

The 2022 AAVSO RR Lyrae Ephemeris

The AAVSO RR Lyrae Ephemeris provides the predicted time of maximum for RR Lyrae and Delta Sct type stars in the AAVSO RR Lyrae observing program. These times appear in Universal Time in the body of the ephemeris table. The time is rounded to the nearest half hour, providing sufficient accuracy to plan observing sessions while, hopefully, leaving sufficient doubt about the exact time in order to eliminate anticipatory bias. This ephemeris is designed for use by observers at American longitudes.

The top rows of the ephemeris table list the name of the star. Directly below the star's name are its approximate maximum and minimum magnitudes. These magnitudes are taken from the 4th edition of the GCVS and may be visual, photographic, or V.

Gerard Samolyk, AAVSO Short Period Pulsator Section

REFERENCE

Kholopov, P. N., *et al.* 1985, *General Catalogue of Variable Stars*, Fourth Edition, Moscow.

Below that, in the row labeled "RISE". This is the approximate time required for the star to rise from minimum to maximum, in hours.

CCD observations of RR Lyrae type stars at all phases of their lightcurves are encouraged. This ephemeris can be used as a guide to determine what portion of the lightcurve is observable on a given night.

The numbers in the left-most column are the "double date" - the evening and the following morning - for the event times listed in the corresponding row. For example, 5-6 corresponds to the evening of the 5th and the morning of the 6th of the month. January 0-1 is the evening of December 31 and the morning of January 1.

| | SW | XX | AT | SW | TZ | BH | RS | ST | SW | SZ | TV | TW | UU | UY | RW | TT | RR | XZ | DM | RW | XZ | RR | VX |
|-------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| | AND | AND | AND | AQR | AUR | AUR | BOO | BOO | BOO | BOO | BOO | BOO | BOO | BOO | CNC | CNC | CET | CYG | CYG | DRA | DRA | GEM | HER |
| MAX | 9.3 | 10.3 | 10.8 | 10.5 | 11.2 | 11.1 | 9.8 | 10.6 | 11.3 | 12.0 | 10.8 | 10.8 | 11.2 | 10.6 | 10.7 | 11.0 | 9.3 | 9.1 | 11.2 | 11.0 | 9.6 | 10.7 | 9.9 |
| MIN | 10.8 | 11.6 | 11.5 | 12.1 | 12.8 | 12.6 | 11.3 | 11.8 | 12.7 | 13.4 | 11.5 | 12.1 | 12.7 | 12.0 | 12.6 | 12.3 | 10.3 | 10.5 | 12.7 | 12.0 | 10.3 | 11.9 | 10.4 |
| RISE | 2 | 3 | 3 | 1 | 2 | 2 | 2 | 3 | 2 | 2 | 3 | 2 | 1 | 2 | 2 | 3 | 2 | 3 | 2 | 2 | 3 | 2 | 2 |
| 0- 1 | | 0.0 | 3.0 | | 3.5 | 10.0 | 8.5 | | 10.5 | 9.0 | | | | 10.5 | 6.5 | 5.0 | | 9.5 | 1.0 | 9.5 | 2.5 | 5.0 | 10.0 |
| 1- 2 | | | | | 8.0 | 7.5 | | 11.0 | 11.5 | 10.0 | | 6.5 | 10.5 | | 8.5 | 8.0 | | | | 7.0 | 1.0 | 0.5 | |
| 2- 3 | 4.0 | 4.5 | | | 2.5 | 5.5 | | | 12.0 | 11.5 | | 8.0 | 8.5 | 9.0 | 11.0 | 11.5 | | | | | 0.0 | 5.0 | |
| 3- 4 | 1.5 | | 5.5 | | 7.0 | 3.5 | 9.0 | 8.0 | | 12.5 | 6.5 | 9.5 | | | | | 1.0 | | | | 10.5 | 9.5 | |
| 4- 5 | | | | | 1.5 | 1.5 | | | | | | 11.0 | | 8.0 | 2.5 | 4.0 | 3.5 | 3.0 | | 9.5 | 9.0 | 4.5 | |
| 5- 6 | | 1.5 | 1.5 | 1.0 | 6.0 | 10.5 | | | | | | 12.5 | | | 4.5 | 7.0 | | 1.5 | 2.0 | 6.5 | 8.0 | 9.0 | 10.0 |
| 6- 7 | 3.5 | | | | 0.5 | 8.0 | | 10.5 | | | | | | 7.0 | 7.0 | 10.0 | | 11.0 | | | 7.0 | 4.0 | |
| 7- 8 | 1.0 | 5.5 | | | 5.0 | 6.0 | | | | | | | 9.0 | | 9.0 | 13.0 | | 9.5 | | 1.0 | 6.0 | 9.0 | |
| 8- 9 | | | 3.5 | | 9.0 | 4.0 | | 7.5 | | | 7.0 | | | | 11.5 | 2.5 | 0.5 | | 0.5 | 9.0 | 4.5 | 4.0 | |
| 9-10 | | | | | 4.0 | 2.0 | | | | | | 6.0 | | | | 5.5 | 3.0 | | | 6.0 | 3.5 | 8.5 | |
| 10-11 | 3.0 | 3.0 | 0.0 | | 8.0 | 10.5 | | | | 7.5 | | 7.5 | | | 3.0 | 8.5 | 5.5 | | 3.0 | | 2.5 | 3.5 | 10.5 |
| 11-12 | 0.5 | | 5.5 | 0.0 | 3.0 | 8.5 | 7.0 | 10.0 | | 8.5 | | 9.0 | | 12.0 | 5.0 | 11.5 | | 3.0 | | 0.5 | 1.5 | 8.0 | |
| 12-13 | | 7.0 | | | 7.0 | 6.5 | | | 6.0 | 9.5 | | 10.5 | 9.5 | | 7.5 | | | 1.5 | | 8.5 | 0.0 | 3.5 | |
| 13-14 | 5.5 | 0.5 | 2.0 | | 2.0 | 4.5 | | | 7.0 | 11.0 | 7.0 | 12.5 | 7.5 | 10.5 | 9.5 | 4.0 | | 11.0 | 1.5 | 6.0 | 10.5 | 8.0 | |
| 14-15 | 2.5 | | | | 6.0 | 2.0 | 7.5 | 13.0 | 7.5 | 12.0 | | | | | 12.0 | 7.0 | 2.5 | 9.5 | | | 9.5 | 3.0 | |
| 15-16 | | 4.5 | | | 1.0 | 0.0 | | | 8.0 | | | | | 9.5 | | 10.5 | 5.0 | | | 0.5 | 8.0 | 7.5 | 10.5 |
| 16-17 | | | 4.0 | | 5.0 | 9.0 | | 9.5 | 9.0 | | | | | | 3.5 | | | | | 8.5 | 7.0 | 2.5 | |
| 17-18 | 5.0 | | | | 9.5 | 7.0 | 8.0 | | 9.5 | | | | 10.0 | 8.5 | 5.5 | 3.0 | | | | | | 6.0 | 7.0 |
| 18-19 | 2.0 | 2.0 | 0.5 | | 4.0 | 5.0 | | | 10.0 | | 7.0 | 7.0 | 8.0 | | 8.0 | 6.0 | | 3.0 | 2.5 | | 5.0 | 2.5 | |
| 19-20 | | | | | 8.5 | 2.5 | | 12.5 | 11.0 | | | 9.0 | | 7.5 | 10.0 | 9.0 | 2.0 | 1.5 | | 0.0 | 3.5 | 7.0 | |
| 20-21 | | 6.0 | | | 3.0 | 0.5 | 8.5 | | 11.5 | | | 10.5 | | | 12.5 | 12.0 | 4.5 | 11.0 | | 8.0 | 2.5 | 2.0 | 11.0 |
| 21-22 | 4.5 | | 2.5 | | 7.5 | 9.5 | | 9.0 | 12.0 | 7.0 | | 12.0 | | | 1.5 | 1.5 | | 9.5 | 1.0 | | 1.5 | 6.5 | |
| 22-23 | 1.5 | | | 0.5 | 2.0 | 7.5 | | | 8.0 | | | | 11.0 | | 3.5 | 4.5 | | | | | 0.5 | 1.5 | |
| 23-24 | | 3.5 | | | 6.5 | 5.0 | 9.0 | | 9.0 | 7.0 | 7.0 | | 9.0 | | 6.0 | 7.5 | | | | 10.5 | 10.5 | 6.0 | |
| 24-25 | | | 4.5 | | 1.0 | 3.0 | | 12.0 | | 10.5 | | | | 12.5 | 8.5 | 10.5 | 1.5 | | | 7.5 | 9.5 | 1.5 | |
| 25-26 | 4.0 | 7.5 | | | 5.5 | 1.0 | | | 11.5 | | | | | 10.5 | | | 4.0 | 3.0 | | | 8.5 | 6.0 | |
| 26-27 | 1.0 | 0.5 | 1.0 | | 0.0 | 10.0 | | 8.5 | | 12.5 | | 7.0 | | 11.0 | 13.0 | 3.0 | | 1.5 | 1.5 | | 7.5 | 1.0 | |
| 27-28 | | | | | 4.5 | 7.5 | | | | | | 8.5 | | | 2.0 | 6.5 | | 11.0 | | 10.0 | 6.0 | 5.5 | |
| 28-29 | | 4.5 | | | 8.5 | 5.5 | | | | | 7.0 | 10.0 | 9.5 | 10.0 | 4.0 | 9.5 | | 9.5 | | 7.5 | 5.0 | 0.5 | |
| 29-30 | 3.5 | | 3.0 | | 3.5 | 3.5 | | 11.5 | | | | 11.5 | 7.5 | | 6.5 | 12.5 | 0.5 | | 0.5 | | 4.0 | 5.5 | |
| 30-31 | 1.0 | | | | 7.5 | 1.5 | | | | | | | | 9.0 | 8.5 | 2.0 | 3.5 | | | | 3.0 | 0.5 | |

| | AR | DL | DY | SZ | UU | DG | DH | RR | SS | TV | WW | SZ | RR | RZ | AV | RV |
|-------|------|------|------|------|------|------|------|------|------|------|------|-----|------|------|------|------|
| | HER | HER | HER | HYA | HYA | HYA | HYA | LEO | LEO | LEO | LEO | LYN | LYR | LYR | PEG | UMA |
| MAX | 10.6 | 11.0 | 10.2 | 10.6 | 10.7 | 11.6 | 11.4 | 10.0 | 10.5 | 11.5 | 11.0 | 9.1 | 7.1 | 10.0 | 9.9 | 10.1 |
| MIN | 11.6 | 12.4 | 10.6 | 11.7 | 12.3 | 12.6 | 12.6 | 11.7 | 12.0 | 12.6 | 12.0 | 9.6 | 8.1 | 12.0 | 10.9 | 11.2 |
| RISE | 2 | 1 | 1 | 2 | 2 | 3 | 2 | 2 | 2 | 2 | 3 | 1 | 2 | 2 | 2 | 3 |
| 0- 1 | | | | 8.5 | 8.5 | 3.5 | 7.5 | 8.5 | 5.5 | 6.0 | 12.5 | 5.5 | | | | 8.0 |
| 1- 2 | | | | 10.0 | 9.5 | | 7.0 | 6.5 | 11.5 | | 3.0 | 7.5 | | 10.5 | 2.0 | 6.5 |
| 2- 3 | | | | 12.0 | 11.0 | 9.5 | 6.5 | 4.0 | | 6.5 | 8.0 | 1.0 | | 11.0 | | 5.0 |
| 3- 4 | | 12.0 | | | 12.0 | 3.5 | 6.0 | | 9.0 | | 13.0 | 3.0 | | 11.5 | 1.0 | |
| 4- 5 | | | | | | | 5.5 | 10.5 | | 7.0 | 3.5 | 5.0 | | 12.0 | | |
| 5- 6 | 10.0 | | | 4.5 | | 10.0 | 5.0 | 8.0 | 6.0 | | 8.5 | 7.0 | | 0.5 | | |
| 6- 7 | 8.5 | 11.0 | | 6.0 | | 4.0 | 4.5 | 6.0 | 12.0 | 7.5 | | 0.5 | | | | 10.0 |
| 7- 8 | 7.0 | | | 8.0 | 4.0 | | 4.0 | 3.5 | | | 3.5 | 2.5 | 12.5 | | | 8.5 |
| 8- 9 | | | 10.0 | 9.5 | 5.0 | 10.5 | 3.5 | | 9.0 | 8.0 | 8.5 | 4.5 | | | 2.5 | 7.0 |
| 9-10 | | 10.0 | | 11.5 | 6.5 | 4.5 | | 10.0 | | | | 6.5 | | | | 5.5 |
| 10-11 | | | | | 7.5 | | | 7.5 | 6.0 | 8.0 | 4.0 | 0.0 | | | | 1.5 |
| 11-12 | | | | | 8.5 | 11.0 | | 5.0 | 12.0 | | 9.0 | 2.0 | 11.5 | | | 4.0 |
| 12-13 | 11.0 | | 10.0 | 4.0 | 9.5 | 5.0 | | 3.0 | | 8.5 | | 4.0 | 1.5 | | 0.5 | |
| 13-14 | 9.5 | | | 6.0 | 11.0 | | | | 9.5 | | 4.5 | 6.0 | | | | 10.5 |
| 14-15 | 8.5 | | | 7.5 | 12.0 | 11.0 | | 9.5 | | 9.0 | 9.5 | 8.0 | | | | 9.0 |
| 15-16 | 7.0 | | | 9.5 | | 5.5 | 11.5 | 7.0 | 6.5 | | | 1.5 | 11.0 | | | 7.5 |
| 16-17 | | 12.5 | 10.5 | 11.0 | | | 11.0 | 4.5 | 12.5 | 9.5 | 4.5 | 3.5 | 0.5 | | | 6.0 |
| 17-18 | | | | | | 11.5 | 10.0 | | | | 9.5 | 5.5 | | | 2.0 | 4.5 |
| 18-19 | | | | | 4.0 | 5.5 | 9.5 | | 9.5 | 10.0 | | 7.5 | | | | |
| 19-20 | | 11.5 | | 3.5 | 5.0 | | 9.0 | 8.5 | | | 5.0 | 1.0 | | | 1.0 | |
| 20-21 | 11.0 | | | 5.5 | 6.5 | 12.0 | 8.5 | 6.5 | 6.5 | 10.5 | 10.0 | 3.0 | | | | 11.0 |
| 21-22 | 9.5 | | | 7.0 | 7.5 | 6.0 | 8.0 | 4.0 | 12.5 | | | 5.0 | | | | 9.5 |
| 22-23 | 8.0 | 10.5 | | 9.0 | 8.5 | | 7.5 | | | 11.0 | 5.5 | 7.0 | | | | 8.0 |
| 23-24 | | | | 10.5 | 10.0 | 12.5 | 7.0 | 10.5 | 10.0 | | 10.5 | 0.5 | | | | 6.5 |
| 24-25 | | | | 12.5 | 11.0 | 6.5 | 6.5 | 8.0 | | 11.5 | | 2.5 | 12.5 | 10.5 | 3.0 | 5.0 |
| 25-26 | | | | | 12.0 | | 6.0 | 6.0 | 7.0 | | 6.0 | 4.5 | | 11.0 | | |
| 26-27 | | | | | | | 5.5 | 3.5 | | 12.0 | 10.5 | 6.5 | | 12.0 | 1.5 | |
| 27-28 | | | | 5.0 | | 7.0 | 5.0 | | | | | 8.5 | | 0.0 | | |
| 28-29 | 10.5 | | | 7.0 | | | 4.5 | 10.0 | 10.0 | 12.5 | 6.0 | 2.0 | 12.0 | | 0.5 | 10.0 |
| 29-30 | 9.0 | | | 8.5 | 4.0 | | 4.0 | 7.5 | | | 11.0 | 4.0 | 1.5 | | | 8.5 |
| 30-31 | 8.0 | | | 10.5 | 5.0 | 7.5 | 3.5 | 5.5 | 7.0 | 12.5 | | 6.0 | | | | 7.0 |

| | SW | XX | AT | TZ | BH | RS | ST | SW | SZ | TV | TW | UU | UY | RW | TT | RR | XZ | DM | RW | XZ | RR | TW | VX |
|-------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| | AND | AND | AND | AUR | AUR | BOO | BOO | BOO | BOO | BOO | BOO | BOO | BOO | CNC | CNC | CET | CYG | CYG | DRA | DRA | GEM | HER | HER |
| MAX | 9.3 | 10.3 | 10.8 | 11.2 | 11.1 | 9.8 | 10.6 | 11.3 | 12.0 | 10.8 | 10.8 | 11.2 | 10.6 | 10.7 | 11.0 | 9.3 | 9.1 | 11.2 | 11.0 | 9.6 | 10.7 | 10.5 | 9.9 |
| MIN | 10.8 | 11.6 | 11.5 | 12.8 | 12.6 | 11.3 | 11.8 | 12.7 | 13.4 | 11.5 | 12.1 | 12.7 | 12.0 | 12.6 | 12.3 | 10.3 | 10.5 | 12.7 | 12.0 | 10.3 | 11.9 | 11.8 | 10.4 |
| RISE | 2 | 3 | 3 | 2 | 2 | 2 | 3 | 2 | 2 | 3 | 2 | 1 | 2 | 2 | 3 | 2 | 3 | 2 | 2 | 3 | 2 | 2 | 2 |
| 0- 1 | | 2.0 | | 2.5 | | 7.0 | 8.0 | 6.5 | 5.5 | | | | | 11.0 | 5.0 | | | | 9.5 | 1.5 | 5.0 | | 9.0 |
| 1- 2 | | | | 6.5 | 8.0 | | | 7.0 | 6.5 | | | | 7.5 | 0.0 | 8.0 | | | | 7.0 | 0.5 | 0.0 | | |
| 2- 3 | 3.0 | | | 1.5 | 6.0 | | | 7.5 | 7.5 | 7.0 | 5.0 | 10.0 | | 2.5 | 11.0 | | 1.5 | | 4.0 | 11.0 | 4.5 | | |
| 3- 4 | 0.5 | | 1.5 | 5.5 | 4.0 | 7.5 | 11.0 | 8.0 | 8.5 | 5.5 | 6.5 | 8.0 | 6.5 | 4.5 | 0.5 | 0.0 | 11.0 | | | 9.5 | 9.0 | | |
| 4- 5 | | | | 0.5 | 2.0 | | | 9.0 | 10.0 | 4.0 | 8.0 | 6.0 | | 7.0 | 3.5 | 2.5 | 9.5 | | 9.5 | 8.5 | 4.5 | | |
| 5- 6 | | 3.5 | 13.0 | 4.5 | | | 7.5 | 9.5 | 11.0 | | 9.5 | | 5.5 | 9.0 | 6.5 | | 8.0 | | 6.5 | 7.5 | 9.0 | | 9.5 |
| 6- 7 | 2.5 | | 3.5 | 8.5 | 8.5 | 8.0 | | 10.0 | 12.0 | | 11.0 | | 12.5 | 11.5 | 9.5 | | | | 4.0 | 6.5 | 4.0 | | |
| 7- 8 | | | | 3.5 | 6.5 | | | 11.0 | | 7.0 | 12.5 | 10.5 | | 0.5 | | | | | | | 5.0 | 8.5 | |
| 8- 9 | | 1.0 | 0.0 | 7.5 | 4.5 | 5.0 | 10.5 | 11.5 | | 5.5 | | 8.5 | 11.5 | 3.0 | 2.5 | | | | 9.0 | 4.0 | 3.5 | | |
| 9-10 | | | | 2.5 | 2.0 | 8.5 | | 12.0 | | 4.0 | | 6.5 | | 5.0 | 5.5 | 2.0 | 1.5 | | 6.5 | 3.0 | 8.0 | | |
| 10-11 | 2.0 | 5.0 | | 6.5 | 0.0 | | 7.0 | | | | 4.5 | | 10.5 | 7.5 | 8.5 | | 11.0 | | 3.5 | 2.0 | 3.5 | | 9.5 |
| 11-12 | | | 2.0 | 1.5 | | 5.5 | 13.0 | | 5.0 | | 6.0 | | | 9.5 | | | 9.5 | 0.5 | | 0.5 | 8.0 | | 7.5 |
| 12-13 | | | | 5.5 | 7.0 | 9.0 | | | 6.0 | 7.0 | 7.5 | | 9.0 | 12.0 | 1.0 | | 8.0 | | 8.5 | 11.0 | 3.0 | | |
| 13-14 | | 2.5 | | 0.5 | 4.5 | | 9.5 | | 7.0 | 5.5 | 9.0 | 9.0 | | 1.0 | 4.0 | | | | 6.0 | 10.0 | 7.5 | | |
| 14-15 | 1.5 | | 4.0 | 4.5 | 2.5 | 6.0 | | | 8.0 | 4.0 | 10.5 | 7.0 | 8.0 | 3.5 | 7.0 | 1.5 | | | | 8.5 | 2.5 | | |
| 15-16 | | | | 9.0 | 0.5 | | 6.5 | | 9.5 | | 12.5 | 5.0 | | 5.5 | 10.0 | | | | | | 7.5 | 7.5 | 9.5 |
| 16-17 | | | 0.5 | 3.5 | | | 12.5 | 4.5 | 10.5 | | | | 7.0 | 8.0 | | | 1.5 | | 8.5 | 6.5 | 2.5 | | 7.5 |
| 17-18 | | | | 8.0 | 7.0 | 6.5 | | 5.0 | 11.5 | 7.0 | | | | 10.0 | 2.5 | | 11.0 | | 5.5 | 5.5 | 7.0 | | |
| 18-19 | 1.0 | 4.0 | | 2.5 | 5.0 | | 9.0 | 5.5 | | 5.5 | 4.0 | 10.0 | 6.0 | 12.5 | 5.5 | | 9.5 | | | 4.0 | 2.0 | | |
| 19-20 | | | 2.5 | 7.0 | 3.0 | | | 6.5 | | 4.0 | 5.5 | 8.0 | | 1.5 | 8.5 | 1.0 | 7.5 | 0.0 | | 3.0 | 6.5 | | |
| 20-21 | | | | 2.0 | 1.0 | 7.0 | 6.0 | 7.0 | | | 7.0 | 5.5 | | 4.0 | | | | | 8.0 | 2.0 | 1.5 | 9.5 | 10.0 |
| 21-22 | 3.5 | 1.0 | | 6.0 | | | 12.0 | 7.5 | | | 9.0 | | 12.0 | 6.0 | 1.5 | | | | 5.5 | 1.0 | 6.5 | | 8.0 |
| 22-23 | 0.5 | | | 1.0 | 7.5 | | | 8.0 | | 7.0 | 10.5 | | | 8.5 | 4.5 | | | | | 11.0 | 1.5 | 9.5 | |
| 23-24 | | 5.0 | | 5.0 | 5.5 | 7.5 | 8.5 | 9.0 | 5.5 | 5.5 | 12.0 | 10.5 | 10.5 | 10.5 | 7.5 | | 1.5 | | 10.5 | 10.0 | 6.0 | | |
| 24-25 | | | 1.0 | 9.0 | 3.5 | | | 9.5 | 6.5 | 4.0 | | 8.5 | | 10.5 | 0.5 | 11.0 | | | 8.0 | 9.0 | 1.0 | 9.5 | |
| 25-26 | 3.0 | | | 4.0 | 1.5 | | 5.5 | 10.0 | 7.5 | | | 6.5 | 9.5 | 2.0 | | 3.0 | 9.5 | | 5.0 | 8.0 | 5.5 | | 10.0 |
| 26-27 | 0.0 | 2.5 | | 8.0 | | 8.0 | 11.5 | 11.0 | 9.0 | | | | | 4.0 | 3.0 | | 7.5 | | | 6.5 | 0.5 | 9.5 | 8.0 |
| 27-28 | | | 3.0 | 3.0 | 8.0 | | | 11.5 | 10.0 | 7.0 | 5.5 | | 8.5 | 6.5 | 6.0 | | | | 10.0 | 5.5 | 5.5 | | |

| | AR | DL | DY | SZ | UU | DG | DH | RR | SS | TV | WW | SZ | RR | RZ | AV | RV |
|-------|------|------|------|------|------|------|------|------|------|------|------|-----|------|------|------|------|
| | HER | HER | HER | HYA | HYA | HYA | HYA | LEO | LEO | LEO | LEO | LYN | LYR | LYR | PEG | UMA |
| MAX | 10.6 | 11.0 | 10.2 | 10.6 | 10.7 | 11.6 | 11.4 | 10.0 | 10.5 | 11.5 | 11.0 | 9.1 | 7.1 | 10.0 | 9.9 | 10.1 |
| MIN | 11.6 | 12.4 | 10.6 | 11.7 | 12.3 | 12.6 | 12.6 | 11.7 | 12.0 | 12.6 | 12.0 | 9.6 | 8.1 | 12.0 | 10.9 | 11.2 |
| RISE | 2 | 1 | 1 | 2 | 2 | 3 | 2 | 2 | 2 | 2 | 3 | 1 | 2 | 2 | 2 | 3 |
| | | | | | | | | | | | | | | | | |
| 0- 1 | 6.5 | | | | 6.5 | 1.5 | 3.0 | 3.0 | | 5.0 | 6.5 | 8.0 | | | | 5.5 |
| 1- 2 | 5.0 | 12.0 | | | 7.5 | | 2.5 | 0.5 | 4.5 | | 11.5 | 1.5 | 11.0 | | | 4.0 |
| 2- 3 | | | 9.0 | 3.0 | 8.5 | 8.0 | 2.0 | 9.5 | 10.5 | 5.5 | 2.0 | 3.5 | | | | 2.0 |
| 3- 4 | | | | 4.5 | 10.0 | 2.0 | 1.5 | 7.0 | | | 7.0 | 5.5 | | | | |
| 4- 5 | | 11.0 | | 6.5 | 11.0 | | | 4.5 | 7.5 | 5.5 | | 7.5 | | | | 10.5 |
| 5- 6 | 10.5 | | | 8.0 | | 8.0 | | 2.5 | | | 2.0 | 1.0 | 10.0 | | | 9.0 |
| 6- 7 | 9.0 | | 9.5 | 10.0 | | 2.5 | | | 4.5 | 6.0 | 7.0 | 3.0 | | | | 7.5 |
| 7- 8 | 7.5 | 10.0 | | | 2.0 | | | 8.5 | 10.5 | | | 5.0 | | | | 6.0 |
| 8- 9 | 6.0 | | | | 3.0 | 8.5 | | 6.5 | | 6.5 | 2.5 | 7.0 | | | | 4.5 |
| 9-10 | 4.5 | | | 2.5 | 4.0 | 2.5 | 10.0 | 4.0 | 7.5 | | 7.5 | 0.5 | 9.5 | | | 3.0 |
| 10-11 | | 9.0 | 9.5 | 4.0 | 5.5 | | 9.5 | 2.0 | | 7.0 | | 2.5 | 12.5 | | | |
| 11-12 | | | | 6.0 | 6.5 | 9.0 | 9.0 | 10.5 | 5.0 | | 3.0 | 4.5 | | | | 11.0 |
| 12-13 | | | | 8.0 | 7.5 | 3.0 | 8.5 | 8.0 | 11.0 | 7.5 | 8.0 | 6.5 | | 8.5 | | 9.5 |
| 13-14 | 10.0 | | | 9.5 | 8.5 | | 7.5 | 6.0 | | | | 8.5 | 8.5 | 9.0 | 0.5 | 8.0 |
| 14-15 | 9.0 | 12.5 | 10.0 | | 10.0 | 9.5 | 7.0 | 3.5 | 8.0 | 8.0 | 3.0 | 2.0 | 12.0 | 9.5 | | 6.5 |
| 15-16 | 7.5 | | | | 11.0 | 3.5 | 6.5 | 1.5 | | | 8.0 | 4.0 | | 10.5 | | 5.0 |
| 16-17 | 6.0 | | | 2.0 | | | 6.0 | 10.0 | 5.0 | 8.5 | | 6.0 | | 11.0 | | 3.5 |
| 17-18 | | 11.5 | | 4.0 | | 10.0 | 5.5 | 7.5 | 11.0 | | 3.5 | 8.0 | | 11.5 | | 1.5 |
| 18-19 | | | 10.5 | 5.5 | 2.0 | 4.0 | 5.0 | 5.5 | | 9.0 | 8.5 | 1.5 | 11.0 | 12.0 | | |
| 19-20 | | | 7.5 | 7.5 | 3.0 | | 4.5 | 3.0 | 8.0 | | | 3.5 | | | | 10.0 |
| 20-21 | | 10.5 | | 9.0 | 4.0 | 10.0 | 4.0 | 0.5 | | 9.5 | 4.0 | 5.5 | | | | 8.5 |
| 21-22 | 10.0 | | | | 5.5 | 4.5 | 3.5 | 9.5 | 5.5 | | 9.0 | 7.5 | | | | 7.0 |
| 22-23 | 8.5 | | 10.5 | | 6.5 | | 3.0 | 7.0 | 11.5 | 10.0 | | 1.0 | 10.5 | | 0.0 | 5.5 |
| 23-24 | 7.0 | 9.5 | 8.0 | 1.5 | 7.5 | | 2.5 | 4.5 | | | 4.0 | 3.0 | | | | 4.0 |
| 24-25 | 5.5 | | | 3.5 | 8.5 | 4.5 | 2.0 | 2.5 | 8.5 | 10.0 | 9.0 | 5.0 | | | | 2.0 |
| 25-26 | | | | 5.0 | 10.0 | | 1.5 | | | | | 7.0 | | | | |
| 26-27 | | 8.5 | | 7.0 | 11.0 | | | 8.5 | 5.5 | 10.5 | 4.5 | 0.0 | 9.5 | | | 10.5 |
| 27-28 | | 13.0 | 8.5 | 9.0 | | 5.0 | | 6.5 | 11.5 | | 9.5 | 2.5 | 12.5 | | | 9.0 |

| | SW | XX | AT | TZ | BH | RS | ST | SW | SZ | TV | TW | UU | UY | RW | TT | RR | XZ | DM | RW | XZ | RR | TW | VX |
|-------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| | AND | AND | AND | AUR | AUR | BOO | BOO | BOO | BOO | BOO | BOO | BOO | BOO | CNC | CNC | CET | CYG | CYG | DRA | DRA | GEM | HER | HER |
| MAX | 9.3 | 10.3 | 10.8 | 11.2 | 11.1 | 9.8 | 10.6 | 11.3 | 12.0 | 10.8 | 10.8 | 11.2 | 10.6 | 10.7 | 11.0 | 9.3 | 9.1 | 11.2 | 11.0 | 9.6 | 10.7 | 10.5 | 9.9 |
| MIN | 10.8 | 11.6 | 11.5 | 12.8 | 12.6 | 11.3 | 11.8 | 12.7 | 13.4 | 11.5 | 12.1 | 12.7 | 12.0 | 12.6 | 12.3 | 10.3 | 10.5 | 12.7 | 12.0 | 10.3 | 11.9 | 11.8 | 10.4 |
| RISE | 2 | 3 | 3 | 2 | 2 | 2 | 3 | 2 | 2 | 3 | 2 | 1 | 2 | 2 | 3 | 2 | 3 | 2 | 2 | 3 | 2 | 2 | 2 |
| 0- 1 | | | | 7.0 | 6.0 | 5.0 | 8.0 | 12.0 | 11.0 | 5.5 | 7.0 | | | 9.0 | 9.0 | | | | 7.5 | 4.5 | | 9.5 | |
| 1- 2 | | | | 2.0 | 4.0 | 8.5 | | | 12.0 | 4.0 | 8.5 | 9.0 | 7.5 | | | | | | 4.5 | 3.0 | 5.0 | | |
| 2- 3 | | | | 6.0 | 1.5 | | 5.0 | | | 2.5 | 10.0 | 7.0 | | | 1.5 | | | | 2.0 | 2.0 | | 9.5 | 10.5 |
| 3- 4 | | | | 1.0 | | 5.5 | 11.0 | | | | 11.5 | 5.0 | 6.0 | 2.5 | 4.5 | | 11.0 | | 10.0 | 1.0 | 4.5 | | 8.0 |
| 4- 5 | | | 1.5 | 5.0 | | 9.0 | | 2.5 | | 7.0 | | | | 4.5 | 7.5 | | 9.5 | | 7.0 | 11.5 | | 9.5 | 6.0 |
| 5- 6 | | | | 9.5 | 6.5 | | 7.5 | 3.0 | 4.0 | 5.5 | | | 5.0 | 7.0 | | | 7.5 | | 4.5 | 10.0 | 4.5 | | |
| 6- 7 | | 1.5 | | 4.0 | 4.0 | 6.0 | | 3.5 | 5.0 | 4.0 | 3.5 | 9.5 | 12.5 | 9.0 | | | 6.0 | | | 9.0 | 9.0 | 9.0 | |
| 7- 8 | | | | 8.5 | 2.0 | | 4.5 | 4.5 | 6.0 | 2.5 | 5.0 | 7.5 | 4.0 | | 3.5 | | | | 9.5 | 8.0 | 4.0 | | 10.5 |
| 8- 9 | | | | 3.0 | | 3.5 | 10.5 | 5.0 | 7.0 | | 6.5 | 5.5 | 11.0 | 0.5 | 6.5 | | | | 7.0 | 7.0 | 8.5 | 9.0 | 8.5 |
| 9-10 | 1.5 | | | 7.5 | | 6.5 | | 5.5 | 8.5 | 7.0 | 8.0 | 3.5 | | 3.0 | | | | | 4.0 | 5.5 | 3.5 | | 6.5 |
| 10-11 | | | | 2.0 | 6.5 | | 7.0 | 6.5 | 9.5 | 5.5 | 9.5 | | 10.0 | 5.0 | | | 11.0 | | | 4.5 | 8.5 | 9.0 | |
| 11-12 | | 3.0 | 11.0 | 6.5 | 4.5 | 4.0 | | 7.0 | 10.5 | 4.0 | 11.0 | 10.5 | | 7.5 | 2.0 | | 9.5 | | 9.0 | 3.5 | 3.5 | | |
| 12-13 | | | 2.0 | 1.0 | 2.5 | 7.0 | 4.0 | 7.5 | 11.5 | 2.5 | | 8.0 | 9.0 | 9.5 | 5.0 | 1.5 | 7.5 | 10.0 | 6.5 | 2.5 | 8.0 | 9.0 | 11.0 |
| 13-14 | 1.0 | | | 5.5 | | | 10.0 | 8.5 | | | | 6.0 | | | 8.0 | | 6.0 | | 3.5 | 1.0 | 3.0 | | 8.5 |
| 14-15 | | | | | | 4.0 | | 9.0 | | 7.0 | 3.0 | 4.0 | 7.5 | 1.0 | | | | | | | 7.5 | 9.0 | 6.5 |
| 15-16 | | | | 4.5 | | 7.5 | 6.5 | 9.5 | | 5.5 | 4.5 | | | 3.5 | 0.5 | | | | 9.0 | 10.5 | 2.5 | | |
| 16-17 | | | | 8.5 | 5.0 | | 12.5 | 10.0 | 3.5 | 4.0 | 6.0 | 11.0 | 6.5 | 5.5 | 3.5 | | | | 6.0 | 9.0 | 7.5 | 9.0 | |
| 17-18 | 0.5 | | | 3.5 | 3.0 | 4.5 | 3.5 | 11.0 | 4.5 | 2.5 | 7.5 | 9.0 | | 8.0 | 7.0 | 1.0 | 11.0 | | 3.5 | 8.0 | 2.5 | | |
| 18-19 | | | | 7.5 | 1.0 | 8.0 | 9.5 | 11.5 | 5.5 | | 9.0 | 7.0 | 5.5 | 10.0 | | | 9.5 | | | 7.0 | 7.0 | 9.0 | 9.0 |
| 19-20 | | 1.5 | 11.5 | 2.5 | | | | 12.0 | 6.5 | 7.0 | 10.5 | 4.5 | | | | | 7.5 | | 8.5 | 6.0 | 2.0 | | 6.5 |
| 20-21 | | | | 6.5 | | 5.0 | 6.0 | | 8.0 | 5.5 | 12.5 | | 4.5 | 1.5 | 2.5 | | 6.0 | 9.5 | 6.0 | 4.5 | 6.5 | 9.0 | |
| 21-22 | | | | 1.5 | 5.5 | 8.5 | 12.0 | | 9.0 | 4.0 | | | 11.5 | 4.0 | 5.5 | | | | 3.0 | 3.5 | 1.5 | | |
| 22-23 | | | | 5.5 | 3.5 | | | 10.0 | 2.5 | 2.5 | 9.5 | 3.0 | 6.0 | 8.5 | | | | | | 2.5 | 6.5 | 9.0 | |
| 23-24 | | | | | 1.0 | 5.5 | 9.0 | 2.5 | 11.0 | | 4.0 | 7.5 | 10.5 | 8.5 | | | | | 8.0 | 1.5 | 1.5 | | 9.0 |
| 24-25 | | 3.0 | | 4.5 | | 8.5 | | 3.0 | 12.0 | 7.0 | 5.5 | 5.5 | | 10.5 | 1.0 | | 11.0 | | 5.5 | | 6.0 | 9.0 | 7.0 |
| 25-26 | | | 1.0 | 9.0 | | | 5.5 | 4.0 | | 5.5 | 7.0 | 3.5 | 9.0 | | 4.0 | | 9.0 | | 2.5 | 10.5 | 1.0 | | |
| 26-27 | | | | 3.5 | 6.0 | 6.0 | 11.5 | 4.5 | | 4.0 | 9.0 | | | 2.0 | 7.0 | | 7.5 | | 10.5 | 9.5 | 5.5 | 9.0 | |
| 27-28 | | | 12.0 | 8.0 | 3.5 | | | 5.0 | | 2.5 | 10.5 | 10.0 | 8.0 | 4.5 | | | 6.0 | | 8.0 | 8.0 | 0.5 | | |
| 28-29 | | | | 2.5 | 1.5 | 3.5 | 8.5 | 5.5 | 4.0 | | 12.0 | 8.0 | | 6.5 | | | | | 5.0 | 7.0 | 5.5 | 8.5 | 9.5 |
| 29-30 | | | | 7.0 | | 6.5 | | 6.5 | 5.0 | 7.0 | | 6.0 | 7.0 | 9.0 | 2.5 | | | | 2.5 | 6.0 | | | 7.0 |
| 30-31 | | | | 1.5 | | | 5.0 | 7.0 | 6.0 | 5.5 | 2.0 | 4.0 | | | 6.0 | | | | 10.5 | 5.0 | 5.0 | 8.5 | |

| | AR | DL | DY | SZ | UU | DG | DH | RR | SS | TV | WW | SZ | RR | RZ | RV |
|-------|------|------|------|------|------|------|------|------|------|------|------|-----|------|------|------|
| | HER | HER | HER | HYA | HYA | HYA | HYA | LEO | LEO | LEO | LEO | LYN | LYR | LYR | UMA |
| MAX | 10.6 | 11.0 | 10.2 | 10.6 | 10.7 | 11.6 | 11.4 | 10.0 | 10.5 | 11.5 | 11.0 | 9.1 | 7.1 | 10.0 | 10.1 |
| MIN | 11.6 | 12.4 | 10.6 | 11.7 | 12.3 | 12.6 | 12.6 | 11.7 | 12.0 | 12.6 | 12.0 | 9.6 | 8.1 | 12.0 | 11.2 |
| RISE | 2 | 1 | 1 | 2 | 2 | 3 | 2 | 2 | 2 | 2 | 3 | 1 | 2 | 2 | 3 |
| | | | | | | | | | | | | | | | |
| 0- 1 | 11.0 | | 5.5 | | 0.5 | | | 4.0 | 2.5 | | | 4.5 | | | 7.5 |
| 1- 2 | 9.5 | 7.5 | | | 2.0 | | | 2.0 | 8.5 | 3.0 | 5.0 | 6.5 | | | 6.0 |
| 2- 3 | 8.5 | 12.0 | | 1.5 | 3.0 | 5.5 | | 10.5 | | | 10.0 | 8.5 | 8.5 | | 4.5 |
| 3- 4 | 7.0 | | 8.5 | 3.0 | 4.0 | | | 8.0 | 6.0 | 3.5 | | 1.5 | 12.0 | | 2.5 |
| 4- 5 | 5.5 | 6.5 | 6.0 | 5.0 | 5.5 | | | 6.0 | | | 5.5 | 4.0 | | 7.0 | 1.0 |
| 5- 6 | 4.0 | 11.0 | | 6.5 | 6.5 | 6.0 | | 3.5 | 3.0 | 4.0 | | 6.0 | | 7.5 | 11.0 |
| 6- 7 | | | | 8.5 | 7.5 | | 8.5 | 1.5 | 9.0 | | 0.5 | 8.0 | 8.0 | 8.0 | 9.5 |
| 7- 8 | | | 9.0 | | 8.5 | | 8.0 | 10.0 | | 4.5 | 5.5 | 1.0 | 11.0 | 9.0 | 8.0 |
| 8- 9 | 11.0 | 10.0 | 6.5 | | | 6.5 | 7.5 | 7.5 | 6.0 | | | 3.0 | | 9.5 | 6.5 |
| 9-10 | 9.5 | | | 1.0 | | 0.5 | 7.0 | 5.5 | | 5.0 | 1.0 | 5.5 | | 10.0 | 5.0 |
| 10-11 | 8.0 | | | 2.5 | | | 6.5 | 3.0 | 3.0 | | 6.0 | 7.5 | 7.0 | 10.5 | 3.0 |
| 11-12 | 6.5 | 9.0 | 9.5 | 4.5 | 1.0 | 7.0 | 5.5 | 0.5 | 9.5 | 5.5 | | 0.5 | 10.5 | 11.0 | 1.5 |
| 12-13 | 5.0 | | 6.5 | 6.5 | 2.0 | 1.0 | 5.0 | 9.5 | | | 1.5 | 2.5 | | 11.5 | |
| 13-14 | 3.5 | | | 8.0 | 3.0 | | 4.5 | 7.0 | 6.5 | 6.0 | 6.5 | 4.5 | | 12.0 | 10.0 |
| 14-15 | | 8.0 | | | 4.0 | 7.0 | 4.0 | 5.0 | | | | 7.0 | | | 8.5 |
| 15-16 | | 12.0 | 9.5 | | 5.5 | 1.5 | 3.5 | 2.5 | 3.5 | 6.5 | 1.5 | | 9.5 | | 7.0 |
| 16-17 | 10.5 | | 7.0 | 0.5 | 6.5 | | 3.0 | | 9.5 | | 6.5 | 2.0 | | | 5.5 |
| 17-18 | 9.0 | 6.5 | | 2.5 | 7.5 | 7.5 | 2.5 | 9.0 | | 7.0 | | 4.0 | | | 3.5 |
| 18-19 | 8.0 | 11.0 | | 4.0 | 9.0 | 1.5 | 2.0 | 6.5 | 6.5 | | 2.0 | 6.0 | | | 2.0 |
| 19-20 | 6.5 | | 10.0 | 6.0 | | | 1.5 | 4.0 | | 7.0 | 7.0 | 8.5 | 9.0 | | 0.5 |
| 20-21 | 5.0 | | 7.5 | 7.5 | | 8.0 | 1.0 | 2.0 | 3.5 | | | 1.5 | 12.0 | | 10.5 |
| 21-22 | 3.5 | 10.0 | | | | 2.0 | 0.5 | 10.5 | 10.0 | 7.5 | 2.5 | 3.5 | | | 9.0 |
| 22-23 | | | | | 1.0 | | | 8.0 | | | 7.5 | 5.5 | | | 7.5 |
| 23-24 | | | 10.0 | | 2.0 | 8.5 | | 6.0 | 7.0 | 8.0 | | 7.5 | 8.0 | | 6.0 |
| 24-25 | 10.5 | 9.0 | 7.5 | 2.0 | 3.0 | 2.5 | | 3.5 | | | 2.5 | 1.0 | 11.0 | | 4.0 |
| 25-26 | 9.0 | | | 3.5 | 4.0 | | | 1.5 | 4.0 | 8.5 | 7.5 | 3.0 | | | 2.5 |
| 26-27 | 7.5 | | | 5.5 | 5.5 | | | 10.0 | 10.0 | | | 5.0 | | 7.0 | 1.0 |
| 27-28 | 6.0 | 8.0 | 10.5 | 7.5 | 6.5 | 3.0 | | 7.5 | | 9.0 | 3.0 | 7.0 | 7.5 | 7.5 | 11.0 |
| 28-29 | 4.5 | 12.5 | 8.0 | | 7.5 | | | 5.5 | 7.0 | | 8.0 | 0.5 | 10.5 | 8.0 | 9.5 |
| 29-30 | 3.0 | | | | 9.0 | | 8.0 | 3.0 | | 9.5 | | 2.5 | | 8.5 | 8.0 |
| 30-31 | | 7.0 | | | | 3.5 | 7.5 | 1.0 | 4.0 | 1.5 | 3.5 | 4.5 | | 9.0 | 6.5 |

| | XX | AT | SW | TZ | BH | RS | ST | SW | SZ | TV | TW | UU | UY | RW | TT | XZ | DM | RW | XZ | RR | TW | VX | AR |
|-------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| | AND | AND | AQR | AUR | AUR | BOO | BOO | BOO | BOO | BOO | BOO | BOO | BOO | CNC | CNC | CYG | CYG | DRA | DRA | GEM | HER | HER | HER |
| MAX | 10.3 | 10.8 | 10.5 | 11.2 | 11.1 | 9.8 | 10.6 | 11.3 | 12.0 | 10.8 | 10.8 | 11.2 | 10.6 | 10.7 | 11.0 | 9.1 | 11.2 | 11.0 | 9.6 | 10.7 | 10.5 | 9.9 | 10.6 |
| MIN | 11.6 | 11.5 | 12.1 | 12.8 | 12.6 | 11.3 | 11.8 | 12.7 | 13.4 | 11.5 | 12.1 | 12.7 | 12.0 | 12.6 | 12.3 | 10.5 | 12.7 | 12.0 | 10.3 | 11.9 | 11.8 | 10.4 | 11.6 |
| RISE | 3 | 3 | 1 | 2 | 2 | 2 | 3 | 2 | 2 | 3 | 2 | 1 | 2 | 2 | 3 | 3 | 2 | 2 | 3 | 2 | 2 | 2 | 2 |
| 0- 1 | | | | 6.0 | | 3.5 | 11.0 | 7.5 | 7.5 | 4.0 | 4.0 | 2.0 | 6.0 | | | 11.0 | 7.5 | 7.5 | 3.5 | | | | |
| 1- 2 | | 10.5 | 9.0 | | 4.0 | 7.0 | 2.0 | 8.5 | 8.5 | 2.5 | 5.5 | 11.0 | | 2.5 | | 9.0 | | 5.0 | 2.5 | 4.5 | 8.5 | | 10.0 |
| 2- 3 | | | | 5.0 | 2.0 | 1.0 | 7.5 | 9.0 | 9.5 | 1.0 | 7.0 | 8.5 | 4.5 | 4.5 | 1.5 | 7.5 | 10.0 | 2.0 | 1.5 | | | 9.5 | 8.5 |
| 3- 4 | | | | | | 4.0 | | 9.5 | 10.5 | 7.0 | 8.5 | 6.5 | | 7.0 | 4.5 | 6.0 | | 10.0 | | 4.5 | 8.5 | 7.5 | 7.5 |
| 4- 5 | | | | 4.0 | | 7.5 | 4.5 | 10.5 | 11.5 | 5.5 | 10.0 | 4.5 | 3.5 | | | 4.5 | | 7.0 | 10.5 | | | 5.0 | 6.0 |
| 5- 6 | | | | | | 1.5 | 10.5 | 11.0 | | 4.0 | 11.5 | 2.5 | 10.5 | | | | 8.5 | 4.5 | 9.5 | 4.0 | 8.5 | | 4.5 |
| 6- 7 | | 9.0 | 10.5 | 3.0 | 4.5 | 4.5 | 1.5 | 11.5 | 1.5 | 2.5 | | | 2.5 | | | | | 1.5 | 8.5 | | | | 3.0 |
| 7- 8 | | | | 7.0 | 2.5 | 8.0 | 7.0 | | 2.5 | 1.0 | 2.0 | 9.5 | 9.5 | 3.0 | 3.0 | 11.0 | | 9.5 | 7.5 | 3.5 | 8.5 | 9.5 | 1.5 |
| 8- 9 | | | | 2.0 | | 2.0 | | | 3.5 | 7.0 | 3.5 | 7.5 | 1.0 | 5.0 | 6.0 | 9.0 | | 7.0 | 6.0 | | | 7.5 | |
| 9-10 | | 11.0 | | 6.0 | | 5.0 | 4.0 | 1.0 | 4.5 | 5.5 | 5.0 | 5.0 | 8.5 | 7.5 | | 7.5 | | 4.0 | 5.0 | 3.5 | 8.5 | 5.5 | 10.0 |
| 10-11 | 11.5 | | | | | 8.5 | 10.0 | 2.0 | 5.5 | 4.0 | 6.5 | 3.0 | | | | 6.0 | 9.5 | 1.5 | 4.0 | | | | 8.5 |
| 11-12 | | | | 5.0 | 5.0 | 2.5 | | 2.5 | 7.0 | 2.5 | 8.0 | 1.0 | 7.5 | | 2.0 | 4.5 | | 9.5 | 3.0 | 3.0 | 8.5 | | 7.0 |
| 12-13 | | | 9.5 | | 3.0 | 5.5 | 6.5 | 3.0 | 8.0 | 1.0 | 9.5 | 10.0 | | 1.0 | 5.0 | | | 6.5 | 1.5 | | | 10.0 | 5.5 |
| 13-14 | | | | 4.0 | | 8.5 | | 4.0 | 9.0 | 7.0 | 11.0 | 8.0 | 6.0 | 3.5 | | | 8.0 | 4.0 | | 2.5 | 8.5 | 8.0 | 4.0 |
| 14-15 | | 9.5 | | | | 3.0 | 3.5 | 4.5 | 10.0 | 5.5 | | 6.0 | | 5.5 | | 11.0 | | 1.0 | 11.0 | | | 5.5 | 2.5 |
| 15-16 | | | | 3.0 | | 6.0 | 9.5 | 5.0 | 11.0 | 4.0 | 1.5 | 4.0 | 5.0 | 8.0 | | 9.0 | | 9.0 | 9.5 | 2.5 | 8.5 | 3.5 | 1.5 |
| 16-17 | | | | 7.0 | | | | 6.0 | | 2.5 | 3.0 | 1.5 | | | 3.5 | 7.5 | | 6.0 | 8.5 | | | | 11.0 |
| 17-18 | | 11.5 | 11.0 | 2.0 | 3.5 | 3.5 | 6.0 | 6.5 | | 1.0 | 4.5 | 10.5 | 4.0 | | 6.5 | 6.0 | | 3.5 | 7.5 | 2.0 | 8.0 | 10.0 | 9.5 |
| 18-19 | | | 9.0 | 6.0 | 1.0 | 6.5 | | 7.0 | 2.0 | 7.0 | 6.0 | 8.5 | 11.0 | 1.5 | | 4.5 | 9.0 | | 6.5 | 6.5 | | 8.0 | 8.5 |
| 19-20 | | | | 1.0 | | | 3.0 | 7.5 | 3.0 | 5.5 | 7.5 | 6.5 | 2.5 | 4.0 | | | | 8.5 | 5.0 | 1.5 | 8.0 | 6.0 | 7.0 |
| 20-21 | | | | 5.0 | | 3.5 | 9.0 | 8.5 | 4.0 | 4.5 | 9.0 | 4.5 | 10.0 | 6.0 | 2.0 | | | 6.0 | 4.0 | 6.5 | | 3.5 | 5.5 |
| 21-22 | | | | | | 7.0 | | 9.0 | 5.0 | 3.0 | 10.5 | 2.5 | 1.5 | 8.5 | 5.0 | 10.5 | | 3.0 | 3.0 | 1.5 | 8.0 | | 4.0 |
| 22-23 | | 10.0 | | 4.0 | 3.5 | 1.0 | 5.5 | 9.5 | 6.5 | 1.5 | | | 9.0 | | | 9.0 | | | 2.0 | 6.0 | | 10.5 | 2.5 |
| 23-24 | 11.5 | | 10.5 | | 1.5 | 4.0 | 11.5 | 10.5 | 7.5 | 7.5 | 1.0 | 9.0 | | | | 7.5 | 9.5 | 8.5 | | 1.0 | 8.0 | 8.0 | 1.0 |
| 24-25 | | | | 3.0 | | 7.5 | 2.5 | 11.0 | 8.5 | 6.0 | 2.5 | 7.0 | 7.5 | 2.0 | | 6.0 | | 5.5 | 11.0 | 5.5 | | 6.0 | 11.0 |
| 25-26 | | | | 7.5 | | 1.5 | 8.5 | 11.5 | 9.5 | 4.5 | 4.0 | 5.0 | | 4.5 | 4.0 | 4.5 | | 3.0 | 10.0 | | 8.0 | 4.0 | 9.5 |
| 26-27 | | | | 2.0 | | 4.5 | | | 10.5 | 3.0 | 5.5 | 3.0 | 6.5 | 6.5 | 7.0 | | 8.0 | | 8.5 | 5.5 | | | 8.0 |
| 27-28 | | | | 6.5 | 4.0 | 8.0 | 5.0 | | 12.0 | 1.5 | 7.5 | | | | | | | 8.0 | 7.5 | | 8.0 | 10.5 | 6.5 |
| 28-29 | | | | 1.0 | 2.0 | 2.0 | 11.0 | 1.5 | | 7.5 | 9.0 | 10.0 | 5.5 | | | 10.5 | | 5.5 | 6.5 | 5.0 | | 8.5 | 5.0 |
| 29-30 | | | 9.5 | 5.5 | | 5.0 | 2.0 | 2.0 | 1.5 | 6.0 | 10.5 | 7.5 | | | 2.5 | 9.0 | | 2.5 | 5.5 | | 8.0 | 6.5 | 3.5 |

| | DL | DY | SZ | UU | DG | DH | RR | SS | TV | WW | SZ | RR | RZ | AV | RV |
|-------|------|------|------|------|------|------|------|------|------|------|-----|------|------|------|------|
| | HER | HER | HYA | HYA | HYA | HYA | LEO | LEO | LEO | LEO | LYN | LYR | LYR | PEG | UMA |
| MAX | 11.0 | 10.2 | 10.6 | 10.7 | 11.6 | 11.4 | 10.0 | 10.5 | 11.5 | 11.0 | 9.1 | 7.1 | 10.0 | 9.9 | 10.1 |
| MIN | 12.4 | 10.6 | 11.7 | 12.3 | 12.6 | 12.6 | 11.7 | 12.0 | 12.6 | 12.0 | 9.6 | 8.1 | 12.0 | 10.9 | 11.2 |
| RISE | 1 | 1 | 2 | 2 | 3 | 2 | 2 | 2 | 2 | 3 | 1 | 2 | 2 | 2 | 3 |
| 0- 1 | 11.5 | | 1.5 | | | | 9.5 | | | | 6.5 | 6.5 | 9.5 | | 4.5 |
| 1- 2 | | 8.5 | 3.5 | | | 6.5 | 7.0 | 1.5 | 2.0 | | | 9.5 | 10.0 | | 3.0 |
| 2- 3 | 6.0 | 5.5 | 5.0 | | 3.5 | 6.0 | 5.0 | 7.5 | | 3.5 | 2.0 | | 10.5 | | 1.5 |
| 3- 4 | 10.5 | | | 2.0 | | 5.5 | 2.5 | | 2.5 | | 4.0 | | 11.0 | | |
| 4- 5 | | | | 3.0 | | 5.0 | | 4.5 | | | 6.0 | 5.5 | 11.5 | 9.5 | 10.0 |
| 5- 6 | 5.0 | 8.5 | | 4.5 | 4.0 | 4.5 | 9.0 | | 3.0 | 4.0 | 8.0 | 9.0 | | | 8.5 |
| 6- 7 | 9.5 | 6.0 | | 5.5 | | 4.0 | 6.5 | 1.5 | | | 1.5 | | | | 7.0 |
| 7- 8 | | | 1.0 | 6.5 | | 3.0 | 4.0 | 7.5 | 3.5 | | 3.5 | | | | 5.0 |
| 8- 9 | | | 3.0 | 7.5 | 4.5 | 2.5 | 2.0 | | | 4.5 | 5.5 | 5.0 | | | 3.5 |
| 9-10 | 8.5 | 9.0 | 4.5 | | | 2.0 | | 4.5 | 4.0 | | 7.5 | 8.0 | | | 2.0 |
| 10-11 | | 6.5 | 6.5 | | | 1.5 | 8.0 | | | | 1.0 | 11.5 | | | |
| 11-12 | | 3.5 | | | 5.0 | 1.0 | 6.0 | 2.0 | 4.5 | 5.0 | 3.0 | | | | 10.5 |
| 12-13 | 7.5 | | | | | | 3.5 | 8.0 | | | 5.0 | | | | 9.0 |
| 13-14 | | 9.0 | | | | | 1.5 | | 4.5 | | 7.0 | 7.5 | | 8.5 | 7.5 |
| 14-15 | | 6.5 | | 2.0 | 5.5 | | | 5.0 | | 5.0 | | 10.5 | 4.5 | | 5.5 |
| 15-16 | 6.5 | 4.0 | 2.5 | 3.0 | | | 7.5 | | 5.0 | | 2.5 | | 5.5 | | 4.0 |
| 16-17 | 11.0 | | 4.5 | 4.5 | | | 5.5 | 2.0 | | | 4.5 | | 6.0 | | 2.5 |
| 17-18 | | 9.5 | 6.0 | 5.5 | 6.0 | | 3.0 | 8.0 | 5.5 | 5.5 | 6.5 | 6.5 | 6.5 | | 1.0 |
| 18-19 | 5.5 | 7.0 | | 6.5 | | | | | | | 8.5 | 10.0 | 7.0 | | 11.0 |
| 19-20 | 10.0 | 4.5 | | 7.5 | | | | 5.0 | 6.0 | | 2.0 | | 7.5 | | 9.5 |
| 20-21 | | | | | 6.0 | | 7.0 | | | 6.0 | 4.0 | | 8.0 | | 8.0 |
| 21-22 | 4.5 | 10.0 | | | | | 5.0 | 2.5 | 6.5 | | 6.0 | 6.0 | 8.5 | | 6.0 |
| 22-23 | 9.0 | 7.0 | 2.0 | | | | 2.5 | 8.5 | | 1.0 | 8.0 | 9.0 | 9.0 | | 4.5 |
| 23-24 | | 4.5 | 4.0 | | 6.5 | | | | 7.0 | 6.0 | 1.5 | | 9.5 | | 3.0 |
| 24-25 | | | 5.5 | | | 6.0 | 9.0 | 5.5 | | | 3.5 | | 10.0 | | 1.5 |
| 25-26 | 8.0 | 10.0 | | 2.0 | | 5.5 | 6.5 | | 7.5 | 1.5 | 5.5 | 5.0 | 10.5 | | |
| 26-27 | | 7.5 | | 3.0 | | 5.0 | 4.0 | 2.5 | | 6.5 | 7.5 | 8.0 | 11.0 | | 10.0 |
| 27-28 | | 5.0 | | 4.5 | 1.0 | 4.5 | 2.0 | 8.5 | 8.0 | | | 11.5 | 12.0 | | 8.5 |
| 28-29 | 7.0 | | | 5.5 | | 4.0 | | | | 2.0 | 3.0 | | | | 6.5 |
| 29-30 | 11.5 | 10.5 | 2.0 | 6.5 | | 3.5 | 8.0 | 6.0 | 8.5 | 7.0 | 5.0 | | | 9.0 | 5.0 |

| | SW | XX | AT | SW | TZ | BH | RS | ST | SW | SZ | TV | TW | UU | UY | RW | TT | XZ | DM | RW | XZ | RR | TW | VX | | |
|-------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----|-----|
| | AND | AND | AND | AQR | AUR | AUR | BOO | BOO | BOO | BOO | BOO | BOO | BOO | BOO | CNC | CNC | CYG | CYG | DRA | DRA | GEM | HER | HER | | |
| MAX | 9.3 | 10.3 | 10.8 | 10.5 | 11.2 | 11.1 | 9.8 | 10.6 | 11.3 | 12.0 | 10.8 | 10.8 | 11.2 | 10.6 | 10.7 | 11.0 | 9.1 | 11.2 | 11.0 | 9.6 | 10.7 | 10.5 | 9.9 | | |
| MIN | 10.8 | 11.6 | 11.5 | 12.1 | 12.8 | 12.6 | 11.3 | 11.8 | 12.7 | 13.4 | 11.5 | 12.1 | 12.7 | 12.0 | 12.6 | 12.3 | 10.5 | 12.7 | 12.0 | 10.3 | 11.9 | 11.8 | 10.4 | | |
| RISE | 2 | 3 | 3 | 1 | 2 | 2 | 2 | 3 | 2 | 2 | 3 | 2 | 1 | 2 | 2 | 3 | 3 | 2 | 2 | 3 | 2 | 2 | 2 | | |
| 0- 1 | | | 10.5 | 7.5 | | | 8.0 | 8.0 | 2.5 | 2.5 | 4.5 | | 5.5 | 4.5 | 2.5 | | 7.5 | | 10.5 | 4.0 | 4.5 | 3.0 | 4.0 | | |
| 1- 2 | | 10.5 | | | 4.5 | | 2.5 | | 3.0 | 3.5 | 3.0 | | 3.5 | | 5.0 | | 6.0 | 9.0 | 7.5 | 3.0 | | 8.0 | 2.0 | | |
| 2- 3 | | | | | | | 5.5 | 4.5 | 4.0 | 4.5 | | 2.0 | 1.5 | 3.0 | | | 4.5 | | 5.0 | 2.0 | 4.5 | 3.0 | 11.0 | | |
| 3- 4 | | | | | 3.5 | 2.5 | 8.5 | 10.5 | 4.5 | 6.0 | 7.5 | 4.0 | 10.5 | 10.5 | | | 2.5 | | 2.0 | | | 8.0 | 8.5 | | |
| 4- 5 | | | | 11.0 | | | 3.0 | 1.5 | 5.0 | 7.0 | 6.0 | 5.5 | 8.5 | 2.0 | | 4.0 | | 7.5 | 10.0 | 11.0 | 4.0 | 3.0 | 6.5 | | |
| 5- 6 | | | 9.0 | 9.0 | 2.5 | | 6.0 | 7.5 | 6.0 | 8.0 | 4.5 | 7.0 | 6.5 | 9.0 | | | 10.5 | | 7.5 | 10.0 | | 8.0 | 4.5 | | |
| 6- 7 | | | | | | | | | 6.5 | 9.0 | 3.0 | 8.5 | 4.0 | | 3.0 | | 9.0 | 10.0 | 4.5 | 9.0 | 3.5 | 3.0 | 2.0 | | |
| 7- 8 | | | | | 1.5 | | 3.0 | 4.0 | 7.0 | 10.0 | | 10.0 | 2.0 | 8.0 | 5.0 | | 7.5 | 6.0 | 2.0 | 7.5 | | 8.0 | | | |
| 8- 9 | | | 11.0 | | | 3.0 | 6.5 | 10.0 | 8.0 | | 7.5 | | | | | 3.0 | 6.0 | | 6.0 | 2.0 | 9.5 | 6.5 | 3.5 | 3.0 | 9.0 |
| 9-10 | | 9.0 | | | | | | | 8.5 | | 6.0 | | 9.0 | 7.0 | | | 4.5 | 8.5 | 7.0 | 5.5 | | 7.5 | 6.5 | | |
| 10-11 | 10.0 | | 7.5 | 10.0 | 4.5 | | 3.5 | 7.0 | 9.0 | | 4.5 | 2.0 | 7.0 | | | | 2.5 | | 4.5 | 4.5 | 3.0 | 3.0 | 4.5 | | |
| 11-12 | | | | 8.0 | | | 7.0 | | 9.5 | 2.0 | 3.0 | 3.5 | 5.0 | 6.0 | | | | | 1.5 | 3.0 | | 7.5 | 2.5 | | |
| 12-13 | | | | | 3.5 | | | 3.5 | 10.5 | 3.0 | | 5.0 | 3.0 | | 3.5 | 1.5 | 10.5 | 7.0 | 9.5 | 2.0 | 3.0 | 3.0 | | | |
| 13-14 | | | 9.5 | | | | 4.0 | 9.5 | 11.0 | 4.0 | 7.5 | 6.5 | | 4.5 | 5.5 | 4.5 | 9.0 | | 6.5 | | | 7.5 | 9.0 | | |
| 14-15 | 9.5 | 10.5 | | | 2.5 | | 7.5 | | | 5.5 | 6.0 | 8.0 | 9.5 | | | | 7.5 | 9.5 | 4.0 | | 2.5 | 3.0 | 7.0 | | |
| 15-16 | | | | | | | 1.5 | 6.5 | | 6.5 | 4.5 | 9.5 | 7.5 | 3.5 | | | 6.0 | 5.5 | | 10.0 | | 7.5 | 5.0 | | |
| 16-17 | | | | 9.5 | 1.5 | | 4.5 | | | 7.5 | 3.0 | 11.0 | 5.5 | | | | 4.0 | | 9.0 | 9.0 | 2.0 | 2.5 | 2.5 | | |
| 17-18 | | | | 7.5 | | | 8.0 | 3.0 | | 8.5 | 1.5 | | 3.5 | 2.5 | 1.5 | 3.0 | 2.5 | 8.0 | 6.5 | 8.0 | | 7.5 | | | |
| 18-19 | 9.0 | | 8.0 | | | | 2.0 | 9.0 | 2.0 | 9.5 | 7.5 | 1.5 | | 9.5 | 4.0 | | | | 3.5 | 7.0 | 2.0 | 2.5 | 9.5 | | |
| 19-20 | | | | | 5.0 | 1.5 | 5.0 | | 2.5 | 11.0 | 6.0 | 3.0 | 10.5 | | 6.0 | | 10.5 | | | | 5.5 | 7.5 | 7.0 | | |
| 20-21 | | | | | | | 8.0 | 5.5 | 3.5 | | 4.5 | 4.5 | 8.0 | 8.5 | | | 9.0 | 6.5 | 9.0 | 4.5 | 1.5 | 2.5 | 5.0 | | |
| 21-22 | | | 10.0 | 10.5 | 4.0 | | 2.5 | | 4.0 | | 3.0 | 6.0 | 6.0 | | | 2.0 | 7.5 | | 6.0 | 3.5 | | 7.5 | 3.0 | | |
| 22-23 | 9.0 | 9.5 | | 8.5 | | | 5.5 | 2.5 | 4.5 | 1.5 | 1.5 | 7.5 | 4.0 | 7.5 | | 5.0 | 6.0 | 9.0 | 3.5 | 2.5 | | 2.5 | | | |
| 23-24 | | | | | 3.0 | | 8.5 | 8.5 | 5.0 | 2.5 | 7.5 | 9.0 | 2.0 | | 2.0 | | 4.0 | | | | | 7.5 | 9.5 | | |
| 24-25 | | | | | | 2.0 | 3.0 | | 6.0 | 3.5 | 6.0 | 11.0 | 11.0 | 6.0 | 4.5 | | 2.5 | | 8.5 | | | 2.5 | 7.5 | | |
| 25-26 | | | | | 2.0 | | 6.0 | 5.0 | 6.5 | 5.0 | 4.5 | | 9.0 | | 6.5 | | | 7.5 | 5.5 | 10.5 | | 7.5 | 5.0 | | |
| 26-27 | | | 8.0 | | | | | 11.0 | 7.0 | 6.0 | 3.0 | | 7.0 | 5.0 | | 3.5 | 10.5 | | 3.0 | 9.0 | | 2.5 | 3.0 | | |
| 27-28 | | 11.0 | | 10.0 | | | 3.0 | 2.0 | 8.0 | 7.0 | 1.5 | 2.5 | 4.5 | | | | 9.0 | 10.0 | | | 8.0 | | 7.5 | | |
| 28-29 | | | | 8.0 | 5.0 | | 6.5 | 8.0 | 8.5 | 8.0 | 7.5 | 4.0 | 2.5 | 4.0 | | | 7.5 | 6.0 | 8.0 | 7.0 | | 2.5 | 9.5 | | |
| 29-30 | 10.5 | | 10.5 | | | 2.5 | | | 9.0 | 9.0 | 6.0 | 5.5 | | | 2.5 | | 6.0 | | 5.5 | 6.0 | 5.0 | 7.0 | 7.5 | | |
| 30-31 | | | | | 4.0 | | 3.5 | 4.5 | 10.0 | 10.5 | 4.5 | 7.5 | 9.5 | 2.5 | 5.0 | 2.5 | 4.0 | 8.5 | 2.5 | 4.5 | | 2.5 | 5.5 | | |

| | AR | DL | DY | SZ | UU | DG | DH | RR | SS | TV | WW | SZ | RR | RZ | AV | RV |
|-------|------|------|------|------|------|------|------|------|------|------|------|-----|------|------|------|------|
| | HER | HER | HER | HYA | HYA | HYA | HYA | LEO | LEO | LEO | LEO | LYN | LYR | LYR | PEG | UMA |
| MAX | 10.6 | 11.0 | 10.2 | 10.6 | 10.7 | 11.6 | 11.4 | 10.0 | 10.5 | 11.5 | 11.0 | 9.1 | 7.1 | 10.0 | 9.9 | 10.1 |
| MIN | 11.6 | 12.4 | 10.6 | 11.7 | 12.3 | 12.6 | 12.6 | 11.7 | 12.0 | 12.6 | 12.0 | 9.6 | 8.1 | 12.0 | 10.9 | 11.2 |
| RISE | 2 | 1 | 1 | 2 | 2 | 3 | 2 | 2 | 2 | 2 | 3 | 1 | 2 | 2 | 2 | 3 |
| 0- 1 | 2.0 | | 8.0 | 3.5 | | 1.5 | 3.0 | 6.0 | | | | | 7.5 | | | 3.5 |
| 1- 2 | | 6.0 | 5.0 | | | | 2.5 | 3.5 | 3.0 | | 2.0 | | 10.5 | | 7.5 | 2.0 |
| 2- 3 | 10.5 | 10.5 | 2.5 | | | | 2.0 | 1.5 | | | | 2.5 | | | | |
| 3- 4 | 9.0 | | | | | 2.0 | | | | | | 4.5 | 3.5 | 2.5 | 6.5 | 10.5 |
| 4- 5 | 8.0 | 5.0 | 8.0 | | | | | | 6.0 | | 2.5 | 6.5 | 6.5 | 3.5 | | 9.0 |
| 5- 6 | 6.5 | 9.5 | 5.5 | | | | | 5.5 | | | | | 10.0 | 4.0 | | 7.0 |
| 6- 7 | 5.0 | | 3.0 | 1.5 | 2.0 | 2.5 | | 3.0 | 3.0 | 2.0 | | 2.0 | | 4.5 | | 5.5 |
| 7- 8 | 3.5 | 4.0 | | 3.0 | 3.0 | | | | | | 3.0 | 4.0 | | 5.0 | | 4.0 |
| 8- 9 | 2.0 | 8.5 | 8.5 | | 4.5 | | | | | 2.0 | | 6.0 | 6.0 | 5.5 | 8.5 | 2.5 |
| 9-10 | | | 6.0 | | 5.5 | 2.5 | | 7.0 | 6.5 | | | | 9.0 | 6.0 | | |
| 10-11 | 10.5 | 3.0 | 3.5 | | | | | 5.0 | | 2.5 | 3.0 | | | 6.5 | 7.0 | 11.0 |
| 11-12 | 9.0 | 7.5 | | | | | | 2.5 | 3.5 | | | 3.5 | | 7.0 | | 9.5 |
| 12-13 | 7.5 | | 9.0 | | | 3.0 | | | | 3.0 | | 5.5 | 5.0 | 7.5 | | 7.5 |
| 13-14 | 6.0 | | 6.0 | | | | | | | | 3.5 | | 8.5 | 8.0 | | 6.0 |
| 14-15 | 4.5 | 6.5 | 3.5 | 3.0 | | | | 6.5 | 6.5 | 3.5 | | | | 8.5 | | 4.5 |
| 15-16 | 3.0 | 10.5 | | 4.5 | | 3.5 | | 4.5 | | | | 3.0 | | 9.0 | 9.0 | 3.0 |
| 16-17 | 2.0 | | 9.0 | | | | | 2.0 | 3.5 | 4.0 | 4.0 | 5.0 | 4.5 | 9.5 | | 1.5 |
| 17-18 | | 5.5 | 6.5 | | 2.0 | | | | | | | | 7.5 | 10.5 | 8.0 | |
| 18-19 | 10.0 | 9.5 | 4.0 | | 3.0 | 4.0 | | | | 4.5 | | | 10.5 | 11.0 | | 10.0 |
| 19-20 | 8.5 | | | | 4.5 | | | 6.0 | 7.0 | | 4.5 | 2.0 | | | 6.5 | 8.0 |
| 20-21 | 7.5 | 4.5 | 9.5 | | 5.5 | | 4.0 | 3.5 | | 5.0 | | 4.5 | 3.5 | | | 6.5 |
| 21-22 | 6.0 | 8.5 | 7.0 | 2.5 | | 4.5 | 3.5 | 1.5 | 4.0 | | | 6.5 | 6.5 | | | 5.0 |
| 22-23 | 4.5 | | 4.0 | 4.0 | | | 3.0 | | | 5.5 | 4.5 | | 10.0 | | | 3.5 |
| 23-24 | 3.0 | 3.5 | 1.5 | | | | 2.5 | | | | | 1.5 | | | | 2.0 |
| 24-25 | 1.5 | 7.5 | 9.5 | | | | 2.0 | 5.5 | 7.0 | 6.0 | | 3.5 | 2.5 | | 8.5 | |
| 25-26 | | | 7.0 | | | | 1.5 | 3.0 | | | 5.0 | 6.0 | 6.0 | | | 10.5 |
| 26-27 | 10.0 | | 4.5 | | | | | | 4.0 | 6.5 | | | 9.0 | 3.0 | 7.5 | 9.0 |
| 27-28 | 8.5 | 6.5 | 2.0 | | | | | | | | | | | 3.5 | | 7.0 |
| 28-29 | 7.0 | 11.0 | 10.0 | 2.0 | 2.0 | | | 7.0 | | 6.5 | 5.5 | 3.0 | | 4.0 | | 5.5 |
| 29-30 | 5.5 | | 7.5 | 4.0 | 3.5 | | | 5.0 | 7.5 | | | 5.0 | 5.0 | 4.5 | | 4.0 |
| 30-31 | 4.0 | 5.5 | 5.0 | | 4.5 | | | 2.5 | | | | | 8.5 | 5.0 | | 2.5 |

AAVSO RR Lyrae Ephemeris for June 2022

all times in U.T.

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| | SW | XX | AT | SW | TZ | RS | ST | SW | SZ | TV | TW | UU | UY | RW | TT | RR | XZ | DM | RW | XZ | RR | TW | VX | | | |
|-------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----|------|-----|
| | AND | AND | AND | AQR | AUR | BOO | BOO | BOO | BOO | BOO | BOO | BOO | BOO | CNC | CNC | CET | CYG | CYG | DRA | DRA | GEM | HER | HER | | | |
| MAX | 9.3 | 10.3 | 10.8 | 10.5 | 11.2 | 9.8 | 10.6 | 11.3 | 12.0 | 10.8 | 10.8 | 11.2 | 10.6 | 10.7 | 11.0 | 9.3 | 9.1 | 11.2 | 11.0 | 9.6 | 10.7 | 10.5 | 9.9 | | | |
| MIN | 10.8 | 11.6 | 11.5 | 12.1 | 12.8 | 11.3 | 11.8 | 12.7 | 13.4 | 11.5 | 12.1 | 12.7 | 12.0 | 12.6 | 12.3 | 10.3 | 10.5 | 12.7 | 12.0 | 10.3 | 11.9 | 11.8 | 10.4 | | | |
| RISE | 2 | 3 | 3 | 1 | 2 | 2 | 3 | 2 | 2 | 3 | 2 | 1 | 2 | 2 | 3 | 2 | 3 | 2 | 2 | 3 | 2 | 2 | 2 | | | |
| 0- 1 | | | 6.5 | | | 7.0 | 10.5 | | | 3.0 | 9.0 | 7.5 | | | | | 2.5 | 4.5 | 10.5 | 3.5 | | 7.0 | 3.5 | | | |
| 1- 2 | | | | | 3.0 | | | | | | 10.5 | 5.5 | | | | | | | 8.0 | 2.5 | | 2.5 | | | | |
| 2- 3 | 10.0 | | | 9.5 | | 4.0 | 7.5 | | | 7.5 | | 3.5 | | | | | 10.5 | 7.0 | 5.0 | | | 7.0 | 10.0 | | | |
| 3- 4 | 7.5 | | 8.5 | 7.5 | 2.0 | 7.5 | | | 2.0 | 6.0 | | | | | | | 9.0 | | 2.5 | | | 2.5 | 8.0 | | | |
| 4- 5 | | 9.5 | | 5.5 | | | 4.0 | | | 3.0 | 4.5 | 2.0 | 10.0 | 7.5 | 3.0 | | | 7.5 | 9.5 | 10.0 | 10.5 | | 7.0 | 5.5 | | |
| 5- 6 | | | 5.0 | | | 4.5 | 10.0 | | | 4.5 | 3.0 | 4.0 | 8.0 | | | | | 6.0 | 5.5 | 7.5 | 9.5 | | 2.5 | 3.5 | | |
| 6- 7 | 9.5 | | 11.0 | | | 7.5 | | 2.0 | 5.5 | | 5.5 | 6.0 | 6.5 | | | | | 4.0 | | 4.5 | 8.0 | | 7.0 | | | |
| 7- 8 | 7.0 | 7.0 | | 10.5 | | 2.0 | 7.0 | 2.5 | 6.5 | 7.5 | 7.0 | 4.0 | | | | 10.5 | 2.5 | 8.0 | 2.0 | 7.0 | | 2.0 | 10.0 | | | |
| 8- 9 | | | 7.0 | 8.5 | | 5.0 | | 3.5 | 7.5 | 6.0 | 8.5 | 2.0 | 5.5 | | 2.5 | | | 4.0 | 10.0 | 6.0 | | 7.0 | 8.0 | | | |
| 9-10 | | | | 6.5 | | 8.0 | 3.5 | 4.0 | 8.5 | 4.5 | 10.0 | 10.5 | | | | | | 10.5 | | 7.0 | 5.0 | | 2.0 | 6.0 | | |
| 10-11 | 9.0 | | | | 3.0 | 2.5 | 9.5 | 4.5 | 10.0 | 3.0 | | 8.5 | 4.5 | 3.5 | | | | 9.0 | 6.5 | 4.5 | 3.5 | 3.0 | 7.0 | 3.5 | | |
| 11-12 | | | 9.0 | | | 5.5 | | 5.5 | | | | 6.5 | | | | | | | | | 2.5 | | 2.0 | | | |
| 12-13 | | 8.5 | | | 2.0 | 8.5 | 6.5 | 6.0 | | | 2.0 | 4.5 | 3.0 | | | 10.0 | 5.5 | 9.0 | 9.5 | | 2.5 | 7.0 | 10.5 | | | |
| 13-14 | | | 5.5 | 10.0 | | 2.5 | | 6.5 | | 6.0 | 3.5 | 2.5 | | | | | | 4.0 | 5.0 | 7.0 | | 2.0 | 8.0 | | | |
| 14-15 | 8.5 | | | 8.0 | | 6.0 | 3.0 | 7.0 | | 4.5 | 5.0 | | 2.0 | | | | | 2.5 | | 4.0 | 10.5 | 2.0 | 7.0 | 6.0 | | |
| 15-16 | | | | 6.0 | | | 9.0 | 8.0 | 2.5 | 3.0 | 6.5 | 9.5 | | | | | | | 7.5 | | 9.5 | | 2.0 | 4.0 | | |
| 16-17 | | | 7.5 | | | 3.0 | | 8.5 | 4.0 | | 8.0 | 7.0 | | 4.0 | | | | 10.5 | 3.5 | 9.0 | 8.5 | 2.0 | 7.0 | 2.0 | | |
| 17-18 | | 10.0 | | | | 6.5 | 6.0 | 9.0 | 5.0 | | 9.5 | 5.0 | 8.0 | | 3.0 | 9.5 | 9.0 | 9.5 | 6.5 | 7.5 | | 2.0 | 10.5 | | | |
| 18-19 | 8.0 | | | | | | 10.0 | 6.0 | 6.0 | | | 3.0 | | | | | | 7.5 | 6.0 | 3.5 | 6.0 | | 6.5 | 8.5 | | |
| 19-20 | | | 9.5 | 9.0 | 3.5 | 3.5 | 2.5 | | 7.0 | 4.5 | | | 7.0 | | | | | 5.5 | | | 5.0 | | 2.0 | 6.5 | | |
| 20-21 | | 7.5 | | 7.0 | | 7.0 | 8.5 | | 8.0 | 3.0 | | 10.0 | | | | | | | 4.0 | 8.5 | 9.0 | 4.0 | | 6.5 | 4.0 | |
| 21-22 | 10.5 | | 6.0 | 5.0 | 2.5 | | | | 9.5 | | 3.0 | 8.0 | 6.0 | 2.0 | | | | | 2.5 | 4.5 | 6.0 | 3.0 | | 2.0 | 2.0 | |
| 22-23 | 8.0 | | | | | 4.0 | 5.5 | | | | 4.5 | 6.0 | | 4.5 | | | | | | 3.5 | | | | 6.5 | 11.0 | |
| 23-24 | | | | | | 7.5 | | | | 6.0 | 6.0 | 3.5 | 4.5 | | | | | 10.5 | 7.0 | | | | | 2.0 | 8.5 | |
| 24-25 | | | 8.0 | 10.5 | | | 2.0 | | | 4.5 | 7.5 | | | | | | | 9.0 | | 8.5 | 11.0 | | | 6.5 | 6.5 | |
| 25-26 | 10.0 | 8.5 | | 8.5 | | 4.5 | 8.0 | 2.0 | | 3.0 | 9.0 | 10.5 | 3.5 | | | | | 7.5 | 9.0 | 6.0 | 9.5 | | | 2.0 | 4.5 | |
| 26-27 | 7.5 | | | 6.5 | | 7.5 | | 2.5 | 2.0 | | | 11.0 | 8.5 | | | | | | 5.5 | 5.5 | 3.0 | 8.5 | | | 6.5 | 2.0 |
| 27-28 | | | 10.0 | | | 2.0 | 5.0 | 3.5 | 3.5 | | | 6.5 | 2.5 | 2.5 | | | | | 4.0 | | | 7.5 | | | 1.5 | |
| 28-29 | | | | | | 5.0 | 10.5 | 4.0 | 4.5 | 6.0 | | 4.5 | | | | 11.0 | 2.5 | 7.5 | 8.0 | 6.5 | | 6.5 | | 9.0 | | |
| 29-30 | 9.5 | | 6.5 | | | 8.0 | | 4.5 | 5.5 | 4.5 | 2.5 | 2.5 | | | | | | 4.0 | 5.5 | 5.0 | | | | 6.5 | | |

| | AR | DL | DY | SZ | UU | DG | DH | RR | SS | TV | WW | SZ | RR | RZ | AV | RV |
|-------|------|------|------|------|------|------|------|------|------|------|------|-----|------|------|------|------|
| | HER | HER | HER | HYA | HYA | HYA | HYA | LEO | LEO | LEO | LEO | LYN | LYR | LYR | PEG | UMA |
| MAX | 10.6 | 11.0 | 10.2 | 10.6 | 10.7 | 11.6 | 11.4 | 10.0 | 10.5 | 11.5 | 11.0 | 9.1 | 7.1 | 10.0 | 9.9 | 10.1 |
| MIN | 11.6 | 12.4 | 10.6 | 11.7 | 12.3 | 12.6 | 12.6 | 11.7 | 12.0 | 12.6 | 12.0 | 9.6 | 8.1 | 12.0 | 10.9 | 11.2 |
| RISE | 2 | 1 | 1 | 2 | 2 | 3 | 2 | 2 | 2 | 2 | 3 | 1 | 2 | 2 | 2 | 3 |
| 0- 1 | 2.5 | 10.0 | 2.0 | | | | | | 4.5 | | | | | 5.5 | 9.0 | |
| 1- 2 | | | 10.5 | | | | | | | | | 2.5 | | 6.0 | | 11.0 |
| 2- 3 | | 4.5 | 8.0 | | | | | | | | | 4.5 | 4.5 | 6.5 | 8.0 | 9.5 |
| 3- 4 | 9.5 | 9.0 | 5.0 | | | | | 4.5 | | | | | 7.5 | 7.0 | | 7.5 |
| 4- 5 | 8.0 | | 2.5 | | | | | 2.0 | | | | | 11.0 | 7.5 | 7.0 | 6.0 |
| 5- 6 | 7.0 | 3.5 | 10.5 | | | | | | 4.5 | | | 2.0 | | 8.5 | | 4.5 |
| 6- 7 | 5.5 | 8.0 | 8.0 | | | | | | | | | 4.0 | 3.5 | 9.0 | 5.5 | 3.0 |
| 7- 8 | 4.0 | | 5.5 | | | | | | 2.0 | | | | 7.0 | 9.5 | | |
| 8- 9 | 2.5 | 2.5 | 3.0 | | 2.0 | | | 3.5 | | | | | 10.0 | 10.0 | 4.5 | |
| 9-10 | | 7.0 | | | 3.5 | | | | | | | | | 10.5 | 8.5 | 10.0 |
| 10-11 | 11.0 | | 8.5 | | | | | | 5.0 | | | 3.5 | 3.0 | | | 8.0 |
| 11-12 | 9.5 | | 6.0 | | | | | | | | 2.0 | | 6.0 | | 7.5 | 6.5 |
| 12-13 | 8.0 | 6.0 | 3.0 | | | | | | 2.0 | 2.0 | | | 9.0 | | | 5.0 |
| 13-14 | 6.5 | 10.5 | | | | | | 3.0 | | | | | | | 6.5 | 3.5 |
| 14-15 | 5.0 | | 8.5 | | | | | | | 2.5 | 2.5 | 3.0 | 2.0 | | | 2.0 |
| 15-16 | 3.5 | 5.0 | 6.0 | | | | 2.0 | | 5.0 | | | | 5.0 | | 5.0 | |
| 16-17 | 2.0 | 9.5 | 3.5 | | | | | | | 3.0 | | | 8.5 | 2.0 | 9.5 | 10.5 |
| 17-18 | | | | | | | | 5.0 | 2.5 | | 2.5 | | | 2.5 | | 8.5 |
| 18-19 | 10.5 | 4.0 | 9.0 | | | 2.0 | | 2.5 | | 3.5 | | 2.5 | | 3.0 | 8.0 | 7.0 |
| 19-20 | 9.0 | 8.5 | 6.5 | 2.5 | 2.0 | | | | | | | 4.5 | 4.5 | 3.5 | | 5.5 |
| 20-21 | 7.5 | | 4.0 | | 3.5 | | | | 5.5 | 4.0 | 3.0 | | 7.5 | 4.0 | 7.0 | 4.0 |
| 21-22 | 6.5 | 3.0 | | | | 2.5 | | | | | | | 11.0 | 4.5 | | 2.5 |
| 22-23 | 5.0 | 7.5 | 9.5 | | | | | 4.5 | 2.5 | 4.0 | | 2.0 | | 5.0 | 6.0 | |
| 23-24 | 3.5 | | 6.5 | | | | | 2.0 | | | 3.5 | 4.0 | 3.5 | 5.5 | | 11.0 |
| 24-25 | 2.0 | 2.0 | 4.0 | | | | | | | 4.5 | | | 7.0 | 6.0 | 4.5 | 9.0 |
| 25-26 | | 6.5 | | | | | | | | | | | 10.0 | 7.0 | 9.0 | 7.5 |
| 26-27 | 10.5 | 11.0 | 9.5 | 2.5 | | | | | | | 4.0 | | | 7.5 | | 6.0 |
| 27-28 | 9.0 | | 7.0 | | | | | 3.5 | 3.0 | | | 3.5 | 3.0 | 8.0 | 7.5 | 4.5 |
| 28-29 | 7.5 | 5.5 | 4.5 | | | | | | | | | | 6.0 | 8.5 | | 3.0 |
| 29-30 | 6.0 | 10.0 | 2.0 | | | | | | | | | | 9.5 | 9.0 | 6.5 | |

| | SW | XX | AT | SW | BH | RS | ST | SW | SZ | TV | TW | UU | UY | RW | RR | XZ | DM | RW | XZ | TW | VX | AR | DL |
|-------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| | AND | AND | AND | AQR | AUR | BOO | BOO | BOO | BOO | BOO | BOO | BOO | BOO | CNC | CET | CYG | CYG | DRA | DRA | HER | HER | HER | HER |
| MAX | 9.3 | 10.3 | 10.8 | 10.5 | 11.1 | 9.8 | 10.6 | 11.3 | 12.0 | 10.8 | 10.8 | 11.2 | 10.6 | 10.7 | 9.3 | 9.1 | 11.2 | 11.0 | 9.6 | 10.5 | 9.9 | 10.6 | 11.0 |
| MIN | 10.8 | 11.6 | 11.5 | 12.1 | 12.6 | 11.3 | 11.8 | 12.7 | 13.4 | 11.5 | 12.1 | 12.7 | 12.0 | 12.6 | 10.3 | 10.5 | 12.7 | 12.0 | 10.3 | 11.8 | 10.4 | 11.6 | 12.4 |
| RISE | 2 | 3 | 3 | 1 | 2 | 2 | 3 | 2 | 2 | 3 | 2 | 1 | 2 | 2 | 2 | 3 | 2 | 2 | 3 | 2 | 2 | 2 | 1 |
| 0- 1 | 7.0 | 10.0 | | 9.5 | | 2.5 | 7.5 | 5.5 | 6.5 | 3.0 | 4.0 | | | | | 10.5 | | 2.5 | 4.0 | 6.5 | 4.5 | 4.5 | |
| 1- 2 | | | 3.0 | 8.0 | 9.5 | 5.5 | | 6.0 | 7.5 | | 5.5 | 9.0 | | | | 9.0 | 6.5 | | 3.0 | | 2.5 | 3.0 | 4.5 |
| 2- 3 | | | 8.5 | 6.0 | | 8.5 | 4.5 | 6.5 | | | 7.5 | 7.0 | | | 8.0 | 7.5 | 2.5 | 8.0 | 2.0 | 6.5 | | 1.5 | 9.0 |
| 3- 4 | 9.0 | 7.5 | | 4.0 | | 2.5 | | 7.5 | | 6.0 | 9.0 | 5.0 | | 10.5 | 5.5 | 8.5 | 5.0 | | | | 9.0 | | |
| 4- 5 | 6.5 | | 5.0 | | | 6.0 | | 8.0 | | 4.5 | | 3.0 | 6.0 | | | 4.0 | 5.0 | 2.5 | 11.0 | 6.5 | 7.0 | 10.0 | 3.5 |
| 5- 6 | | | 10.5 | 11.0 | | | 7.0 | | | 3.0 | | | | | | 2.5 | 10.5 | 10.0 | | | 5.0 | 8.5 | 8.0 |
| 6- 7 | | 5.0 | | 9.0 | 10.0 | 3.0 | | | | | | | 5.0 | | | | 7.0 | 7.5 | 8.5 | 6.5 | 2.5 | 7.5 | |
| 7- 8 | 8.5 | | 7.0 | 7.0 | | 6.5 | 3.5 | | | | 2.0 | 7.5 | | 7.5 | 10.5 | 3.5 | 5.0 | 7.5 | | | 6.0 | | 2.5 |
| 8- 9 | 6.0 | 9.0 | | 5.0 | | | | | 3.0 | 6.0 | 4.0 | 5.5 | 4.0 | 10.0 | 9.0 | 9.5 | 2.0 | 6.5 | 6.5 | 6.5 | 9.5 | 4.5 | 7.0 |
| 9-10 | | | 3.5 | 3.0 | | 3.5 | | | 4.0 | 4.5 | 5.5 | 3.5 | | | | 7.5 | 5.5 | 10.0 | 5.5 | | 7.0 | 3.0 | |
| 10-11 | | | 9.0 | | | 7.0 | 6.5 | | 5.0 | 3.0 | 7.0 | | 2.5 | | | 5.5 | 2.0 | 7.0 | 4.0 | 6.0 | 5.0 | | |
| 11-12 | 8.0 | 6.5 | | 10.5 | 10.0 | | | | 6.0 | | 8.5 | | | | | 4.0 | 8.0 | 4.5 | 3.0 | | 3.0 | | 6.0 |
| 12-13 | 5.5 | | 5.5 | 8.5 | | 4.0 | 3.0 | | 7.0 | | | 8.5 | | | | 2.5 | 4.5 | 2.0 | 2.0 | 6.0 | | 10.0 | |
| 13-14 | | 10.5 | 11.0 | 6.5 | | 7.0 | 9.0 | | | 6.0 | | 6.5 | | 9.5 | | | 9.5 | | | | | 8.5 | |
| 14-15 | 10.5 | | | 4.5 | | | | 2.0 | | 4.5 | | 4.0 | | | | 10.5 | 6.5 | 7.0 | 11.0 | 6.0 | 7.5 | 7.0 | 5.0 |
| 15-16 | 7.5 | | 7.5 | | | 4.5 | 6.0 | 2.5 | | 3.0 | 2.0 | 2.0 | | | | 9.0 | 3.0 | 4.0 | 10.0 | | 5.0 | 5.5 | 9.0 |
| 16-17 | 5.0 | 7.5 | | | 10.5 | 7.5 | | 3.5 | | | 3.5 | | | | | 7.0 | 9.0 | | 9.0 | 6.0 | 3.0 | 4.0 | |
| 17-18 | | | 4.0 | 9.5 | | 2.0 | 2.5 | 4.0 | | | 5.0 | 9.0 | 6.5 | | | 5.5 | 5.0 | 9.5 | 7.5 | | | 2.5 | 4.0 |
| 18-19 | 10.0 | | 9.5 | 7.5 | | 5.0 | 8.5 | 4.5 | | 6.0 | 6.5 | 7.0 | | 8.5 | 4.0 | | 6.5 | 6.5 | 6.0 | | | | 8.0 |
| 19-20 | 7.0 | 5.0 | | 5.5 | | 8.0 | | 5.5 | 2.5 | 4.5 | 8.0 | 5.0 | 5.5 | | | 2.5 | 7.5 | 4.0 | 5.5 | | 7.5 | | |
| 20-21 | | | 6.0 | 3.5 | | 2.5 | 5.5 | 6.0 | 3.5 | 3.0 | | 3.0 | | 2.0 | | | 3.5 | | 4.5 | 6.0 | 5.5 | 9.5 | 3.0 |
| 21-22 | | 9.0 | | | | 5.5 | | 6.5 | 4.5 | | | | 4.5 | | | 10.5 | 10.0 | 9.0 | 3.0 | | 3.5 | 8.0 | 7.0 |
| 22-23 | 9.5 | | | 11.0 | | 8.5 | 2.0 | 7.5 | 5.5 | | | | | | | 9.0 | 6.0 | 6.5 | 2.0 | 6.0 | | 7.0 | |
| 23-24 | 7.0 | | 8.0 | 9.0 | | 2.5 | 8.0 | 8.0 | 6.5 | 6.0 | | 7.5 | 3.0 | 8.0 | 7.0 | 2.0 | 3.5 | | | | | 5.5 | 2.0 |
| 24-25 | | 6.5 | | 7.0 | | 6.0 | | | 8.0 | 4.5 | 3.0 | 5.5 | | 10.5 | 5.5 | 8.5 | | | | 6.0 | 8.0 | 4.0 | 6.0 |
| 25-26 | | | 4.5 | 5.0 | | | 5.0 | | | 3.0 | 4.5 | 3.5 | 2.0 | | | 4.0 | 4.5 | 8.5 | 10.0 | | 5.5 | 2.5 | |
| 26-27 | 9.0 | 10.5 | 10.0 | 3.0 | | 3.0 | | | | | 6.0 | | | 2.5 | | 2.5 | | 6.0 | 9.0 | 6.0 | 3.5 | | |
| 27-28 | 6.5 | | | | 9.5 | 6.5 | | | | | 7.5 | | | | | | 7.0 | 3.0 | 8.0 | | | 11.0 | 5.0 |
| 28-29 | | | 6.5 | 10.0 | | | 7.5 | | | 6.0 | | 8.0 | | 7.5 | 10.5 | 3.0 | | 7.0 | 6.0 | | | 9.5 | 9.5 |
| 29-30 | | 8.0 | | 8.0 | | 3.5 | | | | 4.5 | | 6.0 | | 10.0 | 9.0 | 9.5 | 8.5 | 5.5 | | | 8.0 | 8.0 | |
| 30-31 | 8.5 | | 3.0 | 6.0 | | 7.0 | 4.5 | | 2.0 | 3.0 | | 4.0 | | | | 7.0 | 5.5 | 5.5 | 4.5 | 5.5 | 6.0 | 6.5 | 4.0 |

AAVSO RR Lyrae Ephemeris for August 2022

all times in U.T.

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| | SW | XX | AT | SW | TZ | BH | RS | ST | SW | SZ | TV | TW | UU | UY | RR | XZ | DM | RW | XZ | RR | TW | VX | AR |
|-------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| | AND | AND | AND | AQR | AUR | AUR | BOO | BOO | BOO | BOO | BOO | BOO | BOO | BOO | CET | CYG | CYG | DRA | DRA | GEM | HER | HER | HER |
| MAX | 9.3 | 10.3 | 10.8 | 10.5 | 11.2 | 11.1 | 9.8 | 10.6 | 11.3 | 12.0 | 10.8 | 10.8 | 11.2 | 10.6 | 9.3 | 9.1 | 11.2 | 11.0 | 9.6 | 10.7 | 10.5 | 9.9 | 10.6 |
| MIN | 10.8 | 11.6 | 11.5 | 12.1 | 12.8 | 12.6 | 11.3 | 11.8 | 12.7 | 13.4 | 11.5 | 12.1 | 12.7 | 12.0 | 10.3 | 10.5 | 12.7 | 12.0 | 10.3 | 11.9 | 11.8 | 10.4 | 11.6 |
| RISE | 2 | 3 | 3 | 1 | 2 | 2 | 2 | 3 | 2 | 2 | 3 | 2 | 1 | 2 | 2 | 3 | 2 | 2 | 3 | 2 | 2 | 2 | 2 |
| 0- 1 | 6.0 | | 8.5 | 4.5 | | | | | | 3.0 | 1.5 | | 2.0 | | | 5.5 | 1.5 | 3.0 | 3.5 | | | 3.5 | 5.0 |
| 1- 2 | 3.0 | 5.5 | | 2.5 | | 9.5 | 4.0 | | 1.5 | 4.0 | | 2.5 | | | | 4.0 | 8.0 | | 2.5 | 5.5 | 1.5 | 3.5 | |
| 2- 3 | | | 5.0 | | | 7.5 | | 7.0 | 2.0 | 5.0 | 6.0 | 4.0 | | | 7.0 | 2.5 | 4.0 | 8.0 | | | | | 2.0 |
| 3- 4 | 8.0 | 9.5 | 10.5 | 9.5 | | | 1.5 | | 3.0 | | 5.0 | 5.5 | 6.5 | | 9.5 | | 5.5 | | | 5.5 | | | |
| 4- 5 | 5.5 | | 1.5 | 7.5 | 8.5 | | 4.5 | 4.0 | 3.5 | | 3.5 | | 4.5 | | | 10.5 | 6.5 | 2.5 | 10.5 | | | 6.0 | |
| 5- 6 | 2.5 | | 7.0 | 5.5 | | | | | 4.0 | | 2.0 | | 2.5 | 3.5 | | 9.0 | 2.5 | 10.5 | 9.0 | 5.5 | 4.0 | | |
| 6- 7 | 10.5 | 7.0 | | 3.5 | | 10.0 | 2.0 | | 4.5 | | | | | | | 7.0 | 9.0 | 7.5 | 8.0 | | 2.0 | 7.5 | |
| 7- 8 | 7.5 | | 3.5 | 1.5 | | 8.0 | 5.0 | 6.5 | 5.5 | | 6.5 | | | 2.5 | 6.5 | 5.5 | 5.0 | 5.0 | 7.0 | 5.5 | | 6.5 | |
| 8- 9 | 5.0 | 11.0 | 9.0 | 10.5 | | | | | 6.0 | | 5.0 | | | | 9.0 | 4.0 | | 2.0 | 6.0 | | | | 5.0 |
| 9-10 | | 4.0 | | 8.5 | | | 2.0 | 3.5 | | | 3.5 | 2.5 | 5.5 | | | 2.5 | 7.5 | 10.0 | 4.5 | 5.5 | 6.5 | 3.5 | |
| 10-11 | 10.0 | | 5.5 | 7.0 | | | 5.5 | | | 1.5 | 2.0 | 4.0 | 3.0 | | | | 3.5 | 7.5 | 3.5 | | | 4.0 | 2.0 |
| 11-12 | 7.0 | 8.0 | 11.0 | 5.0 | | 10.5 | | | | 2.5 | | 5.5 | | | | 10.5 | 10.0 | 4.5 | 2.5 | 5.5 | 2.0 | | |
| 12-13 | 4.5 | | 2.0 | 3.0 | | 8.5 | 2.5 | 6.0 | | 3.5 | 6.5 | 7.0 | | | 6.0 | 8.5 | 6.0 | 2.0 | 1.5 | | | | |
| 13-14 | | | 7.5 | | 9.0 | | 6.0 | | | 4.5 | 5.0 | | | | 8.5 | 7.0 | 2.0 | 10.0 | | 5.5 | | | |
| 14-15 | 9.5 | 5.5 | | 10.0 | | | | 3.0 | | 5.5 | 3.5 | | 6.0 | 11.0 | 5.5 | 8.5 | 7.0 | 10.5 | | | | 6.5 | 7.5 |
| 15-16 | 6.5 | | 4.0 | 8.0 | | | 3.0 | | | | 2.0 | | 4.0 | | | 4.0 | 4.5 | 4.5 | 9.5 | 5.5 | 4.5 | 6.0 | |
| 16-17 | 4.0 | 9.5 | 9.5 | 6.0 | | | 6.5 | | | | | | 2.0 | | | 2.5 | | 1.5 | 8.0 | | 2.0 | 4.5 | |
| 17-18 | | 3.0 | | 4.0 | | 9.0 | | 5.5 | | | 6.5 | 2.0 | | | 5.5 | | 7.0 | 9.5 | 7.0 | 5.5 | | 3.0 | |
| 18-19 | 9.0 | | 6.0 | 2.0 | | | 3.5 | | | | 5.0 | 3.5 | | 4.0 | 8.0 | 10.5 | 3.0 | 6.5 | 6.0 | | | 1.5 | |
| 19-20 | 6.0 | 7.0 | 11.5 | | | | | 2.5 | | | 3.5 | 5.0 | 6.5 | | 10.5 | 8.5 | 9.0 | 4.0 | 5.0 | 5.5 | 6.5 | | |
| 20-21 | 3.5 | | 2.5 | 9.5 | | | | | 1.5 | | 2.0 | 6.5 | 4.5 | 2.5 | | 7.0 | 5.5 | | 3.5 | | | 4.5 | |
| 21-22 | | 11.0 | 8.0 | 7.5 | | | 4.0 | | 2.0 | | | | 2.5 | | | 5.5 | 1.5 | 9.0 | 2.5 | 5.0 | 2.5 | 8.5 | |
| 22-23 | 8.5 | 4.5 | | 5.5 | 9.0 | 9.5 | | 5.0 | 3.0 | 2.0 | 6.5 | | | 1.5 | | 4.0 | 8.0 | 6.5 | 1.5 | | | 7.0 | |
| 23-24 | 6.0 | | 4.5 | 3.5 | | 7.0 | 1.5 | | 3.5 | 3.0 | 5.0 | | | | 7.5 | 2.5 | 4.0 | 3.5 | | 5.0 | | 6.0 | |
| 24-25 | 3.0 | 8.5 | 10.0 | 1.5 | | | 4.5 | 1.5 | 4.0 | 4.0 | 3.5 | | | | 10.0 | | | 10.5 | | | | 7.0 | 4.5 |
| 25-26 | | | | 10.5 | | | | | 5.0 | 5.0 | 2.0 | 1.5 | 5.0 | | | 10.5 | 6.5 | 9.0 | 9.5 | 9.5 | 5.0 | 5.0 | 3.0 |
| 26-27 | 8.0 | | 6.5 | 8.5 | | | 2.0 | | 5.5 | | | 3.0 | 3.0 | | | 8.5 | 2.5 | 6.0 | 8.5 | | 2.5 | 1.5 | |
| 27-28 | 5.5 | 6.0 | | 6.5 | | 9.5 | 5.0 | 4.5 | 6.0 | | 6.5 | 4.5 | | | | 7.0 | 8.5 | 3.5 | 7.5 | 5.0 | | | |
| 28-29 | | | 3.0 | 4.5 | | 7.5 | | | | | 5.0 | 6.0 | | | 7.0 | 5.5 | 5.0 | | 6.0 | | | | |
| 29-30 | 10.5 | 10.0 | 8.5 | 2.5 | | | 2.0 | | | | 3.5 | | | | 9.5 | 4.0 | | 8.5 | 5.0 | 5.0 | 7.0 | 8.5 | |
| 30-31 | 7.5 | 3.0 | | | | | 5.5 | 7.0 | | | 2.0 | | 5.5 | | | 2.5 | 7.0 | 5.5 | 4.0 | | | 5.0 | 7.0 |

all times in U.T.

| | DL | DY | RR | RZ | AV | RV |
|-------|------|------|------|------|------|------|
| | HER | HER | LYR | LYR | PEG | UMA |
| MAX | 11.0 | 10.2 | 7.1 | 10.0 | 9.9 | 10.1 |
| MIN | 12.4 | 10.6 | 8.1 | 12.0 | 10.9 | 11.2 |
| RISE | 1 | 1 | 2 | 2 | 2 | 3 |
| 0- 1 | | 4.5 | 3.0 | 1.5 | 7.0 | |
| 1- 2 | | 1.5 | 6.0 | 2.0 | 1.5 | 7.0 |
| 2- 3 | 3.0 | | 9.5 | 2.5 | 5.5 | 5.5 |
| 3- 4 | 7.5 | | | 3.5 | | 4.0 |
| 4- 5 | | 4.5 | 2.5 | 4.0 | 4.5 | 2.5 |
| 5- 6 | 2.0 | 2.0 | 5.5 | 4.5 | 8.5 | |
| 6- 7 | 6.5 | | 8.5 | 5.0 | 3.5 | |
| 7- 8 | | | | 5.5 | 7.5 | |
| 8- 9 | | 5.0 | 1.5 | 6.0 | 2.0 | |
| 9-10 | 5.5 | 2.5 | 4.5 | 6.5 | 6.0 | 6.0 |
| 10-11 | | | 8.0 | 7.0 | | 4.5 |
| 11-12 | | | 11.0 | 7.5 | 5.0 | 3.0 |
| 12-13 | 4.5 | 5.5 | | 8.0 | 9.0 | 1.5 |
| 13-14 | | 2.5 | 4.0 | 8.5 | 4.0 | |
| 14-15 | | | 7.0 | 9.0 | 8.0 | |
| 15-16 | 3.5 | | 10.5 | 9.5 | 3.0 | |
| 16-17 | 8.0 | 5.5 | | 10.5 | 7.0 | 6.5 |
| 17-18 | | 3.0 | 3.0 | | 1.5 | 5.0 |
| 18-19 | 2.5 | | 6.5 | | 5.5 | 3.5 |
| 19-20 | 7.0 | | 9.5 | | | 2.0 |
| 20-21 | | 6.0 | | | 4.5 | |
| 21-22 | 1.5 | 3.5 | 2.5 | | 8.5 | |
| 22-23 | 6.0 | | 5.5 | | 3.5 | |
| 23-24 | | | 8.5 | 2.0 | 7.5 | 7.0 |
| 24-25 | | 6.0 | | 2.5 | 2.5 | 5.5 |
| 25-26 | 5.0 | 3.5 | 1.5 | 3.0 | 6.5 | 4.0 |
| 26-27 | | | 5.0 | 3.5 | | 2.5 |
| 27-28 | | | 8.0 | 4.0 | 5.0 | |
| 28-29 | 4.0 | 6.5 | 11.0 | 4.5 | 9.5 | |
| 29-30 | | 4.0 | | 5.0 | 4.0 | |
| 30-31 | | 1.5 | 4.0 | 5.5 | 8.0 | |

| | SW | XX | AT | SW | TZ | BH | RS | ST | SW | SZ | TV | TW | UU | UY | RW | TT | RR | XZ | DM | RW | XZ | RR | TW |
|-------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| | AND | AND | AND | AQR | AUR | AUR | BOO | BOO | BOO | BOO | BOO | BOO | BOO | BOO | CNC | CNC | CET | CYG | CYG | DRA | DRA | GEM | HER |
| MAX | 9.3 | 10.3 | 10.8 | 10.5 | 11.2 | 11.1 | 9.8 | 10.6 | 11.3 | 12.0 | 10.8 | 10.8 | 11.2 | 10.6 | 10.7 | 11.0 | 9.3 | 9.1 | 11.2 | 11.0 | 9.6 | 10.7 | 10.5 |
| MIN | 10.8 | 11.6 | 11.5 | 12.1 | 12.8 | 12.6 | 11.3 | 11.8 | 12.7 | 13.4 | 11.5 | 12.1 | 12.7 | 12.0 | 12.6 | 12.3 | 10.3 | 10.5 | 12.7 | 12.0 | 10.3 | 11.9 | 11.8 |
| RISE | 2 | 3 | 3 | 1 | 2 | 2 | 2 | 3 | 2 | 2 | 3 | 2 | 1 | 2 | 2 | 3 | 2 | 3 | 2 | 2 | 3 | 2 | 2 |
| 0- 1 | 5.0 | | 5.0 | | 9.5 | | | | | | | | 3.5 | | | | | 0.5 | 3.5 | 3.0 | 2.5 | 8.5 | 5.0 |
| 1- 2 | 2.0 | 7.0 | 10.5 | 8.0 | | 10.0 | 2.5 | 4.0 | | | | | 1.5 | | | | 4.0 | 10.5 | 9.5 | | 1.5 | | |
| 2- 3 | 10.0 | | 1.0 | 6.0 | 8.5 | 8.0 | | | | 1.5 | | 1.0 | | | 10.0 | | 6.5 | 8.5 | 6.0 | 8.0 | | 8.0 | 5.0 |
| 3- 4 | 7.0 | 11.5 | 7.0 | 4.0 | | 6.0 | | 0.5 | | 2.5 | 3.5 | 2.5 | | | | 10.5 | 9.0 | 7.0 | 2.0 | 5.5 | 11.0 | | |
| 4- 5 | 4.5 | 4.5 | | 2.0 | 7.5 | | 3.0 | | | 3.5 | 2.0 | 4.0 | | 2.0 | | | 11.5 | 5.5 | 8.0 | 2.5 | 9.5 | 8.0 | 5.0 |
| 5- 6 | 1.5 | | 3.0 | | | | | | | | | | 4.5 | | | | | 4.0 | 4.5 | | 8.5 | | |
| 6- 7 | 9.5 | 8.5 | 9.0 | 9.0 | | 10.5 | | 3.5 | | | | | 2.0 | 1.0 | | | 3.5 | 2.0 | | 8.0 | 7.5 | 7.5 | 5.0 |
| 7- 8 | 6.5 | 2.0 | | 7.0 | | 8.5 | 3.5 | | 1.0 | | | | | | | | 6.0 | 0.5 | 6.5 | 5.0 | 6.5 | | |
| 8- 9 | 4.0 | | 5.5 | 5.0 | | 6.5 | | | 1.5 | | 3.5 | | | | | 10.5 | 8.5 | 10.0 | 3.0 | 2.5 | 5.0 | | 5.0 |
| 9-10 | 1.0 | 6.0 | 11.0 | 3.5 | | | 1.0 | | 2.0 | | 2.0 | | | | | | 11.0 | 8.5 | 9.0 | | 4.0 | | |
| 10-11 | 9.0 | | 1.5 | 1.5 | | | 4.0 | | 3.0 | | | 0.5 | 5.0 | | | | | 7.0 | 5.0 | 7.5 | 3.0 | | 4.5 |
| 11-12 | 6.0 | 10.0 | 7.5 | | 8.5 | 11.0 | | 3.0 | 3.5 | | | 2.5 | 3.0 | | | | | 5.5 | 1.5 | 4.5 | 2.0 | | |
| 12-13 | 3.5 | 3.5 | | 8.5 | | 9.0 | 1.5 | | 4.0 | | | 4.0 | 1.0 | | | 11.0 | 5.5 | 4.0 | 7.5 | 2.0 | 0.5 | | 4.5 |
| 13-14 | 0.5 | | 3.5 | 6.5 | 7.5 | 6.5 | 4.5 | | | 1.0 | 3.5 | | | | | | 8.0 | 2.0 | 4.0 | | 11.0 | | |
| 14-15 | 8.5 | 7.5 | 9.5 | 4.5 | | | | | | 2.0 | 2.0 | | | | | 11.0 | 10.5 | 0.5 | 10.0 | 7.0 | 10.0 | | 4.5 |
| 15-16 | 5.5 | 1.0 | | 2.5 | 6.5 | | 1.5 | | | 3.0 | | | | | | | | 10.0 | 6.0 | 4.5 | 8.5 | | |
| 16-17 | 3.0 | 11.5 | 5.5 | 0.5 | | | | 2.5 | | | | | 3.5 | | | 9.5 | | 8.5 | 2.5 | 1.5 | 7.5 | | 4.5 |
| 17-18 | | 5.0 | 11.5 | | | 9.0 | | | | | | | 1.5 | 2.5 | | | 4.5 | 7.0 | 8.5 | | 6.5 | | |
| 18-19 | 8.0 | | 2.0 | 8.0 | | 7.0 | 2.0 | | | | 3.5 | | | | | | 7.5 | 5.5 | 4.5 | 7.0 | 5.5 | | 4.5 |
| 19-20 | 5.0 | 9.0 | 8.0 | 6.0 | | 5.0 | | 5.0 | | | 2.0 | 2.0 | | 1.0 | | | 10.0 | 4.0 | 1.0 | 4.0 | 4.0 | | |
| 20-21 | 2.5 | 2.0 | | 4.0 | 8.5 | | | | | | | 3.5 | | | | 11.5 | | 2.0 | 7.0 | 1.5 | 3.0 | | 4.5 |
| 21-22 | 10.5 | | 4.0 | 2.0 | | | 2.5 | 2.0 | | | | 5.0 | 4.0 | | | | 11.5 | | 0.5 | 3.0 | | 2.0 | |
| 22-23 | 7.5 | 6.5 | 10.0 | | 7.5 | 9.5 | | | | | | | 2.0 | | | | 4.0 | 10.0 | 9.5 | 6.5 | 1.0 | | 4.5 |
| 23-24 | 5.0 | | 0.5 | 9.0 | | 7.5 | | | | | 3.5 | | | | | | 6.5 | 8.5 | 5.5 | 4.0 | 11.0 | 9.5 | |
| 24-25 | 2.0 | 10.5 | 6.0 | 7.0 | 6.5 | 5.5 | 3.0 | 4.5 | | | 2.0 | | | | | | 9.5 | 7.0 | 2.0 | 1.0 | 10.0 | | 4.5 |
| 25-26 | 10.0 | 3.5 | 12.0 | 5.0 | | | | | | 1.5 | | | | | | | 9.5 | 10.0 | 12.0 | 5.5 | 8.0 | 9.0 | 9.0 |
| 26-27 | 7.0 | | 2.5 | 3.0 | | | | 1.5 | 1.0 | 2.5 | | | 5.0 | | | 12.0 | | 4.0 | 4.0 | 6.0 | 7.5 | | 4.5 |
| 27-28 | 4.5 | 7.5 | 8.0 | 1.0 | | 10.0 | 3.5 | | 1.5 | 3.5 | | 1.5 | 2.5 | | | | 3.5 | 2.0 | | 3.5 | 6.5 | 9.0 | |
| 28-29 | 1.5 | 1.0 | | | | 8.0 | | | 2.5 | | 3.5 | 3.0 | 0.5 | | | | 6.0 | 0.5 | 6.5 | 0.5 | 5.5 | | 4.5 |
| 29-30 | 9.5 | 11.5 | 4.5 | 8.5 | 9.0 | 6.0 | 1.0 | 4.0 | 3.0 | | 2.0 | 4.5 | | | | | 8.5 | 10.0 | 2.5 | 8.5 | 4.5 | 8.5 | |

| | VX | AR | DL | DY | SZ | UU | DH | RR | WW | SZ | RR | RZ | AV | RV |
|-------|------|------|------|------|------|------|------|------|------|-----|-----|------|------|------|
| | HER | HER | HER | HER | HYA | HYA | HYA | LEO | LEO | LYN | LYR | LYR | PEG | UMA |
| MAX | 9.9 | 10.6 | 11.0 | 10.2 | 10.6 | 10.7 | 11.4 | 10.0 | 11.0 | 9.1 | 7.1 | 10.0 | 9.9 | 10.1 |
| MIN | 10.4 | 11.6 | 12.4 | 10.6 | 11.7 | 12.3 | 12.6 | 11.7 | 12.0 | 9.6 | 8.1 | 12.0 | 10.9 | 11.2 |
| RISE | 2 | 2 | 1 | 1 | 2 | 2 | 2 | 2 | 3 | 1 | 2 | 2 | 2 | 3 |
| 0- 1 | 3.0 | 5.5 | 3.0 | | | | | | 11.5 | | 7.0 | 6.0 | 3.0 | |
| 1- 2 | 0.5 | 4.0 | | | | 11.5 | | | | 7.5 | | 6.5 | 7.0 | 4.5 |
| 2- 3 | | 2.5 | | 4.0 | | | | | | | | 7.0 | 2.0 | 3.0 |
| 3- 4 | | 1.0 | 2.0 | 1.5 | | | | | 11.5 | | 3.0 | 7.5 | 6.0 | 1.5 |
| 4- 5 | 5.0 | | | | 11.5 | | | | | | 6.5 | 8.5 | 0.5 | |
| 5- 6 | 3.0 | | | | | | | | | 7.0 | 9.5 | | 4.5 | |
| 6- 7 | 1.0 | | 1.0 | 4.5 | | | | | 12.0 | | | | 9.0 | |
| 7- 8 | | 7.0 | 5.5 | 2.0 | | | | | | | 2.5 | | 3.5 | |
| 8- 9 | | 5.5 | | | | | | 10.5 | | | 5.5 | | 7.5 | 5.0 |
| 9-10 | | 4.0 | | | | | | | | | 9.0 | | 2.5 | 3.5 |
| 10-11 | 3.5 | 2.5 | 4.5 | 5.0 | | | | | | 8.5 | | | 6.5 | 2.0 |
| 11-12 | 1.0 | 1.0 | | 2.5 | | | | | | | 1.5 | | 1.5 | |
| 12-13 | | | | | | 11.5 | | | | | 5.0 | | 5.5 | |
| 13-14 | | | 3.5 | | | | | | | | 8.0 | 1.0 | | |
| 14-15 | | | | | | | | | | 8.0 | | 1.5 | 4.0 | |
| 15-16 | 3.5 | 6.5 | | 2.5 | | | | | | | 1.0 | 2.0 | 8.5 | |
| 16-17 | 1.5 | 5.0 | 2.5 | | | | 11.5 | | | | 4.0 | 2.5 | 3.0 | 4.0 |
| 17-18 | | 3.5 | | | | | | | | | 7.5 | 3.0 | 7.0 | 2.5 |
| 18-19 | | 2.0 | | | | | | | | 7.5 | | 3.5 | 2.0 | 1.0 |
| 19-20 | | 1.0 | 1.5 | 3.0 | | | | | | | | 4.0 | 6.0 | |
| 20-21 | 3.5 | | 5.5 | | | | | | | | 3.5 | 4.5 | 1.0 | |
| 21-22 | 1.5 | | | | | | | | | | 6.5 | 5.0 | 5.0 | |
| 22-23 | | | | | | | | | | | 9.5 | 5.5 | 9.0 | |
| 23-24 | | 6.5 | 4.5 | 3.0 | | 11.5 | | | | | | 6.0 | 3.5 | 4.5 |
| 24-25 | | 5.0 | | 0.5 | | | | | | | 2.5 | 7.0 | 8.0 | 3.0 |
| 25-26 | 4.0 | 3.5 | | | | | | | | | 5.5 | 7.5 | 2.5 | 1.5 |
| 26-27 | 2.0 | 2.0 | 3.5 | | 12.0 | | | | | | 9.0 | 8.0 | 6.5 | |
| 27-28 | | 0.5 | | 3.5 | | | | 10.5 | | 8.5 | | 8.5 | 1.5 | |
| 28-29 | | | | 1.0 | | | | | | | 1.5 | | 5.5 | |
| 29-30 | | | 2.5 | | | | | | | | 5.0 | | | |

| | SW | XX | AT | SW | TZ | BH | RS | ST | SW | SZ | TV | TW | UU | UY | RW | TT | RR | XZ | DM | RW | XZ | RR | TW |
|-------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| | AND | AND | AND | AQR | AUR | AUR | BOO | BOO | BOO | BOO | BOO | BOO | BOO | BOO | CNC | CNC | CET | CYG | CYG | DRA | DRA | GEM | HER |
| MAX | 9.3 | 10.3 | 10.8 | 10.5 | 11.2 | 11.1 | 9.8 | 10.6 | 11.3 | 12.0 | 10.8 | 10.8 | 11.2 | 10.6 | 10.7 | 11.0 | 9.3 | 9.1 | 11.2 | 11.0 | 9.6 | 10.7 | 10.5 |
| MIN | 10.8 | 11.6 | 11.5 | 12.1 | 12.8 | 12.6 | 11.3 | 11.8 | 12.7 | 13.4 | 11.5 | 12.1 | 12.7 | 12.0 | 12.6 | 12.3 | 10.3 | 10.5 | 12.7 | 12.0 | 10.3 | 11.9 | 11.8 |
| RISE | 2 | 3 | 3 | 1 | 2 | 2 | 2 | 3 | 2 | 2 | 3 | 2 | 1 | 2 | 2 | 3 | 2 | 3 | 2 | 2 | 3 | 2 | 2 |
| 0- 1 | 6.5 | 5.0 | 10.5 | 6.5 | | 3.5 | | | | | 0.5 | | | | 7.5 | 12.0 | 11.5 | 8.5 | 9.0 | 6.0 | 3.0 | | 4.0 |
| 1- 2 | 4.0 | | 1.0 | 4.5 | 8.0 | | | 1.0 | | | | | | | 10.0 | | | 7.0 | 5.0 | 3.0 | 2.0 | 8.0 | |
| 2- 3 | 1.0 | 9.0 | 6.5 | 2.5 | | 10.5 | 1.5 | | | | | | | | 12.5 | | 3.0 | 5.5 | 1.0 | 0.5 | 1.0 | | 4.0 |
| 3- 4 | 9.0 | 2.5 | | 0.5 | 7.0 | 8.5 | | | | | | | 1.5 | | | | 5.5 | 3.5 | 7.5 | | 11.5 | 8.0 | |
| 4- 5 | 6.0 | | 3.0 | | | 6.0 | | 3.5 | | | 2.0 | 12.5 | | 0.5 | | 10.5 | 8.0 | 2.0 | 3.5 | 5.5 | 10.0 | | 4.0 |
| 5- 6 | 3.5 | 6.5 | 8.5 | | 6.0 | 4.0 | 1.5 | | | | 0.5 | 1.0 | | | | 10.5 | 0.5 | | | 3.0 | 9.0 | 7.5 | |
| 6- 7 | 0.5 | | | 5.5 | | | | 0.5 | | 1.0 | | 2.5 | | | 8.0 | | | | 6.0 | 0.0 | 8.0 | | 4.0 |
| 7- 8 | 8.5 | 10.5 | 5.0 | 3.5 | 5.0 | 11.0 | | | | 2.0 | | | | | 10.5 | | 2.5 | 8.5 | 2.0 | | 7.0 | 7.0 | |
| 8- 9 | 5.5 | 4.0 | 11.0 | 2.0 | 9.0 | 8.5 | 2.0 | | | | | | 2.0 | | | 9.0 | 5.0 | 7.0 | 8.5 | 5.0 | 5.5 | | 4.0 |
| 9-10 | 3.0 | | 1.5 | | | 6.5 | | 3.0 | | | 2.0 | | | | | 12.0 | 7.5 | 5.5 | 4.5 | 2.5 | 4.5 | 7.0 | |
| 10-11 | 0.0 | 8.0 | 7.0 | | 8.0 | 4.5 | | | | | 0.5 | | | | | | 10.0 | 3.5 | 0.5 | | 3.5 | | 4.0 |
| 11-12 | 8.0 | 1.5 | | 7.0 | | | | | | | | | | | | | | 2.0 | 7.0 | | 2.5 | 6.5 | |
| 12-13 | 5.0 | 12.0 | 3.5 | 5.0 | 7.0 | | | | | | | | | | 8.5 | 8.0 | 2.0 | 0.5 | 3.0 | 5.0 | 1.0 | | 4.0 |
| 13-14 | 2.5 | 5.5 | 9.0 | 3.0 | | 9.0 | | | | | | 0.5 | 2.5 | | 11.0 | 11.0 | 4.5 | | | 2.0 | 0.0 | 6.0 | |
| 14-15 | 10.0 | | 0.0 | 1.0 | 6.0 | 7.0 | | 2.5 | 0.5 | | 2.0 | 2.5 | 0.5 | | | | 7.0 | 8.5 | 5.5 | | 10.5 | | 4.0 |
| 15-16 | 7.5 | 9.5 | 5.5 | | | 5.0 | | | 1.0 | | 0.5 | | | | | | 9.5 | 7.0 | 1.5 | | 9.0 | 6.0 | |
| 16-17 | 4.5 | 2.5 | 11.0 | | 5.0 | | 0.5 | | 1.5 | | | | | | | | | 5.5 | 8.0 | 4.5 | 8.0 | | 4.0 |
| 17-18 | 2.0 | | 2.0 | 6.0 | 9.5 | | | | 2.5 | 0.5 | | | | | | 9.5 | 1.5 | 3.5 | 4.0 | 2.0 | 7.0 | 5.5 | |
| 18-19 | 10.0 | 6.5 | 7.5 | 4.5 | | 9.5 | | | | 1.5 | | | 3.0 | | 9.0 | | 4.0 | 2.0 | 0.0 | | 6.0 | | 4.0 |
| 19-20 | 7.0 | 0.0 | | 2.5 | 8.5 | 7.5 | 1.0 | 2.0 | | | 2.0 | | 1.0 | | 11.5 | | 6.5 | 0.5 | 6.5 | 7.0 | 4.5 | | |
| 20-21 | 4.0 | 11.0 | 4.0 | 0.5 | | 5.5 | | | | | 0.5 | | | | | | 9.0 | | 2.5 | 4.0 | 3.5 | | 4.0 |
| 21-22 | 1.5 | 4.0 | 9.5 | | 7.5 | 3.0 | | | | | | 0.5 | | | | 8.0 | | 8.5 | 8.5 | 1.5 | 2.5 | | |
| 22-23 | 9.5 | | 0.5 | | | | 1.0 | | | | | 2.0 | | | | 11.0 | | 7.0 | 5.0 | | 1.5 | 9.5 | 3.5 |
| 23-24 | 6.5 | 8.0 | 6.0 | 5.5 | 6.5 | 10.0 | | | | | | | | | | | 3.5 | 5.5 | 1.0 | 6.5 | 0.0 | | |
| 24-25 | 4.0 | 1.5 | 11.5 | 3.5 | | 8.0 | | 1.5 | | | 2.0 | | 1.5 | | 9.5 | | 6.0 | 3.5 | 7.5 | 4.0 | 10.5 | 9.0 | 3.5 |
| 25-26 | 1.0 | 12.0 | 2.5 | 1.5 | 5.5 | 5.5 | 1.5 | | | | 0.5 | | | | 12.0 | | 8.5 | 2.0 | 3.5 | 1.0 | 9.5 | | |
| 26-27 | 9.0 | 5.5 | 8.0 | | | 3.5 | | | | | | | | | | 10.0 | 11.0 | 0.5 | | | 8.0 | 9.0 | 3.5 |
| 27-28 | 6.0 | | | | | | | | | | | | | | | | | | 6.0 | 6.5 | 7.0 | | |
| 28-29 | 3.5 | 9.5 | 4.5 | 7.0 | 8.5 | 10.5 | 2.0 | | | | | | | | | | 3.0 | 8.5 | 2.0 | 3.5 | 6.0 | 8.5 | 3.5 |
| 29-30 | 0.5 | 3.0 | 10.0 | 5.0 | | 8.0 | | 1.0 | | 1.0 | 2.0 | | 2.5 | | 8.0 | | 5.5 | 7.0 | 8.0 | 1.0 | 5.0 | | |
| 30-31 | 8.5 | | 1.0 | 3.0 | 7.5 | 6.0 | | | | | 0.5 | 1.5 | 0.5 | | 10.0 | 8.5 | 8.0 | 5.0 | 4.5 | | 3.5 | 8.0 | 3.5 |

| | VX | AR | DL | DY | SZ | UU | DG | DH | RR | SS | TV | WW | SZ | RR | RZ | AV | RV |
|-------|------|------|------|------|------|------|------|------|------|------|------|------|-----|-----|------|------|------|
| | HER | HER | HER | HER | HYA | HYA | HYA | HYA | LEO | LEO | LEO | LEO | LYN | LYR | LYR | PEG | UMA |
| MAX | 9.9 | 10.6 | 11.0 | 10.2 | 10.6 | 10.7 | 11.6 | 11.4 | 10.0 | 10.5 | 11.5 | 11.0 | 9.1 | 7.1 | 10.0 | 9.9 | 10.1 |
| MIN | 10.4 | 11.6 | 12.4 | 10.6 | 11.7 | 12.3 | 12.6 | 12.6 | 11.7 | 12.0 | 12.6 | 12.0 | 9.6 | 8.1 | 12.0 | 10.9 | 11.2 |
| RISE | 2 | 2 | 1 | 1 | 2 | 2 | 3 | 2 | 2 | 2 | 2 | 3 | 1 | 2 | 2 | 2 | 3 |
| 0- 1 | | | | | | | | | | | | | 6.0 | | | 4.5 | |
| 1- 2 | 2.0 | | | | | | | | | | | | 8.0 | | | 8.5 | |
| 2- 3 | | 4.5 | 1.5 | 1.0 | 10.0 | 9.5 | 10.5 | | 10.0 | | | 10.0 | | 1.0 | | 3.0 | 2.0 |
| 3- 4 | | 3.0 | | | 11.5 | 10.5 | | | | | | | | 4.0 | | 7.5 | 0.5 |
| 4- 5 | | 1.5 | | | | 11.5 | | | | | 11.0 | | 5.5 | 7.5 | | 2.0 | 10.0 |
| 5- 6 | | 0.5 | 0.5 | | | | 11.0 | | | | | 10.5 | 7.5 | | 0.5 | 6.0 | |
| 6- 7 | 2.0 | | | 1.5 | | | | | | | 11.5 | | | 0.0 | 1.0 | 1.0 | |
| 7- 8 | 0.0 | | | | | | | | 9.5 | | | | | 3.5 | 1.5 | 5.0 | |
| 8- 9 | | | | | | | | | | | 12.0 | 11.0 | | 6.5 | 2.0 | | |
| 9-10 | | | | | 9.5 | | | 11.0 | | | | | 7.0 | | 2.5 | 4.0 | 2.5 |
| 10-11 | | 4.5 | | 2.0 | 11.0 | | | 10.5 | | | | | | | 3.0 | 8.0 | 1.0 |
| 11-12 | 2.5 | 3.0 | | | | | | 11.5 | 10.0 | | | 11.0 | | 2.5 | 3.5 | 2.5 | 10.5 |
| 12-13 | 0.5 | 1.5 | 3.0 | | | | | 9.5 | 9.0 | | | | | 6.0 | 4.0 | 7.0 | |
| 13-14 | | 0.0 | | | | 9.5 | | | | 11.5 | | | 6.5 | | 5.0 | 1.5 | |
| 14-15 | | | | 2.0 | | 10.5 | 12.0 | | | | | 11.5 | 8.5 | | 5.5 | 5.5 | |
| 15-16 | | | 2.0 | | | 11.5 | | | | | | | | 2.0 | 6.0 | 0.5 | |
| 16-17 | 2.5 | | | | | | | | 10.5 | | | | | 5.0 | 6.5 | 4.5 | 3.0 |
| 17-18 | 0.5 | | | | 11.0 | | | | | | | 12.0 | 6.0 | | | 8.5 | 1.5 |
| 18-19 | | 4.0 | 1.0 | 2.5 | | | | | | 11.5 | | | 8.0 | | | 3.5 | 11.0 |
| 19-20 | | 2.5 | | | | | | | | | | | | 1.0 | | 7.5 | 9.5 |
| 20-21 | | 1.0 | | | | | | | | | | 12.0 | | 4.0 | | 2.0 | |
| 21-22 | 3.0 | | 0.0 | | | | | | 10.0 | | | | 5.5 | 7.5 | | 6.5 | |
| 22-23 | 0.5 | | | 3.0 | | | | | | | | | 7.5 | | | 1.0 | |
| 23-24 | | | | 0.0 | | | | | | 12.0 | | | | 0.0 | | 5.0 | |
| 24-25 | | | | | 10.5 | 9.5 | | | | | | | | 3.5 | | | 2.0 |
| 25-26 | | | 3.5 | | 12.5 | 10.5 | | | | | | | | 6.5 | | 4.0 | 0.5 |
| 26-27 | 3.0 | 4.0 | | | | 11.5 | | | 9.5 | | | | 7.0 | | | 8.0 | 10.0 |
| 27-28 | 1.0 | 2.5 | | 0.5 | | | | | | | | | | | 0.0 | 3.0 | |
| 28-29 | | 1.0 | 2.5 | | | | | | | 12.0 | | | | 2.5 | 0.5 | 7.0 | |
| 29-30 | | | | | | | | | | | | | | 6.0 | 1.0 | 1.5 | |
| 30-31 | | | | | | | | | | | | | 6.5 | | 1.5 | 6.0 | |

| | SW | XX | AT | SW | TZ | BH | RS | ST | SW | SZ | TW | UU | UY | RW | TT | RR | XZ | DM | RW | XZ | RR | TW | VX |
|-------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| | AND | AND | AND | AQR | AUR | AUR | BOO | BOO | BOO | BOO | BOO | BOO | BOO | CNC | CNC | CET | CYG | CYG | DRA | DRA | GEM | HER | HER |
| MAX | 9.3 | 10.3 | 10.8 | 10.5 | 11.2 | 11.1 | 9.8 | 10.6 | 11.3 | 12.0 | 10.8 | 11.2 | 10.6 | 10.7 | 11.0 | 9.3 | 9.1 | 11.2 | 11.0 | 9.6 | 10.7 | 10.5 | 9.9 |
| MIN | 10.8 | 11.6 | 11.5 | 12.1 | 12.8 | 12.6 | 11.3 | 11.8 | 12.7 | 13.4 | 12.1 | 12.7 | 12.0 | 12.6 | 12.3 | 10.3 | 10.5 | 12.7 | 12.0 | 10.3 | 11.9 | 11.8 | 10.4 |
| RISE | 2 | 3 | 3 | 1 | 2 | 2 | 2 | 3 | 2 | 2 | 2 | 1 | 2 | 2 | 3 | 2 | 3 | 2 | 2 | 3 | 2 | 2 | 2 |
| 0- 1 | 5.5 | 7.0 | 6.5 | 1.0 | | 4.0 | | 12.5 | 11.5 | | | | | 12.5 | 11.5 | | 3.5 | 0.5 | | 2.5 | | | |
| 1- 2 | 3.0 | 0.5 | | | 6.5 | 2.0 | | | 12.0 | | | | | | | | 2.0 | 6.5 | 3.0 | 1.5 | 8.0 | | 1.0 |
| 2- 3 | 0.0 | 11.0 | 3.0 | | | 11.0 | | | | | | | | | | 2.5 | 0.5 | 3.0 | 0.5 | 0.5 | | | |
| 3- 4 | 8.0 | 4.5 | 8.5 | | 5.5 | 8.5 | | 0.5 | | | | | | 6.0 | 7.0 | 5.0 | | | | 10.5 | 7.5 | 3.5 | |
| 4- 5 | 5.0 | | | 4.0 | | 6.5 | | | | | | 1.0 | | 8.0 | 10.0 | 7.5 | | 5.5 | | 9.5 | | | |
| 5- 6 | 2.5 | 8.5 | 5.0 | 2.0 | 4.5 | 4.5 | 0.5 | 12.0 | | | 11.0 | | | 10.5 | | | 7.0 | 1.5 | 3.0 | 8.5 | 7.0 | 3.5 | |
| 6- 7 | | 1.5 | | 0.0 | 8.5 | 2.5 | | | | | 12.5 | | | 13.0 | | | 5.0 | | 0.0 | 7.0 | | | 1.5 |
| 7- 8 | 7.5 | | 1.5 | | 3.5 | | | | | 11.0 | | | 12.5 | | 6.0 | 2.0 | 3.5 | 4.0 | | 6.0 | 7.0 | 3.5 | |
| 8- 9 | 4.5 | 6.0 | 7.0 | | 7.5 | 9.0 | | | | 12.0 | | | | | 9.0 | 4.5 | 2.0 | | | 5.0 | | | |
| 9-10 | 2.0 | | | | 2.5 | 7.0 | | | | | | | 11.0 | 6.5 | 12.0 | 7.0 | 0.5 | 6.0 | 2.5 | 4.0 | 6.5 | 3.5 | |
| 10-11 | 9.5 | 10.0 | 3.5 | 3.5 | 6.5 | 5.0 | | 11.5 | | | | | | 8.5 | | 9.5 | | 2.5 | 10.5 | 2.5 | | | |
| 11-12 | 7.0 | 3.0 | 9.0 | 1.5 | | 2.5 | | | | | | | | 11.0 | | | | | | 1.5 | 6.5 | 3.0 | |
| 12-13 | 4.0 | | | | 5.5 | | | | | | | | | | 7.5 | 1.5 | 7.0 | 4.5 | 5.0 | 0.5 | | | |
| 13-14 | 1.5 | 7.0 | 5.5 | | | 9.5 | | | | | 10.5 | | | | 10.5 | 4.0 | 5.0 | 1.0 | 2.0 | 11.0 | 6.0 | 3.0 | |
| 14-15 | 9.0 | 0.5 | | | 4.5 | 7.5 | | | | | 12.0 | | | | | 6.5 | 3.5 | | 10.0 | 9.5 | | | |
| 15-16 | 6.5 | 11.0 | 2.0 | 4.5 | 9.0 | 5.0 | | | | | 0.5 | 0.0 | | 7.0 | | 9.0 | 2.0 | 3.5 | | 8.5 | 5.5 | 3.0 | |
| 16-17 | 3.5 | 4.5 | 7.5 | 2.5 | 3.5 | 3.0 | | | | | | | | 9.0 | 6.0 | | 0.5 | | 4.5 | 7.5 | | | |
| 17-18 | 1.0 | | | 1.0 | 8.0 | 1.0 | | | 10.0 | | | | | 11.5 | 9.0 | 0.5 | | 5.5 | 2.0 | 6.5 | 5.5 | 3.0 | |
| 18-19 | 9.0 | 8.5 | 4.0 | | 2.5 | 10.0 | | | 11.0 | | | | | | 12.5 | 3.5 | | 2.0 | 10.0 | 5.0 | | | |
| 19-20 | 6.0 | 2.0 | 9.5 | | 7.0 | 8.0 | | | 11.5 | 11.5 | | | | | | 6.0 | 7.0 | | | 4.0 | 5.0 | 3.0 | |
| 20-21 | 3.0 | | 0.5 | | | 5.5 | | | 12.0 | 0.0 | | 1.0 | 12.5 | | | 8.5 | 5.0 | 4.0 | 4.5 | 3.0 | | | |
| 21-22 | 0.5 | 6.0 | 6.0 | 4.0 | 6.0 | 3.5 | | | | | 10.0 | | | 7.5 | 8.0 | | 3.5 | 0.5 | 1.5 | 2.0 | 4.5 | 3.0 | |
| 22-23 | 8.5 | | | 2.0 | | 1.5 | | | | | 11.5 | | 11.5 | 9.5 | 11.0 | 0.0 | 2.0 | 6.5 | | 0.5 | 9.0 | | |
| 23-24 | 5.5 | 10.0 | 2.5 | 0.0 | 5.0 | 10.5 | | | | | 0.5 | | | 12.0 | | 2.5 | 0.5 | 2.5 | | 11.0 | 4.5 | 3.0 | |
| 24-25 | 2.5 | 3.5 | 8.0 | | 9.0 | 8.0 | | | | | | | | | | 5.5 | | | 4.0 | 10.0 | 9.0 | | |
| 25-26 | | | | | 4.0 | 6.0 | 0.5 | | | | | | | | 6.5 | 8.0 | | 5.0 | 1.5 | 8.5 | 4.0 | 3.0 | |
| 26-27 | 8.0 | 7.5 | 4.5 | | 8.0 | 4.0 | | 1.0 | | | | | | 5.5 | 9.5 | | 7.0 | 1.5 | | 7.5 | 8.5 | | |
| 27-28 | 5.0 | 1.0 | 10.0 | 3.5 | 3.0 | 2.0 | | | | | | | | 8.0 | 12.5 | | 5.0 | | | 6.5 | 3.5 | 3.0 | 0.0 |
| 28-29 | 2.5 | | 1.0 | 1.5 | 7.0 | 10.5 | | 12.5 | | | | | | 10.0 | | 2.0 | 3.5 | 3.5 | 3.5 | 5.5 | 8.5 | | |
| 29-30 | | 5.0 | 6.5 | | | 8.5 | | | | | | | | 12.5 | | 4.5 | 2.0 | | 1.0 | 4.0 | 3.5 | 3.0 | |

| | AR | DL | DY | SZ | UU | DG | DH | RR | SS | TV | WW | SZ | RR | RZ | AV | RV |
|-------|------|------|------|------|------|------|------|------|------|------|------|-----|-----|------|------|------|
| | HER | HER | HER | HYA | HYA | HYA | HYA | LEO | LEO | LEO | LEO | LYN | LYR | LYR | PEG | UMA |
| MAX | 10.6 | 11.0 | 10.2 | 10.6 | 10.7 | 11.6 | 11.4 | 10.0 | 10.5 | 11.5 | 11.0 | 9.1 | 7.1 | 10.0 | 9.9 | 10.1 |
| MIN | 11.6 | 12.4 | 10.6 | 11.7 | 12.3 | 12.6 | 12.6 | 11.7 | 12.0 | 12.6 | 12.0 | 9.6 | 8.1 | 12.0 | 10.9 | 11.2 |
| RISE | 2 | 1 | 1 | 2 | 2 | 3 | 2 | 2 | 2 | 2 | 3 | 1 | 2 | 2 | 2 | 3 |
| 0- 1 | | 1.5 | 1.0 | 10.0 | | | 11.5 | 9.0 | | 9.0 | 8.5 | 8.5 | | 2.0 | 0.5 | |
| 1- 2 | | | | 12.0 | | | 11.0 | 7.0 | | | | | 2.0 | 2.5 | 4.5 | 1.0 |
| 2- 3 | | | | | 7.0 | 8.5 | 10.5 | | 12.5 | 9.5 | | 3.5 | 5.0 | 3.5 | | 10.5 |
| 3- 4 | | 0.5 | | | 8.5 | | 10.0 | | | 9.0 | 6.0 | | | 4.0 | 3.5 | 9.0 |
| 4- 5 | 2.0 | | | | 9.5 | | 9.0 | 11.0 | 9.5 | 10.0 | | 8.0 | | 4.5 | | 7.5 |
| 5- 6 | 0.5 | | | | 10.5 | 9.0 | 8.5 | 8.5 | | | | | 1.0 | | 2.5 | |
| 6- 7 | | | | 8.0 | 11.5 | | 8.0 | | | 10.5 | 9.5 | 3.0 | 4.5 | | 6.5 | |
| 7- 8 | | | | 9.5 | | | 7.5 | | 12.5 | | | 5.0 | | | 1.0 | |
| 8- 9 | | | | 11.5 | | 9.5 | 7.0 | | | 11.0 | | 7.5 | | | 5.5 | |
| 9-10 | | | | | | | | 10.0 | 9.5 | | 9.5 | | 0.5 | | 0.0 | 11.0 |
| 10-11 | | | | | | | | 8.0 | | 11.5 | | | 3.5 | | 4.0 | 9.5 |
| 11-12 | | | | | | 10.0 | | | | | | 4.5 | | | | 8.0 |
| 12-13 | 2.0 | | | | | | | | 13.0 | 12.0 | 10.0 | 6.5 | | | 3.0 | |
| 13-14 | 0.5 | 2.0 | | 7.5 | 7.0 | | | | | | | | | | | |
| 14-15 | | | | 9.5 | 8.5 | 10.5 | | 9.5 | 10.0 | 12.5 | | | 2.5 | | 2.0 | |
| 15-16 | | | | 11.0 | 9.5 | | | 7.5 | | | 10.5 | 4.0 | | | 6.0 | |
| 16-17 | | 1.0 | | 13.0 | 10.5 | | | | | 12.5 | | 6.0 | | | 0.5 | 0.5 |
| 17-18 | | | | | 11.5 | 10.5 | | | | | | 8.0 | | | 5.0 | 10.0 |
| 18-19 | | | | | | | | | | 10.5 | | | 2.0 | | | 8.5 |
| 19-20 | | | | | | | | 9.0 | 10.0 | | | 3.5 | 5.0 | 0.0 | 3.5 | |
| 20-21 | 1.5 | | | | | 11.0 | | 7.0 | | | | 5.5 | | 0.5 | | |
| 21-22 | 0.5 | | | 9.0 | | | | | | 11.0 | 7.5 | | | 1.0 | 2.5 | |
| 22-23 | | | | 10.5 | | | 11.5 | | | | | | 1.0 | 2.0 | 6.5 | |
| 23-24 | | | | 12.5 | | 11.5 | 11.0 | 11.0 | | | | | 4.5 | 2.5 | 1.5 | 1.0 |
| 24-25 | | | | | 7.0 | | 10.5 | 8.5 | 10.5 | | 11.5 | 5.0 | | 3.0 | 5.5 | 10.5 |
| 25-26 | | | 0.0 | | 8.5 | | 10.0 | | | | | 7.0 | | 3.5 | 0.0 | 9.0 |
| 26-27 | | | | | 9.5 | 12.0 | 9.5 | | | | 6.5 | | 0.5 | 4.0 | 4.5 | 7.5 |
| 27-28 | | | | | 10.5 | | 9.0 | | | | 11.5 | | 3.5 | | | |
| 28-29 | 1.5 | | | 8.5 | 12.0 | | 8.5 | 10.0 | | | | 4.5 | | | 3.0 | |
| 29-30 | 0.0 | 1.0 | 0.5 | 10.5 | | 12.5 | 8.0 | 8.0 | 11.0 | | 7.0 | 6.5 | | | | |

| | SW | XX | AT | SW | TZ | BH | RS | ST | SW | SZ | TW | UU | UY | RW | TT | RR | XZ | DM | RW | XZ | RR | AR | DL |
|-------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| | AND | AND | AND | AQR | AUR | AUR | BOO | BOO | BOO | BOO | BOO | BOO | BOO | CNC | CNC | CET | CYG | CYG | DRA | DRA | GEM | HER | HER |
| MAX | 9.3 | 10.3 | 10.8 | 10.5 | 11.2 | 11.1 | 9.8 | 10.6 | 11.3 | 12.0 | 10.8 | 11.2 | 10.6 | 10.7 | 11.0 | 9.3 | 9.1 | 11.2 | 11.0 | 9.6 | 10.7 | 10.6 | 11.0 |
| MIN | 10.8 | 11.6 | 11.5 | 12.1 | 12.8 | 12.6 | 11.3 | 11.8 | 12.7 | 13.4 | 12.1 | 12.7 | 12.0 | 12.6 | 12.3 | 10.3 | 10.5 | 12.7 | 12.0 | 10.3 | 11.9 | 11.6 | 12.4 |
| RISE | 2 | 3 | 3 | 1 | 2 | 2 | 2 | 3 | 2 | 2 | 2 | 1 | 2 | 2 | 3 | 2 | 3 | 2 | 2 | 3 | 2 | 2 | 1 |
| 0- 1 | 7.5 | | | | 6.0 | 6.5 | | 9.5 | | 11.0 | 11.0 | | | | 8.5 | 7.5 | 0.5 | | 9.0 | 3.0 | 8.0 | 10.0 | |
| 1- 2 | 4.5 | 9.0 | 3.0 | | 1.0 | 4.5 | | | | 12.0 | 12.5 | 11.0 | | 3.5 | 11.5 | | | 2.0 | | 2.0 | 3.0 | | |
| 2- 3 | 2.0 | 2.0 | | | 5.0 | 2.5 | | | | | | | | 6.0 | | | | | | 1.0 | 7.5 | | |
| 3- 4 | | | | 2.5 | 9.5 | 0.0 | | 12.0 | 8.5 | | | | | 8.5 | 4.0 | 1.5 | | 4.5 | 0.5 | 11.0 | 2.5 | | |
| 4- 5 | 7.0 | 6.0 | 5.0 | 0.5 | 4.0 | 9.0 | | | 9.0 | | | | | 10.5 | 7.0 | 4.0 | 5.0 | 0.5 | 8.5 | 10.0 | 7.5 | | |
| 5- 6 | 4.0 | | | | 8.5 | 7.0 | | | 9.5 | | | | 12.0 | 13.0 | 10.0 | 6.5 | 3.5 | | | | 9.0 | 2.5 | |
| 6- 7 | 1.5 | | 1.5 | | 3.0 | 5.0 | | | 10.0 | | | | | | | | 2.0 | 3.0 | 3.0 | 7.5 | 7.0 | | |
| 7- 8 | | 3.5 | 7.0 | | 7.5 | 2.5 | | | 11.0 | | 9.5 | 9.5 | 10.5 | 4.0 | | | 0.5 | | 0.5 | 6.5 | 2.0 | 11.0 | |
| 8- 9 | 6.5 | | | | 2.0 | 0.5 | | 11.5 | 11.5 | | 11.0 | | | 6.5 | 5.5 | 1.0 | | | 8.0 | 5.5 | 6.5 | 9.5 | 12.5 |
| 9-10 | 3.5 | 7.5 | 3.5 | 2.0 | 6.5 | 9.5 | | | 12.0 | | 12.5 | | 9.5 | 8.5 | 8.5 | 3.5 | | 1.5 | | | 4.5 | 1.5 | |
| 10-11 | 1.0 | 1.0 | | | 1.0 | 7.5 | | | | 9.5 | | | | 11.0 | 11.5 | 6.0 | | | | 2.5 | 3.0 | 6.5 | |
| 11-12 | | | | | 5.5 | 5.0 | | | | 10.5 | | | | | | | 5.0 | 4.0 | 10.5 | 2.0 | 1.5 | | |
| 12-13 | 6.0 | 5.0 | 5.5 | | | 3.0 | 9.0 | | | 11.5 | | 10.0 | | | 4.0 | | 3.5 | 0.0 | 8.0 | 1.0 | 6.0 | | |
| 13-14 | 3.0 | | | | 4.5 | 1.0 | | 11.0 | | | | | | 4.5 | 7.5 | 0.5 | 2.0 | | | | 11.5 | | |
| 14-15 | 0.5 | 9.0 | 2.0 | 3.0 | 8.5 | 10.0 | | | | | | | | 7.0 | 10.5 | 3.0 | 0.5 | 2.5 | 2.5 | 10.0 | 5.5 | | |
| 15-16 | | 2.5 | 7.5 | 1.0 | 3.5 | 7.5 | | | | | 9.0 | | | 9.0 | | 5.5 | | | 10.5 | 9.0 | | 11.0 | |
| 16-17 | 5.5 | | | | 7.5 | 5.5 | | | | | 10.5 | | | 11.5 | | | | 5.0 | | 8.0 | 5.5 | 9.5 | |
| 17-18 | 2.5 | 6.5 | 4.0 | | 2.5 | 3.5 | | | | | 12.0 | 10.5 | | | | | | 1.0 | | 7.0 | | | |
| 18-19 | | | | | 6.5 | 1.5 | | 10.5 | | | | | 12.5 | | 9.0 | | 5.0 | | 2.0 | 5.5 | 5.0 | | |
| 19-20 | 8.0 | | 0.0 | | 1.5 | 10.0 | | | | | | | | 5.0 | 12.0 | 2.5 | 3.5 | 3.5 | 10.0 | 4.5 | | | |
| 20-21 | 5.0 | 4.0 | 6.0 | 2.5 | 5.5 | 8.0 | | | | | | | 11.0 | 7.5 | | 5.0 | 2.0 | | | 3.5 | 4.5 | | |
| 21-22 | 2.0 | | | 0.5 | | 6.0 | | | | 9.0 | | | | 9.5 | 4.5 | | 0.5 | | | 2.5 | 9.5 | | 13.0 |
| 22-23 | | 8.0 | 2.5 | | 4.5 | 4.0 | | | 8.5 | 10.0 | | | 10.0 | 12.0 | 7.5 | | | 2.0 | 1.5 | 1.0 | 4.5 | 0.5 | |
| 23-24 | 7.5 | 1.0 | 8.0 | | 8.5 | 2.0 | | 10.0 | 9.0 | 11.0 | 8.5 | 9.5 | | | 10.5 | | | | 9.5 | 11.5 | 9.0 | 10.5 | |
| 24-25 | 4.5 | | | | 3.5 | 10.5 | | | 9.5 | 12.0 | 10.0 | | | | | 2.0 | | 4.5 | | 10.5 | 4.0 | 9.0 | |
| 25-26 | 1.5 | 5.5 | 4.5 | | 7.5 | 8.5 | | | 10.5 | | 11.5 | | | 5.5 | | 4.5 | 5.0 | 0.5 | | 9.0 | 8.5 | | |
| 26-27 | | | | 2.0 | 2.5 | 6.5 | | 13.0 | 11.0 | | | | | 8.0 | 6.5 | 7.0 | 3.5 | | 1.5 | 8.0 | 3.5 | | |
| 27-28 | 7.0 | 9.5 | 0.5 | | 6.5 | 4.5 | | | 11.5 | | | | | 10.0 | 9.5 | | 2.0 | 3.0 | 9.5 | 7.0 | 8.5 | | |
| 28-29 | 4.0 | 2.5 | 6.5 | | 1.5 | 2.0 | | 9.5 | 12.0 | | | 10.0 | | 12.5 | 12.5 | | 0.0 | | | 6.0 | 3.5 | | |
| 29-30 | 1.5 | | | | 5.5 | 0.0 | | | | | | | | | | 1.5 | | | | 4.5 | 8.0 | | |
| 30-31 | | 6.5 | 2.5 | | 0.5 | 9.0 | | | | | | | | 4.0 | 5.0 | 4.0 | | 1.5 | 1.0 | 3.5 | 3.0 | 0.5 | |

| | SZ | UU | DG | DH | RR | SS | TV | WW | SZ | RR | RZ | AV | RV |
|-------|------|------|------|------|------|------|------|------|-----|-----|------|------|------|
| | HYA | HYA | HYA | HYA | LEO | LEO | LEO | LEO | LYN | LYR | LYR | PEG | UMA |
| MAX | 10.6 | 10.7 | 11.6 | 11.4 | 10.0 | 10.5 | 11.5 | 11.0 | 9.1 | 7.1 | 10.0 | 9.9 | 10.1 |
| MIN | 11.7 | 12.3 | 12.6 | 12.6 | 11.7 | 12.0 | 12.6 | 12.0 | 9.6 | 8.1 | 12.0 | 10.9 | 11.2 |
| RISE | 2 | 2 | 3 | 2 | 2 | 2 | 2 | 3 | 1 | 2 | 2 | 2 | 3 |
| 0- 1 | 12.0 | | 6.5 | 7.0 | 5.5 | | | 12.0 | 8.5 | | | 2.0 | |
| 1- 2 | | | | 6.5 | | 8.0 | 8.0 | | 2.0 | 3.0 | | | 11.0 |
| 2- 3 | | | 13.0 | 6.0 | | | | 7.5 | 4.0 | | | 1.0 | 9.5 |
| 3- 4 | | | 7.0 | 5.5 | 9.5 | | 8.5 | 12.5 | 6.0 | | | 5.0 | 8.0 |
| 4- 5 | 6.5 | 6.0 | | | 7.5 | 11.0 | | | 8.0 | | | | 6.5 |
| 5- 6 | 8.0 | 7.0 | | | 5.0 | | 9.0 | 8.0 | 1.5 | 2.0 | | 3.5 | |
| 6- 7 | 10.0 | 8.5 | 7.5 | | | 8.0 | | 12.5 | 3.5 | | | | |
| 7- 8 | 11.5 | 9.5 | | | | | 9.5 | | 5.5 | | | 2.5 | |
| 8- 9 | | 10.5 | | | 9.0 | | | 8.0 | 7.5 | | | | |
| 9-10 | | 12.0 | 7.5 | | 7.0 | 11.5 | 10.0 | | | 1.0 | | 1.5 | 10.0 |
| 10-11 | | | | | 4.5 | | | | 3.0 | | | | 8.5 |
| 11-12 | 6.0 | | | | | 8.5 | 10.0 | 8.5 | 5.0 | | | 0.5 | 7.0 |
| 12-13 | 8.0 | | 8.0 | | 11.0 | | | | 7.0 | | 0.5 | 4.5 | 5.5 |
| 13-14 | 9.5 | | | | 8.5 | | 10.5 | | | 0.5 | 1.0 | | |
| 14-15 | 11.5 | | | 11.5 | 6.0 | 11.5 | | 9.0 | 2.5 | 3.5 | 1.5 | 3.0 | |
| 15-16 | | 6.0 | 8.5 | 11.0 | | | 11.0 | | 4.5 | | 2.0 | | |
| 16-17 | | 7.0 | | 10.5 | | 8.5 | | | 6.5 | | 2.5 | 2.0 | 10.5 |
| 17-18 | | 8.5 | | 10.0 | 10.0 | | 11.5 | 9.0 | 8.5 | | | | 9.0 |
| 18-19 | 5.5 | 9.5 | 9.0 | 9.5 | 8.0 | | | | 2.0 | 3.0 | | 1.0 | 7.5 |
| 19-20 | 7.5 | 10.5 | | 9.0 | 5.5 | 12.0 | 12.0 | | 4.0 | | | | 6.0 |
| 20-21 | 9.0 | 12.0 | | 8.5 | | | | 9.5 | 6.0 | | | | |
| 21-22 | 11.0 | | 9.5 | 8.0 | | 9.0 | 12.5 | | 8.0 | | | 4.0 | |
| 22-23 | 13.0 | | | 7.5 | 9.5 | | | 5.0 | 1.5 | 2.0 | | | |
| 23-24 | | | | 7.0 | 7.5 | | 13.0 | 10.0 | 3.5 | | | 2.5 | 11.0 |
| 24-25 | | | 9.5 | 6.5 | 5.0 | 12.0 | | | 5.5 | | | | 9.5 |
| 25-26 | | | | 6.0 | | | | 5.0 | 7.5 | | | 1.5 | 8.0 |
| 26-27 | 7.0 | 6.0 | | 5.5 | | 9.0 | | 10.0 | | 1.5 | | | 6.5 |
| 27-28 | 9.0 | 7.5 | 10.0 | | 9.0 | | | | 3.0 | | | 0.5 | |
| 28-29 | 10.5 | 8.5 | | | 7.0 | | | 5.5 | 5.0 | | | 4.5 | |
| 29-30 | 12.5 | 9.5 | | | 4.5 | 12.5 | | 10.5 | 7.0 | | | | |
| 30-31 | | 10.5 | 10.5 | | | | | | | 0.5 | | 3.5 | |