41	1.71	2460

Continued **Table B.5**

No	RA(2000) h m s	DEC(2000) ° ′ ″	V mag	Y-V mag	Photom. sp.type	Y-Vo mag	Mv mag	Av mag	d pc.
946	21 45 50.39	+65 47 36.6	18.40	0.90	g2 V	0.56	4.60	1.41	3001
948	21 45 50.56	+65 43 49.8	14.08	1.09	k0 III	0.77	0.70	1.33	2569
949	21 45 50.75	+65 49 08.9	18.29	0.78	g3 V	0.56	4.73	0.92	3381
951	21 45 50.85	+65 48 17.6	15.36	0.92	g4 V	0.57	4.87	1.46	641
955	21 45 51.11	+65 46 17.6	15.18	0.73	g8 V	0.61	5.50	0.50	686
960	21 45 51.57	+65 47 13.5	16.29	0.79	g0 V	0.53	3.40	1.08	2300
961	21 45 51.86	+65 43 24.5	17.23	0.77	g1 IV-V	0.54	3.63	0.96	3379
967	21 45 52.37	+65 49 46.3	15.88	1.09	g8 III	0.72	0.80	1.54	5107
968	21 45 52.39	+65 43 44.2	14.99	0.87	g3 IV	0.56	2.93	1.29	1426
969	21 45 52.50	+65 44 15.4	14.71	0.94	k5 V	0.78	7.20	0.67	234
970	21 45 52.57	+65 46 36.3	17.93	0.77	f9 V	0.52	4.15	1.04	3532
974	21 45 53.20	+65 45 00.5	17.94	0.83	g6 V	0.58	5.17	1.04	2218
976	21 45 53.53	+65 48 43.7	17.86	0.80	g2 V	0.56	4.60	1.00	2834
981	21 45 54.40	+65 50 49.6	14.46	0.62	f2 V	0.40	3.00	0.92	1285
985	21 45 54.86	+65 46 32.9	17.58	0.95	k4 V	0.74	6.90	0.87	915
986	21 45 54.87	+65 44 42.2	17.42	0.85	g5 V	0.57	5.00	1.16	1783
987	21 45 55.35	+65 46 42.5	17.80	0.81	g5 V	0.57	5.00	1.00	2293
988	21 45 55.52	+65 45 06.1	18.47	0.76	f6 V	0.48	3.67	1.16	5336
989	21 45 55.81	+65 50 13.5	17.54	0.85	g9 IV	0.67	3.10	0.75	5475
993	21 45 56.75	+65 48 52.0	17.39	0.76	g3 V	0.56	4.73	0.83	2322
995	21 45 56.85	+65 50 23.2	16.82	0.81	g8 V	0.61	5.50	0.83	1253
996	21 45 56.96	+65 49 36.1	16.51	0.70	f6 V	0.48	3.66	0.92	2428
998	21 45 57.02	+65 44 10.6	13.76	1.04	g9 III	0.75	0.75	1.21	2295
999	21 45 57.02	+65 49 48.6	17.33	0.82	k2 V	0.68	6.40	0.58	1174
1001	21 45 57.18	+65 44 50.1	15.56	0.79	f8 IV	0.50	1.30	1.21	4081
1004	21 45 57.37	+65 48 33.4	18.42	0.91	k3 V	0.70	6.60	0.87	1547
1005	21 45 57.60	+65 48 23.8	17.53	0.80	f6 V	0.48	3.67	1.33	3205
1010	21 45 58.20	+65 51 24.4	15.27	0.68	g5 V	0.57	5.00	0.46	917
1016	21 45 58.95	+65 50 46.4	16.39	0.76	f8 V	0.51	3.47	1.04	2377
1020	21 46 00.02	+65 50 38.5	17.77	0.75	g5 V	0.57	5.00	0.75	2537
1022	21 46 00.42	+65 48 51.9	16.66	0.71	f8 V	0.51	3.95	0.83	2376
1023	21 46 00.56	+65 43 42.0	16.09	0.92	g2 III	0.61	1.00	1.29	5757
1024	21 46 00.70	+65 45 04.5	16.89	0.74	g1 V	0.54	4.29	0.83	2249
1026	21 46 00.92	+65 49 06.9	13.95	1.01	g8 III	0.72	0.80	1.21	2448
1033	21 46 01.98	+65 48 02.5	15.99	0.74	g5 V	0.57	5.00	0.71	1139
1036	21 46 03.71	+65 49 20.4	15.68	0.68	f6 V	0.48	3.00	0.83	2342
1037	21 46 04.03	+65 50 10.5	16.94	0.84	g2 V	0.56	4.60	1.16	1719

Appendix C

Finding charts of stars

Finding charts in the NGC 7023 area

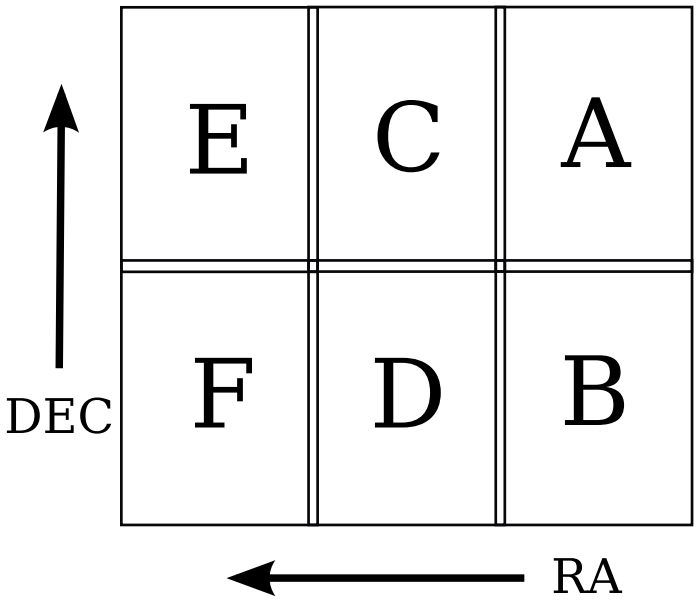

Figure C.1.: Division of the identification chart into six sextions for NGC 7023 area shown in Figures C.2-C.7

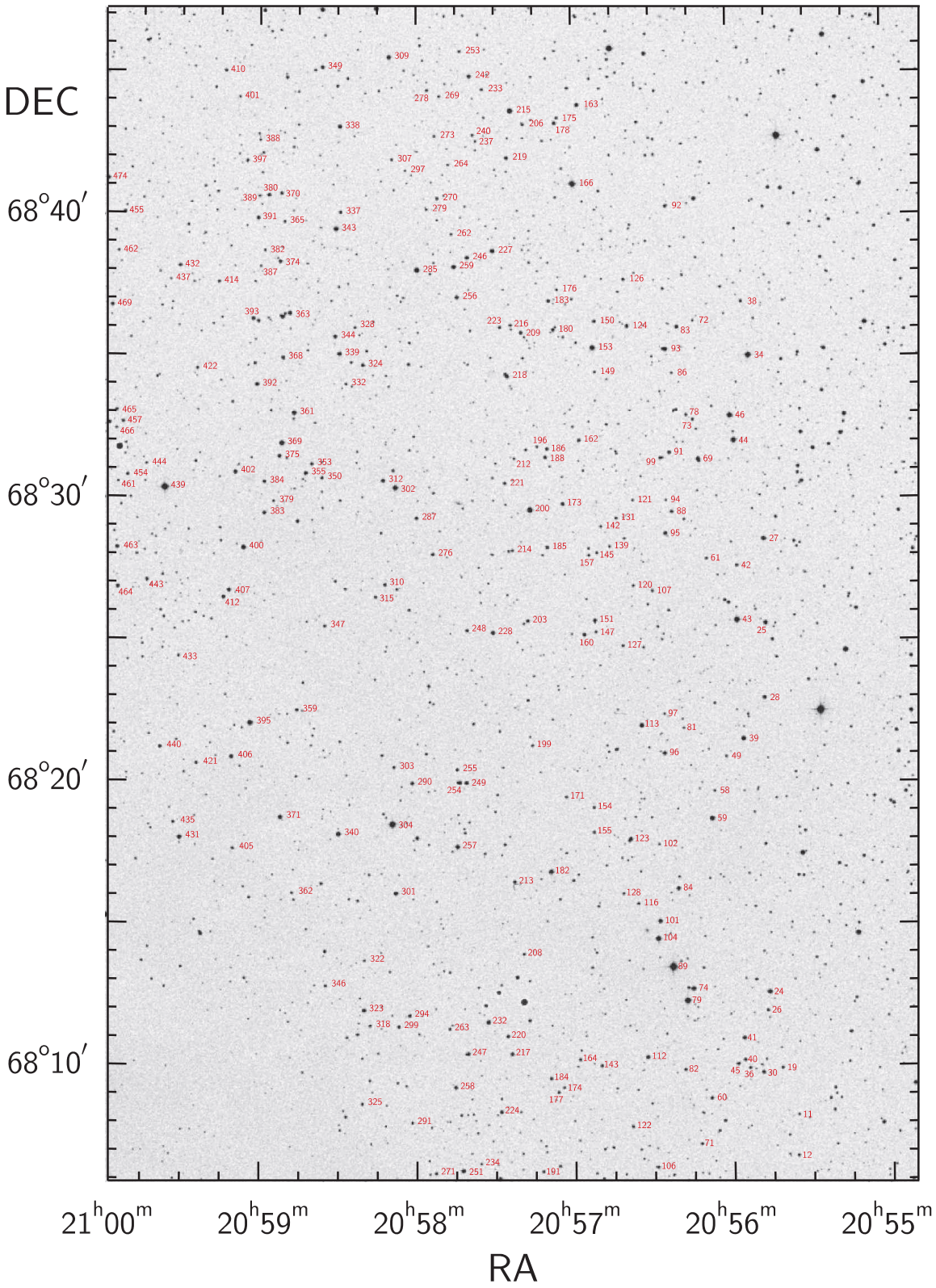

Figure C.2.: Section A of the identification chart in the NGC 7023 area

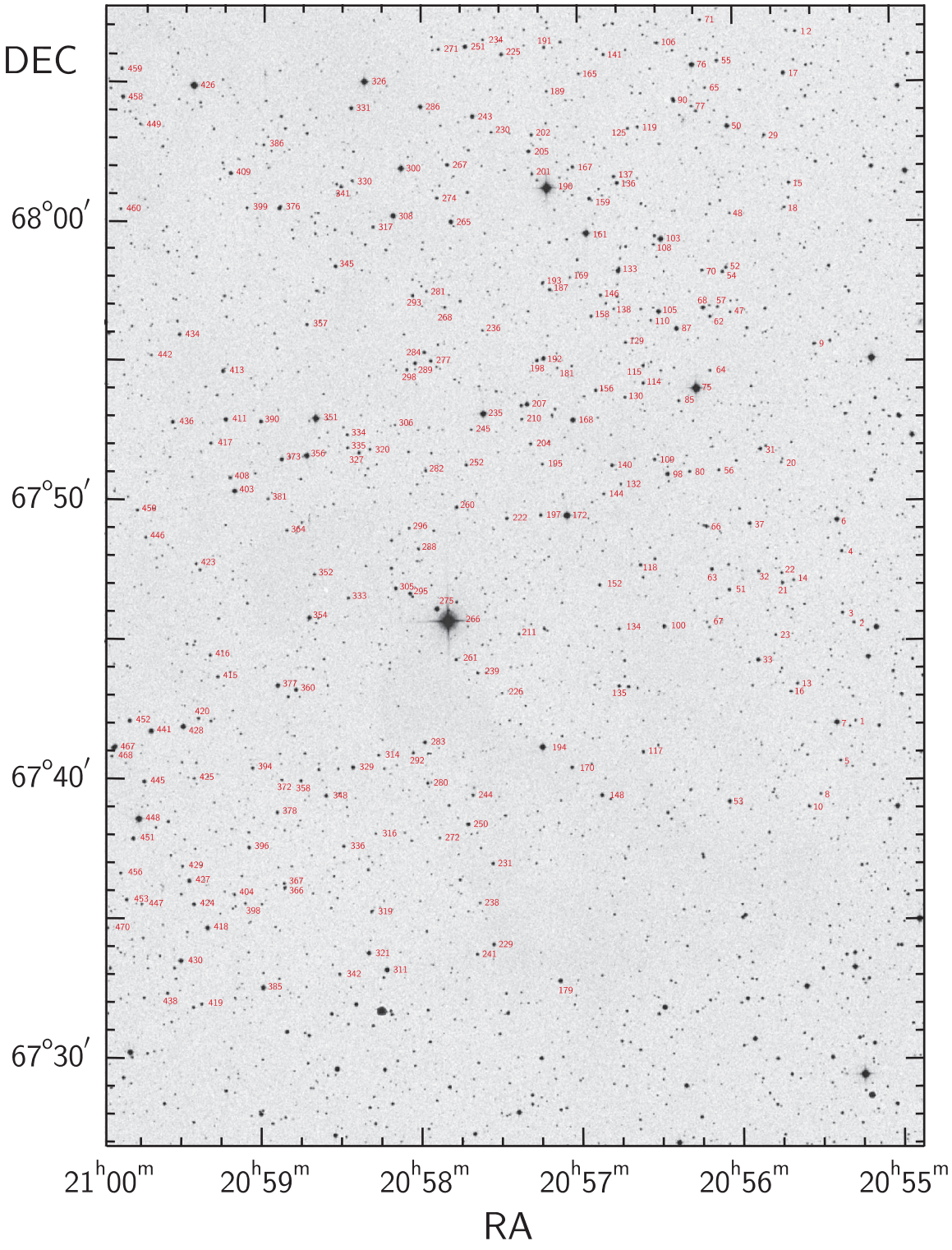

Figure C.3.: Section B of the identification chart in the NGC 7023 area

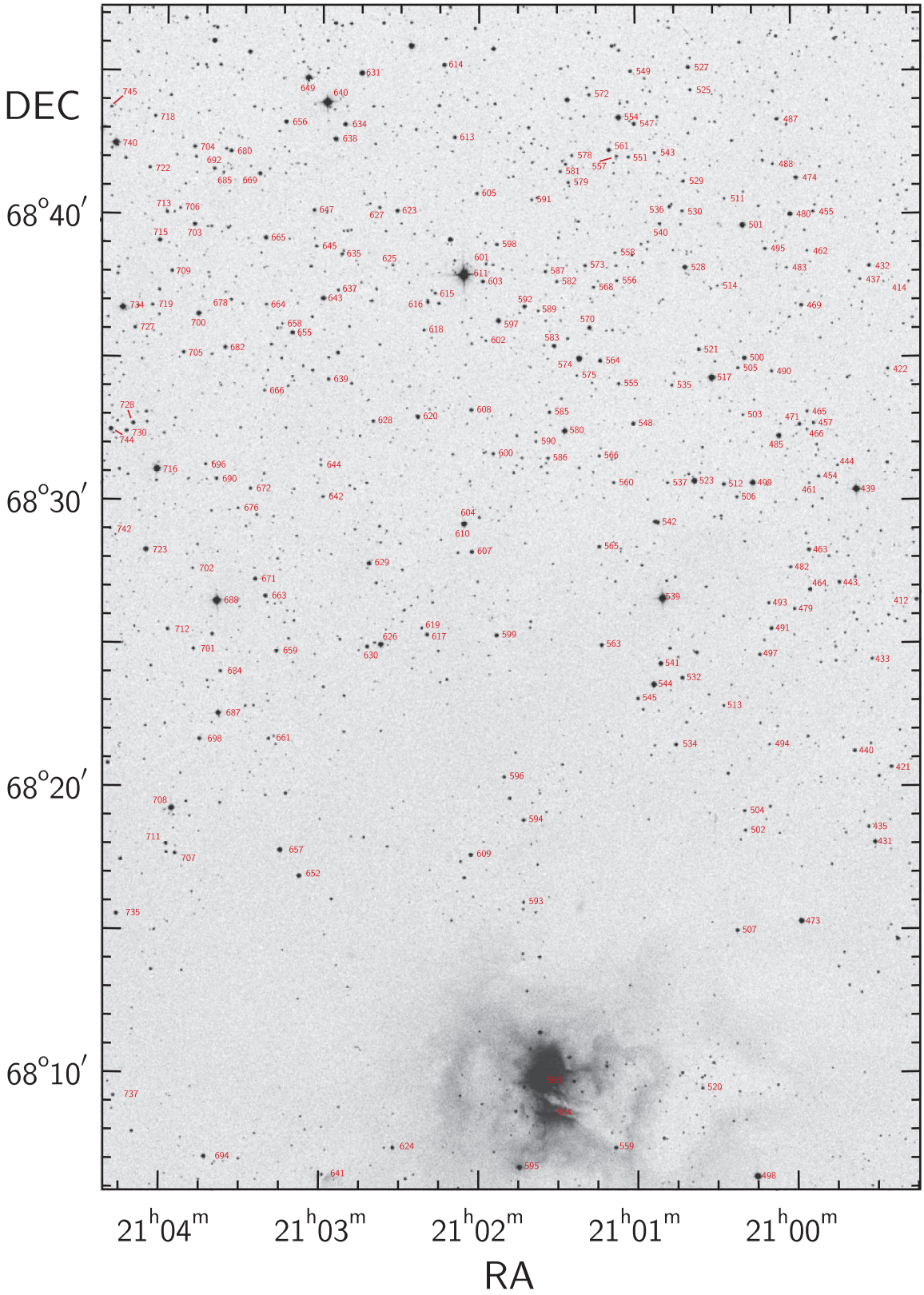

Figure C.4.: Section C of the identification chart in the NGC 7023 area

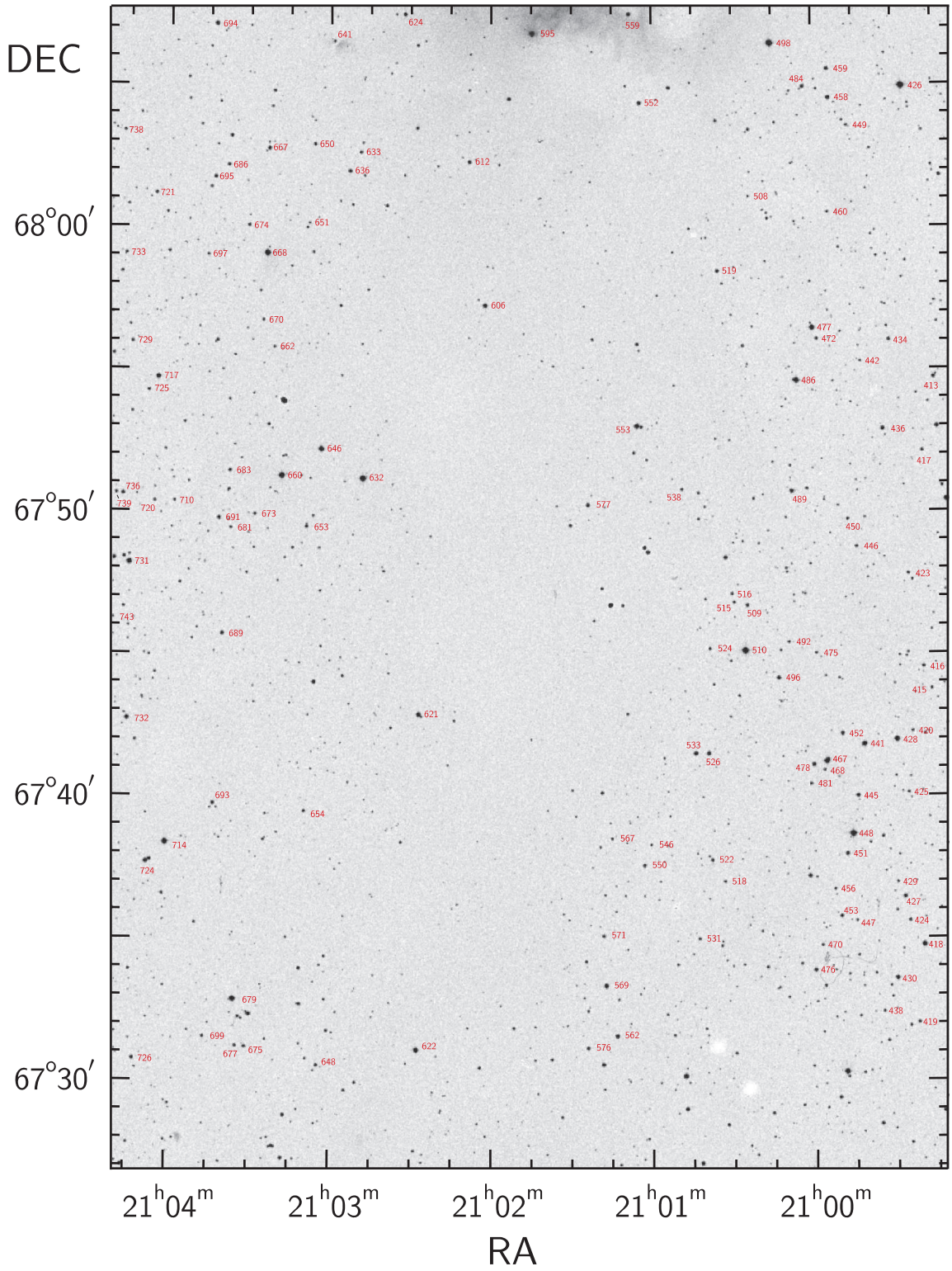

Figure C.5.: Section D of the identification chart in the NGC 7023 area

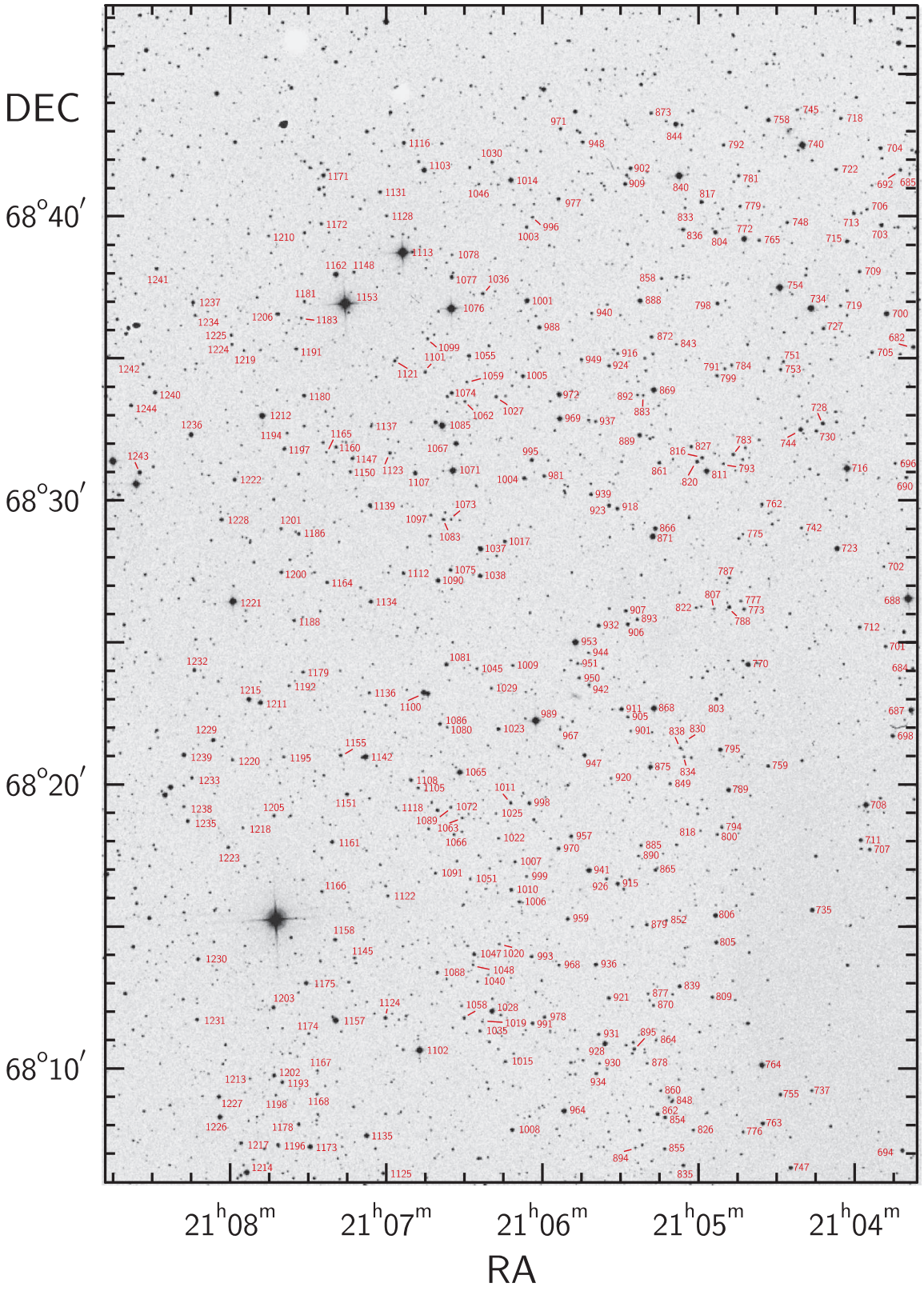

Figure C.6.: Section E of the identification chart in the NGC 7023 area

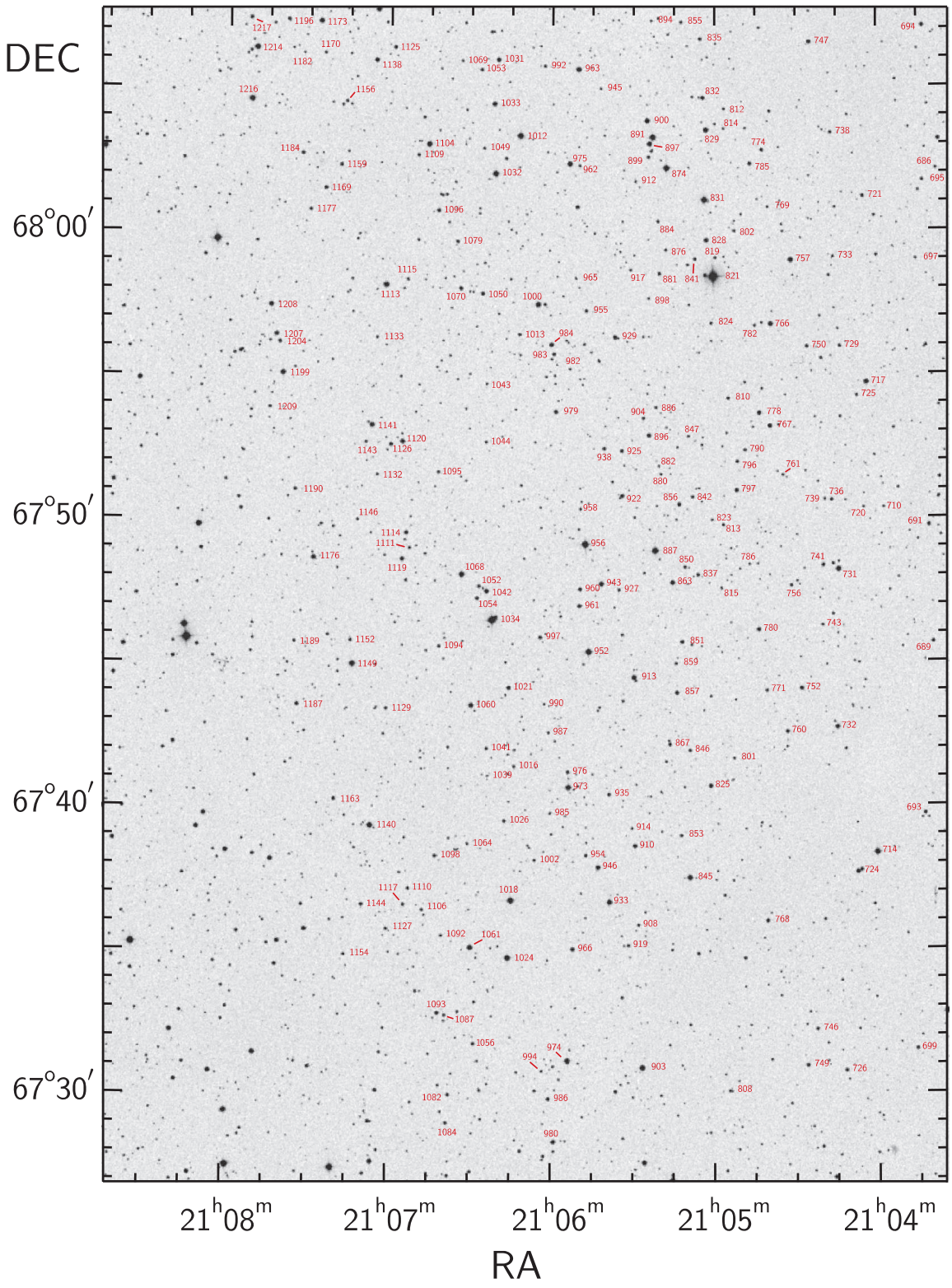

Figure C.7.: Section F of the identification chart in the NGC 7023 area

Finding charts in the TGU 619 area

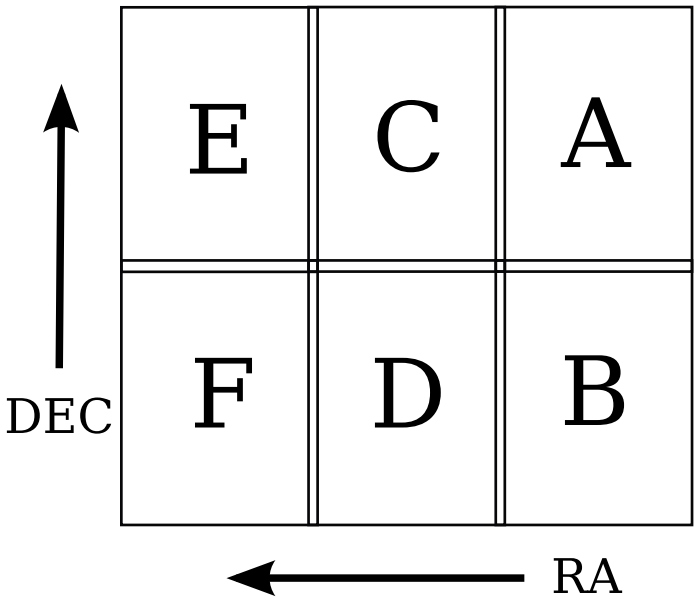

Figure C.8.: Division of the identification chart into six sextions for TGU 619 area shown in Figures C.9-C.14

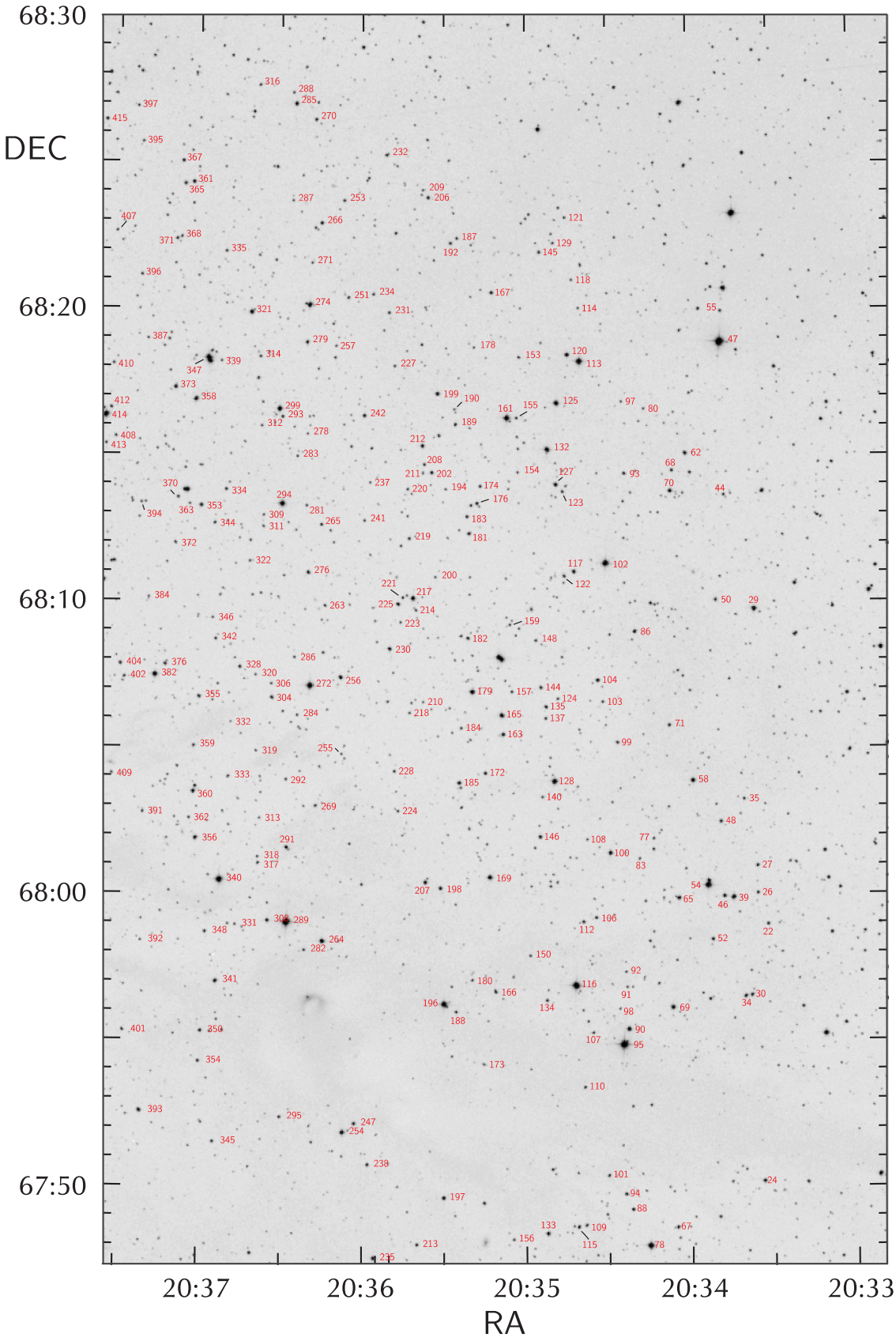

Figure C.9.: Section A of the identification chart in the TGU 619 area

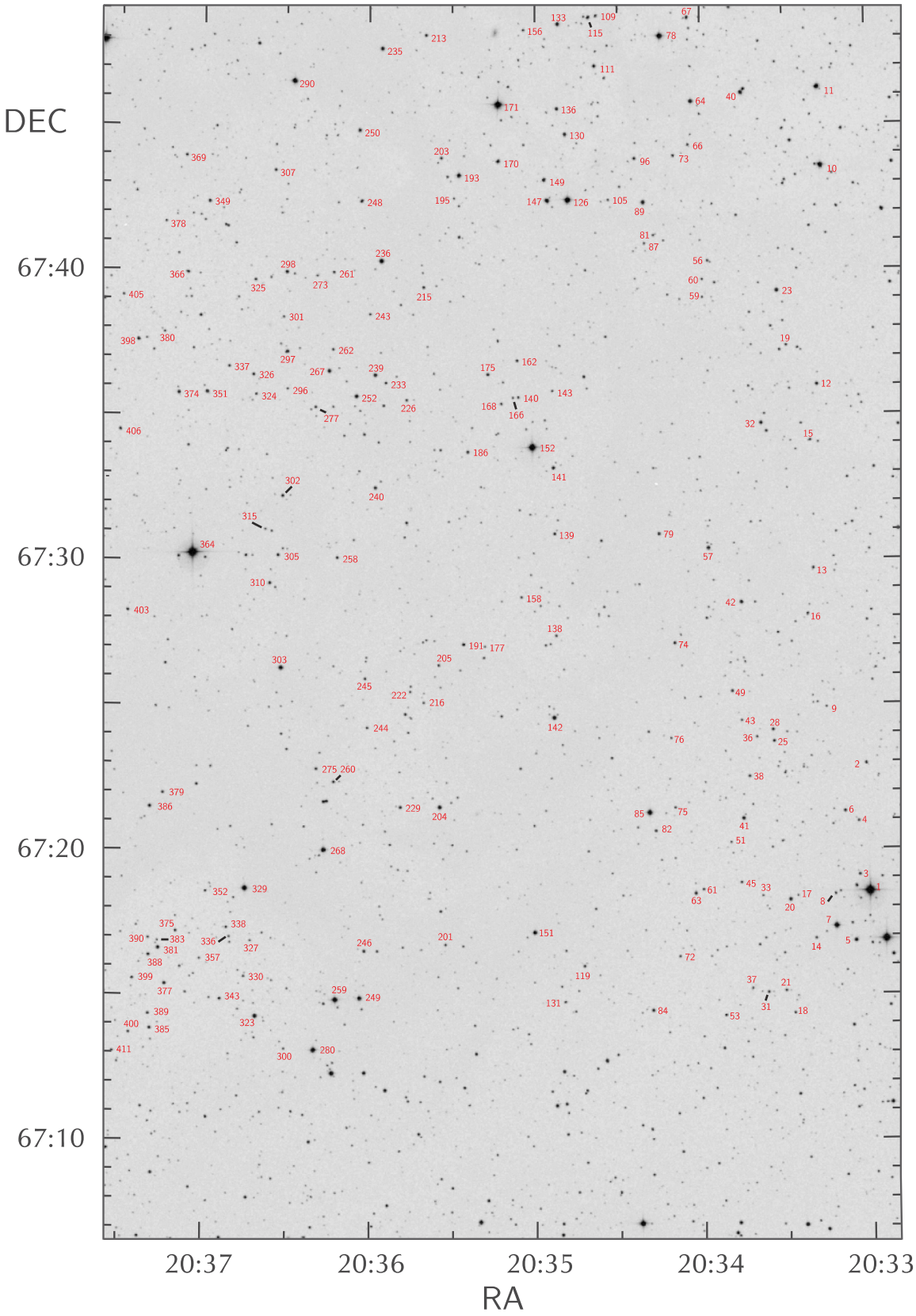

Figure C.10.: Section B of the identification chart in the TGU 619 area

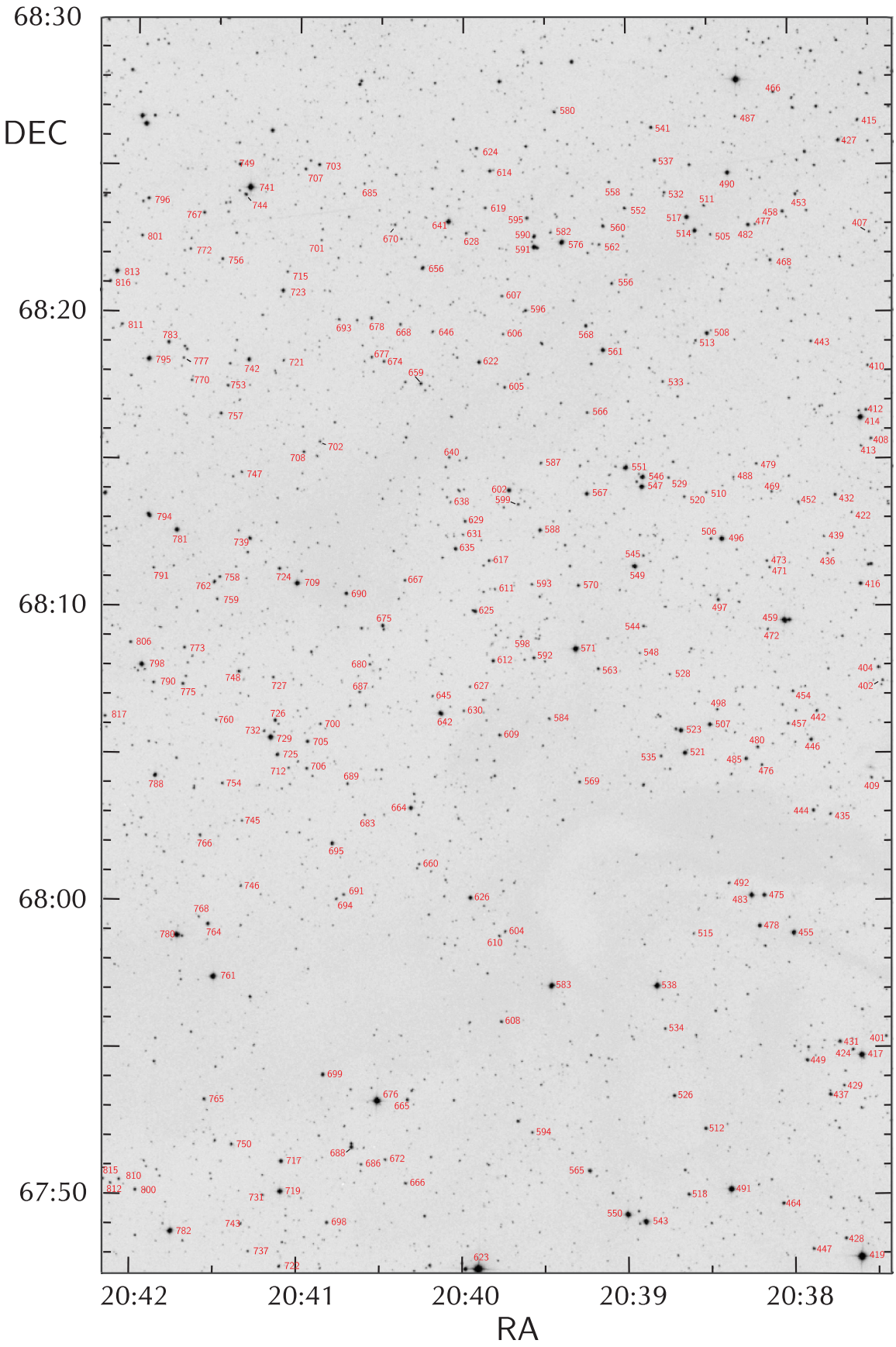

Figure C.11.: Section C of the identification chart in the TGU 619 area

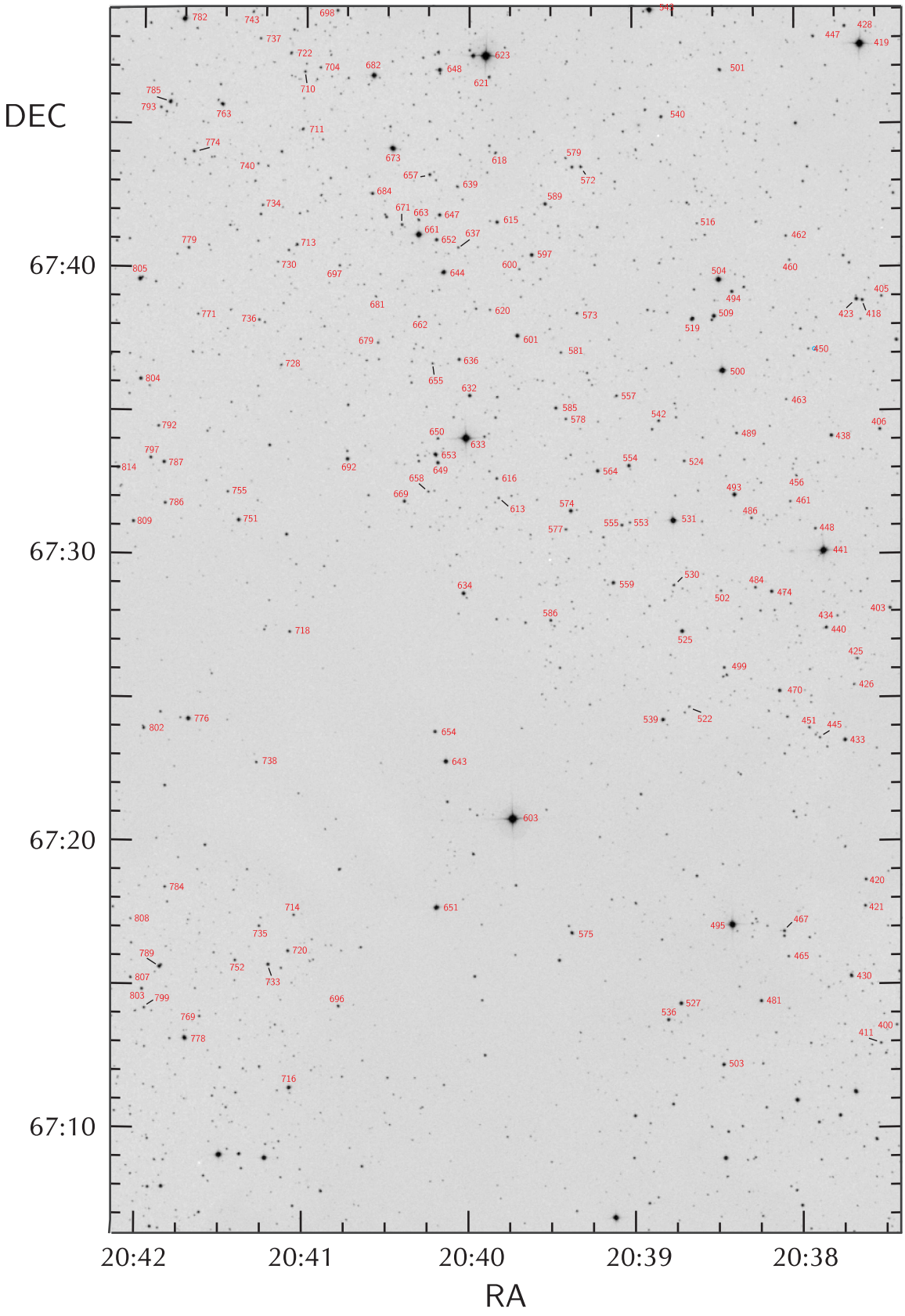

Figure C.12.: Section D of the identification chart in the TGU 619 area

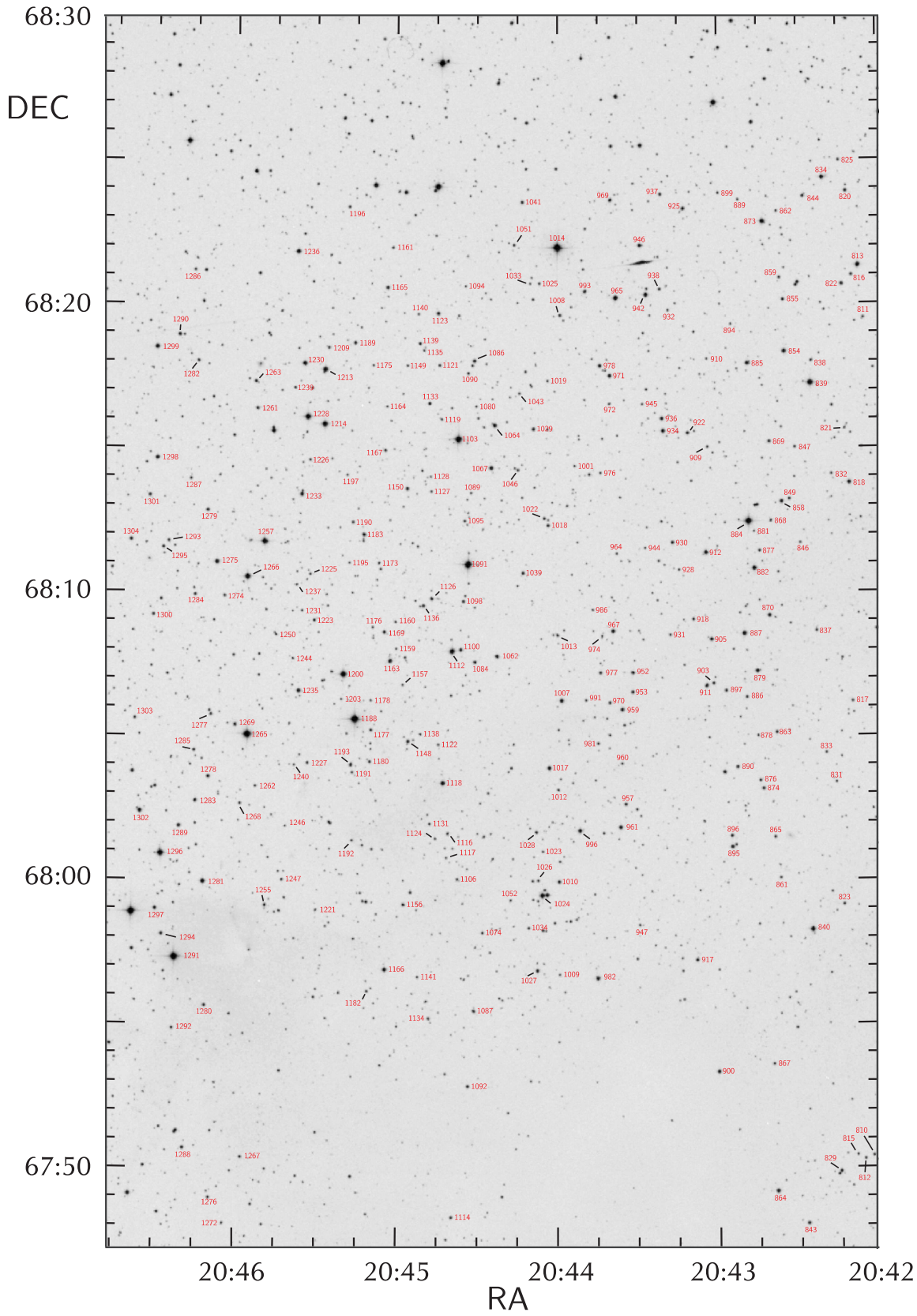

Figure C.13.: Section E of the identification chart in the TGU 619 area

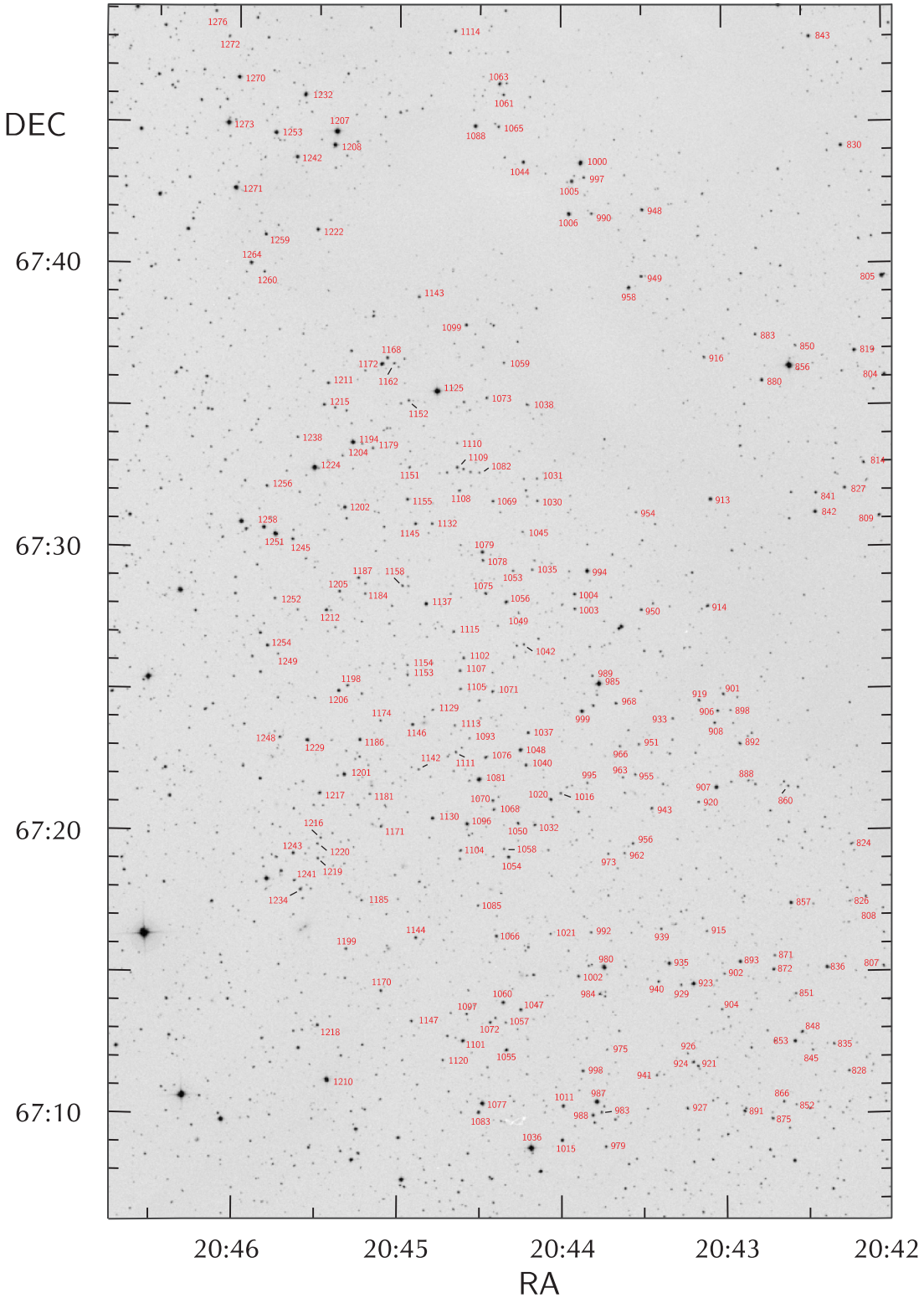

Figure C.14.: Section F of the identification chart in the TGU 619 area

Finding charts in the NGC 7129 and NGC 7142 areas

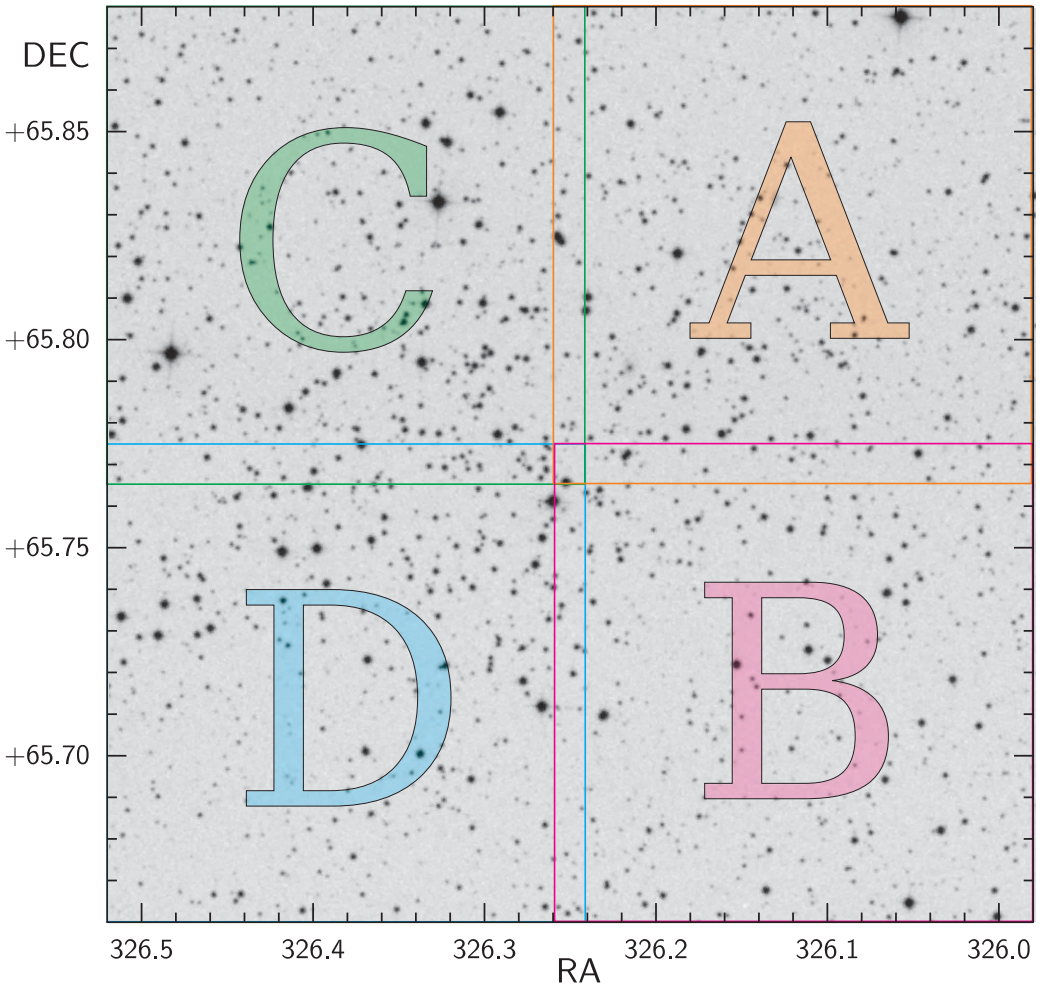

Figure C.15.: Division of the identification chart into four sextions for NGC 7142 area shown in Figures C.16-C.19

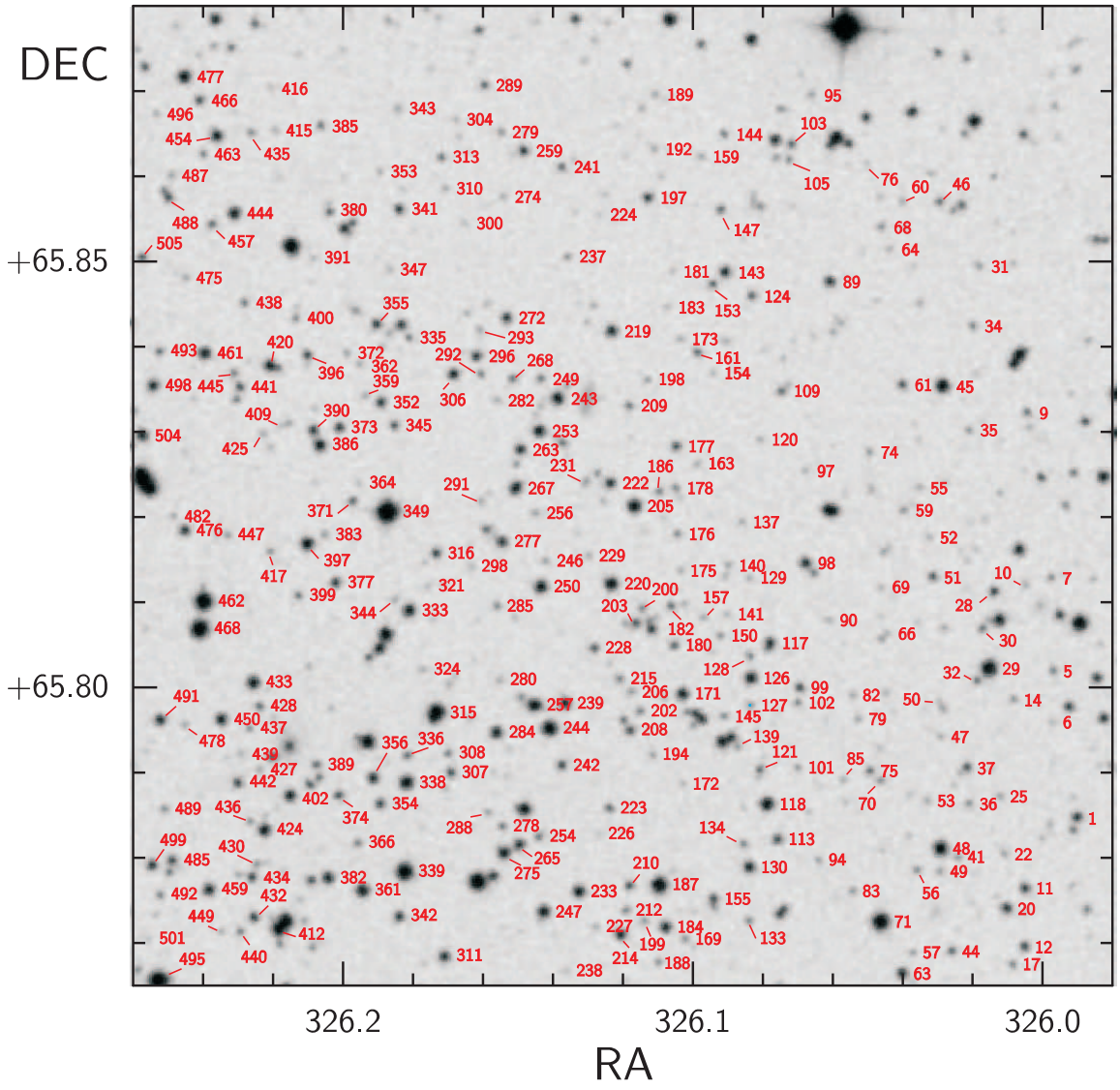

Figure C.16.: Section A of the identification chart in the NGC 7142 area

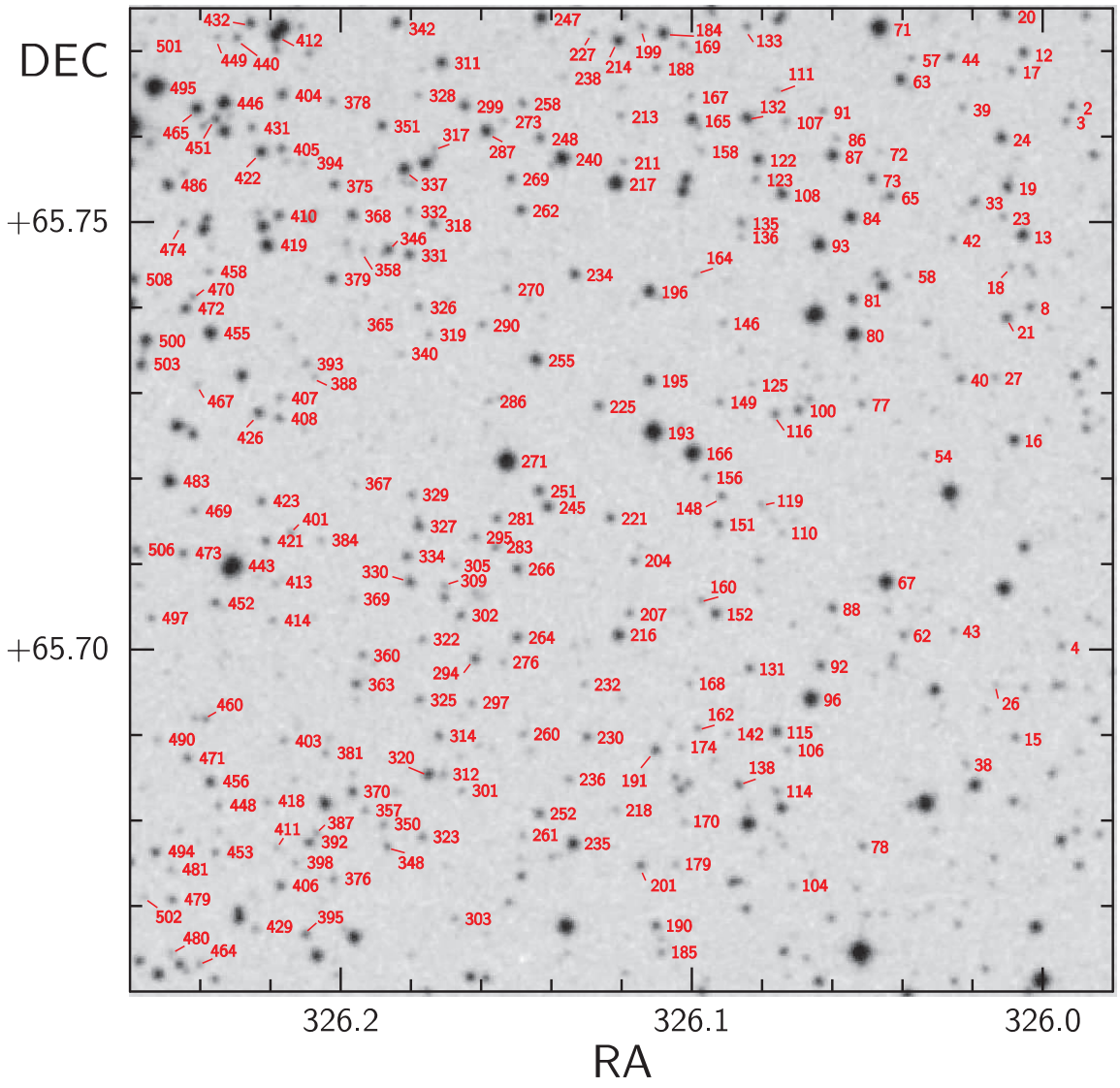

Figure C.17.: Section B of the identification chart in the NGC 7142 area

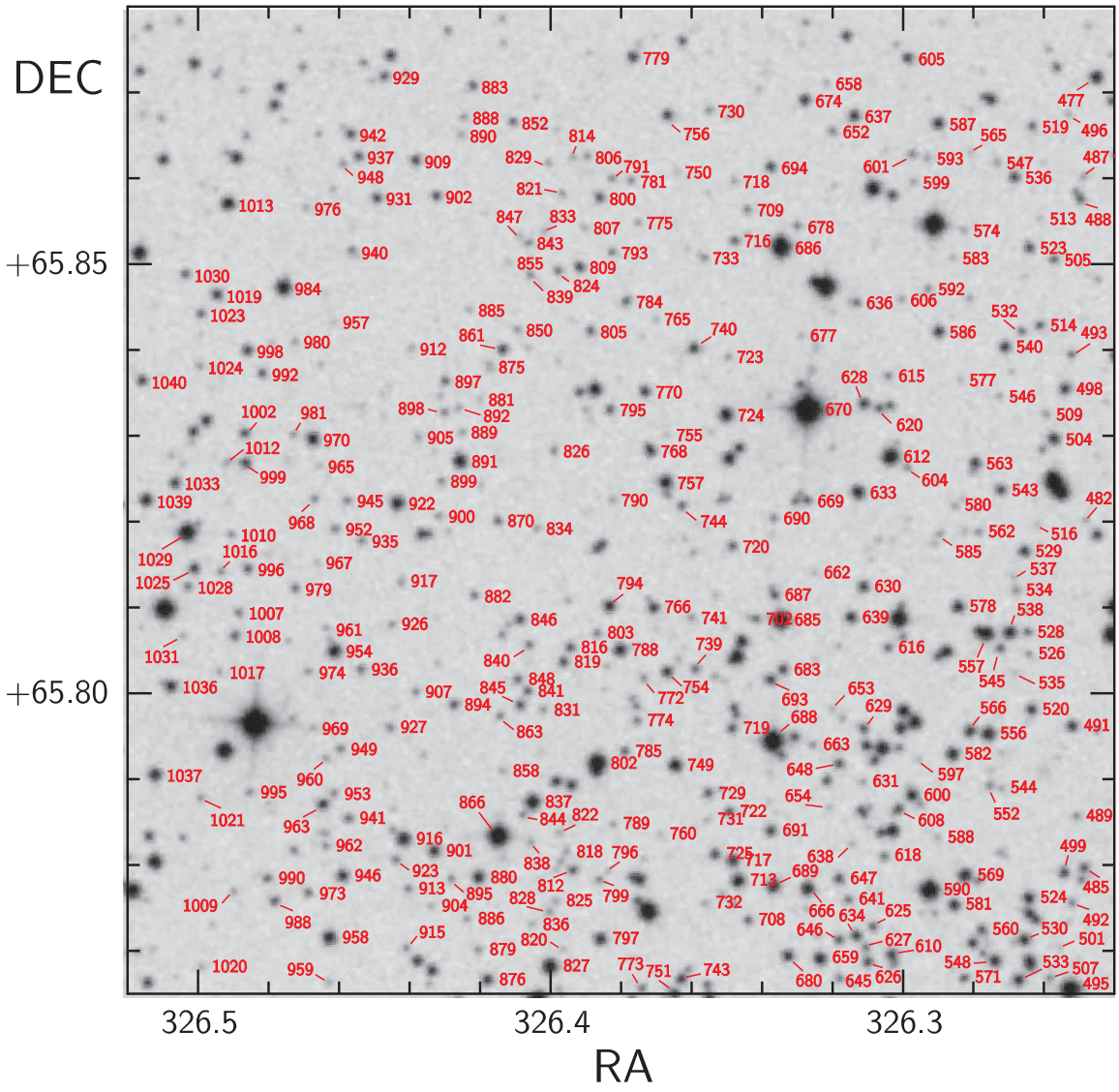

Figure C.18.: Section C of the identification chart in the NGC 7142 area

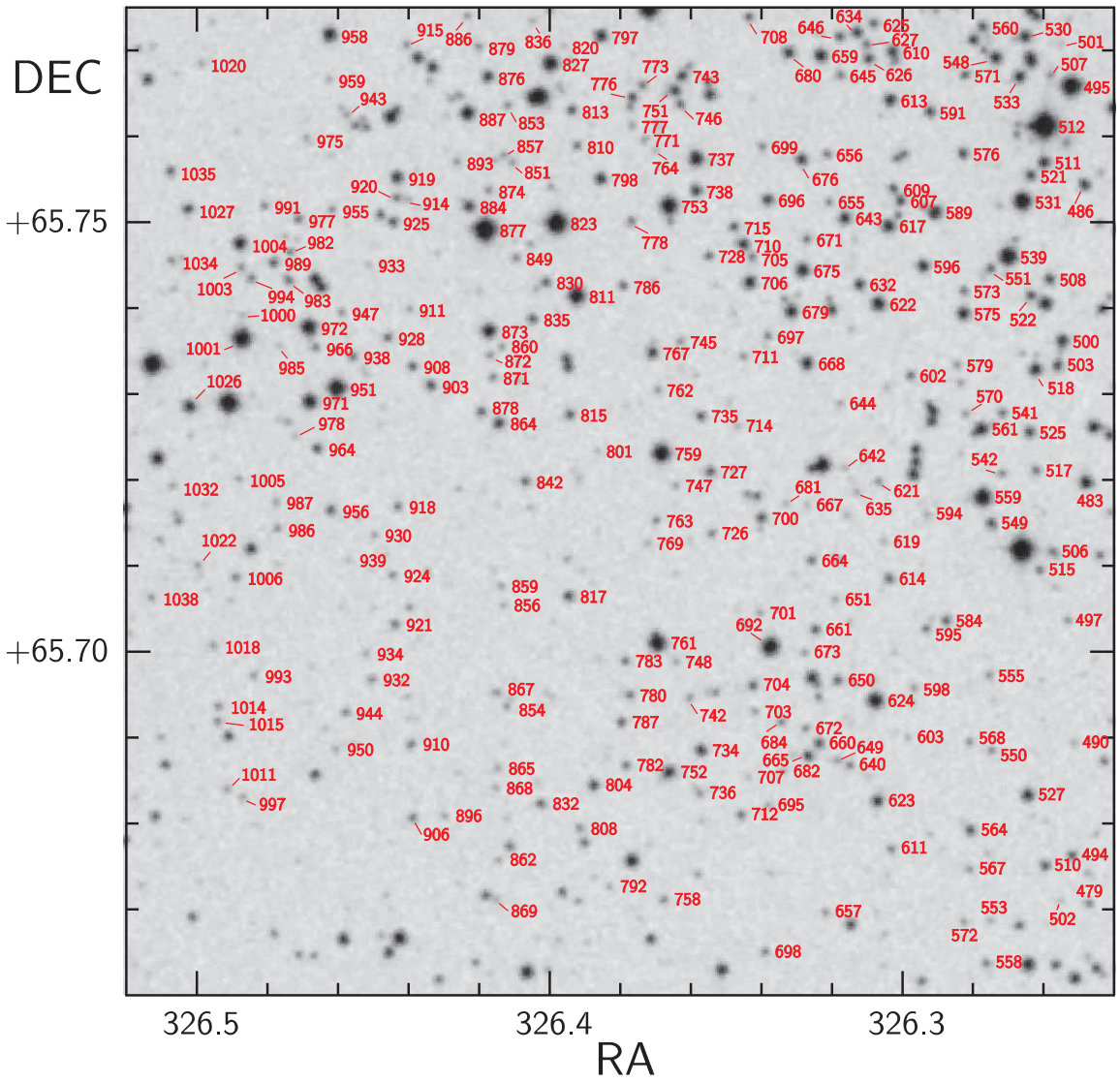

Figure C.19.: Section D of the identification chart in the NGC 7142 area

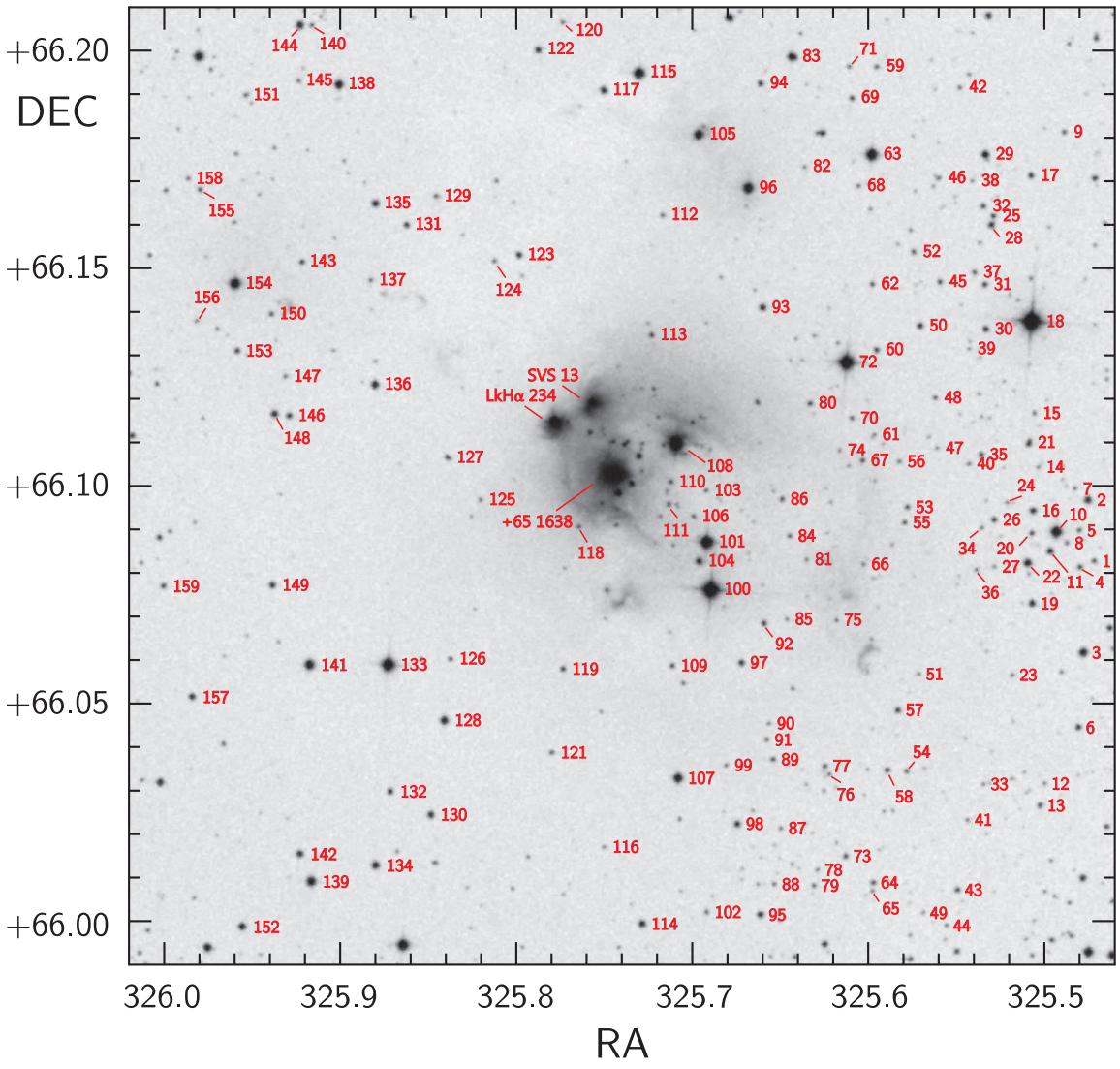

Figure C.20.: Identification chart in the NGC 7129 area