**Table 4.** Possible optical and near-infrared counterparts to X-ray sources detected in this survey. The catalogues and search radii used are described in the text. The columns show: designation (comprised of source number from Table 2 and a letter running in alphabetical order with separation from X-ray source position); position (J2000; from USNO/Tycho-2, SIMBAD or 2MASS, as indicated by column 5); separation from X-ray source position in arcsec; source of position and optical photometry (U = USNO-A2.0; T = Tycho-2; S = SIMBAD; 2 = 2MASS); optical magnitude ($V$ if photometry is from Tycho-2; $R$ from USNO-A2.0); optical colour ($B-V$ if photometry is from Tycho-2; $(B-R)$ from USNO-A2.0); $\log(f_{\rm X}/f_{\rm opt})$, ($\log(f_{\rm X}/f_{\rm V})$ if photometry is from Tycho-2; $\log(f_{\rm X}/f_{\rm R})$ from USNO-A2.0); classification from $\log(f_{\rm X}/f_{\rm opt})$ vs. colour diagram (see Figs. 5, 6); $J$ magnitude, $(J-H)$ and error; $(H-K_{\rm S})$ and error; flag indicating whether the position on a NIR 2-colour diagram is consistent with a MS star; spectral type (estimated from NIR photometry using the MS colours table of Bessell & Brett (1988), unless the luminosity class is given, whereby the spectral type is taken from SIMBAD); further notes on the object (see text for details on distance and luminosity determination; luminosity units are erg s$^{-1}$ ).

| | Des | RA | Dec | Sep | Ref | $m_{\rm opt}$ | Col | $[f_{\rm X}/f_{\rm opt}]$ | Cl | $J$ | $(J-H)$ | $(H-K_{\rm S})$ | MS | Sp | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | A | 05 44 39.70 | +28 57 20.2 | 16.9 | U | 18.3 | 1.2 | -0.43 | E | 16.01 | 0.46 ± 0.16 | 0.31 ± 0.21 | Y | ? | |
| 2 | A | 05 44 40.88 | +28 47 24.1 | 17.8 | U | 17.6 | 1.8 | -0.57 | E | 15.60 | 0.59 ± 0.13 | 0.17 ± 0.15 | Y | ? | |
| 3 | A | 05 44 40.46 | +29 07 24.2 | 17.7 | U | 14.2 | 2.4 | -1.79 | C | 12.01 | 0.62 ± 0.05 | 0.20 ± 0.04 | Y | KM | |
| 4 | A | 05 44 47.62 | +28 55 15.6 | 27.0 | U | 17.8 | 1.4 | -0.51 | E | 15.82 | 0.68 ± 0.13 | 0.04 ± 0.17 | Y | KM? | |
| 5 | A | 05 44 57.30 | +28 58 35.1 | 6.7 | 2 | | | > 0.27 | | 16.03 | 0.65 ± 0.16 | 0.58 ± 0.18 | Y | ? | |
| 5 | B | 05 44 56.31 | +28 58 32.3 | 19.0 | 2 | | | > 0.27 | | 16.48 | > 0.21 | < 0.87 | N | | |
| 6 | A | 05 45 06.04 | +29 09 31.9 | 15.1 | U | 17.5 | 1.3 | -1.24 | N | 15.68 | 0.44 ± 0.13 | -0.17 ± 0.22 | Y | ? | |
| 7 | A | 05 45 12.86 | +28 43 37.1 | 4.8 | U | 16.6 | 1.5 | -0.76 | E | 15.22 | 0.43 ± 0.09 | 0.08 ± 0.13 | Y | GK | |
| 7 | B | 05 45 13.36 | +28 43 21.0 | 12.9 | U | 17.9 | 1.3 | -0.24 | E | 15.94 | 0.85 ± 0.12 | 0.33 ± 0.15 | Y | KM? | |
| 7 | C | 05 45 12.08 | +28 43 19.0 | 19.8 | 2 | | | > 0.20 | | 16.62 | > 0.65 | <> 0.47 | ? | | |
| 8 | A | 05 45 22.60 | +29 10 57.1 | 5.5 | T | 10.4 | 0.5 | -3.42 | C | 9.50 | 0.28 ± 0.04 | 0.02 ± 0.04 | Y | F8 | d$\sim$ 190pc $\log(L_{\rm X})\sim$ 29.6 |
| 8 | B | 05 45 23.55 | +29 10 57.6 | 7.8 | U | 17.2 | 0.7 | -0.22 | E | | | | | | Spurious |
| 8 | C | 05 45 21.93 | +29 10 53.9 | 14.7 | U | 14.7 | 1.8 | -1.22 | C | 14.52 | 0.49 ± 0.07 | 0.14 ± 0.07 | Y | K | |
| 8 | D | 05 45 22.61 | +29 10 44.9 | 15.4 | U | 16.5 | 2.1 | -0.50 | E | | | | | | Spurious |
| 9 | A | 05 45 27.60 | +28 57 53.0 | 7.6 | U | 15.5 | 2.6 | -1.65 | C | 12.66 | 0.84 ± 0.04 | 0.25 ± 0.04 | Y | M? | |
| 9 | B | 05 45 25.99 | +28 57 41.7 | 17.5 | U | 13.0 | 1.1 | -2.65 | C | 11.90 | 0.44 ± 0.04 | 0.13 ± 0.04 | Y | GK | |
| 9 | C | 05 45 25.84 | +28 57 57.2 | 21.5 | U | 15.0 | 0.9 | -1.85 | N | 15.95 | 0.54 ± 0.14 | 0.54 ± 0.16 | Y | | |
| 10 | A | 05 45 57.17 | +29 07 46.0 | 11.5 | U | 13.7 | 3.3 | -2.01 | C | | | | | | Spurious |
| 10 | B | 05 45 56.23 | +29 08 07.2 | 13.2 | U | 14.5 | 1.9 | -1.69 | C | | | | | | |
| 10 | C | 05 45 56.17 | +29 07 46.4 | 13.8 | T | 8.9 | 1.0 | -4.39 | C | 6.80 | 0.52 ± 0.02 | 0.18 ± 0.02 | Y | K0V | HD 247187 d$\sim$ 40pc $\log(L_{\rm X})\sim$ 27.8 |
| 10 | D | 05 45 55.41 | +29 07 49.9 | 19.9 | U | 13.2 | 3.4 | -2.21 | C | | | | | | Spurious |
| 11 | A | 06 14 23.52 | +17 44 32.8 | 3.3 | 2 | | | >-0.22 | | >13.92 | < 1.18 | -0.03 ± 0.08 | ? | | |
| 11 | B | 06 14 23.85 | +17 44 30.3 | 5.0 | 2 | | | >-0.22 | | >14.71 | < 0.10 | 0.81 ± 0.14 | ? | | |
| 11 | C | 06 14 22.88 | +17 44 32.3 | 9.3 | U | 13.8 | 3.2 | -2.30 | C | 14.93 | 1.75 ± 0.08 | 0.51 ± 0.05 | N | | |
| 11 | D | 06 14 23.41 | +17 44 39.0 | 9.6 | U | 9.9 | 3.3 | -3.86 | C | 11.19 | 0.71 ± 0.05 | 0.45 ± 0.04 | Y | | IRAS 06114+1745. HII region. |
| 11 | E | 06 14 22.94 | +17 44 22.6 | 10.6 | 2 | | | >-0.22 | | 16.68 | 1.41 ± 0.23 | 0.72 ± 0.16 | N | | |
| 11 | F | 06 14 24.24 | +17 44 26.8 | 10.9 | 2 | | | >-0.22 | | >15.68 | < 0.22 | 0.82 ± 0.22 | ? | | |
| 11 | G | 06 14 24.17 | +17 44 37.6 | 12.5 | 2 | | | >-0.22 | | 15.33 | 1.13 ± 0.14 | 0.71 ± 0.11 | N | | |
| 11 | H | 06 14 23.20 | +17 44 43.0 | 14.2 | 2 | | | >-0.22 | | 14.64 | 1.19 ± 0.13 | 0.75 ± 0.09 | N | | |
| 11 | I | 06 14 23.56 | +17 44 13.3 | 16.3 | 2 | | | >-0.22 | | 15.97 | 1.62 ± 0.11 | 1.09 ± 0.07 | N | | |
| 11 | J | 06 14 23.61 | +17 44 47.4 | 17.9 | 2 | | | >-0.22 | | >14.55 | <> 1.07 | < −0.19 | ? | | |
| 11 | K | 06 14 22.52 | +17 44 41.6 | 18.5 | U | 16.8 | 1.2 | -1.10 | N | 15.22 | 1.52 ± 0.15 | 0.90 ± 0.11 | N | | |
| 11 | L | 06 14 22.74 | +17 44 45.7 | 19.5 | 2 | | | >-0.22 | | 16.17 | 1.55 ± 0.23 | 2.13 ± >-0.26 | N | | |
| 12 | A | 06 14 35.50 | +17 49 17.5 | 9.8 | U | 14.6 | 0.9 | -2.05 | N | | | | | | |
| 12 | B | 06 14 34.93 | +17 49 08.9 | 14.6 | 2 | | | >-0.29 | | 15.82 | 0.59 ± 0.11 | 0.16 ± 0.20 | Y | KM | |
| 13 | A | 06 14 41.65 | +17 34 21.6 | 12.5 | U | 13.2 | 1.0 | -2.08 | C | | | | | | |
| 13 | B | 06 14 41.55 | +17 33 56.5 | 13.7 | U | 13.7 | 2.4 | -1.88 | C | | | | | | |
| 14 | A | 06 14 42.11 | +17 43 38.4 | 6.6 | U | 11.9 | 2.1 | -2.97 | C | | | | | | |
| 14 | B | 06 14 42.16 | +17 43 15.8 | 16.5 | U | 16.8 | 1.9 | -1.01 | C | | | | | | |
| 15 | A | 06 14 47.27 | +17 36 59.7 | 13.3 | U | 18.3 | 1.3 | -0.55 | E | | | | | | |
| 16 | A | 06 15 16.65 | +17 39 33.5 | 13.8 | U | 12.9 | 1.0 | -2.72 | C | 11.83 | 0.24 ± 0.06 | 0.03 ± 0.06 | Y | F | |
| 16 | B | 06 15 18.13 | +17 39 42.0 | 14.0 | T | 9.8 | 0.6 | -4.45 | C | 8.49 | 0.34 ± 0.02 | 0.05 ± 0.04 | Y | G5 | GSC 01318-00940 d$\sim$ 90pc $\log(L_{\rm X})\sim$ 28.2 |
| 16 | C | 06 15 18.65 | +17 39 38.1 | 17.7 | 2 | | | >-0.28 | | 14.14 | 0.30 ± 0.13 | 0.31 ± 0.13 | Y | | |

**Table 4.** Optical and near-infrared counterparts to X-ray sources (cont.).

| | Des | RA | Dec | Sep | Ref | $m_{opt}$ | Col | $[f_X/f_{opt}]$ | Cl | $J$ | $(J-H)$ | $(H-K_S)$ | MS | Sp | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 17 | A | 06 15 34.62 | +17 37 57.0 | 8.6 | U | 17.6 | 1.9 | -0.98 | C | 15.54 | 0.76 ± 0.09 | 0.19 ± 0.13 | Y | KM | |
| 17 | B | 06 15 34.33 | +17 37 39.5 | 16.3 | U | 16.1 | 1.6 | -1.58 | C | 14.44 | 0.61 ± 0.05 | 0.12 ± 0.07 | Y | K | |
| 17 | C | 06 15 33.05 | +17 38 04.5 | 16.9 | U | 12.6 | 0.5 | -2.98 | C | 11.79 | 0.17 ± 0.04 | 0.10 ± 0.05 | Y | F | |
| 18 | A | 06 15 43.53 | +17 53 50.3 | 7.4 | U | 13.7 | 1.4 | - 2.30 | C | 12.69 | 0.44 ± 0.04 | 0.04 ± 0.04 | Y | GK | |
| 18 | B | 06 15 43.08 | +17 54 01.2 | 17.0 | U | 16.0 | 2.0 | -1.38 | C | 13.63 | 0.75 ± 0.05 | 0.19 ± 0.05 | Y | M? | |
| 19 | A | 06 15 47.27 | +17 52 43.4 | 9.9 | 2 | | | > -0.39 | | 16.29 | 0.75 ± 0.15 | 0.02 ± 0.23 | Y | M? | |
| 19 | B | 06 15 46.97 | +17 52 26.9 | 10.5 | 2 | | | > -0.39 | | 15.39 | 0.75 ± 0.08 | 0.17 ± 0.10 | Y | M? | |
| 19 | C | 06 15 47.75 | +17 52 46.7 | 13.1 | 2 | | | > -0.39 | | 15.60 | 0.75 ± 0.08 | 0.21 ± 0.11 | Y | M? | |
| 20 | A | 06 15 53.52 | +17 34 54.6 | 15.0 | U | 18.0 | 1.4 | -0.50 | E | 16.24 | 0.50 ± 0.16 | 0.29 ± 0.26 | Y | GKM? | |
| 20 | B | 06 15 53.75 | +17 34 44.4 | 18.7 | 2 | | | > -0.10 | | 16.26 | 0.71 ± 0.14 | 0.40 ± 0.21 | Y | M? | |
| 21 | A | 06 16 05.34 | +17 37 33.7 | 6.1 | 2 | | | > 0.17 | | 16.45 | 1.00 ± 0.17 | 0.22 ± 0.21 | N | | |
| 21 | B | 06 16 04.30 | +17 37 31.7 | 14.9 | U | 17.9 | 1.3 | -0.27 | E | | | | | | |
| 21 | C | 06 16 06.12 | +17 37 16.6 | 16.1 | 2 | | | > 0.17 | | 16.84 | 1.07 ± 0.23 | > 0.20 | ? | | |
| 21 | D | 06 16 04.89 | +17 37 46.0 | 19.4 | T | 11.4 | 0.3 | -3.33 | C | 10.32 | 0.31 ± 0.05 | 0.01 ± 0.05 | Y | F8 | d$\sim$ 300pc log($L_X$)$\sim$ 29.7 |
| 22 | A | 06 16 23.75 | +17 40 13.9 | 21.8 | U | 16.1 | 2.6 | -1.39 | C | 12.71 | 0.59 ± 0.05 | 0.31 ± 0.05 | Y | M | |
| 23 | A | 06 41 30.86 | +04 19 57.1 | 14.3 | U | 15.4 | 0.9 | -1.23 | N | | | | | | |
| 23 | B | 06 41 30.70 | +04 20 08.4 | 16.6 | U | 18.4 | 1.5 | -0.13 | E | | | | | | |
| 23 | C | 06 41 30.95 | +04 20 05.0 | 17.5 | U | 15.5 | 2.2 | -1.29 | C | | | | | | |
| 23 | D | 06 41 31.03 | +04 20 02.4 | 17.7 | U | 16.6 | 1.3 | -0.85 | N | | | | | | |
| 24 | A | 06 41 36.07 | +04 28 53.0 | 3.8 | T | 8.7 | 0.3 | -4.22 | C | | | | | F4III | HD 48031 d$\sim$ 250pc log($L_X$)$\sim$ 29.7 |
| 25 | A | 06 41 35.71 | +04 31 50.5 | 11.7 | U | 12.4 | 0.4 | -2.57 | N | | | | | | |
| 25 | B | 06 41 36.04 | +04 31 27.8 | 14.5 | U | 18.7 | 0.9 | -0.05 | E | | | | | | |
| 26 | A | 06 41 50.79 | +04 20 09.0 | 1.5 | U | 15.7 | 0.6 | -1.02 | N | | | | | | |
| 26 | B | 06 41 50.9 | +04 20 10 | 3.5 | S | | | > 0.30 | | | | | | | Radio. [SCR92] 207.98-0.15 |
| 26 | C | 06 41 49.66 | +04 20 09.5 | 15.4 | U | 17.1 | 2.8 | -0.46 | C | | | | | | |
| 27 | A | 06 41 59.13 | +04 28 47.2 | 2.7 | U | 15.0 | 1.9 | -1.55 | C | | | | | | |
| 27 | B | 06 41 58.90 | +04 28 29.2 | 19.7 | U | 17.4 | 1.8 | -0.59 | E | | | | | | |
| 28 | A | 06 42 13.04 | +04 09 26.4 | 8.4 | U | 16.7 | 1.8 | -1.12 | C | | | | | | |
| 28 | B | 06 42 13.66 | +04 09 22.7 | 9.7 | U | 15.6 | 0.4 | -1.56 | N | | | | | | |
| 29 | A | 06 42 45.26 | +04 23 29.1 | 7.0 | T | 9.7 | 0.4 | -4.21 | N | | | | | | GSC 00155-03305. |
| 29 | B | 06 42 45.74 | +04 23 15.0 | 11.2 | U | 13.8 | 2.6 | -2.10 | C | | | | | | |
| 30 | A | 06 42 44.45 | +04 18 50.2 | 16.1 | U | 18.6 | 1.0 | -0.06 | E | | | | | | |
| 31 | A | 06 43 00.15 | +04 25 15.7 | 6.6 | U | 12.7 | 1.4 | -2.85 | C | | | | | | |
| 31 | B | 06 43 11.37 | +04 12 57.1 | 16.6 | U | 16.6 | 1.0 | -1.29 | N | | | | | | |
| 32 | A | 06 43 11.20 | +04 12 45.9 | 5.8 | U | 13.7 | 0.9 | -2.02 | N | | | | | | |
| 32 | B | 06 43 11.37 | +04 12 57.1 | 15.1 | U | 18.6 | 1.0 | -0.06 | E | | | | | | |
| 33 | A | 07 01 20.93 | -05 26 54.0 | 12.4 | U | 12.7 | 1.5 | -2.32 | C | 11.86 | 0.42 ± 0.03 | 0.10 ± 0.03 | Y | GK | |
| 34 | A | 07 01 23.02 | -05 24 52.3 | 8.9 | U | 16.7 | 0.4 | -0.53 | E | 15.07 | 0.31 ± 0.07 | 0.26 ± 0.10 | Y | | |
| 34 | B | 07 01 22.66 | -05 24 39.8 | 12.3 | 2 | | | > 0.39 | | 14.50 | 0.37 ± 0.05 | 0.08 ± 0.08 | Y | | |
| 34 | C | 07 01 21.52 | -05 24 53.6 | 13.6 | 2 | | | > 0.39 | | 16.26 | > 2.22 | <> 0.13 | ? | | |
| 34 | D | 07 01 21.43 | -05 24 57.1 | 15.8 | U | 14.3 | 1.2 | -1.49 | N | 12.59 | 0.61 ± 0.03 | 0.07 ± 0.04 | Y | | |
| 34 | E | 07 01 22.54 | -05 24 34.1 | 17.6 | U | 12.2 | 1.3 | -2.33 | C | 12.19 | 0.29 ± 0.04 | 0.06 ± 0.04 | Y | FG | |
| 34 | F | 07 01 22.17 | -05 24 32.9 | 19.1 | U | 15.3 | 1.4 | -1.09 | N | 15.34 | 0.49 ± 0.09 | 0.17 ± 0.14 | Y | | |
| 35 | A | 07 01 26.11 | -05 22 26.0 | 17.0 | U | 16.3 | 1.5 | -1.06 | N | 15.94 | 0.75 ± 0.12 | 0.07 ± 0.18 | Y | | |
| 35 | B | 07 01 24.76 | -05 22 39.0 | 16.6 | T | 9.7 | 0.9 | -4.17 | C | 8.12 | 0.46 ± 0.04 | 0.14 ± 0.04 | Y | K1 | GSC 04822-00365 d$\sim$ 50pc log($L_X$)$\sim$ 28.0 |
| 36 | A | 07 01 52.30 | -05 25 57.9 | 7.4 | U | 11.9 | 1.0 | -1.92 | N | 10.59 | 0.43 ± 0.03 | 0.12 ± 0.03 | Y | GK | 2E 0659.4-0521 |
| 36 | B | 07 01 51.38 | -05 26 01.5 | 19.5 | U | 17.9 | 0.5 | 0.48 | E | 16.43 | 0.74 ± 0.18 | 0.30 ± 0.24 | Y | KM? | |

**Table 4.** Optical and near-infrared counterparts to X-ray sources (cont.).

| | Des | RA | Dec | Sep | Ref | $m_{opt}$ | Col | $[f_X/f_{opt}]$ | Cl | $J$ | $(J-H)$ | $(H-K_S)$ | MS | Sp | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 37 | A | 07 01 58.32 | -05 36 19.8 | 2.9 | U | 17.4 | 1.7 | -0.07 | E | | | | | | |
| 37 | B | 07 01 58.93 | -05 36 33.0 | 15.7 | U | 17.6 | 0.4 | 0.01 | E | | | | | | |
| 38 | A | 07 02 05.04 | -05 33 20.8 | 12.5 | U | 16.3 | 1.1 | -1.21 | N | 14.66 | 0.66 ± 0.05 | 0.10 ± 0.07 | Y | KM | |
| 38 | B | 07 02 05.21 | -05 33 34.5 | 15.5 | 2 | | | >-0.13 | | 16.50 | 0.54 ± 0.21 | > −0.13 | N | | |
| 38 | C | 07 02 06.40 | -05 33 38.3 | 17.7 | U | 17.9 | 1.0 | -0.57 | E | 16.70 | 0.73 ± 0.23 | > 0.39 | ? | | |
| 38 | D | 07 02 05.70 | -05 33 03.0 | 19.6 | U | 17.9 | 0.8 | -0.57 | E | 15.81 | 0.74 ± 0.10 | 0.16 ± 0.15 | Y | KM? | |
| 39 | A | 07 02 31.00 | -05 10 50.4 | 16.0 | U | 16.0 | 1.0 | -1.25 | N | 16.01 | 0.12 ± 0.34 | 0.77 ± 0.38 | N | | |
| 39 | B | 07 02 31.24 | -05 10 35.2 | 17.0 | U | 18.0 | 1.0 | -0.45 | E | 16.16 | 0.52 ± 0.15 | 0.20 ± 0.24 | Y | | |
| 39 | C | 07 02 31.08 | -05 10 51.8 | 17.8 | U | 15.8 | 0.9 | -1.33 | N | 14.72 | 0.41 ± 0.06 | 0.16 ± 0.09 | Y | GK? | |
| 40 | A | 07 02 51.67 | -05 14 07.8 | 9.4 | U | 18.9 | 0.1 | 0.33 | E | 16.66 | 0.76 ± 0.21 | 1.26 ± 0.19 | N | | |
| 40 | B | 07 02 52.62 | -05 14 21.6 | 11.7 | U | 18.0 | 0.4 | -0.03 | E | 15.99 | 0.29 ± 0.17 | 0.21 ± 0.25 | Y | | |
| 40 | C | 07 02 52.26 | -05 14 27.7 | 12.3 | U | 18.8 | 0.1 | 0.29 | E | | | | | | |
| 40 | D | 07 02 51.24 | -05 14 24.8 | 12.9 | U | 17.3 | 1.5 | -0.31 | E | 15.94 | 0.57 ± 0.13 | 0.12 ± 0.21 | Y | KM? | |
| 40 | E | 07 02 52.91 | -05 14 20.3 | 15.3 | U | 19.2 | 0.0 | 0.45 | E | | | | | | |
| 40 | F | 07 02 51.14 | -05 14 06.2 | 15.5 | U | 18.6 | 0.7 | 0.21 | E | 16.08 | 0.59 ± 0.14 | 0.29 ± 0.20 | Y | KM? | |
| 41 | A | 07 03 07.50 | -05 35 23.3 | 6.1 | U | 12.6 | 1.2 | -2.10 | C | 10.81 | 0.60 ± 0.04 | 0.09 ± 0.04 | Y | K | |
| 41 | B | 07 03 06.56 | -05 35 18.4 | 9.2 | U | 17.2 | 1.2 | -0.26 | E | 14.82 | 0.70 ± 0.06 | 0.17 ± 0.07 | Y | | |
| 41 | C | 07 03 08.44 | -05 35 17.3 | 19.2 | U | 17.0 | 1.2 | -0.34 | E | 14.55 | 0.69 ± 0.05 | 0.18 ± 0.07 | Y | | |
| 41 | D | 07 03 08.39 | -05 35 27.9 | 20.0 | U | 17.6 | 0.6 | -0.10 | E | 16.03 | 0.27 ± 0.17 | 0.31 ± 0.26 | Y | | |
| 42 | A | 07 03 24.15 | -05 27 37.1 | 9.6 | U | 16.3 | 1.4 | -1.13 | C | 15.70 | 0.42 ± 0.23 | -0.13 ± 0.30 | Y | | |
| 42 | B | 07 03 25.16 | -05 27 31.5 | 9.8 | T | 9.9 | 0.9 | -4.17 | C | 7.91 | 0.57 ± 0.04 | 0.12 ± 0.05 | Y | K4 | BD-05 1938 d∼ 40pc log($L_X$)∼ 27.7 |
| 42 | C | 07 03 23.73 | -05 27 34.5 | 12.9 | 2 | | | >-0.05 | | 16.49 | 0.86 ± 0.28 | 0.25 ± 0.25 | Y | | |
| 42 | D | 07 03 25.16 | -05 27 38.4 | 13.2 | 2 | | | >-0.05 | | 12.36 | > −2.23 | < 2.64 | ? | | |
| 42 | E | 07 03 24.64 | -05 27 10.6 | 18.7 | U | 16.6 | 1.9 | -1.01 | N | | | | | | |
| 43 | A | 07 17 31.04 | -13 05 29.0 | 7.6 | U | 17.6 | 0.6 | -0.64 | E | 15.60 | 0.48 ± 0.09 | 0.01 ± 0.19 | Y | GK?? | |
| 43 | B | 07 17 29.87 | -13 05 27.8 | 13.2 | U | 17.0 | 0.8 | -0.88 | N | 15.48 | 0.49 ± 0.10 | 0.10 ± 0.15 | Y | GK? | |
| 43 | C | 07 17 29.97 | -13 05 14.0 | 14.3 | 2 | | | >-0.08 | | 16.22 | 0.78 ± 0.14 | -0.06 ± 0.27 | Y | | |
| 43 | D | 07 17 31.58 | -13 05 38.5 | 19.9 | U | 18.3 | 0.4 | -0.36 | E | 16.06 | 0.45 ± 0.15 | > 0.37 | ? | | |
| 44 | A | 07 17 32.75 | -13 20 23.6 | 4.7 | U | 12.6 | 2.4 | -2.60 | C | 13.05 | 0.31 ± 0.05 | 0.07 ± 0.05 | Y | FG | |
| 44 | B | 07 17 32.06 | -13 20 29.4 | 8.6 | U | 11.9 | 2.9 | -2.88 | C | 10.06 | 0.86 ± 0.03 | 0.20 ± 0.04 | Y | | |
| 44 | C | 07 17 32.71 | -13 20 13.6 | 14.4 | U | 14.7 | 0.5 | -1.76 | N | 15.14 | 0.01 ± 0.16 | 0.31 ± 0.19 | N | | |
| 44 | D | 07 17 32.20 | -13 20 41.3 | 14.8 | U | 16.9 | 1.4 | -0.88 | N | 16.03 | 0.38 ± 0.17 | 0.28 ± 0.25 | Y | | |
| 44 | E | 07 17 32.62 | -13 20 11.7 | 16.3 | 2 | | | >-0.04 | | 14.39 | 0.35 ± 0.07 | 0.25 ± 0.09 | Y | | |
| 44 | F | 07 17 33.53 | -13 20 17.0 | 17.1 | U | 16.1 | 1.8 | -1.20 | C | 13.75 | 0.72 ± 0.04 | 0.20 ± 0.05 | Y | M? | |
| 44 | G | 07 17 32.00 | -13 20 10.6 | 19.7 | U | 16.9 | 0.7 | -0.88 | N | 15.83 | 0.64 ± 0.11 | -0.19 ± 0.22 | Y | | |
| 45 | A | 07 17 34.06 | -13 17 37.6 | 10.1 | U | 15.4 | 0.8 | -1.76 | N | 14.44 | 0.23 ± 0.06 | 0.14 ± 0.09 | Y | F? | |
| 45 | B | 07 17 33.46 | -13 17 58.5 | 16.3 | U | 16.0 | 1.3 | -1.52 | N | 14.47 | 0.62 ± 0.06 | 0.11 ± 0.07 | Y | KM | |
| 45 | C | 07 17 35.51 | -13 17 43.1 | 18.6 | U | 15.7 | 0.7 | -1.64 | N | 14.46 | 0.36 ± 0.07 | 0.13 ± 0.09 | Y | G? | |
| 46 | A | 07 17 41.53 | -13 22 09.4 | 3.3 | U | 16.8 | 0.2 | -1.07 | N | 14.86 | 0.37 ± 0.07 | 0.13 ± 0.10 | Y | GK? | |
| 46 | B | 07 17 42.51 | -13 22 02.5 | 16.9 | U | 18.2 | 0.9 | -0.51 | E | 16.31 | 0.65 ± 0.17 | > −1.07 | N | | |
| 46 | C | 07 17 40.22 | -13 22 03.6 | 17.4 | U | 18.0 | 1.1 | -0.59 | E | 16.17 | 0.23 ± 0.22 | > 0.39 | ? | | |
| 47 | A | 07 17 42.58 | -13 25 27.7 | 10.6 | U | 18.2 | 0.1 | -1.06 | N | 16.31 | 0.48 ± 0.20 | > −0.17 | N | | |
| 47 | B | 07 17 43.79 | -13 25 15.6 | 11.1 | U | 16.2 | 1.4 | -1.86 | C | 13.68 | 0.69 ± 0.04 | 0.15 ± 0.05 | Y | KM | |
| 47 | C | 07 17 44.41 | -13 25 20.2 | 17.3 | U | 14.8 | 0.7 | -2.42 | C | 13.74 | 0.33 ± 0.04 | 0.06 ± 0.06 | Y | FG | |
| 47 | D | 07 17 43.08 | -13 25 42.1 | 19.0 | U | 15.4 | 0.7 | -2.18 | C | 13.95 | 0.34 ± 0.04 | 0.07 ± 0.06 | Y | FG | |
| 48 | A | 07 17 49.47 | -13 15 23.4 | 10.1 | U | 17.9 | 1.4 | -0.64 | E | 16.60 | 0.58 ± 0.24 | 0.48 ± 0.32 | Y | | |
| 48 | B | 07 17 49.08 | -13 15 25.0 | 10.7 | U | 15.8 | 0.5 | -1.48 | N | 14.43 | 0.38 ± 0.06 | 0.04 ± 0.09 | Y | GK | |
| 48 | C | 07 17 48.01 | -13 15 10.1 | 17.5 | U | 17.6 | 1.0 | -0.76 | E | 16.00 | 0.46 ± 0.15 | 0.20 ± 0.26 | Y | | |

**Table 4.** Optical and near-infrared counterparts to X-ray sources (cont.).

| | Des | RA | Dec | Sep | Ref | $m_{\rm opt}$ | Col | $[f_{\rm X}/f_{\rm opt}]$ | Cl | $J$ | $(J-H)$ | $(H-K_{\rm S})$ | MS | Sp | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 49 | A | 07 18 06.27 | -12 58 32.4 | 10.2 | U | 12.0 | 1.4 | -2.99 | C | 11.10 | 0.25 ± 0.04 | 0.05 ± 0.04 | Y | F | |
| 49 | B | 07 18 04.59 | -12 58 30.4 | 15.3 | U | 17.9 | 0.7 | -0.63 | E | 16.07 | 0.46 ± 0.17 | > 0.80 | ? | | |
| 49 | C | 07 18 05.42 | -12 58 43.7 | 15.7 | U | 17.4 | 0.9 | -0.83 | N | 15.76 | 0.72 ± 0.11 | 0.35 ± 0.15 | Y | | |
| 49 | D | 07 18 06.67 | -12 58 20.8 | 16.9 | 2 | | | >-0.19 | | 15.71 | 0.57 ± 0.12 | 0.20 ± 0.18 | Y | | |
| 50 | A | 07 18 06.00 | -13 18 35.6 | 2.3 | 2 | | | >-0.32 | | 14.31 | 0.65 ± 0.05 | 0.13 ± 0.07 | Y | KM | |
| 50 | B | 07 18 06.40 | -13 18 35.9 | 5.0 | 2 | | | >-0.32 | | 11.68 | 0.19 ± 0.04 | 0.17 ± 0.04 | Y | F? | |
| 50 | C | 07 18 05.80 | -13 18 48.5 | 11.7 | U | 17.3 | 0.4 | -1.00 | N | 15.63 | 0.43 ± 0.12 | -0.05 ± 0.20 | Y | | |
| 50 | D | 07 18 06.91 | -13 18 43.4 | 13.5 | U | 14.3 | 1.9 | -2.20 | C | 12.63 | 0.70 ± 0.04 | 0.08 ± 0.04 | Y | KM | |
| 50 | E | 07 18 05.54 | -13 18 23.2 | 16.3 | 2 | | | >-0.32 | | 16.04 | -0.13 ± 0.35 | > 1.09 | ? | | |
| 50 | F | 07 18 06.12 | -13 18 20.7 | 16.8 | U | 17.4 | 1.1 | -0.96 | N | 16.31 | 0.84 ± 0.18 | > 0.76 | ? | | |
| 50 | G | 07 18 05.30 | -13 18 24.8 | 17.0 | U | 13.8 | 0.9 | -2.40 | C | 14.37 | 0.42 ± 0.06 | 0.03 ± 0.08 | Y | GK | |
| 50 | H | 07 18 05.20 | -13 18 23.1 | 19.2 | 2 | | | >-0.32 | | 14.78 | 0.16 ± 0.09 | 0.24 ± 0.17 | Y | | |
| 51 | A | 07 18 07.78 | -13 20 11.4 | 14.2 | U | 17.7 | 0.7 | -0.97 | N | | | | | | |
| 51 | B | 07 18 08.27 | -13 20 16.0 | 15.2 | T | 11.4 | 0.8 | -3.94 | C | 9.87 | 0.48 ± 0.04 | 0.04 ± 0.03 | Y | K1 | d∼ 115pc log($L_{\rm X}$)∼ 28.2 |
| 51 | C | 07 18 07.25 | -13 19 45.3 | 18.1 | U | 16.5 | 0.6 | -1.45 | N | 14.88 | 0.28 ± 0.07 | 0.32 ± 0.10 | Y | | |
| 51 | D | 07 18 06.90 | -13 19 52.7 | 18.7 | U | 17.9 | 0.9 | -0.89 | N | 16.43 | 0.82 ± 0.19 | 0.08 ± 0.28 | Y | | |
| 51 | E | 07 18 08.74 | -13 19 41.1 | 19.2 | 2 | | | >-0.45 | | 15.77 | 0.59 ± 0.12 | 0.03 ± 0.19 | Y | | |
| 51 | F | 07 18 09.38 | -13 19 51.2 | 19.5 | U | 16.8 | 0.3 | -1.33 | N | 14.93 | 0.51 ± 0.06 | -0.10 ± 0.12 | Y | | |
| 51 | G | 07 18 07.51 | -13 20 15.9 | 20.0 | 2 | | | >-0.45 | | 16.28 | > 1.49 | <> 0.36 | ? | | |
| 52 | A | 07 18 11.18 | -13 22 45.4 | 8.6 | U | 14.4 | 1.9 | -2.00 | C | 12.23 | 0.63 ± 0.04 | 0.25 ± 0.03 | Y | M | |
| 52 | B | 07 18 11.35 | -13 22 27.9 | 13.0 | U | 17.7 | 0.8 | -0.68 | E | 15.88 | 0.46 ± 0.13 | ± 0.24 | Y | | |
| 52 | C | 07 18 09.91 | -13 22 48.4 | 16.6 | U | 18.0 | 0.6 | -0.56 | E | 16.33 | 0.82 ± 0.16 | 0.17 ± 0.25 | Y | | |
| 52 | D | 07 18 12.02 | -13 22 33.2 | 18.2 | U | 18.0 | 1.0 | -0.56 | E | 16.49 | > 0.44 | <> 0.09 | ? | | |
| 53 | A | 07 18 12.57 | -13 06 18.3 | 17.3 | U | 15.9 | 0.9 | -1.70 | N | 14.37 | 0.41 ± 0.05 | 0.06 ± 0.07 | Y | GK | |
| 53 | B | 07 18 11.25 | -13 06 22.2 | 17.7 | 2 | | | >-0.46 | | 16.11 | 0.43 ± 0.17 | > 0.86 | ? | | |
| 54 | A | 07 18 13.78 | -13 27 12.2 | 13.7 | 2 | | | >-0.12 | | 15.89 | 0.33 ± 0.36 | > 1.15 | ? | | |
| 54 | B | 07 18 13.74 | -13 27 15.8 | 15.7 | U | 14.1 | 1.4 | -2.08 | C | 13.36 | 0.60 ± 0.04 | 0.12 ± 0.04 | Y | K | |
| 55 | A | 07 18 12.96 | -13 23 58.5 | 6.1 | S | | | -0.20 | | | | | | | Radio. [CGN 99] 7 |
| 55 | B | 07 18 13.68 | -13 24 03.0 | 10.0 | U | 17.3 | 0.8 | -0.20 | E | 15.43 | 0.53 ± 0.09 | 0.34 ± 0.13 | Y | | |
| 55 | C | 07 18 15.24 | -13 24 08.1 | 31.5 | T | 12.4 | 0.3 | -2.63 | N | 11.88 | 0.10 ± 0.04 | 0.03 ± 0.04 | Y | A8 | d∼ 1000pc log($L_{\rm X}$)∼ 31.0<br>Prob. too luminous for spectral type |
| 56 | A | 07 18 38.67 | -13 01 29.6 | 14.2 | U | 18.9 | 0.4 | -0.17 | E | 16.41 | 0.71 ± 0.20 | 0.46 ± 0.25 | Y | | |
| 56 | B | 07 18 37.35 | -13 01 10.3 | 17.4 | U | 17.8 | 0.8 | -0.61 | E | | | | | | |
| 56 | C | 07 18 37.29 | -13 01 20.8 | 18.1 | T | 11.9 | 0.3 | -3.44 | C | 10.59 | 0.31 ± 0.04 | 0.11 ± 0.04 | Y | G0 | d∼ 320pc log($L_{\rm X}$)∼ 29.5<br>Tycho colour suggests earlier type |
| 57 | A | 07 18 43.66 | -13 06 49.7 | 10.2 | U | 17.3 | 1.0 | -0.78 | E | 15.69 | 0.49 ± 0.13 | 0.32 ± 0.19 | Y | | |
| 57 | B | 07 18 43.23 | -13 06 52.7 | 17.0 | U | 16.3 | 2.3 | -1.18 | C | 14.69 | 0.72 ± 0.06 | 0.22 ± 0.08 | Y | KM | |
| 58 | A | 07 18 47.58 | -12 57 21.7 | 13.2 | U | 19.0 | 0.0 | -0.18 | E | | | | | | |
| 58 | B | 07 18 49.40 | -12 57 33.5 | 16.9 | U | 15.0 | 0.5 | -1.78 | N | 13.62 | 0.26 ± 0.05 | 0.13 ± 0.06 | Y | FG | |
| 58 | C | 07 18 48.42 | -12 57 05.2 | 18.2 | 2 | | | >-0.18 | | 16.08 | 0.69 ± 0.17 | > 0.38 | ? | | |
| 58 | D | 07 18 48.18 | -12 57 42.1 | 19.2 | U | 18.3 | 0.6 | -0.46 | E | 16.58 | 0.70 ± 0.24 | 0.26 ± 0.33 | Y | | |
| 59 | A | 07 19 10.52 | -13 15 01.5 | 5.9 | T | 9.8 | 0.9 | -4.03 | C | 8.11 | 0.50 ± 0.03 | 0.11 ± 0.04 | Y | G8III | HD 57083 d∼ 630pc log($L_{\rm X}$)∼ 30.3 |
| 59 | B | 07 19 10.85 | -13 14 53.3 | 8.5 | U | 16.8 | 1.9 | -0.76 | E | | | | | | Spurious |
| 59 | C | 07 19 09.43 | -13 15 09.0 | 18.1 | U | 16.2 | 1.0 | -1.00 | N | | | | | | |
| 60 | A | 07 22 24.78 | -15 10 54.3 | 6.7 | 2 | | | >-0.05 | | 15.97 | 0.48 ± 0.14 | 0.46 ± 0.18 | Y | | |
| 60 | B | 07 22 24.60 | -15 11 07.0 | 10.4 | 2 | | | >-0.05 | | 16.73 | 0.84 ± 0.21 | 0.57 ± 0.24 | Y | | |
| 60 | C | 07 22 25.48 | -15 10 46.3 | 14.2 | 2 | | | >-0.05 | | 16.15 | 0.59 ± 0.15 | 0.13 ± 0.23 | Y | | |
| 60 | D | 07 22 26.28 | -15 11 06.2 | 17.5 | T | 11.1 | 0.1 | -3.25 | C | 10.65 | 0.04 ± 0.03 | 0.04 ± 0.03 | Y | A5 | GSC 05966-01399 d∼ 760pc log($L_{\rm X}$)∼ 30.3<br>Poss. too luminous for spectral type |
| 60 | E | 07 22 25.19 | -15 11 19.2 | 20.0 | U | 18.5 | -0.1 | -0.25 | E | 16.47 | 0.71 ± 0.19 | 0.38 ± 0.23 | Y | | |

**Table 4.** Optical and near-infrared counterparts to X-ray sources (cont.).

| | Des | RA | Dec | Sep | Ref | $m_{\rm opt}$ | Col | $[f_{\rm X}/f_{\rm opt}]$ | Cl | $J$ | $(J-H)$ | $(H-K_{\rm S})$ | MS | Sp | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 61 | A | 07 22 29.46 | -15 04 10.3 | 8.2 | U | 15.5 | 2.6 | -1.28 | C | 12.76 | 0.62 ± 0.04 | 0.27 ± 0.04 | Y | M | |
| 61 | B | 07 22 29.08 | -15 04 10.2 | 12.7 | 2 | | | > 0.12 | | 16.56 | > 3.06 | <> 0.31 | ? | | |
| 61 | C | 07 22 29.70 | -15 03 45.6 | 19.2 | U | 15.7 | 1.7 | -1.20 | C | 14.31 | 0.69 ± 0.05 | 0.10 ± 0.06 | Y | KM | |
| 62 | A | 07 23 06.53 | -15 17 47.8 | 18.9 | U | 16.8 | 1.7 | -0.90 | N | 15.71 | 0.56 ± 0.12 | -0.12 ± 0.21 | Y | KM? | |
| 63 | A | 07 23 07.31 | -14 58 39.2 | 4.4 | U | 12.9 | 1.0 | -2.65 | C | 12.76 | 0.27 ± 0.04 | -0.02 ± 0.05 | Y | F | |
| 63 | B | 07 23 07.57 | -14 58 41.9 | 7.6 | 2 | | | > 0.21 | | 15.07 | 0.69 ± 0.15 | 0.09 ± 0.19 | Y | | |
| 63 | C | 07 23 06.50 | -14 58 33.2 | 11.3 | U | 16.6 | 0.9 | -1.17 | N | 14.80 | 0.66 ± 0.06 | 0.05 ± 0.08 | Y | KM | |
| 63 | D | 07 23 06.71 | -14 58 51.9 | 11.6 | U | 17.5 | 0.9 | -0.81 | E | 15.50 | 0.58 ± 0.10 | 0.12 ± 0.14 | Y | KM? | |
| 63 | E | 07 23 08.12 | -14 58 41.6 | 15.6 | U | 13.4 | 1.8 | -2.45 | C | 11.60 | 0.66 ± 0.03 | 0.21 ± 0.04 | Y | M | |
| 64 | A | 07 23 14.64 | -14 52 49.8 | 1.8 | 2 | | | >-0.02 | | 14.72 | 0.38 ± 0.13 | 0.11 ± 0.14 | Y | FGK? | |
| 64 | B | 07 23 13.91 | -14 52 45.7 | 12.2 | T | 8.7 | 0.6 | -4.62 | C | 7.51 | 0.23 ± 0.05 | 0.12 ± 0.05 | Y | K0III+ | HD 58032 d∼ 400pc log($L_{\rm X}$)∼ 29.7 Poss. RS CVn |
| 64 | C | 07 23 14.44 | -14 53 04.2 | 13.1 | U | 14.4 | 2.8 | -1.86 | C | | | | | | |
| 64 | D | 07 23 15.47 | -14 52 43.9 | 15.1 | U | 15.7 | 1.7 | -1.34 | C | | | | | | |
| 64 | E | 07 23 15.66 | -14 53 00.2 | 18.2 | 2 | | | >-0.02 | | 16.31 | 0.56 ± 0.21 | 0.69 ± 0.24 | N | | |
| 65 | A | 07 23 31.12 | -15 12 19.0 | 2.1 | U | 10.9 | 1.0 | -3.15 | C | 10.26 | 0.25 ± 0.04 | 0.04 ± 0.04 | Y | F | |
| 65 | B | 07 23 30.37 | -15 12 26.2 | 10.9 | U | 15.4 | 1.6 | -1.35 | C | 16.09 | > 1.22 | <> 0.14 | ? | | |
| 66 | A | 07 23 33.91 | -15 10 25.6 | 10.8 | T | 9.9 | 0.9 | -4.47 | C | 8.37 | 0.47 ± 0.04 | 0.14 ± 0.04 | Y | K2 | GSC 05966-00677 d∼ 50pc log($L_{\rm X}$)∼ 27.6 |
| 67 | A | 07 23 40.61 | -16 07 54.5 | 14.9 | U | 15.5 | 2.6 | -1.30 | C | 12.76 | 0.59 ± 0.04 | 0.28 ± 0.04 | Y | M | |
| 68 | A | 07 24 01.10 | -16 11 54.1 | 15.7 | U | 17.2 | 1.6 | -1.04 | N | | | | | | |
| 68 | B | 07 24 02.07 | -16 11 55.7 | 16.0 | U | 16.7 | 1.4 | -1.24 | N | | | | | | |
| 68 | C | 07 24 02.98 | -16 11 36.2 | 19.2 | U | 16.7 | 0.6 | -1.24 | N | | | | | | |
| 68 | D | 07 24 01.35 | -16 11 21.4 | 19.9 | U | 14.2 | -0.7 | -2.24 | N | | | | | | |
| 69 | A | 07 24 02.11 | -15 05 14.7 | 13.1 | U | 18.1 | -0.1 | -0.39 | E | 16.48 | > −0.54 | <> 1.48 | N | | |
| 70 | A | 07 24 03.24 | -14 57 07.7 | 8.9 | 2 | | | >-0.16 | | 15.57 | 0.48 ± 0.11 | -0.04 ± 0.31 | Y | | |
| 70 | B | 07 24 03.22 | -14 57 04.9 | 11.6 | U | 15.1 | 1.1 | -1.72 | N | 14.78 | 0.49 ± 0.07 | 0.06 ± 0.10 | Y | K | |
| 70 | C | 07 24 03.45 | -14 57 29.6 | 13.5 | U | 17.1 | 1.6 | -0.92 | N | 13.44 | 0.63 ± 0.04 | 0.25 ± 0.05 | Y | M | |
| 70 | D | 07 24 04.33 | -14 57 24.7 | 15.5 | U | 13.9 | 1.2 | -2.20 | C | 13.67 | 0.20 ± 0.05 | 0.07 ± 0.05 | Y | F | |
| 71 | A | 07 24 08.08 | -14 59 29.4 | 1.8 | U | 18.5 | 0.4 | -0.29 | E | | | | | | |
| 71 | B | 07 24 08.39 | -14 59 34.4 | 5.5 | U | 19.2 | -0.2 | -0.01 | E | | | | | | |
| 71 | C | 07 24 07.63 | -14 59 36.4 | 10.8 | U | 16.0 | 0.5 | -1.29 | N | 15.03 | 0.55 ± 0.08 | 0.05 ± 0.13 | Y | KM | |
| 71 | D | 07 24 07.93 | -14 59 14.4 | 15.7 | U | 15.1 | 1.0 | -1.65 | N | 14.15 | 0.32 ± 0.05 | 0.07 ± 0.08 | Y | FG | |
| 71 | E | 07 24 07.21 | -14 59 22.6 | 16.1 | U | 16.2 | 0.8 | -1.21 | N | 15.28 | ± 0.12 | 0.41 ± 0.18 | N | | |
| 71 | F | 07 24 07.15 | -14 59 37.5 | 17.2 | U | 16.8 | 0.4 | -0.97 | N | 15.64 | 0.08 ± 0.16 | 0.61 ± 0.22 | N | | |
| 71 | G | 07 24 08.83 | -14 59 13.2 | 18.7 | U | 16.9 | 0.8 | -0.93 | N | 15.83 | 0.29 ± 0.14 | 0.20 ± 0.23 | Y | | |
| 72 | A | 07 25 18.58 | -16 10 22.9 | 12.6 | U | 16.7 | 1.2 | -0.53 | E | 16.01 | 0.52 ± 0.16 | > −0.36 | N | | |
| 72 | B | 07 25 17.35 | -16 10 41.9 | 16.0 | U | 18.9 | 1.0 | 0.35 | E | 16.52 | > −0.80 | <> 2.19 | N | | |
| 72 | C | 07 25 18.21 | -16 10 53.8 | 18.9 | 2 | | | > 0.39 | | 16.71 | > 1.18 | < 0.14 | ? | | |
| 73 | - | | | | | | | > 0.23 | U | | | | | | No optical or NIR counterpart |
| 74 | A | 08 09 24.27 | -33 29 53.9 | 7.5 | U | 17.8 | 1.2 | -0.20 | E | | | | | | |
| 74 | B | 08 09 23.46 | -33 30 12.3 | 13.5 | U | 17.9 | 2.3 | -0.16 | E | | | | | | |
| 74 | C | 08 09 24.13 | -33 30 15.5 | 14.9 | U | 18.0 | 1.8 | -0.12 | E | | | | | | |
| 74 | D | 08 09 24.98 | -33 30 09.6 | 15.2 | T | 12.2 | 0.6 | -2.92 | C | 10.96 | 0.32 ± 0.04 | 0.09 ± 0.04 | Y | G2 | d∼ 320pc log($L_{\rm X}$)∼ 29.8 |
| 74 | E | 08 09 25.20 | -33 30 03.4 | 15.2 | 2 | | | > 0.28 | | 15.92 | 0.23 ± 0.18 | > 1.06 | ? | | |
| 74 | F | 08 09 24.42 | -33 29 45.1 | 16.4 | U | 15.3 | 0.2 | -1.20 | N | 14.59 | 0.18 ± 0.07 | 0.14 ± 0.10 | Y | F | |

**Table 4.** Optical and near-infrared counterparts to X-ray sources (cont.).

| | Des | RA | Dec | Sep | Ref | $m_{\rm opt}$ | Col | $[f_{\rm X}/f_{\rm opt}]$ | Cl | $J$ | $(J-H)$ | $(H-K_{\rm S})$ | MS | Sp | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 75 | A | 08 09 26.36 | -33 20 17.4 | 2.2 | U | 17.8 | 0.7 | -0.38 | E | 16.59 | $>0.44$ | $<>-0.49$ | ? | | |
| 75 | B | 08 09 26.54 | -33 20 11.1 | 4.9 | U | 18.0 | 1.8 | -0.30 | E | | | | | | |
| 75 | C | 08 09 27.32 | -33 20 10.4 | 13.3 | U | 17.2 | 0.7 | -0.62 | E | 16.05 | $0.38 \pm 0.16$ | $>0.73$ | ? | | |
| 75 | D | 08 09 25.20 | -33 20 18.5 | 13.6 | T | 12.2 | 0.2 | -3.08 | N | 10.81 | $0.20 \pm 0.04$ | $0.02 \pm 0.04$ | Y | F2 | CD-32 4913 d$\sim$ 580pc $\log(L_{\rm X})\sim$ 30.2 Poss. too luminous for spectral type |
| 75 | E | 08 09 25.11 | -33 20 10.6 | 16.0 | 2 | | | $>0.10$ | | 16.07 | $0.23 \pm 0.24$ | $>1.31$ | ? | | |
| 75 | F | 08 09 25.23 | -33 20 06.7 | 16.2 | 2 | | | $>0.10$ | | 15.86 | $0.28 \pm 0.17$ | $>0.51$ | ? | | |
| 75 | G | 08 09 25.81 | -33 20 34.7 | 20.5 | U | 15.3 | 0.9 | -1.38 | N | 15.25 | $0.38 \pm 0.11$ | $0.13 \pm 0.14$ | Y | | |
| 76 | A | 08 09 27.28 | -33 25 09.9 | 7.9 | U | 16.6 | 0.6 | -0.73 | E | 15.58 | $0.50 \pm 0.10$ | $-0.13 \pm 0.20$ | Y | ? | |
| 76 | B | 08 09 26.03 | -33 25 07.6 | 14.6 | U | 17.8 | 0.9 | -0.25 | E | | | | | | |
| 76 | C | 08 09 28.14 | -33 25 14.8 | 15.0 | U | 18.0 | 2.1 | -0.17 | E | | | | | | |
| 76 | D | 08 09 25.46 | -33 25 10.8 | 19.6 | U | 17.0 | 1.1 | -0.57 | E | 15.62 | $0.64 \pm 0.11$ | $0.04 \pm 0.17$ | Y | KM? | |
| 76 | E | 08 09 28.39 | -33 25 25.1 | 19.9 | U | 17.9 | 2.5 | -0.21 | E | | | | | | |
| 77 | A | 08 10 18.00 | -33 06 11.1 | 5.4 | U | 17.0 | 0.8 | -0.87 | N | 15.26 | $0.53 \pm 0.08$ | $0.26 \pm 0.12$ | Y | ? | |
| 77 | B | 08 10 18.35 | -33 06 00.8 | 9.5 | U | 17.9 | 1.2 | -0.51 | E | 16.45 | $0.26 \pm 0.26$ | $>0.25$ | ? | | |
| 77 | C | 08 10 19.41 | -33 06 12.1 | 12.5 | U | 14.7 | 1.6 | -1.79 | C | 12.05 | $0.69 \pm 0.04$ | $0.26 \pm 0.04$ | Y | M | |
| 77 | D | 08 10 17.17 | -33 06 05.9 | 16.3 | U | 18.0 | 2.4 | -0.47 | E | | | | | | |
| 77 | E | 08 10 19.97 | -33 06 10.7 | 19.5 | U | 17.6 | 1.0 | -0.63 | E | 16.02 | $0.51 \pm 0.15$ | $>0.28$ | ? | | |
| 77 | F | 08 10 17.66 | -33 05 52.3 | 20.4 | U | 17.9 | 2.5 | -0.51 | E | 15.98 | $0.69 \pm 0.13$ | $0.37 \pm 0.18$ | Y | | |
| 78 | A | 10 22 59.10 | -57 42 44.0 | 3.7 | U | 17.9 | 0.6 | -0.28 | E | | | | | | |
| 78 | B | 10 23 00.43 | -57 42 42.2 | 7.8 | U | 16.5 | 1.7 | -0.84 | N | | | | | | |
| 78 | C | 10 22 58.43 | -57 42 37.3 | 9.3 | U | 14.0 | 2.4 | -1.84 | C | | | | | | |
| 78 | D | 10 23 00.09 | -57 42 32.2 | 10.6 | U | 16.3 | 0.8 | -0.92 | N | | | | | | |
| 78 | E | 10 23 00.82 | -57 42 33.5 | 13.6 | U | 15.6 | 1.1 | -1.20 | N | | | | | | |
| 78 | F | 10 22 59.77 | -57 42 55.9 | 14.6 | U | 17.1 | 0.5 | -0.60 | E | | | | | | |
| 78 | G | 10 22 59.16 | -57 43 00.5 | 19.0 | U | 15.3 | 0.9 | -1.32 | N | | | | | | |
| 79 | A | 10 23 38.96 | -57 58 05.0 | 5.0 | U | 12.4 | 0.3 | -2.60 | N | | | | | | |
| 79 | B | 10 23 39.87 | -57 57 44.7 | 17.5 | U | 16.5 | 0.7 | -0.96 | N | | | | | | |
| 80 | A | 10 23 44.50 | -57 38 31.6 | 6.9 | T | 9.1 | 0.1 | -4.35 | C | | | | | O7 | HD 90273. Probably highly reddened |
| 80 | B | 10 23 44.49 | -57 38 47.5 | 15.3 | U | 17.1 | -4.2 | -0.68 | E | | | | | | Spurious |
| 81 | A | 10 23 51.90 | -57 58 01.7 | 20.0 | U | 13.9 | 4.2 | -2.05 | C | | | | | | |
| 81 | B | 10 23 50.64 | -57 57 14.1 | 30.2 | T | 6.3 | 1.5 | -5.54 | C | | | | | K4III | NSV 4846 d$\sim$ 180pc $\log(L_{\rm X})\sim$ 29.0 Beyond coronal dividing line |
| 82 | A | 10 23 58.1 | -57 45 49 | | S | | | | ? | | | | | | Open cluster Westerlund 2 |
| 83 | A | 10 24 14.75 | -57 39 51.7 | 5.2 | U | 17.7 | 2.4 | -0.69 | E | | | | | | |
| 83 | B | 10 24 14.35 | -57 39 43.6 | 5.9 | U | 16.9 | 1.2 | -1.01 | N | | | | | | |
| 83 | C | 10 24 12.77 | -57 39 42.3 | 18.2 | U | 17.7 | 2.0 | -0.69 | E | | | | | | |
| 84 | A | 10 24 46.80 | -57 32 58.8 | 5.0 | U | 16.4 | 0.7 | -1.16 | N | | | | | | |
| 84 | B | 10 24 48.32 | -57 32 50.2 | 10.2 | U | 14.3 | 0.7 | -2.00 | N | | | | | | |
| 84 | C | 10 24 47.55 | -57 32 37.3 | 17.8 | U | 17.7 | 1.7 | -0.64 | E | | | | | | |
| 84 | D | 10 24 45.42 | -57 33 06.2 | 18.2 | U | 17.7 | 1.2 | -0.64 | E | | | | | | |
| 85 | A | 10 25 01.16 | -57 54 29.5 | 5.4 | U | 17.4 | 1.9 | -0.78 | E | | | | | | |
| 85 | B | 10 25 01.91 | -57 54 34.4 | 9.9 | U | 17.7 | 2.1 | -0.66 | E | | | | | | |
| 85 | C | 10 25 01.38 | -57 54 13.3 | 11.6 | U | 15.0 | 0.5 | -1.74 | N | | | | | | |
| 85 | D | 10 25 03.00 | -57 54 21.1 | 12.3 | U | 14.1 | 0.8 | -2.10 | N | | | | | | |
| 85 | E | 10 25 02.87 | -57 54 38.6 | 17.4 | U | 16.4 | 0.8 | -1.18 | N | | | | | | |
| 85 | F | 10 25 01.52 | -57 54 43.9 | 19.9 | U | 15.9 | 0.9 | -1.38 | N | | | | | | |
| 86 | A | 10 25 34.78 | -57 50 40.3 | 10.8 | U | 17.6 | 0.5 | -0.50 | E | | | | | | |
| 86 | B | 10 25 37.00 | -57 50 43.9 | 16.7 | U | 15.3 | 0.0 | -1.42 | N | | | | | | |

**Table 4.** Optical and near-infrared counterparts to X-ray sources (cont.).

| | Des | RA | Dec | Sep | Ref | $m_{\rm opt}$ | Col | $[f_{\rm X}/f_{\rm opt}]$ | Cl | $J$ | $(J-H)$ | $(H-K_{\rm S})$ | MS | Sp | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 87 | A | 10 25 45.65 | -57 35 34.8 | 3.9 | U | 17.6 | 1.9 | -0.19 | E | | | | | | |
| 87 | B | 10 25 44.95 | -57 35 26.7 | 6.6 | U | 16.2 | 0.4 | -0.75 | E | | | | | | |
| 87 | C | 10 25 45.32 | -57 35 40.1 | 9.4 | U | 16.1 | 0.7 | -0.79 | E | | | | | | |
| 87 | D | 10 25 46.67 | -57 35 22.5 | 12.2 | U | 14.6 | 1.9 | -1.39 | C | | | | | | |
| 87 | E | 10 25 47.53 | -57 35 29.8 | 15.7 | U | 17.2 | 0.3 | -0.35 | E | | | | | | |
| 87 | F | 10 25 47.55 | -57 35 22.1 | 18.2 | U | 16.6 | 2.3 | -0.59 | E | | | | | | |
| 87 | G | 10 25 43.79 | -57 35 18.6 | 19.0 | U | 16.6 | 1.2 | -0.59 | E | | | | | | |
| 88 | A | 10 25 53.51 | -57 53 57.8 | 9.7 | U | 14.7 | 1.4 | -1.81 | C | | | | | | |
| 88 | B | 10 25 51.66 | -57 53 50.5 | 10.9 | U | 17.9 | 1.2 | -0.53 | E | | | | | | |
| 88 | C | 10 25 53.70 | -57 53 49.4 | 15.2 | U | 17.0 | -0.2 | -0.89 | N | | | | | | |
| 88 | D | 10 25 54.13 | -57 54 05.9 | 15.5 | U | 17.6 | -0.5 | -0.65 | E | | | | | | |
| 88 | E | 10 25 52.27 | -57 54 15.9 | 15.9 | U | 15.8 | 0.3 | -1.37 | N | | | | | | |
| 88 | F | 10 25 53.93 | -57 53 45.4 | 19.4 | U | 17.2 | 1.5 | -0.81 | E | | | | | | |
| 89 | A | 10 25 53.36 | -57 37 57.5 | 8.1 | U | 17.0 | 0.1 | -0.69 | E | | | | | | |
| 89 | B | 10 25 53.85 | -57 38 04.7 | 8.4 | U | 17.2 | 0.6 | -0.61 | E | | | | | | |
| 89 | C | 10 25 52.92 | -57 37 48.7 | 14.5 | U | 17.6 | 0.7 | -0.45 | E | | | | | | |
| 89 | D | 10 25 56.05 | -57 37 47.6 | 16.6 | U | 12.4 | 3.2 | -2.53 | C | | | | | | |
| 89 | E | 10 25 55.64 | -57 38 10.8 | 16.8 | U | 16.9 | 1.4 | -0.73 | E | | | | | | |
| 89 | F | 10 25 52.34 | -57 38 07.9 | 19.4 | U | 18.0 | 1.7 | -0.29 | E | | | | | | |
| 89 | G | 10 25 56.82 | -57 37 56.9 | 19.7 | U | 14.0 | -2.0 | -1.89 | N | | | | | | |
| 90 | A | 10 25 54.20 | -57 48 43.4 | 11.6 | U | 16.0 | -0.5 | 0.33 | E | | | | | | |
| 90 | B | 10 25 56.51 | -57 48 43.4 | 14.1 | U | 11.6 | 1.4 | -1.43 | N | | | | | WR | WACK 2134 $\log(f_{\rm X}/f_{\rm opt})$ high for early-type star |
| 90 | C | 10 25 56.25 | -57 49 04.7 | 15.3 | U | 17.8 | 0.7 | 1.05 | E | | | | | | |
| 90 | D | 10 25 53.23 | -57 48 44.3 | 17.1 | U | 17.8 | 0.7 | 1.05 | E | | | | | | |
| 90 | E | 10 25 53.45 | -57 49 04.6 | 18.2 | U | 17.6 | 0.1 | 0.97 | E | | | | | | |
| 91 | A | 10 26 02.91 | -57 59 11.1 | 5.9 | U | 17.7 | 2.4 | 0.50 | E | | | | | | |
| 91 | B | 10 26 04.37 | -57 59 19.1 | 8.5 | U | 17.7 | 1.0 | 0.50 | E | | | | | | |
| 91 | C | 10 26 03.10 | -57 59 27.1 | 11.8 | U | 14.0 | 0.9 | -0.98 | N | | | | | | |
| 91 | D | 10 26 03.10 | -57 59 27.1 | 14.0 | U | 17.8 | 1.5 | 0.54 | E | | | | | | |
| 91 | E | 10 26 01.42 | -57 59 05.9 | 18.4 | U | 18.0 | 1.1 | 0.62 | E | | | | | | |
| 92 | A | 10 26 05.01 | -57 46 37.1 | 7.5 | U | 17.0 | -0.1 | -0.91 | N | | | | | | |
| 92 | B | 10 26 03.44 | -57 46 28.4 | 11.5 | U | 15.7 | -0.2 | -1.43 | N | | | | | | |
| 92 | C | 10 26 02.54 | -57 46 29.8 | 15.2 | U | 17.9 | 1.0 | -0.55 | E | | | | | | |
| 92 | D | 10 26 06.18 | -57 46 37.2 | 16.8 | U | 14.7 | 1.4 | -1.83 | C | | | | | | |
| 92 | E | 10 26 04.83 | -57 46 22.4 | 17.2 | U | 11.9 | 1.2 | -2.95 | C | | | | | | |
| 92 | F | 10 26 03.34 | -57 46 57.2 | 19.6 | U | 12.6 | 1.9 | -2.67 | C | | | | | | |
| 93 | A | 10 26 09.98 | -57 56 59.6 | 10.0 | U | 17.8 | 1.2 | 0.01 | E | | | | | | |
| 93 | B | 10 26 10.77 | -57 56 45.4 | 10.8 | U | 17.8 | 1.5 | 0.01 | E | | | | | | |
| 93 | C | 10 26 11.18 | -57 56 43.9 | 11.9 | U | 17.7 | 2.0 | -0.03 | E | | | | | | |
| 93 | D | 10 26 12.08 | -57 57 05.4 | 12.2 | U | 17.1 | 1.2 | -0.27 | E | | | | | | |
| 93 | E | 10 26 12.60 | -57 56 45.8 | 15.3 | U | 15.0 | 1.5 | -1.11 | N | | | | | | |