**Table A1.** IR intensities in selected 27 locations. Colour coding is according to Fig. 1. See Sec. 2 for details of calculations.

| Location No | $l$ (degrees) | $b$ (degrees) | $I_{4.5\mu m}$ (MJy sr$^{-1}$) | $I_{5.8\mu m}$ (MJy sr$^{-1}$) | $I_{8\mu m}$ (MJy sr$^{-1}$) | $I_{24\mu m}$ (MJy sr$^{-1}$) | $I_{70\mu m}$ (MJy sr$^{-1}$) | $I_{100\mu m}$ (MJy sr$^{-1}$) | $I_{160\mu m}$ (MJy sr$^{-1}$) |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 144.2731 | 32.6844 | 0.0106 ± 0.0273 | 0.0330 ± 0.0158 | 0 ± 0.0141 | 0.0333 ± 0.0100 | 1.9079 ± 0.0742 | 0.2300 ± 0.526 | 3.5553 ± 0.3761 |
| 2 | 144.2898 | 32.6750 | 0.0069 ± 0.0075 | 0.0200 ± 0.0079 | 0 ± 0.0062 | 0.1092 ± 0.0121 | 5.2336 ± 0.4443 | 7.2000 ± 0.5544 | 3.8332 ± 0.4575 |
| 3 | 144.2512 | 32.6607 | 0.0055 ± 0.0015 | 0.0122 ± 0.0035 | 0 ± 0.0065 | 0.6279 ± 0.1453 | 7.7358 ± 1.2877 | 14.4400 ± 2.5546 | 1.6263 ± 0.5952 |
| 4 | 144.2952 | 32.7203 | 0.0114 ± 0.0016 | 0.0191 ± 0.0035 | 0 ± 0.0043 | 0.3012 ± 0.0467 | 5.9099 ± 0.1316 | 8.7800 ± 0.8157 | 3.7606 ± 0.1606 |
| 5 | 144.2699 | 32.6985 | 0.0098 ± 0.0068 | 0.0340 ± 0.0064 | 0 ± 0.0053 | 0.1225 ± 0.0153 | 4.5948 ± 0.4802 | 1.9600 ± 0.4780 | 4.5118 ± 0.3977 |
| 6 | 144.2882 | 32.6942 | 0.0112 ± 0.0038 | 0.0245 ± 0.0037 | 0 ± 0.0045 | 0.0694 ± 0.0077 | 1.8620 ± 0.1317 | 2.4400 ± 0.4311 | 2.8699 ± 0.0896 |
| 7 | 144.2960 | 32.6858 | 0.0053 ± 0.0023 | 0.0171 ± 0.0040 | 0 ± 0.0041 | 0.0376 ± 0.0119 | 2.3811 ± 0.1101 | 3.8800 ± 0.3801 | 3.0756 ± 0.2645 |
| 8 | 144.2816 | 32.6822 | 0.0183 ± 0.0218 | 0.0619 ± 0.0147 | 0.0393 ± 0.0217 | 0.3235 ± 0.0269 | 5.0719 ± 0.3350 | 10.6100 ± 0.4589 | 5.0871 ± 0.0997 |
| 11 | 144.2757 | 32.6922 | 0.0094 ± 0.0045 | 0.0361 ± 0.0043 | 0 ± 0.0040 | 0.1135 ± 0.0067 | 4.9482 ± 0.3170 | 4.1600 ± 0.7900 | 1.8229 ± 0.7535 |
| 12 | 144.2774 | 32.6973 | 0.0527 ± 0.0132 | 0.0809 ± 0.0320 | 0.1682 ± 0.0759 | 1.8455 ± 0.2469 | 14.7611 ± 1.0000 | 22.1000 ± 1.2138 | 5.3792 ± 0.3122 |
| 19 | 144.2630 | 32.6846 | 0.0103 ± 0.0077 | 0.0261 ± 0.0073 | 0 ± 0.0054 | 0.1034 ± 0.0222 | 1.9352 ± 0.1041 | 1.2400 ± 0.4014 | 3.6667 ± 0.4822 |
| 21 | 144.2754 | 32.7183 | 0.0115 ± 0.0082 | 0.0327 ± 0.0056 | 0 ± 0.0059 | 0.5014 ± 0.1046 | 9.3478 ± 0.7582 | 10.7500 ± 0.3933 | 5.1692 ± 0.1822 |
| 24 | 144.2618 | 32.7021 | 0.0150 ± 0.0328 | 0.0467 ± 0.0212 | 0 ± 0.0142 | 0.1520 ± 0.0269 | 3.0249 ± 0.2186 | 3.8500 ± 0.6202 | 3.1424 ± 0.8492 |
| 27 | 144.3054 | 32.6733 | 0.0004 ± 0.0608 | 0.0216 ± 0.0361 | 0 ± 0.0205 | 0.0246 ± 0.0077 | 1.6464 ± 0.0832 | 3.5500 ± 0.4701 | 1.9316 ± 0.1883 |
| 30 | 144.2863 | 32.7213 | 0.0204 ± 0.0054 | 0.0278 ± 0.0070 | 0 ± 0.0089 | 0.7002 ± 0.0429 | 8.0550 ± 0.3701 | 10.9100 ± 0.4139 | 2.9251 ± 0.2354 |
| 32 | 144.2768 | 32.6716 | 0.0075 ± 0.0048 | 0.0249 ± 0.0049 | 0 ± 0.0048 | 0.0328 ± 0.0076 | 1.7242 ± 0.2066 | 0.5300 ± 0.4317 | 2.0164 ± 0.3426 |
| 33 | 144.2595 | 32.6931 | 0.0089 ± 0.0061 | 0.0408 ± 0.0052 | 0 ± 0.0058 | 0.0184 ± 0.0074 | 1.4919 ± 0.1011 | 0.8100 ± 0.3886 | 1.9019 ± 0.1035 |
| 35 | 144.2949 | 32.6935 | 0.0074 ± 0.0039 | 0.0372 ± 0.0062 | 0 ± 0.0045 | 0.0258 ± 0.0092 | 1.2994 ± 0.2115 | 0.3400 ± 0.4879 | 2.8701 ± 0.4514 |
| 36 | 144.3222 | 32.6821 | 0.0053 ± 0.0047 | 0.0048 ± 0.0046 | 0 ± 0.0040 | 0.0269 ± 0.0070 | 0.3790 ± 0.1105 | 0.4800 ± 0.3691 | 0.9162 ± 0.2116 |
| 37 | 144.2812 | 32.7059 | 0.0283 ± 0.0248 | 0.0783 ± 0.0157 | 0.0355 ± 0.0161 | 0.4197 ± 0.0166 | 4.7531 ± 0.1707 | 8.4700 ± 0.6406 | 5.6591 ± 0.2748 |
| 41 | 144.2905 | 32.7123 | 0.0065 ± 0.0032 | 0.0361 ± 0.0038 | 0 ± 0.0043 | 0.1141 ± 0.0109 | 3.0536 ± 0.3157 | 2.2200 ± 0.3941 | 2.5669 ± 0.1019 |
| 42 | 144.2438 | 32.6674 | 0.0029 ± 0.0022 | 0.0021 ± 0.0040 | 0 ± 0.0049 | 0.0256 ± 0.0064 | 1.2904 ± 0.1688 | 0.4700 ± 0.3980 | 1.2432 ± 0.3501 |
| 44 | 144.2809 | 32.6760 | 0.0077 ± 0.0293 | 0.0298 ± 0.0188 | 0 ± 0.0131 | 0.2634 ± 0.0461 | 4.4406 ± 0.3565 | 6.1000 ± 0.7717 | 3.7378 ± 0.2591 |
| 46 | 144.2714 | 32.7231 | 0.0089 ± 0.0050 | 0.0255 ± 0.0110 | 0 ± 0.0166 | 1.5858 ± 0.5204 | 8.9976 ± 1.1983 | 7.2400 ± 1.3546 | 3.6638 ± 0.4835 |
| 47 | 144.2778 | 32.7236 | 0.0231 ± 0.0045 | 0.0313 ± 0.0060 | 0 ± 0.0053 | 0.7442 ± 0.0395 | 9.7106 ± 0.5049 | 14.3700 ± 0.7789 | 5.2882 ± 0.1123 |
| 49 | 144.2435 | 32.7246 | 0.0119 ± 0.0831 | 0.0426 ± 0.0484 | 0 ± 0.0268 | 0.2938 ± 0.0202 | 1.8468 ± 0.1020 | 2.6500 ± 0.3166 | 1.7170 ± 0.0706 |
| 50 | 144.2854 | 32.6877 | 0.0039 ± 0.0026 | 0.0221 ± 0.0039 | 0 ± 0.0039 | 0.0306 ± 0.0075 | 3.2687 ± 0.3817 | 2.9900 ± 0.4238 | 3.0087 ± 0.4635 |

## APPENDIX A: IR INTENSITIES AND ADDITIONAL DATA FOR SELECTED 27 LOCATIONS

**Table A2.** Additional insights to the selected locations.

| Location No. | Nearby HII regions | Star forming complex[a] | Distance to the closest HII region (arcsec)[b] | Age of HII regions (Myr)[c] |
|---|---|---|---|---|
| | Peak intensity at 100 $\mu$m | | | |
| 2 | HSK 10, 16, 20 | NW | 3.74 (HSK 20) | 3.5 - 6.3 |
| 3 | HSK 4, 6, 7 | | 1.80 (HSK 7) | 2.5 - 3.5, 4.5 - 6.3 |
| 4 | HSK 61, 65, 67 | SE | 2.52 (HSK 65) | 2.5 - 4.5 |
| 7 | HSK 26 | NW | 3.96 (HSK 7) | 3.5 - 4.5 |
| 21 | HSK 71, 73 | NE | 4.15 (HSK 73) | 2.5 - 3.5 |
| 24 | HSK 50, 52 | N | 5.77 (HSK 50) | 3.5 - 4.5 |
| 27 | HSK 13 | NW | 6.13 (HSK 13) | 2.5 - 3.5 |
| 44 | HSK 15, 17 | NW | 2.17 (HSK 15) | 3.5 - 6.3 |
| 30 | HSK 63, 64, 70 | SE | 0.60 (HSK 70) | 3.5 - 4.5 |
| 47 | HSK 73, 74 | NE | 2.88 (HSK 74) | 2.5 - 3.5 |
| 49 | HSK 80, 81, 82 | Ext NE | 2.52 (HSK 80) | 3.5 - 4.5 |
| | Peak intensity at 70 $\mu$m | | | |
| 5 | HSK 45 | N | 17.28 (HSK 45) | 3.7[d] |
| 6 | HSK 35 | N | 12.60 (HSK 35) | 4.5 - 6.3 |
| 41 | HSK 57, 58 | SE | 1.87 (HSK 58) | 3.5 - 4.5 |
| 42 | HSK 7 | | 17.31 (HSK 7) | 2.5 - 3.5 |
| 46 | HSK 71 | NE | 2.24 (HSK 71) | 3.5[d] |
| 50 | HSK 31 | NW | 12.24 (HSK 31) | 6.3[d] |
| | Voids $\left(\mathrm{N(HI)} < 1 \times 10^{21} \mathrm{cm}^{-2}\right)$ | | | |
| 1 | HSK 25, 31, 32 | NW | 9.11 (HSK 32) | 4.5 - 6.3 |
| 11 | HSK 31, 32, 35 | NW | 13.83 (HSK 31) | 4.5 - 6.3 |
| 19 | HSK 30 | NW | 0.73 (HSK 30) | 3.5 - 4.5 |
| 32 | HSK 10, 12 | NW | 20.16 (HSK 12) | 3.5 - 4.5 |
| 33 | HSK 47 | N | 13.38 (HSK 47) | 3.5 - 4.5 |
| 35 | HSK 35 | NW | 32.04 (HSK 35) | 4.5 - 6.3 |
| 36 | HSK 3, 5, 11 | Int. Shell | 26.28 (HSK 3) | 2.5 - 4.5 |
| | Peak intensity at 100 $\mu$m with 8 $\mu$m emission | | | |
| 8 | HSK 25 | NW | 5.76 (HSK 25) | 6.2[d] |
| 12 | HSK 39, 41, 45 | N | 4.43 (HSK 45) | 2.5 - 3.5 |
| 37 | HSK 49, 51 | N | 1.45 (HSK 49) | 4.5 - 6.3 |

[a] The star-forming complexes have been adopted from Egorov et al. (2017).
[b] The nearest HII region is indicated inside the parentheses.
[c] Estimated from Stewart et al. (2000).
[d] Taken from Wiebe et al. (2014).