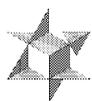


Sectorentabel
voor het
APC-systeem



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Bij de sectorentabel voor het APC-systeem

Het gebruik van de tabel

Deze sectorentabel is berekend voor 5° NB tot en met 70° NB, met een interval van 5°, en voor 49° NB tot en met 54° NB met een interval van 1°. Alle twaalf sectorcuspen alsmede de lengte en breedte van het zuidpunt, λ_z en β_z , zijn weergegeven voor de rechte klimming van het zuidpunt, α_z , van 0° tot en met 360° met een interval van 5°. Deze laatste twee waarden, λ_z en β_z , worden gebruikt om de astrologische lengte of ware plaats van Maan en planeten te berekenen.^{1,2}

De waarde van α_z kan worden berekend uit de sterrentijd volgens: $\alpha_z = 15 \times ST$. Door interpolatie tussen de regels van de tabel worden dan de juiste waarden gevonden bij de berekende α_z . Daarna kan nog worden geïnterpoleerd tussen de uitkomsten voor twee opeenvolgende breedten om de juiste waarden te vinden bij de precieze noorderbreedte.

Nauwkeurigheid

De maximale fout die ontstaat door lineaire interpolatie tussen opeenvolgende α_z -waarden bedraagt circa 0,06°. De maximale fout bij interpolatie tussen opeenvolgende noorderbreedten in Nederland en België (49°-54°) is circa 0,02°, bij lagere breedten (<49°) circa 0,07° en voor hogere breedten (>54°) circa 0,20°. Daarbij geldt dat de fout toeneemt bij toenemende breedte.

Bron van de gegevens

De eerste aanzet tot het ascendant-parallelcirkel-systeem is gegeven door L. Knecht.³ De juiste formules voor de sectorgrenzen zijn onder meer gegeven door P.F. van Solt, en later door H. Cosman.^{4,5} Een moderne formulering is gegeven door Th. Ram in Urania.⁶ De formules die voor de onderhavige tabellen zijn gebruikt met de bijbehorende definities luiden als volgt.

| | | | |
|---------------|--|----------------|-------------------------------------|
| n | = volgnummer sector | λ_z | = lengte zuidpunt |
| Φ | = geografische breedte | β_z | = breedte zuidpunt |
| α_z | = rechte klimming zuidpunt | kv_{asc} | = klimmingsverschil ascendant |
| ε | = hellingshoek ecliptica (hier voor 1-1-2000, 0 ^h UT) | δ_{asc} | = declinatie ascendant |
| | | $\alpha_{0,n}$ | = schuine klimming / -daling cusp n |
| | | λ_n | = lengte cusp n |

1. $\tan \lambda_z = (\sin \alpha_z \cos \varepsilon \tan \Phi - \sin \varepsilon) / (\cos \alpha_z \tan \Phi)$
2. $\sin \beta_z = -\cos \Phi \cos \varepsilon + \sin \Phi \sin \varepsilon \sin \alpha_z$
3. $\tan kv_{asc} = (\tan \Phi \tan \varepsilon \cos \alpha_z) / (1 + \tan \Phi \tan \varepsilon \sin \alpha_z)$
4. $\tan \delta_{asc} = \sin kv_{asc} / \tan \Phi$
5. voor $n < 8$: $\alpha_{0,n} = kv_{asc} + \alpha_z + 90 + (n - 1)(90 - kv_{asc}) / 3$
voor $n \geq 8$: $\alpha_{0,n} = kv_{asc} + \alpha_z + 90 + (n - 13)(90 + kv_{asc}) / 3$
6. $\tan \lambda_n = (\tan \delta_{asc} \tan \Phi \sin \alpha_z + \sin \alpha_{0,n}) / (\cos \varepsilon (\tan \delta_{asc} \tan \Phi \cos \alpha_z + \cos \alpha_{0,n}) + \sin \varepsilon \tan \Phi \sin (\alpha_z - \alpha_{0,n}))$

De filosofische achtergrond

Een discussie over huizensystemen en een bespreking van de filosofische achtergrond van het APC-systeem zijn onder meer te vinden in de *Syllabus astro-techniek*, en in Cosmans *Why APC-houses?*.^{7,5}

Ingmar de Boer, 25 november 2001

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5° NB

| α_z | λ_z | β_z | I | II | III | IV | V | VI | VII | VIII | IX | X | XI | XII |
|------------|-------------|-----------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0 | 12.40 𐄂 | 66.06 Z | 1.99 𐄂 | 29.04 𐄂 | 28.00 𐄂 | 0.00 𐄂 | 3.16 𐄂 | 4.10 𐄂 | 1.99 𐄂 | 29.84 𐄂 | 28.73 𐄂 | 0.00 𐄂 | 2.38 𐄂 | 3.25 𐄂 |
| 5 | 12.57 𐄂 | 65.64 Z | 6.57 𐄂 | 3.77 𐄂 | 3.15 𐄂 | 5.45 𐄂 | 8.39 𐄂 | 8.89 𐄂 | 6.57 𐄂 | 4.58 𐄂 | 3.89 𐄂 | 5.45 𐄂 | 7.63 𐄂 | 8.06 𐄂 |
| 10 | 12.65 𐄂 | 65.23 Z | 11.15 𐄂 | 8.57 𐄂 | 8.37 𐄂 | 10.88 𐄂 | 13.54 𐄂 | 13.62 𐄂 | 11.15 𐄂 | 9.38 𐄂 | 9.11 𐄂 | 10.88 𐄂 | 12.80 𐄂 | 12.80 𐄂 |
| 15 | 12.63 𐄂 | 64.83 Z | 15.74 𐄂 | 13.43 𐄂 | 13.64 𐄂 | 16.28 𐄂 | 18.61 𐄂 | 18.29 𐄂 | 15.74 𐄂 | 14.23 𐄂 | 14.37 𐄂 | 16.28 𐄂 | 17.89 𐄂 | 17.50 𐄂 |
| 20 | 12.52 𐄂 | 64.44 Z | 20.35 𐄂 | 18.35 𐄂 | 18.96 𐄂 | 21.64 𐄂 | 23.59 𐄂 | 22.91 𐄂 | 20.35 𐄂 | 19.14 𐄂 | 19.67 𐄂 | 21.64 𐄂 | 22.90 𐄂 | 22.16 𐄂 |
| 25 | 12.29 𐄂 | 64.07 Z | 25.00 𐄂 | 23.34 𐄂 | 24.30 𐄂 | 26.94 𐄂 | 28.49 𐄂 | 27.50 𐄂 | 25.00 𐄂 | 24.11 𐄂 | 24.99 𐄂 | 26.94 𐄂 | 27.84 𐄂 | 26.78 𐄂 |
| 30 | 11.96 𐄂 | 63.72 Z | 29.68 𐄂 | 28.40 𐄂 | 29.66 𐄂 | 2.18 𐄂 | 3.31 𐄂 | 2.08 𐄂 | 29.68 𐄂 | 29.14 𐄂 | 0.32 𐄂 | 2.18 𐄂 | 2.70 𐄂 | 1.39 𐄂 |
| 35 | 11.52 𐄂 | 63.39 Z | 4.41 𐄂 | 3.51 𐄂 | 5.03 𐄂 | 7.35 𐄂 | 8.06 𐄂 | 6.64 𐄂 | 4.41 𐄂 | 4.22 𐄂 | 5.65 𐄂 | 7.35 𐄂 | 7.50 𐄂 | 5.99 𐄂 |
| 40 | 10.96 𐄂 | 63.09 Z | 9.19 𐄂 | 8.69 𐄂 | 10.38 𐄂 | 12.45 𐄂 | 12.76 𐄂 | 11.20 𐄂 | 9.19 𐄂 | 9.36 𐄂 | 10.96 𐄂 | 12.45 𐄂 | 12.24 𐄂 | 10.59 𐄂 |
| 45 | 10.28 𐄂 | 62.81 Z | 14.03 𐄂 | 13.91 𐄂 | 15.71 𐄂 | 17.46 𐄂 | 17.41 𐄂 | 15.77 𐄂 | 14.03 𐄂 | 14.53 𐄂 | 16.24 𐄂 | 17.46 𐄂 | 16.93 𐄂 | 15.21 𐄂 |
| 50 | 9.49 𐄂 | 62.55 Z | 18.93 𐄂 | 19.18 𐄂 | 21.00 𐄂 | 22.41 𐄂 | 22.02 𐄂 | 20.36 𐄂 | 18.93 𐄂 | 19.74 𐄂 | 21.48 𐄂 | 22.41 𐄂 | 21.59 𐄂 | 19.85 𐄂 |
| 55 | 8.59 𐄂 | 62.32 Z | 23.89 𐄂 | 24.47 𐄂 | 26.25 𐄂 | 27.28 𐄂 | 26.60 𐄂 | 24.98 𐄂 | 23.89 𐄂 | 24.98 𐄂 | 26.67 𐄂 | 27.28 𐄂 | 26.22 𐄂 | 24.53 𐄂 |
| 60 | 7.59 𐄂 | 62.12 Z | 28.92 𐄂 | 29.78 𐄂 | 1.44 𐄂 | 2.09 𐄂 | 1.17 𐄂 | 29.65 𐄂 | 28.92 𐄂 | 0.22 𐄂 | 1.80 𐄂 | 2.09 𐄂 | 0.83 𐄂 | 29.25 𐄂 |
| 65 | 6.49 𐄂 | 61.95 Z | 4.00 𐄂 | 5.09 𐄂 | 6.57 𐄂 | 6.84 𐄂 | 5.72 𐄂 | 4.36 𐄂 | 4.00 𐄂 | 5.46 𐄂 | 6.87 𐄂 | 6.84 𐄂 | 5.44 𐄂 | 4.02 𐄂 |
| 70 | 5.30 𐄂 | 61.81 Z | 9.13 𐄂 | 10.38 𐄂 | 11.62 𐄂 | 11.53 𐄂 | 10.29 𐄂 | 9.12 𐄂 | 9.13 𐄂 | 10.69 𐄂 | 11.87 𐄂 | 11.53 𐄂 | 10.06 𐄂 | 8.84 𐄂 |
| 75 | 4.04 𐄂 | 61.70 Z | 14.30 𐄂 | 15.66 𐄂 | 16.62 𐄂 | 16.19 𐄂 | 14.87 𐄂 | 13.94 𐄂 | 14.30 𐄂 | 15.88 𐄂 | 16.80 𐄂 | 16.19 𐄂 | 14.70 𐄂 | 13.73 𐄂 |
| 80 | 2.73 𐄂 | 61.62 Z | 19.52 𐄂 | 20.90 𐄂 | 21.54 𐄂 | 20.81 𐄂 | 19.47 𐄂 | 18.82 𐄂 | 19.52 𐄂 | 21.05 𐄂 | 21.66 𐄂 | 20.81 𐄂 | 19.36 𐄂 | 18.68 𐄂 |
| 85 | 1.37 𐄂 | 61.58 Z | 24.75 𐄂 | 26.09 𐄂 | 26.40 𐄂 | 25.41 𐄂 | 24.12 𐄂 | 23.77 𐄂 | 24.75 𐄂 | 26.16 𐄂 | 26.46 𐄂 | 25.41 𐄂 | 24.06 𐄂 | 23.69 𐄂 |
| 90 | 0.00 𐄂 | 61.56 Z | 0.00 𐄂 | 1.23 𐄂 | 1.20 𐄂 | 0.00 𐄂 | 28.80 𐄂 | 28.77 𐄂 | 0.00 𐄂 | 1.23 𐄂 | 1.20 𐄂 | 0.00 𐄂 | 28.80 𐄂 | 28.77 𐄂 |
| 95 | 28.63 𐄂 | 61.58 Z | 5.25 𐄂 | 6.31 𐄂 | 5.94 𐄂 | 4.59 𐄂 | 3.54 𐄂 | 3.84 𐄂 | 5.25 𐄂 | 6.23 𐄂 | 5.88 𐄂 | 4.59 𐄂 | 3.60 𐄂 | 3.91 𐄂 |
| 100 | 27.27 𐄂 | 61.62 Z | 10.48 𐄂 | 11.32 𐄂 | 10.64 𐄂 | 9.19 𐄂 | 8.34 𐄂 | 8.95 𐄂 | 10.48 𐄂 | 11.18 𐄂 | 10.53 𐄂 | 9.19 𐄂 | 8.46 𐄂 | 9.10 𐄂 |
| 105 | 25.96 𐄂 | 61.70 Z | 15.70 𐄂 | 16.27 𐄂 | 15.30 𐄂 | 13.81 𐄂 | 13.20 𐄂 | 14.12 𐄂 | 15.70 𐄂 | 16.06 𐄂 | 15.13 𐄂 | 13.81 𐄂 | 13.38 𐄂 | 14.34 𐄂 |
| 110 | 24.70 𐄂 | 61.81 Z | 20.87 𐄂 | 21.16 𐄂 | 19.94 𐄂 | 18.47 𐄂 | 18.13 𐄂 | 19.31 𐄂 | 20.87 𐄂 | 20.88 𐄂 | 19.71 𐄂 | 18.47 𐄂 | 18.38 𐄂 | 19.62 𐄂 |
| 115 | 23.51 𐄂 | 61.95 Z | 26.00 𐄂 | 25.98 𐄂 | 24.56 𐄂 | 23.16 𐄂 | 23.13 𐄂 | 24.54 𐄂 | 26.00 𐄂 | 25.64 𐄂 | 24.28 𐄂 | 23.16 𐄂 | 23.43 𐄂 | 24.91 𐄂 |
| 120 | 22.41 𐄂 | 62.12 Z | 1.08 𐄂 | 0.75 𐄂 | 29.17 𐄂 | 27.91 𐄂 | 28.20 𐄂 | 29.78 𐄂 | 1.08 𐄂 | 0.35 𐄂 | 28.83 𐄂 | 27.91 𐄂 | 28.56 𐄂 | 0.22 𐄂 |
| 125 | 21.41 𐄂 | 62.32 Z | 6.11 𐄂 | 5.47 𐄂 | 3.78 𐄂 | 2.72 𐄂 | 3.33 𐄂 | 5.02 𐄂 | 6.11 𐄂 | 5.02 𐄂 | 3.40 𐄂 | 2.72 𐄂 | 3.75 𐄂 | 5.53 𐄂 |
| 130 | 20.51 𐄂 | 62.55 Z | 11.07 𐄂 | 10.15 𐄂 | 8.41 𐄂 | 7.59 𐄂 | 8.52 𐄂 | 10.26 𐄂 | 11.07 𐄂 | 9.64 𐄂 | 7.98 𐄂 | 7.59 𐄂 | 9.00 𐄂 | 10.82 𐄂 |
| 135 | 19.72 𐄂 | 62.81 Z | 15.97 𐄂 | 14.79 𐄂 | 13.07 𐄂 | 12.54 𐄂 | 13.76 𐄂 | 15.47 𐄂 | 15.97 𐄂 | 14.23 𐄂 | 12.59 𐄂 | 12.54 𐄂 | 14.29 𐄂 | 16.09 𐄂 |
| 140 | 19.04 𐄂 | 63.09 Z | 20.81 𐄂 | 19.41 𐄂 | 17.76 𐄂 | 17.55 𐄂 | 19.04 𐄂 | 20.64 𐄂 | 20.81 𐄂 | 18.80 𐄂 | 17.24 𐄂 | 17.55 𐄂 | 19.62 𐄂 | 21.31 𐄂 |
| 145 | 18.48 𐄂 | 63.39 Z | 25.59 𐄂 | 24.01 𐄂 | 22.50 𐄂 | 22.65 𐄂 | 24.35 𐄂 | 25.78 𐄂 | 25.59 𐄂 | 23.36 𐄂 | 21.94 𐄂 | 22.65 𐄂 | 24.97 𐄂 | 26.49 𐄂 |
| 150 | 18.04 𐄂 | 63.72 Z | 0.32 𐄂 | 28.61 𐄂 | 27.30 𐄂 | 27.82 𐄂 | 29.68 𐄂 | 0.86 𐄂 | 0.32 𐄂 | 27.92 𐄂 | 26.69 𐄂 | 27.82 𐄂 | 0.34 𐄂 | 1.60 𐄂 |
| 155 | 17.71 𐄂 | 64.07 Z | 5.00 𐄂 | 3.22 𐄂 | 2.16 𐄂 | 3.06 𐄂 | 5.01 𐄂 | 5.89 𐄂 | 5.00 𐄂 | 2.50 𐄂 | 1.51 𐄂 | 3.06 𐄂 | 5.70 𐄂 | 6.66 𐄂 |
| 160 | 17.48 𐄂 | 64.44 Z | 9.65 𐄂 | 7.84 𐄂 | 7.10 𐄂 | 8.36 𐄂 | 10.33 𐄂 | 10.86 𐄂 | 9.65 𐄂 | 7.09 𐄂 | 6.41 𐄂 | 8.36 𐄂 | 11.04 𐄂 | 11.65 𐄂 |
| 165 | 17.37 𐄂 | 64.83 Z | 14.26 𐄂 | 12.50 𐄂 | 12.11 𐄂 | 13.72 𐄂 | 15.63 𐄂 | 15.77 𐄂 | 14.26 𐄂 | 11.71 𐄂 | 11.39 𐄂 | 13.72 𐄂 | 16.36 𐄂 | 16.57 𐄂 |
| 170 | 17.35 𐄂 | 65.23 Z | 18.85 𐄂 | 17.20 𐄂 | 17.20 𐄂 | 19.12 𐄂 | 20.89 𐄂 | 20.62 𐄂 | 18.85 𐄂 | 16.38 𐄂 | 16.46 𐄂 | 19.12 𐄂 | 21.63 𐄂 | 21.43 𐄂 |
| 175 | 17.43 𐄂 | 65.64 Z | 23.43 𐄂 | 21.94 𐄂 | 22.37 𐄂 | 24.55 𐄂 | 26.11 𐄂 | 25.42 𐄂 | 23.43 𐄂 | 21.11 𐄂 | 21.61 𐄂 | 24.55 𐄂 | 26.85 𐄂 | 26.23 𐄂 |
| 180 | 17.60 𐄂 | 66.06 Z | 28.01 𐄂 | 26.75 𐄂 | 27.62 𐄂 | 0.00 𐄂 | 1.27 𐄂 | 0.16 𐄂 | 28.01 𐄂 | 25.90 𐄂 | 26.84 𐄂 | 0.00 𐄂 | 2.00 𐄂 | 0.96 𐄂 |

5° NB

| α_z | λ_z | β_z | I | II | III | IV | V | VI | VII | VIII | IX | X | XI | XII | | | | | | | | | | | | | |
|------------|-------------|-----------|---|-------|-----|-------|---|-------|-----|-------|----|-------|----|-------|---|-------|---|-------|---|-------|---|-------|---|-------|---|-------|---|
| 185 | 17.85 | 66.49 | Z | 2.60 | ♁ | 1.62 | ♁ | 2.95 | ♁ | 5.45 | ♁ | 6.37 | ♁ | 4.86 | ♁ | 2.60 | ♁ | 0.76 | ♁ | 2.16 | ♁ | 5.45 | ♁ | 7.09 | ♁ | 5.65 | ♁ |
| 190 | 18.18 | 66.93 | Z | 7.21 | ♁ | 6.58 | ♁ | 8.34 | ♁ | 10.88 | ♁ | 11.41 | ♁ | 9.51 | ♁ | 7.21 | ♁ | 5.71 | ♁ | 7.55 | ♁ | 10.88 | ♁ | 12.11 | ♁ | 10.29 | ♁ |
| 195 | 18.59 | 67.36 | Z | 11.85 | ♁ | 11.61 | ♁ | 13.79 | ♁ | 16.28 | ♁ | 16.38 | ♁ | 14.14 | ♁ | 11.85 | ♁ | 10.74 | ♁ | 13.01 | ♁ | 16.28 | ♁ | 17.06 | ♁ | 14.90 | ♁ |
| 200 | 19.06 | 67.80 | Z | 16.54 | ♁ | 16.73 | ♁ | 19.28 | ♁ | 21.64 | ♁ | 21.28 | ♁ | 18.75 | ♁ | 16.54 | ♁ | 15.86 | ♁ | 18.52 | ♁ | 21.64 | ♁ | 21.94 | ♁ | 19.49 | ♁ |
| 205 | 19.59 | 68.22 | Z | 21.28 | ♁ | 21.93 | ♁ | 24.81 | ♁ | 26.94 | ♁ | 26.13 | ♁ | 23.34 | ♁ | 21.28 | ♁ | 21.08 | ♁ | 24.07 | ♁ | 26.94 | ♁ | 26.75 | ♁ | 24.06 | ♁ |
| 210 | 20.18 | 68.64 | Z | 26.08 | ♁ | 27.22 | ♁ | 0.34 | ♁ | 2.18 | ♁ | 0.91 | ♁ | 27.94 | ♁ | 26.08 | ♁ | 26.39 | ♁ | 29.63 | ♁ | 2.18 | ♁ | 1.50 | ♁ | 28.62 | ♁ |
| 215 | 20.83 | 69.05 | Z | 0.96 | ♁ | 2.59 | ♁ | 5.88 | ♁ | 7.35 | ♁ | 5.65 | ♁ | 2.54 | ♁ | 0.96 | ♁ | 1.79 | ♁ | 5.21 | ♁ | 7.35 | ♁ | 6.20 | ♁ | 3.20 | ♁ |
| 220 | 21.52 | 69.44 | Z | 5.92 | ♁ | 8.02 | ♁ | 11.39 | ♁ | 12.45 | ♁ | 10.33 | ♁ | 7.17 | ♁ | 5.92 | ♁ | 7.27 | ♁ | 10.77 | ♁ | 12.45 | ♁ | 10.85 | ♁ | 7.79 | ♁ |
| 225 | 22.25 | 69.80 | Z | 10.97 | ♁ | 13.52 | ♁ | 16.87 | ♁ | 17.46 | ♁ | 14.99 | ♁ | 11.83 | ♁ | 10.97 | ♁ | 12.82 | ♁ | 16.30 | ♁ | 17.46 | ♁ | 15.46 | ♁ | 12.41 | ♁ |
| 230 | 23.02 | 70.14 | Z | 16.10 | ♁ | 19.07 | ♁ | 22.29 | ♁ | 22.41 | ♁ | 19.62 | ♁ | 16.54 | ♁ | 16.10 | ♁ | 18.43 | ♁ | 21.78 | ♁ | 22.41 | ♁ | 20.04 | ♁ | 17.07 | ♁ |
| 235 | 23.82 | 70.46 | Z | 21.33 | ♁ | 24.65 | ♁ | 27.66 | ♁ | 27.28 | ♁ | 24.23 | ♁ | 21.30 | ♁ | 21.33 | ♁ | 24.08 | ♁ | 27.20 | ♁ | 27.28 | ♁ | 24.61 | ♁ | 21.78 | ♁ |
| 240 | 24.65 | 70.74 | Z | 26.65 | ♁ | 0.25 | ♁ | 2.95 | ♁ | 2.09 | ♁ | 28.84 | ♁ | 26.12 | ♁ | 26.65 | ♁ | 29.75 | ♁ | 2.56 | ♁ | 2.09 | ♁ | 29.17 | ♁ | 26.55 | ♁ |
| 245 | 25.51 | 70.98 | Z | 2.06 | ♁ | 5.84 | ♁ | 8.16 | ♁ | 6.84 | ♁ | 3.45 | ♁ | 1.02 | ♁ | 2.06 | ♁ | 5.42 | ♁ | 7.84 | ♁ | 6.84 | ♁ | 3.74 | ♁ | 1.39 | ♁ |
| 250 | 26.38 | 71.19 | Z | 7.54 | ♁ | 11.42 | ♁ | 13.29 | ♁ | 11.53 | ♁ | 8.09 | ♁ | 6.00 | ♁ | 7.54 | ♁ | 11.07 | ♁ | 13.03 | ♁ | 11.53 | ♁ | 8.32 | ♁ | 6.30 | ♁ |
| 255 | 27.27 | 71.35 | Z | 13.09 | ♁ | 16.95 | ♁ | 18.33 | ♁ | 16.19 | ♁ | 12.75 | ♁ | 11.07 | ♁ | 13.09 | ♁ | 16.69 | ♁ | 18.14 | ♁ | 16.19 | ♁ | 12.92 | ♁ | 11.30 | ♁ |
| 260 | 28.18 | 71.47 | Z | 18.70 | ♁ | 22.43 | ♁ | 23.30 | ♁ | 20.81 | ♁ | 17.45 | ♁ | 16.22 | ♁ | 18.70 | ♁ | 22.26 | ♁ | 23.17 | ♁ | 20.81 | ♁ | 17.57 | ♁ | 16.38 | ♁ |
| 265 | 29.09 | 71.54 | Z | 24.34 | ♁ | 27.85 | ♁ | 28.18 | ♁ | 25.41 | ♁ | 22.20 | ♁ | 21.47 | ♁ | 24.34 | ♁ | 27.76 | ♁ | 28.12 | ♁ | 25.41 | ♁ | 22.26 | ♁ | 21.55 | ♁ |
| 270 | 0.00 | 71.56 | Z | 0.00 | ♁ | 3.19 | ♁ | 3.00 | ♁ | 0.00 | ♁ | 27.00 | ♁ | 26.81 | ♁ | 0.00 | ♁ | 3.19 | ♁ | 3.00 | ♁ | 0.00 | ♁ | 27.00 | ♁ | 26.81 | ♁ |
| 275 | 0.91 | 71.54 | Z | 5.66 | ♁ | 8.45 | ♁ | 7.74 | ♁ | 4.59 | ♁ | 1.88 | ♁ | 2.24 | ♁ | 5.66 | ♁ | 8.53 | ♁ | 7.80 | ♁ | 4.59 | ♁ | 1.82 | ♁ | 2.15 | ♁ |
| 280 | 1.82 | 71.47 | Z | 11.30 | ♁ | 13.62 | ♁ | 12.43 | ♁ | 9.19 | ♁ | 6.83 | ♁ | 7.74 | ♁ | 11.30 | ♁ | 13.78 | ♁ | 12.55 | ♁ | 9.19 | ♁ | 6.70 | ♁ | 7.57 | ♁ |
| 285 | 2.73 | 71.35 | Z | 16.91 | ♁ | 18.70 | ♁ | 17.08 | ♁ | 13.81 | ♁ | 11.86 | ♁ | 13.31 | ♁ | 16.91 | ♁ | 18.93 | ♁ | 17.25 | ♁ | 13.81 | ♁ | 11.67 | ♁ | 13.05 | ♁ |
| 290 | 3.62 | 71.19 | Z | 22.46 | ♁ | 23.70 | ♁ | 21.68 | ♁ | 18.47 | ♁ | 16.97 | ♁ | 18.93 | ♁ | 22.46 | ♁ | 24.00 | ♁ | 21.91 | ♁ | 18.47 | ♁ | 16.71 | ♁ | 18.58 | ♁ |
| 295 | 4.49 | 70.98 | Z | 27.94 | ♁ | 28.61 | ♁ | 26.26 | ♁ | 23.16 | ♁ | 22.16 | ♁ | 24.58 | ♁ | 27.94 | ♁ | 28.98 | ♁ | 26.55 | ♁ | 23.16 | ♁ | 21.84 | ♁ | 24.16 | ♁ |
| 300 | 5.35 | 70.74 | Z | 3.35 | ♁ | 3.45 | ♁ | 0.83 | ♁ | 27.91 | ♁ | 27.44 | ♁ | 0.25 | ♁ | 3.35 | ♁ | 3.88 | ♁ | 1.16 | ♁ | 27.91 | ♁ | 27.05 | ♁ | 29.75 | ♁ |
| 305 | 6.18 | 70.46 | Z | 8.67 | ♁ | 8.22 | ♁ | 5.39 | ♁ | 2.72 | ♁ | 2.80 | ♁ | 5.92 | ♁ | 8.67 | ♁ | 8.70 | ♁ | 5.77 | ♁ | 2.72 | ♁ | 2.34 | ♁ | 5.35 | ♁ |
| 310 | 6.98 | 70.14 | Z | 13.90 | ♁ | 12.93 | ♁ | 9.96 | ♁ | 7.59 | ♁ | 8.22 | ♁ | 11.57 | ♁ | 13.90 | ♁ | 13.46 | ♁ | 10.38 | ♁ | 7.59 | ♁ | 7.71 | ♁ | 10.93 | ♁ |
| 315 | 7.75 | 69.80 | Z | 19.03 | ♁ | 17.59 | ♁ | 14.54 | ♁ | 12.54 | ♁ | 13.70 | ♁ | 17.18 | ♁ | 19.03 | ♁ | 18.17 | ♁ | 15.01 | ♁ | 12.54 | ♁ | 13.13 | ♁ | 16.48 | ♁ |
| 320 | 8.48 | 69.44 | Z | 24.08 | ♁ | 22.21 | ♁ | 19.15 | ♁ | 17.55 | ♁ | 19.23 | ♁ | 22.73 | ♁ | 24.08 | ♁ | 22.83 | ♁ | 19.67 | ♁ | 17.55 | ♁ | 18.61 | ♁ | 21.98 | ♁ |
| 325 | 9.17 | 69.05 | Z | 29.04 | ♁ | 26.80 | ♁ | 23.80 | ♁ | 22.65 | ♁ | 24.79 | ♁ | 28.21 | ♁ | 29.04 | ♁ | 27.46 | ♁ | 24.35 | ♁ | 22.65 | ♁ | 24.12 | ♁ | 27.41 | ♁ |
| 330 | 9.82 | 68.64 | Z | 3.92 | ♁ | 1.38 | ♁ | 28.50 | ♁ | 27.82 | ♁ | 0.37 | ♁ | 3.61 | ♁ | 3.92 | ♁ | 2.06 | ♁ | 29.09 | ♁ | 27.82 | ♁ | 29.66 | ♁ | 2.78 | ♁ |
| 335 | 10.41 | 68.22 | Z | 8.72 | ♁ | 5.94 | ♁ | 3.25 | ♁ | 3.06 | ♁ | 5.93 | ♁ | 8.92 | ♁ | 8.72 | ♁ | 6.66 | ♁ | 3.87 | ♁ | 3.06 | ♁ | 5.19 | ♁ | 8.07 | ♁ |
| 340 | 10.94 | 67.80 | Z | 13.46 | ♁ | 10.51 | ♁ | 8.06 | ♁ | 8.36 | ♁ | 11.48 | ♁ | 14.14 | ♁ | 13.46 | ♁ | 11.25 | ♁ | 8.72 | ♁ | 8.36 | ♁ | 10.72 | ♁ | 13.27 | ♁ |
| 345 | 11.41 | 67.36 | Z | 18.15 | ♁ | 15.10 | ♁ | 12.94 | ♁ | 13.72 | ♁ | 16.99 | ♁ | 19.26 | ♁ | 18.15 | ♁ | 15.86 | ♁ | 13.62 | ♁ | 13.72 | ♁ | 16.21 | ♁ | 18.39 | ♁ |
| 350 | 11.82 | 66.93 | Z | 22.79 | ♁ | 19.71 | ♁ | 17.89 | ♁ | 19.12 | ♁ | 22.45 | ♁ | 24.29 | ♁ | 22.79 | ♁ | 20.49 | ♁ | 18.59 | ♁ | 19.12 | ♁ | 21.66 | ♁ | 23.42 | ♁ |
| 355 | 12.15 | 66.49 | Z | 27.40 | ♁ | 24.35 | ♁ | 22.91 | ♁ | 24.55 | ♁ | 27.84 | ♁ | 29.24 | ♁ | 27.40 | ♁ | 25.14 | ♁ | 23.63 | ♁ | 24.55 | ♁ | 27.05 | ♁ | 28.38 | ♁ |
| 360 | 12.40 | 66.06 | Z | 1.99 | ♁ | 29.04 | ♁ | 28.00 | ♁ | 0.00 | ♁ | 3.16 | ♁ | 4.10 | ♁ | 1.99 | ♁ | 29.84 | ♁ | 28.73 | ♁ | 0.00 | ♁ | 2.38 | ♁ | 3.25 | ♁ |

10° NB

| α_z | λ_z | β_z | I | II | III | IV | V | VI | VII | VIII | IX | X | XI | XII |
|------------|-------------|-----------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0 | 23.91 𐄂 | 64.63 Z | 4.01 𐄂 | 0.14 𐄂 | 28.16 𐄂 | 0.00 𐄂 | 4.22 𐄂 | 6.23 𐄂 | 4.01 𐄂 | 1.71 𐄂 | 29.59 𐄂 | 0.00 𐄂 | 2.60 𐄂 | 4.47 𐄂 |
| 5 | 24.60 𐄂 | 63.83 Z | 8.57 𐄂 | 4.81 𐄂 | 3.24 𐄂 | 5.45 𐄂 | 9.52 𐄂 | 11.05 𐄂 | 8.57 𐄂 | 6.38 𐄂 | 4.67 𐄂 | 5.45 𐄂 | 7.94 𐄂 | 9.33 𐄂 |
| 10 | 25.16 𐄂 | 63.07 Z | 13.12 𐄂 | 9.53 𐄂 | 8.37 𐄂 | 10.88 𐄂 | 14.72 𐄂 | 15.79 𐄂 | 13.12 𐄂 | 11.09 𐄂 | 9.80 𐄂 | 10.88 𐄂 | 13.19 𐄂 | 14.13 𐄂 |
| 15 | 25.57 𐄂 | 62.33 Z | 17.66 𐄂 | 14.30 𐄂 | 13.56 𐄂 | 16.28 𐄂 | 19.83 𐄂 | 20.46 𐄂 | 17.66 𐄂 | 15.84 𐄂 | 14.97 𐄂 | 16.28 𐄂 | 18.35 𐄂 | 18.86 𐄂 |
| 20 | 25.82 𐄂 | 61.63 Z | 22.22 𐄂 | 19.13 𐄂 | 18.79 𐄂 | 21.64 𐄂 | 24.84 𐄂 | 25.08 𐄂 | 22.22 𐄂 | 20.64 𐄂 | 20.17 𐄂 | 21.64 𐄂 | 23.43 𐄂 | 23.54 𐄂 |
| 25 | 25.88 𐄂 | 60.97 Z | 26.80 𐄂 | 24.02 𐄂 | 24.05 𐄂 | 26.94 𐄂 | 29.76 𐄂 | 29.65 𐄂 | 26.80 𐄂 | 25.48 𐄂 | 25.38 𐄂 | 26.94 𐄂 | 28.43 𐄂 | 28.19 𐄂 |
| 30 | 25.73 𐄂 | 60.34 Z | 1.41 𐄂 | 28.96 𐄂 | 29.33 𐄂 | 2.18 𐄂 | 4.59 𐄂 | 4.19 𐄂 | 1.41 𐄂 | 0.37 𐄂 | 0.60 𐄂 | 2.18 𐄂 | 3.34 𐄂 | 2.81 𐄂 |
| 35 | 25.34 𐄂 | 59.76 Z | 6.06 𐄂 | 3.96 𐄂 | 4.61 𐄂 | 7.35 𐄂 | 9.35 𐄂 | 8.71 𐄂 | 6.06 𐄂 | 5.31 𐄂 | 5.82 𐄂 | 7.35 𐄂 | 8.19 𐄂 | 7.41 𐄂 |
| 40 | 24.69 𐄂 | 59.22 Z | 10.74 𐄂 | 9.02 𐄂 | 9.89 𐄂 | 12.45 𐄂 | 14.04 𐄂 | 13.21 𐄂 | 10.74 𐄂 | 10.28 𐄂 | 11.02 𐄂 | 12.45 𐄂 | 12.97 𐄂 | 12.01 𐄂 |
| 45 | 23.75 𐄂 | 58.73 Z | 15.47 𐄂 | 14.11 𐄂 | 15.15 𐄂 | 17.46 𐄂 | 18.67 𐄂 | 17.72 𐄂 | 15.47 𐄂 | 15.29 𐄂 | 16.19 𐄂 | 17.46 𐄂 | 17.70 𐄂 | 16.62 𐄂 |
| 50 | 22.48 𐄂 | 58.28 Z | 20.25 𐄂 | 19.24 𐄂 | 20.38 𐄂 | 22.41 𐄂 | 23.26 𐄂 | 22.25 𐄂 | 20.25 𐄂 | 20.32 𐄂 | 21.32 𐄂 | 22.41 𐄂 | 22.39 𐄂 | 21.24 𐄂 |
| 55 | 20.87 𐄂 | 57.88 Z | 25.08 𐄂 | 24.40 𐄂 | 25.57 𐄂 | 27.28 𐄂 | 27.82 𐄂 | 26.79 𐄂 | 25.08 𐄂 | 25.36 𐄂 | 26.40 𐄂 | 27.28 𐄂 | 27.05 𐄂 | 25.89 𐄂 |
| 60 | 18.89 𐄂 | 57.54 Z | 29.96 𐄂 | 29.57 𐄂 | 0.71 𐄂 | 2.09 𐄂 | 2.35 𐄂 | 1.36 𐄂 | 29.96 𐄂 | 0.41 𐄂 | 1.42 𐄂 | 2.09 𐄂 | 1.68 𐄂 | 0.57 𐄂 |
| 65 | 16.53 𐄂 | 57.24 Z | 4.89 𐄂 | 4.75 𐄂 | 5.79 𐄂 | 6.84 𐄂 | 6.88 𐄂 | 5.96 𐄂 | 4.89 𐄂 | 5.46 𐄂 | 6.39 𐄂 | 6.84 𐄂 | 6.31 𐄂 | 5.30 𐄂 |
| 70 | 13.79 𐄂 | 57.00 Z | 9.85 𐄂 | 9.92 𐄂 | 10.81 𐄂 | 11.53 𐄂 | 11.40 𐄂 | 10.61 𐄂 | 9.85 𐄂 | 10.49 𐄂 | 11.29 𐄂 | 11.53 𐄂 | 10.94 𐄂 | 10.07 𐄂 |
| 75 | 10.70 𐄂 | 56.81 Z | 14.86 𐄂 | 15.07 𐄂 | 15.78 𐄂 | 16.19 𐄂 | 15.93 𐄂 | 15.31 𐄂 | 14.86 𐄂 | 15.50 𐄂 | 16.14 𐄂 | 16.19 𐄂 | 15.59 𐄂 | 14.89 𐄂 |
| 80 | 7.32 𐄂 | 56.67 Z | 19.89 𐄂 | 20.19 𐄂 | 20.68 𐄂 | 20.81 𐄂 | 20.48 𐄂 | 20.05 𐄂 | 19.89 𐄂 | 20.48 𐄂 | 20.92 𐄂 | 20.81 𐄂 | 20.25 𐄂 | 19.77 𐄂 |
| 85 | 3.72 𐄂 | 56.59 Z | 24.94 𐄂 | 25.27 𐄂 | 25.52 𐄂 | 25.41 𐄂 | 25.07 𐄂 | 24.84 𐄂 | 24.94 𐄂 | 25.42 𐄂 | 25.64 𐄂 | 25.41 𐄂 | 24.95 𐄂 | 24.70 𐄂 |
| 90 | 0.00 𐄂 | 56.56 Z | 0.00 𐄂 | 0.31 𐄂 | 0.31 𐄂 | 0.00 𐄂 | 29.69 𐄂 | 29.69 𐄂 | 0.00 𐄂 | 0.31 𐄂 | 0.31 𐄂 | 0.00 𐄂 | 29.69 𐄂 | 29.69 𐄂 |
| 95 | 26.28 𐄂 | 56.59 Z | 5.06 𐄂 | 5.30 𐄂 | 5.05 𐄂 | 4.59 𐄂 | 4.36 𐄂 | 4.58 𐄂 | 5.06 𐄂 | 5.16 𐄂 | 4.93 𐄂 | 4.59 𐄂 | 4.48 𐄂 | 4.73 𐄂 |
| 100 | 22.68 𐄂 | 56.67 Z | 10.11 𐄂 | 10.23 𐄂 | 9.75 𐄂 | 9.19 𐄂 | 9.08 𐄂 | 9.52 𐄂 | 10.11 𐄂 | 9.95 𐄂 | 9.52 𐄂 | 9.19 𐄂 | 9.32 𐄂 | 9.81 𐄂 |
| 105 | 19.30 𐄂 | 56.81 Z | 15.14 𐄂 | 15.11 𐄂 | 14.41 𐄂 | 13.81 𐄂 | 13.86 𐄂 | 14.50 𐄂 | 15.14 𐄂 | 14.69 𐄂 | 14.07 𐄂 | 13.81 𐄂 | 14.22 𐄂 | 14.93 𐄂 |
| 110 | 16.21 𐄂 | 57.00 Z | 20.15 𐄂 | 19.93 𐄂 | 19.06 𐄂 | 18.47 𐄂 | 18.71 𐄂 | 19.51 𐄂 | 20.15 𐄂 | 19.39 𐄂 | 18.60 𐄂 | 18.47 𐄂 | 19.19 𐄂 | 20.08 𐄂 |
| 115 | 13.47 𐄂 | 57.24 Z | 25.11 𐄂 | 24.70 𐄂 | 23.69 𐄂 | 23.16 𐄂 | 23.61 𐄂 | 24.54 𐄂 | 25.11 𐄂 | 24.04 𐄂 | 23.12 𐄂 | 23.16 𐄂 | 24.21 𐄂 | 25.25 𐄂 |
| 120 | 11.11 𐄂 | 57.54 Z | 0.04 𐄂 | 29.43 𐄂 | 28.32 𐄂 | 27.91 𐄂 | 28.58 𐄂 | 29.59 𐄂 | 0.04 𐄂 | 28.64 𐄂 | 27.65 𐄂 | 27.91 𐄂 | 29.29 𐄂 | 0.43 𐄂 |
| 125 | 9.13 𐄂 | 57.88 Z | 4.92 𐄂 | 4.11 𐄂 | 2.95 𐄂 | 2.72 𐄂 | 3.60 𐄂 | 4.64 𐄂 | 4.92 𐄂 | 3.21 𐄂 | 2.18 𐄂 | 2.72 𐄂 | 4.43 𐄂 | 5.60 𐄂 |
| 130 | 7.52 𐄂 | 58.28 Z | 9.75 𐄂 | 8.76 𐄂 | 7.61 𐄂 | 7.59 𐄂 | 8.68 𐄂 | 9.68 𐄂 | 9.75 𐄂 | 7.75 𐄂 | 6.74 𐄂 | 7.59 𐄂 | 9.62 𐄂 | 10.76 𐄂 |
| 135 | 6.25 𐄂 | 58.73 Z | 14.53 𐄂 | 13.38 𐄂 | 12.30 𐄂 | 12.54 𐄂 | 13.81 𐄂 | 14.71 𐄂 | 14.53 𐄂 | 12.28 𐄂 | 11.33 𐄂 | 12.54 𐄂 | 14.85 𐄂 | 15.89 𐄂 |
| 140 | 5.31 𐄂 | 59.22 Z | 19.26 𐄂 | 17.99 𐄂 | 17.03 𐄂 | 17.55 𐄂 | 18.98 𐄂 | 19.72 𐄂 | 19.26 𐄂 | 16.79 𐄂 | 15.96 𐄂 | 17.55 𐄂 | 20.11 𐄂 | 20.98 𐄂 |
| 145 | 4.66 𐄂 | 59.76 Z | 23.94 𐄂 | 22.59 𐄂 | 21.81 𐄂 | 22.65 𐄂 | 24.18 𐄂 | 24.69 𐄂 | 23.94 𐄂 | 21.29 𐄂 | 20.65 𐄂 | 22.65 𐄂 | 25.39 𐄂 | 26.04 𐄂 |
| 150 | 4.27 𐄂 | 60.34 Z | 28.59 𐄂 | 27.19 𐄂 | 26.66 𐄂 | 27.82 𐄂 | 29.40 𐄂 | 29.63 𐄂 | 28.59 𐄂 | 25.81 𐄂 | 25.41 𐄂 | 27.82 𐄂 | 0.67 𐄂 | 1.04 𐄂 |
| 155 | 4.12 𐄂 | 60.97 Z | 3.20 𐄂 | 1.81 𐄂 | 1.57 𐄂 | 3.06 𐄂 | 4.62 𐄂 | 4.52 𐄂 | 3.20 𐄂 | 0.35 𐄂 | 0.24 𐄂 | 3.06 𐄂 | 5.95 𐄂 | 5.98 𐄂 |
| 160 | 4.18 𐄂 | 61.63 Z | 7.78 𐄂 | 6.46 𐄂 | 6.57 𐄂 | 8.36 𐄂 | 9.83 𐄂 | 9.36 𐄂 | 7.78 𐄂 | 4.92 𐄂 | 5.16 𐄂 | 8.36 𐄂 | 11.21 𐄂 | 10.87 𐄂 |
| 165 | 4.43 𐄂 | 62.33 Z | 12.34 𐄂 | 11.14 𐄂 | 11.65 𐄂 | 13.72 𐄂 | 15.03 𐄂 | 14.16 𐄂 | 12.34 𐄂 | 9.54 𐄂 | 10.17 𐄂 | 13.72 𐄂 | 16.44 𐄂 | 15.70 𐄂 |
| 170 | 4.84 𐄂 | 63.07 Z | 16.88 𐄂 | 15.87 𐄂 | 16.81 𐄂 | 19.12 𐄂 | 20.20 𐄂 | 18.91 𐄂 | 16.88 𐄂 | 14.21 𐄂 | 15.28 𐄂 | 19.12 𐄂 | 21.63 𐄂 | 20.47 𐄂 |
| 175 | 5.40 𐄂 | 63.83 Z | 21.43 𐄂 | 20.67 𐄂 | 22.06 𐄂 | 24.55 𐄂 | 25.33 𐄂 | 23.62 𐄂 | 21.43 𐄂 | 18.95 𐄂 | 20.48 𐄂 | 24.55 𐄂 | 26.76 𐄂 | 25.19 𐄂 |
| 180 | 6.09 𐄂 | 64.63 Z | 25.99 𐄂 | 25.53 𐄂 | 27.40 𐄂 | 0.00 𐄂 | 0.41 𐄂 | 28.29 𐄂 | 25.99 𐄂 | 23.77 𐄂 | 25.78 𐄂 | 0.00 𐄂 | 1.84 𐄂 | 29.86 𐄂 |

10° NB

| α_z | λ_z | β_z | I | II | III | IV | V | VI | VII | VIII | IX | X | XI | XII |
|------------|-------------|-----------|---------|---------|---------|---------|---------|----------|---------|---------|---------|---------|---------|---------|
| 185 | 6.90 ☞ | 65.45 Z | 0.57 ☞ | 0.47 ☞ | 2.82 ☞ | 5.45 ☞ | 5.44 ☞ | 2.92 II | 0.57 ☞ | 28.68 ☞ | 1.17 ☞ | 5.45 ☞ | 6.85 ☞ | 4.48 ☞ |
| 190 | 7.82 ☞ | 66.28 Z | 5.17 ☞ | 5.50 ☞ | 8.30 ☞ | 10.88 ☞ | 10.42 ☞ | 7.53 II | 5.17 ☞ | 3.69 ☞ | 6.66 ☞ | 10.88 ☞ | 11.79 ☞ | 9.07 ☞ |
| 195 | 8.82 ☞ | 67.13 Z | 9.83 ☞ | 10.63 ☞ | 13.85 ☞ | 16.28 ☞ | 15.33 ☞ | 12.12 II | 9.83 ☞ | 8.80 ☞ | 12.22 ☞ | 16.28 ☞ | 16.67 ☞ | 13.63 ☞ |
| 200 | 9.91 ☞ | 68.00 Z | 14.54 ☞ | 15.85 ☞ | 19.44 ☞ | 21.64 ☞ | 20.19 ☞ | 16.69 II | 14.54 ☞ | 14.03 ☞ | 17.84 ☞ | 21.64 ☞ | 21.48 ☞ | 18.17 ☞ |
| 205 | 11.08 ☞ | 68.87 Z | 19.31 ☞ | 21.17 ☞ | 25.07 ☞ | 26.94 ☞ | 25.00 ☞ | 21.27 II | 19.31 ☞ | 19.37 ☞ | 23.51 ☞ | 26.94 ☞ | 26.23 ☞ | 22.70 ☞ |
| 210 | 12.31 ☞ | 69.73 Z | 24.17 ☞ | 26.58 ☞ | 0.70 ☞ | 2.18 ☞ | 29.76 ☞ | 25.86 II | 24.17 ☞ | 24.82 ☞ | 29.21 ☞ | 2.18 ☞ | 0.93 ☞ | 27.24 ☞ |
| 215 | 13.59 ☞ | 70.59 Z | 29.11 ☞ | 2.09 ☞ | 6.33 ☞ | 7.35 ☞ | 4.47 ☞ | 0.47 ☞ | 29.11 ☞ | 0.39 ☞ | 4.92 ☞ | 7.35 ☞ | 5.57 ☞ | 1.79 ☞ |
| 220 | 14.93 ☞ | 71.43 Z | 4.15 ☞ | 7.67 ☞ | 11.93 ☞ | 12.45 ☞ | 9.15 ☞ | 5.11 ☞ | 4.15 ☞ | 6.06 ☞ | 10.62 ☞ | 12.45 ☞ | 10.17 ☞ | 6.36 ☞ |
| 225 | 16.32 ☞ | 72.25 Z | 9.29 ☞ | 13.33 ☞ | 17.48 ☞ | 17.46 ☞ | 13.80 ☞ | 9.80 ☞ | 9.29 ☞ | 11.81 ☞ | 16.28 ☞ | 17.46 ☞ | 14.74 ☞ | 10.97 ☞ |
| 230 | 17.74 ☞ | 73.03 Z | 14.55 ☞ | 19.03 ☞ | 22.98 ☞ | 22.41 ☞ | 18.43 ☞ | 14.54 ☞ | 14.55 ☞ | 17.65 ☞ | 21.90 ☞ | 22.41 ☞ | 19.28 ☞ | 15.63 ☞ |
| 235 | 19.20 ☞ | 73.77 Z | 19.91 ☞ | 24.78 ☞ | 28.40 ☞ | 27.28 ☞ | 23.05 ☞ | 19.36 ☞ | 19.91 ☞ | 23.53 ☞ | 27.46 ☞ | 27.28 ☞ | 23.81 ☞ | 20.35 ☞ |
| 240 | 20.69 ☞ | 74.44 Z | 25.39 ☞ | 0.53 ☞ | 3.75 ☞ | 2.09 ☞ | 27.67 ☞ | 24.25 ☞ | 25.39 ☞ | 29.44 ☞ | 2.94 ☞ | 2.09 ☞ | 28.34 ☞ | 25.13 ☞ |
| 245 | 22.21 ☞ | 75.05 Z | 0.97 ☞ | 6.28 ☞ | 9.00 ☞ | 6.84 ☞ | 2.30 ☞ | 29.23 ☞ | 0.97 ☞ | 5.36 ☞ | 8.33 ☞ | 6.84 ☞ | 2.87 ☞ | 0.00 ☞ |
| 250 | 23.74 ☞ | 75.57 Z | 6.64 ☞ | 12.01 ☞ | 14.17 ☞ | 11.53 ☞ | 6.96 ☞ | 4.32 ☞ | 6.64 ☞ | 11.27 ☞ | 13.63 ☞ | 11.53 ☞ | 7.43 ☞ | 4.95 ☞ |
| 255 | 25.29 ☞ | 75.99 Z | 12.40 ☞ | 17.68 ☞ | 19.24 ☞ | 16.19 ☞ | 11.66 ☞ | 9.50 ☞ | 12.40 ☞ | 17.13 ☞ | 18.84 ☞ | 16.19 ☞ | 12.02 ☞ | 9.99 ☞ |
| 260 | 26.85 ☞ | 76.30 Z | 18.23 ☞ | 23.29 ☞ | 24.22 ☞ | 20.81 ☞ | 16.40 ☞ | 14.80 ☞ | 18.23 ☞ | 22.93 ☞ | 23.96 ☞ | 20.81 ☞ | 16.64 ☞ | 15.14 ☞ |
| 265 | 28.43 ☞ | 76.50 Z | 24.10 ☞ | 28.83 ☞ | 29.12 ☞ | 25.41 ☞ | 21.20 ☞ | 20.21 ☞ | 24.10 ☞ | 28.65 ☞ | 28.99 ☞ | 25.41 ☞ | 21.32 ☞ | 20.38 ☞ |
| 270 | 0.00 ☞ | 76.56 Z | 0.00 ☞ | 4.27 ☞ | 3.93 ☞ | 0.00 ☞ | 26.07 ☞ | 25.73 ☞ | 0.00 ☞ | 4.27 ☞ | 3.93 ☞ | 0.00 ☞ | 26.07 ☞ | 25.73 ☞ |
| 275 | 1.57 ☞ | 76.50 Z | 5.90 ☞ | 9.62 ☞ | 8.68 ☞ | 4.59 ☞ | 1.01 ☞ | 1.35 ☞ | 5.90 ☞ | 9.79 ☞ | 8.80 ☞ | 4.59 ☞ | 0.88 ☞ | 1.17 ☞ |
| 280 | 3.15 ☞ | 76.30 Z | 11.77 ☞ | 14.86 ☞ | 13.36 ☞ | 9.19 ☞ | 6.04 ☞ | 7.07 ☞ | 11.77 ☞ | 15.20 ☞ | 13.60 ☞ | 9.19 ☞ | 5.78 ☞ | 6.71 ☞ |
| 285 | 4.71 ☞ | 75.99 Z | 17.60 ☞ | 20.01 ☞ | 17.98 ☞ | 13.81 ☞ | 11.16 ☞ | 12.87 ☞ | 17.60 ☞ | 20.50 ☞ | 18.34 ☞ | 13.81 ☞ | 10.76 ☞ | 12.32 ☞ |
| 290 | 6.26 ☞ | 75.57 Z | 23.36 ☞ | 25.05 ☞ | 22.57 ☞ | 18.47 ☞ | 16.37 ☞ | 18.73 ☞ | 23.36 ☞ | 25.68 ☞ | 23.04 ☞ | 18.47 ☞ | 15.83 ☞ | 17.99 ☞ |
| 295 | 7.79 ☞ | 75.05 Z | 29.03 ☞ | 0.00 ☞ | 27.13 ☞ | 23.16 ☞ | 21.67 ☞ | 24.64 ☞ | 29.03 ☞ | 0.77 ☞ | 27.70 ☞ | 23.16 ☞ | 21.00 ☞ | 23.72 ☞ |
| 300 | 9.31 ☞ | 74.44 Z | 4.61 ☞ | 4.87 ☞ | 1.66 ☞ | 27.91 ☞ | 27.06 ☞ | 0.56 ☞ | 4.61 ☞ | 5.75 ☞ | 2.33 ☞ | 27.91 ☞ | 26.25 ☞ | 29.47 ☞ |
| 305 | 10.80 ☞ | 73.77 Z | 10.09 ☞ | 9.65 ☞ | 6.19 ☞ | 2.72 ☞ | 2.54 ☞ | 6.47 ☞ | 10.09 ☞ | 10.64 ☞ | 6.95 ☞ | 2.72 ☞ | 1.60 ☞ | 5.22 ☞ |
| 310 | 12.26 ☞ | 73.03 Z | 15.45 ☞ | 14.37 ☞ | 10.72 ☞ | 7.59 ☞ | 8.10 ☞ | 12.35 ☞ | 15.45 ☞ | 15.46 ☞ | 11.57 ☞ | 7.59 ☞ | 7.02 ☞ | 10.97 ☞ |
| 315 | 13.68 ☞ | 72.25 Z | 20.71 ☞ | 19.03 ☞ | 15.26 ☞ | 12.54 ☞ | 13.72 ☞ | 18.19 ☞ | 20.71 ☞ | 20.20 ☞ | 16.20 ☞ | 12.54 ☞ | 12.52 ☞ | 16.67 ☞ |
| 320 | 15.07 ☞ | 71.43 Z | 25.85 ☞ | 23.64 ☞ | 19.83 ☞ | 17.55 ☞ | 19.38 ☞ | 23.94 ☞ | 25.85 ☞ | 24.89 ☞ | 20.85 ☞ | 17.55 ☞ | 18.07 ☞ | 22.33 ☞ |
| 325 | 16.41 ☞ | 70.59 Z | 0.89 ☞ | 28.21 ☞ | 24.43 ☞ | 22.65 ☞ | 25.08 ☞ | 29.61 ☞ | 0.89 ☞ | 29.53 ☞ | 25.53 ☞ | 22.65 ☞ | 23.67 ☞ | 27.91 ☞ |
| 330 | 17.69 ☞ | 69.73 Z | 5.83 ☞ | 2.76 ☞ | 29.07 ☞ | 27.82 ☞ | 0.79 ☞ | 5.18 ☞ | 5.83 ☞ | 4.14 ☞ | 0.24 ☞ | 27.82 ☞ | 29.30 ☞ | 3.42 ☞ |
| 335 | 18.92 ☞ | 68.87 Z | 10.69 ☞ | 7.30 ☞ | 3.77 ☞ | 3.06 ☞ | 6.49 ☞ | 10.63 ☞ | 10.69 ☞ | 8.73 ☞ | 5.00 ☞ | 3.06 ☞ | 4.93 ☞ | 8.83 ☞ |
| 340 | 20.09 ☞ | 68.00 Z | 15.46 ☞ | 11.83 ☞ | 8.52 ☞ | 8.36 ☞ | 12.16 ☞ | 15.97 ☞ | 15.46 ☞ | 13.31 ☞ | 9.81 ☞ | 8.36 ☞ | 10.56 ☞ | 14.15 ☞ |
| 345 | 21.18 ☞ | 67.13 Z | 20.17 ☞ | 16.37 ☞ | 13.33 ☞ | 13.72 ☞ | 17.78 ☞ | 21.20 ☞ | 20.17 ☞ | 17.88 ☞ | 14.67 ☞ | 13.72 ☞ | 16.15 ☞ | 19.37 ☞ |
| 350 | 22.18 ☞ | 66.28 Z | 24.83 ☞ | 20.93 ☞ | 18.21 ☞ | 19.12 ☞ | 23.34 ☞ | 26.31 ☞ | 24.83 ☞ | 22.47 ☞ | 19.58 ☞ | 19.12 ☞ | 21.70 ☞ | 24.50 ☞ |
| 355 | 23.10 ☞ | 65.45 Z | 29.43 ☞ | 25.52 ☞ | 23.15 ☞ | 24.55 ☞ | 28.83 ☞ | 1.32 ☞ | 29.43 ☞ | 27.08 ☞ | 24.56 ☞ | 24.55 ☞ | 27.18 ☞ | 29.53 ☞ |
| 360 | 23.91 ☞ | 64.63 Z | 4.01 ☞ | 0.14 ☞ | 28.16 ☞ | 0.00 ☞ | 4.22 ☞ | 6.23 ☞ | 4.01 ☞ | 1.71 ☞ | 29.59 ☞ | 0.00 ☞ | 2.60 ☞ | 4.47 ☞ |

15° NB

| α_z | λ_z | β_z | I | II | III | IV | V | VI | VII | VIII | IX | X | XI | XII |
|------------|-------------|-----------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0 | 3.96 𐄂 | 62.40 Z | 6.08 𐄂 | 1.25 𐄂 | 28.32 𐄂 | 0.00 𐄂 | 5.40 𐄂 | 8.51 𐄂 | 6.08 𐄂 | 3.55 𐄂 | 0.42 𐄂 | 0.00 𐄂 | 2.85 𐄂 | 5.77 𐄂 |
| 5 | 5.35 𐄂 | 61.31 Z | 10.61 𐄂 | 5.85 𐄂 | 3.31 𐄂 | 5.45 𐄂 | 10.76 𐄂 | 13.34 𐄂 | 10.61 𐄂 | 8.14 𐄂 | 5.42 𐄂 | 5.45 𐄂 | 8.28 𐄂 | 10.69 𐄂 |
| 10 | 6.62 𐄂 | 60.27 Z | 15.11 𐄂 | 10.48 𐄂 | 8.37 𐄂 | 10.88 𐄂 | 16.02 𐄂 | 18.09 𐄂 | 15.11 𐄂 | 12.75 𐄂 | 10.46 𐄂 | 10.88 𐄂 | 13.62 𐄂 | 15.52 𐄂 |
| 15 | 7.76 𐄂 | 59.27 Z | 19.61 𐄂 | 15.17 𐄂 | 13.47 𐄂 | 16.28 𐄂 | 21.16 𐄂 | 22.74 𐄂 | 19.61 𐄂 | 17.40 𐄂 | 15.54 𐄂 | 16.28 𐄂 | 18.86 𐄂 | 20.29 𐄂 |
| 20 | 8.75 𐄂 | 58.32 Z | 24.10 𐄂 | 19.90 𐄂 | 18.61 𐄂 | 21.64 𐄂 | 26.19 𐄂 | 27.34 𐄂 | 24.10 𐄂 | 22.08 𐄂 | 20.64 𐄂 | 21.64 𐄂 | 24.00 𐄂 | 25.00 𐄂 |
| 25 | 9.57 𐄂 | 57.43 Z | 28.61 𐄂 | 24.69 𐄂 | 23.79 𐄂 | 26.94 𐄂 | 1.12 𐄂 | 1.87 𐄂 | 28.61 𐄂 | 26.80 𐄂 | 25.75 𐄂 | 26.94 𐄂 | 29.06 𐄂 | 29.66 𐄂 |
| 30 | 10.17 𐄂 | 56.59 Z | 3.14 𐄂 | 29.53 𐄂 | 28.99 𐄂 | 2.18 𐄂 | 5.95 𐄂 | 6.36 𐄂 | 3.14 𐄂 | 1.55 𐄂 | 0.86 𐄂 | 2.18 𐄂 | 4.03 𐄂 | 4.28 𐄂 |
| 35 | 10.52 𐄂 | 55.81 Z | 7.69 𐄂 | 4.41 𐄂 | 4.20 𐄂 | 7.35 𐄂 | 10.71 𐄂 | 10.83 𐄂 | 7.69 𐄂 | 6.34 𐄂 | 5.97 𐄂 | 7.35 𐄂 | 8.92 𐄂 | 8.88 𐄂 |
| 40 | 10.57 𐄂 | 55.09 Z | 12.27 𐄂 | 9.34 𐄂 | 9.40 𐄂 | 12.45 𐄂 | 15.38 𐄂 | 15.27 𐄂 | 12.27 𐄂 | 11.15 𐄂 | 11.05 𐄂 | 12.45 𐄂 | 13.74 𐄂 | 13.47 𐄂 |
| 45 | 10.23 𐄂 | 54.43 Z | 16.89 𐄂 | 14.32 𐄂 | 14.60 𐄂 | 17.46 𐄂 | 20.00 𐄂 | 19.71 𐄂 | 16.89 𐄂 | 15.99 𐄂 | 16.11 𐄂 | 17.46 𐄂 | 18.51 𐄂 | 18.06 𐄂 |
| 50 | 9.43 𐄂 | 53.84 Z | 21.55 𐄂 | 19.32 𐄂 | 19.76 𐄂 | 22.41 𐄂 | 24.56 𐄂 | 24.14 𐄂 | 21.55 𐄂 | 20.85 𐄂 | 21.13 𐄂 | 22.41 𐄂 | 23.23 𐄂 | 22.65 𐄂 |
| 55 | 8.04 𐄂 | 53.31 Z | 26.24 𐄂 | 24.35 𐄂 | 24.89 𐄂 | 27.28 𐄂 | 29.08 𐄂 | 28.59 𐄂 | 26.24 𐄂 | 25.71 𐄂 | 26.11 𐄂 | 27.28 𐄂 | 27.91 𐄂 | 27.27 𐄂 |
| 60 | 5.93 𐄂 | 52.85 Z | 0.98 𐄂 | 29.39 𐄂 | 29.98 𐄂 | 2.09 𐄂 | 3.58 𐄂 | 3.06 𐄂 | 0.98 𐄂 | 0.58 𐄂 | 1.03 𐄂 | 2.09 𐄂 | 2.57 𐄂 | 1.91 𐄂 |
| 65 | 2.91 𐄂 | 52.46 Z | 5.75 𐄂 | 4.44 𐄂 | 5.02 𐄂 | 6.84 𐄂 | 8.06 𐄂 | 7.56 𐄂 | 5.75 𐄂 | 5.44 𐄂 | 5.90 𐄂 | 6.84 𐄂 | 7.21 𐄂 | 6.58 𐄂 |
| 70 | 28.79 𐄂 | 52.14 Z | 10.55 𐄂 | 9.48 𐄂 | 10.00 𐄂 | 11.53 𐄂 | 12.54 𐄂 | 12.08 𐄂 | 10.55 𐄂 | 10.29 𐄂 | 10.71 𐄂 | 11.53 𐄂 | 11.85 𐄂 | 11.29 𐄂 |
| 75 | 23.39 𐄂 | 51.89 Z | 15.39 𐄂 | 14.50 𐄂 | 14.93 𐄂 | 16.19 𐄂 | 17.02 𐄂 | 16.65 𐄂 | 15.39 𐄂 | 15.12 𐄂 | 15.46 𐄂 | 16.19 𐄂 | 16.50 𐄂 | 16.05 𐄂 |
| 80 | 16.64 𐄂 | 51.71 Z | 20.25 𐄂 | 19.51 𐄂 | 19.81 𐄂 | 20.81 𐄂 | 21.51 𐄂 | 21.25 𐄂 | 20.25 𐄂 | 19.92 𐄂 | 20.16 𐄂 | 20.81 𐄂 | 21.17 𐄂 | 20.85 𐄂 |
| 85 | 8.69 𐄂 | 51.60 Z | 25.12 𐄂 | 24.48 𐄂 | 24.63 𐄂 | 25.41 𐄂 | 26.04 𐄂 | 25.90 𐄂 | 25.12 𐄂 | 24.68 𐄂 | 24.81 𐄂 | 25.41 𐄂 | 25.86 𐄂 | 25.69 𐄂 |
| 90 | 0.00 𐄂 | 51.56 Z | 0.00 𐄂 | 29.41 𐄂 | 29.41 𐄂 | 0.00 𐄂 | 0.59 𐄂 | 0.59 𐄂 | 0.00 𐄂 | 29.41 𐄂 | 29.41 𐄂 | 0.00 𐄂 | 0.59 𐄂 | 0.59 𐄂 |
| 95 | 21.31 𐄂 | 51.60 Z | 4.88 𐄂 | 4.31 𐄂 | 4.14 𐄂 | 4.59 𐄂 | 5.19 𐄂 | 5.32 𐄂 | 4.88 𐄂 | 4.10 𐄂 | 3.96 𐄂 | 4.59 𐄂 | 5.37 𐄂 | 5.52 𐄂 |
| 100 | 13.36 𐄂 | 51.71 Z | 9.75 𐄂 | 9.15 𐄂 | 8.83 𐄂 | 9.19 𐄂 | 9.84 𐄂 | 10.08 𐄂 | 9.75 𐄂 | 8.75 𐄂 | 8.49 𐄂 | 9.19 𐄂 | 10.19 𐄂 | 10.49 𐄂 |
| 105 | 6.61 𐄂 | 51.89 Z | 14.61 𐄂 | 13.95 𐄂 | 13.50 𐄂 | 13.81 𐄂 | 14.54 𐄂 | 14.88 𐄂 | 14.61 𐄂 | 13.35 𐄂 | 12.98 𐄂 | 13.81 𐄂 | 15.07 𐄂 | 15.50 𐄂 |
| 110 | 1.21 𐄂 | 52.14 Z | 19.45 𐄂 | 18.71 𐄂 | 18.15 𐄂 | 18.47 𐄂 | 19.29 𐄂 | 19.71 𐄂 | 19.45 𐄂 | 17.92 𐄂 | 17.46 𐄂 | 18.47 𐄂 | 20.00 𐄂 | 20.52 𐄂 |
| 115 | 27.09 𐄂 | 52.46 Z | 24.25 𐄂 | 23.42 𐄂 | 22.79 𐄂 | 23.16 𐄂 | 24.10 𐄂 | 24.56 𐄂 | 24.25 𐄂 | 22.44 𐄂 | 21.94 𐄂 | 23.16 𐄂 | 24.98 𐄂 | 25.56 𐄂 |
| 120 | 24.07 𐄂 | 52.85 Z | 29.02 𐄂 | 28.09 𐄂 | 27.43 𐄂 | 27.91 𐄂 | 28.97 𐄂 | 29.42 𐄂 | 29.02 𐄂 | 26.94 𐄂 | 26.42 𐄂 | 27.91 𐄂 | 0.02 𐄂 | 0.61 𐄂 |
| 125 | 21.96 𐄂 | 53.31 Z | 3.76 𐄂 | 2.73 𐄂 | 2.09 𐄂 | 2.72 𐄂 | 3.89 𐄂 | 4.29 𐄂 | 3.76 𐄂 | 1.41 𐄂 | 0.92 𐄂 | 2.72 𐄂 | 5.11 𐄂 | 5.65 𐄂 |
| 130 | 20.57 𐄂 | 53.84 Z | 8.45 𐄂 | 7.35 𐄂 | 6.77 𐄂 | 7.59 𐄂 | 8.87 𐄂 | 9.15 𐄂 | 8.45 𐄂 | 5.86 𐄂 | 5.44 𐄂 | 7.59 𐄂 | 10.24 𐄂 | 10.68 𐄂 |
| 135 | 19.77 𐄂 | 54.43 Z | 13.11 𐄂 | 11.94 𐄂 | 11.49 𐄂 | 12.54 𐄂 | 13.89 𐄂 | 14.01 𐄂 | 13.11 𐄂 | 10.29 𐄂 | 10.00 𐄂 | 12.54 𐄂 | 15.40 𐄂 | 15.68 𐄂 |
| 140 | 19.43 𐄂 | 55.09 Z | 17.73 𐄂 | 16.53 𐄂 | 16.26 𐄂 | 17.55 𐄂 | 18.95 𐄂 | 18.85 𐄂 | 17.73 𐄂 | 14.73 𐄂 | 14.62 𐄂 | 17.55 𐄂 | 20.60 𐄂 | 20.66 𐄂 |
| 145 | 19.48 𐄂 | 55.81 Z | 22.31 𐄂 | 21.12 𐄂 | 21.08 𐄂 | 22.65 𐄂 | 24.03 𐄂 | 23.66 𐄂 | 22.31 𐄂 | 19.17 𐄂 | 19.29 𐄂 | 22.65 𐄂 | 25.80 𐄂 | 25.59 𐄂 |
| 150 | 19.83 𐄂 | 56.59 Z | 26.86 𐄂 | 25.72 𐄂 | 25.97 𐄂 | 27.82 𐄂 | 29.14 𐄂 | 28.45 𐄂 | 26.86 𐄂 | 23.64 𐄂 | 24.05 𐄂 | 27.82 𐄂 | 1.01 𐄂 | 0.47 𐄂 |
| 155 | 20.43 𐄂 | 57.43 Z | 1.39 𐄂 | 0.34 𐄂 | 0.94 𐄂 | 3.06 𐄂 | 4.25 𐄂 | 3.20 𐄂 | 1.39 𐄂 | 28.13 𐄂 | 28.88 𐄂 | 3.06 𐄂 | 6.21 𐄂 | 5.31 𐄂 |
| 160 | 21.25 𐄂 | 58.32 Z | 5.90 𐄂 | 5.00 𐄂 | 6.00 𐄂 | 8.36 𐄂 | 9.36 𐄂 | 7.92 𐄂 | 5.90 𐄂 | 2.66 𐄂 | 3.81 𐄂 | 8.36 𐄂 | 11.39 𐄂 | 10.10 𐄂 |
| 165 | 22.24 𐄂 | 59.27 Z | 10.39 𐄂 | 9.71 𐄂 | 11.14 𐄂 | 13.72 𐄂 | 14.46 𐄂 | 12.60 𐄂 | 10.39 𐄂 | 7.26 𐄂 | 8.84 𐄂 | 13.72 𐄂 | 16.53 𐄂 | 14.83 𐄂 |
| 170 | 23.38 𐄂 | 60.27 Z | 14.89 𐄂 | 14.48 𐄂 | 16.38 𐄂 | 19.12 𐄂 | 19.54 𐄂 | 17.25 𐄂 | 14.89 𐄂 | 11.91 𐄂 | 13.98 𐄂 | 19.12 𐄂 | 21.63 𐄂 | 19.52 𐄂 |
| 175 | 24.65 𐄂 | 61.31 Z | 19.39 𐄂 | 19.31 𐄂 | 21.72 𐄂 | 24.55 𐄂 | 24.58 𐄂 | 21.86 𐄂 | 19.39 𐄂 | 16.66 𐄂 | 19.24 𐄂 | 24.55 𐄂 | 26.69 𐄂 | 24.15 𐄂 |
| 180 | 26.04 𐄂 | 62.40 Z | 23.92 𐄂 | 24.23 𐄂 | 27.15 𐄂 | 0.00 𐄂 | 29.58 𐄂 | 26.45 𐄂 | 23.92 𐄂 | 21.49 𐄂 | 24.60 𐄂 | 0.00 𐄂 | 1.68 𐄂 | 28.75 𐄂 |

15° NB

| α_z | λ_z | β_z | I | II | III | IV | V | VI | VII | VIII | IX | X | XI | XII |
|------------|-------------|-----------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 185 | 27.51 ㄴ | 63.53 Z | 28.47 ㄶ | 29.24 ㄷ | 2.66 ㄸ | 5.45 ㄹ | 4.54 ㄺ | 1.01 ㄻ | 28.47 ㄼ | 26.43 ㄽ | 0.07 ㄾ | 5.45 ㄿ | 6.62 ㅀ | 3.31 ㄿ |
| 190 | 29.07 ㄴ | 64.70 Z | 3.07 ㄷ | 4.35 ㄸ | 8.25 ㄹ | 10.88 ㄺ | 9.45 ㄻ | 5.56 ㄼ | 3.07 ㄽ | 1.49 ㄾ | 5.65 ㄿ | 10.88 ㅀ | 11.49 ㅁ | 7.83 ㄿ |
| 195 | 0.71 ㄶ | 65.90 Z | 7.72 ㄷ | 9.57 ㄸ | 13.90 ㄹ | 16.28 ㄺ | 14.31 ㄻ | 10.09 ㄼ | 7.72 ㄽ | 6.68 ㄾ | 11.32 ㄿ | 16.28 ㅀ | 16.29 ㅁ | 12.34 ㄿ |
| 200 | 2.41 ㄶ | 67.14 Z | 12.44 ㄷ | 14.90 ㄸ | 19.60 ㄹ | 21.64 ㄺ | 19.12 ㄻ | 14.63 ㄼ | 12.44 ㄽ | 12.00 ㄾ | 17.06 ㄿ | 21.64 ㅀ | 21.04 ㅁ | 16.83 ㄿ |
| 205 | 4.17 ㄶ | 68.39 Z | 17.24 ㄷ | 20.34 ㄸ | 25.33 ㄹ | 26.94 ㄺ | 23.89 ㄻ | 19.17 ㄼ | 17.24 ㄽ | 17.46 ㄾ | 22.87 ㄿ | 26.94 ㅀ | 25.72 ㅁ | 21.32 ㄿ |
| 210 | 5.98 ㄶ | 69.67 Z | 22.13 ㄷ | 25.89 ㄸ | 1.07 ㄹ | 2.18 ㄺ | 28.61 ㄻ | 23.74 ㄼ | 22.13 ㄽ | 23.06 ㄾ | 28.71 ㄿ | 2.18 ㅀ | 0.36 ㅁ | 25.82 ㄿ |
| 215 | 7.83 ㄶ | 70.96 Z | 27.13 ㄷ | 1.55 ㄸ | 6.80 ㄹ | 7.35 ㄺ | 3.30 ㄻ | 28.34 ㄼ | 27.13 ㄽ | 28.81 ㄾ | 4.57 ㅀ | 7.35 ㅁ | 4.94 ㄿ | 0.34 ㄷ |
| 220 | 9.73 ㄶ | 72.25 Z | 2.24 ㄸ | 7.29 ㄹ | 12.49 ㄺ | 12.45 ㄻ | 7.96 ㄼ | 2.99 ㄽ | 2.24 ㄾ | 4.67 ㄿ | 10.42 ㅀ | 12.45 ㅁ | 9.49 ㄿ | 4.90 ㄷ |
| 225 | 11.66 ㄶ | 73.54 Z | 7.48 ㄸ | 13.12 ㄹ | 18.13 ㄺ | 17.46 ㄻ | 12.59 ㄼ | 7.69 ㄽ | 7.48 ㄾ | 10.66 ㄿ | 16.24 ㅀ | 17.46 ㅁ | 14.01 ㄿ | 9.49 ㄷ |
| 230 | 13.62 ㄶ | 74.82 Z | 12.85 ㄸ | 19.01 ㄹ | 23.71 ㄺ | 22.41 ㄻ | 17.22 ㄼ | 12.46 ㄽ | 12.85 ㄾ | 16.74 ㄿ | 22.01 ㅀ | 22.41 ㅁ | 18.51 ㄿ | 14.14 ㄷ |
| 235 | 15.61 ㄶ | 76.06 Z | 18.35 ㄸ | 24.93 ㄹ | 29.20 ㄺ | 27.28 ㄻ | 21.84 ㄼ | 17.32 ㄽ | 18.35 ㄾ | 22.89 ㄿ | 27.71 ㅀ | 27.28 ㅁ | 23.00 ㄿ | 18.85 ㄷ |
| 240 | 17.63 ㄶ | 77.26 Z | 23.99 ㄸ | 0.86 ㄹ | 4.60 ㄺ | 2.09 ㄻ | 26.47 ㄼ | 22.27 ㄽ | 23.99 ㄾ | 29.08 ㄿ | 3.33 ㅀ | 2.09 ㄿ | 27.49 ㄿ | 23.65 ㄷ |
| 245 | 19.66 ㄶ | 78.39 Z | 29.76 ㄸ | 6.79 ㄹ | 9.90 ㄺ | 6.84 ㄻ | 1.12 ㄼ | 27.33 ㄽ | 29.76 ㄾ | 5.28 ㅀ | 8.85 ㅁ | 6.84 ㄿ | 1.99 ㄷ | 28.53 ㄷ |
| 250 | 21.71 ㄶ | 79.41 Z | 5.65 ㄸ | 12.67 ㄹ | 15.10 ㄺ | 11.53 ㄻ | 5.80 ㄼ | 2.51 ㄽ | 5.65 ㄾ | 11.46 ㅀ | 14.27 ㅁ | 11.53 ㄿ | 6.51 ㄷ | 3.51 ㄸ |
| 255 | 23.77 ㄶ | 80.29 Z | 11.64 ㄸ | 18.50 ㄹ | 20.20 ㄺ | 16.19 ㄻ | 10.53 ㄼ | 7.82 ㄽ | 11.64 ㄾ | 17.60 ㅀ | 19.58 ㅁ | 16.19 ㄿ | 11.08 ㄷ | 8.60 ㄸ |
| 260 | 25.84 ㄶ | 80.97 Z | 17.71 ㄸ | 24.25 ㄹ | 25.19 ㄺ | 20.81 ㄻ | 15.31 ㄼ | 13.26 ㄽ | 17.71 ㄾ | 23.65 ㅀ | 24.79 ㅁ | 20.81 ㄿ | 15.68 ㄷ | 13.80 ㄸ |
| 265 | 27.92 ㄶ | 81.41 Z | 23.84 ㄸ | 29.90 ㄹ | 0.10 ㄺ | 25.41 ㄻ | 20.16 ㄼ | 18.84 ㄽ | 23.84 ㄾ | 29.61 ㅀ | 29.90 ㅁ | 25.41 ㄿ | 20.35 ㄷ | 19.12 ㄸ |
| 270 | 0.00 ㄷ | 81.56 Z | 0.00 ㄹ | 5.45 ㄺ | 4.91 ㄻ | 0.00 ㄼ | 25.09 ㄽ | 24.55 ㄾ | 0.00 ㅀ | 5.45 ㅁ | 4.91 ㄿ | 0.00 ㄷ | 25.09 ㄷ | 24.55 ㄸ |
| 275 | 2.08 ㄷ | 81.41 Z | 6.16 ㄹ | 10.88 ㄺ | 9.65 ㄻ | 4.59 ㄼ | 0.10 ㄽ | 0.39 ㄾ | 6.16 ㅀ | 11.16 ㅁ | 9.84 ㄿ | 4.59 ㄷ | 29.90 ㄷ | 0.10 ㄸ |
| 280 | 4.16 ㄷ | 80.97 Z | 12.29 ㄹ | 16.20 ㄺ | 14.32 ㄻ | 9.19 ㄼ | 5.21 ㄽ | 6.35 ㄾ | 12.29 ㅀ | 16.74 ㅁ | 14.69 ㄿ | 9.19 ㄷ | 4.81 ㄸ | 5.75 ㄸ |
| 285 | 6.23 ㄷ | 80.29 Z | 18.36 ㄹ | 21.40 ㄺ | 18.92 ㄻ | 13.81 ㄼ | 10.42 ㄽ | 12.40 ㄾ | 18.36 ㅀ | 22.18 ㅁ | 19.47 ㄿ | 13.81 ㄷ | 9.80 ㄸ | 11.50 ㄸ |
| 290 | 8.29 ㄷ | 79.41 Z | 24.35 ㄹ | 26.49 ㄺ | 23.49 ㄻ | 18.47 ㄼ | 15.73 ㄽ | 18.54 ㄾ | 24.35 ㅀ | 27.49 ㅁ | 24.20 ㄿ | 18.47 ㄷ | 14.90 ㄸ | 17.33 ㄸ |
| 295 | 10.34 ㄷ | 78.39 Z | 0.24 ㄺ | 1.47 ㄻ | 28.01 ㄼ | 23.16 ㄽ | 21.15 ㄾ | 24.72 ㄿ | 0.24 ㅀ | 2.67 ㅁ | 28.88 ㄿ | 23.16 ㄷ | 20.10 ㄸ | 23.21 ㄸ |
| 300 | 12.37 ㄷ | 77.26 Z | 6.01 ㄺ | 6.35 ㄻ | 2.51 ㄼ | 27.91 ㄽ | 26.67 ㄾ | 0.92 ㅀ | 6.01 ㅁ | 7.73 ㄿ | 3.53 ㄷ | 27.91 ㄷ | 25.40 ㄸ | 29.14 ㄸ |
| 305 | 14.39 ㄷ | 76.06 Z | 11.65 ㄺ | 11.15 ㄻ | 7.00 ㄼ | 2.72 ㄽ | 2.29 ㄾ | 7.11 ㅀ | 11.65 ㅁ | 12.68 ㄿ | 8.16 ㄷ | 2.72 ㄸ | 0.80 ㄸ | 5.07 ㄹ |
| 310 | 16.38 ㄷ | 74.82 Z | 17.15 ㄺ | 15.86 ㄻ | 11.49 ㄼ | 7.59 ㄽ | 7.99 ㄾ | 13.26 ㅀ | 17.15 ㅁ | 17.54 ㄿ | 12.78 ㄷ | 7.59 ㄸ | 6.29 ㄸ | 10.99 ㄹ |
| 315 | 18.34 ㄷ | 73.54 Z | 22.52 ㄺ | 20.51 ㄻ | 15.99 ㄼ | 12.54 ㄽ | 13.76 ㄾ | 19.34 ㅀ | 22.52 ㅁ | 22.31 ㄿ | 17.41 ㄷ | 12.54 ㄸ | 11.87 ㄸ | 16.88 ㄹ |
| 320 | 20.27 ㄷ | 72.25 Z | 27.76 ㄺ | 25.10 ㄻ | 20.51 ㄼ | 17.55 ㄽ | 19.58 ㄾ | 25.33 ㅀ | 27.76 ㅁ | 27.01 ㄿ | 22.04 ㄷ | 17.55 ㄸ | 17.51 ㄸ | 22.71 ㄹ |
| 325 | 22.17 ㄷ | 70.96 Z | 2.87 ㄻ | 29.66 ㄼ | 25.06 ㄽ | 22.65 ㄾ | 25.43 ㄿ | 1.19 ㅀ | 2.87 ㄿ | 1.66 ㄷ | 26.70 ㄷ | 22.65 ㄸ | 23.20 ㄸ | 28.45 ㄹ |
| 330 | 24.02 ㄷ | 69.67 Z | 7.87 ㄼ | 4.18 ㄽ | 29.64 ㄾ | 27.82 ㄿ | 1.29 ㅀ | 6.94 ㅁ | 7.87 ㄿ | 6.26 ㄷ | 1.39 ㄸ | 27.82 ㄸ | 28.93 ㄸ | 4.11 ㄺ |
| 335 | 25.83 ㄷ | 68.39 Z | 12.76 ㄼ | 8.68 ㄽ | 4.28 ㄾ | 3.06 ㄿ | 7.13 ㅀ | 12.54 ㅁ | 12.76 ㄿ | 10.83 ㄷ | 6.11 ㄸ | 3.06 ㄸ | 4.67 ㄹ | 9.66 ㄺ |
| 340 | 27.59 ㄷ | 67.14 Z | 17.56 ㄼ | 13.17 ㄽ | 8.96 ㄾ | 8.36 ㄿ | 12.94 ㅀ | 18.00 ㅁ | 17.56 ㄿ | 15.37 ㄷ | 10.88 ㄸ | 8.36 ㄸ | 10.40 ㄹ | 15.10 ㄺ |
| 345 | 29.29 ㄷ | 65.90 Z | 22.28 ㄼ | 17.66 ㄽ | 13.71 ㄾ | 13.72 ㄿ | 18.68 ㅀ | 23.32 ㅁ | 22.28 ㄿ | 19.91 ㄷ | 15.69 ㄸ | 13.72 ㄸ | 16.10 ㄹ | 20.43 ㄺ |
| 350 | 0.93 ㄸ | 64.70 Z | 26.93 ㄼ | 22.17 ㄽ | 18.51 ㄾ | 19.12 ㄿ | 24.35 ㅀ | 28.51 ㅁ | 26.93 ㄿ | 24.44 ㄷ | 20.55 ㄸ | 19.12 ㄸ | 21.75 ㄹ | 25.65 ㄺ |
| 355 | 2.49 ㄸ | 63.53 Z | 1.53 ㄽ | 26.69 ㄾ | 23.38 ㄿ | 24.55 ㄿ | 29.93 ㅀ | 3.57 ㄿ | 1.53 ㄷ | 28.99 ㄷ | 25.46 ㄸ | 24.55 ㄸ | 27.34 ㄹ | 0.76 ㄻ |
| 360 | 3.96 ㄸ | 62.40 Z | 6.08 ㄽ | 1.25 ㄾ | 28.32 ㄿ | 0.00 ㅀ | 5.40 ㅁ | 8.51 ㄿ | 6.08 ㄷ | 3.55 ㄸ | 0.42 ㄸ | 0.00 ㄹ | 2.85 ㄺ | 5.77 ㄻ |

20° NB

| α_z | λ_z | β_z | I | II | III | IV | V | VI | VII | VIII | IX | X | XI | XII |
|------------|-------------|-----------|---------|---------|---------|---------|---------|---------|----------|----------|----------|----------|----------|----------|
| 0 | 12.46 ☾ | 59.56 Z | 8.24 ☾ | 2.38 ♀ | 28.47 ♀ | 0.00 ♁ | 6.73 ♀ | 10.99 ♀ | 8.24 ☾ | 5.38 ☾ | 1.22 ♀ | 0.00 ♀ | 3.15 ♀ | 7.18 II |
| 5 | 14.52 ☾ | 58.24 Z | 12.71 ☾ | 6.90 ♀ | 3.38 ♀ | 5.45 ♁ | 12.15 ♀ | 15.82 ♀ | 12.71 ☾ | 9.88 ☾ | 6.15 ♀ | 5.45 ♀ | 8.67 ♀ | 12.15 II |
| 10 | 16.53 ☾ | 56.98 Z | 17.16 ☾ | 11.45 ♀ | 8.35 ♀ | 10.88 ♁ | 17.45 ♀ | 20.54 ♀ | 17.16 ☾ | 14.39 ☾ | 11.10 ♀ | 10.88 ♀ | 14.09 ♀ | 17.03 II |
| 15 | 18.47 ☾ | 55.79 Z | 21.59 ☾ | 16.05 ♀ | 13.37 ♀ | 16.28 ♁ | 22.62 ♀ | 25.17 ♀ | 21.59 ☾ | 18.93 ☾ | 16.08 ♀ | 16.28 ♀ | 19.41 ♀ | 21.82 II |
| 20 | 20.34 ☾ | 54.65 Z | 26.01 ☾ | 20.68 ♀ | 18.43 ♀ | 21.64 ♁ | 27.67 ♀ | 29.72 ♀ | 26.01 ☾ | 23.49 ☾ | 21.08 ♀ | 21.64 ♀ | 24.63 ♀ | 26.54 II |
| 25 | 22.12 ☾ | 53.58 Z | 0.44 ♀ | 25.37 ♀ | 23.53 ♀ | 26.94 ♁ | 2.60 ♀ | 4.20 ☾ | 0.44 ☾ | 28.08 ☾ | 26.08 ♀ | 26.94 ♀ | 29.74 ♀ | 1.21 ☾ |
| 30 | 23.79 ☾ | 52.57 Z | 4.87 ♀ | 0.10 ♀ | 28.65 ♀ | 2.18 ♀ | 7.43 ♀ | 8.63 ☾ | 4.87 ☾ | 2.69 ♀ | 1.09 ♀ | 2.18 ♀ | 4.77 II | 5.83 ☾ |
| 35 | 25.33 ☾ | 51.64 Z | 9.32 ♀ | 4.87 ♀ | 3.78 ♁ | 7.35 ♀ | 12.17 ♀ | 13.02 ☾ | 9.32 ☾ | 7.33 ♀ | 6.09 ♀ | 7.35 ♀ | 9.71 II | 10.42 ☾ |
| 40 | 26.70 ☾ | 50.78 Z | 13.80 ♀ | 9.68 ♀ | 8.91 ♁ | 12.45 ♀ | 16.82 ♀ | 17.39 ☾ | 13.80 ☾ | 11.99 ♀ | 11.07 ♀ | 12.45 ♀ | 14.57 II | 14.99 ☾ |
| 45 | 27.87 ☾ | 49.99 Z | 18.30 ♀ | 14.53 ♀ | 14.03 ♁ | 17.46 ♀ | 21.41 ♀ | 21.74 ☾ | 18.30 ☾ | 16.67 ♀ | 16.02 ♀ | 17.46 ♀ | 19.37 II | 19.55 ☾ |
| 50 | 28.75 ☾ | 49.28 Z | 22.83 ♀ | 19.40 ♀ | 19.14 ♁ | 22.41 ♀ | 25.93 ♀ | 26.08 ☾ | 22.83 ☾ | 21.35 ♀ | 20.93 ♀ | 22.41 ♀ | 24.12 II | 24.11 ☾ |
| 55 | 29.24 ☾ | 48.65 Z | 27.38 ♀ | 24.30 ♀ | 24.21 ♁ | 27.28 ♀ | 0.42 ☾ | 0.42 ☾ | 27.38 ☾ | 26.04 ♀ | 25.80 ♀ | 27.28 ♀ | 28.82 II | 28.68 ☾ |
| 60 | 29.18 ☾ | 48.10 Z | 1.97 ♀ | 29.22 ♀ | 29.24 ♁ | 2.09 ♀ | 4.87 ☾ | 4.78 ☾ | 1.97 ♀ | 0.73 ♀ | 0.62 ♀ | 2.09 II | 3.49 ☾ | 3.27 ♀ |
| 65 | 28.27 ☾ | 47.63 Z | 6.59 ♀ | 4.13 ♁ | 4.23 ♀ | 6.84 ♀ | 9.30 ☾ | 9.16 ☾ | 6.59 ♀ | 5.42 ♀ | 5.39 ♀ | 6.84 II | 8.15 ☾ | 7.88 ♀ |
| 70 | 26.00 ☾ | 47.25 Z | 11.24 ♀ | 9.05 ♁ | 9.18 ♀ | 11.53 ♀ | 13.72 ☾ | 13.56 ☾ | 11.24 ♀ | 10.09 ♀ | 10.11 ♀ | 11.53 II | 12.80 ☾ | 12.53 ♀ |
| 75 | 21.39 ☾ | 46.95 Z | 15.91 ♀ | 13.95 ♁ | 14.08 ♀ | 16.19 ♀ | 18.14 ☾ | 17.99 ☾ | 15.91 ♀ | 14.74 ♀ | 14.78 ♀ | 16.19 II | 17.45 ☾ | 17.21 ♀ |
| 80 | 12.52 ☾ | 46.73 Z | 20.59 ♀ | 18.84 ♁ | 18.92 ♀ | 20.81 ♀ | 22.58 ☾ | 22.45 ☾ | 20.59 ♀ | 19.36 ♀ | 19.39 ♀ | 20.81 II | 22.11 ☾ | 21.93 ♀ |
| 85 | 25.98 ☾ | 46.60 Z | 25.29 ♀ | 23.70 ♁ | 23.72 ♀ | 25.41 ♀ | 27.03 ☾ | 26.94 ☾ | 25.29 ♀ | 23.96 ♀ | 23.96 ♀ | 25.41 II | 26.80 ☾ | 26.68 ♀ |
| 90 | 0.00 ☾ | 46.56 Z | 0.00 ♁ | 28.52 ♁ | 28.48 ♀ | 0.00 ☾ | 1.52 ☾ | 1.48 ♀ | 0.00 ♀ | 28.52 ♀ | 28.48 ♀ | 0.00 ☾ | 1.52 ♀ | 1.48 ♀ |
| 95 | 4.02 ♀ | 46.60 Z | 4.71 ♁ | 3.32 ♀ | 3.20 ♀ | 4.59 ☾ | 6.04 ☾ | 6.04 ♀ | 4.71 ♀ | 3.06 ♀ | 2.97 II | 4.59 ☾ | 6.28 ♀ | 6.30 ♀ |
| 100 | 17.48 ♀ | 46.73 Z | 9.41 ♁ | 8.07 ♀ | 7.89 ♀ | 9.19 ☾ | 10.61 ☾ | 10.64 ♀ | 9.41 ♀ | 7.55 ♀ | 7.42 II | 9.19 ☾ | 11.08 ♀ | 11.16 ♀ |
| 105 | 8.61 ♀ | 46.95 Z | 14.09 ♁ | 12.79 ♀ | 12.55 ♀ | 13.81 ☾ | 15.22 ☾ | 15.26 ♀ | 14.09 ♀ | 12.01 ♀ | 11.86 II | 13.81 ☾ | 15.92 ♀ | 16.05 ♀ |
| 110 | 4.00 ♀ | 47.25 Z | 18.76 ♁ | 17.47 ♀ | 17.20 ♀ | 18.47 ☾ | 19.89 ☾ | 19.91 ♀ | 18.76 ♀ | 16.44 ♀ | 16.28 II | 18.47 ☾ | 20.82 ♀ | 20.95 ♀ |
| 115 | 1.73 ♀ | 47.63 Z | 23.41 ♁ | 22.12 ♀ | 21.85 ♀ | 23.16 ☾ | 24.61 ☾ | 24.58 ♀ | 23.41 ♀ | 20.84 ♀ | 20.70 II | 23.16 ☾ | 25.77 ♀ | 25.87 ♀ |
| 120 | 0.82 ♀ | 48.10 Z | 28.03 ♁ | 26.73 ♀ | 26.51 ♀ | 27.91 ☾ | 29.38 ☾ | 29.27 ♀ | 28.03 ♀ | 25.22 ♀ | 25.13 II | 27.91 ☾ | 0.76 ♀ | 0.78 ♁ |
| 125 | 0.76 ♀ | 48.65 Z | 2.62 ♀ | 1.32 ♀ | 1.18 ☾ | 2.72 ☾ | 4.20 ♀ | 3.96 ♀ | 2.62 ♀ | 29.58 ♀ | 29.58 II | 2.72 ♀ | 5.79 ♀ | 5.70 ♁ |
| 130 | 1.25 ♀ | 49.28 Z | 7.17 ♀ | 5.89 ♀ | 5.88 ☾ | 7.59 ☾ | 9.07 ♀ | 8.65 ♀ | 7.17 ♀ | 3.92 II | 4.07 ☾ | 7.59 ♀ | 10.86 ♀ | 10.60 ♁ |
| 135 | 2.13 ♀ | 49.99 Z | 11.70 ♀ | 10.45 ♀ | 10.63 ☾ | 12.54 ☾ | 13.98 ♀ | 13.33 ♀ | 11.70 ♀ | 8.26 II | 8.59 ☾ | 12.54 ♀ | 15.97 ♀ | 15.47 ♁ |
| 140 | 3.30 ♀ | 50.78 Z | 16.20 ♀ | 15.01 ♀ | 15.43 ☾ | 17.55 ☾ | 18.93 ♀ | 18.01 ♀ | 16.20 ♀ | 12.61 II | 13.18 ☾ | 17.55 ♀ | 21.09 ♀ | 20.32 ♁ |
| 145 | 4.67 ♀ | 51.64 Z | 20.68 ♀ | 19.58 ♀ | 20.29 ☾ | 22.65 ☾ | 23.91 ♀ | 22.67 ♀ | 20.68 ♀ | 16.98 II | 17.83 ☾ | 22.65 ♀ | 26.22 ♀ | 25.13 ♁ |
| 150 | 6.21 ♀ | 52.57 Z | 25.13 ♀ | 24.17 ♀ | 25.23 ☾ | 27.82 ☾ | 28.91 ♀ | 27.31 ♀ | 25.13 ♀ | 21.37 II | 22.57 ☾ | 27.82 ♀ | 1.35 ♁ | 29.90 ♁ |
| 155 | 7.88 ♀ | 53.58 Z | 29.56 ♀ | 28.79 ♀ | 0.26 ☾ | 3.06 ♀ | 3.92 ♀ | 1.92 ♀ | 29.56 ♀ | 25.80 II | 27.40 ☾ | 3.06 ♀ | 6.47 ♁ | 4.63 ♀ |
| 160 | 9.66 ♀ | 54.65 Z | 3.99 ♀ | 3.46 ☾ | 5.37 ☾ | 8.36 ♀ | 8.92 ♀ | 6.51 ♀ | 3.99 II | 0.28 ☾ | 2.33 ♀ | 8.36 ♀ | 11.57 ♁ | 9.32 ♀ |
| 165 | 11.53 ♀ | 55.79 Z | 8.41 ♀ | 8.18 ☾ | 10.59 ☾ | 13.72 ♀ | 13.92 ♀ | 11.07 ♀ | 8.41 II | 4.83 ☾ | 7.38 ♀ | 13.72 ♀ | 16.63 ♁ | 13.95 ♀ |
| 170 | 13.47 ♀ | 56.98 Z | 12.84 ♀ | 12.97 ☾ | 15.91 ☾ | 19.12 ♀ | 18.90 ♀ | 15.61 ♀ | 12.84 II | 9.46 ☾ | 12.55 ♀ | 19.12 ♀ | 21.65 ♁ | 18.55 ♀ |
| 175 | 15.48 ♀ | 58.24 Z | 17.29 ♀ | 17.85 ☾ | 21.33 ☾ | 24.55 ♀ | 23.85 ♀ | 20.12 ♀ | 17.29 II | 14.18 ☾ | 17.85 ♀ | 24.55 ♀ | 26.62 ♁ | 23.10 ♀ |
| 180 | 17.54 ♀ | 59.56 Z | 21.76 ♀ | 22.82 ☾ | 26.85 ☾ | 0.00 ♀ | 28.78 ♀ | 24.62 ♀ | 21.76 II | 19.01 ☾ | 23.27 ♀ | 0.00 ♁ | 1.53 ♀ | 27.62 ♀ |

20° NB

| α_z | λ_z | β_z | I | II | III | IV | V | VI | VII | VIII | IX | X | XI | XII |
|------------|-------------|-----------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 185 | 19.66 ㄴ | 60.93 Z | 26.28 ㄱ | 27.89 ㄷ | 2.47 ㄹ | 5.45 ㄽ | 3.66 ㄿ | 29.10 ㅅ | 26.28 ㅈ | 23.97 ㅊ | 28.82 ㅌ | 5.45 ㅍ | 6.39 ㄴ | 2.11 ㄱ |
| 190 | 21.82 ㄴ | 62.35 Z | 0.85 ㄷ | 3.08 ㄹ | 8.17 ㄹ | 10.88 ㄽ | 8.50 ㅅ | 3.57 ㅈ | 0.85 ㅊ | 29.06 ㅌ | 4.49 ㅍ | 10.88 ㅍ | 11.18 ㄴ | 6.57 ㄱ |
| 195 | 24.02 ㄴ | 63.81 Z | 5.48 ㄷ | 8.40 ㄹ | 13.94 ㄹ | 16.28 ㄽ | 13.30 ㅅ | 8.04 ㅈ | 5.48 ㅊ | 4.31 ㅌ | 10.27 ㅍ | 16.28 ㅍ | 15.92 ㄴ | 11.02 ㄱ |
| 200 | 26.26 ㄴ | 65.32 Z | 10.20 ㄷ | 13.85 ㄹ | 19.76 ㄹ | 21.64 ㄽ | 18.06 ㅅ | 12.53 ㅈ | 10.20 ㅊ | 9.72 ㅌ | 16.15 ㅍ | 21.64 ㅍ | 20.59 ㄴ | 15.46 ㄱ |
| 205 | 28.53 ㄴ | 66.87 Z | 15.01 ㄷ | 19.42 ㄹ | 25.60 ㄹ | 26.94 ㄽ | 22.78 ㅅ | 17.03 ㅈ | 15.01 ㅊ | 15.30 ㅌ | 22.10 ㅍ | 26.94 ㅍ | 25.21 ㄴ | 19.90 ㄱ |
| 210 | 0.83 ㄱ | 68.46 Z | 19.93 ㄷ | 25.13 ㄹ | 1.46 ㄽ | 2.18 ㅅ | 27.47 ㅅ | 21.56 ㅈ | 19.93 ㅊ | 21.05 ㅌ | 28.10 ㅍ | 2.18 ㄴ | 29.78 ㄴ | 24.36 ㄱ |
| 215 | 3.16 ㄱ | 70.08 Z | 24.97 ㄷ | 0.95 ㄹ | 7.30 ㄽ | 7.35 ㅅ | 2.12 ㅈ | 26.14 ㅈ | 24.97 ㅊ | 26.98 ㅌ | 4.13 ㅍ | 7.35 ㄴ | 4.31 ㄱ | 28.84 ㄱ |
| 220 | 5.52 ㄱ | 71.73 Z | 0.15 ㄹ | 6.88 ㄹ | 13.09 ㄽ | 12.45 ㅅ | 6.75 ㅈ | 0.77 ㅊ | 0.15 ㅌ | 3.07 ㅍ | 10.15 ㅍ | 12.45 ㄴ | 8.80 ㄱ | 3.36 ㄷ |
| 225 | 7.90 ㄱ | 73.41 Z | 5.48 ㄹ | 12.90 ㄹ | 18.83 ㄽ | 17.46 ㅅ | 11.37 ㅈ | 5.47 ㅊ | 5.48 ㅌ | 9.30 ㅍ | 16.15 ㅍ | 17.46 ㄴ | 13.27 ㄱ | 7.93 ㄷ |
| 230 | 10.30 ㄱ | 75.10 Z | 10.96 ㄹ | 18.99 ㄹ | 24.49 ㄽ | 22.41 ㅅ | 15.98 ㅈ | 10.26 ㅊ | 10.96 ㅌ | 15.66 ㅍ | 22.09 ㅍ | 22.41 ㄴ | 17.71 ㄱ | 12.56 ㄷ |
| 235 | 12.73 ㄱ | 76.80 Z | 16.61 ㄹ | 25.12 ㄹ | 0.06 ㅅ | 27.28 ㅅ | 20.59 ㅈ | 15.14 ㅊ | 16.61 ㅌ | 22.11 ㅍ | 27.96 ㅍ | 27.28 ㄴ | 22.16 ㄱ | 17.27 ㄷ |
| 240 | 15.16 ㄱ | 78.51 Z | 22.42 ㄹ | 1.25 ㄽ | 5.52 ㅅ | 2.09 ㅈ | 25.23 ㅈ | 20.14 ㅊ | 22.42 ㅌ | 28.62 ㅍ | 3.73 ㄴ | 2.09 ㄱ | 26.60 ㄱ | 22.06 ㄷ |
| 245 | 17.61 ㄱ | 80.21 Z | 28.39 ㄹ | 7.37 ㄽ | 10.87 ㅅ | 6.84 ㅈ | 29.89 ㅈ | 25.27 ㅊ | 28.39 ㅌ | 5.15 ㅍ | 9.39 ㄴ | 6.84 ㄱ | 1.06 ㄷ | 26.95 ㄷ |
| 250 | 20.08 ㄱ | 81.89 Z | 4.51 ㄹ | 13.44 ㄽ | 16.11 ㅅ | 11.53 ㅈ | 4.59 ㅊ | 0.54 ㅌ | 4.51 ㅍ | 11.66 ㅍ | 14.94 ㄴ | 11.53 ㄱ | 5.56 ㄷ | 1.95 ㄹ |
| 255 | 22.55 ㄱ | 83.50 Z | 10.76 ㄹ | 19.43 ㄽ | 21.23 ㅅ | 16.19 ㅈ | 9.34 ㅊ | 5.97 ㅌ | 10.76 ㅍ | 18.11 ㅍ | 20.37 ㄴ | 16.19 ㄱ | 10.09 ㄷ | 7.07 ㄹ |
| 260 | 25.03 ㄱ | 84.96 Z | 17.11 ㄹ | 25.33 ㄽ | 26.24 ㅅ | 20.81 ㅈ | 14.16 ㅊ | 11.56 ㅌ | 17.11 ㅍ | 24.46 ㅍ | 25.68 ㄴ | 20.81 ㄱ | 14.67 ㄷ | 12.33 ㄹ |
| 265 | 27.51 ㄱ | 86.10 Z | 23.54 ㄹ | 1.11 ㅅ | 1.15 ㅈ | 25.41 ㅈ | 19.06 ㅊ | 17.31 ㅌ | 23.54 ㅍ | 0.69 ㄴ | 0.87 ㄱ | 25.41 ㄱ | 19.32 ㄷ | 17.71 ㄹ |
| 270 | 0.00 ㄷ | 86.56 Z | 0.00 ㄽ | 6.77 ㅅ | 5.96 ㅈ | 0.00 ㅊ | 24.04 ㅊ | 23.23 ㅌ | 0.00 ㅍ | 6.77 ㄴ | 5.96 ㄱ | 0.00 ㄷ | 24.04 ㄷ | 23.23 ㄹ |
| 275 | 2.49 ㄷ | 86.10 Z | 6.46 ㄽ | 12.29 ㅅ | 10.68 ㅈ | 4.59 ㅊ | 29.13 ㅊ | 29.31 ㅌ | 6.46 ㅍ | 12.69 ㄴ | 10.94 ㄱ | 4.59 ㄷ | 28.85 ㄷ | 28.89 ㄹ |
| 280 | 4.97 ㄷ | 84.96 Z | 12.89 ㄽ | 17.67 ㅅ | 15.33 ㅈ | 9.19 ㅊ | 4.32 ㅌ | 5.54 ㅍ | 12.89 ㅍ | 18.44 ㄴ | 15.84 ㄱ | 9.19 ㄷ | 3.76 ㄹ | 4.67 ㄹ |
| 285 | 7.45 ㄷ | 83.50 Z | 19.24 ㄽ | 22.93 ㅅ | 19.91 ㅈ | 13.81 ㅊ | 9.63 ㅌ | 11.89 ㅍ | 19.24 ㅍ | 24.03 ㄴ | 20.66 ㄱ | 13.81 ㄷ | 8.77 ㄹ | 10.57 ㄹ |
| 290 | 9.92 ㄷ | 81.89 Z | 25.49 ㄽ | 28.05 ㅅ | 24.44 ㅈ | 18.47 ㅊ | 15.06 ㅌ | 18.34 ㅍ | 25.49 ㅍ | 29.46 ㄴ | 25.41 ㄱ | 18.47 ㄷ | 13.89 ㄹ | 16.56 ㄹ |
| 295 | 12.39 ㄷ | 80.21 Z | 1.61 ㅅ | 3.05 ㅈ | 28.94 ㅈ | 23.16 ㅊ | 20.61 ㅌ | 24.85 ㅍ | 1.61 ㄴ | 4.73 ㄱ | 0.11 ㄷ | 23.16 ㄷ | 19.13 ㄹ | 22.63 ㄹ |
| 300 | 14.84 ㄷ | 78.51 Z | 7.58 ㅅ | 7.94 ㅈ | 3.40 ㅊ | 27.91 ㅊ | 26.27 ㅌ | 1.38 ㅍ | 7.58 ㄴ | 9.86 ㄱ | 4.77 ㄷ | 27.91 ㄷ | 24.48 ㄹ | 28.75 ㄹ |
| 305 | 17.27 ㄷ | 76.80 Z | 13.39 ㅅ | 12.73 ㅈ | 7.84 ㅊ | 2.72 ㅌ | 2.04 ㅍ | 7.89 ㅍ | 13.39 ㄴ | 14.86 ㄱ | 9.41 ㄷ | 2.72 ㄹ | 29.94 ㄹ | 4.88 ㄽ |
| 310 | 19.70 ㄷ | 75.10 Z | 19.04 ㅅ | 17.44 ㅈ | 12.29 ㅊ | 7.59 ㅌ | 7.91 ㅍ | 14.34 ㅍ | 19.04 ㄴ | 19.74 ㄱ | 14.02 ㄷ | 7.59 ㄹ | 5.51 ㄹ | 11.01 ㄽ |
| 315 | 22.10 ㄷ | 73.41 Z | 24.52 ㅅ | 22.07 ㅈ | 16.73 ㅊ | 12.54 ㅌ | 13.85 ㅍ | 20.70 ㅍ | 24.52 ㄴ | 24.53 ㄱ | 18.63 ㄷ | 12.54 ㄹ | 11.17 ㄹ | 17.10 ㄽ |
| 320 | 24.48 ㄷ | 71.73 Z | 29.85 ㅅ | 26.64 ㅈ | 21.20 ㅊ | 17.55 ㅌ | 19.85 ㅍ | 26.93 ㅍ | 29.85 ㄴ | 29.23 ㄱ | 23.25 ㄷ | 17.55 ㄹ | 16.91 ㄹ | 23.12 ㄽ |
| 325 | 26.84 ㄷ | 70.08 Z | 5.03 ㅈ | 1.16 ㅊ | 25.69 ㅊ | 22.65 ㅌ | 25.87 ㅍ | 3.02 ㄴ | 5.03 ㄱ | 3.86 ㄷ | 27.88 ㄷ | 22.65 ㄹ | 22.70 ㄹ | 29.05 ㄽ |
| 330 | 29.17 ㄷ | 68.46 Z | 10.07 ㅈ | 5.64 ㅊ | 0.22 ㅌ | 27.82 ㅌ | 1.90 ㅍ | 8.95 ㄴ | 10.07 ㄱ | 8.44 ㄷ | 2.53 ㄹ | 27.82 ㄹ | 28.54 ㄹ | 4.87 ㅅ |
| 335 | 1.47 ㄹ | 66.87 Z | 14.99 ㅈ | 10.10 ㅊ | 4.79 ㅌ | 3.06 ㅍ | 7.90 ㅍ | 14.70 ㄴ | 14.99 ㄱ | 12.97 ㄷ | 7.22 ㄹ | 3.06 ㄹ | 4.40 ㄽ | 10.58 ㅅ |
| 340 | 3.74 ㄹ | 65.32 Z | 19.80 ㅈ | 14.54 ㅊ | 9.41 ㅌ | 8.36 ㅍ | 13.85 ㅍ | 20.28 ㄴ | 19.80 ㄱ | 17.47 ㄷ | 11.94 ㄹ | 8.36 ㄹ | 10.24 ㄽ | 16.15 ㅅ |
| 345 | 5.98 ㄹ | 63.81 Z | 24.52 ㅈ | 18.98 ㅊ | 14.08 ㅌ | 13.72 ㅍ | 19.73 ㅍ | 25.69 ㄴ | 24.52 ㄱ | 21.96 ㄷ | 16.70 ㄹ | 13.72 ㄹ | 16.06 ㄽ | 21.60 ㅅ |
| 350 | 8.18 ㄹ | 62.35 Z | 29.15 ㅈ | 23.43 ㅊ | 18.82 ㅌ | 19.12 ㅍ | 25.51 ㅍ | 0.94 ㄱ | 29.15 ㄱ | 26.43 ㄷ | 21.50 ㄹ | 19.12 ㄹ | 21.83 ㄽ | 26.92 ㅅ |
| 355 | 10.34 ㄹ | 60.93 Z | 3.72 ㅊ | 27.89 ㅊ | 23.61 ㅌ | 24.55 ㅍ | 1.18 ㄴ | 6.03 ㄱ | 3.72 ㄷ | 0.90 ㄹ | 26.34 ㄹ | 24.55 ㄹ | 27.53 ㄽ | 2.11 ㅈ |
| 360 | 12.46 ㄹ | 59.56 Z | 8.24 ㅊ | 2.38 ㅌ | 28.47 ㅌ | 0.00 ㅍ | 6.73 ㄴ | 10.99 ㄱ | 8.24 ㄷ | 5.38 ㄹ | 1.22 ㄹ | 0.00 ㄽ | 3.15 ㅅ | 7.18 ㅈ |

25° NB

| α_z | λ_z | β_z | I | II | III | IV | V | VI | VII | VIII | IX | X | XI | XII |
|------------|-------------|-----------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0 | 19.53 𐄀 | 56.26 Z | 10.51 𐄀 | 3.54 𐄀 | 28.61 𐄀 | 0.00 𐄀 | 8.26 𐄀 | 13.72 𐄀 | 10.51 𐄀 | 7.23 𐄀 | 2.02 𐄀 | 0.00 𐄀 | 3.49 𐄀 | 8.75 𐄀 |
| 5 | 22.19 𐄀 | 54.77 Z | 14.92 𐄀 | 7.98 𐄀 | 3.44 𐄀 | 5.45 𐄀 | 13.74 𐄀 | 18.53 𐄀 | 14.92 𐄀 | 11.63 𐄀 | 6.86 𐄀 | 5.45 𐄀 | 9.12 𐄀 | 13.77 𐄀 |
| 10 | 24.84 𐄀 | 53.35 Z | 19.30 𐄀 | 12.45 𐄀 | 8.33 𐄀 | 10.88 𐄀 | 19.07 𐄀 | 23.21 𐄀 | 19.30 𐄀 | 16.03 𐄀 | 11.72 𐄀 | 10.88 𐄀 | 14.64 𐄀 | 18.67 𐄀 |
| 15 | 27.49 𐄀 | 52.00 Z | 23.65 𐄀 | 16.95 𐄀 | 13.27 𐄀 | 16.28 𐄀 | 24.26 𐄀 | 27.79 𐄀 | 23.65 𐄀 | 20.45 𐄀 | 16.60 𐄀 | 16.28 𐄀 | 20.04 𐄀 | 23.48 𐄀 |
| 20 | 0.15 𐄀 | 50.72 Z | 27.98 𐄀 | 21.49 𐄀 | 18.25 𐄀 | 21.64 𐄀 | 29.32 𐄀 | 2.27 𐄀 | 27.98 𐄀 | 24.89 𐄀 | 21.50 𐄀 | 21.64 𐄀 | 25.33 𐄀 | 28.21 𐄀 |
| 25 | 2.82 𐄀 | 49.51 Z | 2.31 𐄀 | 26.07 𐄀 | 23.26 𐄀 | 26.94 𐄀 | 4.24 𐄀 | 6.68 𐄀 | 2.31 𐄀 | 29.34 𐄀 | 26.40 𐄀 | 26.94 𐄀 | 0.51 𐄀 | 2.88 𐄀 |
| 30 | 5.52 𐄀 | 48.37 Z | 6.65 𐄀 | 0.69 𐄀 | 28.30 𐄀 | 2.18 𐄀 | 9.06 𐄀 | 11.03 𐄀 | 6.65 𐄀 | 3.81 𐄀 | 1.30 𐄀 | 2.18 𐄀 | 5.59 𐄀 | 7.49 𐄀 |
| 35 | 8.25 𐄀 | 47.32 Z | 10.99 𐄀 | 5.34 𐄀 | 3.35 𐄀 | 7.35 𐄀 | 13.77 𐄀 | 15.33 𐄀 | 10.99 𐄀 | 8.30 𐄀 | 6.19 𐄀 | 7.35 𐄀 | 10.57 𐄀 | 12.05 𐄀 |
| 40 | 11.03 𐄀 | 46.34 Z | 15.34 𐄀 | 10.03 𐄀 | 8.41 𐄀 | 12.45 𐄀 | 18.39 𐄀 | 19.60 𐄀 | 15.34 𐄀 | 12.80 𐄀 | 11.06 𐄀 | 12.45 𐄀 | 15.48 𐄀 | 16.59 𐄀 |
| 45 | 13.89 𐄀 | 45.45 Z | 19.72 𐄀 | 14.75 𐄀 | 13.46 𐄀 | 17.46 𐄀 | 22.93 𐄀 | 23.84 𐄀 | 19.72 𐄀 | 17.32 𐄀 | 15.90 𐄀 | 17.46 𐄀 | 20.31 𐄀 | 21.11 𐄀 |
| 50 | 16.85 𐄀 | 44.65 Z | 24.11 𐄀 | 19.50 𐄀 | 18.50 𐄀 | 22.41 𐄀 | 27.41 𐄀 | 28.08 𐄀 | 24.11 𐄀 | 21.84 𐄀 | 20.71 𐄀 | 22.41 𐄀 | 25.08 𐄀 | 25.63 𐄀 |
| 55 | 19.97 𐄀 | 43.93 Z | 28.53 𐄀 | 24.27 𐄀 | 23.51 𐄀 | 27.28 𐄀 | 1.84 𐄀 | 2.31 𐄀 | 28.53 𐄀 | 26.36 𐄀 | 25.47 𐄀 | 27.28 𐄀 | 29.80 𐄀 | 0.15 𐄀 |
| 60 | 23.33 𐄀 | 43.31 Z | 2.97 𐄀 | 29.05 𐄀 | 28.49 𐄀 | 2.09 𐄀 | 6.24 𐄀 | 6.54 𐄀 | 2.97 𐄀 | 0.87 𐄀 | 0.19 𐄀 | 2.09 𐄀 | 4.48 𐄀 | 4.68 𐄀 |
| 65 | 27.09 𐄀 | 42.78 Z | 7.43 𐄀 | 3.84 𐄀 | 3.43 𐄀 | 6.84 𐄀 | 10.61 𐄀 | 10.79 𐄀 | 7.43 𐄀 | 5.38 𐄀 | 4.86 𐄀 | 6.84 𐄀 | 9.15 𐄀 | 9.23 𐄀 |
| 70 | 1.53 𐄀 | 42.34 Z | 11.92 𐄀 | 8.63 𐄀 | 8.33 𐄀 | 11.53 𐄀 | 14.97 𐄀 | 15.06 𐄀 | 11.92 𐄀 | 9.87 𐄀 | 9.49 𐄀 | 11.53 𐄀 | 13.80 𐄀 | 13.80 𐄀 |
| 75 | 7.31 𐄀 | 42.00 Z | 16.42 𐄀 | 13.41 𐄀 | 13.19 𐄀 | 16.19 𐄀 | 19.33 𐄀 | 19.34 𐄀 | 16.42 𐄀 | 14.35 𐄀 | 14.06 𐄀 | 16.19 𐄀 | 18.45 𐄀 | 18.39 𐄀 |
| 80 | 16.22 𐄀 | 41.76 Z | 20.94 𐄀 | 18.17 𐄀 | 18.00 𐄀 | 20.81 𐄀 | 23.70 𐄀 | 23.66 𐄀 | 20.94 𐄀 | 18.80 𐄀 | 18.59 𐄀 | 20.81 𐄀 | 23.11 𐄀 | 23.02 𐄀 |
| 85 | 4.97 𐄀 | 41.61 Z | 25.47 𐄀 | 22.91 𐄀 | 22.78 𐄀 | 25.41 𐄀 | 28.08 𐄀 | 28.00 𐄀 | 25.47 𐄀 | 23.23 𐄀 | 23.07 𐄀 | 25.41 𐄀 | 27.79 𐄀 | 27.68 𐄀 |
| 90 | 0.00 𐄀 | 41.56 Z | 0.00 𐄀 | 27.63 𐄀 | 27.51 𐄀 | 0.00 𐄀 | 2.49 𐄀 | 2.37 𐄀 | 0.00 𐄀 | 27.63 𐄀 | 27.51 𐄀 | 0.00 𐄀 | 2.49 𐄀 | 2.37 𐄀 |
| 95 | 25.03 𐄀 | 41.61 Z | 4.53 𐄀 | 2.32 𐄀 | 2.21 𐄀 | 4.59 𐄀 | 6.93 𐄀 | 6.77 𐄀 | 4.53 𐄀 | 2.00 𐄀 | 1.92 𐄀 | 4.59 𐄀 | 7.22 𐄀 | 7.09 𐄀 |
| 100 | 13.78 𐄀 | 41.76 Z | 9.06 𐄀 | 6.98 𐄀 | 6.89 𐄀 | 9.19 𐄀 | 11.41 𐄀 | 11.20 𐄀 | 9.06 𐄀 | 6.34 𐄀 | 6.30 𐄀 | 9.19 𐄀 | 12.00 𐄀 | 11.83 𐄀 |
| 105 | 22.69 𐄀 | 42.00 Z | 13.58 𐄀 | 11.61 𐄀 | 11.55 𐄀 | 13.81 𐄀 | 15.94 𐄀 | 15.65 𐄀 | 13.58 𐄀 | 10.66 𐄀 | 10.67 𐄀 | 13.81 𐄀 | 16.81 𐄀 | 16.59 𐄀 |
| 110 | 28.47 𐄀 | 42.34 Z | 18.08 𐄀 | 16.20 𐄀 | 16.20 𐄀 | 18.47 𐄀 | 20.51 𐄀 | 20.13 𐄀 | 18.08 𐄀 | 14.94 𐄀 | 15.03 𐄀 | 18.47 𐄀 | 21.67 𐄀 | 21.37 𐄀 |
| 115 | 2.91 𐄀 | 42.78 Z | 22.57 𐄀 | 20.77 𐄀 | 20.85 𐄀 | 23.16 𐄀 | 25.14 𐄀 | 24.62 𐄀 | 22.57 𐄀 | 19.21 𐄀 | 19.39 𐄀 | 23.16 𐄀 | 26.57 𐄀 | 26.16 𐄀 |
| 120 | 6.67 𐄀 | 43.31 Z | 27.03 𐄀 | 25.32 𐄀 | 25.52 𐄀 | 27.91 𐄀 | 29.81 𐄀 | 29.13 𐄀 | 27.03 𐄀 | 23.46 𐄀 | 23.76 𐄀 | 27.91 𐄀 | 1.51 𐄀 | 0.95 𐄀 |
| 125 | 10.03 𐄀 | 43.93 Z | 1.47 𐄀 | 29.85 𐄀 | 0.20 𐄀 | 2.72 𐄀 | 4.53 𐄀 | 3.64 𐄀 | 1.47 𐄀 | 27.69 𐄀 | 28.16 𐄀 | 2.72 𐄀 | 6.49 𐄀 | 5.73 𐄀 |
| 130 | 13.15 𐄀 | 44.65 Z | 5.89 𐄀 | 4.37 𐄀 | 4.92 𐄀 | 7.59 𐄀 | 9.29 𐄀 | 8.16 𐄀 | 5.89 𐄀 | 1.92 𐄀 | 2.59 𐄀 | 7.59 𐄀 | 11.50 𐄀 | 10.50 𐄀 |
| 135 | 16.11 𐄀 | 45.45 Z | 10.28 𐄀 | 8.89 𐄀 | 9.69 𐄀 | 12.54 𐄀 | 14.10 𐄀 | 12.68 𐄀 | 10.28 𐄀 | 6.16 𐄀 | 7.07 𐄀 | 12.54 𐄀 | 16.54 𐄀 | 15.25 𐄀 |
| 140 | 18.97 𐄀 | 46.34 Z | 14.66 𐄀 | 13.41 𐄀 | 14.52 𐄀 | 17.55 𐄀 | 18.94 𐄀 | 17.20 𐄀 | 14.66 𐄀 | 10.40 𐄀 | 11.61 𐄀 | 17.55 𐄀 | 21.59 𐄀 | 19.97 𐄀 |
| 145 | 21.75 𐄀 | 47.32 Z | 19.01 𐄀 | 17.95 𐄀 | 19.43 𐄀 | 22.65 𐄀 | 23.81 𐄀 | 21.70 𐄀 | 19.01 𐄀 | 14.67 𐄀 | 16.23 𐄀 | 22.65 𐄀 | 26.65 𐄀 | 24.66 𐄀 |
| 150 | 24.48 𐄀 | 48.37 Z | 23.35 𐄀 | 22.51 𐄀 | 24.41 𐄀 | 27.82 𐄀 | 28.70 𐄀 | 26.19 𐄀 | 23.35 𐄀 | 18.97 𐄀 | 20.94 𐄀 | 27.82 𐄀 | 1.70 𐄀 | 29.31 𐄀 |
| 155 | 27.18 𐄀 | 49.51 Z | 27.69 𐄀 | 27.12 𐄀 | 29.49 𐄀 | 3.06 𐄀 | 3.60 𐄀 | 0.66 𐄀 | 27.69 𐄀 | 23.32 𐄀 | 25.76 𐄀 | 3.06 𐄀 | 6.74 𐄀 | 3.93 𐄀 |
| 160 | 29.85 𐄀 | 50.72 Z | 2.02 𐄀 | 1.79 𐄀 | 4.67 𐄀 | 8.36 𐄀 | 8.50 𐄀 | 5.11 𐄀 | 2.02 𐄀 | 27.73 𐄀 | 0.68 𐄀 | 8.36 𐄀 | 11.75 𐄀 | 8.51 𐄀 |
| 165 | 2.51 𐄀 | 52.00 Z | 6.35 𐄀 | 6.52 𐄀 | 9.96 𐄀 | 13.72 𐄀 | 13.40 𐄀 | 9.55 𐄀 | 6.35 𐄀 | 2.21 𐄀 | 5.74 𐄀 | 13.72 𐄀 | 16.73 𐄀 | 13.05 𐄀 |
| 170 | 5.16 𐄀 | 53.35 Z | 10.70 𐄀 | 11.33 𐄀 | 15.36 𐄀 | 19.12 𐄀 | 18.28 𐄀 | 13.97 𐄀 | 10.70 𐄀 | 6.79 𐄀 | 10.93 𐄀 | 19.12 𐄀 | 21.67 𐄀 | 17.55 𐄀 |
| 175 | 7.81 𐄀 | 54.77 Z | 15.08 𐄀 | 16.23 𐄀 | 20.88 𐄀 | 24.55 𐄀 | 23.14 𐄀 | 18.37 𐄀 | 15.08 𐄀 | 11.47 𐄀 | 16.26 𐄀 | 24.55 𐄀 | 26.56 𐄀 | 22.02 𐄀 |
| 180 | 10.47 𐄀 | 56.26 Z | 19.49 𐄀 | 21.25 𐄀 | 26.51 𐄀 | 0.00 𐄀 | 27.98 𐄀 | 22.77 𐄀 | 19.49 𐄀 | 16.28 𐄀 | 21.74 𐄀 | 0.00 𐄀 | 1.39 𐄀 | 26.46 𐄀 |

25° NB

| α_z | λ_z | β_z | I | II | III | IV | V | VI | VII | VIII | IX | X | XI | XII |
|------------|-------------|-----------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 185 | 13.12 ㉓ | 57.80 Z | 23.95 ㄨ | 26.39 ㄨ | 2.24 ㄨ | 5.45 ㄨ | 2.79 ㄨ | 27.16 ㄨ | 23.95 ㄨ | 21.23 ㄨ | 27.37 ㄨ | 5.45 ㄨ | 6.17 ㉓ | 0.87 ㄨ |
| 190 | 15.79 ㉓ | 59.40 Z | 28.48 ㄨ | 1.67 ㄨ | 8.06 ㄨ | 10.88 ㄨ | 7.56 ㄨ | 1.55 ㄨ | 28.48 ㄨ | 26.34 ㄨ | 3.14 ㄨ | 10.88 ㄨ | 10.89 ㉓ | 5.26 ㄨ |
| 195 | 18.47 ㉓ | 61.05 Z | 3.08 ㄨ | 7.09 ㄨ | 13.95 ㄨ | 16.28 ㄨ | 12.29 ㄨ | 5.95 ㄨ | 3.08 ㄨ | 1.63 ㄨ | 9.04 ㄨ | 16.28 ㄨ | 15.54 ㉓ | 9.64 ㄨ |
| 200 | 21.15 ㉓ | 62.75 Z | 7.78 ㄨ | 12.66 ㄨ | 19.90 ㄨ | 21.64 ㄨ | 16.99 ㄨ | 10.36 ㄨ | 7.78 ㄨ | 7.12 ㄨ | 15.06 ㄨ | 21.64 ㄨ | 20.15 ㉓ | 14.02 ㄨ |
| 205 | 23.85 ㉓ | 64.50 Z | 12.58 ㄨ | 18.38 ㄨ | 25.89 ㄨ | 26.94 ㄨ | 21.66 ㄨ | 14.80 ㄨ | 12.58 ㄨ | 12.81 ㄨ | 21.17 ㄨ | 26.94 ㄨ | 24.70 ㉓ | 18.41 ㄨ |
| 210 | 26.57 ㉓ | 66.29 Z | 17.51 ㄨ | 24.26 ㄨ | 1.87 ㄨ | 2.18 ㄨ | 26.29 ㄨ | 19.29 ㄨ | 17.51 ㄨ | 18.71 ㄨ | 27.35 ㄨ | 2.18 ㉓ | 29.20 ㉓ | 22.82 ㄨ |
| 215 | 29.29 ㉓ | 68.12 Z | 22.59 ㄨ | 0.27 ㄨ | 7.83 ㄨ | 7.35 ㄨ | 0.91 ㄨ | 23.82 ㄨ | 22.59 ㄨ | 24.82 ㄨ | 3.57 ㄨ | 7.35 ㉓ | 3.67 ㄨ | 27.26 ㄨ |
| 220 | 2.03 ㄨ | 69.98 Z | 27.82 ㄨ | 6.42 ㄨ | 13.75 ㄨ | 12.45 ㄨ | 5.51 ㄨ | 28.42 ㄨ | 27.82 ㄨ | 1.15 ㄨ | 9.80 ㄨ | 12.45 ㉓ | 8.09 ㄨ | 1.74 ㄨ |
| 225 | 4.79 ㄨ | 71.88 Z | 3.23 ㄨ | 12.66 ㄨ | 19.60 ㄨ | 17.46 ㄨ | 10.10 ㄨ | 3.11 ㄨ | 3.23 ㄨ | 7.66 ㄨ | 15.99 ㄨ | 17.46 ㉓ | 12.50 ㄨ | 6.27 ㄨ |
| 230 | 7.55 ㄨ | 73.80 Z | 8.83 ㄨ | 18.99 ㄨ | 25.35 ㄨ | 22.41 ㄨ | 14.69 ㄨ | 7.89 ㄨ | 8.83 ㄨ | 14.34 ㄨ | 22.13 ㄨ | 22.41 ㉓ | 16.89 ㄨ | 10.87 ㄨ |
| 235 | 10.33 ㄨ | 75.75 Z | 14.62 ㄨ | 25.35 ㄨ | 1.00 ㄨ | 27.28 ㄨ | 19.29 ㄨ | 12.79 ㄨ | 14.62 ㄨ | 21.15 ㄨ | 28.19 ㄨ | 27.28 ㉓ | 21.28 ㄨ | 15.56 ㄨ |
| 240 | 13.12 ㄨ | 77.72 Z | 20.62 ㄨ | 1.72 ㄨ | 6.53 ㄨ | 2.09 ㄨ | 23.92 ㄨ | 17.82 ㄨ | 20.62 ㄨ | 28.04 ㄨ | 4.14 ㉓ | 2.09 ㄨ | 25.67 ㄨ | 20.34 ㄨ |
| 245 | 15.92 ㄨ | 79.70 Z | 26.81 ㄨ | 8.06 ㄨ | 11.93 ㄨ | 6.84 ㄨ | 28.58 ㄨ | 23.01 ㄨ | 26.81 ㄨ | 4.96 ㄨ | 9.97 ㉓ | 6.84 ㄨ | 0.09 ㄨ | 25.23 ㄨ |
| 250 | 18.72 ㄨ | 81.69 Z | 3.19 ㄨ | 14.34 ㄨ | 17.21 ㄨ | 11.53 ㄨ | 3.29 ㄨ | 28.36 ㄨ | 3.19 ㄨ | 11.86 ㄨ | 15.66 ㉓ | 11.53 ㄨ | 4.54 ㄨ | 0.24 ㄨ |
| 255 | 21.54 ㄨ | 83.67 Z | 9.73 ㄨ | 20.52 ㄨ | 22.35 ㄨ | 16.19 ㄨ | 8.07 ㄨ | 3.90 ㄨ | 9.73 ㄨ | 18.68 ㄨ | 21.22 ㉓ | 16.19 ㄨ | 9.03 ㄨ | 5.39 ㄨ |
| 260 | 24.35 ㄨ | 85.62 Z | 16.41 ㄨ | 26.58 ㄨ | 27.38 ㄨ | 20.81 ㄨ | 12.92 ㄨ | 9.64 ㄨ | 16.41 ㄨ | 25.37 ㄨ | 26.64 ㉓ | 20.81 ㄨ | 13.58 ㄨ | 10.68 ㄨ |
| 265 | 27.18 ㄨ | 87.42 Z | 23.18 ㄨ | 2.50 ㄨ | 2.29 ㄨ | 25.41 ㄨ | 17.86 ㄨ | 15.58 ㄨ | 23.18 ㄨ | 1.91 ㄨ | 1.93 ㄨ | 25.41 ㄨ | 18.20 ㄨ | 16.13 ㄨ |
| 270 | 0.00 ㄨ | 88.44 Z | 0.00 ㄨ | 8.26 ㄨ | 7.09 ㄨ | 0.00 ㄨ | 22.91 ㄨ | 21.74 ㄨ | 0.00 ㄨ | 8.26 ㉓ | 7.09 ㄨ | 0.00 ㄨ | 22.91 ㄨ | 21.74 ㄨ |
| 275 | 2.82 ㄨ | 87.42 Z | 6.82 ㄨ | 13.87 ㄨ | 11.80 ㄨ | 4.59 ㄨ | 28.07 ㄨ | 28.09 ㄨ | 6.82 ㄨ | 14.42 ㉓ | 12.14 ㄨ | 4.59 ㄨ | 27.71 ㄨ | 27.50 ㄨ |
| 280 | 5.65 ㄨ | 85.62 Z | 13.59 ㄨ | 19.32 ㄨ | 16.42 ㄨ | 9.19 ㄨ | 3.36 ㄨ | 4.63 ㄨ | 13.59 ㄨ | 20.36 ㉓ | 17.08 ㄨ | 9.19 ㄨ | 2.62 ㄨ | 3.42 ㄨ |
| 285 | 8.46 ㄨ | 83.67 Z | 20.27 ㄨ | 24.61 ㄨ | 20.97 ㄨ | 13.81 ㄨ | 8.78 ㄨ | 11.32 ㄨ | 20.27 ㄨ | 26.10 ㉓ | 21.93 ㄨ | 13.81 ㄨ | 7.65 ㄨ | 9.48 ㄨ |
| 290 | 11.28 ㄨ | 81.69 Z | 26.81 ㄨ | 29.76 ㄨ | 25.46 ㄨ | 18.47 ㄨ | 14.34 ㄨ | 18.14 ㄨ | 26.81 ㄨ | 1.64 ㄨ | 26.71 ㄨ | 18.47 ㄨ | 12.79 ㄨ | 15.66 ㄨ |
| 295 | 14.08 ㄨ | 79.70 Z | 3.19 ㄨ | 4.77 ㄨ | 29.91 ㄨ | 23.16 ㄨ | 20.03 ㄨ | 25.04 ㄨ | 3.19 ㄨ | 6.99 ㄨ | 1.42 ㄨ | 23.16 ㄨ | 18.07 ㄨ | 21.94 ㄨ |
| 300 | 16.88 ㄨ | 77.72 Z | 9.38 ㄨ | 9.66 ㄨ | 4.33 ㄨ | 27.91 ㄨ | 25.86 ㄨ | 1.96 ㄨ | 9.38 ㄨ | 12.18 ㄨ | 6.08 ㄨ | 27.91 ㄨ | 23.47 ㄨ | 28.28 ㄨ |
| 305 | 19.67 ㄨ | 75.75 Z | 15.38 ㄨ | 14.44 ㄨ | 8.72 ㄨ | 2.72 ㄨ | 1.81 ㄨ | 8.85 ㄨ | 15.38 ㄨ | 17.21 ㄨ | 10.71 ㄨ | 2.72 ㄨ | 29.00 ㄨ | 4.65 ㄨ |
| 310 | 22.45 ㄨ | 73.80 Z | 21.17 ㄨ | 19.13 ㄨ | 13.11 ㄨ | 7.59 ㄨ | 7.87 ㄨ | 15.66 ㄨ | 21.17 ㄨ | 22.11 ㄨ | 15.31 ㄨ | 7.59 ㄨ | 4.65 ㄨ | 11.01 ㄨ |
| 315 | 25.21 ㄨ | 71.88 Z | 26.77 ㄨ | 23.73 ㄨ | 17.50 ㄨ | 12.54 ㄨ | 14.01 ㄨ | 22.34 ㄨ | 26.77 ㄨ | 26.89 ㄨ | 19.90 ㄨ | 12.54 ㄨ | 10.40 ㄨ | 17.34 ㄨ |
| 320 | 27.97 ㄨ | 69.98 Z | 2.18 ㄨ | 28.26 ㄨ | 21.91 ㄨ | 17.55 ㄨ | 20.20 ㄨ | 28.85 ㄨ | 2.18 ㄨ | 1.58 ㄨ | 24.49 ㄨ | 17.55 ㄨ | 16.25 ㄨ | 23.58 ㄨ |
| 325 | 0.71 ㄨ | 68.12 Z | 7.41 ㄨ | 2.74 ㄨ | 26.33 ㄨ | 22.65 ㄨ | 26.43 ㄨ | 5.18 ㄨ | 7.41 ㄨ | 6.18 ㄨ | 29.09 ㄨ | 22.65 ㄨ | 22.17 ㄨ | 29.73 ㄨ |
| 330 | 3.43 ㄨ | 66.29 Z | 12.49 ㄨ | 7.18 ㄨ | 0.80 ㄨ | 27.82 ㄨ | 2.65 ㄨ | 11.29 ㄨ | 12.49 ㄨ | 10.71 ㄨ | 3.71 ㄨ | 27.82 ㄨ | 28.13 ㄨ | 5.74 ㄨ |
| 335 | 6.15 ㄨ | 64.50 Z | 17.42 ㄨ | 11.59 ㄨ | 5.30 ㄨ | 3.06 ㄨ | 8.83 ㄨ | 17.19 ㄨ | 17.42 ㄨ | 15.20 ㄨ | 8.34 ㄨ | 3.06 ㄨ | 4.11 ㄨ | 11.62 ㄨ |
| 340 | 8.85 ㄨ | 62.75 Z | 22.22 ㄨ | 15.98 ㄨ | 9.85 ㄨ | 8.36 ㄨ | 14.94 ㄨ | 22.88 ㄨ | 22.22 ㄨ | 19.64 ㄨ | 13.01 ㄨ | 8.36 ㄨ | 10.10 ㄨ | 17.34 ㄨ |
| 345 | 11.53 ㄨ | 61.05 Z | 26.92 ㄨ | 20.36 ㄨ | 14.46 ㄨ | 13.72 ㄨ | 20.96 ㄨ | 28.37 ㄨ | 26.92 ㄨ | 24.05 ㄨ | 17.71 ㄨ | 13.72 ㄨ | 16.05 ㄨ | 22.91 ㄨ |
| 350 | 14.21 ㄨ | 59.40 Z | 1.52 ㄨ | 24.74 ㄨ | 19.11 ㄨ | 19.12 ㄨ | 26.86 ㄨ | 3.66 ㄨ | 1.52 ㄨ | 28.45 ㄨ | 22.44 ㄨ | 19.12 ㄨ | 21.94 ㄨ | 28.33 ㄨ |
| 355 | 16.88 ㄨ | 57.80 Z | 6.05 ㄨ | 29.13 ㄨ | 23.83 ㄨ | 24.55 ㄨ | 2.63 ㄨ | 8.77 ㄨ | 6.05 ㄨ | 2.84 ㄨ | 27.21 ㄨ | 24.55 ㄨ | 27.76 ㄨ | 3.61 ㄨ |
| 360 | 19.53 ㄨ | 56.26 Z | 10.51 ㄨ | 3.54 ㄨ | 28.61 ㄨ | 0.00 ㄨ | 8.26 ㄨ | 13.72 ㄨ | 10.51 ㄨ | 7.23 ㄨ | 2.02 ㄨ | 0.00 ㄨ | 3.49 ㄨ | 8.75 ㄨ |

30° NB

| α_z | λ_z | β_z | I | II | III | IV | V | VI | VII | VIII | IX | X | XI | XII |
|------------|-------------|-----------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0 | 25.43 𐄀 | 52.61 Z | 12.93 𐄀 | 4.77 𐄀 | 28.75 𐄀 | 0.00 𐄀 | 10.07 𐄀 | 16.78 𐄀 | 12.93 𐄀 | 9.12 𐄀 | 2.81 𐄀 | 0.00 𐄀 | 3.91 𐄀 | 10.51 𐄀 |
| 5 | 28.56 𐄀 | 51.01 Z | 17.27 𐄀 | 9.12 𐄀 | 3.51 𐄀 | 5.45 𐄀 | 15.60 𐄀 | 21.53 𐄀 | 17.27 𐄀 | 13.40 𐄀 | 7.56 𐄀 | 5.45 𐄀 | 9.65 𐄀 | 15.57 𐄀 |
| 10 | 1.73 𐄀 | 49.47 Z | 21.55 𐄀 | 13.49 𐄀 | 8.31 𐄀 | 10.88 𐄀 | 20.95 𐄀 | 26.15 𐄀 | 21.55 𐄀 | 17.69 𐄀 | 12.33 𐄀 | 10.88 𐄀 | 15.27 𐄀 | 20.51 𐄀 |
| 15 | 4.95 𐄀 | 48.00 Z | 25.81 𐄀 | 17.90 𐄀 | 13.16 𐄀 | 16.28 𐄀 | 26.15 𐄀 | 0.64 𐄀 | 25.81 𐄀 | 21.98 𐄀 | 17.11 𐄀 | 16.28 𐄀 | 20.76 𐄀 | 25.33 𐄀 |
| 20 | 8.24 𐄀 | 46.60 Z | 0.04 𐄀 | 22.33 𐄀 | 18.06 𐄀 | 21.64 𐄀 | 1.19 𐄀 | 5.04 𐄀 | 0.04 𐄀 | 26.29 𐄀 | 21.91 𐄀 | 21.64 𐄀 | 26.13 𐄀 | 0.05 𐄀 |
| 25 | 11.61 𐄀 | 45.28 Z | 4.26 𐄀 | 26.80 𐄀 | 22.99 𐄀 | 26.94 𐄀 | 6.10 𐄀 | 9.35 𐄀 | 4.26 𐄀 | 0.60 𐄀 | 26.71 𐄀 | 26.94 𐄀 | 1.37 𐄀 | 4.70 𐄀 |
| 30 | 15.11 𐄀 | 44.04 Z | 8.48 𐄀 | 1.30 𐄀 | 27.94 𐄀 | 2.18 𐄀 | 10.88 𐄀 | 13.59 𐄀 | 8.48 𐄀 | 4.93 𐄀 | 1.50 𐄀 | 2.18 𐄀 | 6.51 𐄀 | 9.28 𐄀 |
| 35 | 18.76 𐄀 | 42.88 Z | 12.70 𐄀 | 5.84 𐄀 | 2.91 𐄀 | 7.35 𐄀 | 15.54 𐄀 | 17.78 𐄀 | 12.70 𐄀 | 9.26 𐄀 | 6.28 𐄀 | 7.35 𐄀 | 11.54 𐄀 | 13.82 𐄀 |
| 40 | 22.62 𐄀 | 41.81 Z | 16.93 𐄀 | 10.41 𐄀 | 7.89 𐄀 | 12.45 𐄀 | 20.11 𐄀 | 21.94 𐄀 | 16.93 𐄀 | 13.61 𐄀 | 11.03 𐄀 | 12.45 𐄀 | 16.48 𐄀 | 18.31 𐄀 |
| 45 | 26.75 𐄀 | 40.84 Z | 21.17 𐄀 | 15.00 𐄀 | 12.87 𐄀 | 17.46 𐄀 | 24.60 𐄀 | 26.06 𐄀 | 21.17 𐄀 | 17.96 𐄀 | 15.76 𐄀 | 17.46 𐄀 | 21.34 𐄀 | 22.79 𐄀 |
| 50 | 1.24 𐄀 | 39.96 Z | 25.42 𐄀 | 19.62 𐄀 | 17.83 𐄀 | 22.41 𐄀 | 29.03 𐄀 | 0.17 𐄀 | 25.42 𐄀 | 22.31 𐄀 | 20.46 𐄀 | 22.41 𐄀 | 26.13 𐄀 | 27.25 𐄀 |
| 55 | 6.23 𐄀 | 39.17 Z | 29.69 𐄀 | 24.25 𐄀 | 22.78 𐄀 | 27.28 𐄀 | 3.40 𐄀 | 4.27 𐄀 | 29.69 𐄀 | 26.65 𐄀 | 25.12 𐄀 | 27.28 𐄀 | 0.87 𐄀 | 1.70 𐄀 |
| 60 | 11.92 𐄀 | 38.49 Z | 3.98 𐄀 | 28.90 𐄀 | 27.70 𐄀 | 2.09 𐄀 | 7.73 𐄀 | 8.37 𐄀 | 3.98 𐄀 | 1.00 𐄀 | 29.73 𐄀 | 2.09 𐄀 | 5.56 𐄀 | 6.16 𐄀 |
| 65 | 18.64 𐄀 | 37.90 Z | 8.28 𐄀 | 3.55 𐄀 | 2.59 𐄀 | 6.84 𐄀 | 12.03 𐄀 | 12.48 𐄀 | 8.28 𐄀 | 5.33 𐄀 | 4.30 𐄀 | 6.84 𐄀 | 10.23 𐄀 | 10.63 𐄀 |
| 70 | 26.86 𐄀 | 37.42 Z | 12.61 𐄀 | 8.21 𐄀 | 7.44 𐄀 | 11.53 𐄀 | 16.32 𐄀 | 16.60 𐄀 | 12.61 𐄀 | 9.65 𐄀 | 8.82 𐄀 | 11.53 𐄀 | 14.88 𐄀 | 15.12 𐄀 |
| 75 | 7.31 𐄀 | 37.05 Z | 16.94 𐄀 | 12.86 𐄀 | 12.25 𐄀 | 16.19 𐄀 | 20.60 𐄀 | 20.74 𐄀 | 16.94 𐄀 | 13.95 𐄀 | 13.30 𐄀 | 16.19 𐄀 | 19.52 𐄀 | 19.62 𐄀 |
| 80 | 21.02 𐄀 | 36.78 Z | 21.29 𐄀 | 17.49 𐄀 | 17.03 𐄀 | 20.81 𐄀 | 24.89 𐄀 | 24.89 𐄀 | 21.29 𐄀 | 18.23 𐄀 | 17.73 𐄀 | 20.81 𐄀 | 24.17 𐄀 | 24.15 𐄀 |
| 85 | 8.83 𐄀 | 36.61 Z | 25.64 𐄀 | 22.11 𐄀 | 21.77 𐄀 | 25.41 𐄀 | 29.19 𐄀 | 29.08 𐄀 | 25.64 𐄀 | 22.48 𐄀 | 22.13 𐄀 | 25.41 𐄀 | 28.83 𐄀 | 28.71 𐄀 |
| 90 | 0.00 𐄀 | 36.56 Z | 0.00 𐄀 | 26.72 𐄀 | 26.48 𐄀 | 0.00 𐄀 | 3.52 𐄀 | 3.28 𐄀 | 0.00 𐄀 | 26.72 𐄀 | 26.48 𐄀 | 0.00 𐄀 | 3.52 𐄀 | 3.28 𐄀 |
| 95 | 21.17 𐄀 | 36.61 Z | 4.36 𐄀 | 1.29 𐄀 | 1.17 𐄀 | 4.59 𐄀 | 7.87 𐄀 | 7.52 𐄀 | 4.36 𐄀 | 0.92 𐄀 | 0.81 𐄀 | 4.59 𐄀 | 8.23 𐄀 | 7.89 𐄀 |
| 100 | 8.98 𐄀 | 36.78 Z | 8.71 𐄀 | 5.85 𐄀 | 5.83 𐄀 | 9.19 𐄀 | 12.27 𐄀 | 11.77 𐄀 | 8.71 𐄀 | 5.11 𐄀 | 5.11 𐄀 | 9.19 𐄀 | 12.97 𐄀 | 12.51 𐄀 |
| 105 | 22.69 𐄀 | 37.05 Z | 13.06 𐄀 | 10.38 𐄀 | 10.48 𐄀 | 13.81 𐄀 | 16.70 𐄀 | 16.05 𐄀 | 13.06 𐄀 | 9.26 𐄀 | 9.40 𐄀 | 13.81 𐄀 | 17.75 𐄀 | 17.14 𐄀 |
| 110 | 3.14 𐄀 | 37.42 Z | 17.39 𐄀 | 14.88 𐄀 | 15.12 𐄀 | 18.47 𐄀 | 21.18 𐄀 | 20.35 𐄀 | 17.39 𐄀 | 13.40 𐄀 | 13.68 𐄀 | 18.47 𐄀 | 22.56 𐄀 | 21.79 𐄀 |
| 115 | 11.36 𐄀 | 37.90 Z | 21.72 𐄀 | 19.37 𐄀 | 19.77 𐄀 | 23.16 𐄀 | 25.70 𐄀 | 24.67 𐄀 | 21.72 𐄀 | 17.52 𐄀 | 17.97 𐄀 | 23.16 𐄀 | 27.41 𐄀 | 26.45 𐄀 |
| 120 | 18.08 𐄀 | 38.49 Z | 26.02 𐄀 | 23.84 𐄀 | 24.44 𐄀 | 27.91 𐄀 | 0.27 𐄀 | 29.00 𐄀 | 26.02 𐄀 | 21.63 𐄀 | 22.27 𐄀 | 27.91 𐄀 | 2.30 𐄀 | 1.10 𐄀 |
| 125 | 23.77 𐄀 | 39.17 Z | 0.31 𐄀 | 28.30 𐄀 | 29.13 𐄀 | 2.72 𐄀 | 4.88 𐄀 | 3.35 𐄀 | 0.31 𐄀 | 25.73 𐄀 | 26.60 𐄀 | 2.72 𐄀 | 7.22 𐄀 | 5.75 𐄀 |
| 130 | 28.76 𐄀 | 39.96 Z | 4.58 𐄀 | 2.75 𐄀 | 3.87 𐄀 | 7.59 𐄀 | 9.54 𐄀 | 7.69 𐄀 | 4.58 𐄀 | 29.83 𐄀 | 0.97 𐄀 | 7.59 𐄀 | 12.17 𐄀 | 10.38 𐄀 |
| 135 | 3.25 𐄀 | 40.84 Z | 8.83 𐄀 | 7.21 𐄀 | 8.66 𐄀 | 12.54 𐄀 | 14.24 𐄀 | 12.04 𐄀 | 8.83 𐄀 | 3.94 𐄀 | 5.40 𐄀 | 12.54 𐄀 | 17.13 𐄀 | 15.00 𐄀 |
| 140 | 7.38 𐄀 | 41.81 Z | 13.07 𐄀 | 11.69 𐄀 | 13.52 𐄀 | 17.55 𐄀 | 18.97 𐄀 | 16.39 𐄀 | 13.07 𐄀 | 8.06 𐄀 | 9.89 𐄀 | 17.55 𐄀 | 22.11 𐄀 | 19.59 𐄀 |
| 145 | 11.24 𐄀 | 42.88 Z | 17.30 𐄀 | 16.18 𐄀 | 18.46 𐄀 | 22.65 𐄀 | 23.72 𐄀 | 20.74 𐄀 | 17.30 𐄀 | 12.22 𐄀 | 14.46 𐄀 | 22.65 𐄀 | 27.09 𐄀 | 24.16 𐄀 |
| 150 | 14.89 𐄀 | 44.04 Z | 21.52 𐄀 | 20.72 𐄀 | 23.49 𐄀 | 27.82 𐄀 | 28.50 𐄀 | 25.07 𐄀 | 21.52 𐄀 | 16.41 𐄀 | 19.12 𐄀 | 27.82 𐄀 | 2.06 𐄀 | 28.70 𐄀 |
| 155 | 18.39 𐄀 | 45.28 Z | 25.74 𐄀 | 25.30 𐄀 | 28.63 𐄀 | 3.06 𐄀 | 3.29 𐄀 | 29.40 𐄀 | 25.74 𐄀 | 20.65 𐄀 | 23.90 𐄀 | 3.06 𐄀 | 7.01 𐄀 | 3.20 𐄀 |
| 160 | 21.76 𐄀 | 46.60 Z | 29.96 𐄀 | 29.95 𐄀 | 3.87 𐄀 | 8.36 𐄀 | 8.09 𐄀 | 3.71 𐄀 | 29.96 𐄀 | 24.96 𐄀 | 28.81 𐄀 | 8.36 𐄀 | 11.94 𐄀 | 7.67 𐄀 |
| 165 | 25.05 𐄀 | 48.00 Z | 4.19 𐄀 | 4.67 𐄀 | 9.24 𐄀 | 13.72 𐄀 | 12.89 𐄀 | 8.02 𐄀 | 4.19 𐄀 | 29.36 𐄀 | 3.85 𐄀 | 13.72 𐄀 | 16.84 𐄀 | 12.10 𐄀 |
| 170 | 28.27 𐄀 | 49.47 Z | 8.45 𐄀 | 9.49 𐄀 | 14.73 𐄀 | 19.12 𐄀 | 17.67 𐄀 | 12.31 𐄀 | 8.45 𐄀 | 3.85 𐄀 | 9.05 𐄀 | 19.12 𐄀 | 21.69 𐄀 | 16.51 𐄀 |
| 175 | 1.44 𐄀 | 51.01 Z | 12.73 𐄀 | 14.43 𐄀 | 20.35 𐄀 | 24.55 𐄀 | 22.44 𐄀 | 16.60 𐄀 | 12.73 𐄀 | 8.47 𐄀 | 14.40 𐄀 | 24.55 𐄀 | 26.49 𐄀 | 20.88 𐄀 |
| 180 | 4.57 𐄀 | 52.61 Z | 17.07 𐄀 | 19.49 𐄀 | 26.09 𐄀 | 0.00 𐄀 | 27.19 𐄀 | 20.88 𐄀 | 17.07 𐄀 | 13.22 𐄀 | 19.93 𐄀 | 0.00 𐄀 | 1.25 𐄀 | 25.23 𐄀 |

30° NB

| α_z | λ_z | β_z | I | II | III | IV | V | VI | VII | VIII | IX | X | XI | XII |
|------------|-------------|-----------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 185 | 7.66 ㊟ | 54.28 Z | 21.45 ㄨ | 24.69 ㄨ | 1.95 ㄨ | 5.45 ㄨ | 1.91 ㄨ | 25.17 ㄨ | 21.45 ㄨ | 18.14 ㄨ | 25.63 ㄨ | 5.45 ㄨ | 5.94 ㊟ | 29.56 ㊟ |
| 190 | 10.74 ㊟ | 56.01 Z | 25.91 ㄨ | 0.05 ㄨ | 7.90 ㄨ | 10.88 ㄨ | 6.60 ㄨ | 29.46 ㄨ | 25.91 ㄨ | 23.24 ㄨ | 1.50 ㄨ | 10.88 ㄨ | 10.58 ㊟ | 3.87 ㄨ |
| 195 | 13.80 ㊟ | 57.78 Z | 0.46 ㄨ | 5.57 ㄨ | 13.94 ㄨ | 16.28 ㄨ | 11.26 ㄨ | 3.77 ㄨ | 0.46 ㄨ | 28.54 ㄨ | 7.53 ㄨ | 16.28 ㄨ | 15.16 ㊟ | 8.19 ㄨ |
| 200 | 16.86 ㊟ | 59.61 Z | 5.12 ㄨ | 11.28 ㄨ | 20.04 ㄨ | 21.64 ㄨ | 15.90 ㄨ | 8.10 ㄨ | 5.12 ㄨ | 4.08 ㄨ | 13.71 ㄨ | 21.64 ㄨ | 19.69 ㊟ | 12.50 ㄨ |
| 205 | 19.91 ㊟ | 61.48 Z | 9.89 ㄨ | 17.17 ㄨ | 26.18 ㄨ | 26.94 ㄨ | 20.50 ㄨ | 12.47 ㄨ | 9.89 ㄨ | 9.86 ㄨ | 20.01 ㄨ | 26.94 ㄨ | 24.17 ㊟ | 16.82 ㄨ |
| 210 | 22.96 ㊟ | 63.38 Z | 14.82 ㄨ | 23.24 ㄨ | 2.31 ㄨ | 2.18 ㄨ | 25.09 ㄨ | 16.88 ㄨ | 14.82 ㄨ | 15.90 ㄨ | 26.39 ㄨ | 2.18 ㊟ | 28.60 ㊟ | 21.17 ㄨ |
| 215 | 26.02 ㊟ | 65.32 Z | 19.90 ㄨ | 29.48 ㄨ | 8.42 ㄨ | 7.35 ㄨ | 29.65 ㄨ | 21.36 ㄨ | 19.90 ㄨ | 22.21 ㄨ | 2.84 ㄨ | 7.35 ㊟ | 3.00 ㄨ | 25.56 ㄨ |
| 220 | 29.08 ㊟ | 67.28 Z | 25.18 ㄨ | 5.87 ㄨ | 14.47 ㄨ | 12.45 ㄨ | 4.21 ㄨ | 25.91 ㄨ | 25.18 ㄨ | 28.79 ㄨ | 9.30 ㄨ | 12.45 ㊟ | 7.36 ㄨ | 29.98 ㄨ |
| 225 | 2.14 ㄨ | 69.26 Z | 0.66 ㄨ | 12.39 ㄨ | 20.44 ㄨ | 17.46 ㄨ | 8.76 ㄨ | 0.56 ㄨ | 0.66 ㄨ | 5.63 ㄨ | 15.74 ㄨ | 17.46 ㊟ | 11.70 ㄨ | 4.47 ㄨ |
| 230 | 5.21 ㄨ | 71.25 Z | 6.36 ㄨ | 19.00 ㄨ | 26.31 ㄨ | 22.41 ㄨ | 13.32 ㄨ | 5.31 ㄨ | 6.36 ㄨ | 12.68 ㄨ | 22.12 ㄨ | 22.41 ㊟ | 16.02 ㄨ | 9.03 ㄨ |
| 235 | 8.29 ㄨ | 73.23 Z | 12.30 ㄨ | 25.65 ㄨ | 2.05 ㄨ | 27.28 ㄨ | 17.90 ㄨ | 10.20 ㄨ | 12.30 ㄨ | 19.92 ㄨ | 28.40 ㄨ | 27.28 ㊟ | 20.35 ㄨ | 13.68 ㄨ |
| 240 | 11.37 ㄨ | 75.20 Z | 18.49 ㄨ | 2.31 ㄨ | 7.66 ㄨ | 2.09 ㄨ | 22.52 ㄨ | 15.25 ㄨ | 18.49 ㄨ | 27.27 ㄨ | 4.57 ㊟ | 2.09 ㄨ | 24.68 ㄨ | 18.44 ㄨ |
| 245 | 14.47 ㄨ | 77.11 Z | 24.92 ㄨ | 8.92 ㄨ | 13.12 ㄨ | 6.84 ㄨ | 27.17 ㄨ | 20.48 ㄨ | 24.92 ㄨ | 4.67 ㄨ | 10.59 ㊟ | 6.84 ㄨ | 29.04 ㄨ | 23.31 ㄨ |
| 250 | 17.57 ㄨ | 78.95 Z | 1.60 ㄨ | 15.44 ㄨ | 18.44 ㄨ | 11.53 ㄨ | 1.89 ㄨ | 25.90 ㄨ | 1.60 ㄨ | 12.04 ㄨ | 16.46 ㊟ | 11.53 ㄨ | 3.44 ㄨ | 28.32 ㄨ |
| 255 | 20.67 ㄨ | 80.64 Z | 8.49 ㄨ | 21.83 ㄨ | 23.61 ㄨ | 16.19 ㄨ | 6.68 ㄨ | 1.55 ㄨ | 8.49 ㄨ | 19.32 ㄨ | 22.16 ㊟ | 16.19 ㄨ | 7.88 ㄨ | 3.48 ㄨ |
| 260 | 23.78 ㄨ | 82.07 Z | 15.55 ㄨ | 28.07 ㄨ | 28.65 ㄨ | 20.81 ㄨ | 11.56 ㄨ | 7.44 ㄨ | 15.55 ㄨ | 26.43 ㄨ | 27.71 ㊟ | 20.81 ㄨ | 12.39 ㄨ | 8.80 ㄨ |
| 265 | 26.89 ㄨ | 83.07 Z | 22.74 ㄨ | 4.13 ㄨ | 3.55 ㄨ | 25.41 ㄨ | 16.55 ㄨ | 13.58 ㄨ | 22.74 ㄨ | 3.34 ㊟ | 3.10 ㄨ | 25.41 ㄨ | 16.98 ㄨ | 14.30 ㄨ |
| 270 | 0.00 ㄨ | 83.44 Z | 0.00 ㄨ | 10.01 ㄨ | 8.34 ㄨ | 0.00 ㄨ | 21.66 ㄨ | 19.99 ㄨ | 0.00 ㄨ | 10.01 ㊟ | 8.34 ㄨ | 0.00 ㄨ | 21.66 ㄨ | 19.99 ㄨ |
| 275 | 3.11 ㄨ | 83.07 Z | 7.26 ㄨ | 15.70 ㄨ | 13.02 ㄨ | 4.59 ㄨ | 26.90 ㄨ | 26.66 ㄨ | 7.26 ㄨ | 16.42 ㊟ | 13.45 ㄨ | 4.59 ㄨ | 26.45 ㄨ | 25.87 ㄨ |
| 280 | 6.22 ㄨ | 82.07 Z | 14.45 ㄨ | 21.20 ㄨ | 17.61 ㄨ | 9.19 ㄨ | 2.29 ㄨ | 3.57 ㄨ | 14.45 ㄨ | 22.56 ㊟ | 18.44 ㄨ | 9.19 ㄨ | 1.35 ㄨ | 1.93 ㄨ |
| 285 | 9.33 ㄨ | 80.64 Z | 21.51 ㄨ | 26.52 ㄨ | 22.12 ㄨ | 13.81 ㄨ | 7.84 ㄨ | 10.68 ㄨ | 21.51 ㄨ | 28.45 ㊟ | 23.32 ㄨ | 13.81 ㄨ | 6.39 ㄨ | 8.17 ㄨ |
| 290 | 12.43 ㄨ | 78.95 Z | 28.40 ㄨ | 1.68 ㄨ | 26.56 ㄨ | 18.47 ㄨ | 13.54 ㄨ | 17.96 ㄨ | 28.40 ㄨ | 4.10 ㄨ | 28.11 ㄨ | 18.47 ㄨ | 11.56 ㄨ | 14.56 ㄨ |
| 295 | 15.53 ㄨ | 77.11 Z | 5.08 ㄨ | 6.69 ㄨ | 0.96 ㄨ | 23.16 ㄨ | 19.41 ㄨ | 25.33 ㄨ | 5.08 ㊟ | 9.52 ㄨ | 2.83 ㄨ | 23.16 ㄨ | 16.88 ㄨ | 21.08 ㄨ |
| 300 | 18.63 ㄨ | 75.20 Z | 11.51 ㄨ | 11.56 ㄨ | 5.32 ㄨ | 27.91 ㄨ | 25.43 ㄨ | 2.73 ㄨ | 11.51 ㊟ | 14.75 ㄨ | 7.48 ㄨ | 27.91 ㄨ | 22.34 ㄨ | 27.69 ㄨ |
| 305 | 21.71 ㄨ | 73.23 Z | 17.70 ㄨ | 16.32 ㄨ | 9.65 ㄨ | 2.72 ㄨ | 1.60 ㄨ | 10.08 ㄨ | 17.70 ㊟ | 19.80 ㄨ | 12.10 ㄨ | 2.72 ㄨ | 27.95 ㄨ | 4.35 ㄨ |
| 310 | 24.79 ㄨ | 71.25 Z | 23.64 ㄨ | 20.97 ㄨ | 13.98 ㄨ | 7.59 ㄨ | 7.88 ㄨ | 17.32 ㄨ | 23.64 ㊟ | 24.69 ㄨ | 16.68 ㄨ | 7.59 ㄨ | 3.69 ㄨ | 11.00 ㄨ |
| 315 | 27.86 ㄨ | 69.26 Z | 29.34 ㄨ | 25.53 ㄨ | 18.30 ㄨ | 12.54 ㄨ | 14.26 ㄨ | 24.37 ㄨ | 29.34 ㊟ | 29.44 ㄨ | 21.24 ㄨ | 12.54 ㄨ | 9.56 ㄨ | 17.61 ㄨ |
| 320 | 0.92 ㄨ | 67.28 Z | 4.82 ㄨ | 0.02 ㄨ | 22.64 ㄨ | 17.55 ㄨ | 20.70 ㄨ | 1.21 ㊟ | 4.82 ㄨ | 4.09 ㄨ | 25.79 ㄨ | 17.55 ㄨ | 15.53 ㄨ | 24.13 ㄨ |
| 325 | 3.98 ㄨ | 65.32 Z | 10.10 ㄨ | 4.44 ㄨ | 27.00 ㄨ | 22.65 ㄨ | 27.16 ㄨ | 7.79 ㊟ | 10.10 ㄨ | 8.64 ㄨ | 0.35 ㄨ | 22.65 ㄨ | 21.58 ㄨ | 0.52 ㄨ |
| 330 | 7.04 ㄨ | 63.38 Z | 15.18 ㄨ | 8.83 ㄨ | 1.40 ㄨ | 27.82 ㄨ | 3.61 ㄨ | 14.10 ㊟ | 15.18 ㄨ | 13.12 ㄨ | 4.91 ㄨ | 27.82 ㄨ | 27.69 ㄨ | 6.76 ㄨ |
| 335 | 10.09 ㄨ | 61.48 Z | 20.11 ㄨ | 13.18 ㄨ | 5.83 ㄨ | 3.06 ㄨ | 9.99 ㄨ | 20.14 ㊟ | 20.11 ㄨ | 17.53 ㄨ | 9.50 ㄨ | 3.06 ㄨ | 3.82 ㄨ | 12.83 ㄨ |
| 340 | 13.14 ㄨ | 59.61 Z | 24.88 ㄨ | 17.50 ㄨ | 10.31 ㄨ | 8.36 ㄨ | 16.29 ㄨ | 25.92 ㊟ | 24.88 ㄨ | 21.90 ㄨ | 14.10 ㄨ | 8.36 ㄨ | 9.96 ㄨ | 18.72 ㄨ |
| 345 | 16.20 ㄨ | 57.78 Z | 29.54 ㄨ | 21.81 ㄨ | 14.84 ㄨ | 13.72 ㄨ | 22.47 ㄨ | 1.46 ㄨ | 29.54 ㄨ | 26.23 ㄨ | 18.74 ㄨ | 13.72 ㄨ | 16.06 ㄨ | 24.43 ㄨ |
| 350 | 19.26 ㄨ | 56.01 Z | 4.09 ㄨ | 26.13 ㄨ | 19.42 ㄨ | 19.12 ㄨ | 28.50 ㄨ | 6.76 ㄨ | 4.09 ㄨ | 0.54 ㄨ | 23.40 ㄨ | 19.12 ㄨ | 22.10 ㄨ | 29.95 ㄨ |
| 355 | 22.34 ㄨ | 54.28 Z | 8.55 ㄨ | 0.44 ㄨ | 24.06 ㄨ | 24.55 ㄨ | 4.37 ㊟ | 11.86 ㄨ | 8.55 ㄨ | 4.83 ㄨ | 28.09 ㄨ | 24.55 ㄨ | 28.05 ㄨ | 5.31 ㄨ |
| 360 | 25.43 ㄨ | 52.61 Z | 12.93 ㄨ | 4.77 ㄨ | 28.75 ㄨ | 0.00 ㄨ | 10.07 ㊟ | 16.78 ㄨ | 12.93 ㄨ | 9.12 ㄨ | 2.81 ㄨ | 0.00 ㄨ | 3.91 ㄨ | 10.51 ㄨ |

35° NB

| α_z | λ_z | β_z | I | II | III | IV | V | VI | VII | VIII | IX | X | XI | XII |
|------------|-------------|-----------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0 | 0.40 兂 | 48.73 Z | 15.56 𠄎 | 6.09 𠄎 | 28.90 𠄎 | 0.00 𠄎 | 12.25 𠄎 | 20.25 𠄎 | 15.56 𠄎 | 11.06 𠄎 | 3.62 兂 | 0.00 兂 | 4.42 兂 | 12.56 𠄎 |
| 5 | 3.90 兂 | 47.03 Z | 19.79 𠄎 | 10.34 𠄎 | 3.57 𠄎 | 5.45 𠄎 | 17.81 𠄎 | 24.91 𠄎 | 19.79 𠄎 | 15.23 𠄎 | 8.27 兂 | 5.45 兂 | 10.29 兂 | 17.65 𠄎 |
| 10 | 7.46 兂 | 45.39 Z | 23.97 𠄎 | 14.61 𠄎 | 8.29 𠄎 | 10.88 𠄎 | 23.18 𠄎 | 29.42 𠄎 | 23.97 𠄎 | 19.39 𠄎 | 12.94 兂 | 10.88 兂 | 16.02 兂 | 22.59 𠄎 |
| 15 | 11.10 兂 | 43.83 Z | 28.11 𠄎 | 18.91 𠄎 | 13.05 𠄎 | 16.28 𠄎 | 28.36 𠄎 | 3.80 𠄎 | 28.11 𠄎 | 23.55 𠄎 | 17.62 兂 | 16.28 兂 | 21.61 兂 | 27.40 𠄎 |
| 20 | 14.86 兂 | 42.34 Z | 2.22 𠄎 | 23.23 𠄎 | 17.86 𠄎 | 21.64 𠄎 | 3.37 𠄎 | 8.08 𠄎 | 2.22 𠄎 | 27.71 𠄎 | 22.31 兂 | 21.64 兂 | 27.06 兂 | 2.11 𠄎 |
| 25 | 18.75 兂 | 40.93 Z | 6.32 𠄎 | 27.58 𠄎 | 22.70 𠄎 | 26.94 𠄎 | 8.23 𠄎 | 12.26 𠄎 | 6.32 𠄎 | 1.88 兂 | 27.00 兂 | 26.94 兂 | 2.37 𠄎 | 6.73 𠄎 |
| 30 | 22.80 兂 | 39.60 Z | 10.41 𠄎 | 1.96 𠄎 | 27.56 𠄎 | 2.18 𠄎 | 12.96 𠄎 | 16.37 𠄎 | 10.41 𠄎 | 6.05 兂 | 1.68 兂 | 2.18 兂 | 7.56 𠄎 | 11.27 𠄎 |
| 35 | 27.08 兂 | 38.37 Z | 14.49 𠄎 | 6.37 𠄎 | 2.45 𠄎 | 7.35 𠄎 | 17.56 𠄎 | 20.43 𠄎 | 14.49 𠄎 | 10.23 兂 | 6.34 兂 | 7.35 兂 | 12.64 𠄎 | 15.75 𠄎 |
| 40 | 1.62 兂 | 37.22 Z | 18.58 𠄎 | 10.81 𠄎 | 7.35 𠄎 | 12.45 𠄎 | 22.06 𠄎 | 24.44 𠄎 | 18.58 𠄎 | 14.41 兂 | 10.98 兂 | 12.45 兂 | 17.61 𠄎 | 20.19 𠄎 |
| 45 | 6.51 兂 | 36.17 Z | 22.67 𠄎 | 15.27 𠄎 | 12.24 𠄎 | 17.46 𠄎 | 26.48 𠄎 | 28.43 𠄎 | 22.67 𠄎 | 18.59 兂 | 15.60 兂 | 17.46 兂 | 22.49 𠄎 | 24.60 𠄎 |
| 50 | 11.84 兂 | 35.22 Z | 26.78 𠄎 | 19.75 𠄎 | 17.13 𠄎 | 22.41 𠄎 | 0.82 𠄎 | 2.39 𠄎 | 26.78 𠄎 | 22.77 兂 | 20.18 兂 | 22.41 兂 | 27.30 𠄎 | 28.99 𠄎 |
| 55 | 17.74 兂 | 34.38 Z | 0.89 𠄎 | 24.25 𠄎 | 22.01 𠄎 | 27.28 𠄎 | 5.11 𠄎 | 6.34 𠄎 | 0.89 兂 | 26.95 兂 | 24.73 兂 | 27.28 兂 | 2.05 𠄎 | 3.37 𠄎 |
| 60 | 24.37 兂 | 33.64 Z | 5.02 𠄎 | 28.75 𠄎 | 26.86 𠄎 | 2.09 𠄎 | 9.36 𠄎 | 10.29 𠄎 | 5.02 兂 | 1.11 兂 | 29.23 兂 | 2.09 𠄎 | 6.76 𠄎 | 7.74 𠄎 |
| 65 | 1.94 兂 | 33.01 Z | 9.16 𠄎 | 3.27 𠄎 | 1.69 𠄎 | 6.84 𠄎 | 13.58 𠄎 | 14.25 𠄎 | 9.16 兂 | 5.27 兂 | 3.69 兂 | 6.84 𠄎 | 11.42 𠄎 | 12.12 𠄎 |
| 70 | 10.69 兂 | 32.49 Z | 13.31 𠄎 | 7.78 𠄎 | 6.49 𠄎 | 11.53 𠄎 | 17.78 𠄎 | 18.21 𠄎 | 13.31 兂 | 9.40 兂 | 8.11 兂 | 11.53 𠄎 | 16.07 𠄎 | 16.51 𠄎 |
| 75 | 20.87 兂 | 32.08 Z | 17.47 𠄎 | 12.30 𠄎 | 11.26 𠄎 | 16.19 𠄎 | 21.98 𠄎 | 22.19 𠄎 | 17.47 兂 | 13.53 兂 | 12.49 兂 | 16.19 𠄎 | 20.70 𠄎 | 20.91 𠄎 |
| 80 | 2.63 𠄎 | 31.79 Z | 21.64 𠄎 | 16.80 𠄎 | 15.99 𠄎 | 20.81 𠄎 | 26.18 𠄎 | 26.18 𠄎 | 21.64 兂 | 17.63 兂 | 16.82 兂 | 20.81 𠄎 | 25.33 𠄎 | 25.33 𠄎 |
| 85 | 15.86 𠄎 | 31.62 Z | 25.82 𠄎 | 21.29 𠄎 | 20.70 𠄎 | 25.41 𠄎 | 0.39 𠄎 | 0.20 兂 | 25.82 兂 | 21.71 兂 | 21.11 兂 | 25.41 𠄎 | 29.97 𠄎 | 29.77 𠄎 |
| 90 | 0.00 𠄎 | 31.56 Z | 0.00 𠄎 | 25.77 𠄎 | 25.37 𠄎 | 0.00 𠄎 | 4.63 𠄎 | 4.23 兂 | 0.00 兂 | 25.77 兂 | 25.37 兂 | 0.00 𠄎 | 4.63 𠄎 | 4.23 𠄎 |
| 95 | 14.14 𠄎 | 31.62 Z | 4.18 𠄎 | 0.23 𠄎 | 0.03 𠄎 | 4.59 𠄎 | 8.89 𠄎 | 8.29 兂 | 4.18 兂 | 29.80 兂 | 29.61 兂 | 4.59 𠄎 | 9.30 𠄎 | 8.71 𠄎 |
| 100 | 27.37 𠄎 | 31.79 Z | 8.36 𠄎 | 4.67 𠄎 | 4.67 𠄎 | 9.19 𠄎 | 13.18 𠄎 | 12.37 兂 | 8.36 兂 | 3.82 兂 | 3.82 𠄎 | 9.19 𠄎 | 14.01 𠄎 | 13.20 𠄎 |
| 105 | 9.13 𠄎 | 32.08 Z | 12.53 𠄎 | 9.09 𠄎 | 9.30 𠄎 | 13.81 𠄎 | 17.51 𠄎 | 16.47 兂 | 12.53 兂 | 7.81 兂 | 8.02 𠄎 | 13.81 𠄎 | 18.74 𠄎 | 17.70 𠄎 |
| 110 | 19.31 𠄎 | 32.49 Z | 16.69 𠄎 | 13.49 𠄎 | 13.93 𠄎 | 18.47 𠄎 | 21.89 𠄎 | 20.60 兂 | 16.69 兂 | 11.79 兂 | 12.22 𠄎 | 18.47 𠄎 | 23.51 𠄎 | 22.22 𠄎 |
| 115 | 28.06 𠄎 | 33.01 Z | 20.84 𠄎 | 17.88 𠄎 | 18.58 𠄎 | 23.16 𠄎 | 26.31 𠄎 | 24.73 兂 | 20.84 兂 | 15.75 兂 | 16.42 𠄎 | 23.16 𠄎 | 28.31 𠄎 | 26.73 𠄎 |
| 120 | 5.63 𠄎 | 33.64 Z | 24.98 𠄎 | 22.26 𠄎 | 23.24 𠄎 | 27.91 𠄎 | 0.77 兂 | 28.89 兂 | 24.98 兂 | 19.71 兂 | 20.64 𠄎 | 27.91 𠄎 | 3.14 𠄎 | 1.25 𠄎 |
| 125 | 12.26 𠄎 | 34.38 Z | 29.11 𠄎 | 26.63 𠄎 | 27.95 𠄎 | 2.72 𠄎 | 5.27 兂 | 3.05 兂 | 29.11 兂 | 23.66 兂 | 24.89 𠄎 | 2.72 𠄎 | 7.99 𠄎 | 5.75 𠄎 |
| 130 | 18.16 𠄎 | 35.22 Z | 3.22 𠄎 | 1.01 𠄎 | 2.70 𠄎 | 7.59 𠄎 | 9.82 兂 | 7.23 兂 | 3.22 兂 | 27.61 兂 | 29.18 𠄎 | 7.59 𠄎 | 12.87 𠄎 | 10.25 𠄎 |
| 135 | 23.49 𠄎 | 36.17 Z | 7.33 𠄎 | 5.40 𠄎 | 7.51 𠄎 | 12.54 𠄎 | 14.40 兂 | 11.41 兂 | 7.33 兂 | 1.57 𠄎 | 3.52 𠄎 | 12.54 𠄎 | 17.76 𠄎 | 14.73 𠄎 |
| 140 | 28.38 𠄎 | 37.22 Z | 11.42 𠄎 | 9.81 𠄎 | 12.39 𠄎 | 17.55 𠄎 | 19.02 兂 | 15.59 兂 | 11.42 兂 | 5.56 𠄎 | 7.94 𠄎 | 17.55 𠄎 | 22.65 𠄎 | 19.19 𠄎 |
| 145 | 2.92 𠄎 | 38.37 Z | 15.51 𠄎 | 14.25 𠄎 | 17.36 𠄎 | 22.65 𠄎 | 23.66 兂 | 19.77 兂 | 15.51 兂 | 9.57 𠄎 | 12.44 𠄎 | 22.65 𠄎 | 27.55 𠄎 | 23.63 𠄎 |
| 150 | 7.20 𠄎 | 39.60 Z | 19.59 𠄎 | 18.73 𠄎 | 22.44 𠄎 | 27.82 𠄎 | 28.32 兂 | 23.95 兂 | 19.59 兂 | 13.63 𠄎 | 17.04 𠄎 | 27.82 𠄎 | 2.44 𠄎 | 28.04 𠄎 |
| 155 | 11.25 𠄎 | 40.93 Z | 23.68 𠄎 | 23.27 𠄎 | 27.63 𠄎 | 3.06 兂 | 3.00 兂 | 28.12 兂 | 23.68 兂 | 17.74 𠄎 | 21.77 𠄎 | 3.06 𠄎 | 7.30 𠄎 | 2.42 𠄎 |
| 160 | 15.14 𠄎 | 42.34 Z | 27.78 𠄎 | 27.89 𠄎 | 2.94 𠄎 | 8.36 兂 | 7.69 兂 | 2.29 兂 | 27.78 兂 | 21.92 𠄎 | 26.63 𠄎 | 8.36 𠄎 | 12.14 𠄎 | 6.77 𠄎 |
| 165 | 18.90 𠄎 | 43.83 Z | 1.89 𠄎 | 2.60 𠄎 | 8.39 𠄎 | 13.72 兂 | 12.38 兂 | 6.45 兂 | 1.89 𠄎 | 26.20 𠄎 | 1.64 𠄎 | 13.72 𠄎 | 16.95 𠄎 | 11.09 𠄎 |
| 170 | 22.54 𠄎 | 45.39 Z | 6.03 𠄎 | 7.41 𠄎 | 13.98 𠄎 | 19.12 兂 | 17.06 兂 | 10.61 兂 | 6.03 𠄎 | 0.58 𠄎 | 6.82 𠄎 | 19.12 𠄎 | 21.71 𠄎 | 15.39 𠄎 |
| 175 | 26.10 𠄎 | 47.03 Z | 10.21 𠄎 | 12.35 𠄎 | 19.71 𠄎 | 24.55 兂 | 21.73 兂 | 14.77 兂 | 10.21 𠄎 | 5.09 𠄎 | 12.19 𠄎 | 24.55 𠄎 | 26.43 𠄎 | 19.66 𠄎 |
| 180 | 29.60 𠄎 | 48.73 Z | 14.44 𠄎 | 17.44 𠄎 | 25.58 𠄎 | 0.00 兂 | 26.38 兂 | 18.94 兂 | 14.44 𠄎 | 9.75 𠄎 | 17.75 𠄎 | 0.00 𠄎 | 1.10 𠄎 | 23.91 𠄎 |

35° NB

| α_z | λ_z | β_z | I | II | III | IV | V | VI | VII | VIII | IX | X | XI | XII |
|------------|-------------|-----------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 185 | 3.04 ㄴ | 50.48 Z | 18.73 ㄶ | 22.70 ㄷ | 1.57 ㄸ | 5.45 ㄹ | 1.01 ㅀ | 23.10 ㅁ | 18.73 ㅂ | 14.59 ㅃ | 23.51 ㅄ | 5.45 ㅅ | 5.71 ㅆ | 28.15 ㅈ |
| 190 | 6.45 ㄴ | 52.30 Z | 23.10 ㄶ | 28.14 ㄷ | 7.69 ㄸ | 10.88 ㄹ | 5.62 ㅀ | 27.29 ㅁ | 23.10 ㅂ | 19.63 ㅃ | 29.48 ㅄ | 10.88 ㅅ | 10.27 ㅆ | 2.38 ㄶ |
| 195 | 9.83 ㄴ | 54.16 Z | 27.57 ㄶ | 3.78 ㄷ | 13.89 ㄸ | 16.28 ㄹ | 10.20 ㅀ | 1.49 ㅁ | 27.57 ㅂ | 24.91 ㅃ | 5.64 ㅄ | 16.28 ㅅ | 14.77 ㅆ | 6.61 ㄶ |
| 200 | 13.18 ㄴ | 56.06 Z | 2.15 ㄷ | 9.63 ㄷ | 20.17 ㄸ | 21.64 ㄹ | 14.76 ㅀ | 5.72 ㅁ | 2.15 ㅂ | 0.46 ㅃ | 11.99 ㅄ | 21.64 ㅅ | 19.22 ㅆ | 10.85 ㄶ |
| 205 | 16.52 ㄴ | 57.99 Z | 6.87 ㄷ | 15.71 ㄷ | 26.48 ㄸ | 26.94 ㄹ | 19.30 ㅀ | 9.99 ㅁ | 6.87 ㅂ | 6.30 ㅃ | 18.50 ㅄ | 26.94 ㅅ | 23.62 ㅆ | 15.10 ㄶ |
| 210 | 19.86 ㄴ | 59.96 Z | 11.76 ㄷ | 22.01 ㄷ | 2.79 ㄹ | 2.18 ㅀ | 23.82 ㅁ | 14.32 ㅂ | 11.76 ㅃ | 12.46 ㅄ | 25.13 ㅅ | 2.18 ㅆ | 27.97 ㅈ | 19.38 ㄶ |
| 215 | 23.18 ㄴ | 61.94 Z | 16.83 ㄷ | 28.52 ㄷ | 9.07 ㄹ | 7.35 ㅀ | 28.33 ㅁ | 18.71 ㅂ | 16.83 ㅃ | 18.96 ㅄ | 1.84 ㅅ | 7.35 ㅆ | 2.29 ㄶ | 23.69 ㄶ |
| 220 | 26.51 ㄴ | 63.92 Z | 22.11 ㄷ | 5.21 ㄸ | 15.28 ㄹ | 12.45 ㅀ | 2.84 ㅁ | 23.19 ㅂ | 22.11 ㅃ | 25.81 ㅄ | 8.59 ㅅ | 12.45 ㅆ | 6.58 ㄶ | 28.06 ㄶ |
| 225 | 29.84 ㄴ | 65.91 Z | 27.64 ㄷ | 12.07 ㄸ | 21.40 ㄹ | 17.46 ㅀ | 7.34 ㅁ | 27.77 ㅂ | 27.64 ㅃ | 3.00 ㅄ | 15.33 ㅅ | 17.46 ㅆ | 10.84 ㄶ | 2.49 ㄷ |
| 230 | 3.17 ㄶ | 67.87 Z | 3.43 ㄷ | 19.03 ㄸ | 27.39 ㄹ | 22.41 ㅀ | 11.87 ㅁ | 2.47 ㅂ | 3.43 ㅃ | 10.50 ㅄ | 22.01 ㅅ | 22.41 ㅆ | 15.10 ㄶ | 6.99 ㄷ |
| 235 | 6.51 ㄶ | 69.79 Z | 9.51 ㄷ | 26.05 ㄸ | 3.24 ㅀ | 27.28 ㅁ | 16.41 ㅂ | 7.33 ㅃ | 9.51 ㅄ | 18.26 ㅅ | 28.58 ㅆ | 27.28 ㅈ | 19.35 ㄶ | 11.59 ㄷ |
| 240 | 9.85 ㄶ | 71.65 Z | 15.90 ㄷ | 3.05 ㄹ | 8.94 ㅀ | 2.09 ㅁ | 21.00 ㅂ | 12.36 ㅃ | 15.90 ㅄ | 26.19 ㅅ | 5.00 ㅆ | 2.09 ㄶ | 23.61 ㄶ | 16.30 ㄷ |
| 245 | 13.20 ㄶ | 73.40 Z | 22.61 ㄷ | 9.99 ㄹ | 14.47 ㅀ | 6.84 ㅁ | 25.64 ㅂ | 17.59 ㅃ | 22.61 ㅄ | 4.21 ㅅ | 11.27 ㅆ | 6.84 ㄶ | 27.90 ㄶ | 21.14 ㄷ |
| 250 | 16.55 ㄶ | 75.01 Z | 29.63 ㄷ | 16.81 ㄹ | 19.84 ㅀ | 11.53 ㅁ | 0.35 ㅂ | 23.07 ㅃ | 29.63 ㅄ | 12.20 ㅅ | 17.34 ㅆ | 11.53 ㄶ | 2.23 ㄷ | 26.12 ㄷ |
| 255 | 19.91 ㄶ | 76.39 Z | 6.93 ㄸ | 23.45 ㄹ | 25.04 ㅀ | 16.19 ㅁ | 5.15 ㅂ | 28.81 ㅃ | 6.93 ㅄ | 20.06 ㅅ | 23.23 ㅆ | 16.19 ㄶ | 6.61 ㄷ | 1.27 ㄷ |
| 260 | 23.27 ㄶ | 77.49 Z | 14.47 ㄸ | 29.90 ㄹ | 0.09 ㅁ | 20.81 ㅂ | 10.05 ㅃ | 4.84 ㅄ | 14.47 ㅅ | 27.70 ㅆ | 28.92 ㅈ | 20.81 ㄶ | 11.06 ㄷ | 6.60 ㄷ |
| 265 | 26.63 ㄶ | 78.19 Z | 22.19 ㄸ | 6.11 ㅀ | 4.99 ㅁ | 25.41 ㅂ | 15.08 ㅃ | 11.20 ㅄ | 22.19 ㅅ | 5.06 ㅆ | 4.42 ㄶ | 25.41 ㄶ | 15.60 ㄷ | 12.14 ㄷ |
| 270 | 0.00 ㄷ | 78.44 Z | 0.00 ㄹ | 12.10 ㅀ | 9.75 ㅁ | 0.00 ㅂ | 20.25 ㅃ | 17.90 ㅄ | 0.00 ㅅ | 12.10 ㅆ | 9.75 ㄶ | 0.00 ㄷ | 20.25 ㄷ | 17.90 ㄷ |
| 275 | 3.37 ㄷ | 78.19 Z | 7.81 ㄹ | 17.86 ㅀ | 14.40 ㅁ | 4.59 ㅂ | 25.58 ㅃ | 24.94 ㅄ | 7.81 ㅅ | 18.80 ㅆ | 14.92 ㄶ | 4.59 ㄷ | 25.01 ㄷ | 23.89 ㄷ |
| 280 | 6.73 ㄷ | 77.49 Z | 15.53 ㄹ | 23.40 ㅀ | 18.94 ㅁ | 9.19 ㅂ | 1.08 ㅃ | 2.30 ㅄ | 15.53 ㅅ | 25.16 ㅆ | 19.95 ㄶ | 9.19 ㄷ | 29.91 ㄷ | 0.10 ㄸ |
| 285 | 10.09 ㄷ | 76.39 Z | 23.07 ㄹ | 28.73 ㅀ | 23.39 ㅁ | 13.81 ㅂ | 6.77 ㅃ | 9.94 ㅄ | 23.07 ㅅ | 1.19 ㅆ | 24.85 ㄶ | 13.81 ㄷ | 4.96 ㄷ | 6.55 ㄸ |
| 290 | 13.45 ㄷ | 75.01 Z | 0.37 ㅀ | 3.88 ㅁ | 27.77 ㅂ | 18.47 ㅃ | 12.66 ㅄ | 17.80 ㅅ | 0.37 ㅆ | 6.93 ㄶ | 29.65 ㄶ | 18.47 ㄷ | 10.16 ㄷ | 13.19 ㄸ |
| 295 | 16.80 ㄷ | 73.40 Z | 7.39 ㅀ | 8.86 ㅁ | 2.10 ㅂ | 23.16 ㅃ | 18.73 ㅄ | 25.79 ㅅ | 7.39 ㅆ | 12.41 ㄶ | 4.36 ㄷ | 23.16 ㄷ | 15.53 ㄷ | 20.01 ㄸ |
| 300 | 20.15 ㄷ | 71.65 Z | 14.10 ㅀ | 13.70 ㅁ | 6.39 ㅂ | 27.91 ㅃ | 25.00 ㅄ | 3.81 ㅅ | 14.10 ㅆ | 17.64 ㄶ | 9.00 ㄷ | 27.91 ㄷ | 21.06 ㄷ | 26.95 ㄸ |
| 305 | 23.49 ㄷ | 69.79 Z | 20.49 ㅀ | 18.41 ㅁ | 10.65 ㅂ | 2.72 ㅃ | 1.42 ㅄ | 11.74 ㅅ | 20.49 ㅆ | 22.67 ㄶ | 13.59 ㄷ | 2.72 ㄷ | 26.76 ㄷ | 3.95 ㄹ |
| 310 | 26.83 ㄷ | 67.87 Z | 26.57 ㅀ | 23.01 ㅁ | 14.90 ㅂ | 7.59 ㅃ | 7.99 ㅄ | 19.50 ㅅ | 26.57 ㅆ | 27.53 ㄶ | 18.13 ㄷ | 7.59 ㄷ | 2.61 ㄸ | 10.97 ㄹ |
| 315 | 0.16 ㄷ | 65.91 Z | 2.36 ㅁ | 27.51 ㅂ | 19.16 ㅃ | 12.54 ㅄ | 14.67 ㅅ | 27.00 ㅆ | 2.36 ㄶ | 2.23 ㄷ | 22.66 ㄷ | 12.54 ㄷ | 8.60 ㄸ | 17.93 ㄹ |
| 320 | 3.49 ㄷ | 63.92 Z | 7.89 ㅁ | 1.94 ㅂ | 23.42 ㅃ | 17.55 ㅄ | 21.41 ㅅ | 4.19 ㅆ | 7.89 ㄶ | 6.81 ㄷ | 27.16 ㄷ | 17.55 ㄷ | 14.72 ㄸ | 24.79 ㄹ |
| 325 | 6.82 ㄷ | 61.94 Z | 13.17 ㅁ | 6.31 ㅂ | 27.71 ㅃ | 22.65 ㅄ | 28.16 ㅅ | 11.04 ㅆ | 13.17 ㄶ | 11.29 ㄷ | 1.67 ㄷ | 22.65 ㄷ | 20.93 ㄸ | 1.48 ㅀ |
| 330 | 10.14 ㄷ | 59.96 Z | 18.24 ㅁ | 10.62 ㅂ | 2.03 ㅃ | 27.82 ㅄ | 4.87 ㅅ | 17.54 ㅆ | 18.24 ㄶ | 15.68 ㄷ | 6.18 ㄷ | 27.82 ㄷ | 27.21 ㄸ | 7.99 ㅀ |
| 335 | 13.48 ㄷ | 57.99 Z | 23.13 ㅁ | 14.90 ㅂ | 6.38 ㅃ | 3.06 ㅄ | 11.50 ㅅ | 23.70 ㅆ | 23.13 ㄶ | 20.01 ㄷ | 10.70 ㄷ | 3.06 ㄸ | 3.52 ㄹ | 14.29 ㅀ |
| 340 | 16.82 ㄷ | 56.06 Z | 27.85 ㅁ | 19.15 ㅂ | 10.78 ㅃ | 8.36 ㅄ | 18.01 ㅅ | 29.54 ㅆ | 27.85 ㄶ | 24.28 ㄷ | 15.24 ㄷ | 8.36 ㄸ | 9.83 ㄹ | 20.37 ㅀ |
| 345 | 20.17 ㄷ | 54.16 Z | 2.43 ㅂ | 23.39 ㅃ | 15.23 ㅄ | 13.72 ㅅ | 24.36 ㅆ | 5.09 ㄶ | 2.43 ㄷ | 28.51 ㄷ | 19.80 ㄷ | 13.72 ㄸ | 16.11 ㄹ | 26.22 ㅀ |
| 350 | 23.55 ㄷ | 52.30 Z | 6.90 ㅂ | 27.62 ㅃ | 19.73 ㅄ | 19.12 ㅅ | 0.52 ㅆ | 10.37 ㄶ | 6.90 ㄷ | 2.71 ㄷ | 24.38 ㄷ | 19.12 ㄸ | 22.31 ㄹ | 1.86 ㅁ |
| 355 | 26.96 ㄷ | 50.48 Z | 11.27 ㅂ | 1.85 ㅃ | 24.29 ㅄ | 24.55 ㅅ | 6.49 ㅆ | 15.41 ㄶ | 11.27 ㄷ | 6.90 ㄷ | 28.99 ㄷ | 24.55 ㄸ | 28.43 ㄹ | 7.30 ㅁ |
| 360 | 0.40 ㄸ | 48.73 Z | 15.56 ㅂ | 6.09 ㅃ | 28.90 ㅄ | 0.00 ㅅ | 12.25 ㅆ | 20.25 ㄶ | 15.56 ㄷ | 11.06 ㄷ | 3.62 ㄸ | 0.00 ㄹ | 4.42 ㅀ | 12.56 ㅁ |

40° NB

| α_z | λ_z | β_z | I | II | III | IV | V | VI | VII | VIII | IX | X | XI | XII |
|------------|-------------|-----------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0 | 4.64 ㄸ | 44.65 Z | 18.46 ㊄ | 7.52 ㊄ | 29.07 ㊄ | 0.00 ㊄ | 14.97 ㊄ | 24.26 ㄸ | 18.46 ㄸ | 13.11 ㄸ | 4.45 ㄸ | 0.00 ㄸ | 5.08 ㄸ | 14.97 ㄸ |
| 5 | 8.42 ㄸ | 42.89 Z | 22.55 ㊄ | 11.67 ㊄ | 3.64 ㄸ | 5.45 ㊄ | 20.54 ㊄ | 28.78 ㄸ | 22.55 ㄸ | 17.13 ㄸ | 9.00 ㄸ | 5.45 ㄸ | 11.09 ㄸ | 20.07 ㄸ |
| 10 | 12.28 ㄸ | 41.18 Z | 26.60 ㊄ | 15.83 ㊄ | 8.27 ㄸ | 10.88 ㊄ | 25.88 ㊄ | 3.13 ㄸ | 26.60 ㄸ | 21.15 ㄸ | 13.56 ㄸ | 10.88 ㄸ | 16.94 ㄸ | 25.01 ㄸ |
| 15 | 16.24 ㄸ | 39.54 Z | 0.60 ㊄ | 20.01 ㊄ | 12.94 ㄸ | 16.28 ㊄ | 1.01 ㄸ | 7.35 ㄸ | 0.60 ㄸ | 25.17 ㄸ | 18.13 ㄸ | 16.28 ㄸ | 22.64 ㄸ | 29.79 ㄸ |
| 20 | 20.32 ㄸ | 37.98 Z | 4.57 ㊄ | 24.21 ㊄ | 17.65 ㄸ | 21.64 ㊄ | 5.96 ㄸ | 11.46 ㄸ | 4.57 ㄸ | 29.18 ㄸ | 22.71 ㄸ | 21.64 ㄸ | 28.17 ㄸ | 4.46 ㊄ |
| 25 | 24.56 ㄸ | 36.50 Z | 8.52 ㊄ | 28.43 ㊄ | 22.39 ㄸ | 26.94 ㊄ | 10.75 ㄸ | 15.48 ㄸ | 8.52 ㄸ | 3.19 ㄸ | 27.28 ㄸ | 26.94 ㄸ | 3.55 ㄸ | 9.02 ㊄ |
| 30 | 28.99 ㄸ | 35.10 Z | 12.46 ㊄ | 2.68 ㄸ | 27.17 ㄸ | 2.18 ㄸ | 15.39 ㄸ | 19.43 ㄸ | 12.46 ㄸ | 7.21 ㄸ | 1.84 ㄸ | 2.18 ㄸ | 8.80 ㄸ | 13.50 ㊄ |
| 35 | 3.65 ㄸ | 33.79 Z | 16.39 ㊄ | 6.96 ㄸ | 1.96 ㊄ | 7.35 ㄸ | 19.90 ㄸ | 23.32 ㄸ | 16.39 ㄸ | 11.22 ㄸ | 6.38 ㄸ | 7.35 ㄸ | 13.92 ㄸ | 17.92 ㊄ |
| 40 | 8.59 ㄸ | 32.58 Z | 20.32 ㊄ | 11.25 ㄸ | 6.77 ㊄ | 12.45 ㄸ | 24.30 ㄸ | 27.17 ㄸ | 20.32 ㄸ | 15.23 ㄸ | 10.91 ㄸ | 12.45 ㄸ | 18.92 ㄸ | 22.28 ㊄ |
| 45 | 13.88 ㄸ | 31.47 Z | 24.26 ㊄ | 15.57 ㄸ | 11.58 ㊄ | 17.46 ㄸ | 28.62 ㄸ | 0.99 ㄸ | 24.26 ㄸ | 19.24 ㄸ | 15.40 ㄸ | 17.46 ㄸ | 23.83 ㄸ | 26.60 ㊄ |
| 50 | 19.59 ㄸ | 30.46 Z | 28.20 ㊄ | 19.91 ㄸ | 16.39 ㊄ | 22.41 ㄸ | 2.87 ㄸ | 4.78 ㄸ | 28.20 ㄸ | 23.24 ㄸ | 19.87 ㄸ | 22.41 ㄸ | 28.65 ㄸ | 0.90 ㊄ |
| 55 | 25.82 ㄸ | 29.56 Z | 2.14 ㄸ | 24.26 ㄸ | 21.19 ㊄ | 27.28 ㄸ | 7.05 ㄸ | 8.57 ㄸ | 2.14 ㄸ | 27.23 ㄸ | 24.29 ㄸ | 27.28 ㄸ | 3.40 ㊄ | 5.18 ㊄ |
| 60 | 2.66 ㄸ | 28.78 Z | 6.10 ㄸ | 28.62 ㄸ | 25.97 ㊄ | 2.09 ㄸ | 11.20 ㄸ | 12.35 ㄸ | 6.10 ㄸ | 1.22 ㄸ | 28.68 ㄸ | 2.09 ㄸ | 8.10 ㊄ | 9.46 ㊄ |
| 65 | 10.23 ㄸ | 28.11 Z | 10.07 ㄸ | 2.98 ㊄ | 0.73 ㄸ | 6.84 ㄸ | 15.32 ㄸ | 16.13 ㄸ | 10.07 ㄸ | 5.19 ㄸ | 3.02 ㄸ | 6.84 ㄸ | 12.76 ㊄ | 13.73 ㊄ |
| 70 | 18.61 ㄸ | 27.55 Z | 14.04 ㄸ | 7.35 ㊄ | 5.46 ㄸ | 11.53 ㄸ | 19.42 ㄸ | 19.92 ㄸ | 14.04 ㄸ | 9.14 ㄸ | 7.33 ㄸ | 11.53 ㄸ | 17.39 ㊄ | 18.01 ㊄ |
| 75 | 27.87 ㄸ | 27.12 Z | 18.02 ㄸ | 11.72 ㊄ | 10.17 ㄸ | 16.19 ㄸ | 23.51 ㄸ | 23.72 ㄸ | 18.02 ㄸ | 13.08 ㄸ | 11.59 ㄸ | 16.19 ㄸ | 22.01 ㊄ | 22.29 ㊄ |
| 80 | 7.99 ㄸ | 26.81 Z | 22.01 ㄸ | 16.08 ㊄ | 14.86 ㄸ | 20.81 ㄸ | 27.61 ㄸ | 27.54 ㄸ | 22.01 ㄸ | 17.00 ㄸ | 15.81 ㄸ | 20.81 ㄸ | 26.61 ㊄ | 26.59 ㊄ |
| 85 | 18.79 ㄸ | 26.62 Z | 26.00 ㄸ | 20.43 ㊄ | 19.52 ㄸ | 25.41 ㄸ | 1.72 ㄸ | 1.37 ㄸ | 26.00 ㄸ | 20.89 ㄸ | 20.00 ㄸ | 25.41 ㄸ | 1.22 ㊄ | 0.90 ㄸ |
| 90 | 0.00 ㊄ | 26.56 Z | 0.00 ㊄ | 24.77 ㊄ | 24.16 ㄸ | 0.00 ㄸ | 5.84 ㄸ | 5.23 ㄸ | 0.00 ㄸ | 24.77 ㄸ | 24.16 ㄸ | 0.00 ㊄ | 5.84 ㊄ | 5.23 ㄸ |
| 95 | 11.21 ㊄ | 26.62 Z | 4.00 ㊄ | 29.10 ㊄ | 28.78 ㄸ | 4.59 ㄸ | 10.00 ㄸ | 9.11 ㄸ | 4.00 ㄸ | 28.63 ㄸ | 28.28 ㄸ | 4.59 ㊄ | 10.48 ㊄ | 9.57 ㄸ |
| 100 | 22.01 ㊄ | 26.81 Z | 7.99 ㊄ | 3.41 ㄸ | 3.39 ㄸ | 9.19 ㄸ | 14.19 ㄸ | 13.00 ㄸ | 7.99 ㄸ | 2.46 ㄸ | 2.39 ㄸ | 9.19 ㊄ | 15.14 ㊄ | 13.92 ㄸ |
| 105 | 2.13 ㊄ | 27.12 Z | 11.98 ㊄ | 7.71 ㄸ | 7.99 ㄸ | 13.81 ㄸ | 18.41 ㄸ | 16.92 ㄸ | 11.98 ㄸ | 6.28 ㄸ | 6.49 ㄸ | 13.81 ㊄ | 19.83 ㊄ | 18.28 ㄸ |
| 110 | 11.39 ㊄ | 27.55 Z | 15.96 ㊄ | 11.99 ㄸ | 12.61 ㄸ | 18.47 ㄸ | 22.67 ㄸ | 20.86 ㄸ | 15.96 ㄸ | 10.08 ㄸ | 10.58 ㄸ | 18.47 ㊄ | 24.54 ㊄ | 22.65 ㄸ |
| 115 | 19.77 ㊄ | 28.11 Z | 19.93 ㊄ | 16.27 ㄸ | 17.24 ㄸ | 23.16 ㄸ | 26.98 ㄸ | 24.81 ㄸ | 19.93 ㄸ | 13.87 ㄸ | 14.68 ㄸ | 23.16 ㊄ | 29.27 ㊄ | 27.02 ㄸ |
| 120 | 27.34 ㊄ | 28.78 Z | 23.90 ㊄ | 20.54 ㄸ | 21.90 ㄸ | 27.91 ㄸ | 1.32 ㄸ | 28.78 ㄸ | 23.90 ㄸ | 17.65 ㄸ | 18.80 ㄸ | 27.91 ㊄ | 4.03 ㄸ | 1.38 ㊄ |
| 125 | 4.18 ㄸ | 29.56 Z | 27.86 ㊄ | 24.82 ㄸ | 26.60 ㄸ | 2.72 ㄸ | 5.71 ㄸ | 2.77 ㄸ | 27.86 ㄸ | 21.43 ㄸ | 22.95 ㄸ | 2.72 ㊄ | 8.81 ㄸ | 5.74 ㊄ |
| 130 | 10.41 ㄸ | 30.46 Z | 1.80 ㄸ | 29.10 ㄸ | 1.35 ㄸ | 7.59 ㄸ | 10.13 ㄸ | 6.76 ㄸ | 1.80 ㄸ | 25.22 ㄸ | 27.13 ㄸ | 7.59 ㊄ | 13.61 ㄸ | 10.09 ㊄ |
| 135 | 16.12 ㄸ | 31.47 Z | 5.74 ㄸ | 3.40 ㄸ | 6.17 ㄸ | 12.54 ㄸ | 14.60 ㄸ | 10.76 ㄸ | 5.74 ㄸ | 29.01 ㄸ | 1.38 ㊄ | 12.54 ㊄ | 18.42 ㄸ | 14.43 ㊄ |
| 140 | 21.41 ㄸ | 32.58 Z | 9.68 ㄸ | 7.72 ㄸ | 11.08 ㄸ | 17.55 ㄸ | 19.09 ㄸ | 14.77 ㄸ | 9.68 ㄸ | 2.83 ㄸ | 5.70 ㊄ | 17.55 ㊄ | 23.23 ㄸ | 18.75 ㊄ |
| 145 | 26.35 ㄸ | 33.79 Z | 13.61 ㄸ | 12.08 ㄸ | 16.08 ㄸ | 22.65 ㄸ | 23.62 ㄸ | 18.78 ㄸ | 13.61 ㄸ | 6.68 ㄸ | 10.10 ㊄ | 22.65 ㊄ | 28.04 ㄸ | 23.04 ㊄ |
| 150 | 1.01 ㊄ | 35.10 Z | 17.54 ㄸ | 16.50 ㄸ | 21.20 ㄸ | 27.82 ㄸ | 28.16 ㄸ | 22.79 ㄸ | 17.54 ㄸ | 10.57 ㄸ | 14.61 ㊄ | 27.82 ㊄ | 2.83 ㊄ | 27.32 ㊄ |
| 155 | 5.44 ㊄ | 36.50 Z | 21.48 ㄸ | 20.98 ㄸ | 26.45 ㄸ | 3.06 ㄸ | 2.72 ㄸ | 26.81 ㄸ | 21.48 ㄸ | 14.52 ㄸ | 19.25 ㊄ | 3.06 ㄸ | 7.61 ㊄ | 1.57 ㄸ |
| 160 | 9.68 ㊄ | 37.98 Z | 25.43 ㄸ | 25.54 ㄸ | 1.83 ㄸ | 8.36 ㄸ | 7.29 ㄸ | 0.82 ㄸ | 25.43 ㄸ | 18.54 ㄸ | 24.04 ㊄ | 8.36 ㄸ | 12.35 ㊄ | 5.79 ㄸ |
| 165 | 13.76 ㊄ | 39.54 Z | 29.40 ㄸ | 0.21 ㄸ | 7.36 ㄸ | 13.72 ㄸ | 11.87 ㄸ | 4.83 ㄸ | 29.40 ㄸ | 22.65 ㄸ | 28.99 ㊄ | 13.72 ㄸ | 17.06 ㊄ | 9.99 ㄸ |
| 170 | 17.72 ㊄ | 41.18 Z | 3.40 ㄸ | 4.99 ㄸ | 13.06 ㄸ | 19.12 ㄸ | 16.44 ㄸ | 8.85 ㄸ | 3.40 ㄸ | 26.87 ㄸ | 4.12 ㊄ | 19.12 ㄸ | 21.73 ㊄ | 14.17 ㄸ |
| 175 | 21.58 ㊄ | 42.89 Z | 7.45 ㄸ | 9.93 ㄸ | 18.91 ㄸ | 24.55 ㄸ | 21.00 ㄸ | 12.87 ㄸ | 7.45 ㄸ | 1.22 ㊄ | 9.46 ㊄ | 24.55 ㄸ | 26.36 ㊄ | 18.33 ㄸ |
| 180 | 25.36 ㊄ | 44.65 Z | 11.54 ㄸ | 15.03 ㄸ | 24.92 ㄸ | 0.00 ㄸ | 25.55 ㄸ | 16.89 ㄸ | 11.54 ㄸ | 5.74 ㊄ | 15.03 ㊄ | 0.00 ㊄ | 0.93 ㄸ | 22.48 ㄸ |

40° NB

| α_z | λ_z | β_z | I | II | III | IV | V | VI | VII | VIII | IX | X | XI | XII |
|------------|-------------|-----------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 185 | 29.08 ㊟ | 46.48 Z | 15.71 ㄨ | 20.32 ㄨ | 1.08 ㄨ | 5.45 ㄨ | 0.09 ㄨ | 20.93 ㄨ | 15.71 ㄨ | 10.44 ㄨ | 20.83 ㄨ | 5.45 ㊟ | 5.46 ㄨ | 26.61 ㄨ |
| 190 | 2.75 ㄨ | 48.35 Z | 19.95 ㄨ | 25.83 ㄨ | 7.38 ㄨ | 10.88 ㄨ | 4.60 ㄨ | 24.98 ㄨ | 19.95 ㄨ | 15.37 ㄨ | 26.88 ㄨ | 10.88 ㊟ | 9.93 ㄨ | 0.74 ㄨ |
| 195 | 6.38 ㄨ | 50.26 Z | 24.31 ㄨ | 1.58 ㄨ | 13.78 ㄨ | 16.28 ㄨ | 9.10 ㄨ | 29.06 ㄨ | 24.31 ㄨ | 20.56 ㄨ | 3.18 ㄨ | 16.28 ㊟ | 14.34 ㄨ | 4.88 ㄨ |
| 200 | 9.98 ㄨ | 52.21 Z | 28.78 ㄨ | 7.59 ㄨ | 20.26 ㄨ | 21.64 ㄨ | 13.58 ㄨ | 3.17 ㄨ | 28.78 ㄨ | 26.05 ㄨ | 9.71 ㄨ | 21.64 ㊟ | 18.71 ㄨ | 9.02 ㄨ |
| 205 | 13.56 ㄨ | 54.18 Z | 3.41 ㄨ | 13.88 ㄨ | 26.78 ㄨ | 26.94 ㄨ | 18.04 ㄨ | 7.33 ㄨ | 3.41 ㄨ | 1.89 ㄨ | 16.46 ㄨ | 26.94 ㊟ | 23.03 ㄨ | 13.18 ㄨ |
| 210 | 17.13 ㄨ | 56.17 Z | 8.21 ㄨ | 20.45 ㄨ | 3.30 ㄨ | 2.18 ㄨ | 22.49 ㄨ | 11.54 ㄨ | 8.21 ㄨ | 8.11 ㄨ | 23.38 ㄨ | 2.18 ㄨ | 27.30 ㄨ | 17.38 ㄨ |
| 215 | 20.69 ㄨ | 58.16 Z | 13.22 ㄨ | 27.28 ㄨ | 9.79 ㄨ | 7.35 ㄨ | 26.93 ㄨ | 15.82 ㄨ | 13.22 ㄨ | 14.77 ㄨ | 0.42 ㊟ | 7.35 ㄨ | 1.54 ㄨ | 21.61 ㄨ |
| 220 | 24.24 ㄨ | 60.13 Z | 18.48 ㄨ | 4.37 ㄨ | 16.20 ㄨ | 12.45 ㄨ | 1.37 ㄨ | 20.19 ㄨ | 18.48 ㄨ | 21.88 ㄨ | 7.54 ㊟ | 12.45 ㄨ | 5.74 ㄨ | 25.90 ㄨ |
| 225 | 27.80 ㄨ | 62.08 Z | 24.01 ㄨ | 11.66 ㄨ | 22.49 ㄨ | 17.46 ㄨ | 5.82 ㄨ | 24.68 ㄨ | 24.01 ㄨ | 29.46 ㄨ | 14.66 ㊟ | 17.46 ㄨ | 9.92 ㄨ | 0.25 ㄨ |
| 230 | 1.36 ㄨ | 63.99 Z | 29.86 ㄨ | 19.08 ㄨ | 28.64 ㄨ | 22.41 ㄨ | 10.28 ㄨ | 29.29 ㄨ | 29.86 ㄨ | 7.49 ㄨ | 21.72 ㊟ | 22.41 ㄨ | 14.09 ㄨ | 4.69 ㄨ |
| 235 | 4.92 ㄨ | 65.82 Z | 6.07 ㄨ | 26.58 ㄨ | 4.63 ㄨ | 27.28 ㄨ | 14.78 ㄨ | 4.07 ㄨ | 6.07 ㄨ | 15.90 ㄨ | 28.66 ㊟ | 27.28 ㄨ | 18.26 ㄨ | 9.21 ㄨ |
| 240 | 8.49 ㄨ | 67.56 Z | 12.66 ㄨ | 4.05 ㄨ | 10.43 ㄨ | 2.09 ㄨ | 19.32 ㄨ | 9.04 ㄨ | 12.66 ㄨ | 24.60 ㄨ | 5.43 ㄨ | 2.09 ㄨ | 22.43 ㄨ | 13.85 ㄨ |
| 245 | 12.06 ㄨ | 69.16 Z | 19.67 ㄨ | 11.41 ㄨ | 16.05 ㄨ | 6.84 ㄨ | 23.93 ㄨ | 14.25 ㄨ | 19.67 ㄨ | 3.44 ㊟ | 12.00 ㄨ | 6.84 ㄨ | 26.63 ㄨ | 18.63 ㄨ |
| 250 | 15.64 ㄨ | 70.58 Z | 27.08 ㄨ | 18.60 ㄨ | 21.47 ㄨ | 11.53 ㄨ | 28.62 ㄨ | 19.74 ㄨ | 27.08 ㄨ | 12.27 ㊟ | 18.34 ㄨ | 11.53 ㄨ | 0.87 ㄨ | 23.55 ㄨ |
| 255 | 19.23 ㄨ | 71.77 Z | 4.90 ㄨ | 25.55 ㄨ | 26.70 ㄨ | 16.19 ㄨ | 3.41 ㄨ | 25.54 ㄨ | 4.90 ㄨ | 20.92 ㊟ | 24.44 ㄨ | 16.19 ㄨ | 5.17 ㄨ | 28.66 ㄨ |
| 260 | 22.82 ㄨ | 72.68 Z | 13.05 ㄨ | 2.22 ㄨ | 1.76 ㄨ | 20.81 ㄨ | 8.33 ㄨ | 1.71 ㄨ | 13.05 ㄨ | 29.26 ㊟ | 0.31 ㄨ | 20.81 ㄨ | 9.55 ㄨ | 3.97 ㄨ |
| 265 | 26.41 ㄨ | 73.24 Z | 21.46 ㄨ | 8.60 ㄨ | 6.64 ㄨ | 25.41 ㄨ | 13.39 ㄨ | 8.29 ㄨ | 21.46 ㄨ | 7.20 ㄨ | 5.95 ㄨ | 25.41 ㄨ | 14.03 ㄨ | 9.51 ㄨ |
| 270 | 0.00 ㄨ | 73.44 Z | 0.00 ㄨ | 14.69 ㄨ | 11.38 ㄨ | 0.00 ㄨ | 18.62 ㄨ | 15.31 ㄨ | 0.00 ㊟ | 14.69 ㄨ | 11.38 ㄨ | 0.00 ㄨ | 18.62 ㄨ | 15.31 ㄨ |
| 275 | 3.59 ㄨ | 73.24 Z | 8.54 ㄨ | 20.49 ㄨ | 15.97 ㄨ | 4.59 ㄨ | 24.05 ㄨ | 22.80 ㄨ | 8.54 ㊟ | 21.71 ㄨ | 16.61 ㄨ | 4.59 ㄨ | 23.36 ㄨ | 21.40 ㄨ |
| 280 | 7.18 ㄨ | 72.68 Z | 16.95 ㄨ | 26.03 ㄨ | 20.45 ㄨ | 9.19 ㄨ | 29.69 ㄨ | 0.74 ㄨ | 16.95 ㊟ | 28.29 ㄨ | 21.67 ㄨ | 9.19 ㄨ | 28.24 ㄨ | 27.78 ㄨ |
| 285 | 10.77 ㄨ | 71.77 Z | 25.10 ㄨ | 1.34 ㄨ | 24.83 ㄨ | 13.81 ㄨ | 5.56 ㄨ | 9.08 ㄨ | 25.10 ㊟ | 4.46 ㄨ | 26.59 ㄨ | 13.81 ㄨ | 3.30 ㄨ | 4.45 ㄨ |
| 290 | 14.36 ㄨ | 70.58 Z | 2.92 ㄨ | 6.45 ㄨ | 29.13 ㄨ | 18.47 ㄨ | 11.66 ㄨ | 17.73 ㄨ | 2.92 ㄨ | 10.26 ㄨ | 1.38 ㄨ | 18.47 ㄨ | 8.53 ㄨ | 11.40 ㄨ |
| 295 | 17.94 ㄨ | 69.16 Z | 10.33 ㄨ | 11.37 ㄨ | 3.37 ㄨ | 23.16 ㄨ | 18.00 ㄨ | 26.56 ㄨ | 10.33 ㄨ | 15.75 ㄨ | 6.07 ㄨ | 23.16 ㄨ | 13.95 ㄨ | 18.59 ㄨ |
| 300 | 21.51 ㄨ | 67.56 Z | 17.34 ㄨ | 16.15 ㄨ | 7.57 ㄨ | 27.91 ㄨ | 24.57 ㄨ | 5.40 ㊟ | 17.34 ㄨ | 20.96 ㄨ | 10.68 ㄨ | 27.91 ㄨ | 19.57 ㄨ | 25.95 ㄨ |
| 305 | 25.08 ㄨ | 65.82 Z | 23.93 ㄨ | 20.79 ㄨ | 11.74 ㄨ | 2.72 ㄨ | 1.34 ㄨ | 14.10 ㊟ | 23.93 ㄨ | 25.93 ㄨ | 15.22 ㄨ | 2.72 ㄨ | 25.37 ㄨ | 3.42 ㄨ |
| 310 | 28.64 ㄨ | 63.99 Z | 0.14 ㄨ | 25.31 ㄨ | 15.91 ㄨ | 7.59 ㄨ | 8.28 ㄨ | 22.51 ㊟ | 0.14 ㄨ | 0.71 ㄨ | 19.72 ㄨ | 7.59 ㄨ | 1.36 ㄨ | 10.92 ㄨ |
| 315 | 2.20 ㄨ | 62.08 Z | 5.99 ㄨ | 29.75 ㄨ | 20.08 ㄨ | 12.54 ㄨ | 15.34 ㄨ | 0.54 ㄨ | 5.99 ㄨ | 5.32 ㄨ | 24.18 ㄨ | 12.54 ㄨ | 7.51 ㄨ | 18.34 ㄨ |
| 320 | 5.76 ㄨ | 60.13 Z | 11.52 ㄨ | 4.10 ㄨ | 24.26 ㄨ | 17.55 ㄨ | 22.46 ㄨ | 8.12 ㄨ | 11.52 ㄨ | 9.81 ㄨ | 28.63 ㄨ | 17.55 ㄨ | 13.80 ㄨ | 25.63 ㄨ |
| 325 | 9.31 ㄨ | 58.16 Z | 16.78 ㄨ | 8.39 ㄨ | 28.46 ㄨ | 22.65 ㄨ | 29.58 ㄨ | 15.23 ㄨ | 16.78 ㄨ | 14.18 ㄨ | 3.07 ㄨ | 22.65 ㄨ | 20.21 ㄨ | 2.72 ㄨ |
| 330 | 12.87 ㄨ | 56.17 Z | 21.79 ㄨ | 12.62 ㄨ | 2.70 ㄨ | 27.82 ㄨ | 6.62 ㊟ | 21.89 ㄨ | 21.79 ㄨ | 18.46 ㄨ | 7.51 ㄨ | 27.82 ㄨ | 26.70 ㄨ | 9.55 ㄨ |
| 335 | 16.44 ㄨ | 54.18 Z | 26.59 ㄨ | 16.82 ㄨ | 6.97 ㄨ | 3.06 ㄨ | 13.54 ㊟ | 28.11 ㄨ | 26.59 ㄨ | 22.67 ㄨ | 11.96 ㄨ | 3.06 ㄨ | 3.22 ㄨ | 16.12 ㄨ |
| 340 | 20.02 ㄨ | 52.21 Z | 1.22 ㄨ | 20.98 ㄨ | 11.29 ㄨ | 8.36 ㄨ | 20.29 ㊟ | 3.95 ㄨ | 1.22 ㄨ | 26.83 ㄨ | 16.42 ㄨ | 8.36 ㄨ | 9.74 ㄨ | 22.41 ㄨ |
| 345 | 23.62 ㄨ | 50.26 Z | 5.69 ㄨ | 25.12 ㄨ | 15.66 ㄨ | 13.72 ㄨ | 26.82 ㊟ | 9.44 ㄨ | 5.69 ㄨ | 0.94 ㄨ | 20.90 ㄨ | 13.72 ㄨ | 16.22 ㄨ | 28.42 ㄨ |
| 350 | 27.25 ㄨ | 48.35 Z | 10.05 ㄨ | 29.26 ㄨ | 20.07 ㄨ | 19.12 ㄨ | 3.12 ㄨ | 14.63 ㄨ | 10.05 ㄨ | 5.02 ㄨ | 25.40 ㄨ | 19.12 ㄨ | 22.62 ㄨ | 4.17 ㄨ |
| 355 | 0.92 ㄨ | 46.48 Z | 14.29 ㄨ | 3.39 ㄨ | 24.54 ㄨ | 24.55 ㄨ | 9.17 ㄨ | 19.56 ㄨ | 14.29 ㄨ | 9.07 ㄨ | 29.91 ㄨ | 24.55 ㄨ | 28.92 ㄨ | 9.68 ㄨ |
| 360 | 4.64 ㄨ | 44.65 Z | 18.46 ㄨ | 7.52 ㄨ | 29.07 ㄨ | 0.00 ㊟ | 14.97 ㄨ | 24.26 ㄨ | 18.46 ㄨ | 13.11 ㄨ | 4.45 ㄨ | 0.00 ㄨ | 5.08 ㄨ | 14.97 ㄨ |

45° NB

| α_z | λ_z | β_z | I | II | III | IV | V | VI | VII | VIII | IX | X | XI | XII |
|------------|-------------|-----------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0 | 8.31 𐄂 | 40.45 Z | 21.69 𐄂 | 9.13 𐄂 | 29.25 𐄂 | 0.00 𐄂 | 18.48 𐄂 | 28.96 𐄂 | 21.69 𐄂 | 15.28 𐄂 | 5.31 𐄂 | 0.00 𐄂 | 5.93 𐄂 | 17.92 𐄂 |
| 5 | 12.31 𐄂 | 38.63 Z | 25.62 𐄂 | 13.16 𐄂 | 3.73 𐄂 | 5.45 𐄂 | 23.99 𐄂 | 3.25 𐄂 | 25.62 𐄂 | 19.15 𐄂 | 9.75 𐄂 | 5.45 𐄂 | 12.11 𐄂 | 22.99 𐄂 |
| 10 | 16.39 𐄂 | 36.86 Z | 29.50 𐄂 | 17.19 𐄂 | 8.26 𐄂 | 10.88 𐄂 | 29.26 𐄂 | 7.39 𐄂 | 29.50 𐄂 | 23.01 𐄂 | 14.20 𐄂 | 10.88 𐄂 | 18.10 𐄂 | 27.88 𐄂 |
| 15 | 20.58 𐄂 | 35.17 Z | 3.33 𐄂 | 21.23 𐄂 | 12.82 𐄂 | 16.28 𐄂 | 4.29 𐄂 | 11.39 𐄂 | 3.33 𐄂 | 26.87 𐄂 | 18.65 𐄂 | 16.28 𐄂 | 23.91 𐄂 | 2.61 𐄂 |
| 20 | 24.89 𐄂 | 33.54 Z | 7.13 𐄂 | 25.30 𐄂 | 17.43 𐄂 | 21.64 𐄂 | 9.13 𐄂 | 15.28 𐄂 | 7.13 𐄂 | 0.72 𐄂 | 23.11 𐄂 | 21.64 𐄂 | 29.53 𐄂 | 7.20 𐄂 |
| 25 | 29.37 𐄂 | 32.00 Z | 10.92 𐄂 | 29.38 𐄂 | 22.08 𐄂 | 26.94 𐄂 | 13.78 𐄂 | 19.09 𐄂 | 10.92 𐄂 | 4.56 𐄂 | 27.55 𐄂 | 26.94 𐄂 | 4.99 𐄂 | 11.68 𐄂 |
| 30 | 4.03 𐄂 | 30.54 Z | 14.68 𐄂 | 3.48 𐄂 | 26.75 𐄂 | 2.18 𐄂 | 18.29 𐄂 | 22.84 𐄂 | 14.68 𐄂 | 8.40 𐄂 | 1.99 𐄂 | 2.18 𐄂 | 10.29 𐄂 | 16.06 𐄂 |
| 35 | 8.91 𐄂 | 29.17 Z | 18.44 𐄂 | 7.61 𐄂 | 1.44 𐄂 | 7.35 𐄂 | 22.67 𐄂 | 26.52 𐄂 | 18.44 𐄂 | 12.24 𐄂 | 6.40 𐄂 | 7.35 𐄂 | 15.44 𐄂 | 20.38 𐄂 |
| 40 | 14.07 𐄂 | 27.90 Z | 22.20 𐄂 | 11.75 𐄂 | 6.15 𐄂 | 12.45 𐄂 | 26.94 𐄂 | 0.17 𐄂 | 22.20 𐄂 | 16.07 𐄂 | 10.80 𐄂 | 12.45 𐄂 | 20.47 𐄂 | 24.63 𐄂 |
| 45 | 19.54 𐄂 | 26.74 Z | 25.95 𐄂 | 15.91 𐄂 | 10.87 𐄂 | 17.46 𐄂 | 1.12 𐄂 | 3.79 𐄂 | 25.95 𐄂 | 19.90 𐄂 | 15.16 𐄂 | 17.46 𐄂 | 25.39 𐄂 | 28.85 𐄂 |
| 50 | 25.39 𐄂 | 25.68 Z | 29.71 𐄂 | 20.09 𐄂 | 15.58 𐄂 | 22.41 𐄂 | 5.23 𐄂 | 7.39 𐄂 | 29.71 𐄂 | 23.71 𐄂 | 19.50 𐄂 | 22.41 𐄂 | 0.22 𐄂 | 3.03 𐄂 |
| 55 | 1.67 𐄂 | 24.73 Z | 3.48 𐄂 | 24.28 𐄂 | 20.29 𐄂 | 27.28 𐄂 | 9.29 𐄂 | 10.98 𐄂 | 3.48 𐄂 | 27.52 𐄂 | 23.79 𐄂 | 27.28 𐄂 | 4.97 𐄂 | 7.19 𐄂 |
| 60 | 8.43 𐄂 | 23.90 Z | 7.25 𐄂 | 28.48 𐄂 | 24.99 𐄂 | 2.09 𐄂 | 13.31 𐄂 | 14.57 𐄂 | 7.25 𐄂 | 1.31 𐄂 | 28.05 𐄂 | 2.09 𐄂 | 9.66 𐄂 | 11.35 𐄂 |
| 65 | 15.74 𐄂 | 23.19 Z | 11.03 𐄂 | 2.69 𐄂 | 29.67 𐄂 | 6.84 𐄂 | 17.30 𐄂 | 18.16 𐄂 | 11.03 𐄂 | 5.09 𐄂 | 2.27 𐄂 | 6.84 𐄂 | 14.30 𐄂 | 15.49 𐄂 |
| 70 | 23.63 𐄂 | 22.61 Z | 14.81 𐄂 | 6.90 𐄂 | 4.33 𐄂 | 11.53 𐄂 | 21.27 𐄂 | 21.76 𐄂 | 14.81 𐄂 | 8.85 𐄂 | 6.45 𐄂 | 11.53 𐄂 | 18.91 𐄂 | 19.64 𐄂 |
| 75 | 2.08 𐄂 | 22.15 Z | 18.60 𐄂 | 11.11 𐄂 | 8.98 𐄂 | 16.19 𐄂 | 25.24 𐄂 | 25.37 𐄂 | 18.60 𐄂 | 12.59 𐄂 | 10.59 𐄂 | 16.19 𐄂 | 23.49 𐄂 | 23.79 𐄂 |
| 80 | 11.05 𐄂 | 21.82 Z | 22.40 𐄂 | 15.31 𐄂 | 13.60 𐄂 | 20.81 𐄂 | 29.22 𐄂 | 29.00 𐄂 | 22.40 𐄂 | 16.31 𐄂 | 14.69 𐄂 | 20.81 𐄂 | 28.07 𐄂 | 27.95 𐄂 |
| 85 | 20.42 𐄂 | 21.63 Z | 26.20 𐄂 | 19.51 𐄂 | 18.20 𐄂 | 25.41 𐄂 | 3.20 𐄂 | 2.64 𐄂 | 26.20 𐄂 | 20.02 𐄂 | 18.75 𐄂 | 25.41 𐄂 | 2.64 𐄂 | 2.12 𐄂 |
| 90 | 0.00 𐄂 | 21.56 Z | 0.00 𐄂 | 23.70 𐄂 | 22.79 𐄂 | 0.00 𐄂 | 7.21 𐄂 | 6.30 𐄂 | 0.00 𐄂 | 23.70 𐄂 | 22.79 𐄂 | 0.00 𐄂 | 7.21 𐄂 | 6.30 𐄂 |
| 95 | 9.58 𐄂 | 21.63 Z | 3.80 𐄂 | 27.88 𐄂 | 27.36 𐄂 | 4.59 𐄂 | 11.25 𐄂 | 9.98 𐄂 | 3.80 𐄂 | 27.36 𐄂 | 26.80 𐄂 | 4.59 𐄂 | 11.80 𐄂 | 10.49 𐄂 |
| 100 | 18.95 𐄂 | 21.82 Z | 7.60 𐄂 | 2.05 𐄂 | 1.93 𐄂 | 9.19 𐄂 | 15.31 𐄂 | 13.69 𐄂 | 7.60 𐄂 | 1.00 𐄂 | 0.78 𐄂 | 9.19 𐄂 | 16.40 𐄂 | 14.69 𐄂 |
| 105 | 27.92 𐄂 | 22.15 Z | 11.40 𐄂 | 6.21 𐄂 | 6.51 𐄂 | 13.81 𐄂 | 19.41 𐄂 | 17.41 𐄂 | 11.40 𐄂 | 4.63 𐄂 | 4.76 𐄂 | 13.81 𐄂 | 21.02 𐄂 | 18.89 𐄂 |
| 110 | 6.37 𐄂 | 22.61 Z | 15.19 𐄂 | 10.36 𐄂 | 11.09 𐄂 | 18.47 𐄂 | 23.55 𐄂 | 21.15 𐄂 | 15.19 𐄂 | 8.24 𐄂 | 8.73 𐄂 | 18.47 𐄂 | 25.67 𐄂 | 23.10 𐄂 |
| 115 | 14.26 𐄂 | 23.19 Z | 18.97 𐄂 | 14.51 𐄂 | 15.70 𐄂 | 23.16 𐄂 | 27.73 𐄂 | 24.91 𐄂 | 18.97 𐄂 | 11.84 𐄂 | 12.70 𐄂 | 23.16 𐄂 | 0.33 𐄂 | 27.31 𐄂 |
| 120 | 21.57 𐄂 | 23.90 Z | 22.75 𐄂 | 18.65 𐄂 | 20.34 𐄂 | 27.91 𐄂 | 1.95 𐄂 | 28.69 𐄂 | 22.75 𐄂 | 15.43 𐄂 | 16.69 𐄂 | 27.91 𐄂 | 5.01 𐄂 | 1.52 𐄂 |
| 125 | 28.33 𐄂 | 24.73 Z | 26.52 𐄂 | 22.81 𐄂 | 25.03 𐄂 | 2.72 𐄂 | 6.21 𐄂 | 2.48 𐄂 | 26.52 𐄂 | 19.02 𐄂 | 20.71 𐄂 | 2.72 𐄂 | 9.71 𐄂 | 5.72 𐄂 |
| 130 | 4.61 𐄂 | 25.68 Z | 0.29 𐄂 | 26.97 𐄂 | 29.78 𐄂 | 7.59 𐄂 | 10.50 𐄂 | 6.29 𐄂 | 0.29 𐄂 | 22.61 𐄂 | 24.77 𐄂 | 7.59 𐄂 | 14.42 𐄂 | 9.91 𐄂 |
| 135 | 10.46 𐄂 | 26.74 Z | 4.05 𐄂 | 1.15 𐄂 | 4.61 𐄂 | 12.54 𐄂 | 14.84 𐄂 | 10.10 𐄂 | 4.05 𐄂 | 26.21 𐄂 | 28.88 𐄂 | 12.54 𐄂 | 19.13 𐄂 | 14.09 𐄂 |
| 140 | 15.93 𐄂 | 27.90 Z | 7.80 𐄂 | 5.37 𐄂 | 9.53 𐄂 | 17.55 𐄂 | 19.20 𐄂 | 13.93 𐄂 | 7.80 𐄂 | 29.83 𐄂 | 3.06 𐄂 | 17.55 𐄂 | 23.85 𐄂 | 18.25 𐄂 |
| 145 | 21.09 𐄂 | 29.17 Z | 11.56 𐄂 | 9.62 𐄂 | 14.56 𐄂 | 22.65 𐄂 | 23.60 𐄂 | 17.76 𐄂 | 11.56 𐄂 | 3.48 𐄂 | 7.33 𐄂 | 22.65 𐄂 | 28.56 𐄂 | 22.39 𐄂 |
| 150 | 25.97 𐄂 | 30.54 Z | 15.32 𐄂 | 13.94 𐄂 | 19.71 𐄂 | 27.82 𐄂 | 28.01 𐄂 | 21.60 𐄂 | 15.32 𐄂 | 7.16 𐄂 | 11.71 𐄂 | 27.82 𐄂 | 3.25 𐄂 | 26.52 𐄂 |
| 155 | 0.63 𐄂 | 32.00 Z | 19.08 𐄂 | 18.32 𐄂 | 25.01 𐄂 | 3.06 𐄂 | 2.45 𐄂 | 25.44 𐄂 | 19.08 𐄂 | 10.91 𐄂 | 16.22 𐄂 | 3.06 𐄂 | 7.92 𐄂 | 0.62 𐄂 |
| 160 | 5.11 𐄂 | 33.54 Z | 22.87 𐄂 | 22.80 𐄂 | 0.47 𐄂 | 8.36 𐄂 | 6.89 𐄂 | 29.28 𐄂 | 22.87 𐄂 | 14.72 𐄂 | 20.87 𐄂 | 8.36 𐄂 | 12.57 𐄂 | 4.70 𐄂 |
| 165 | 9.42 𐄂 | 35.17 Z | 26.67 𐄂 | 27.39 𐄂 | 6.09 𐄂 | 13.72 𐄂 | 11.35 𐄂 | 3.13 𐄂 | 26.67 𐄂 | 18.61 𐄂 | 25.71 𐄂 | 13.72 𐄂 | 17.18 𐄂 | 8.77 𐄂 |
| 170 | 13.61 𐄂 | 36.86 Z | 0.50 𐄂 | 2.12 𐄂 | 11.90 𐄂 | 19.12 𐄂 | 15.80 𐄂 | 6.99 𐄂 | 0.50 𐄂 | 22.61 𐄂 | 0.74 𐄂 | 19.12 𐄂 | 21.74 𐄂 | 12.81 𐄂 |
| 175 | 17.69 𐄂 | 38.63 Z | 4.38 𐄂 | 7.01 𐄂 | 17.89 𐄂 | 24.55 𐄂 | 20.25 𐄂 | 10.85 𐄂 | 4.38 𐄂 | 26.75 𐄂 | 6.01 𐄂 | 24.55 𐄂 | 26.27 𐄂 | 16.84 𐄂 |
| 180 | 21.69 𐄂 | 40.45 Z | 8.31 𐄂 | 12.08 𐄂 | 24.07 𐄂 | 0.00 𐄂 | 24.69 𐄂 | 14.72 𐄂 | 8.31 𐄂 | 1.04 𐄂 | 11.52 𐄂 | 0.00 𐄂 | 0.75 𐄂 | 20.87 𐄂 |

45° NB

| α_z | λ_z | β_z | I | II | III | IV | V | VI | VII | VIII | IX | X | XI | XII |
|------------|-------------|-----------|----------|----------|----------|----------|----------|----------|----------|---------|---------|---------|---------|----------|
| 185 | 25.62 ♁ | 42.32 Z | 12.31 ♀ | 17.39 ☾ | 0.42 ♀ | 5.45 ♀ | 29.12 ♀ | 18.61 ♂ | 12.31 II | 5.52 ☽ | 17.32 ♀ | 5.45 ♁ | 5.17 ♀ | 24.88 ♀ |
| 190 | 29.50 ♁ | 44.23 Z | 16.39 ♀ | 22.94 ☾ | 6.92 ♀ | 10.88 ♀ | 3.53 ♂ | 22.52 ♂ | 16.39 II | 10.24 ☽ | 23.42 ♀ | 10.88 ♁ | 9.55 ♀ | 28.89 ♀ |
| 195 | 3.33 ♀ | 46.18 Z | 20.58 ♀ | 28.79 ☾ | 13.56 ♀ | 16.28 ♀ | 7.93 ♂ | 26.45 ♂ | 20.58 II | 15.24 ☽ | 29.82 ♀ | 16.28 ♁ | 13.88 ♀ | 2.92 ♀ |
| 200 | 7.13 ♀ | 48.16 Z | 24.89 ♀ | 4.96 ☽ | 20.29 ♀ | 21.64 ♀ | 12.32 ♂ | 0.42 II | 24.89 II | 20.57 ☽ | 6.54 ♀ | 21.64 ♁ | 18.15 ♀ | 6.95 ♀ |
| 205 | 10.92 ♀ | 50.14 Z | 29.37 ♀ | 11.48 ☽ | 27.08 ♀ | 26.94 ♀ | 16.69 ♂ | 4.43 II | 29.37 II | 26.29 ☽ | 13.54 ♀ | 26.94 ♁ | 22.38 ♀ | 11.01 ♀ |
| 210 | 14.68 ♀ | 52.13 Z | 4.03 ☾ | 18.37 ☽ | 3.86 ♀ | 2.18 ♂ | 21.05 ♂ | 8.50 II | 4.03 ☽ | 2.47 ♀ | 20.81 ♀ | 2.18 ♀ | 26.57 ♀ | 15.10 ♀ |
| 215 | 18.44 ♀ | 54.10 Z | 8.91 ☾ | 25.61 ☽ | 10.60 ♀ | 7.35 ♂ | 25.41 ♂ | 12.64 II | 8.91 ☽ | 9.18 ♀ | 28.27 ♀ | 7.35 ♀ | 0.72 ♀ | 19.24 ♀ |
| 220 | 22.20 ♀ | 56.05 Z | 14.07 ☾ | 3.20 ♀ | 17.25 ♀ | 12.45 ♂ | 29.77 ♂ | 16.87 II | 14.07 ☽ | 16.50 ♀ | 5.87 ♁ | 12.45 ♀ | 4.83 ♀ | 23.43 ♀ |
| 225 | 25.95 ♀ | 57.96 Z | 19.54 ☾ | 11.07 ♀ | 23.76 ♀ | 17.46 ♂ | 4.14 II | 21.21 II | 19.54 ☽ | 24.46 ♀ | 13.50 ♁ | 17.46 ♀ | 8.92 ♀ | 27.68 ♀ |
| 230 | 29.71 ♀ | 59.79 Z | 25.39 ☾ | 19.14 ♀ | 0.11 ♂ | 22.41 ♂ | 8.54 II | 25.69 II | 25.39 ☽ | 3.08 ♀ | 21.09 ♁ | 22.41 ♀ | 12.99 ♀ | 2.02 ☾ |
| 235 | 3.48 ♀ | 61.54 Z | 1.67 ☽ | 27.30 ♀ | 6.26 ♂ | 27.28 ♂ | 12.97 II | 0.34 ☽ | 1.67 ♀ | 12.33 ♀ | 28.54 ♁ | 27.28 ♀ | 17.05 ♀ | 6.45 ☾ |
| 240 | 7.25 ♀ | 63.17 Z | 8.43 ☽ | 5.42 ♀ | 12.20 ♂ | 2.09 II | 17.45 II | 5.20 ☽ | 8.43 ♀ | 22.06 ♀ | 5.79 ♀ | 2.09 ♀ | 21.12 ♀ | 10.99 ☾ |
| 245 | 11.03 ♀ | 64.65 Z | 15.74 ☽ | 13.37 ♀ | 17.92 ♂ | 6.84 II | 22.00 II | 10.31 ☽ | 15.74 ♀ | 2.08 ♁ | 12.78 ♀ | 6.84 ♀ | 25.21 ♀ | 15.66 ☾ |
| 250 | 14.81 ♀ | 65.93 Z | 23.63 ☽ | 21.05 ♀ | 23.41 ♂ | 11.53 II | 26.65 II | 15.74 ☽ | 23.63 ♀ | 12.12 ♁ | 19.48 ♀ | 11.53 ♀ | 29.34 ♀ | 20.48 ☾ |
| 255 | 18.60 ♀ | 66.99 Z | 2.08 ♀ | 28.39 ♀ | 28.69 ♂ | 16.19 II | 1.41 ☽ | 21.55 ☽ | 2.08 ♀ | 21.92 ♁ | 25.87 ♀ | 16.19 ♀ | 3.52 ☾ | 25.49 ☾ |
| 260 | 22.40 ♀ | 67.78 Z | 11.05 ♀ | 5.33 ♂ | 3.75 II | 20.81 II | 6.32 ☽ | 27.81 ☽ | 11.05 ♀ | 1.24 ♀ | 1.96 ♀ | 20.81 ♀ | 7.80 ☾ | 0.71 ☽ |
| 265 | 26.20 ♀ | 68.27 Z | 20.42 ♀ | 11.86 ♂ | 8.62 II | 25.41 II | 11.41 ☽ | 4.60 ♀ | 20.42 ♀ | 9.96 ♀ | 7.76 ♀ | 25.41 ♀ | 12.18 ☾ | 6.20 ☽ |
| 270 | 0.00 ☾ | 68.44 Z | 0.00 ♀ | 18.01 ♂ | 13.30 II | 0.00 ☽ | 16.70 ☽ | 11.99 ♀ | 0.00 ♁ | 18.01 ♀ | 13.30 ♀ | 0.00 ☾ | 16.70 ☾ | 11.99 ☽ |
| 275 | 3.80 ☾ | 68.27 Z | 9.58 ♀ | 23.80 ♂ | 17.82 II | 4.59 ☽ | 22.24 ☽ | 20.04 ♀ | 9.58 ♁ | 25.40 ♀ | 18.59 ♀ | 4.59 ☾ | 21.38 ☾ | 18.14 ☽ |
| 280 | 7.60 ☾ | 67.78 Z | 18.95 ♀ | 29.29 ♂ | 22.20 II | 9.19 ☽ | 28.04 ☽ | 28.76 ♀ | 18.95 ♁ | 2.19 ♀ | 23.68 ♀ | 9.19 ☾ | 26.25 ☾ | 24.67 ☽ |
| 285 | 11.40 ☾ | 66.99 Z | 27.92 ♀ | 4.51 II | 26.48 II | 13.81 ☽ | 4.13 ♀ | 8.08 ♀ | 27.92 ♁ | 8.45 ♀ | 28.59 ♀ | 13.81 ☾ | 1.31 ☽ | 1.61 ♀ |
| 290 | 15.19 ☾ | 65.93 Z | 6.37 ♂ | 9.52 II | 0.66 ☽ | 18.47 ☽ | 10.52 ♀ | 17.88 ♀ | 6.37 ♀ | 14.26 ♀ | 3.35 ☾ | 18.47 ☾ | 6.59 ☽ | 8.95 ♀ |
| 295 | 18.97 ☾ | 64.65 Z | 14.26 ♂ | 14.34 II | 4.79 ☽ | 23.16 ☽ | 17.22 ♀ | 27.92 ♀ | 14.26 ♀ | 19.69 ♀ | 8.00 ☾ | 23.16 ☾ | 12.08 ☽ | 16.63 ♀ |
| 300 | 22.75 ☾ | 63.17 Z | 21.57 ♂ | 19.01 II | 8.88 ☽ | 27.91 ☽ | 24.21 ♀ | 7.94 ♁ | 21.57 ♀ | 24.80 ♀ | 12.55 ☾ | 27.91 ☾ | 17.80 ☽ | 24.58 ♀ |
| 305 | 26.52 ☾ | 61.54 Z | 28.33 ♂ | 23.55 II | 12.95 ☽ | 2.72 ♀ | 1.46 ♀ | 17.67 ♁ | 28.33 ♀ | 29.66 ♀ | 17.03 ☾ | 2.72 ☽ | 23.74 ☽ | 2.70 ♀ |
| 310 | 0.29 ☽ | 59.79 Z | 4.61 II | 27.98 II | 17.01 ☽ | 7.59 ♀ | 8.91 ♀ | 26.92 ♁ | 4.61 ♀ | 4.31 ☾ | 21.46 ☾ | 7.59 ☽ | 29.89 ☽ | 10.86 ♀ |
| 315 | 4.05 ☽ | 57.96 Z | 10.46 II | 2.32 ☽ | 21.08 ☽ | 12.54 ♀ | 16.50 ♀ | 5.54 ♀ | 10.46 ♀ | 8.79 ☾ | 25.86 ☾ | 12.54 ☽ | 6.24 ♀ | 18.93 ♀ |
| 320 | 7.80 ☽ | 56.05 Z | 15.93 II | 6.57 ☽ | 25.17 ☽ | 17.55 ♀ | 24.13 ♀ | 13.50 ♀ | 15.93 ♀ | 13.13 ☾ | 0.23 ☽ | 17.55 ☽ | 12.75 ♀ | 26.80 ♀ |
| 325 | 11.56 ☽ | 54.10 Z | 21.09 II | 10.76 ☽ | 29.28 ☽ | 22.65 ♀ | 1.73 ♁ | 20.82 ♀ | 21.09 ♀ | 17.36 ☾ | 4.59 ☽ | 22.65 ☽ | 19.40 ♀ | 4.39 ♂ |
| 330 | 15.32 ☽ | 52.13 Z | 25.97 II | 14.90 ☽ | 3.43 ♀ | 27.82 ♀ | 9.19 ♁ | 27.53 ♀ | 25.97 ♀ | 21.50 ☾ | 8.95 ☽ | 27.82 ☽ | 26.14 ♀ | 11.63 ♂ |
| 335 | 19.08 ☽ | 50.14 Z | 0.63 ☽ | 18.99 ☽ | 7.62 ♀ | 3.06 ♀ | 16.46 ♁ | 3.71 ♀ | 0.63 ☾ | 25.57 ☾ | 13.31 ☽ | 3.06 ♀ | 2.92 ♀ | 18.52 ♂ |
| 340 | 22.87 ☽ | 48.16 Z | 5.11 ☽ | 23.05 ☽ | 11.85 ♀ | 8.36 ♀ | 23.46 ♁ | 9.43 ♀ | 5.11 ☾ | 29.58 ☾ | 17.68 ☽ | 8.36 ♀ | 9.71 ♀ | 25.04 ♂ |
| 345 | 26.67 ☽ | 46.18 Z | 9.42 ☽ | 27.08 ☽ | 16.12 ♀ | 13.72 ♀ | 0.18 ♀ | 14.76 ♀ | 9.42 ☾ | 3.55 ☽ | 22.07 ☽ | 13.72 ♀ | 16.44 ♀ | 1.21 II |
| 350 | 0.50 ♀ | 44.23 Z | 13.61 ☽ | 1.11 ♀ | 20.45 ♀ | 19.12 ♀ | 6.58 ♀ | 19.76 ♀ | 13.61 ☾ | 7.48 ☽ | 26.47 ☽ | 19.12 ♀ | 23.08 ♀ | 7.06 II |
| 355 | 4.38 ♀ | 42.32 Z | 17.69 ☽ | 5.12 ♀ | 24.83 ♀ | 24.55 ♀ | 12.68 ♀ | 24.48 ♀ | 17.69 ☾ | 11.39 ☽ | 0.88 ♀ | 24.55 ♀ | 29.58 ♀ | 12.61 II |
| 360 | 8.31 ♀ | 40.45 Z | 21.69 ☽ | 9.13 ♀ | 29.25 ♀ | 0.00 ♁ | 18.48 ♀ | 28.96 ♀ | 21.69 ☾ | 15.28 ☽ | 5.31 ♀ | 0.00 ♀ | 5.93 ♂ | 17.92 II |

49° NB

| α_z | λ_z | β_z | I | II | III | IV | V | VI | VII | VIII | IX | X | XI | XII |
|------------|-------------|-----------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0 | 10.93 𠄎 | 37.01 Z | 24.59 𠄎 | 10.59 𠄎 | 29.43 𠄎 | 0.00 𠄎 | 22.12 𠄎 | 3.34 𠄎 | 24.59 𠄎 | 17.13 𠄎 | 6.04 𠄎 | 0.00 𠄎 | 6.83 𠄎 | 20.79 𠄎 |
| 5 | 15.06 𠄎 | 35.15 Z | 28.35 𠄎 | 14.49 𠄎 | 3.83 𠄎 | 5.45 𠄎 | 27.53 𠄎 | 7.39 𠄎 | 28.35 𠄎 | 20.87 𠄎 | 10.38 𠄎 | 5.45 𠄎 | 13.16 𠄎 | 25.81 𠄎 |
| 10 | 19.28 𠄎 | 33.35 Z | 2.06 𠄎 | 18.41 𠄎 | 8.26 𠄎 | 10.88 𠄎 | 2.66 𠄎 | 11.28 𠄎 | 2.06 𠄎 | 24.59 𠄎 | 14.73 𠄎 | 10.88 𠄎 | 19.28 𠄎 | 0.63 𠄎 |
| 15 | 23.60 𠄎 | 31.62 Z | 5.74 𠄎 | 22.33 𠄎 | 12.74 𠄎 | 16.28 𠄎 | 7.55 𠄎 | 15.06 𠄎 | 5.74 𠄎 | 28.31 𠄎 | 19.08 𠄎 | 16.28 𠄎 | 25.18 𠄎 | 5.26 𠄎 |
| 20 | 28.05 𠄎 | 29.95 Z | 9.38 𠄎 | 26.27 𠄎 | 17.26 𠄎 | 21.64 𠄎 | 12.23 𠄎 | 18.74 𠄎 | 9.38 𠄎 | 2.01 𠄎 | 23.43 𠄎 | 21.64 𠄎 | 0.88 𠄎 | 9.76 𠄎 |
| 25 | 2.65 𠄎 | 28.36 Z | 13.01 𠄎 | 0.23 𠄎 | 21.81 𠄎 | 26.94 𠄎 | 16.73 𠄎 | 22.34 𠄎 | 13.01 𠄎 | 5.71 𠄎 | 27.77 𠄎 | 26.94 𠄎 | 6.40 𠄎 | 14.14 𠄎 |
| 30 | 7.43 𠄎 | 26.86 Z | 16.62 𠄎 | 4.20 𠄎 | 26.40 𠄎 | 2.18 𠄎 | 21.08 𠄎 | 25.88 𠄎 | 16.62 𠄎 | 9.41 𠄎 | 2.09 𠄎 | 2.18 𠄎 | 11.73 𠄎 | 18.42 𠄎 |
| 35 | 12.42 𠄎 | 25.45 Z | 20.22 𠄎 | 8.19 𠄎 | 1.00 𠄎 | 7.35 𠄎 | 25.30 𠄎 | 29.37 𠄎 | 20.22 𠄎 | 13.09 𠄎 | 6.40 𠄎 | 7.35 𠄎 | 16.91 𠄎 | 22.62 𠄎 |
| 40 | 17.67 𠄎 | 24.14 Z | 23.82 𠄎 | 12.20 𠄎 | 5.62 𠄎 | 12.45 𠄎 | 29.43 𠄎 | 2.83 𠄎 | 23.82 𠄎 | 16.77 𠄎 | 10.68 𠄎 | 12.45 𠄎 | 21.96 𠄎 | 26.77 𠄎 |
| 45 | 23.19 𠄎 | 22.93 Z | 27.42 𠄎 | 16.23 𠄎 | 10.25 𠄎 | 17.46 𠄎 | 3.46 𠄎 | 6.26 𠄎 | 27.42 𠄎 | 20.44 𠄎 | 14.93 𠄎 | 17.46 𠄎 | 26.88 𠄎 | 0.87 𠄎 |
| 50 | 29.05 𠄎 | 21.84 Z | 1.02 𠄎 | 20.27 𠄎 | 14.88 𠄎 | 22.41 𠄎 | 7.44 𠄎 | 9.68 𠄎 | 1.02 𠄎 | 24.10 𠄎 | 19.15 𠄎 | 22.41 𠄎 | 1.70 𠄎 | 4.94 𠄎 |
| 55 | 5.28 𠄎 | 20.86 Z | 4.62 𠄎 | 24.32 𠄎 | 19.51 𠄎 | 27.28 𠄎 | 11.36 𠄎 | 13.10 𠄎 | 4.62 𠄎 | 27.75 𠄎 | 23.34 𠄎 | 27.28 𠄎 | 6.44 𠄎 | 8.99 𠄎 |
| 60 | 11.91 𠄎 | 19.99 Z | 8.23 𠄎 | 28.38 𠄎 | 24.13 𠄎 | 2.09 𠄎 | 15.25 𠄎 | 16.51 𠄎 | 8.23 𠄎 | 1.38 𠄎 | 27.49 𠄎 | 2.09 𠄎 | 11.11 𠄎 | 13.02 𠄎 |
| 65 | 18.98 𠄎 | 19.26 Z | 11.85 𠄎 | 2.45 𠄎 | 28.74 𠄎 | 6.84 𠄎 | 19.11 𠄎 | 19.93 𠄎 | 11.85 𠄎 | 4.99 𠄎 | 1.59 𠄎 | 6.84 𠄎 | 15.72 𠄎 | 17.05 𠄎 |
| 70 | 26.48 𠄎 | 18.65 Z | 15.47 𠄎 | 6.52 𠄎 | 3.33 𠄎 | 11.53 𠄎 | 22.97 𠄎 | 23.36 𠄎 | 15.47 𠄎 | 8.59 𠄎 | 5.66 𠄎 | 11.53 𠄎 | 20.30 𠄎 | 21.07 𠄎 |
| 75 | 4.41 𠄎 | 18.18 Z | 19.10 𠄎 | 10.59 𠄎 | 7.91 𠄎 | 16.19 𠄎 | 26.82 𠄎 | 26.80 𠄎 | 19.10 𠄎 | 12.17 𠄎 | 9.69 𠄎 | 16.19 𠄎 | 24.85 𠄎 | 25.10 𠄎 |
| 80 | 12.71 𠄎 | 17.84 Z | 22.73 𠄎 | 14.66 𠄎 | 12.47 𠄎 | 20.81 𠄎 | 0.68 𠄎 | 0.25 𠄎 | 22.73 𠄎 | 15.72 𠄎 | 13.68 𠄎 | 20.81 𠄎 | 29.39 𠄎 | 29.14 𠄎 |
| 85 | 21.28 𠄎 | 17.63 Z | 26.36 𠄎 | 18.72 𠄎 | 17.02 𠄎 | 25.41 𠄎 | 4.55 𠄎 | 3.73 𠄎 | 26.36 𠄎 | 19.26 𠄎 | 17.63 𠄎 | 25.41 𠄎 | 3.92 𠄎 | 3.18 𠄎 |
| 90 | 0.00 𠄎 | 17.56 Z | 0.00 𠄎 | 22.78 𠄎 | 21.55 𠄎 | 0.00 𠄎 | 8.45 𠄎 | 7.22 𠄎 | 0.00 𠄎 | 22.78 𠄎 | 21.55 𠄎 | 0.00 𠄎 | 8.45 𠄎 | 7.22 𠄎 |
| 95 | 8.72 𠄎 | 17.63 Z | 3.64 𠄎 | 26.82 𠄎 | 26.08 𠄎 | 4.59 𠄎 | 12.37 𠄎 | 10.74 𠄎 | 3.64 𠄎 | 26.27 𠄎 | 25.45 𠄎 | 4.59 𠄎 | 12.98 𠄎 | 11.28 𠄎 |
| 100 | 17.29 𠄎 | 17.84 Z | 7.27 𠄎 | 0.86 𠄎 | 0.61 𠄎 | 9.19 𠄎 | 16.32 𠄎 | 14.28 𠄎 | 7.27 𠄎 | 29.75 𠄎 | 29.32 𠄎 | 9.19 𠄎 | 17.53 𠄎 | 15.34 𠄎 |
| 105 | 25.59 𠄎 | 18.18 Z | 10.90 𠄎 | 4.90 𠄎 | 5.15 𠄎 | 13.81 𠄎 | 20.31 𠄎 | 17.83 𠄎 | 10.90 𠄎 | 3.20 𠄎 | 3.18 𠄎 | 13.81 𠄎 | 22.09 𠄎 | 19.41 𠄎 |
| 110 | 3.52 𠄎 | 18.65 Z | 14.53 𠄎 | 8.93 𠄎 | 9.70 𠄎 | 18.47 𠄎 | 24.34 𠄎 | 21.41 𠄎 | 14.53 𠄎 | 6.64 𠄎 | 7.03 𠄎 | 18.47 𠄎 | 26.67 𠄎 | 23.48 𠄎 |
| 115 | 11.02 𠄎 | 19.26 Z | 18.15 𠄎 | 12.95 𠄎 | 14.28 𠄎 | 23.16 𠄎 | 28.41 𠄎 | 25.01 𠄎 | 18.15 𠄎 | 10.07 𠄎 | 10.89 𠄎 | 23.16 𠄎 | 1.26 𠄎 | 27.55 𠄎 |
| 120 | 18.09 𠄎 | 19.99 Z | 21.77 𠄎 | 16.98 𠄎 | 18.89 𠄎 | 27.91 𠄎 | 2.51 𠄎 | 28.62 𠄎 | 21.77 𠄎 | 13.49 𠄎 | 14.75 𠄎 | 27.91 𠄎 | 5.87 𠄎 | 1.62 𠄎 |
| 125 | 24.72 𠄎 | 20.86 Z | 25.38 𠄎 | 21.01 𠄎 | 23.56 𠄎 | 2.72 𠄎 | 6.66 𠄎 | 2.25 𠄎 | 25.38 𠄎 | 16.90 𠄎 | 18.64 𠄎 | 2.72 𠄎 | 10.49 𠄎 | 5.68 𠄎 |
| 130 | 0.95 𠄎 | 21.84 Z | 28.98 𠄎 | 25.06 𠄎 | 28.30 𠄎 | 7.59 𠄎 | 10.85 𠄎 | 5.90 𠄎 | 28.98 𠄎 | 20.32 𠄎 | 22.56 𠄎 | 7.59 𠄎 | 15.12 𠄎 | 9.73 𠄎 |
| 135 | 6.81 𠄎 | 22.93 Z | 2.58 𠄎 | 29.13 𠄎 | 3.12 𠄎 | 12.54 𠄎 | 15.07 𠄎 | 9.56 𠄎 | 2.58 𠄎 | 23.74 𠄎 | 26.54 𠄎 | 12.54 𠄎 | 19.75 𠄎 | 13.77 𠄎 |
| 140 | 12.33 𠄎 | 24.14 Z | 6.18 𠄎 | 3.23 𠄎 | 8.04 𠄎 | 17.55 𠄎 | 19.32 𠄎 | 13.23 𠄎 | 6.18 𠄎 | 27.17 𠄎 | 0.57 𠄎 | 17.55 𠄎 | 24.38 𠄎 | 17.80 𠄎 |
| 145 | 17.58 𠄎 | 25.45 Z | 9.78 𠄎 | 7.38 𠄎 | 13.09 𠄎 | 22.65 𠄎 | 23.60 𠄎 | 16.91 𠄎 | 9.78 𠄎 | 0.63 𠄎 | 4.70 𠄎 | 22.65 𠄎 | 29.00 𠄎 | 21.81 𠄎 |
| 150 | 22.57 𠄎 | 26.86 Z | 13.38 𠄎 | 11.58 𠄎 | 18.27 𠄎 | 27.82 𠄎 | 27.91 𠄎 | 20.59 𠄎 | 13.38 𠄎 | 4.12 𠄎 | 8.92 𠄎 | 27.82 𠄎 | 3.60 𠄎 | 25.80 𠄎 |
| 155 | 27.35 𠄎 | 28.36 Z | 16.99 𠄎 | 15.86 𠄎 | 23.60 𠄎 | 3.06 𠄎 | 2.23 𠄎 | 24.29 𠄎 | 16.99 𠄎 | 7.66 𠄎 | 13.27 𠄎 | 3.06 𠄎 | 8.19 𠄎 | 29.77 𠄎 |
| 160 | 1.95 𠄎 | 29.95 Z | 20.62 𠄎 | 20.24 𠄎 | 29.12 𠄎 | 8.36 𠄎 | 6.57 𠄎 | 27.99 𠄎 | 20.62 𠄎 | 11.26 𠄎 | 17.77 𠄎 | 8.36 𠄎 | 12.74 𠄎 | 3.73 𠄎 |
| 165 | 6.40 𠄎 | 31.62 Z | 24.26 𠄎 | 24.74 𠄎 | 4.82 𠄎 | 13.72 𠄎 | 10.92 𠄎 | 1.69 𠄎 | 24.26 𠄎 | 14.94 𠄎 | 22.45 𠄎 | 13.72 𠄎 | 17.26 𠄎 | 7.67 𠄎 |
| 170 | 10.72 𠄎 | 33.35 Z | 27.94 𠄎 | 29.37 𠄎 | 10.72 𠄎 | 19.12 𠄎 | 15.27 𠄎 | 5.41 𠄎 | 27.94 𠄎 | 18.72 𠄎 | 27.34 𠄎 | 19.12 𠄎 | 21.74 𠄎 | 11.59 𠄎 |
| 175 | 14.94 𠄎 | 35.15 Z | 1.65 𠄎 | 4.19 𠄎 | 16.84 𠄎 | 24.55 𠄎 | 19.62 𠄎 | 9.13 𠄎 | 1.65 𠄎 | 22.61 𠄎 | 2.47 𠄎 | 24.55 𠄎 | 26.17 𠄎 | 15.51 𠄎 |
| 180 | 19.07 𠄎 | 37.01 Z | 5.41 𠄎 | 9.21 𠄎 | 23.17 𠄎 | 0.00 𠄎 | 23.96 𠄎 | 12.87 𠄎 | 5.41 𠄎 | 26.66 𠄎 | 7.88 𠄎 | 0.00 𠄎 | 0.57 𠄎 | 19.41 𠄎 |

49° NB

| α_z | λ_z | β_z | I | II | III | IV | V | VI | VII | VIII | IX | X | XI | XII |
|------------|-------------|-----------|----------|----------|----------|----------|----------|----------|----------|---------|---------|---------|---------|----------|
| 185 | 23.14 ♁ | 38.91 Z | 9.24 ♀ | 14.47 ☾ | 29.69 ☿ | 5.45 ♀ | 28.29 ♀ | 16.62 ♂ | 9.24 II | 0.89 ☾ | 13.61 ♀ | 5.45 ♁ | 4.91 ♀ | 23.31 ♀ |
| 190 | 27.15 ♁ | 40.85 Z | 13.15 ♀ | 20.03 ☾ | 6.41 ♀ | 10.88 ♀ | 2.62 ♂ | 20.39 ♂ | 13.15 II | 5.35 ☾ | 19.67 ♀ | 10.88 ♁ | 9.20 ♀ | 27.21 ♀ |
| 195 | 1.12 ♀ | 42.81 Z | 17.16 ♀ | 25.93 ☾ | 13.27 ♀ | 16.28 ♀ | 6.93 ♂ | 24.19 ♂ | 17.16 II | 10.08 ☾ | 26.12 ♀ | 16.28 ♁ | 13.45 ♀ | 1.13 ♀ |
| 200 | 5.07 ♀ | 44.80 Z | 21.30 ♀ | 2.21 ☿ | 20.25 ♀ | 21.64 ♀ | 11.23 ♂ | 28.02 ♂ | 21.30 II | 15.15 ☾ | 2.95 ♀ | 21.64 ♁ | 17.65 ♀ | 5.06 ♀ |
| 205 | 8.99 ♀ | 46.79 Z | 25.59 ♀ | 8.92 ☿ | 27.29 ♀ | 26.94 ♀ | 15.52 ♂ | 1.90 II | 25.59 II | 20.64 ☾ | 10.16 ♀ | 26.94 ♁ | 21.80 ♀ | 9.01 ♀ |
| 210 | 12.89 ♀ | 48.77 Z | 0.08 ☾ | 16.09 ☿ | 4.33 ♀ | 2.18 ♂ | 19.81 ♂ | 5.83 II | 0.08 ☾ | 26.63 ☾ | 17.74 ♀ | 2.18 ♀ | 25.91 ♀ | 13.00 ♀ |
| 215 | 16.79 ♀ | 50.72 Z | 4.79 ☾ | 23.74 ☿ | 11.32 ♀ | 7.35 ♂ | 24.09 ♂ | 9.82 II | 4.79 ☾ | 3.24 ♀ | 25.62 ♀ | 7.35 ♀ | 29.99 ♀ | 17.04 ♀ |
| 220 | 20.69 ♀ | 52.64 Z | 9.79 ☾ | 1.85 ♀ | 18.21 ♀ | 12.45 ♂ | 28.38 ♂ | 13.91 II | 9.79 ☾ | 10.57 ♀ | 3.71 ♁ | 12.45 ♀ | 4.02 ♀ | 21.13 ♀ |
| 225 | 24.59 ♀ | 54.51 Z | 15.13 ☾ | 10.36 ♀ | 24.94 ♀ | 17.46 ♂ | 2.68 II | 18.10 II | 15.13 ☾ | 18.73 ♀ | 11.91 ♁ | 17.46 ♀ | 8.03 ♀ | 25.28 ♀ |
| 230 | 28.49 ♀ | 56.29 Z | 20.88 ☾ | 19.15 ♀ | 1.48 ♂ | 22.41 ♂ | 7.00 II | 22.43 II | 20.88 ☾ | 27.82 ♀ | 20.09 ♁ | 22.41 ♀ | 12.01 ♀ | 29.52 ♀ |
| 235 | 2.40 ♀ | 57.98 Z | 27.14 ☾ | 28.07 ♀ | 7.80 ♂ | 27.28 ♂ | 11.36 II | 26.92 II | 27.14 ☾ | 7.85 ♀ | 28.13 ♁ | 27.28 ♀ | 15.98 ♀ | 3.85 ☾ |
| 240 | 6.32 ♀ | 59.53 Z | 3.98 ☿ | 6.93 ♀ | 13.87 ♂ | 2.09 II | 15.77 II | 1.63 ☾ | 3.98 ♀ | 18.70 ♀ | 5.92 ♀ | 2.09 ♀ | 19.95 ♀ | 8.28 ☾ |
| 245 | 10.25 ♀ | 60.93 Z | 11.50 ☿ | 15.55 ♀ | 19.70 ♂ | 6.84 II | 20.26 II | 6.60 ☾ | 11.50 ♀ | 0.09 ♁ | 13.39 ♀ | 6.84 ♀ | 23.93 ♀ | 12.83 ☾ |
| 250 | 14.19 ♀ | 62.13 Z | 19.79 ☿ | 23.78 ♀ | 25.27 ♂ | 11.53 II | 24.85 II | 11.91 ☾ | 19.79 ♀ | 11.61 ♁ | 20.50 ♀ | 11.53 ♀ | 27.93 ♀ | 17.53 ☾ |
| 255 | 18.14 ♀ | 63.11 Z | 28.88 ☿ | 1.50 ♂ | 0.59 II | 16.19 II | 29.56 II | 17.65 ☾ | 28.88 ♀ | 22.79 ♁ | 27.21 ♀ | 16.19 ♀ | 2.00 ☾ | 22.39 ☾ |
| 260 | 22.09 ♀ | 63.84 Z | 8.72 ♀ | 8.68 ♂ | 5.66 II | 20.81 II | 4.45 ☾ | 23.91 ☾ | 8.72 ♀ | 3.28 ♀ | 3.54 ♀ | 20.81 ♀ | 6.16 ☾ | 27.47 ☾ |
| 265 | 26.04 ♀ | 64.29 Z | 19.19 ♀ | 15.32 ♂ | 10.50 II | 25.41 II | 9.53 ☾ | 0.83 ♀ | 19.19 ♀ | 12.85 ♀ | 9.50 ♀ | 25.41 ♀ | 10.43 ☾ | 2.83 ☿ |
| 270 | 0.00 ☾ | 64.44 Z | 0.00 ♀ | 21.46 ♂ | 15.13 II | 0.00 ☾ | 14.87 ☾ | 8.54 ♀ | 0.00 ♁ | 21.46 ♀ | 15.13 ♀ | 0.00 ☾ | 14.87 ☾ | 8.54 ☿ |
| 275 | 3.96 ☾ | 64.29 Z | 10.81 ♀ | 27.17 ♂ | 19.57 II | 4.59 ☾ | 20.50 ☾ | 17.15 ♀ | 10.81 ♁ | 29.17 ♀ | 20.47 ♀ | 4.59 ☾ | 19.50 ☾ | 14.68 ☿ |
| 280 | 7.91 ☾ | 63.84 Z | 21.28 ♀ | 2.53 II | 23.84 II | 9.19 ☾ | 26.46 ☾ | 26.72 ♀ | 21.28 ♁ | 6.09 ♀ | 25.55 ♀ | 9.19 ☾ | 24.34 ☾ | 21.32 ☿ |
| 285 | 11.86 ☾ | 63.11 Z | 1.12 ♂ | 7.61 II | 28.00 II | 13.81 ☾ | 2.79 ♀ | 7.21 ♀ | 1.12 ♀ | 12.35 ♀ | 0.44 ☾ | 13.81 ☾ | 29.41 ☾ | 28.50 ☿ |
| 290 | 15.81 ☾ | 62.13 Z | 10.21 ♂ | 12.47 II | 2.07 ☾ | 18.47 ☾ | 9.50 ♀ | 18.39 ♀ | 10.21 ♀ | 18.09 ♀ | 5.15 ☾ | 18.47 ☾ | 4.73 ☿ | 6.22 ♀ |
| 295 | 19.75 ☾ | 60.93 Z | 18.50 ♂ | 17.17 II | 6.07 ☾ | 23.16 ☾ | 16.61 ♀ | 29.91 ♀ | 18.50 ♀ | 23.40 ♀ | 9.74 ☾ | 23.16 ☾ | 10.30 ☿ | 14.45 ♀ |
| 300 | 23.68 ☾ | 59.53 Z | 26.02 ♂ | 21.72 II | 10.05 ☾ | 27.91 ☾ | 24.08 ♀ | 11.30 ♁ | 26.02 ♀ | 28.37 ♀ | 14.23 ☾ | 27.91 ☾ | 16.13 ☿ | 23.07 ♀ |
| 305 | 27.60 ☾ | 57.98 Z | 2.86 II | 26.15 II | 14.02 ☾ | 2.72 ♀ | 1.87 ♀ | 22.15 ♁ | 2.86 ♀ | 3.08 ☾ | 18.64 ☾ | 2.72 ☿ | 22.20 ☿ | 1.93 ♀ |
| 310 | 1.51 ☿ | 56.29 Z | 9.12 II | 0.48 ☾ | 17.99 ☾ | 7.59 ♀ | 9.91 ♀ | 2.18 ♀ | 9.12 ♀ | 7.57 ☾ | 23.00 ☾ | 7.59 ☿ | 28.52 ☿ | 10.85 ♀ |
| 315 | 5.41 ☿ | 54.51 Z | 14.87 II | 4.72 ☾ | 21.97 ☾ | 12.54 ♀ | 18.09 ♀ | 11.27 ♀ | 14.87 ♀ | 11.90 ☾ | 27.32 ☾ | 12.54 ☿ | 5.06 ♀ | 19.64 ♀ |
| 320 | 9.31 ☿ | 52.64 Z | 20.21 II | 8.87 ☾ | 25.98 ☾ | 17.55 ♀ | 26.29 ♀ | 19.43 ♀ | 20.21 ♀ | 16.09 ☾ | 1.62 ☿ | 17.55 ☿ | 11.79 ♀ | 28.15 ♀ |
| 325 | 13.21 ☿ | 50.72 Z | 25.21 II | 12.96 ☾ | 0.01 ♀ | 22.65 ♀ | 4.38 ♁ | 26.76 ♀ | 25.21 ♀ | 20.18 ☾ | 5.91 ☿ | 22.65 ☿ | 18.68 ♀ | 6.26 ♂ |
| 330 | 17.11 ☿ | 48.77 Z | 29.92 II | 17.00 ☾ | 4.09 ♀ | 27.82 ♀ | 12.26 ♁ | 3.37 ♀ | 29.92 ♀ | 24.17 ☾ | 10.19 ☿ | 27.82 ☿ | 25.67 ♀ | 13.91 ♂ |
| 335 | 21.01 ☿ | 46.79 Z | 4.41 ☾ | 20.99 ☾ | 8.20 ♀ | 3.06 ♀ | 19.84 ♁ | 9.36 ♀ | 4.41 ☾ | 28.10 ☾ | 14.48 ☿ | 3.06 ♀ | 2.71 ♀ | 21.08 ♂ |
| 340 | 24.93 ☿ | 44.80 Z | 8.70 ☾ | 24.94 ☾ | 12.35 ♀ | 8.36 ♀ | 27.05 ♁ | 14.85 ♀ | 8.70 ☾ | 1.98 ☿ | 18.77 ☿ | 8.36 ♀ | 9.75 ♀ | 27.79 ♂ |
| 345 | 28.88 ☿ | 42.81 Z | 12.84 ☾ | 28.87 ☾ | 16.55 ♀ | 13.72 ♀ | 3.88 ♀ | 19.92 ♀ | 12.84 ☾ | 5.81 ☿ | 23.07 ☿ | 13.72 ♀ | 16.73 ♀ | 4.07 II |
| 350 | 2.85 ♀ | 40.85 Z | 16.85 ☾ | 2.79 ♀ | 20.80 ♀ | 19.12 ♀ | 10.33 ♀ | 24.65 ♀ | 16.85 ☾ | 9.61 ☿ | 27.38 ☿ | 19.12 ♀ | 23.59 ♀ | 9.97 II |
| 355 | 6.86 ♀ | 38.91 Z | 20.76 ☾ | 6.69 ♀ | 25.09 ♀ | 24.55 ♀ | 16.39 ♀ | 29.11 ♀ | 20.76 ☾ | 13.38 ☿ | 1.71 ♀ | 24.55 ♀ | 0.31 ♂ | 15.53 II |
| 360 | 10.93 ♀ | 37.01 Z | 24.59 ☾ | 10.59 ♀ | 29.43 ♀ | 0.00 ♁ | 22.12 ♀ | 3.34 ☾ | 24.59 ☾ | 17.13 ☿ | 6.04 ♀ | 0.00 ♀ | 6.83 ♂ | 20.79 II |

50° NB

| α_z | λ_z | β_z | I | II | III | IV | V | VI | VII | VIII | IX | X | XI | XII |
|------------|-------------|-----------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0 | 11.54 ㄸ | 36.14 Z | 25.36 ㊄ | 10.98 ㊀ | 29.49 ㊀ | 0.00 ㊄ | 23.18 ㊀ | 4.54 ㊄ | 25.36 ㊄ | 17.61 ㊄ | 6.23 ㄸ | 0.00 ㄿ | 7.10 ㄿ | 21.61 ㄿ |
| 5 | 15.71 ㄸ | 34.28 Z | 29.08 ㊄ | 14.85 ㊀ | 3.85 ㄿ | 5.45 ㊄ | 28.55 ㊀ | 8.51 ㊄ | 29.08 ㊄ | 21.31 ㊄ | 10.55 ㄸ | 5.45 ㄿ | 13.47 ㄿ | 26.60 ㄿ |
| 10 | 19.95 ㄸ | 32.47 Z | 2.75 ㊀ | 18.73 ㊀ | 8.27 ㄿ | 10.88 ㊄ | 3.63 ㄿ | 12.34 ㊄ | 2.75 ㊄ | 25.00 ㊄ | 14.87 ㄸ | 10.88 ㄿ | 19.62 ㄿ | 1.39 ㊄ |
| 15 | 24.31 ㄸ | 30.72 Z | 6.38 ㊀ | 22.63 ㊀ | 12.72 ㄿ | 16.28 ㊄ | 8.47 ㄿ | 16.05 ㊄ | 6.38 ㊄ | 28.68 ㊄ | 19.19 ㄸ | 16.28 ㄿ | 25.55 ㄿ | 6.00 ㊄ |
| 20 | 28.78 ㄸ | 29.05 Z | 9.98 ㊀ | 26.53 ㊀ | 17.22 ㄿ | 21.64 ㊄ | 13.10 ㄿ | 19.66 ㊄ | 9.98 ㊄ | 2.35 ㄸ | 23.51 ㄸ | 21.64 ㄿ | 1.27 ㄿ | 10.46 ㊄ |
| 25 | 3.41 ㄿ | 27.45 Z | 13.56 ㊀ | 0.45 ㄿ | 21.75 ㄿ | 26.94 ㊄ | 17.55 ㄿ | 23.20 ㊄ | 13.56 ㊄ | 6.01 ㄸ | 27.82 ㄸ | 26.94 ㄿ | 6.79 ㄿ | 14.81 ㊄ |
| 30 | 8.21 ㄿ | 25.94 Z | 17.13 ㊀ | 4.39 ㄿ | 26.30 ㄿ | 2.18 ㊀ | 21.86 ㄿ | 26.69 ㊄ | 17.13 ㊄ | 9.67 ㄸ | 2.11 ㄿ | 2.18 ㄿ | 12.14 ㄿ | 19.06 ㊄ |
| 35 | 13.22 ㄿ | 24.52 Z | 20.69 ㊀ | 8.35 ㄿ | 0.88 ㊄ | 7.35 ㊀ | 26.04 ㄿ | 0.12 ㊄ | 20.69 ㊄ | 13.32 ㄸ | 6.39 ㄿ | 7.35 ㄿ | 17.32 ㄿ | 23.23 ㊄ |
| 40 | 18.48 ㄿ | 23.20 Z | 24.24 ㊀ | 12.32 ㄿ | 5.48 ㊄ | 12.45 ㊀ | 0.11 ㊄ | 3.53 ㊄ | 24.24 ㊄ | 16.95 ㄸ | 10.64 ㄿ | 12.45 ㄿ | 22.37 ㄿ | 27.35 ㊄ |
| 45 | 24.01 ㄿ | 21.98 Z | 27.80 ㊀ | 16.31 ㄿ | 10.08 ㊄ | 17.46 ㊀ | 4.11 ㊄ | 6.92 ㊄ | 27.80 ㊄ | 20.58 ㄸ | 14.87 ㄿ | 17.46 ㄿ | 27.29 ㄿ | 1.42 ㊀ |
| 50 | 29.86 ㄿ | 20.87 Z | 1.36 ㄿ | 20.32 ㄿ | 14.69 ㊄ | 22.41 ㊀ | 8.04 ㊄ | 10.29 ㊄ | 1.36 ㄸ | 24.20 ㄸ | 19.06 ㄿ | 22.41 ㄿ | 2.11 ㊄ | 5.45 ㊀ |
| 55 | 6.07 ㄿ | 19.89 Z | 4.92 ㄿ | 24.33 ㄿ | 19.30 ㊄ | 27.28 ㊀ | 11.93 ㊄ | 13.65 ㊄ | 4.92 ㄸ | 27.80 ㄸ | 23.21 ㄿ | 27.28 ㄿ | 6.84 ㊄ | 9.47 ㊀ |
| 60 | 12.66 ㄿ | 19.02 Z | 8.49 ㄿ | 28.36 ㄿ | 23.90 ㊄ | 2.09 ㄿ | 15.78 ㊄ | 17.02 ㊄ | 8.49 ㄸ | 1.39 ㄿ | 27.33 ㄿ | 2.09 ㄿ | 11.50 ㊄ | 13.47 ㊀ |
| 65 | 19.67 ㄿ | 18.28 Z | 12.06 ㄿ | 2.39 ㊄ | 28.49 ㊄ | 6.84 ㄿ | 19.61 ㊄ | 20.39 ㊄ | 12.06 ㄸ | 4.96 ㄿ | 1.41 ㄿ | 6.84 ㄿ | 16.11 ㊄ | 17.46 ㊀ |
| 70 | 27.08 ㄿ | 17.66 Z | 15.64 ㄿ | 6.42 ㊄ | 3.06 ㊀ | 11.53 ㄿ | 23.43 ㊄ | 23.78 ㊄ | 15.64 ㄸ | 8.52 ㄿ | 5.45 ㄿ | 11.53 ㄿ | 20.68 ㊄ | 21.46 ㊀ |
| 75 | 4.90 ㄿ | 17.18 Z | 19.23 ㄿ | 10.46 ㊄ | 7.62 ㊀ | 16.19 ㄿ | 27.25 ㊄ | 27.17 ㊄ | 19.23 ㄸ | 12.05 ㄿ | 9.45 ㄿ | 16.19 ㄿ | 25.22 ㊄ | 25.45 ㊀ |
| 80 | 13.05 ㄿ | 16.84 Z | 22.82 ㄿ | 14.49 ㊄ | 12.17 ㊀ | 20.81 ㄿ | 1.07 ㊄ | 0.58 ㄸ | 22.82 ㄸ | 15.57 ㄿ | 13.41 ㄿ | 20.81 ㄿ | 29.75 ㊄ | 29.45 ㊀ |
| 85 | 21.46 ㄿ | 16.63 Z | 26.41 ㄿ | 18.51 ㊄ | 16.70 ㊀ | 25.41 ㄿ | 4.91 ㊄ | 4.02 ㄸ | 26.41 ㄸ | 19.06 ㄿ | 17.33 ㄿ | 25.41 ㄿ | 4.26 ㊀ | 3.45 ㄿ |
| 90 | 0.00 ㊄ | 16.56 Z | 0.00 ㊄ | 22.53 ㊄ | 21.22 ㊀ | 0.00 ㊄ | 8.78 ㊄ | 7.47 ㄸ | 0.00 ㄿ | 22.53 ㄿ | 21.22 ㄿ | 0.00 ㊄ | 8.78 ㊀ | 7.47 ㄿ |
| 95 | 8.54 ㊄ | 16.63 Z | 3.59 ㊄ | 26.55 ㊄ | 25.74 ㊀ | 4.59 ㊄ | 12.67 ㊄ | 10.94 ㄸ | 3.59 ㄿ | 25.98 ㄿ | 25.09 ㄿ | 4.59 ㊄ | 13.30 ㊀ | 11.49 ㄿ |
| 100 | 16.95 ㊄ | 16.84 Z | 7.18 ㊄ | 0.55 ㊀ | 0.25 ㄿ | 9.19 ㊄ | 16.59 ㊄ | 14.43 ㄸ | 7.18 ㄿ | 29.42 ㄿ | 28.93 ㄿ | 9.19 ㊄ | 17.83 ㊀ | 15.51 ㄿ |
| 105 | 25.10 ㊄ | 17.18 Z | 10.77 ㊄ | 4.55 ㊀ | 4.78 ㄿ | 13.81 ㊄ | 20.55 ㊄ | 17.95 ㄸ | 10.77 ㄿ | 2.83 ㄿ | 2.75 ㄿ | 13.81 ㊄ | 22.38 ㊀ | 19.54 ㄿ |
| 110 | 2.92 ㊀ | 17.66 Z | 14.36 ㊄ | 8.54 ㊀ | 9.32 ㄿ | 18.47 ㊄ | 24.55 ㊄ | 21.48 ㄸ | 14.36 ㄿ | 6.22 ㄿ | 6.57 ㄿ | 18.47 ㊄ | 26.94 ㊀ | 23.58 ㄿ |
| 115 | 10.33 ㊀ | 18.28 Z | 17.94 ㊄ | 12.54 ㊀ | 13.89 ㄿ | 23.16 ㊄ | 28.59 ㊄ | 25.04 ㄸ | 17.94 ㄿ | 9.61 ㄿ | 10.39 ㄿ | 23.16 ㊄ | 1.51 ㄿ | 27.61 ㄿ |
| 120 | 17.34 ㊀ | 19.02 Z | 21.51 ㊄ | 16.53 ㊀ | 18.50 ㄿ | 27.91 ㊄ | 2.67 ㄸ | 28.61 ㄸ | 21.51 ㄿ | 12.98 ㄿ | 14.22 ㄿ | 27.91 ㊄ | 6.10 ㄿ | 1.64 ㊄ |
| 125 | 23.93 ㊀ | 19.89 Z | 25.08 ㊄ | 20.53 ㊀ | 23.16 ㄿ | 2.72 ㊄ | 6.79 ㄸ | 2.20 ㄿ | 25.08 ㄿ | 16.35 ㄿ | 18.07 ㄿ | 2.72 ㊀ | 10.70 ㄿ | 5.67 ㊄ |
| 130 | 0.14 ㄿ | 20.87 Z | 28.64 ㊄ | 24.55 ㊀ | 27.89 ㄿ | 7.59 ㊄ | 10.94 ㄸ | 5.80 ㄿ | 28.64 ㄿ | 19.71 ㄿ | 21.96 ㄿ | 7.59 ㊀ | 15.31 ㄿ | 9.68 ㊄ |
| 135 | 5.99 ㄿ | 21.98 Z | 2.20 ㊀ | 28.58 ㊀ | 2.71 ㊄ | 12.54 ㊄ | 15.13 ㄸ | 9.42 ㄿ | 2.20 ㄿ | 23.08 ㄿ | 25.89 ㄿ | 12.54 ㊀ | 19.92 ㄿ | 13.69 ㊄ |
| 140 | 11.52 ㄿ | 23.20 Z | 5.76 ㊀ | 2.65 ㄿ | 7.63 ㊄ | 17.55 ㊄ | 19.36 ㄸ | 13.05 ㄿ | 5.76 ㄿ | 26.47 ㄿ | 29.89 ㄿ | 17.55 ㊀ | 24.52 ㄿ | 17.68 ㊄ |
| 145 | 16.78 ㄿ | 24.52 Z | 9.31 ㊀ | 6.77 ㄿ | 12.68 ㊄ | 22.65 ㊄ | 23.61 ㄸ | 16.68 ㄿ | 9.31 ㄿ | 29.88 ㄿ | 3.96 ㊄ | 22.65 ㊀ | 29.12 ㄿ | 21.65 ㊄ |
| 150 | 21.79 ㄿ | 25.94 Z | 12.87 ㊀ | 10.94 ㄿ | 17.86 ㊄ | 27.82 ㊄ | 27.89 ㄸ | 20.33 ㄿ | 12.87 ㄿ | 3.31 ㄿ | 8.14 ㊄ | 27.82 ㊀ | 3.70 ㊄ | 25.61 ㊄ |
| 155 | 26.59 ㄿ | 27.45 Z | 16.44 ㊀ | 15.19 ㄿ | 23.21 ㊄ | 3.06 ㄸ | 2.18 ㄿ | 23.99 ㄿ | 16.44 ㄿ | 6.80 ㄿ | 12.45 ㊄ | 3.06 ㄿ | 8.25 ㊄ | 29.55 ㊄ |
| 160 | 1.22 ㊄ | 29.05 Z | 20.02 ㊀ | 19.54 ㄿ | 28.73 ㊄ | 8.36 ㄸ | 6.49 ㄿ | 27.65 ㄿ | 20.02 ㄿ | 10.34 ㄿ | 16.90 ㊄ | 8.36 ㄿ | 12.78 ㊄ | 3.47 ㊀ |
| 165 | 5.69 ㊄ | 30.72 Z | 23.62 ㊀ | 24.00 ㄿ | 4.45 ㊄ | 13.72 ㄸ | 10.81 ㄿ | 1.32 ㄿ | 23.62 ㄿ | 13.95 ㄿ | 21.53 ㊄ | 13.72 ㄿ | 17.28 ㊄ | 7.37 ㊀ |
| 170 | 10.05 ㊄ | 32.47 Z | 27.25 ㊀ | 28.61 ㄿ | 10.38 ㊄ | 19.12 ㄸ | 15.13 ㄿ | 5.00 ㄿ | 27.25 ㄿ | 17.66 ㄿ | 26.37 ㊄ | 19.12 ㄿ | 21.73 ㊄ | 11.27 ㊀ |
| 175 | 14.29 ㊄ | 34.28 Z | 0.92 ㄿ | 3.40 ㊄ | 16.53 ㊄ | 24.55 ㄸ | 19.45 ㄿ | 8.69 ㄿ | 0.92 ㄿ | 21.49 ㄿ | 1.45 ㊀ | 24.55 ㄿ | 26.15 ㊄ | 15.15 ㊀ |
| 180 | 18.46 ㊄ | 36.14 Z | 4.64 ㄿ | 8.39 ㊄ | 22.90 ㊄ | 0.00 ㄿ | 23.77 ㄿ | 12.39 ㄿ | 4.64 ㄿ | 25.46 ㄿ | 6.82 ㊀ | 0.00 ㊄ | 0.51 ㊀ | 19.02 ㊀ |

50° NB

| α_z | λ_z | β_z | I | II | III | IV | V | VI | VII | VIII | IX | X | XI | XII |
|------------|-------------|-----------|----------|----------|----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| 185 | 22.55 ♁ | 38.05 Z | 8.42 ♀ | 13.65 ♂ | 29.48 ≍ | 5.45 ♀ | 28.08 ♀ | 16.10 ♂ | 8.42 II | 29.62 II | 12.51 ♀ | 5.45 ♁ | 4.84 III | 22.89 III |
| 190 | 26.60 ♁ | 39.99 Z | 12.28 ♀ | 19.20 ♂ | 6.25 ♀ | 10.88 ♀ | 2.38 ♂ | 19.84 ♂ | 12.28 II | 3.99 ♁ | 18.55 ♀ | 10.88 ♁ | 9.11 III | 26.76 III |
| 195 | 0.60 III | 41.96 Z | 16.24 ♀ | 25.10 ♂ | 13.18 ♀ | 16.28 ♀ | 6.67 ♂ | 23.60 ♂ | 16.24 II | 8.64 ♁ | 24.99 ♀ | 16.28 ♁ | 13.33 III | 0.64 ♀ |
| 200 | 4.57 III | 43.94 Z | 20.32 ♀ | 1.40 ≍ | 20.22 ♀ | 21.64 ♀ | 10.95 ♂ | 27.39 ♂ | 20.32 II | 13.63 ♁ | 1.84 III | 21.64 ♁ | 17.51 III | 4.54 ♀ |
| 205 | 8.52 III | 45.93 Z | 24.56 ♀ | 8.16 ≍ | 27.33 ♀ | 26.94 ♀ | 15.22 ♂ | 1.23 II | 24.56 II | 19.03 ♁ | 9.10 III | 26.94 ♁ | 21.65 III | 8.46 ♀ |
| 210 | 12.46 III | 47.91 Z | 28.99 ♀ | 15.40 ≍ | 4.45 ♀ | 2.18 ♂ | 19.48 ♂ | 5.12 II | 28.99 II | 24.95 ♁ | 16.75 III | 2.18 III | 25.74 III | 12.43 ♀ |
| 215 | 16.39 III | 49.86 Z | 3.65 ♂ | 23.17 ≍ | 11.52 ♀ | 7.35 ♂ | 23.74 ♂ | 9.08 II | 3.65 ♁ | 1.48 ♀ | 24.75 III | 7.35 III | 29.79 III | 16.43 ♀ |
| 220 | 20.32 III | 51.78 Z | 8.59 ♂ | 1.43 ♀ | 18.47 ♀ | 12.45 ♂ | 28.01 ♂ | 13.12 II | 8.59 ♁ | 8.78 ♀ | 2.99 ♁ | 12.45 III | 3.81 ♀ | 20.49 ♀ |
| 225 | 24.26 III | 53.63 Z | 13.88 ♂ | 10.13 ♀ | 25.26 ♀ | 17.46 ♂ | 2.29 II | 17.27 II | 13.88 ♁ | 16.96 ♀ | 11.36 ♁ | 17.46 III | 7.79 ♀ | 24.62 ♀ |
| 230 | 28.20 III | 55.40 Z | 19.59 ♂ | 19.14 ♀ | 1.86 ♂ | 22.41 ♂ | 6.59 II | 21.55 II | 19.59 ♁ | 26.15 ♀ | 19.72 ♁ | 22.41 III | 11.75 ♀ | 28.83 ♀ |
| 235 | 2.14 ♀ | 57.07 Z | 25.82 ♂ | 28.30 ♀ | 8.22 ♂ | 27.28 ♂ | 10.93 II | 26.00 II | 25.82 ♁ | 6.38 III | 27.95 ♁ | 27.28 III | 15.70 ♀ | 3.13 ♂ |
| 240 | 6.10 ♀ | 58.61 Z | 2.66 ≍ | 7.39 ♀ | 14.34 ♂ | 2.09 II | 15.32 II | 0.66 ♁ | 2.66 ♀ | 17.55 III | 5.91 III | 2.09 ♀ | 19.64 ♀ | 7.53 ♂ |
| 245 | 10.07 ♀ | 59.99 Z | 10.23 ≍ | 16.22 ♀ | 20.19 ♂ | 6.84 II | 19.79 II | 5.59 ♁ | 10.23 ♀ | 29.37 III | 13.53 III | 6.84 ♀ | 23.58 ♀ | 12.05 ♂ |
| 250 | 14.04 ♀ | 61.17 Z | 18.61 ≍ | 24.61 ♀ | 25.79 ♂ | 11.53 II | 24.36 II | 10.85 ♁ | 18.61 ♀ | 11.37 ♁ | 20.76 III | 11.53 ♀ | 27.56 ♀ | 16.70 ♂ |
| 255 | 18.02 ♀ | 62.14 Z | 27.87 ≍ | 2.45 ♂ | 1.12 II | 16.19 II | 29.06 II | 16.55 ♁ | 27.87 ♀ | 23.01 ♁ | 27.57 III | 16.19 ♀ | 1.59 ♂ | 21.52 ♂ |
| 260 | 22.01 ♀ | 62.85 Z | 7.99 ♀ | 9.70 ♂ | 6.20 II | 20.81 II | 3.93 ♁ | 22.80 ♁ | 7.99 III | 3.87 III | 3.97 ♀ | 20.81 ♀ | 5.70 ♂ | 26.55 ♂ |
| 265 | 26.00 ♀ | 63.29 Z | 18.79 ♀ | 16.35 ♂ | 11.03 II | 25.41 II | 9.01 ♁ | 29.74 ♁ | 18.79 III | 13.70 III | 9.98 ♀ | 25.41 ♀ | 9.95 ♂ | 1.86 ≍ |
| 270 | 0.00 ♂ | 63.44 Z | 0.00 ♀ | 22.47 ♂ | 15.64 II | 0.00 ♁ | 14.36 ♁ | 7.53 ♀ | 0.00 ♁ | 22.47 III | 15.64 ♀ | 0.00 ♂ | 14.36 ♂ | 7.53 ≍ |
| 275 | 4.00 ♂ | 63.29 Z | 11.21 ♀ | 28.14 ♂ | 20.05 II | 4.59 ♁ | 20.02 ♁ | 16.30 ♀ | 11.21 ♁ | 0.26 ♀ | 20.99 ♀ | 4.59 ♂ | 18.97 ♂ | 13.65 ≍ |
| 280 | 7.99 ♂ | 62.85 Z | 22.01 ♀ | 3.45 II | 24.30 II | 9.19 ♁ | 26.03 ♁ | 26.13 ♀ | 22.01 ♁ | 7.20 ♀ | 26.07 ♀ | 9.19 ♂ | 23.80 ♂ | 20.30 ≍ |
| 285 | 11.98 ♂ | 62.14 Z | 2.13 ♂ | 8.48 II | 28.41 II | 13.81 ♁ | 2.43 ♀ | 6.99 III | 2.13 III | 13.45 ♀ | 0.94 ♂ | 13.81 ♂ | 28.88 ♂ | 27.55 ≍ |
| 290 | 15.96 ♂ | 61.17 Z | 11.39 ♂ | 13.30 II | 2.44 ♁ | 18.47 ♁ | 9.24 ♀ | 18.63 III | 11.39 III | 19.15 ♀ | 5.64 ♂ | 18.47 ♂ | 4.21 ≍ | 5.39 ♀ |
| 295 | 19.93 ♂ | 59.99 Z | 19.77 ♂ | 17.95 II | 6.42 ♁ | 23.16 ♁ | 16.47 ♀ | 0.63 ♁ | 19.77 III | 24.41 ♀ | 10.21 ♂ | 23.16 ♂ | 9.81 ≍ | 13.78 ♀ |
| 300 | 23.90 ♂ | 58.61 Z | 27.34 ♂ | 22.47 II | 10.36 ♁ | 27.91 ♁ | 24.09 ♀ | 12.45 ♁ | 27.34 III | 29.34 ♀ | 14.68 ♂ | 27.91 ♂ | 15.66 ≍ | 22.61 ♀ |
| 305 | 27.86 ♂ | 57.07 Z | 4.18 II | 26.87 II | 14.30 ♁ | 2.72 ♀ | 2.05 III | 23.62 ♁ | 4.18 ♀ | 4.00 ♂ | 19.07 ♂ | 2.72 ≍ | 21.78 ≍ | 1.70 ♀ |
| 310 | 1.80 ≍ | 55.40 Z | 10.41 II | 1.17 ♁ | 18.25 ♁ | 7.59 ♀ | 10.28 III | 3.85 III | 10.41 ♀ | 8.45 ♂ | 23.41 ♂ | 7.59 ≍ | 28.14 ≍ | 10.86 ♀ |
| 315 | 5.74 ≍ | 53.63 Z | 16.12 II | 5.38 ♁ | 22.21 ♁ | 12.54 ♀ | 18.64 III | 13.04 III | 16.12 ♀ | 12.73 ♂ | 27.71 ♂ | 12.54 ≍ | 4.74 ♀ | 19.87 ♀ |
| 320 | 9.68 ≍ | 51.78 Z | 21.41 II | 9.51 ♁ | 26.19 ♁ | 17.55 ♀ | 27.01 III | 21.22 III | 21.41 ♀ | 16.88 ♂ | 1.99 ≍ | 17.55 ≍ | 11.53 ♀ | 28.57 ♀ |
| 325 | 13.61 ≍ | 49.86 Z | 26.35 II | 13.57 ♁ | 0.21 ♀ | 22.65 ♀ | 5.25 ♁ | 28.52 III | 26.35 ♀ | 20.92 ♂ | 6.26 ≍ | 22.65 ≍ | 18.48 ♀ | 6.83 ♂ |
| 330 | 17.54 ≍ | 47.91 Z | 1.01 ♁ | 17.57 ♁ | 4.26 ♀ | 27.82 ♀ | 13.25 ♁ | 5.05 ♀ | 1.01 ♂ | 24.88 ♂ | 10.52 ≍ | 27.82 ≍ | 25.55 ♀ | 14.60 ♂ |
| 335 | 21.48 ≍ | 45.93 Z | 5.44 ♁ | 21.54 ♁ | 8.35 ♀ | 3.06 III | 20.90 ♁ | 10.97 ♀ | 5.44 ♂ | 28.77 ♂ | 14.78 ≍ | 3.06 ♀ | 2.67 ♀ | 21.84 ♂ |
| 340 | 25.43 ≍ | 43.94 Z | 9.68 ♁ | 25.46 ♁ | 12.49 ♀ | 8.36 III | 28.16 ♁ | 16.37 ♀ | 9.68 ♂ | 2.61 ≍ | 19.05 ≍ | 8.36 ♀ | 9.78 ♀ | 28.60 ♂ |
| 345 | 29.40 ≍ | 41.96 Z | 13.76 ♁ | 29.36 ♁ | 16.67 ♀ | 13.72 III | 5.01 III | 21.36 ♀ | 13.76 ♂ | 6.40 ≍ | 23.33 ≍ | 13.72 ♀ | 16.82 ♀ | 4.90 II |
| 350 | 3.40 ♀ | 39.99 Z | 17.72 ♁ | 3.24 ♀ | 20.89 ♀ | 19.12 III | 11.45 III | 26.01 ♀ | 17.72 ♂ | 10.16 ≍ | 27.62 ≍ | 19.12 ♀ | 23.75 ♀ | 10.80 II |
| 355 | 7.45 ♀ | 38.05 Z | 21.58 ♁ | 7.11 ♀ | 25.16 ♀ | 24.55 III | 17.49 III | 0.38 ♂ | 21.58 ♂ | 13.90 ≍ | 1.92 ♀ | 24.55 ♀ | 0.52 ♂ | 16.35 II |
| 360 | 11.54 ♀ | 36.14 Z | 25.36 ♁ | 10.98 ♀ | 29.49 ♀ | 0.00 ♁ | 23.18 III | 4.54 ♂ | 25.36 ♂ | 17.61 ≍ | 6.23 ♀ | 0.00 ♀ | 7.10 ♂ | 21.61 II |

51° NB

| α_z | λ_z | β_z | I | II | III | IV | V | VI | VII | VIII | IX | X | XI | XII |
|------------|-------------|-----------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0 | 12.15 𠄎 | 35.27 Z | 26.16 𠄎 | 11.39 𠄎 | 29.54 𠄎 | 0.00 𠄎 | 24.32 𠄎 | 5.78 𠄎 | 26.16 𠄎 | 18.11 𠄎 | 6.42 𠄎 | 0.00 𠄎 | 7.39 𠄎 | 22.46 𠄎 |
| 5 | 16.34 𠄎 | 33.40 Z | 29.83 𠄎 | 15.23 𠄎 | 3.89 𠄎 | 5.45 𠄎 | 29.64 𠄎 | 9.67 𠄎 | 29.83 𠄎 | 21.77 𠄎 | 10.71 𠄎 | 5.45 𠄎 | 13.79 𠄎 | 27.43 𠄎 |
| 10 | 20.61 𠄎 | 31.58 Z | 3.45 𠄎 | 19.07 𠄎 | 8.28 𠄎 | 10.88 𠄎 | 4.67 𠄎 | 13.43 𠄎 | 3.45 𠄎 | 25.42 𠄎 | 15.01 𠄎 | 10.88 𠄎 | 19.98 𠄎 | 2.19 𠄎 |
| 15 | 24.99 𠄎 | 29.83 Z | 7.03 𠄎 | 22.93 𠄎 | 12.71 𠄎 | 16.28 𠄎 | 9.45 𠄎 | 17.07 𠄎 | 7.03 𠄎 | 29.06 𠄎 | 19.30 𠄎 | 16.28 𠄎 | 25.93 𠄎 | 6.77 𠄎 |
| 20 | 29.49 𠄎 | 28.14 Z | 10.59 𠄎 | 26.80 𠄎 | 17.18 𠄎 | 21.64 𠄎 | 14.02 𠄎 | 20.62 𠄎 | 10.59 𠄎 | 2.69 𠄎 | 23.59 𠄎 | 21.64 𠄎 | 1.67 𠄎 | 11.20 𠄎 |
| 25 | 4.14 𠄎 | 26.54 Z | 14.12 𠄎 | 0.69 𠄎 | 21.68 𠄎 | 26.94 𠄎 | 18.42 𠄎 | 24.10 𠄎 | 14.12 𠄎 | 6.32 𠄎 | 27.87 𠄎 | 26.94 𠄎 | 7.21 𠄎 | 15.51 𠄎 |
| 30 | 8.97 𠄎 | 25.01 Z | 17.65 𠄎 | 4.59 𠄎 | 26.21 𠄎 | 2.18 𠄎 | 22.67 𠄎 | 27.52 𠄎 | 17.65 𠄎 | 9.93 𠄎 | 2.14 𠄎 | 2.18 𠄎 | 12.57 𠄎 | 19.72 𠄎 |
| 35 | 13.99 𠄎 | 23.58 Z | 21.16 𠄎 | 8.51 𠄎 | 0.77 𠄎 | 7.35 𠄎 | 26.80 𠄎 | 0.90 𠄎 | 21.16 𠄎 | 13.54 𠄎 | 6.38 𠄎 | 7.35 𠄎 | 17.76 𠄎 | 23.86 𠄎 |
| 40 | 19.26 𠄎 | 22.25 Z | 24.68 𠄎 | 12.45 𠄎 | 5.34 𠄎 | 12.45 𠄎 | 0.83 𠄎 | 4.25 𠄎 | 24.68 𠄎 | 17.14 𠄎 | 10.61 𠄎 | 12.45 𠄎 | 22.80 𠄎 | 27.94 𠄎 |
| 45 | 24.79 𠄎 | 21.03 Z | 28.19 𠄎 | 16.40 𠄎 | 9.92 𠄎 | 17.46 𠄎 | 4.78 𠄎 | 7.59 𠄎 | 28.19 𠄎 | 20.72 𠄎 | 14.80 𠄎 | 17.46 𠄎 | 27.72 𠄎 | 1.98 𠄎 |
| 50 | 0.64 𠄎 | 19.91 Z | 1.71 𠄎 | 20.37 𠄎 | 14.50 𠄎 | 22.41 𠄎 | 8.67 𠄎 | 10.91 𠄎 | 1.71 𠄎 | 24.30 𠄎 | 18.96 𠄎 | 22.41 𠄎 | 2.53 𠄎 | 5.98 𠄎 |
| 55 | 6.82 𠄎 | 18.91 Z | 5.23 𠄎 | 24.35 𠄎 | 19.09 𠄎 | 27.28 𠄎 | 12.52 𠄎 | 14.23 𠄎 | 5.23 𠄎 | 27.86 𠄎 | 23.09 𠄎 | 27.28 𠄎 | 7.26 𠄎 | 9.96 𠄎 |
| 60 | 13.38 𠄎 | 18.04 Z | 8.75 𠄎 | 28.33 𠄎 | 23.66 𠄎 | 2.09 𠄎 | 16.33 𠄎 | 17.54 𠄎 | 8.75 𠄎 | 1.41 𠄎 | 27.17 𠄎 | 2.09 𠄎 | 11.92 𠄎 | 13.93 𠄎 |
| 65 | 20.32 𠄎 | 17.29 Z | 12.28 𠄎 | 2.33 𠄎 | 28.23 𠄎 | 6.84 𠄎 | 20.12 𠄎 | 20.87 𠄎 | 12.28 𠄎 | 4.94 𠄎 | 1.22 𠄎 | 6.84 𠄎 | 16.52 𠄎 | 17.89 𠄎 |
| 70 | 27.65 𠄎 | 16.67 Z | 15.82 𠄎 | 6.32 𠄎 | 2.79 𠄎 | 11.53 𠄎 | 23.90 𠄎 | 24.20 𠄎 | 15.82 𠄎 | 8.45 𠄎 | 5.23 𠄎 | 11.53 𠄎 | 21.08 𠄎 | 21.85 𠄎 |
| 75 | 5.35 𠄎 | 16.19 Z | 19.36 𠄎 | 10.32 𠄎 | 7.33 𠄎 | 16.19 𠄎 | 27.69 𠄎 | 27.55 𠄎 | 19.36 𠄎 | 11.94 𠄎 | 9.20 𠄎 | 16.19 𠄎 | 25.61 𠄎 | 25.80 𠄎 |
| 80 | 13.37 𠄎 | 15.84 Z | 22.90 𠄎 | 14.31 𠄎 | 11.86 𠄎 | 20.81 𠄎 | 1.48 𠄎 | 0.92 𠄎 | 22.90 𠄎 | 15.41 𠄎 | 13.12 𠄎 | 20.81 𠄎 | 0.12 𠄎 | 29.77 𠄎 |
| 85 | 21.62 𠄎 | 15.63 Z | 26.45 𠄎 | 18.30 𠄎 | 16.37 𠄎 | 25.41 𠄎 | 5.29 𠄎 | 4.31 𠄎 | 26.45 𠄎 | 18.86 𠄎 | 17.02 𠄎 | 25.41 𠄎 | 4.62 𠄎 | 3.74 𠄎 |
| 90 | 0.00 𠄎 | 15.56 Z | 0.00 𠄎 | 22.29 𠄎 | 20.88 𠄎 | 0.00 𠄎 | 9.12 𠄎 | 7.71 𠄎 | 0.00 𠄎 | 22.29 𠄎 | 20.88 𠄎 | 0.00 𠄎 | 9.12 𠄎 | 7.71 𠄎 |
| 95 | 8.38 𠄎 | 15.63 Z | 3.55 𠄎 | 26.26 𠄎 | 25.38 𠄎 | 4.59 𠄎 | 12.98 𠄎 | 11.14 𠄎 | 3.55 𠄎 | 25.69 𠄎 | 24.71 𠄎 | 4.59 𠄎 | 13.63 𠄎 | 11.70 𠄎 |
| 100 | 16.63 𠄎 | 15.84 Z | 7.10 𠄎 | 0.23 𠄎 | 29.88 𠄎 | 9.19 𠄎 | 16.88 𠄎 | 14.59 𠄎 | 7.10 𠄎 | 29.08 𠄎 | 28.52 𠄎 | 9.19 𠄎 | 18.14 𠄎 | 15.69 𠄎 |
| 105 | 24.65 𠄎 | 16.19 Z | 10.64 𠄎 | 4.20 𠄎 | 4.39 𠄎 | 13.81 𠄎 | 20.80 𠄎 | 18.06 𠄎 | 10.64 𠄎 | 2.45 𠄎 | 2.31 𠄎 | 13.81 𠄎 | 22.67 𠄎 | 19.68 𠄎 |
| 110 | 2.35 𠄎 | 16.67 Z | 14.18 𠄎 | 8.15 𠄎 | 8.92 𠄎 | 18.47 𠄎 | 24.77 𠄎 | 21.55 𠄎 | 14.18 𠄎 | 5.80 𠄎 | 6.10 𠄎 | 18.47 𠄎 | 27.21 𠄎 | 23.68 𠄎 |
| 115 | 9.68 𠄎 | 17.29 Z | 17.72 𠄎 | 12.11 𠄎 | 13.48 𠄎 | 23.16 𠄎 | 28.78 𠄎 | 25.06 𠄎 | 17.72 𠄎 | 9.13 𠄎 | 9.88 𠄎 | 23.16 𠄎 | 1.77 𠄎 | 27.67 𠄎 |
| 120 | 16.62 𠄎 | 18.04 Z | 21.25 𠄎 | 16.07 𠄎 | 18.08 𠄎 | 27.91 𠄎 | 2.83 𠄎 | 28.59 𠄎 | 21.25 𠄎 | 12.46 𠄎 | 13.67 𠄎 | 27.91 𠄎 | 6.34 𠄎 | 1.67 𠄎 |
| 125 | 23.18 𠄎 | 18.91 Z | 24.77 𠄎 | 20.04 𠄎 | 22.74 𠄎 | 2.72 𠄎 | 6.91 𠄎 | 2.14 𠄎 | 24.77 𠄎 | 15.77 𠄎 | 17.48 𠄎 | 2.72 𠄎 | 10.91 𠄎 | 5.65 𠄎 |
| 130 | 29.36 𠄎 | 19.91 Z | 28.29 𠄎 | 24.02 𠄎 | 27.47 𠄎 | 7.59 𠄎 | 11.04 𠄎 | 5.70 𠄎 | 28.29 𠄎 | 19.09 𠄎 | 21.33 𠄎 | 7.59 𠄎 | 15.50 𠄎 | 9.63 𠄎 |
| 135 | 5.21 𠄎 | 21.03 Z | 1.81 𠄎 | 28.02 𠄎 | 2.28 𠄎 | 12.54 𠄎 | 15.20 𠄎 | 9.28 𠄎 | 1.81 𠄎 | 22.41 𠄎 | 25.22 𠄎 | 12.54 𠄎 | 20.08 𠄎 | 13.60 𠄎 |
| 140 | 10.74 𠄎 | 22.25 Z | 5.32 𠄎 | 2.06 𠄎 | 7.20 𠄎 | 17.55 𠄎 | 19.39 𠄎 | 12.86 𠄎 | 5.32 𠄎 | 25.75 𠄎 | 29.17 𠄎 | 17.55 𠄎 | 24.66 𠄎 | 17.55 𠄎 |
| 145 | 16.01 𠄎 | 23.58 Z | 8.84 𠄎 | 6.14 𠄎 | 12.24 𠄎 | 22.65 𠄎 | 23.62 𠄎 | 16.46 𠄎 | 8.84 𠄎 | 29.10 𠄎 | 3.20 𠄎 | 22.65 𠄎 | 29.23 𠄎 | 21.49 𠄎 |
| 150 | 21.03 𠄎 | 25.01 Z | 12.35 𠄎 | 10.28 𠄎 | 17.43 𠄎 | 27.82 𠄎 | 27.86 𠄎 | 20.07 𠄎 | 12.35 𠄎 | 2.48 𠄎 | 7.33 𠄎 | 27.82 𠄎 | 3.79 𠄎 | 25.41 𠄎 |
| 155 | 25.86 𠄎 | 26.54 Z | 15.88 𠄎 | 14.49 𠄎 | 22.79 𠄎 | 3.06 𠄎 | 2.13 𠄎 | 23.68 𠄎 | 15.88 𠄎 | 5.90 𠄎 | 11.58 𠄎 | 3.06 𠄎 | 8.32 𠄎 | 29.31 𠄎 |
| 160 | 0.51 𠄎 | 28.14 Z | 19.41 𠄎 | 18.80 𠄎 | 28.33 𠄎 | 8.36 𠄎 | 6.41 𠄎 | 27.31 𠄎 | 19.41 𠄎 | 9.38 𠄎 | 15.98 𠄎 | 8.36 𠄎 | 12.82 𠄎 | 3.20 𠄎 |
| 165 | 5.01 𠄎 | 29.83 Z | 22.97 𠄎 | 23.23 𠄎 | 4.07 𠄎 | 13.72 𠄎 | 10.70 𠄎 | 0.94 𠄎 | 22.97 𠄎 | 12.93 𠄎 | 20.55 𠄎 | 13.72 𠄎 | 17.29 𠄎 | 7.07 𠄎 |
| 170 | 9.39 𠄎 | 31.58 Z | 26.55 𠄎 | 27.81 𠄎 | 10.02 𠄎 | 19.12 𠄎 | 14.99 𠄎 | 4.58 𠄎 | 26.55 𠄎 | 16.57 𠄎 | 25.33 𠄎 | 19.12 𠄎 | 21.72 𠄎 | 10.93 𠄎 |
| 175 | 13.66 𠄎 | 33.40 Z | 0.17 𠄎 | 2.57 𠄎 | 16.21 𠄎 | 24.55 𠄎 | 19.29 𠄎 | 8.23 𠄎 | 0.17 𠄎 | 20.33 𠄎 | 0.36 𠄎 | 24.55 𠄎 | 26.11 𠄎 | 14.77 𠄎 |
| 180 | 17.85 𠄎 | 35.27 Z | 3.84 𠄎 | 7.54 𠄎 | 22.61 𠄎 | 0.00 𠄎 | 23.58 𠄎 | 11.89 𠄎 | 3.84 𠄎 | 24.22 𠄎 | 5.68 𠄎 | 0.00 𠄎 | 0.46 𠄎 | 18.61 𠄎 |

51° NB

| α_z | λ_z | β_z | I | II | III | IV | V | VI | VII | VIII | IX | X | XI | XII |
|------------|-------------|-----------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 185 | 21.98 ♄ | 37.18 Z | 7.57 ♃ | 12.77 ☾ | 29.24 ♁ | 5.45 ♀ | 27.86 ♀ | 15.57 ☿ | 7.57 ♀ | 28.29 ♀ | 11.32 ♀ | 5.45 ♄ | 4.76 ♃ | 22.45 ♃ |
| 190 | 26.05 ♄ | 39.13 Z | 11.38 ♃ | 18.31 ☾ | 6.07 ♁ | 10.88 ♀ | 2.14 ☿ | 19.27 ☿ | 11.38 ♀ | 2.58 ☾ | 17.34 ♀ | 10.88 ♄ | 9.01 ♃ | 26.29 ♃ |
| 195 | 0.08 ♃ | 41.10 Z | 15.28 ♃ | 24.21 ☾ | 13.07 ♁ | 16.28 ♀ | 6.40 ☿ | 22.99 ☿ | 15.28 ♀ | 7.14 ☾ | 23.76 ♀ | 16.28 ♄ | 13.21 ♃ | 0.14 ♃ |
| 200 | 4.09 ♃ | 43.09 Z | 19.31 ♃ | 0.53 ♁ | 20.19 ♁ | 21.64 ♀ | 10.66 ☿ | 26.75 ☿ | 19.31 ♀ | 12.03 ☾ | 0.62 ♃ | 21.64 ♄ | 17.37 ♃ | 4.00 ♃ |
| 205 | 8.07 ♃ | 45.08 Z | 23.49 ♃ | 7.33 ♁ | 27.38 ♁ | 26.94 ♀ | 14.91 ☿ | 0.55 ♀ | 23.49 ♀ | 17.33 ☾ | 7.92 ♃ | 26.94 ♄ | 21.48 ♃ | 7.90 ♃ |
| 210 | 12.04 ♃ | 47.05 Z | 27.85 ♃ | 14.65 ♁ | 4.57 ♀ | 2.18 ☿ | 19.15 ☿ | 4.40 ♀ | 27.85 ♀ | 23.15 ☾ | 15.66 ♃ | 2.18 ♃ | 25.55 ♃ | 11.83 ♃ |
| 215 | 16.00 ♃ | 49.00 Z | 2.45 ☾ | 22.53 ♁ | 11.71 ♀ | 7.35 ☿ | 23.39 ☿ | 8.32 ♀ | 2.45 ☾ | 29.61 ☾ | 23.77 ♃ | 7.35 ♃ | 29.59 ♃ | 15.80 ♃ |
| 220 | 19.97 ♃ | 50.90 Z | 7.33 ☾ | 0.95 ♁ | 18.74 ♀ | 12.45 ☿ | 27.63 ☿ | 12.31 ♀ | 7.33 ☾ | 6.84 ♀ | 2.17 ♄ | 12.45 ♃ | 3.58 ♃ | 19.84 ♃ |
| 225 | 23.93 ♃ | 52.75 Z | 12.56 ☾ | 9.86 ♁ | 25.60 ♀ | 17.46 ☿ | 1.89 ♀ | 16.42 ♀ | 12.56 ☾ | 15.02 ♀ | 10.72 ♄ | 17.46 ♃ | 7.55 ♃ | 23.94 ♃ |
| 230 | 27.91 ♃ | 54.51 Z | 18.22 ☾ | 19.12 ♁ | 2.25 ☿ | 22.41 ☿ | 6.17 ♀ | 20.65 ♀ | 18.22 ☾ | 24.29 ♀ | 19.29 ♄ | 22.41 ♃ | 11.49 ♃ | 28.12 ♃ |
| 235 | 1.89 ♃ | 56.16 Z | 24.41 ☾ | 28.54 ♁ | 8.66 ☿ | 27.28 ☿ | 10.49 ♀ | 25.05 ♀ | 24.41 ☾ | 4.71 ♃ | 27.72 ♄ | 27.28 ♃ | 15.41 ♃ | 2.38 ☾ |
| 240 | 5.88 ♃ | 57.68 Z | 1.25 ♁ | 7.89 ♀ | 14.82 ☿ | 2.09 ♀ | 14.86 ♀ | 29.66 ♀ | 1.25 ♀ | 16.23 ♃ | 5.87 ♃ | 2.09 ♃ | 19.32 ♃ | 6.75 ☾ |
| 245 | 9.88 ♃ | 59.04 Z | 8.84 ♁ | 16.94 ♀ | 20.71 ☿ | 6.84 ♀ | 19.31 ♀ | 4.53 ☾ | 8.84 ♀ | 28.52 ♃ | 13.66 ♃ | 6.84 ♃ | 23.23 ♃ | 11.23 ☾ |
| 250 | 13.89 ♃ | 60.21 Z | 17.32 ♁ | 25.52 ♀ | 26.33 ☿ | 11.53 ♀ | 23.86 ♀ | 9.74 ☾ | 17.32 ♀ | 11.06 ♄ | 21.03 ♃ | 11.53 ♃ | 27.17 ♃ | 15.84 ☾ |
| 255 | 17.91 ♃ | 61.16 Z | 26.77 ♁ | 3.48 ☿ | 1.67 ♀ | 16.19 ♀ | 28.54 ♀ | 15.40 ☾ | 26.77 ♀ | 23.22 ♄ | 27.95 ♃ | 16.19 ♃ | 1.16 ☾ | 20.60 ☾ |
| 260 | 21.94 ♃ | 61.86 Z | 7.16 ♁ | 10.79 ☿ | 6.76 ♀ | 20.81 ♀ | 3.39 ☾ | 21.62 ☾ | 7.16 ♃ | 4.50 ♃ | 4.43 ♃ | 20.81 ♃ | 5.24 ☾ | 25.57 ☾ |
| 265 | 25.97 ♃ | 62.29 Z | 18.35 ♁ | 17.46 ☿ | 11.58 ♀ | 25.41 ♀ | 8.47 ☾ | 28.58 ☾ | 18.35 ♃ | 14.62 ♃ | 10.49 ♃ | 25.41 ♃ | 9.44 ☾ | 0.82 ♁ |
| 270 | 0.00 ☾ | 62.44 Z | 0.00 ♀ | 23.56 ☿ | 16.17 ♀ | 0.00 ☾ | 13.83 ☾ | 6.44 ♀ | 0.00 ♄ | 23.56 ♃ | 16.17 ♃ | 0.00 ☾ | 13.83 ☾ | 6.44 ♁ |
| 275 | 4.03 ☾ | 62.29 Z | 11.65 ♀ | 29.18 ☿ | 20.56 ♀ | 4.59 ☾ | 19.51 ☾ | 15.38 ♀ | 11.65 ♄ | 1.42 ♃ | 21.53 ♃ | 4.59 ☾ | 18.42 ☾ | 12.54 ♁ |
| 280 | 8.06 ☾ | 61.86 Z | 22.84 ♀ | 4.43 ♀ | 24.76 ♀ | 9.19 ☾ | 25.57 ☾ | 25.50 ♀ | 22.84 ♄ | 8.38 ♃ | 26.61 ♃ | 9.19 ☾ | 23.24 ☾ | 19.21 ♁ |
| 285 | 12.09 ☾ | 61.16 Z | 3.23 ☿ | 9.40 ♀ | 28.84 ♀ | 13.81 ☾ | 2.05 ♀ | 6.78 ♃ | 3.23 ♃ | 14.60 ♃ | 1.46 ☾ | 13.81 ☾ | 28.33 ☾ | 26.52 ♁ |
| 290 | 16.11 ☾ | 60.21 Z | 12.68 ☿ | 14.16 ♀ | 2.83 ☾ | 18.47 ☾ | 8.97 ♀ | 18.94 ♃ | 12.68 ♃ | 20.26 ♃ | 6.14 ☾ | 18.47 ☾ | 3.67 ♁ | 4.48 ♁ |
| 295 | 20.12 ☾ | 59.04 Z | 21.16 ☿ | 18.77 ♀ | 6.77 ☾ | 23.16 ☾ | 16.34 ♀ | 1.48 ♄ | 21.16 ♃ | 25.47 ♃ | 10.69 ☾ | 23.16 ☾ | 9.29 ♁ | 13.06 ♁ |
| 300 | 24.12 ☾ | 57.68 Z | 28.75 ☿ | 23.25 ♀ | 10.68 ☾ | 27.91 ☾ | 24.13 ♀ | 13.77 ♄ | 28.75 ♃ | 0.34 ☾ | 15.14 ☾ | 27.91 ☾ | 15.18 ♁ | 22.11 ♁ |
| 305 | 28.11 ☾ | 56.16 Z | 5.59 ♀ | 27.62 ♀ | 14.59 ☾ | 2.72 ♀ | 2.28 ♃ | 25.29 ♄ | 5.59 ♃ | 4.95 ☾ | 19.51 ☾ | 2.72 ♁ | 21.34 ♁ | 1.46 ♀ |
| 310 | 2.09 ♁ | 54.51 Z | 11.78 ♀ | 1.88 ☾ | 18.51 ☾ | 7.59 ♀ | 10.71 ♃ | 5.71 ♃ | 11.78 ♃ | 9.35 ☾ | 23.83 ☾ | 7.59 ♁ | 27.75 ♁ | 10.88 ♀ |
| 315 | 6.07 ♁ | 52.75 Z | 17.44 ♀ | 6.06 ☾ | 22.45 ☾ | 12.54 ♀ | 19.28 ♃ | 14.98 ♃ | 17.44 ♃ | 13.58 ☾ | 28.11 ☾ | 12.54 ♁ | 4.40 ♁ | 20.14 ♀ |
| 320 | 10.03 ♁ | 50.90 Z | 22.67 ♀ | 10.16 ☾ | 26.42 ☾ | 17.55 ♀ | 27.83 ♃ | 23.16 ♃ | 22.67 ♃ | 17.69 ☾ | 2.37 ♁ | 17.55 ♁ | 11.26 ♁ | 29.05 ♀ |
| 325 | 14.00 ♁ | 49.00 Z | 27.55 ♀ | 14.20 ☾ | 0.41 ♀ | 22.65 ♀ | 6.23 ♄ | 0.39 ♃ | 27.55 ♃ | 21.68 ☾ | 6.61 ♁ | 22.65 ♁ | 18.29 ♁ | 7.47 ☿ |
| 330 | 17.96 ♁ | 47.05 Z | 2.15 ☾ | 18.17 ☾ | 4.45 ♀ | 27.82 ♀ | 14.34 ♄ | 6.85 ♃ | 2.15 ☾ | 25.60 ☾ | 10.85 ♁ | 27.82 ♁ | 25.43 ♁ | 15.35 ☿ |
| 335 | 21.93 ♁ | 45.08 Z | 6.51 ☾ | 22.10 ☾ | 8.52 ♀ | 3.06 ♃ | 22.08 ♄ | 12.67 ♃ | 6.51 ☾ | 29.45 ☾ | 15.09 ♁ | 3.06 ♁ | 2.62 ♀ | 22.67 ☿ |
| 340 | 25.91 ♁ | 43.09 Z | 10.69 ☾ | 26.00 ☾ | 12.63 ♀ | 8.36 ♃ | 29.38 ♄ | 17.97 ♃ | 10.69 ☾ | 3.25 ♁ | 19.34 ♁ | 8.36 ♁ | 9.81 ♀ | 29.47 ☿ |
| 345 | 29.92 ♁ | 41.10 Z | 14.72 ☾ | 29.86 ☾ | 16.79 ♀ | 13.72 ♃ | 6.24 ♃ | 22.86 ♃ | 14.72 ☾ | 7.01 ♁ | 23.60 ♁ | 13.72 ♁ | 16.93 ♀ | 5.79 ♀ |
| 350 | 3.95 ♁ | 39.13 Z | 18.62 ☾ | 3.71 ♀ | 20.99 ♀ | 19.12 ♃ | 12.66 ♃ | 27.42 ♃ | 18.62 ☾ | 10.73 ♁ | 27.86 ♁ | 19.12 ♁ | 23.93 ♀ | 11.69 ♀ |
| 355 | 8.02 ♁ | 37.18 Z | 22.43 ☾ | 7.55 ♀ | 25.24 ♀ | 24.55 ♃ | 18.68 ♃ | 1.71 ☾ | 22.43 ☾ | 14.43 ♁ | 2.14 ♁ | 24.55 ♁ | 0.76 ☿ | 17.23 ♀ |
| 360 | 12.15 ♁ | 35.27 Z | 26.16 ☾ | 11.39 ♀ | 29.54 ♀ | 0.00 ♄ | 24.32 ♃ | 5.78 ☾ | 26.16 ☾ | 18.11 ♁ | 6.42 ♁ | 0.00 ♀ | 7.39 ☿ | 22.46 ♀ |

52° NB

| α_z | λ_z | β_z | I | II | III | IV | V | VI | VII | VIII | IX | X | XI | XII |
|------------|-------------|-----------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0 | 12.74 𠄎 | 34.39 Z | 26.98 𠄎 | 11.81 𠄎 | 29.60 𠄎 | 0.00 𠄎 | 25.54 𠄎 | 7.06 𠄎 | 26.98 𠄎 | 18.61 𠄎 | 6.61 𠄎 | 0.00 𠄎 | 7.69 𠄎 | 23.36 𠄎 |
| 5 | 16.96 𠄎 | 32.52 Z | 0.60 𠄎 | 15.61 𠄎 | 3.92 𠄎 | 5.45 𠄎 | 0.80 𠄎 | 10.88 𠄎 | 0.60 𠄎 | 22.23 𠄎 | 10.88 𠄎 | 5.45 𠄎 | 14.14 𠄎 | 28.30 𠄎 |
| 10 | 21.26 𠄎 | 30.69 Z | 4.17 𠄎 | 19.42 𠄎 | 8.28 𠄎 | 10.88 𠄎 | 5.76 𠄎 | 14.55 𠄎 | 4.17 𠄎 | 25.84 𠄎 | 15.15 𠄎 | 10.88 𠄎 | 20.36 𠄎 | 3.02 𠄎 |
| 15 | 25.66 𠄎 | 28.93 Z | 7.70 𠄎 | 23.24 𠄎 | 12.69 𠄎 | 16.28 𠄎 | 10.49 𠄎 | 18.12 𠄎 | 7.70 𠄎 | 29.45 𠄎 | 19.41 𠄎 | 16.28 𠄎 | 26.34 𠄎 | 7.57 𠄎 |
| 20 | 0.18 𠄎 | 27.24 Z | 11.21 𠄎 | 27.08 𠄎 | 17.13 𠄎 | 21.64 𠄎 | 15.00 𠄎 | 21.60 𠄎 | 11.21 𠄎 | 3.04 𠄎 | 23.67 𠄎 | 21.64 𠄎 | 2.10 𠄎 | 11.96 𠄎 |
| 25 | 4.85 𠄎 | 25.62 Z | 14.70 𠄎 | 0.93 𠄎 | 21.61 𠄎 | 26.94 𠄎 | 19.34 𠄎 | 25.01 𠄎 | 14.70 𠄎 | 6.62 𠄎 | 27.92 𠄎 | 26.94 𠄎 | 7.65 𠄎 | 16.23 𠄎 |
| 30 | 9.70 𠄎 | 24.09 Z | 18.18 𠄎 | 4.80 𠄎 | 26.12 𠄎 | 2.18 𠄎 | 23.53 𠄎 | 28.38 𠄎 | 18.18 𠄎 | 10.20 𠄎 | 2.16 𠄎 | 2.18 𠄎 | 13.02 𠄎 | 20.41 𠄎 |
| 35 | 14.74 𠄎 | 22.65 Z | 21.65 𠄎 | 8.68 𠄎 | 0.65 𠄎 | 7.35 𠄎 | 27.60 𠄎 | 1.70 𠄎 | 21.65 𠄎 | 13.76 𠄎 | 6.38 𠄎 | 7.35 𠄎 | 18.21 𠄎 | 24.51 𠄎 |
| 40 | 20.01 𠄎 | 21.31 Z | 25.12 𠄎 | 12.58 𠄎 | 5.19 𠄎 | 12.45 𠄎 | 1.58 𠄎 | 5.00 𠄎 | 25.12 𠄎 | 17.32 𠄎 | 10.57 𠄎 | 12.45 𠄎 | 23.25 𠄎 | 28.56 𠄎 |
| 45 | 25.55 𠄎 | 20.07 Z | 28.59 𠄎 | 16.50 𠄎 | 9.75 𠄎 | 17.46 𠄎 | 5.48 𠄎 | 8.28 𠄎 | 28.59 𠄎 | 20.87 𠄎 | 14.73 𠄎 | 17.46 𠄎 | 28.17 𠄎 | 2.56 𠄎 |
| 50 | 1.38 𠄎 | 18.95 Z | 2.06 𠄎 | 20.42 𠄎 | 14.31 𠄎 | 22.41 𠄎 | 9.33 𠄎 | 11.54 𠄎 | 2.06 𠄎 | 24.40 𠄎 | 18.86 𠄎 | 22.41 𠄎 | 2.98 𠄎 | 6.53 𠄎 |
| 55 | 7.54 𠄎 | 17.94 Z | 5.54 𠄎 | 24.36 𠄎 | 18.87 𠄎 | 27.28 𠄎 | 13.13 𠄎 | 14.81 𠄎 | 5.54 𠄎 | 27.92 𠄎 | 22.95 𠄎 | 27.28 𠄎 | 7.70 𠄎 | 10.47 𠄎 |
| 60 | 14.06 𠄎 | 17.06 Z | 9.02 𠄎 | 28.31 𠄎 | 23.42 𠄎 | 2.09 𠄎 | 16.90 𠄎 | 18.08 𠄎 | 9.02 𠄎 | 1.42 𠄎 | 27.01 𠄎 | 2.09 𠄎 | 12.35 𠄎 | 14.40 𠄎 |
| 65 | 20.94 𠄎 | 16.31 Z | 12.50 𠄎 | 2.27 𠄎 | 27.97 𠄎 | 6.84 𠄎 | 20.65 𠄎 | 21.35 𠄎 | 12.50 𠄎 | 4.91 𠄎 | 1.03 𠄎 | 6.84 𠄎 | 16.94 𠄎 | 18.32 𠄎 |
| 70 | 28.19 𠄎 | 15.68 Z | 16.00 𠄎 | 6.22 𠄎 | 2.50 𠄎 | 11.53 𠄎 | 24.40 𠄎 | 24.64 𠄎 | 16.00 𠄎 | 8.37 𠄎 | 5.00 𠄎 | 11.53 𠄎 | 21.49 𠄎 | 22.25 𠄎 |
| 75 | 5.78 𠄎 | 15.19 Z | 19.49 𠄎 | 10.18 𠄎 | 7.03 𠄎 | 16.19 𠄎 | 28.14 𠄎 | 27.95 𠄎 | 19.49 𠄎 | 11.82 𠄎 | 8.94 𠄎 | 16.19 𠄎 | 26.00 𠄎 | 26.17 𠄎 |
| 80 | 13.67 𠄎 | 14.84 Z | 22.99 𠄎 | 14.14 𠄎 | 11.54 𠄎 | 20.81 𠄎 | 1.90 𠄎 | 1.27 𠄎 | 22.99 𠄎 | 15.25 𠄎 | 12.83 𠄎 | 20.81 𠄎 | 0.50 𠄎 | 0.09 𠄎 |
| 85 | 21.78 𠄎 | 14.63 Z | 26.50 𠄎 | 18.09 𠄎 | 16.03 𠄎 | 25.41 𠄎 | 5.68 𠄎 | 4.61 𠄎 | 26.50 𠄎 | 18.65 𠄎 | 16.70 𠄎 | 25.41 𠄎 | 4.99 𠄎 | 4.03 𠄎 |
| 90 | 0.00 𠄎 | 14.56 Z | 0.00 𠄎 | 22.03 𠄎 | 20.52 𠄎 | 0.00 𠄎 | 9.48 𠄎 | 7.97 𠄎 | 0.00 𠄎 | 22.03 𠄎 | 20.52 𠄎 | 0.00 𠄎 | 9.48 𠄎 | 7.97 𠄎 |
| 95 | 8.22 𠄎 | 14.63 Z | 3.50 𠄎 | 25.97 𠄎 | 25.01 𠄎 | 4.59 𠄎 | 13.30 𠄎 | 11.35 𠄎 | 3.50 𠄎 | 25.39 𠄎 | 24.32 𠄎 | 4.59 𠄎 | 13.97 𠄎 | 11.91 𠄎 |
| 100 | 16.33 𠄎 | 14.84 Z | 7.01 𠄎 | 29.91 𠄎 | 29.50 𠄎 | 9.19 𠄎 | 17.17 𠄎 | 14.75 𠄎 | 7.01 𠄎 | 28.73 𠄎 | 28.10 𠄎 | 9.19 𠄎 | 18.46 𠄎 | 15.86 𠄎 |
| 105 | 24.22 𠄎 | 15.19 Z | 10.51 𠄎 | 3.83 𠄎 | 4.00 𠄎 | 13.81 𠄎 | 21.06 𠄎 | 18.18 𠄎 | 10.51 𠄎 | 2.05 𠄎 | 1.86 𠄎 | 13.81 𠄎 | 22.97 𠄎 | 19.82 𠄎 |
| 110 | 1.81 𠄎 | 15.68 Z | 14.00 𠄎 | 7.75 𠄎 | 8.51 𠄎 | 18.47 𠄎 | 25.00 𠄎 | 21.63 𠄎 | 14.00 𠄎 | 5.36 𠄎 | 5.60 𠄎 | 18.47 𠄎 | 27.50 𠄎 | 23.78 𠄎 |
| 115 | 9.06 𠄎 | 16.31 Z | 17.50 𠄎 | 11.68 𠄎 | 13.06 𠄎 | 23.16 𠄎 | 28.97 𠄎 | 25.09 𠄎 | 17.50 𠄎 | 8.65 𠄎 | 9.35 𠄎 | 23.16 𠄎 | 2.03 𠄎 | 27.73 𠄎 |
| 120 | 15.94 𠄎 | 17.06 Z | 20.98 𠄎 | 15.60 𠄎 | 17.65 𠄎 | 27.91 𠄎 | 2.99 𠄎 | 28.58 𠄎 | 20.98 𠄎 | 11.92 𠄎 | 13.10 𠄎 | 27.91 𠄎 | 6.58 𠄎 | 1.69 𠄎 |
| 125 | 22.46 𠄎 | 17.94 Z | 24.46 𠄎 | 19.53 𠄎 | 22.30 𠄎 | 2.72 𠄎 | 7.05 𠄎 | 2.08 𠄎 | 24.46 𠄎 | 15.19 𠄎 | 16.87 𠄎 | 2.72 𠄎 | 11.13 𠄎 | 5.64 𠄎 |
| 130 | 28.62 𠄎 | 18.95 Z | 27.94 𠄎 | 23.47 𠄎 | 27.02 𠄎 | 7.59 𠄎 | 11.14 𠄎 | 5.60 𠄎 | 27.94 𠄎 | 18.46 𠄎 | 20.67 𠄎 | 7.59 𠄎 | 15.69 𠄎 | 9.58 𠄎 |
| 135 | 4.45 𠄎 | 20.07 Z | 1.41 𠄎 | 27.44 𠄎 | 1.83 𠄎 | 12.54 𠄎 | 15.27 𠄎 | 9.13 𠄎 | 1.41 𠄎 | 21.72 𠄎 | 24.52 𠄎 | 12.54 𠄎 | 20.25 𠄎 | 13.50 𠄎 |
| 140 | 9.99 𠄎 | 21.31 Z | 4.88 𠄎 | 1.44 𠄎 | 6.75 𠄎 | 17.55 𠄎 | 19.43 𠄎 | 12.68 𠄎 | 4.88 𠄎 | 25.00 𠄎 | 28.42 𠄎 | 17.55 𠄎 | 24.81 𠄎 | 17.42 𠄎 |
| 145 | 15.26 𠄎 | 22.65 Z | 8.35 𠄎 | 5.49 𠄎 | 11.79 𠄎 | 22.65 𠄎 | 23.62 𠄎 | 16.24 𠄎 | 8.35 𠄎 | 28.30 𠄎 | 2.40 𠄎 | 22.65 𠄎 | 29.35 𠄎 | 21.32 𠄎 |
| 150 | 20.30 𠄎 | 24.09 Z | 11.82 𠄎 | 9.59 𠄎 | 16.98 𠄎 | 27.82 𠄎 | 27.84 𠄎 | 19.80 𠄎 | 11.82 𠄎 | 1.62 𠄎 | 6.47 𠄎 | 27.82 𠄎 | 3.88 𠄎 | 25.20 𠄎 |
| 155 | 25.15 𠄎 | 25.62 Z | 15.30 𠄎 | 13.77 𠄎 | 22.35 𠄎 | 3.06 𠄎 | 2.08 𠄎 | 23.38 𠄎 | 15.30 𠄎 | 4.99 𠄎 | 10.66 𠄎 | 3.06 𠄎 | 8.39 𠄎 | 29.07 𠄎 |
| 160 | 29.82 𠄎 | 27.24 Z | 18.79 𠄎 | 18.04 𠄎 | 27.90 𠄎 | 8.36 𠄎 | 6.33 𠄎 | 26.96 𠄎 | 18.79 𠄎 | 8.40 𠄎 | 15.00 𠄎 | 8.36 𠄎 | 12.87 𠄎 | 2.92 𠄎 |
| 165 | 4.34 𠄎 | 28.93 Z | 22.30 𠄎 | 22.43 𠄎 | 3.66 𠄎 | 13.72 𠄎 | 10.59 𠄎 | 0.55 𠄎 | 22.30 𠄎 | 11.88 𠄎 | 19.51 𠄎 | 13.72 𠄎 | 17.31 𠄎 | 6.76 𠄎 |
| 170 | 8.74 𠄎 | 30.69 Z | 25.83 𠄎 | 26.98 𠄎 | 9.64 𠄎 | 19.12 𠄎 | 14.85 𠄎 | 4.16 𠄎 | 25.83 𠄎 | 15.45 𠄎 | 24.24 𠄎 | 19.12 𠄎 | 21.72 𠄎 | 10.58 𠄎 |
| 175 | 13.04 𠄎 | 32.52 Z | 29.40 𠄎 | 1.70 𠄎 | 15.86 𠄎 | 24.55 𠄎 | 19.12 𠄎 | 7.77 𠄎 | 29.40 𠄎 | 19.12 𠄎 | 29.20 𠄎 | 24.55 𠄎 | 26.08 𠄎 | 14.39 𠄎 |
| 180 | 17.26 𠄎 | 34.39 Z | 3.02 𠄎 | 6.64 𠄎 | 22.31 𠄎 | 0.00 𠄎 | 23.39 𠄎 | 11.39 𠄎 | 3.02 𠄎 | 22.94 𠄎 | 4.46 𠄎 | 0.00 𠄎 | 0.40 𠄎 | 18.19 𠄎 |

52° NB

| α_z | λ_z | β_z | I | II | III | IV | V | VI | VII | VIII | IX | X | XI | XII |
|------------|-------------|-----------|----------|----------|----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| 185 | 21.42 ♁ | 36.31 Z | 6.69 ♀ | 11.84 ☾ | 28.99 ☿ | 5.45 ♀ | 27.64 ♀ | 15.03 ☾ | 6.69 II | 26.92 II | 10.05 ♀ | 5.45 ♁ | 4.67 III | 21.99 III |
| 190 | 25.52 ♁ | 38.26 Z | 10.44 ♀ | 17.36 ☾ | 5.88 ♀ | 10.88 ♀ | 1.89 ☾ | 18.69 ☾ | 10.44 II | 1.11 ☿ | 16.02 ♀ | 10.88 ♁ | 8.90 III | 25.80 III |
| 195 | 29.58 ♁ | 40.24 Z | 14.29 ♀ | 23.26 ☾ | 12.95 ♀ | 16.28 ♀ | 6.13 ☾ | 22.38 ☾ | 14.29 II | 5.56 ☿ | 22.42 ♀ | 16.28 ♁ | 13.08 III | 29.61 III |
| 200 | 3.61 III | 42.23 Z | 18.26 ♀ | 29.59 ☾ | 20.15 ♀ | 21.64 ♀ | 10.36 ☾ | 26.09 ☾ | 18.26 II | 10.34 ☿ | 29.27 ♀ | 21.64 ♁ | 17.22 III | 3.45 ♀ |
| 205 | 7.62 III | 44.21 Z | 22.37 ♀ | 6.43 ☿ | 27.42 ♀ | 26.94 ♀ | 14.59 ☾ | 29.85 ☾ | 22.37 II | 15.54 ☿ | 6.61 III | 26.94 ♁ | 21.31 III | 7.31 ♀ |
| 210 | 11.62 III | 46.19 Z | 26.67 ♀ | 13.83 ☿ | 4.70 ♀ | 2.18 ☾ | 18.81 ☾ | 3.66 II | 26.67 II | 21.24 ☿ | 14.42 III | 2.18 III | 25.36 III | 11.20 ♀ |
| 215 | 15.62 III | 48.13 Z | 1.20 ☾ | 21.83 ☿ | 11.92 ♀ | 7.35 ☾ | 23.02 ☾ | 7.53 II | 1.20 ☿ | 27.59 ☿ | 22.66 III | 7.35 III | 29.37 III | 15.15 ♀ |
| 220 | 19.61 III | 50.03 Z | 6.01 ☾ | 0.42 ♀ | 19.02 ♀ | 12.45 ☾ | 27.25 ☾ | 11.49 II | 6.01 ☿ | 4.75 ♀ | 1.22 ♁ | 12.45 III | 3.35 ♀ | 19.15 ♀ |
| 225 | 23.61 III | 51.86 Z | 11.17 ☾ | 9.55 ♀ | 25.95 ♀ | 17.46 ☾ | 1.48 II | 15.54 II | 11.17 ☿ | 12.90 ♀ | 9.98 ♁ | 17.46 III | 7.30 ♀ | 23.22 ♀ |
| 230 | 27.62 III | 53.61 Z | 16.77 ☾ | 19.08 ♀ | 2.66 ☾ | 22.41 ☾ | 5.74 II | 19.72 II | 16.77 ☿ | 22.21 ♀ | 18.77 ♁ | 22.41 III | 11.21 ♀ | 27.37 ♀ |
| 235 | 1.63 ♀ | 55.25 Z | 22.91 ☾ | 28.79 ♀ | 9.12 ☾ | 27.28 ☾ | 10.04 II | 24.07 II | 22.91 ☿ | 2.82 III | 27.43 ♁ | 27.28 III | 15.11 ♀ | 1.60 ☾ |
| 240 | 5.66 ♀ | 56.75 Z | 29.72 ☾ | 8.43 ♀ | 15.32 ☾ | 2.09 II | 14.39 II | 28.62 II | 29.72 ☿ | 14.69 III | 5.80 III | 2.09 ♀ | 18.99 ♀ | 5.93 ☾ |
| 245 | 9.70 ♀ | 58.10 Z | 7.34 ☿ | 17.74 ♀ | 21.25 ☾ | 6.84 II | 18.81 II | 3.43 ☿ | 7.34 ♀ | 27.51 III | 13.78 III | 6.84 ♀ | 22.87 ♀ | 10.37 ☾ |
| 250 | 13.74 ♀ | 59.25 Z | 15.91 ☿ | 26.51 ♀ | 26.89 ☾ | 11.53 II | 23.33 II | 8.58 ☿ | 15.91 ♀ | 10.66 ♁ | 21.30 III | 11.53 ♀ | 26.76 ♀ | 14.93 ☾ |
| 255 | 17.80 ♀ | 60.18 Z | 25.54 ☿ | 4.61 ☾ | 2.25 II | 16.19 II | 27.99 II | 14.19 ☿ | 25.54 ♀ | 23.41 ♁ | 28.34 III | 16.19 ♀ | 0.71 ☾ | 19.64 ☾ |
| 260 | 21.86 ♀ | 60.87 Z | 6.24 ♀ | 11.99 ☾ | 7.34 II | 20.81 II | 2.83 ☿ | 20.38 ☿ | 6.24 III | 5.17 III | 4.91 ♀ | 20.81 ♀ | 4.75 ☾ | 24.54 ☾ |
| 265 | 25.93 ♀ | 61.30 Z | 17.85 ♀ | 18.67 ☾ | 12.16 II | 25.41 II | 7.90 ☿ | 27.34 ☿ | 17.85 III | 15.61 III | 11.02 ♀ | 25.41 ♀ | 8.92 ☾ | 29.72 ☾ |
| 270 | 0.00 ☾ | 61.44 Z | 0.00 ♀ | 24.73 ☾ | 16.73 II | 0.00 ☿ | 13.27 ☿ | 5.27 ♀ | 0.00 ♁ | 24.73 III | 16.73 ♀ | 0.00 ☾ | 13.27 ☾ | 5.27 ☿ |
| 275 | 4.07 ☾ | 61.30 Z | 12.15 ♀ | 0.28 II | 21.08 II | 4.59 ☿ | 18.98 ☿ | 14.39 ♀ | 12.15 ♁ | 2.66 ♀ | 22.10 ♀ | 4.59 ☾ | 17.84 ☾ | 11.33 ☿ |
| 280 | 8.14 ☾ | 60.87 Z | 23.76 ♀ | 5.46 II | 25.25 II | 9.19 ☿ | 25.09 ☿ | 24.83 ♀ | 23.76 ♁ | 9.62 ♀ | 27.17 ♀ | 9.19 ☾ | 22.66 ☾ | 18.01 ☿ |
| 285 | 12.20 ☾ | 60.18 Z | 4.46 ☾ | 10.36 II | 29.29 II | 13.81 ☿ | 1.66 ♀ | 6.59 III | 4.46 III | 15.81 ♀ | 2.01 ☾ | 13.81 ☾ | 27.75 ☾ | 25.39 ☿ |
| 290 | 16.26 ☾ | 59.25 Z | 14.09 ☾ | 15.07 II | 3.24 ☿ | 18.47 ☿ | 8.70 ♀ | 19.34 III | 14.09 III | 21.42 ♀ | 6.67 ☾ | 18.47 ☾ | 3.11 ☿ | 3.49 ♀ |
| 295 | 20.30 ☾ | 58.10 Z | 22.66 ☾ | 19.63 II | 7.13 ☿ | 23.16 ☿ | 16.22 ♀ | 2.49 ♁ | 22.66 III | 26.57 ♀ | 11.19 ☾ | 23.16 ☾ | 8.75 ☿ | 12.26 ♀ |
| 300 | 24.34 ☾ | 56.75 Z | 0.28 II | 24.07 II | 11.01 ☿ | 27.91 ☿ | 24.20 ♀ | 15.31 ♁ | 0.28 ♀ | 1.38 ☾ | 15.61 ☾ | 27.91 ☾ | 14.68 ☿ | 21.57 ♀ |
| 305 | 28.37 ☾ | 55.25 Z | 7.09 II | 28.40 II | 14.89 ☿ | 2.72 ♀ | 2.57 III | 27.18 ♁ | 7.09 ♀ | 5.93 ☾ | 19.96 ☾ | 2.72 ☿ | 20.88 ☿ | 1.21 ♀ |
| 310 | 2.38 ☿ | 53.61 Z | 13.23 II | 2.63 ☿ | 18.79 ☿ | 7.59 ♀ | 11.23 III | 7.79 III | 13.23 ♀ | 10.28 ☾ | 24.26 ☾ | 7.59 ☿ | 27.34 ☿ | 10.92 ♀ |
| 315 | 6.39 ☿ | 51.86 Z | 18.83 II | 6.78 ☿ | 22.70 ☿ | 12.54 ♀ | 20.02 III | 17.10 III | 18.83 ♀ | 14.46 ☾ | 28.52 ☾ | 12.54 ☿ | 4.05 ♀ | 20.45 ♀ |
| 320 | 10.39 ☿ | 50.03 Z | 23.99 II | 10.85 ☿ | 26.65 ☿ | 17.55 ♀ | 28.78 III | 25.25 III | 23.99 ♀ | 18.51 ☾ | 2.75 ☿ | 17.55 ☿ | 10.98 ♀ | 29.58 ♀ |
| 325 | 14.38 ☿ | 48.13 Z | 28.80 II | 14.85 ☿ | 0.63 ♀ | 22.65 ♀ | 7.34 ♁ | 2.41 ♀ | 28.80 ♀ | 22.47 ☾ | 6.98 ☿ | 22.65 ☿ | 18.08 ♀ | 8.17 ☾ |
| 330 | 18.38 ☿ | 46.19 Z | 3.33 ☿ | 18.80 ☿ | 4.64 ♀ | 27.82 ♀ | 15.58 ♁ | 8.76 ♀ | 3.33 ☾ | 26.34 ☾ | 11.19 ☿ | 27.82 ☿ | 25.30 ♀ | 16.17 ☾ |
| 335 | 22.38 ☿ | 44.21 Z | 7.63 ☿ | 22.69 ☿ | 8.69 ♀ | 3.06 III | 23.39 ♁ | 14.46 ♀ | 7.63 ☾ | 0.15 ☿ | 15.41 ☿ | 3.06 ♀ | 2.58 ♀ | 23.57 ☾ |
| 340 | 26.39 ☿ | 42.23 Z | 11.74 ☿ | 26.55 ☿ | 12.78 ♀ | 8.36 III | 0.73 III | 19.66 ♀ | 11.74 ☾ | 3.91 ☿ | 19.64 ☿ | 8.36 ♀ | 9.85 ♀ | 0.41 II |
| 345 | 0.42 ♀ | 40.24 Z | 15.71 ☿ | 0.39 ♀ | 16.92 ♀ | 13.72 III | 7.58 III | 24.44 ♀ | 15.71 ☾ | 7.62 ☿ | 23.87 ☿ | 13.72 ♀ | 17.05 ♀ | 6.74 II |
| 350 | 4.48 ♀ | 38.26 Z | 19.56 ☿ | 4.20 ♀ | 21.10 ♀ | 19.12 III | 13.98 III | 28.89 ♀ | 19.56 ☾ | 11.31 ☿ | 28.11 ☿ | 19.12 ♀ | 24.12 ♀ | 12.64 II |
| 355 | 8.58 ♀ | 36.31 Z | 23.31 ☿ | 8.01 ♀ | 25.33 ♀ | 24.55 III | 19.95 III | 3.08 ☾ | 23.31 ☾ | 14.97 ☿ | 2.36 ♀ | 24.55 ♀ | 1.01 ☾ | 18.16 II |
| 360 | 12.74 ♀ | 34.39 Z | 26.98 ☿ | 11.81 ♀ | 29.60 ♀ | 0.00 ♁ | 25.54 III | 7.06 ☾ | 26.98 ☾ | 18.61 ☿ | 6.61 ♀ | 0.00 ♀ | 7.69 ☾ | 23.36 II |

53° NB

| α_z | λ_z | β_z | I | II | III | IV | V | VI | VII | VIII | IX | X | XI | XII |
|------------|-------------|-----------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0 | 13.31 𐄀 | 33.51 Z | 27.83 𐄀 | 12.24 𐄀 | 29.66 𐄀 | 0.00 𐄀 | 26.85 𐄀 | 8.40 𐄀 | 27.83 𐄀 | 19.12 𐄀 | 6.81 𐄀 | 0.00 𐄀 | 8.02 𐄀 | 24.32 𐄀 |
| 5 | 17.56 𐄀 | 31.63 Z | 1.39 𐄀 | 16.01 𐄀 | 3.96 𐄀 | 5.45 𐄀 | 2.04 𐄀 | 12.12 𐄀 | 1.39 𐄀 | 22.71 𐄀 | 11.05 𐄀 | 5.45 𐄀 | 14.52 𐄀 | 29.22 𐄀 |
| 10 | 21.88 𐄀 | 29.80 Z | 4.91 𐄀 | 19.78 𐄀 | 8.30 𐄀 | 10.88 𐄀 | 6.93 𐄀 | 15.71 𐄀 | 4.91 𐄀 | 26.28 𐄀 | 15.29 𐄀 | 10.88 𐄀 | 20.77 𐄀 | 3.90 𐄀 |
| 15 | 26.31 𐄀 | 28.03 Z | 8.39 𐄀 | 23.57 𐄀 | 12.68 𐄀 | 16.28 𐄀 | 11.58 𐄀 | 19.20 𐄀 | 8.39 𐄀 | 29.84 𐄀 | 19.52 𐄀 | 16.28 𐄀 | 26.78 𐄀 | 8.40 𐄀 |
| 20 | 0.86 𐄀 | 26.33 Z | 11.85 𐄀 | 27.37 𐄀 | 17.09 𐄀 | 21.64 𐄀 | 16.03 𐄀 | 22.61 𐄀 | 11.85 𐄀 | 3.39 𐄀 | 23.75 𐄀 | 21.64 𐄀 | 2.56 𐄀 | 12.75 𐄀 |
| 25 | 5.55 𐄀 | 24.70 Z | 15.29 𐄀 | 1.18 𐄀 | 21.54 𐄀 | 26.94 𐄀 | 20.30 𐄀 | 25.96 𐄀 | 15.29 𐄀 | 6.93 𐄀 | 27.97 𐄀 | 26.94 𐄀 | 8.12 𐄀 | 16.99 𐄀 |
| 30 | 10.40 𐄀 | 23.16 Z | 18.72 𐄀 | 5.01 𐄀 | 26.02 𐄀 | 2.18 𐄀 | 24.43 𐄀 | 29.26 𐄀 | 18.72 𐄀 | 10.47 𐄀 | 2.18 𐄀 | 2.18 𐄀 | 13.49 𐄀 | 21.13 𐄀 |
| 35 | 15.46 𐄀 | 21.71 Z | 22.15 𐄀 | 8.85 𐄀 | 0.52 𐄀 | 7.35 𐄀 | 28.44 𐄀 | 2.52 𐄀 | 22.15 𐄀 | 13.99 𐄀 | 6.36 𐄀 | 7.35 𐄀 | 18.69 𐄀 | 25.19 𐄀 |
| 40 | 20.74 𐄀 | 20.36 Z | 25.57 𐄀 | 12.71 𐄀 | 5.04 𐄀 | 12.45 𐄀 | 2.37 𐄀 | 5.76 𐄀 | 25.57 𐄀 | 17.51 𐄀 | 10.52 𐄀 | 12.45 𐄀 | 23.73 𐄀 | 29.20 𐄀 |
| 45 | 26.27 𐄀 | 19.12 Z | 29.00 𐄀 | 16.59 𐄀 | 9.57 𐄀 | 17.46 𐄀 | 6.22 𐄀 | 8.98 𐄀 | 29.00 𐄀 | 21.01 𐄀 | 14.66 𐄀 | 17.46 𐄀 | 28.64 𐄀 | 3.16 𐄀 |
| 50 | 2.09 𐄀 | 17.99 Z | 2.42 𐄀 | 20.48 𐄀 | 14.11 𐄀 | 22.41 𐄀 | 10.01 𐄀 | 12.20 𐄀 | 2.42 𐄀 | 24.50 𐄀 | 18.75 𐄀 | 22.41 𐄀 | 3.45 𐄀 | 7.09 𐄀 |
| 55 | 8.23 𐄀 | 16.97 Z | 5.85 𐄀 | 24.38 𐄀 | 18.64 𐄀 | 27.28 𐄀 | 13.76 𐄀 | 15.41 𐄀 | 5.85 𐄀 | 27.98 𐄀 | 22.82 𐄀 | 27.28 𐄀 | 8.16 𐄀 | 10.99 𐄀 |
| 60 | 14.70 𐄀 | 16.08 Z | 9.29 𐄀 | 28.29 𐄀 | 23.18 𐄀 | 2.09 𐄀 | 17.49 𐄀 | 18.63 𐄀 | 9.29 𐄀 | 1.44 𐄀 | 26.84 𐄀 | 2.09 𐄀 | 12.80 𐄀 | 14.89 𐄀 |
| 65 | 21.52 𐄀 | 15.32 Z | 12.73 𐄀 | 2.20 𐄀 | 27.70 𐄀 | 6.84 𐄀 | 21.20 𐄀 | 21.85 𐄀 | 12.73 𐄀 | 4.88 𐄀 | 0.82 𐄀 | 6.84 𐄀 | 17.38 𐄀 | 18.77 𐄀 |
| 70 | 28.69 𐄀 | 14.69 Z | 16.18 𐄀 | 6.12 𐄀 | 2.21 𐄀 | 11.53 𐄀 | 24.91 𐄀 | 25.09 𐄀 | 16.18 𐄀 | 8.30 𐄀 | 4.77 𐄀 | 11.53 𐄀 | 21.91 𐄀 | 22.66 𐄀 |
| 75 | 6.19 𐄀 | 14.20 Z | 19.63 𐄀 | 10.04 𐄀 | 6.71 𐄀 | 16.19 𐄀 | 28.62 𐄀 | 28.35 𐄀 | 19.63 𐄀 | 11.70 𐄀 | 8.67 𐄀 | 16.19 𐄀 | 26.42 𐄀 | 26.54 𐄀 |
| 80 | 13.96 𐄀 | 13.85 Z | 23.08 𐄀 | 13.95 𐄀 | 11.20 𐄀 | 20.81 𐄀 | 2.34 𐄀 | 1.62 𐄀 | 23.08 𐄀 | 15.08 𐄀 | 12.53 𐄀 | 20.81 𐄀 | 0.90 𐄀 | 0.43 𐄀 |
| 85 | 21.92 𐄀 | 13.63 Z | 26.54 𐄀 | 17.87 𐄀 | 15.68 𐄀 | 25.41 𐄀 | 6.08 𐄀 | 4.91 𐄀 | 26.54 𐄀 | 18.44 𐄀 | 16.36 𐄀 | 25.41 𐄀 | 5.37 𐄀 | 4.32 𐄀 |
| 90 | 0.00 𐄀 | 13.56 Z | 0.00 𐄀 | 21.77 𐄀 | 20.16 𐄀 | 0.00 𐄀 | 9.84 𐄀 | 8.23 𐄀 | 0.00 𐄀 | 21.77 𐄀 | 20.16 𐄀 | 0.00 𐄀 | 9.84 𐄀 | 8.23 𐄀 |
| 95 | 8.08 𐄀 | 13.63 Z | 3.46 𐄀 | 25.68 𐄀 | 24.63 𐄀 | 4.59 𐄀 | 13.64 𐄀 | 11.56 𐄀 | 3.46 𐄀 | 25.09 𐄀 | 23.92 𐄀 | 4.59 𐄀 | 14.32 𐄀 | 12.13 𐄀 |
| 100 | 16.04 𐄀 | 13.85 Z | 6.92 𐄀 | 29.57 𐄀 | 29.10 𐄀 | 9.19 𐄀 | 17.47 𐄀 | 14.92 𐄀 | 6.92 𐄀 | 28.38 𐄀 | 27.66 𐄀 | 9.19 𐄀 | 18.80 𐄀 | 16.05 𐄀 |
| 105 | 23.81 𐄀 | 14.20 Z | 10.37 𐄀 | 3.46 𐄀 | 3.58 𐄀 | 13.81 𐄀 | 21.33 𐄀 | 18.30 𐄀 | 10.37 𐄀 | 1.65 𐄀 | 1.38 𐄀 | 13.81 𐄀 | 23.29 𐄀 | 19.96 𐄀 |
| 110 | 1.31 𐄀 | 14.69 Z | 13.82 𐄀 | 7.34 𐄀 | 8.09 𐄀 | 18.47 𐄀 | 25.23 𐄀 | 21.70 𐄀 | 13.82 𐄀 | 4.91 𐄀 | 5.09 𐄀 | 18.47 𐄀 | 27.79 𐄀 | 23.88 𐄀 |
| 115 | 8.48 𐄀 | 15.32 Z | 17.27 𐄀 | 11.23 𐄀 | 12.62 𐄀 | 23.16 𐄀 | 29.18 𐄀 | 25.12 𐄀 | 17.27 𐄀 | 8.15 𐄀 | 8.80 𐄀 | 23.16 𐄀 | 2.30 𐄀 | 27.80 𐄀 |
| 120 | 15.30 𐄀 | 16.08 Z | 20.71 𐄀 | 15.11 𐄀 | 17.20 𐄀 | 27.91 𐄀 | 3.16 𐄀 | 28.56 𐄀 | 20.71 𐄀 | 11.37 𐄀 | 12.51 𐄀 | 27.91 𐄀 | 6.82 𐄀 | 1.71 𐄀 |
| 125 | 21.77 𐄀 | 16.97 Z | 24.15 𐄀 | 19.01 𐄀 | 21.84 𐄀 | 2.72 𐄀 | 7.18 𐄀 | 2.02 𐄀 | 24.15 𐄀 | 14.59 𐄀 | 16.24 𐄀 | 2.72 𐄀 | 11.36 𐄀 | 5.62 𐄀 |
| 130 | 27.91 𐄀 | 17.99 Z | 27.58 𐄀 | 22.91 𐄀 | 26.55 𐄀 | 7.59 𐄀 | 11.25 𐄀 | 5.50 𐄀 | 27.58 𐄀 | 17.80 𐄀 | 19.99 𐄀 | 7.59 𐄀 | 15.89 𐄀 | 9.52 𐄀 |
| 135 | 3.73 𐄀 | 19.12 Z | 1.00 𐄀 | 26.84 𐄀 | 1.36 𐄀 | 12.54 𐄀 | 15.34 𐄀 | 8.99 𐄀 | 1.00 𐄀 | 21.02 𐄀 | 23.78 𐄀 | 12.54 𐄀 | 20.43 𐄀 | 13.41 𐄀 |
| 140 | 9.26 𐄀 | 20.36 Z | 4.43 𐄀 | 0.80 𐄀 | 6.27 𐄀 | 17.55 𐄀 | 19.48 𐄀 | 12.49 𐄀 | 4.43 𐄀 | 24.24 𐄀 | 27.63 𐄀 | 17.55 𐄀 | 24.96 𐄀 | 17.29 𐄀 |
| 145 | 14.54 𐄀 | 21.71 Z | 7.85 𐄀 | 4.81 𐄀 | 11.31 𐄀 | 22.65 𐄀 | 23.64 𐄀 | 16.01 𐄀 | 7.85 𐄀 | 27.48 𐄀 | 1.56 𐄀 | 22.65 𐄀 | 29.48 𐄀 | 21.15 𐄀 |
| 150 | 19.60 𐄀 | 23.16 Z | 11.28 𐄀 | 8.87 𐄀 | 16.51 𐄀 | 27.82 𐄀 | 27.82 𐄀 | 19.53 𐄀 | 11.28 𐄀 | 0.74 𐄀 | 5.57 𐄀 | 27.82 𐄀 | 3.98 𐄀 | 24.99 𐄀 |
| 155 | 24.45 𐄀 | 24.70 Z | 14.71 𐄀 | 13.01 𐄀 | 21.88 𐄀 | 3.06 𐄀 | 2.03 𐄀 | 23.07 𐄀 | 14.71 𐄀 | 4.04 𐄀 | 9.70 𐄀 | 3.06 𐄀 | 8.46 𐄀 | 28.82 𐄀 |
| 160 | 29.14 𐄀 | 26.33 Z | 18.15 𐄀 | 17.25 𐄀 | 27.44 𐄀 | 8.36 𐄀 | 6.25 𐄀 | 26.61 𐄀 | 18.15 𐄀 | 7.39 𐄀 | 13.97 𐄀 | 8.36 𐄀 | 12.91 𐄀 | 2.63 𐄀 |
| 165 | 3.69 𐄀 | 28.03 Z | 21.61 𐄀 | 21.60 𐄀 | 3.22 𐄀 | 13.72 𐄀 | 10.48 𐄀 | 0.16 𐄀 | 21.61 𐄀 | 10.80 𐄀 | 18.42 𐄀 | 13.72 𐄀 | 17.32 𐄀 | 6.43 𐄀 |
| 170 | 8.12 𐄀 | 29.80 Z | 25.09 𐄀 | 26.10 𐄀 | 9.23 𐄀 | 19.12 𐄀 | 14.71 𐄀 | 3.72 𐄀 | 25.09 𐄀 | 14.29 𐄀 | 23.07 𐄀 | 19.12 𐄀 | 21.70 𐄀 | 10.22 𐄀 |
| 175 | 12.44 𐄀 | 31.63 Z | 28.61 𐄀 | 0.78 𐄀 | 15.48 𐄀 | 24.55 𐄀 | 18.95 𐄀 | 7.29 𐄀 | 28.61 𐄀 | 17.88 𐄀 | 27.96 𐄀 | 24.55 𐄀 | 26.04 𐄀 | 13.99 𐄀 |
| 180 | 16.69 𐄀 | 33.51 Z | 2.17 𐄀 | 5.68 𐄀 | 21.98 𐄀 | 0.00 𐄀 | 23.19 𐄀 | 10.88 𐄀 | 2.17 𐄀 | 21.60 𐄀 | 3.15 𐄀 | 0.00 𐄀 | 0.34 𐄀 | 17.76 𐄀 |

53° NB

| α_z | λ_z | β_z | I | II | III | IV | V | VI | VII | VIII | IX | X | XI | XII |
|------------|-------------|-----------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 185 | 20.86 ㊄ | 35.44 Z | 5.79 ㄥ | 10.86 ㄥ | 28.71 ㄥ | 5.45 ㄥ | 27.42 ㄥ | 14.48 ㄥ | 5.79 ㄥ | 25.49 ㄥ | 8.67 ㄥ | 5.45 ㊄ | 4.59 ㄥ | 21.52 ㄥ |
| 190 | 24.99 ㊄ | 37.40 Z | 9.48 ㄥ | 16.35 ㄥ | 5.67 ㄥ | 10.88 ㄥ | 1.64 ㄥ | 18.10 ㄥ | 9.48 ㄥ | 29.57 ㄥ | 14.59 ㄥ | 10.88 ㊄ | 8.79 ㄥ | 25.29 ㄥ |
| 195 | 29.08 ㊄ | 39.37 Z | 13.27 ㄥ | 22.24 ㄥ | 12.81 ㄥ | 16.28 ㄥ | 5.86 ㄥ | 21.74 ㄥ | 13.27 ㄥ | 3.92 ㄥ | 20.94 ㄥ | 16.28 ㊄ | 12.95 ㄥ | 29.07 ㄥ |
| 200 | 3.14 ㄥ | 41.36 Z | 17.17 ㄥ | 28.58 ㄥ | 20.09 ㄥ | 21.64 ㄥ | 10.06 ㄥ | 25.42 ㄥ | 17.17 ㄥ | 8.58 ㄥ | 27.79 ㄥ | 21.64 ㊄ | 17.06 ㄥ | 2.87 ㄥ |
| 205 | 7.18 ㄥ | 43.35 Z | 21.21 ㄥ | 5.45 ㄥ | 27.45 ㄥ | 26.94 ㄥ | 14.26 ㄥ | 29.14 ㄥ | 21.21 ㄥ | 13.64 ㄥ | 5.15 ㄥ | 26.94 ㊄ | 21.13 ㄥ | 6.69 ㄥ |
| 210 | 11.21 ㄥ | 45.32 Z | 25.44 ㄥ | 12.92 ㄥ | 4.82 ㄥ | 2.18 ㄥ | 18.46 ㄥ | 2.90 ㄥ | 25.44 ㄥ | 19.22 ㄥ | 13.03 ㄥ | 2.18 ㄥ | 25.16 ㄥ | 10.55 ㄥ |
| 215 | 15.24 ㄥ | 47.25 Z | 29.89 ㄥ | 21.04 ㄥ | 12.12 ㄥ | 7.35 ㄥ | 22.65 ㄥ | 6.73 ㄥ | 29.89 ㄥ | 25.44 ㄥ | 21.39 ㄥ | 7.35 ㄥ | 29.16 ㄥ | 14.46 ㄥ |
| 220 | 19.26 ㄥ | 49.14 Z | 4.62 ㄥ | 29.82 ㄥ | 19.31 ㄥ | 12.45 ㄥ | 26.85 ㄥ | 10.63 ㄥ | 4.62 ㄥ | 2.48 ㄥ | 0.13 ㊄ | 12.45 ㄥ | 3.11 ㄥ | 18.43 ㄥ |
| 225 | 23.30 ㄥ | 50.97 Z | 9.70 ㄥ | 9.20 ㄥ | 26.31 ㄥ | 17.46 ㄥ | 1.06 ㄥ | 14.64 ㄥ | 9.70 ㄥ | 10.56 ㄥ | 9.11 ㊄ | 17.46 ㄥ | 7.03 ㄥ | 22.46 ㄥ |
| 230 | 27.33 ㄥ | 52.70 Z | 15.23 ㄥ | 19.02 ㄥ | 3.08 ㄥ | 22.41 ㄥ | 5.30 ㄥ | 18.77 ㄥ | 15.23 ㄥ | 19.89 ㄥ | 18.15 ㊄ | 22.41 ㄥ | 10.93 ㄥ | 26.58 ㄥ |
| 235 | 1.38 ㄥ | 54.33 Z | 21.31 ㄥ | 29.05 ㄥ | 9.60 ㄥ | 27.28 ㄥ | 9.57 ㄥ | 23.05 ㄥ | 21.31 ㄥ | 0.66 ㄥ | 27.07 ㊄ | 27.28 ㄥ | 14.80 ㄥ | 0.78 ㄥ |
| 240 | 5.44 ㄥ | 55.82 Z | 28.07 ㄥ | 9.01 ㄥ | 15.85 ㄥ | 2.09 ㄥ | 13.90 ㄥ | 27.54 ㄥ | 28.07 ㄥ | 12.90 ㄥ | 5.68 ㄥ | 2.09 ㄥ | 18.65 ㄥ | 5.08 ㄥ |
| 245 | 9.52 ㄥ | 57.15 Z | 5.70 ㄥ | 18.60 ㄥ | 21.81 ㄥ | 6.84 ㄥ | 18.30 ㄥ | 2.29 ㄥ | 5.70 ㄥ | 26.28 ㄥ | 13.87 ㄥ | 6.84 ㄥ | 22.49 ㄥ | 9.47 ㄥ |
| 250 | 13.60 ㄥ | 58.29 Z | 14.34 ㄥ | 27.59 ㄥ | 27.48 ㄥ | 11.53 ㄥ | 22.80 ㄥ | 7.37 ㄥ | 14.34 ㄥ | 10.14 ㊄ | 21.57 ㄥ | 11.53 ㄥ | 26.35 ㄥ | 13.98 ㄥ |
| 255 | 17.69 ㄥ | 59.21 Z | 24.16 ㄥ | 5.84 ㄥ | 2.86 ㄥ | 16.19 ㄥ | 27.43 ㄥ | 12.91 ㄥ | 24.16 ㄥ | 23.58 ㊄ | 28.75 ㄥ | 16.19 ㄥ | 0.25 ㄥ | 18.62 ㄥ |
| 260 | 21.79 ㄥ | 59.88 Z | 5.19 ㄥ | 13.29 ㄥ | 7.96 ㄥ | 20.81 ㄥ | 2.25 ㄥ | 19.06 ㄥ | 5.19 ㄥ | 5.88 ㄥ | 5.41 ㄥ | 20.81 ㄥ | 4.24 ㄥ | 23.45 ㄥ |
| 265 | 25.89 ㄥ | 60.30 Z | 17.28 ㄥ | 19.97 ㄥ | 12.77 ㄥ | 25.41 ㄥ | 7.31 ㄥ | 26.01 ㄥ | 17.28 ㄥ | 16.68 ㄥ | 11.58 ㄥ | 25.41 ㄥ | 8.36 ㄥ | 28.53 ㄥ |
| 270 | 0.00 ㄥ | 60.44 Z | 0.00 ㄥ | 25.99 ㄥ | 17.32 ㄥ | 0.00 ㄥ | 12.68 ㄥ | 4.01 ㄥ | 0.00 ㊄ | 25.99 ㄥ | 17.32 ㄥ | 0.00 ㄥ | 12.68 ㄥ | 4.01 ㄥ |
| 275 | 4.11 ㄥ | 60.30 Z | 12.72 ㄥ | 1.47 ㄥ | 21.64 ㄥ | 4.59 ㄥ | 18.42 ㄥ | 13.32 ㄥ | 12.72 ㊄ | 3.99 ㄥ | 22.69 ㄥ | 4.59 ㄥ | 17.23 ㄥ | 10.03 ㄥ |
| 280 | 8.21 ㄥ | 59.88 Z | 24.81 ㄥ | 6.55 ㄥ | 25.76 ㄥ | 9.19 ㄥ | 24.59 ㄥ | 24.12 ㄥ | 24.81 ㊄ | 10.94 ㄥ | 27.75 ㄥ | 9.19 ㄥ | 22.04 ㄥ | 16.71 ㄥ |
| 285 | 12.31 ㄥ | 59.21 Z | 5.84 ㄥ | 11.38 ㄥ | 29.75 ㄥ | 13.81 ㄥ | 1.25 ㄥ | 6.42 ㄥ | 5.84 ㄥ | 17.09 ㄥ | 2.57 ㄥ | 13.81 ㄥ | 27.14 ㄥ | 24.16 ㄥ |
| 290 | 16.40 ㄥ | 58.29 Z | 15.66 ㄥ | 16.02 ㄥ | 3.65 ㄥ | 18.47 ㄥ | 8.43 ㄥ | 19.86 ㄥ | 15.66 ㄥ | 22.63 ㄥ | 7.20 ㄥ | 18.47 ㄥ | 2.52 ㄥ | 2.41 ㄥ |
| 295 | 20.48 ㄥ | 57.15 Z | 24.30 ㄥ | 20.53 ㄥ | 7.51 ㄥ | 23.16 ㄥ | 16.13 ㄥ | 3.72 ㊄ | 24.30 ㄥ | 27.71 ㄥ | 11.70 ㄥ | 23.16 ㄥ | 8.19 ㄥ | 11.40 ㄥ |
| 300 | 24.56 ㄥ | 55.82 Z | 1.93 ㄥ | 24.92 ㄥ | 11.35 ㄥ | 27.91 ㄥ | 24.32 ㄥ | 17.10 ㊄ | 1.93 ㄥ | 2.46 ㄥ | 16.10 ㄥ | 27.91 ㄥ | 14.15 ㄥ | 20.99 ㄥ |
| 305 | 28.62 ㄥ | 54.33 Z | 8.69 ㄥ | 29.22 ㄥ | 15.20 ㄥ | 2.72 ㄥ | 2.93 ㄥ | 29.34 ㊄ | 8.69 ㄥ | 6.95 ㄥ | 20.43 ㄥ | 2.72 ㄥ | 20.40 ㄥ | 0.95 ㄥ |
| 310 | 2.67 ㄥ | 52.70 Z | 14.77 ㄥ | 3.42 ㄥ | 19.07 ㄥ | 7.59 ㄥ | 11.85 ㄥ | 10.11 ㄥ | 14.77 ㄥ | 11.23 ㄥ | 24.70 ㄥ | 7.59 ㄥ | 26.92 ㄥ | 10.98 ㄥ |
| 315 | 6.70 ㄥ | 50.97 Z | 20.30 ㄥ | 7.54 ㄥ | 22.97 ㄥ | 12.54 ㄥ | 20.89 ㄥ | 19.44 ㄥ | 20.30 ㄥ | 15.36 ㄥ | 28.94 ㄥ | 12.54 ㄥ | 3.69 ㄥ | 20.80 ㄥ |
| 320 | 10.74 ㄥ | 49.14 Z | 25.38 ㄥ | 11.57 ㄥ | 26.89 ㄥ | 17.55 ㄥ | 29.87 ㄥ | 27.52 ㄥ | 25.38 ㄥ | 19.37 ㄥ | 3.15 ㄥ | 17.55 ㄥ | 10.69 ㄥ | 0.18 ㄥ |
| 325 | 14.76 ㄥ | 47.25 Z | 0.11 ㄥ | 15.54 ㄥ | 0.84 ㄥ | 22.65 ㄥ | 8.61 ㊄ | 4.56 ㄥ | 0.11 ㄥ | 23.27 ㄥ | 7.35 ㄥ | 22.65 ㄥ | 17.88 ㄥ | 8.96 ㄥ |
| 330 | 18.79 ㄥ | 45.32 Z | 4.56 ㄥ | 19.45 ㄥ | 4.84 ㄥ | 27.82 ㄥ | 16.97 ㊄ | 10.78 ㄥ | 4.56 ㄥ | 27.10 ㄥ | 11.54 ㄥ | 27.82 ㄥ | 25.18 ㄥ | 17.08 ㄥ |
| 335 | 22.82 ㄥ | 43.35 Z | 8.79 ㄥ | 23.31 ㄥ | 8.87 ㄥ | 3.06 ㄥ | 24.85 ㊄ | 16.36 ㄥ | 8.79 ㄥ | 0.86 ㄥ | 15.74 ㄥ | 3.06 ㄥ | 2.55 ㄥ | 24.55 ㄥ |
| 340 | 26.86 ㄥ | 41.36 Z | 12.83 ㄥ | 27.13 ㄥ | 12.94 ㄥ | 8.36 ㄥ | 2.21 ㄥ | 21.42 ㄥ | 12.83 ㄥ | 4.58 ㄥ | 19.94 ㄥ | 8.36 ㄥ | 9.91 ㄥ | 1.42 ㄥ |
| 345 | 0.92 ㄥ | 39.37 Z | 16.73 ㄥ | 0.93 ㄥ | 17.05 ㄥ | 13.72 ㄥ | 9.06 ㄥ | 26.08 ㄥ | 16.73 ㄥ | 8.26 ㄥ | 24.14 ㄥ | 13.72 ㄥ | 17.19 ㄥ | 7.76 ㄥ |
| 350 | 5.01 ㄥ | 37.40 Z | 20.52 ㄥ | 4.71 ㄥ | 21.21 ㄥ | 19.12 ㄥ | 15.41 ㄥ | 0.43 ㄥ | 20.52 ㄥ | 11.90 ㄥ | 28.36 ㄥ | 19.12 ㄥ | 24.33 ㄥ | 13.65 ㄥ |
| 355 | 9.14 ㄥ | 35.44 Z | 24.21 ㄥ | 8.48 ㄥ | 25.41 ㄥ | 24.55 ㄥ | 21.33 ㄥ | 4.51 ㄥ | 24.21 ㄥ | 15.52 ㄥ | 2.58 ㄥ | 24.55 ㄥ | 1.29 ㄥ | 19.14 ㄥ |
| 360 | 13.31 ㄥ | 33.51 Z | 27.83 ㄥ | 12.24 ㄥ | 29.66 ㄥ | 0.00 ㊄ | 26.85 ㄥ | 8.40 ㄥ | 27.83 ㄥ | 19.12 ㄥ | 6.81 ㄥ | 0.00 ㄥ | 8.02 ㄥ | 24.32 ㄥ |

54° NB

| α_z | λ_z | β_z | I | II | III | IV | V | VI | VII | VIII | IX | X | XI | XII |
|------------|-------------|-----------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0 | 13.88 𠄎 | 32.63 Z | 28.70 𠄎 | 12.69 𠄎 | 29.73 𠄎 | 0.00 𠄎 | 28.27 𠄎 | 9.78 𠄎 | 28.70 𠄎 | 19.64 𠄎 | 7.01 𠄎 | 0.00 𠄎 | 8.38 𠄎 | 25.32 𠄎 |
| 5 | 18.15 𠄎 | 30.75 Z | 2.20 𠄎 | 16.42 𠄎 | 4.00 𠄎 | 5.45 𠄎 | 3.37 𠄎 | 13.41 𠄎 | 2.20 𠄎 | 23.19 𠄎 | 11.22 𠄎 | 5.45 𠄎 | 14.92 𠄎 | 0.18 𠄎 |
| 10 | 22.50 𠄎 | 28.91 Z | 5.67 𠄎 | 20.16 𠄎 | 8.31 𠄎 | 10.88 𠄎 | 8.18 𠄎 | 16.92 𠄎 | 5.67 𠄎 | 26.72 𠄎 | 15.43 𠄎 | 10.88 𠄎 | 21.21 𠄎 | 4.82 𠄎 |
| 15 | 26.95 𠄎 | 27.13 Z | 9.10 𠄎 | 23.90 𠄎 | 12.66 𠄎 | 16.28 𠄎 | 12.75 𠄎 | 20.33 𠄎 | 9.10 𠄎 | 0.24 𠄎 | 19.64 𠄎 | 16.28 𠄎 | 27.25 𠄎 | 9.28 𠄎 |
| 20 | 1.51 𠄎 | 25.42 Z | 12.51 𠄎 | 27.66 𠄎 | 17.05 𠄎 | 21.64 𠄎 | 17.11 𠄎 | 23.66 𠄎 | 12.51 𠄎 | 3.75 𠄎 | 23.84 𠄎 | 21.64 𠄎 | 3.04 𠄎 | 13.59 𠄎 |
| 25 | 6.22 𠄎 | 23.78 Z | 15.90 𠄎 | 1.44 𠄎 | 21.48 𠄎 | 26.94 𠄎 | 21.31 𠄎 | 26.93 𠄎 | 15.90 𠄎 | 7.25 𠄎 | 28.03 𠄎 | 26.94 𠄎 | 8.62 𠄎 | 17.78 𠄎 |
| 30 | 11.09 𠄎 | 22.23 Z | 19.28 𠄎 | 5.23 𠄎 | 25.93 𠄎 | 2.18 𠄎 | 25.37 𠄎 | 0.17 𠄎 | 19.28 𠄎 | 10.74 𠄎 | 2.20 𠄎 | 2.18 𠄎 | 13.99 𠄎 | 21.87 𠄎 |
| 35 | 16.15 𠄎 | 20.78 Z | 22.66 𠄎 | 9.03 𠄎 | 0.40 𠄎 | 7.35 𠄎 | 29.33 𠄎 | 3.36 𠄎 | 22.66 𠄎 | 14.23 𠄎 | 6.35 𠄎 | 7.35 𠄎 | 19.19 𠄎 | 25.89 𠄎 |
| 40 | 21.43 𠄎 | 19.42 Z | 26.04 𠄎 | 12.85 𠄎 | 4.89 𠄎 | 12.45 𠄎 | 3.19 𠄎 | 6.54 𠄎 | 26.04 𠄎 | 17.70 𠄎 | 10.48 𠄎 | 12.45 𠄎 | 24.23 𠄎 | 29.86 𠄎 |
| 45 | 26.97 𠄎 | 18.16 Z | 29.41 𠄎 | 16.69 𠄎 | 9.40 𠄎 | 17.46 𠄎 | 6.98 𠄎 | 9.71 𠄎 | 29.41 𠄎 | 21.16 𠄎 | 14.58 𠄎 | 17.46 𠄎 | 29.14 𠄎 | 3.78 𠄎 |
| 50 | 2.77 𠄎 | 17.02 Z | 2.79 𠄎 | 20.54 𠄎 | 13.90 𠄎 | 22.41 𠄎 | 10.72 𠄎 | 12.86 𠄎 | 2.79 𠄎 | 24.60 𠄎 | 18.64 𠄎 | 22.41 𠄎 | 3.94 𠄎 | 7.67 𠄎 |
| 55 | 8.88 𠄎 | 16.00 Z | 6.18 𠄎 | 24.40 𠄎 | 18.41 𠄎 | 27.28 𠄎 | 14.43 𠄎 | 16.02 𠄎 | 6.18 𠄎 | 28.03 𠄎 | 22.67 𠄎 | 27.28 𠄎 | 8.64 𠄎 | 11.53 𠄎 |
| 60 | 15.32 𠄎 | 15.10 Z | 9.57 𠄎 | 28.27 𠄎 | 22.92 𠄎 | 2.09 𠄎 | 18.11 𠄎 | 19.19 𠄎 | 9.57 𠄎 | 1.45 𠄎 | 26.66 𠄎 | 2.09 𠄎 | 13.27 𠄎 | 15.39 𠄎 |
| 65 | 22.08 𠄎 | 14.34 Z | 12.96 𠄎 | 2.14 𠄎 | 27.42 𠄎 | 6.84 𠄎 | 21.78 𠄎 | 22.36 𠄎 | 12.96 𠄎 | 4.84 𠄎 | 0.61 𠄎 | 6.84 𠄎 | 17.83 𠄎 | 19.23 𠄎 |
| 70 | 29.17 𠄎 | 13.70 Z | 16.36 𠄎 | 6.02 𠄎 | 1.91 𠄎 | 11.53 𠄎 | 25.44 𠄎 | 25.55 𠄎 | 16.36 𠄎 | 8.22 𠄎 | 4.52 𠄎 | 11.53 𠄎 | 22.36 𠄎 | 23.08 𠄎 |
| 75 | 6.57 𠄎 | 13.21 Z | 19.77 𠄎 | 9.89 𠄎 | 6.39 𠄎 | 16.19 𠄎 | 29.11 𠄎 | 28.76 𠄎 | 19.77 𠄎 | 11.58 𠄎 | 8.39 𠄎 | 16.19 𠄎 | 26.85 𠄎 | 26.92 𠄎 |
| 80 | 14.22 𠄎 | 12.85 Z | 23.18 𠄎 | 13.77 𠄎 | 10.86 𠄎 | 20.81 𠄎 | 2.79 𠄎 | 1.98 𠄎 | 23.18 𠄎 | 14.91 𠄎 | 12.22 𠄎 | 20.81 𠄎 | 1.32 𠄎 | 0.77 𠄎 |
| 85 | 22.06 𠄎 | 12.63 Z | 26.59 𠄎 | 17.64 𠄎 | 15.32 𠄎 | 25.41 𠄎 | 6.50 𠄎 | 5.22 𠄎 | 26.59 𠄎 | 18.22 𠄎 | 16.02 𠄎 | 25.41 𠄎 | 5.77 𠄎 | 4.63 𠄎 |
| 90 | 0.00 𠄎 | 12.56 Z | 0.00 𠄎 | 21.51 𠄎 | 19.78 𠄎 | 0.00 𠄎 | 10.22 𠄎 | 8.49 𠄎 | 0.00 𠄎 | 21.51 𠄎 | 19.78 𠄎 | 0.00 𠄎 | 10.22 𠄎 | 8.49 𠄎 |
| 95 | 7.94 𠄎 | 12.63 Z | 3.41 𠄎 | 25.37 𠄎 | 24.23 𠄎 | 4.59 𠄎 | 13.98 𠄎 | 11.78 𠄎 | 3.41 𠄎 | 24.78 𠄎 | 23.50 𠄎 | 4.59 𠄎 | 14.68 𠄎 | 12.36 𠄎 |
| 100 | 15.78 𠄎 | 12.85 Z | 6.82 𠄎 | 29.23 𠄎 | 28.68 𠄎 | 9.19 𠄎 | 17.78 𠄎 | 15.09 𠄎 | 6.82 𠄎 | 28.02 𠄎 | 27.21 𠄎 | 9.19 𠄎 | 19.14 𠄎 | 16.23 𠄎 |
| 105 | 23.43 𠄎 | 13.21 Z | 10.23 𠄎 | 3.08 𠄎 | 3.15 𠄎 | 13.81 𠄎 | 21.61 𠄎 | 18.42 𠄎 | 10.23 𠄎 | 1.24 𠄎 | 0.89 𠄎 | 13.81 𠄎 | 23.61 𠄎 | 20.11 𠄎 |
| 110 | 0.83 𠄎 | 13.70 Z | 13.64 𠄎 | 6.92 𠄎 | 7.64 𠄎 | 18.47 𠄎 | 25.48 𠄎 | 21.78 𠄎 | 13.64 𠄎 | 4.45 𠄎 | 4.56 𠄎 | 18.47 𠄎 | 28.09 𠄎 | 23.98 𠄎 |
| 115 | 7.92 𠄎 | 14.34 Z | 17.04 𠄎 | 10.77 𠄎 | 12.17 𠄎 | 23.16 𠄎 | 29.39 𠄎 | 25.16 𠄎 | 17.04 𠄎 | 7.64 𠄎 | 8.22 𠄎 | 23.16 𠄎 | 2.58 𠄎 | 27.86 𠄎 |
| 120 | 14.68 𠄎 | 15.10 Z | 20.43 𠄎 | 14.61 𠄎 | 16.73 𠄎 | 27.91 𠄎 | 3.34 𠄎 | 28.55 𠄎 | 20.43 𠄎 | 10.81 𠄎 | 11.89 𠄎 | 27.91 𠄎 | 7.08 𠄎 | 1.73 𠄎 |
| 125 | 21.12 𠄎 | 16.00 Z | 23.82 𠄎 | 18.47 𠄎 | 21.36 𠄎 | 2.72 𠄎 | 7.33 𠄎 | 1.97 𠄎 | 23.82 𠄎 | 13.98 𠄎 | 15.57 𠄎 | 2.72 𠄎 | 11.59 𠄎 | 5.60 𠄎 |
| 130 | 27.23 𠄎 | 17.02 Z | 27.21 𠄎 | 22.33 𠄎 | 26.06 𠄎 | 7.59 𠄎 | 11.36 𠄎 | 5.40 𠄎 | 27.21 𠄎 | 17.14 𠄎 | 19.28 𠄎 | 7.59 𠄎 | 16.10 𠄎 | 9.46 𠄎 |
| 135 | 3.03 𠄎 | 18.16 Z | 0.59 𠄎 | 26.22 𠄎 | 0.86 𠄎 | 12.54 𠄎 | 15.42 𠄎 | 8.84 𠄎 | 0.59 𠄎 | 20.29 𠄎 | 23.02 𠄎 | 12.54 𠄎 | 20.60 𠄎 | 13.31 𠄎 |
| 140 | 8.57 𠄎 | 19.42 Z | 3.96 𠄎 | 0.14 𠄎 | 5.77 𠄎 | 17.55 𠄎 | 19.52 𠄎 | 12.30 𠄎 | 3.96 𠄎 | 23.46 𠄎 | 26.81 𠄎 | 17.55 𠄎 | 25.11 𠄎 | 17.15 𠄎 |
| 145 | 13.85 𠄎 | 20.78 Z | 7.34 𠄎 | 4.11 𠄎 | 10.81 𠄎 | 22.65 𠄎 | 23.65 𠄎 | 15.77 𠄎 | 7.34 𠄎 | 26.64 𠄎 | 0.67 𠄎 | 22.65 𠄎 | 29.60 𠄎 | 20.97 𠄎 |
| 150 | 18.91 𠄎 | 22.23 Z | 10.72 𠄎 | 8.13 𠄎 | 16.01 𠄎 | 27.82 𠄎 | 27.80 𠄎 | 19.26 𠄎 | 10.72 𠄎 | 29.83 𠄎 | 4.63 𠄎 | 27.82 𠄎 | 4.07 𠄎 | 24.77 𠄎 |
| 155 | 23.78 𠄎 | 23.78 Z | 14.10 𠄎 | 12.22 𠄎 | 21.38 𠄎 | 3.06 𠄎 | 1.97 𠄎 | 22.75 𠄎 | 14.10 𠄎 | 3.07 𠄎 | 8.69 𠄎 | 3.06 𠄎 | 8.52 𠄎 | 28.56 𠄎 |
| 160 | 28.49 𠄎 | 25.42 Z | 17.49 𠄎 | 16.41 𠄎 | 26.96 𠄎 | 8.36 𠄎 | 6.16 𠄎 | 26.25 𠄎 | 17.49 𠄎 | 6.34 𠄎 | 12.89 𠄎 | 8.36 𠄎 | 12.95 𠄎 | 2.34 𠄎 |
| 165 | 3.05 𠄎 | 27.13 Z | 20.90 𠄎 | 20.72 𠄎 | 2.75 𠄎 | 13.72 𠄎 | 10.36 𠄎 | 29.76 𠄎 | 20.90 𠄎 | 9.67 𠄎 | 17.25 𠄎 | 13.72 𠄎 | 17.34 𠄎 | 6.10 𠄎 |
| 170 | 7.50 𠄎 | 28.91 Z | 24.33 𠄎 | 25.18 𠄎 | 8.79 𠄎 | 19.12 𠄎 | 14.57 𠄎 | 3.28 𠄎 | 24.33 𠄎 | 13.08 𠄎 | 21.82 𠄎 | 19.12 𠄎 | 21.69 𠄎 | 9.84 𠄎 |
| 175 | 11.85 𠄎 | 30.75 Z | 27.80 𠄎 | 29.82 𠄎 | 15.08 𠄎 | 24.55 𠄎 | 18.78 𠄎 | 6.81 𠄎 | 27.80 𠄎 | 16.59 𠄎 | 26.63 𠄎 | 24.55 𠄎 | 26.00 𠄎 | 13.58 𠄎 |
| 180 | 16.12 𠄎 | 32.63 Z | 1.30 𠄎 | 4.68 𠄎 | 21.62 𠄎 | 0.00 𠄎 | 22.99 𠄎 | 10.36 𠄎 | 1.30 𠄎 | 20.22 𠄎 | 1.73 𠄎 | 0.00 𠄎 | 0.27 𠄎 | 17.31 𠄎 |

54° NB

| α_z | λ_z | β_z | I | II | III | IV | V | VI | VII | VIII | IX | X | XI | XII |
|------------|-------------|-----------|----------|----------|----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| 185 | 20.32 ♁ | 34.56 Z | 4.86 ♀ | 9.81 ♂ | 28.41 ≍ | 5.45 ♀ | 27.19 ♀ | 13.92 ♂ | 4.86 II | 24.00 II | 7.18 ♀ | 5.45 ♁ | 4.49 III | 21.03 III |
| 190 | 24.48 ♁ | 36.52 Z | 8.49 ♀ | 15.28 ♂ | 5.44 ♀ | 10.88 ♀ | 1.38 ♂ | 17.49 ♂ | 8.49 II | 27.97 II | 13.02 ♀ | 10.88 ♁ | 8.67 III | 24.76 III |
| 195 | 28.59 ♁ | 38.50 Z | 12.21 ♀ | 21.14 ♂ | 12.66 ♀ | 16.28 ♀ | 5.57 ♂ | 21.10 ♂ | 12.21 II | 2.19 ☽ | 19.32 ♀ | 16.28 ♁ | 12.81 III | 28.50 III |
| 200 | 2.68 III | 40.49 Z | 16.03 ♀ | 27.48 ♂ | 20.03 ♀ | 21.64 ♀ | 9.75 ♂ | 24.73 ♂ | 16.03 II | 6.72 ☽ | 26.14 ♀ | 21.64 ♁ | 16.90 III | 2.26 ♀ |
| 205 | 6.75 III | 42.48 Z | 20.00 ♀ | 4.38 ≍ | 27.48 ♀ | 26.94 ♀ | 13.93 ♂ | 28.40 ♂ | 20.00 II | 11.64 ☽ | 3.51 III | 26.94 ♁ | 20.95 III | 6.05 ♀ |
| 210 | 10.81 III | 44.44 Z | 24.15 ♀ | 11.93 ≍ | 4.94 ♀ | 2.18 ♂ | 18.10 ♂ | 2.12 II | 24.15 II | 17.06 ☽ | 11.45 III | 2.18 III | 24.95 III | 9.87 ♀ |
| 215 | 14.86 III | 46.37 Z | 28.51 ♀ | 20.17 ≍ | 12.34 ♀ | 7.35 ♂ | 22.27 ♂ | 5.90 II | 28.51 II | 23.13 ☽ | 19.93 III | 7.35 III | 28.92 III | 13.74 ♀ |
| 220 | 18.92 III | 48.26 Z | 3.16 ♂ | 29.14 ≍ | 19.61 ♀ | 12.45 ♂ | 26.45 ♂ | 9.76 II | 3.16 ☽ | 0.03 ♀ | 28.86 III | 12.45 III | 2.86 ♀ | 17.67 ♀ |
| 225 | 22.98 III | 50.07 Z | 8.15 ♂ | 8.78 ♀ | 26.68 ♀ | 17.46 ♂ | 0.64 II | 13.71 II | 8.15 ☽ | 8.00 ♀ | 8.08 ♁ | 17.46 III | 6.76 ♀ | 21.67 ♀ |
| 230 | 27.05 III | 51.79 Z | 13.59 ♂ | 18.93 ♀ | 3.53 ♂ | 22.41 ♂ | 4.85 II | 17.78 II | 13.59 ☽ | 17.30 ♀ | 17.40 ♁ | 22.41 III | 10.63 ♀ | 25.75 ♀ |
| 235 | 1.14 ♀ | 53.41 Z | 19.58 ♂ | 29.33 ♀ | 10.11 ♂ | 27.28 ♂ | 9.10 II | 22.01 II | 19.58 ☽ | 28.20 ♀ | 26.61 ♁ | 27.28 III | 14.48 ♀ | 29.92 ♀ |
| 240 | 5.23 ♀ | 54.88 Z | 26.30 ♂ | 9.65 ♀ | 16.40 ♂ | 2.09 II | 13.39 II | 26.42 II | 26.30 ☽ | 10.79 III | 5.50 III | 2.09 ♀ | 18.30 ♀ | 4.17 ♂ |
| 245 | 9.34 ♀ | 56.20 Z | 3.90 ≍ | 19.56 ♀ | 22.40 ♂ | 6.84 II | 17.77 II | 1.10 ☽ | 3.90 ♀ | 24.80 III | 13.94 III | 6.84 ♀ | 22.11 ♀ | 8.53 ♂ |
| 250 | 13.45 ♀ | 57.32 Z | 12.61 ≍ | 28.79 ♀ | 28.10 ♂ | 11.53 II | 22.24 II | 6.11 ☽ | 12.61 ♀ | 9.47 ♁ | 21.84 III | 11.53 ♀ | 25.92 ♀ | 12.98 ♂ |
| 255 | 17.58 ♀ | 58.23 Z | 22.62 ≍ | 7.19 ♂ | 3.50 II | 16.19 II | 26.84 II | 11.57 ☽ | 22.62 ♀ | 23.71 ♁ | 29.16 III | 16.19 ♀ | 29.77 ♀ | 17.55 ♂ |
| 260 | 21.72 ♀ | 58.89 Z | 4.00 ♀ | 14.71 ♂ | 8.61 II | 20.81 II | 1.64 ☽ | 17.66 ☽ | 4.00 III | 6.64 III | 5.93 ♀ | 20.81 ♀ | 3.71 ♂ | 22.28 ♂ |
| 265 | 25.86 ♀ | 59.30 Z | 16.62 ♀ | 21.39 ♂ | 13.41 II | 25.41 II | 6.69 ☽ | 24.59 ☽ | 16.62 III | 17.84 III | 12.17 ♀ | 25.41 ♀ | 7.78 ♂ | 27.27 ♂ |
| 270 | 0.00 ♂ | 59.44 Z | 0.00 ♀ | 27.35 ♂ | 17.94 II | 0.00 ☽ | 12.06 ☽ | 2.65 ♀ | 0.00 ♁ | 27.35 III | 17.94 ♀ | 0.00 ♂ | 12.06 ♂ | 2.65 ≍ |
| 275 | 4.14 ♂ | 59.30 Z | 13.38 ♀ | 2.73 II | 22.22 II | 4.59 ☽ | 17.83 ☽ | 12.16 ♀ | 13.38 ♁ | 5.41 ♀ | 23.31 ♀ | 4.59 ♂ | 16.59 ♂ | 8.61 ≍ |
| 280 | 8.28 ♂ | 58.89 Z | 26.00 ♀ | 7.72 II | 26.29 II | 9.19 ☽ | 24.07 ☽ | 23.36 ♀ | 26.00 ♁ | 12.34 ♀ | 28.36 ♀ | 9.19 ♂ | 21.39 ♂ | 15.29 ≍ |
| 285 | 12.42 ♂ | 58.23 Z | 7.38 ♂ | 12.45 II | 0.23 ☽ | 13.81 ☽ | 0.84 ♀ | 6.29 III | 7.38 III | 18.43 ♀ | 3.16 ♂ | 13.81 ♂ | 26.50 ♂ | 22.81 ≍ |
| 290 | 16.55 ♂ | 57.32 Z | 17.39 ♂ | 17.02 II | 4.08 ☽ | 18.47 ☽ | 8.16 ♀ | 20.53 III | 17.39 III | 23.89 ♀ | 7.76 ♂ | 18.47 ♂ | 1.90 ≍ | 1.21 ♀ |
| 295 | 20.66 ♂ | 56.20 Z | 26.10 ♂ | 21.47 II | 7.89 ☽ | 23.16 ☽ | 16.06 ♀ | 5.20 ♁ | 26.10 III | 28.90 ♀ | 12.23 ♂ | 23.16 ♂ | 7.60 ≍ | 10.44 ♀ |
| 300 | 24.77 ♂ | 54.88 Z | 3.70 II | 25.83 II | 11.70 ☽ | 27.91 ☽ | 24.50 ♀ | 19.21 ♁ | 3.70 ♀ | 3.58 ♂ | 16.61 ♂ | 27.91 ♂ | 13.60 ≍ | 20.35 ♀ |
| 305 | 28.86 ♂ | 53.41 Z | 10.42 II | 0.08 ☽ | 15.52 ☽ | 2.72 ♀ | 3.39 III | 1.80 III | 10.42 ♀ | 7.99 ♂ | 20.90 ♂ | 2.72 ≍ | 19.89 ≍ | 0.67 ♀ |
| 310 | 2.95 ≍ | 51.79 Z | 16.41 II | 4.25 ☽ | 19.37 ☽ | 7.59 ♀ | 12.60 III | 12.70 III | 16.41 ♀ | 12.22 ♂ | 25.15 ♂ | 7.59 ≍ | 26.47 ≍ | 11.07 ♀ |
| 315 | 7.02 ≍ | 50.07 Z | 21.85 II | 8.33 ☽ | 23.24 ☽ | 12.54 ♀ | 21.92 III | 22.00 III | 21.85 ♀ | 16.29 ♂ | 29.36 ♂ | 12.54 ≍ | 3.32 ♀ | 21.22 ♀ |
| 320 | 11.08 ≍ | 48.26 Z | 26.84 II | 12.33 ☽ | 27.14 ☽ | 17.55 ♀ | 1.14 ♁ | 29.97 III | 26.84 ♀ | 20.24 ♂ | 3.55 ≍ | 17.55 ≍ | 10.39 ♀ | 0.86 ♂ |
| 325 | 15.14 ≍ | 46.37 Z | 1.49 ☽ | 16.26 ☽ | 1.08 ♀ | 22.65 ♀ | 10.07 ♁ | 6.87 ♀ | 1.49 ♂ | 24.10 ♂ | 7.73 ≍ | 22.65 ≍ | 17.66 ♀ | 9.83 ♂ |
| 330 | 19.19 ≍ | 44.44 Z | 5.85 ☽ | 20.13 ☽ | 5.05 ♀ | 27.82 ♀ | 18.55 ♁ | 12.94 ♀ | 5.85 ♂ | 27.88 ♂ | 11.90 ≍ | 27.82 ≍ | 25.06 ♀ | 18.07 ♂ |
| 335 | 23.25 ≍ | 42.48 Z | 10.00 ☽ | 23.95 ☽ | 9.05 ♀ | 3.06 III | 26.49 ♁ | 18.36 ♀ | 10.00 ♂ | 1.60 ≍ | 16.07 ≍ | 3.06 ♀ | 2.52 ♀ | 25.62 ♂ |
| 340 | 27.32 ≍ | 40.49 Z | 13.97 ☽ | 27.74 ☽ | 13.10 ♀ | 8.36 III | 3.86 III | 23.28 ♀ | 13.97 ♂ | 5.27 ≍ | 20.25 ≍ | 8.36 ♀ | 9.97 ♀ | 2.52 II |
| 345 | 1.41 ♀ | 38.50 Z | 17.79 ☽ | 1.50 ♀ | 17.19 ♀ | 13.72 III | 10.68 III | 27.81 ♀ | 17.79 ♂ | 8.90 ≍ | 24.43 ≍ | 13.72 ♀ | 17.34 ♀ | 8.86 II |
| 350 | 5.52 ♀ | 36.52 Z | 21.51 ☽ | 5.24 ♀ | 21.33 ♀ | 19.12 III | 16.98 III | 2.03 ♂ | 21.51 ♂ | 12.51 ≍ | 28.62 ≍ | 19.12 ♀ | 24.56 ♀ | 14.72 II |
| 355 | 9.68 ♀ | 34.56 Z | 25.14 ☽ | 8.97 ♀ | 25.51 ♀ | 24.55 III | 22.82 III | 6.00 ♂ | 25.14 ♂ | 16.08 ≍ | 2.81 ♀ | 24.55 ♀ | 1.59 ♂ | 20.19 II |
| 360 | 13.88 ♀ | 32.63 Z | 28.70 ☽ | 12.69 ♀ | 29.73 ♀ | 0.00 ♁ | 28.27 III | 9.78 ♂ | 28.70 ♂ | 19.64 ≍ | 7.01 ♀ | 0.00 ♀ | 8.38 ♂ | 25.32 II |

55° NB

| α_z | λ_z | β_z | I | II | III | IV | V | VI | VII | VIII | IX | X | XI | XII |
|------------|-------------|-----------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0 | 14.44 𠄎 | 31.75 Z | 29.60 𠄎 | 13.16 𠄎 | 29.80 𠄎 | 0.00 𠄎 | 29.79 𠄎 | 11.22 𠄎 | 29.60 𠄎 | 20.18 𠄎 | 7.22 𠄎 | 0.00 𠄎 | 8.77 𠄎 | 26.39 𠄎 |
| 5 | 18.73 𠄎 | 29.86 Z | 3.04 𠄎 | 16.85 𠄎 | 4.05 𠄎 | 5.45 𠄎 | 4.79 𠄎 | 14.75 𠄎 | 3.04 𠄎 | 23.68 𠄎 | 11.40 𠄎 | 5.45 𠄎 | 15.36 𠄎 | 1.20 𠄎 |
| 10 | 23.10 𠄎 | 28.01 Z | 6.45 𠄎 | 20.55 𠄎 | 8.33 𠄎 | 10.88 𠄎 | 9.51 𠄎 | 18.16 𠄎 | 6.45 𠄎 | 27.17 𠄎 | 15.58 𠄎 | 10.88 𠄎 | 21.68 𠄎 | 5.79 𠄎 |
| 15 | 27.57 𠄎 | 26.23 Z | 9.83 𠄎 | 24.25 𠄎 | 12.65 𠄎 | 16.28 𠄎 | 13.99 𠄎 | 21.48 𠄎 | 9.83 𠄎 | 0.65 𠄎 | 19.75 𠄎 | 16.28 𠄎 | 27.75 𠄎 | 10.19 𠄎 |
| 20 | 2.15 𠄎 | 24.51 Z | 13.18 𠄎 | 27.97 𠄎 | 17.01 𠄎 | 21.64 𠄎 | 18.27 𠄎 | 24.74 𠄎 | 13.18 𠄎 | 4.12 𠄎 | 23.92 𠄎 | 21.64 𠄎 | 3.56 𠄎 | 14.45 𠄎 |
| 25 | 6.87 𠄎 | 22.86 Z | 16.52 𠄎 | 1.70 𠄎 | 21.41 𠄎 | 26.94 𠄎 | 22.38 𠄎 | 27.94 𠄎 | 16.52 𠄎 | 7.58 𠄎 | 28.08 𠄎 | 26.94 𠄎 | 9.14 𠄎 | 18.60 𠄎 |
| 30 | 11.76 𠄎 | 21.30 Z | 19.86 𠄎 | 5.45 𠄎 | 25.83 𠄎 | 2.18 𠄎 | 26.37 𠄎 | 1.10 𠄎 | 19.86 𠄎 | 11.03 𠄎 | 2.22 𠄎 | 2.18 𠄎 | 14.52 𠄎 | 22.65 𠄎 |
| 35 | 16.83 𠄎 | 19.84 Z | 23.18 𠄎 | 9.22 𠄎 | 0.28 𠄎 | 7.35 𠄎 | 0.25 𠄎 | 4.23 𠄎 | 23.18 𠄎 | 14.46 𠄎 | 6.34 𠄎 | 7.35 𠄎 | 19.72 𠄎 | 26.62 𠄎 |
| 40 | 22.11 𠄎 | 18.47 Z | 26.51 𠄎 | 13.00 𠄎 | 4.74 𠄎 | 12.45 𠄎 | 4.05 𠄎 | 7.35 𠄎 | 26.51 𠄎 | 17.89 𠄎 | 10.43 𠄎 | 12.45 𠄎 | 24.76 𠄎 | 0.54 𠄎 |
| 45 | 27.64 𠄎 | 17.21 Z | 29.84 𠄎 | 16.79 𠄎 | 9.21 𠄎 | 17.46 𠄎 | 7.78 𠄎 | 10.45 𠄎 | 29.84 𠄎 | 21.31 𠄎 | 14.50 𠄎 | 17.46 𠄎 | 29.66 𠄎 | 4.42 𠄎 |
| 50 | 3.43 𠄎 | 16.06 Z | 3.17 𠄎 | 20.60 𠄎 | 13.69 𠄎 | 22.41 𠄎 | 11.47 𠄎 | 13.55 𠄎 | 3.17 𠄎 | 24.71 𠄎 | 18.53 𠄎 | 22.41 𠄎 | 4.45 𠄎 | 8.27 𠄎 |
| 55 | 9.51 𠄎 | 15.03 Z | 6.51 𠄎 | 24.42 𠄎 | 18.18 𠄎 | 27.28 𠄎 | 15.12 𠄎 | 16.65 𠄎 | 6.51 𠄎 | 28.09 𠄎 | 22.52 𠄎 | 27.28 𠄎 | 9.14 𠄎 | 12.09 𠄎 |
| 60 | 15.90 𠄎 | 14.13 Z | 9.85 𠄎 | 28.24 𠄎 | 22.66 𠄎 | 2.09 𠄎 | 18.75 𠄎 | 19.76 𠄎 | 9.85 𠄎 | 1.46 𠄎 | 26.48 𠄎 | 2.09 𠄎 | 13.76 𠄎 | 15.90 𠄎 |
| 65 | 22.61 𠄎 | 13.35 Z | 13.20 𠄎 | 2.08 𠄎 | 27.13 𠄎 | 6.84 𠄎 | 22.37 𠄎 | 22.89 𠄎 | 13.20 𠄎 | 4.81 𠄎 | 0.40 𠄎 | 6.84 𠄎 | 18.31 𠄎 | 19.71 𠄎 |
| 70 | 29.63 𠄎 | 12.71 Z | 16.55 𠄎 | 5.91 𠄎 | 1.60 𠄎 | 11.53 𠄎 | 25.99 𠄎 | 26.02 𠄎 | 16.55 𠄎 | 8.14 𠄎 | 4.27 𠄎 | 11.53 𠄎 | 22.82 𠄎 | 23.51 𠄎 |
| 75 | 6.93 𠄎 | 12.21 Z | 19.91 𠄎 | 9.75 𠄎 | 6.06 𠄎 | 16.19 𠄎 | 29.62 𠄎 | 29.18 𠄎 | 19.91 𠄎 | 11.45 𠄎 | 8.11 𠄎 | 16.19 𠄎 | 27.29 𠄎 | 27.32 𠄎 |
| 80 | 14.47 𠄎 | 11.85 Z | 23.27 𠄎 | 13.58 𠄎 | 10.51 𠄎 | 20.81 𠄎 | 3.26 𠄎 | 2.35 𠄎 | 23.27 𠄎 | 14.73 𠄎 | 11.90 𠄎 | 20.81 𠄎 | 1.75 𠄎 | 1.13 𠄎 |
| 85 | 22.19 𠄎 | 11.63 Z | 26.63 𠄎 | 17.41 𠄎 | 14.95 𠄎 | 25.41 𠄎 | 6.93 𠄎 | 5.54 𠄎 | 26.63 𠄎 | 18.00 𠄎 | 15.66 𠄎 | 25.41 𠄎 | 6.19 𠄎 | 4.94 𠄎 |
| 90 | 0.00 𠄎 | 11.56 Z | 0.00 𠄎 | 21.24 𠄎 | 19.38 𠄎 | 0.00 𠄎 | 10.62 𠄎 | 8.76 𠄎 | 0.00 𠄎 | 21.24 𠄎 | 19.38 𠄎 | 0.00 𠄎 | 10.62 𠄎 | 8.76 𠄎 |
| 95 | 7.81 𠄎 | 11.63 Z | 3.37 𠄎 | 25.06 𠄎 | 23.81 𠄎 | 4.59 𠄎 | 14.34 𠄎 | 12.00 𠄎 | 3.37 𠄎 | 24.46 𠄎 | 23.07 𠄎 | 4.59 𠄎 | 15.05 𠄎 | 12.59 𠄎 |
| 100 | 15.53 𠄎 | 11.85 Z | 6.73 𠄎 | 28.87 𠄎 | 28.25 𠄎 | 9.19 𠄎 | 18.10 𠄎 | 15.27 𠄎 | 6.73 𠄎 | 27.65 𠄎 | 26.74 𠄎 | 9.19 𠄎 | 19.49 𠄎 | 16.42 𠄎 |
| 105 | 23.07 𠄎 | 12.21 Z | 10.09 𠄎 | 2.68 𠄎 | 2.71 𠄎 | 13.81 𠄎 | 21.89 𠄎 | 18.55 𠄎 | 10.09 𠄎 | 0.82 𠄎 | 0.38 𠄎 | 13.81 𠄎 | 23.94 𠄎 | 20.25 𠄎 |
| 110 | 0.37 𠄎 | 12.71 Z | 13.45 𠄎 | 6.49 𠄎 | 7.18 𠄎 | 18.47 𠄎 | 25.73 𠄎 | 21.86 𠄎 | 13.45 𠄎 | 3.98 𠄎 | 4.01 𠄎 | 18.47 𠄎 | 28.40 𠄎 | 24.09 𠄎 |
| 115 | 7.39 𠄎 | 13.35 Z | 16.80 𠄎 | 10.29 𠄎 | 11.69 𠄎 | 23.16 𠄎 | 29.60 𠄎 | 25.19 𠄎 | 16.80 𠄎 | 7.11 𠄎 | 7.63 𠄎 | 23.16 𠄎 | 2.87 𠄎 | 27.92 𠄎 |
| 120 | 14.10 𠄎 | 14.13 Z | 20.15 𠄎 | 14.10 𠄎 | 16.24 𠄎 | 27.91 𠄎 | 3.52 𠄎 | 28.54 𠄎 | 20.15 𠄎 | 10.24 𠄎 | 11.25 𠄎 | 27.91 𠄎 | 7.34 𠄎 | 1.76 𠄎 |
| 125 | 20.49 𠄎 | 15.03 Z | 23.49 𠄎 | 17.91 𠄎 | 20.86 𠄎 | 2.72 𠄎 | 7.48 𠄎 | 1.91 𠄎 | 23.49 𠄎 | 13.35 𠄎 | 14.88 𠄎 | 2.72 𠄎 | 11.82 𠄎 | 5.58 𠄎 |
| 130 | 26.57 𠄎 | 16.06 Z | 26.83 𠄎 | 21.73 𠄎 | 25.55 𠄎 | 7.59 𠄎 | 11.47 𠄎 | 5.29 𠄎 | 26.83 𠄎 | 16.45 𠄎 | 18.53 𠄎 | 7.59 𠄎 | 16.31 𠄎 | 9.40 𠄎 |
| 135 | 2.36 𠄎 | 17.21 Z | 0.16 𠄎 | 25.58 𠄎 | 0.34 𠄎 | 12.54 𠄎 | 15.50 𠄎 | 8.69 𠄎 | 0.16 𠄎 | 19.55 𠄎 | 22.22 𠄎 | 12.54 𠄎 | 20.79 𠄎 | 13.21 𠄎 |
| 140 | 7.89 𠄎 | 18.47 Z | 3.49 𠄎 | 29.46 𠄎 | 5.24 𠄎 | 17.55 𠄎 | 19.57 𠄎 | 12.11 𠄎 | 3.49 𠄎 | 22.65 𠄎 | 25.95 𠄎 | 17.55 𠄎 | 25.26 𠄎 | 17.00 𠄎 |
| 145 | 13.17 𠄎 | 19.84 Z | 6.82 𠄎 | 3.38 𠄎 | 10.28 𠄎 | 22.65 𠄎 | 23.66 𠄎 | 15.54 𠄎 | 6.82 𠄎 | 25.77 𠄎 | 29.75 𠄎 | 22.65 𠄎 | 29.72 𠄎 | 20.78 𠄎 |
| 150 | 18.24 𠄎 | 21.30 Z | 10.14 𠄎 | 7.35 𠄎 | 15.48 𠄎 | 27.82 𠄎 | 27.78 𠄎 | 18.97 𠄎 | 10.14 𠄎 | 28.90 𠄎 | 3.63 𠄎 | 27.82 𠄎 | 4.17 𠄎 | 24.55 𠄎 |
| 155 | 23.13 𠄎 | 22.86 Z | 13.48 𠄎 | 11.40 𠄎 | 20.86 𠄎 | 3.06 𠄎 | 1.92 𠄎 | 22.42 𠄎 | 13.48 𠄎 | 2.06 𠄎 | 7.62 𠄎 | 3.06 𠄎 | 8.59 𠄎 | 28.30 𠄎 |
| 160 | 27.85 𠄎 | 24.51 Z | 16.82 𠄎 | 15.55 𠄎 | 26.44 𠄎 | 8.36 𠄎 | 6.08 𠄎 | 25.88 𠄎 | 16.82 𠄎 | 5.26 𠄎 | 11.73 𠄎 | 8.36 𠄎 | 12.99 𠄎 | 2.03 𠄎 |
| 165 | 2.43 𠄎 | 26.23 Z | 20.17 𠄎 | 19.81 𠄎 | 2.25 𠄎 | 13.72 𠄎 | 10.25 𠄎 | 29.35 𠄎 | 20.17 𠄎 | 8.52 𠄎 | 16.01 𠄎 | 13.72 𠄎 | 17.35 𠄎 | 5.75 𠄎 |
| 170 | 6.90 𠄎 | 28.01 Z | 23.55 𠄎 | 24.21 𠄎 | 8.32 𠄎 | 19.12 𠄎 | 14.42 𠄎 | 2.83 𠄎 | 23.55 𠄎 | 11.84 𠄎 | 20.49 𠄎 | 19.12 𠄎 | 21.67 𠄎 | 9.45 𠄎 |
| 175 | 11.27 𠄎 | 29.86 Z | 26.96 𠄎 | 28.80 𠄎 | 14.64 𠄎 | 24.55 𠄎 | 18.60 𠄎 | 6.32 𠄎 | 26.96 𠄎 | 15.25 𠄎 | 25.21 𠄎 | 24.55 𠄎 | 25.95 𠄎 | 13.15 𠄎 |
| 180 | 15.56 𠄎 | 31.75 Z | 0.40 𠄎 | 3.61 𠄎 | 21.23 𠄎 | 0.00 𠄎 | 22.78 𠄎 | 9.82 𠄎 | 0.40 𠄎 | 18.78 𠄎 | 0.21 𠄎 | 0.00 𠄎 | 0.20 𠄎 | 16.84 𠄎 |

55° NB

| α_z | λ_z | β_z | I | II | III | IV | V | VI | VII | VIII | IX | X | XI | XII |
|------------|-------------|-----------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 185 | 19.79 ♄ | 33.69 Z | 3.90 ♁ | 8.70 ☾ | 28.09 ☿ | 5.45 ♀ | 26.95 ♀ | 13.34 ☽ | 3.90 ♀ | 22.45 ♀ | 5.56 ♀ | 5.45 ♄ | 4.39 ♃ | 20.52 ♃ |
| 190 | 23.97 ♄ | 35.65 Z | 7.46 ♁ | 14.12 ☾ | 5.18 ♁ | 10.88 ♀ | 1.12 ☽ | 16.88 ☽ | 7.46 ♀ | 26.31 ♀ | 11.31 ♀ | 10.88 ♄ | 8.55 ♃ | 24.21 ♃ |
| 195 | 28.11 ♄ | 37.63 Z | 11.10 ♁ | 19.96 ☾ | 12.49 ♁ | 16.28 ♀ | 5.28 ☽ | 20.44 ☽ | 11.10 ♀ | 0.39 ☿ | 17.54 ♀ | 16.28 ♄ | 12.66 ♃ | 27.91 ♃ |
| 200 | 2.22 ♃ | 39.62 Z | 14.86 ♁ | 26.29 ☾ | 19.95 ♁ | 21.64 ♀ | 9.44 ☽ | 24.03 ☽ | 14.86 ♀ | 4.78 ☿ | 24.30 ♀ | 21.64 ♄ | 16.72 ♃ | 1.63 ♁ |
| 205 | 6.32 ♃ | 41.60 Z | 18.75 ♁ | 3.21 ☿ | 27.50 ♁ | 26.94 ♀ | 13.59 ☽ | 27.65 ☽ | 18.75 ♀ | 9.53 ☿ | 1.66 ♃ | 26.94 ♄ | 20.75 ♃ | 5.38 ♁ |
| 210 | 10.41 ♃ | 43.56 Z | 22.80 ♁ | 10.82 ☿ | 5.06 ♀ | 2.18 ☽ | 17.73 ☽ | 1.33 ♀ | 22.80 ♀ | 14.78 ☿ | 9.65 ♃ | 2.18 ♃ | 24.73 ♃ | 9.16 ♁ |
| 215 | 14.49 ♃ | 45.49 Z | 27.08 ♁ | 19.19 ☿ | 12.56 ♀ | 7.35 ☽ | 21.88 ☽ | 5.06 ♀ | 27.08 ♀ | 20.66 ☿ | 18.24 ♃ | 7.35 ♃ | 28.68 ♃ | 12.99 ♁ |
| 220 | 18.58 ♃ | 47.37 Z | 1.62 ☾ | 28.36 ☿ | 19.92 ♀ | 12.45 ☽ | 26.03 ☽ | 8.86 ♀ | 1.62 ☿ | 27.38 ☿ | 27.36 ♃ | 12.45 ♃ | 2.60 ♁ | 16.88 ♁ |
| 225 | 22.67 ♃ | 49.17 Z | 6.51 ☾ | 8.29 ♁ | 27.08 ♀ | 17.46 ☽ | 0.19 ♀ | 12.76 ♀ | 6.51 ☿ | 5.18 ♀ | 6.85 ♄ | 17.46 ♃ | 6.48 ♁ | 20.84 ♁ |
| 230 | 26.78 ♃ | 50.88 Z | 11.84 ☾ | 18.81 ♁ | 3.99 ☽ | 22.41 ☽ | 4.38 ♀ | 16.77 ♀ | 11.84 ☿ | 14.40 ♀ | 16.49 ♄ | 22.41 ♃ | 10.33 ♁ | 24.88 ♁ |
| 235 | 0.89 ♁ | 52.48 Z | 17.74 ☾ | 29.62 ♁ | 10.63 ☽ | 27.28 ☽ | 8.60 ♀ | 20.92 ♀ | 17.74 ☿ | 25.36 ♀ | 26.03 ♄ | 27.28 ♃ | 14.15 ♁ | 29.01 ♁ |
| 240 | 5.02 ♁ | 53.94 Z | 24.37 ☾ | 10.34 ♀ | 16.97 ☽ | 2.09 ♀ | 12.88 ♀ | 25.27 ♀ | 24.37 ☿ | 8.28 ♃ | 5.24 ♃ | 2.09 ♁ | 17.94 ♁ | 3.22 ☾ |
| 245 | 9.16 ♁ | 55.24 Z | 1.94 ☿ | 20.60 ♀ | 23.01 ☽ | 6.84 ♀ | 17.22 ♀ | 29.86 ♀ | 1.94 ♀ | 22.97 ♃ | 13.96 ♃ | 6.84 ♁ | 21.71 ♁ | 7.53 ☾ |
| 250 | 13.31 ♁ | 56.35 Z | 10.69 ☿ | 0.10 ☽ | 28.75 ☽ | 11.53 ♀ | 21.66 ♀ | 4.79 ☿ | 10.69 ♀ | 8.58 ♄ | 22.09 ♃ | 11.53 ♁ | 25.48 ♁ | 11.93 ☾ |
| 255 | 17.47 ♁ | 57.24 Z | 20.87 ☿ | 8.68 ☽ | 4.17 ♀ | 16.19 ♀ | 26.24 ♀ | 10.16 ☿ | 20.87 ♀ | 23.78 ♄ | 29.59 ♃ | 16.19 ♁ | 29.28 ♁ | 16.42 ☾ |
| 260 | 21.64 ♁ | 57.90 Z | 2.63 ♁ | 16.27 ☽ | 9.29 ♀ | 20.81 ♀ | 1.00 ☿ | 16.17 ☿ | 2.63 ♃ | 7.45 ♃ | 6.48 ♁ | 20.81 ♁ | 3.15 ☾ | 21.05 ☾ |
| 265 | 25.82 ♁ | 58.30 Z | 15.86 ♁ | 22.94 ☽ | 14.09 ♀ | 25.41 ♀ | 6.03 ☿ | 23.07 ☿ | 15.86 ♃ | 19.10 ♃ | 12.79 ♁ | 25.41 ♁ | 7.17 ☾ | 25.91 ☾ |
| 270 | 0.00 ☾ | 58.44 Z | 0.00 ♀ | 28.82 ☽ | 18.60 ♀ | 0.00 ☿ | 11.40 ☿ | 1.18 ♀ | 0.00 ♄ | 28.82 ♃ | 18.60 ♁ | 0.00 ☾ | 11.40 ☾ | 1.18 ☿ |
| 275 | 4.18 ☾ | 58.30 Z | 14.14 ♀ | 4.09 ♀ | 22.83 ♀ | 4.59 ☿ | 17.21 ☿ | 10.90 ♀ | 14.14 ♄ | 6.93 ♁ | 23.97 ♁ | 4.59 ☾ | 15.91 ☾ | 7.06 ☿ |
| 280 | 8.36 ☾ | 57.90 Z | 27.37 ♀ | 8.95 ♀ | 26.85 ♀ | 9.19 ☿ | 23.52 ☿ | 22.55 ♀ | 27.37 ♄ | 13.83 ♁ | 29.00 ♁ | 9.19 ☾ | 20.71 ☾ | 13.73 ☿ |
| 285 | 12.53 ☾ | 57.24 Z | 9.13 ☽ | 13.58 ♀ | 0.72 ☿ | 13.81 ☿ | 0.41 ♀ | 6.22 ♃ | 9.13 ♃ | 19.84 ♁ | 3.76 ☾ | 13.81 ☾ | 25.83 ☾ | 21.32 ☿ |
| 290 | 16.69 ☾ | 56.35 Z | 19.31 ☽ | 18.07 ♀ | 4.52 ☿ | 18.47 ☿ | 7.91 ♀ | 21.42 ♃ | 19.31 ♃ | 25.21 ♁ | 8.34 ☾ | 18.47 ☾ | 1.25 ☿ | 29.90 ☿ |
| 295 | 20.84 ☾ | 55.24 Z | 28.06 ☽ | 22.47 ♀ | 8.29 ☿ | 23.16 ☿ | 16.04 ♀ | 7.03 ♄ | 28.06 ♃ | 0.14 ☾ | 12.78 ☾ | 23.16 ☾ | 6.99 ☿ | 9.40 ♁ |
| 300 | 24.98 ☾ | 53.94 Z | 5.63 ♀ | 26.78 ♀ | 12.06 ☿ | 27.91 ☿ | 24.76 ♀ | 21.72 ♄ | 5.63 ♁ | 4.73 ☾ | 17.12 ☾ | 27.91 ☾ | 13.03 ☿ | 19.66 ♁ |
| 305 | 29.11 ☾ | 52.48 Z | 12.26 ♀ | 0.99 ☿ | 15.85 ☿ | 2.72 ♀ | 3.97 ♃ | 4.64 ♃ | 12.26 ♁ | 9.08 ☾ | 21.40 ☾ | 2.72 ☿ | 19.37 ☿ | 0.38 ♀ |
| 310 | 3.22 ☿ | 50.88 Z | 18.16 ♀ | 5.12 ☿ | 19.67 ☿ | 7.59 ♀ | 13.51 ♃ | 15.60 ♃ | 18.16 ♁ | 13.23 ☾ | 25.62 ☾ | 7.59 ☿ | 26.01 ☿ | 11.19 ♀ |
| 315 | 7.33 ☿ | 49.17 Z | 23.49 ♀ | 9.16 ☿ | 23.52 ☿ | 12.54 ♀ | 23.15 ♃ | 24.82 ♃ | 23.49 ♁ | 17.24 ☾ | 29.81 ☾ | 12.54 ☿ | 2.92 ♁ | 21.71 ♀ |
| 320 | 11.42 ☿ | 47.37 Z | 28.38 ♀ | 13.12 ☿ | 27.40 ☿ | 17.55 ♀ | 2.64 ♄ | 2.62 ♁ | 28.38 ♁ | 21.14 ☾ | 3.97 ☿ | 17.55 ☿ | 10.08 ♁ | 1.64 ☽ |
| 325 | 15.51 ☿ | 45.49 Z | 2.92 ☿ | 17.01 ☿ | 1.32 ♀ | 22.65 ♀ | 11.76 ♄ | 9.34 ♁ | 2.92 ☾ | 24.94 ☾ | 8.12 ☿ | 22.65 ☿ | 17.44 ♁ | 10.81 ☽ |
| 330 | 19.59 ☿ | 43.56 Z | 7.20 ☿ | 20.84 ☿ | 5.27 ♀ | 27.82 ♀ | 20.35 ♄ | 15.22 ♁ | 7.20 ☾ | 28.67 ☾ | 12.27 ☿ | 27.82 ☿ | 24.94 ♁ | 19.18 ☽ |
| 335 | 23.68 ☿ | 41.60 Z | 11.25 ☿ | 24.62 ☿ | 9.25 ♀ | 3.06 ♃ | 28.34 ♄ | 20.47 ♁ | 11.25 ☾ | 2.35 ☿ | 16.41 ☿ | 3.06 ♁ | 2.50 ♀ | 26.79 ☽ |
| 340 | 27.78 ☿ | 39.62 Z | 15.14 ☿ | 28.37 ☿ | 13.28 ♀ | 8.36 ♃ | 5.70 ♃ | 25.22 ♁ | 15.14 ☾ | 5.97 ☿ | 20.56 ☿ | 8.36 ♁ | 10.05 ♀ | 3.71 ♀ |
| 345 | 1.89 ♁ | 37.63 Z | 18.90 ☿ | 2.09 ♀ | 17.34 ♀ | 13.72 ♃ | 12.46 ♃ | 29.61 ♁ | 18.90 ☾ | 9.56 ☿ | 24.72 ☿ | 13.72 ♁ | 17.51 ♀ | 10.04 ♀ |
| 350 | 6.03 ♁ | 35.65 Z | 22.54 ☿ | 5.79 ♀ | 21.45 ♀ | 19.12 ♃ | 18.69 ♃ | 3.69 ☾ | 22.54 ☾ | 13.12 ☿ | 28.88 ☿ | 19.12 ♁ | 24.82 ♀ | 15.88 ♀ |
| 355 | 10.21 ♁ | 33.69 Z | 26.10 ☿ | 9.48 ♀ | 25.61 ♀ | 24.55 ♃ | 24.44 ♃ | 7.55 ☾ | 26.10 ☾ | 16.66 ☿ | 3.05 ♁ | 24.55 ♁ | 1.91 ☽ | 21.30 ♀ |
| 360 | 14.44 ♁ | 31.75 Z | 29.60 ☿ | 13.16 ♀ | 29.80 ♀ | 0.00 ♄ | 29.79 ♃ | 11.22 ☾ | 29.60 ☾ | 20.18 ☿ | 7.22 ♁ | 0.00 ♀ | 8.77 ☽ | 26.39 ♀ |

60° NB

| α_z | λ_z | β_z | I | II | III | IV | V | VI | VII | VIII | IX | X | XI | XII |
|------------|-------------|-----------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0 | 17.07 𠄎 | 27.31 Z | 4.57 𠄎 | 15.82 𠄎 | 0.28 𠄎 | 0.00 𠄎 | 9.50 𠄎 | 19.24 𠄎 | 4.57 𠄎 | 23.04 𠄎 | 8.32 𠄎 | 0.00 𠄎 | 11.31 𠄎 | 2.80 𠄎 |
| 5 | 21.45 𠄎 | 25.39 Z | 7.66 𠄎 | 19.27 𠄎 | 4.36 𠄎 | 5.45 𠄎 | 13.71 𠄎 | 22.17 𠄎 | 7.66 𠄎 | 26.31 𠄎 | 12.34 𠄎 | 5.45 𠄎 | 18.16 𠄎 | 7.24 𠄎 |
| 10 | 25.91 𠄎 | 23.51 Z | 10.74 𠄎 | 22.73 𠄎 | 8.49 𠄎 | 10.88 𠄎 | 17.71 𠄎 | 25.05 𠄎 | 10.74 𠄎 | 29.57 𠄎 | 16.35 𠄎 | 10.88 𠄎 | 24.67 𠄎 | 11.46 𠄎 |
| 15 | 0.46 𠄎 | 21.69 Z | 13.80 𠄎 | 26.21 𠄎 | 12.65 𠄎 | 16.28 𠄎 | 21.52 𠄎 | 27.88 𠄎 | 13.80 𠄎 | 2.82 𠄎 | 20.35 𠄎 | 16.28 𠄎 | 0.86 𠄎 | 15.52 𠄎 |
| 20 | 5.12 𠄎 | 19.93 Z | 16.86 𠄎 | 29.70 𠄎 | 16.85 𠄎 | 21.64 𠄎 | 25.20 𠄎 | 0.68 𠄎 | 16.86 𠄎 | 6.06 𠄎 | 24.35 𠄎 | 21.64 𠄎 | 6.75 𠄎 | 19.46 𠄎 |
| 25 | 9.89 𠄎 | 18.25 Z | 19.91 𠄎 | 3.20 𠄎 | 21.08 𠄎 | 26.94 𠄎 | 28.77 𠄎 | 3.46 𠄎 | 19.91 𠄎 | 9.29 𠄎 | 28.33 𠄎 | 26.94 𠄎 | 12.36 𠄎 | 23.29 𠄎 |
| 30 | 14.82 𠄎 | 16.65 Z | 22.96 𠄎 | 6.72 𠄎 | 25.33 𠄎 | 2.18 𠄎 | 2.27 𠄎 | 6.22 𠄎 | 22.96 𠄎 | 12.51 𠄎 | 2.29 𠄎 | 2.18 𠄎 | 17.74 𠄎 | 27.04 𠄎 |
| 35 | 19.90 𠄎 | 15.14 Z | 26.02 𠄎 | 10.26 𠄎 | 29.61 𠄎 | 7.35 𠄎 | 5.69 𠄎 | 8.98 𠄎 | 26.02 𠄎 | 15.72 𠄎 | 6.23 𠄎 | 7.35 𠄎 | 22.91 𠄎 | 0.74 𠄎 |
| 40 | 25.18 𠄎 | 13.73 Z | 29.08 𠄎 | 13.81 𠄎 | 3.92 𠄎 | 12.45 𠄎 | 9.08 𠄎 | 11.74 𠄎 | 29.08 𠄎 | 18.91 𠄎 | 10.14 𠄎 | 12.45 𠄎 | 27.90 𠄎 | 4.39 𠄎 |
| 45 | 0.66 𠄎 | 12.42 Z | 2.14 𠄎 | 17.38 𠄎 | 8.23 𠄎 | 17.46 𠄎 | 12.44 𠄎 | 14.51 𠄎 | 2.14 𠄎 | 22.08 𠄎 | 14.02 𠄎 | 17.46 𠄎 | 2.74 𠄎 | 8.01 𠄎 |
| 50 | 6.36 𠄎 | 11.24 Z | 5.21 𠄎 | 20.96 𠄎 | 12.56 𠄎 | 22.41 𠄎 | 15.78 𠄎 | 17.29 𠄎 | 5.21 𠄎 | 25.24 𠄎 | 17.87 𠄎 | 22.41 𠄎 | 7.46 𠄎 | 11.60 𠄎 |
| 55 | 12.30 𠄎 | 10.17 Z | 8.29 𠄎 | 24.55 𠄎 | 16.89 𠄎 | 27.28 𠄎 | 19.11 𠄎 | 20.08 𠄎 | 8.29 𠄎 | 28.39 𠄎 | 21.67 𠄎 | 27.28 𠄎 | 12.07 𠄎 | 15.18 𠄎 |
| 60 | 18.49 𠄎 | 9.23 Z | 11.37 𠄎 | 28.15 𠄎 | 21.22 𠄎 | 2.09 𠄎 | 22.44 𠄎 | 22.89 𠄎 | 11.37 𠄎 | 1.51 𠄎 | 25.44 𠄎 | 2.09 𠄎 | 16.60 𠄎 | 18.76 𠄎 |
| 65 | 24.92 𠄎 | 8.43 Z | 14.47 𠄎 | 1.75 𠄎 | 25.55 𠄎 | 6.84 𠄎 | 25.78 𠄎 | 25.72 𠄎 | 14.47 𠄎 | 4.61 𠄎 | 29.17 𠄎 | 6.84 𠄎 | 21.06 𠄎 | 22.33 𠄎 |
| 70 | 1.60 𠄎 | 7.76 Z | 17.57 𠄎 | 5.35 𠄎 | 29.88 𠄎 | 11.53 𠄎 | 29.14 𠄎 | 28.57 𠄎 | 17.57 𠄎 | 7.69 𠄎 | 2.85 𠄎 | 11.53 𠄎 | 25.47 𠄎 | 25.90 𠄎 |
| 75 | 8.49 𠄎 | 7.24 Z | 20.67 𠄎 | 8.96 𠄎 | 4.20 𠄎 | 16.19 𠄎 | 2.52 𠄎 | 1.45 𠄎 | 20.67 𠄎 | 10.75 𠄎 | 6.49 𠄎 | 16.19 𠄎 | 29.85 𠄎 | 29.47 𠄎 |
| 80 | 15.55 𠄎 | 6.86 Z | 23.78 𠄎 | 12.57 𠄎 | 8.52 𠄎 | 20.81 𠄎 | 5.93 𠄎 | 4.35 𠄎 | 23.78 𠄎 | 13.78 𠄎 | 10.09 𠄎 | 20.81 𠄎 | 4.20 𠄎 | 3.05 𠄎 |
| 85 | 22.74 𠄎 | 6.64 Z | 26.89 𠄎 | 16.17 𠄎 | 12.84 𠄎 | 25.41 𠄎 | 9.37 𠄎 | 7.28 𠄎 | 26.89 𠄎 | 16.79 𠄎 | 13.64 𠄎 | 25.41 𠄎 | 8.53 𠄎 | 6.64 𠄎 |
| 90 | 0.00 𠄎 | 6.56 Z | 0.00 𠄎 | 19.77 𠄎 | 17.15 𠄎 | 0.00 𠄎 | 12.85 𠄎 | 10.23 𠄎 | 0.00 𠄎 | 19.77 𠄎 | 17.15 𠄎 | 0.00 𠄎 | 12.85 𠄎 | 10.23 𠄎 |
| 95 | 7.26 𠄎 | 6.64 Z | 3.11 𠄎 | 23.36 𠄎 | 21.47 𠄎 | 4.59 𠄎 | 16.36 𠄎 | 13.21 𠄎 | 3.11 𠄎 | 22.72 𠄎 | 20.63 𠄎 | 4.59 𠄎 | 17.16 𠄎 | 13.83 𠄎 |
| 100 | 14.45 𠄎 | 6.86 Z | 6.22 𠄎 | 26.95 𠄎 | 25.80 𠄎 | 9.19 𠄎 | 19.91 𠄎 | 16.22 𠄎 | 6.22 𠄎 | 25.65 𠄎 | 24.07 𠄎 | 9.19 𠄎 | 21.48 𠄎 | 17.43 𠄎 |
| 105 | 21.51 𠄎 | 7.24 Z | 9.33 𠄎 | 0.53 𠄎 | 0.15 𠄎 | 13.81 𠄎 | 23.51 𠄎 | 19.25 𠄎 | 9.33 𠄎 | 28.55 𠄎 | 27.48 𠄎 | 13.81 𠄎 | 25.80 𠄎 | 21.04 𠄎 |
| 110 | 28.40 𠄎 | 7.76 Z | 12.43 𠄎 | 4.10 𠄎 | 4.53 𠄎 | 18.47 𠄎 | 27.15 𠄎 | 22.31 𠄎 | 12.43 𠄎 | 1.43 𠄎 | 0.86 𠄎 | 18.47 𠄎 | 0.12 𠄎 | 24.65 𠄎 |
| 115 | 5.08 𠄎 | 8.43 Z | 15.53 𠄎 | 7.67 𠄎 | 8.94 𠄎 | 23.16 𠄎 | 0.83 𠄎 | 25.39 𠄎 | 15.53 𠄎 | 4.28 𠄎 | 4.22 𠄎 | 23.16 𠄎 | 4.45 𠄎 | 28.25 𠄎 |
| 120 | 11.51 𠄎 | 9.23 Z | 18.63 𠄎 | 11.24 𠄎 | 13.40 𠄎 | 27.91 𠄎 | 4.56 𠄎 | 28.49 𠄎 | 18.63 𠄎 | 7.11 𠄎 | 7.56 𠄎 | 27.91 𠄎 | 8.78 𠄎 | 1.85 𠄎 |
| 125 | 17.70 𠄎 | 10.17 Z | 21.71 𠄎 | 14.82 𠄎 | 17.93 𠄎 | 2.72 𠄎 | 8.33 𠄎 | 1.61 𠄎 | 21.71 𠄎 | 9.92 𠄎 | 10.89 𠄎 | 2.72 𠄎 | 13.11 𠄎 | 5.45 𠄎 |
| 130 | 23.64 𠄎 | 11.24 Z | 24.79 𠄎 | 18.40 𠄎 | 22.54 𠄎 | 7.59 𠄎 | 12.13 𠄎 | 4.76 𠄎 | 24.79 𠄎 | 12.71 𠄎 | 14.22 𠄎 | 7.59 𠄎 | 17.44 𠄎 | 9.04 𠄎 |
| 135 | 29.34 𠄎 | 12.42 Z | 27.86 𠄎 | 21.99 𠄎 | 27.26 𠄎 | 12.54 𠄎 | 15.98 𠄎 | 7.92 𠄎 | 27.86 𠄎 | 15.49 𠄎 | 17.56 𠄎 | 12.54 𠄎 | 21.77 𠄎 | 12.62 𠄎 |
| 140 | 4.82 𠄎 | 13.73 Z | 0.92 𠄎 | 25.61 𠄎 | 2.10 𠄎 | 17.55 𠄎 | 19.86 𠄎 | 11.09 𠄎 | 0.92 𠄎 | 18.26 𠄎 | 20.92 𠄎 | 17.55 𠄎 | 26.08 𠄎 | 16.19 𠄎 |
| 145 | 10.10 𠄎 | 15.14 Z | 3.98 𠄎 | 29.26 𠄎 | 7.09 𠄎 | 22.65 𠄎 | 23.77 𠄎 | 14.28 𠄎 | 3.98 𠄎 | 21.02 𠄎 | 24.31 𠄎 | 22.65 𠄎 | 0.39 𠄎 | 19.74 𠄎 |
| 150 | 15.18 𠄎 | 16.65 Z | 7.04 𠄎 | 2.96 𠄎 | 12.26 𠄎 | 27.82 𠄎 | 27.71 𠄎 | 17.49 𠄎 | 7.04 𠄎 | 23.78 𠄎 | 27.73 𠄎 | 27.82 𠄎 | 4.67 𠄎 | 23.28 𠄎 |
| 155 | 20.11 𠄎 | 18.25 Z | 10.09 𠄎 | 6.71 𠄎 | 17.64 𠄎 | 3.06 𠄎 | 1.67 𠄎 | 20.71 𠄎 | 10.09 𠄎 | 26.54 𠄎 | 1.23 𠄎 | 3.06 𠄎 | 8.92 𠄎 | 26.80 𠄎 |
| 160 | 24.88 𠄎 | 19.93 Z | 13.14 𠄎 | 10.54 𠄎 | 23.25 𠄎 | 8.36 𠄎 | 5.65 𠄎 | 23.94 𠄎 | 13.14 𠄎 | 29.32 𠄎 | 4.80 𠄎 | 8.36 𠄎 | 13.15 𠄎 | 0.30 𠄎 |
| 165 | 29.54 𠄎 | 21.69 Z | 16.20 𠄎 | 14.48 𠄎 | 29.14 𠄎 | 13.72 𠄎 | 9.65 𠄎 | 27.18 𠄎 | 16.20 𠄎 | 2.12 𠄎 | 8.48 𠄎 | 13.72 𠄎 | 17.35 𠄎 | 3.79 𠄎 |
| 170 | 4.09 𠄎 | 23.51 Z | 19.26 𠄎 | 18.54 𠄎 | 5.33 𠄎 | 19.12 𠄎 | 13.65 𠄎 | 0.43 𠄎 | 19.26 𠄎 | 4.95 𠄎 | 12.29 𠄎 | 19.12 𠄎 | 21.51 𠄎 | 7.27 𠄎 |
| 175 | 8.55 𠄎 | 25.39 Z | 22.34 𠄎 | 22.76 𠄎 | 11.84 𠄎 | 24.55 𠄎 | 17.66 𠄎 | 3.69 𠄎 | 22.34 𠄎 | 7.83 𠄎 | 16.29 𠄎 | 24.55 𠄎 | 25.64 𠄎 | 10.73 𠄎 |
| 180 | 12.93 𠄎 | 27.31 Z | 25.43 𠄎 | 27.20 𠄎 | 18.69 𠄎 | 0.00 𠄎 | 21.68 𠄎 | 6.96 𠄎 | 25.43 𠄎 | 10.76 𠄎 | 20.50 𠄎 | 0.00 𠄎 | 29.72 𠄎 | 14.18 𠄎 |

60° NB

| α_z | λ_z | β_z | I | II | III | IV | V | VI | VII | VIII | IX | X | XI | XII |
|------------|-------------|-----------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 185 | 17.27 ♁ | 29.26 Z | 28.56 ♁ | 1.90 ☾ | 25.89 ☿ | 5.45 ♀ | 25.69 ♀ | 10.24 ☽ | 28.56 ☽ | 13.78 ♀ | 25.00 ☿ | 5.45 ♁ | 3.76 ♁ | 17.63 ♁ |
| 190 | 21.55 ♁ | 31.24 Z | 1.73 ☽ | 6.95 ☾ | 3.41 ♀ | 10.88 ♀ | 29.70 ♀ | 13.55 ☽ | 1.73 ♀ | 16.90 ♀ | 29.87 ☿ | 10.88 ♁ | 7.76 ♁ | 21.07 ♁ |
| 195 | 25.81 ♁ | 33.22 Z | 4.95 ☽ | 12.44 ☾ | 11.23 ♀ | 16.28 ♀ | 3.71 ☽ | 16.87 ☽ | 4.95 ♀ | 20.17 ♀ | 5.19 ☽ | 16.28 ♁ | 11.72 ♁ | 24.52 ♁ |
| 200 | 0.04 ♁ | 35.21 Z | 8.24 ☽ | 18.49 ☾ | 19.26 ♀ | 21.64 ♀ | 7.72 ☽ | 20.21 ☽ | 8.24 ♀ | 23.61 ♀ | 11.11 ☽ | 21.64 ♁ | 15.65 ♁ | 27.98 ♁ |
| 205 | 4.26 ♁ | 37.18 Z | 11.61 ☽ | 25.26 ☾ | 27.43 ♀ | 26.94 ♀ | 11.72 ☽ | 23.58 ☽ | 11.61 ♀ | 27.30 ♀ | 17.75 ☽ | 26.94 ♁ | 19.54 ♁ | 1.46 ☽ |
| 210 | 8.48 ♁ | 39.12 Z | 15.11 ☽ | 2.97 ☿ | 5.63 ♀ | 2.18 ☽ | 15.73 ☽ | 26.99 ☽ | 15.11 ♀ | 1.30 ☿ | 25.31 ☽ | 2.18 ♁ | 23.39 ♁ | 4.98 ☽ |
| 215 | 12.70 ♁ | 41.02 Z | 18.76 ☽ | 11.84 ☿ | 13.74 ♀ | 7.35 ☽ | 19.73 ☽ | 0.44 ♀ | 18.76 ♀ | 5.75 ☿ | 3.94 ♀ | 7.35 ♁ | 27.21 ♁ | 8.53 ☽ |
| 220 | 16.93 ♁ | 42.86 Z | 22.62 ☽ | 22.10 ☿ | 21.67 ♀ | 12.45 ☽ | 23.74 ☽ | 3.94 ♀ | 22.62 ♀ | 10.82 ☿ | 13.78 ♀ | 12.45 ♁ | 1.01 ☽ | 12.15 ☽ |
| 225 | 21.17 ♁ | 44.61 Z | 26.75 ☽ | 3.87 ♀ | 29.33 ♀ | 17.46 ☽ | 27.77 ☽ | 7.52 ♀ | 26.75 ♀ | 16.79 ☿ | 24.80 ♀ | 17.46 ♁ | 4.78 ☽ | 15.83 ☽ |
| 230 | 25.42 ♁ | 46.27 Z | 1.24 ☾ | 16.99 ♀ | 6.68 ☽ | 22.41 ☽ | 1.82 ♀ | 11.18 ♀ | 1.24 ☿ | 24.09 ☿ | 6.74 ♁ | 22.41 ♁ | 8.52 ☽ | 19.60 ☽ |
| 235 | 29.69 ♁ | 47.81 Z | 6.23 ☾ | 0.92 ♀ | 13.66 ☽ | 27.28 ☽ | 5.89 ♀ | 14.95 ♀ | 6.23 ☿ | 3.45 ☽ | 19.09 ♁ | 27.28 ♁ | 12.23 ☽ | 23.48 ☽ |
| 240 | 3.98 ☽ | 49.21 Z | 11.92 ☾ | 14.76 ♀ | 20.29 ☽ | 2.09 ♀ | 10.01 ♀ | 18.86 ♀ | 11.92 ☿ | 16.03 ☽ | 1.20 ♁ | 2.09 ☽ | 15.90 ☽ | 27.45 ☽ |
| 245 | 8.28 ☽ | 50.44 Z | 18.64 ☾ | 27.63 ♀ | 26.56 ☽ | 6.84 ♀ | 14.19 ♀ | 22.95 ♀ | 18.64 ☿ | 3.38 ♀ | 12.49 ♁ | 6.84 ☽ | 19.51 ☽ | 1.52 ☾ |
| 250 | 12.61 ☽ | 51.49 Z | 26.86 ☾ | 9.00 ☽ | 2.48 ♀ | 11.53 ♀ | 18.45 ♀ | 27.29 ♀ | 26.86 ☿ | 26.08 ♀ | 22.67 ♁ | 11.53 ☽ | 23.06 ☽ | 5.62 ☾ |
| 255 | 16.94 ☽ | 52.32 Z | 7.31 ☿ | 18.70 ☽ | 8.05 ♀ | 16.19 ♀ | 22.81 ♀ | 1.99 ☿ | 7.31 ☽ | 20.77 ♁ | 1.67 ☽ | 16.19 ☽ | 26.54 ☽ | 9.67 ☾ |
| 260 | 21.29 ☽ | 52.94 Z | 21.02 ☿ | 26.76 ☽ | 13.28 ♀ | 20.81 ♀ | 27.36 ♀ | 7.26 ☿ | 21.02 ☽ | 11.86 ♁ | 9.57 ☽ | 20.81 ☽ | 0.01 ☾ | 13.58 ☾ |
| 265 | 25.64 ☽ | 53.31 Z | 8.83 ♀ | 3.28 ♀ | 18.11 ♀ | 25.41 ♀ | 2.20 ☿ | 13.54 ☿ | 8.83 ♀ | 27.38 ♁ | 16.46 ☽ | 25.41 ☽ | 3.60 ☾ | 17.42 ☾ |
| 270 | 0.00 ☾ | 53.44 Z | 0.00 ♀ | 8.41 ♀ | 22.48 ♀ | 0.00 ☿ | 7.52 ☿ | 21.59 ☿ | 0.00 ♁ | 8.41 ☽ | 22.48 ☽ | 0.00 ☾ | 7.52 ☾ | 21.59 ☾ |
| 275 | 4.36 ☾ | 53.31 Z | 21.17 ♀ | 12.58 ♀ | 26.40 ♀ | 4.59 ☿ | 13.54 ☿ | 2.62 ☽ | 21.17 ♁ | 16.46 ☽ | 27.80 ☽ | 4.59 ☾ | 11.89 ☾ | 26.72 ☾ |
| 280 | 8.71 ☾ | 52.94 Z | 8.98 ☽ | 16.42 ♀ | 29.99 ♀ | 9.19 ☿ | 20.43 ☿ | 18.14 ☽ | 8.98 ♁ | 22.74 ☽ | 2.64 ☾ | 9.19 ☾ | 16.72 ☾ | 3.24 ☿ |
| 285 | 13.06 ☾ | 52.32 Z | 22.69 ☽ | 20.33 ♀ | 3.46 ☿ | 13.81 ☿ | 28.33 ☿ | 9.23 ♀ | 22.69 ♁ | 28.01 ☽ | 7.19 ☾ | 13.81 ☾ | 21.95 ☾ | 11.30 ☿ |
| 290 | 17.39 ☾ | 51.49 Z | 3.14 ♀ | 24.38 ♀ | 6.94 ☿ | 18.47 ☿ | 7.33 ☽ | 3.92 ♁ | 3.14 ☽ | 2.71 ☾ | 11.55 ☾ | 18.47 ☾ | 27.52 ☾ | 21.00 ☿ |
| 295 | 21.72 ☾ | 50.44 Z | 11.36 ♀ | 28.48 ♀ | 10.49 ☿ | 23.16 ☿ | 17.51 ☽ | 26.62 ♁ | 11.36 ☽ | 7.05 ☾ | 15.81 ☾ | 23.16 ☾ | 3.44 ☿ | 2.37 ♀ |
| 300 | 26.02 ☾ | 49.21 Z | 18.08 ♀ | 2.55 ☿ | 14.10 ☿ | 27.91 ☿ | 28.80 ☽ | 13.97 ♁ | 18.08 ☽ | 11.14 ☾ | 19.99 ☾ | 27.91 ☾ | 9.71 ☿ | 15.24 ♀ |
| 305 | 0.31 ☿ | 47.81 Z | 23.77 ♀ | 6.52 ☿ | 17.77 ☿ | 2.72 ☽ | 10.91 ♀ | 26.55 ♁ | 23.77 ☽ | 15.05 ☾ | 24.11 ☾ | 2.72 ☿ | 16.34 ☿ | 29.08 ♀ |
| 310 | 4.58 ☿ | 46.27 Z | 28.76 ♀ | 10.40 ☿ | 21.48 ☿ | 7.59 ☽ | 23.26 ♀ | 5.91 ☽ | 28.76 ☽ | 18.82 ☾ | 28.18 ☾ | 7.59 ☿ | 23.32 ☿ | 13.01 ♀ |
| 315 | 8.83 ☿ | 44.61 Z | 3.25 ☿ | 14.17 ☿ | 25.22 ☿ | 12.54 ☽ | 5.20 ♁ | 13.21 ☽ | 3.25 ☾ | 22.48 ☾ | 2.23 ☿ | 12.54 ☿ | 0.67 ♀ | 26.13 ♀ |
| 320 | 13.07 ☿ | 42.86 Z | 7.38 ☿ | 17.85 ☿ | 28.99 ☿ | 17.55 ☽ | 16.22 ♁ | 19.18 ☽ | 7.38 ☾ | 26.06 ☾ | 6.26 ☿ | 17.55 ☿ | 8.33 ♀ | 7.90 ☽ |
| 325 | 17.30 ☿ | 41.02 Z | 11.24 ☿ | 21.47 ☿ | 2.79 ☽ | 22.65 ☽ | 26.06 ♁ | 24.25 ☽ | 11.24 ☾ | 29.56 ☾ | 10.27 ☿ | 22.65 ☿ | 16.26 ♀ | 18.16 ☽ |
| 330 | 21.52 ☿ | 39.12 Z | 14.89 ☿ | 25.02 ☿ | 6.61 ☽ | 27.82 ☽ | 4.69 ♁ | 28.70 ☽ | 14.89 ☾ | 3.01 ☿ | 14.27 ☿ | 27.82 ☿ | 24.37 ♀ | 27.03 ☽ |
| 335 | 25.74 ☿ | 37.18 Z | 18.39 ☿ | 28.54 ☿ | 10.46 ☽ | 3.06 ♀ | 12.25 ♁ | 2.70 ☾ | 18.39 ☾ | 6.42 ☿ | 18.28 ☿ | 3.06 ♀ | 2.57 ♀ | 4.74 ♀ |
| 340 | 29.96 ☿ | 35.21 Z | 21.76 ☿ | 2.02 ☽ | 14.35 ☽ | 8.36 ♀ | 18.89 ♁ | 6.39 ☾ | 21.76 ☾ | 9.79 ☿ | 22.28 ☿ | 8.36 ♀ | 10.74 ♀ | 11.51 ♀ |
| 345 | 4.19 ♀ | 33.22 Z | 25.05 ☿ | 5.48 ☽ | 18.28 ☽ | 13.72 ♀ | 24.81 ♁ | 9.83 ☾ | 25.05 ☾ | 13.13 ☿ | 26.29 ☿ | 13.72 ♀ | 18.77 ♀ | 17.56 ♀ |
| 350 | 8.45 ♀ | 31.24 Z | 28.27 ☿ | 8.93 ☽ | 22.24 ☽ | 19.12 ♀ | 0.13 ☽ | 13.10 ☾ | 28.27 ☾ | 16.45 ☿ | 0.30 ♀ | 19.12 ♀ | 26.59 ♀ | 23.05 ♀ |
| 355 | 12.73 ♀ | 29.26 Z | 1.44 ☽ | 12.37 ☽ | 26.24 ☽ | 24.55 ♀ | 5.00 ☽ | 16.22 ☾ | 1.44 ☿ | 19.76 ☿ | 4.31 ♀ | 24.55 ♀ | 4.11 ☽ | 28.10 ♀ |
| 360 | 17.07 ♀ | 27.31 Z | 4.57 ☽ | 15.82 ☽ | 0.28 ♀ | 0.00 ♁ | 9.50 ☽ | 19.24 ☾ | 4.57 ☿ | 23.04 ☿ | 8.32 ♀ | 0.00 ♀ | 11.31 ☽ | 2.80 ☿ |

65° NB

| α_z | λ_z | β_z | I | II | III | IV | V | VI | VII | VIII | IX | X | XI | XII |
|------------|-------------|-----------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0 | 19.49 𐄀 | 22.81 Z | 10.47 𐄀 | 19.17 𐄀 | 1.06 𐄀 | 0.00 𐄀 | 24.14 𐄀 | 28.76 𐄀 | 10.47 𐄀 | 26.31 𐄀 | 9.59 𐄀 | 0.00 𐄀 | 15.54 𐄀 | 11.63 𐄀 |
| 5 | 23.95 𐄀 | 20.87 Z | 13.12 𐄀 | 22.30 𐄀 | 4.93 𐄀 | 5.45 𐄀 | 26.80 𐄀 | 0.97 𐄀 | 13.12 𐄀 | 29.31 𐄀 | 13.40 𐄀 | 5.45 𐄀 | 22.67 𐄀 | 15.37 𐄀 |
| 10 | 28.48 𐄀 | 18.97 Z | 15.79 𐄀 | 25.46 𐄀 | 8.84 𐄀 | 10.88 𐄀 | 29.46 𐄀 | 3.19 𐄀 | 15.79 𐄀 | 2.30 𐄀 | 17.21 𐄀 | 10.88 𐄀 | 29.34 𐄀 | 18.96 𐄀 |
| 15 | 3.08 𐄀 | 17.12 Z | 18.47 𐄀 | 28.64 𐄀 | 12.79 𐄀 | 16.28 𐄀 | 2.12 𐄀 | 5.42 𐄀 | 18.47 𐄀 | 5.28 𐄀 | 21.01 𐄀 | 16.28 𐄀 | 5.59 𐄀 | 22.46 𐄀 |
| 20 | 7.78 𐄀 | 15.33 Z | 21.15 𐄀 | 1.83 𐄀 | 16.77 𐄀 | 21.64 𐄀 | 4.79 𐄀 | 7.67 𐄀 | 21.15 𐄀 | 8.26 𐄀 | 24.80 𐄀 | 21.64 𐄀 | 11.47 𐄀 | 25.88 𐄀 |
| 25 | 12.58 𐄀 | 13.61 Z | 23.85 𐄀 | 5.05 𐄀 | 20.79 𐄀 | 26.94 𐄀 | 7.48 𐄀 | 9.94 𐄀 | 23.85 𐄀 | 11.22 𐄀 | 28.57 𐄀 | 26.94 𐄀 | 17.03 𐄀 | 29.24 𐄀 |
| 30 | 17.51 𐄀 | 11.98 Z | 26.57 𐄀 | 8.29 𐄀 | 24.83 𐄀 | 2.18 𐄀 | 10.20 𐄀 | 12.22 𐄀 | 26.57 𐄀 | 14.17 𐄀 | 2.32 𐄀 | 2.18 𐄀 | 22.32 𐄀 | 2.56 𐄀 |
| 35 | 22.59 𐄀 | 10.43 Z | 29.29 𐄀 | 11.55 𐄀 | 28.90 𐄀 | 7.35 𐄀 | 12.94 𐄀 | 14.54 𐄀 | 29.29 𐄀 | 17.11 𐄀 | 6.04 𐄀 | 7.35 𐄀 | 27.38 𐄀 | 5.86 𐄀 |
| 40 | 27.82 𐄀 | 8.98 Z | 2.03 𐄀 | 14.83 𐄀 | 3.00 𐄀 | 12.45 𐄀 | 15.71 𐄀 | 16.87 𐄀 | 2.03 𐄀 | 20.03 𐄀 | 9.73 𐄀 | 12.45 𐄀 | 2.24 𐄀 | 9.13 𐄀 |
| 45 | 3.23 𐄀 | 7.63 Z | 4.79 𐄀 | 18.12 𐄀 | 7.11 𐄀 | 17.46 𐄀 | 18.52 𐄀 | 19.24 𐄀 | 4.79 𐄀 | 22.93 𐄀 | 13.39 𐄀 | 17.46 𐄀 | 6.94 𐄀 | 12.40 𐄀 |
| 50 | 8.83 𐄀 | 6.41 Z | 7.55 𐄀 | 21.43 𐄀 | 11.23 𐄀 | 22.41 𐄀 | 21.36 𐄀 | 21.64 𐄀 | 7.55 𐄀 | 25.82 𐄀 | 17.02 𐄀 | 22.41 𐄀 | 11.51 𐄀 | 15.66 𐄀 |
| 55 | 14.62 𐄀 | 5.30 Z | 10.33 𐄀 | 24.75 𐄀 | 15.37 𐄀 | 27.28 𐄀 | 24.24 𐄀 | 24.06 𐄀 | 10.33 𐄀 | 28.69 𐄀 | 20.60 𐄀 | 27.28 𐄀 | 15.97 𐄀 | 18.92 𐄀 |
| 60 | 20.62 𐄀 | 4.33 Z | 13.12 𐄀 | 28.07 𐄀 | 19.51 𐄀 | 2.09 𐄀 | 27.16 𐄀 | 26.52 𐄀 | 13.12 𐄀 | 1.53 𐄀 | 24.14 𐄀 | 2.09 𐄀 | 20.35 𐄀 | 22.18 𐄀 |
| 65 | 26.81 𐄀 | 3.50 Z | 15.92 𐄀 | 1.40 𐄀 | 23.65 𐄀 | 6.84 𐄀 | 0.12 𐄀 | 29.01 𐄀 | 15.92 𐄀 | 4.36 𐄀 | 27.63 𐄀 | 6.84 𐄀 | 24.65 𐄀 | 25.45 𐄀 |
| 70 | 3.19 𐄀 | 2.81 Z | 18.72 𐄀 | 4.74 𐄀 | 27.79 𐄀 | 11.53 𐄀 | 3.13 𐄀 | 1.53 𐄀 | 18.72 𐄀 | 7.15 𐄀 | 1.08 𐄀 | 11.53 𐄀 | 28.91 𐄀 | 28.73 𐄀 |
| 75 | 9.73 𐄀 | 2.26 Z | 21.54 𐄀 | 8.07 𐄀 | 1.94 𐄀 | 16.19 𐄀 | 6.18 𐄀 | 4.08 𐄀 | 21.54 𐄀 | 9.92 𐄀 | 4.48 𐄀 | 16.19 𐄀 | 3.12 𐄀 | 2.02 𐄀 |
| 80 | 16.41 𐄀 | 1.87 Z | 24.35 𐄀 | 11.41 𐄀 | 6.08 𐄀 | 20.81 𐄀 | 9.28 𐄀 | 6.67 𐄀 | 24.35 𐄀 | 12.67 𐄀 | 7.82 𐄀 | 20.81 𐄀 | 7.31 𐄀 | 5.32 𐄀 |
| 85 | 23.18 𐄀 | 1.64 Z | 27.18 𐄀 | 14.74 𐄀 | 10.22 𐄀 | 25.41 𐄀 | 12.43 𐄀 | 9.29 𐄀 | 27.18 𐄀 | 15.38 𐄀 | 11.12 𐄀 | 25.41 𐄀 | 11.48 𐄀 | 8.62 𐄀 |
| 90 | 0.00 𐄀 | 1.56 Z | 0.00 𐄀 | 18.06 𐄀 | 14.37 𐄀 | 0.00 𐄀 | 15.63 𐄀 | 11.94 𐄀 | 0.00 𐄀 | 18.06 𐄀 | 14.37 𐄀 | 0.00 𐄀 | 15.63 𐄀 | 11.94 𐄀 |
| 95 | 6.82 𐄀 | 1.64 Z | 2.82 𐄀 | 21.38 𐄀 | 18.52 𐄀 | 4.59 𐄀 | 18.88 𐄀 | 14.62 𐄀 | 2.82 𐄀 | 20.71 𐄀 | 17.57 𐄀 | 4.59 𐄀 | 19.78 𐄀 | 15.26 𐄀 |
| 100 | 13.59 𐄀 | 1.87 Z | 5.65 𐄀 | 24.68 𐄀 | 22.69 𐄀 | 9.19 𐄀 | 22.18 𐄀 | 17.33 𐄀 | 5.65 𐄀 | 23.33 𐄀 | 20.72 𐄀 | 9.19 𐄀 | 23.92 𐄀 | 18.59 𐄀 |
| 105 | 20.27 𐄀 | 2.26 Z | 8.46 𐄀 | 27.98 𐄀 | 26.88 𐄀 | 13.81 𐄀 | 25.52 𐄀 | 20.08 𐄀 | 8.46 𐄀 | 25.92 𐄀 | 23.82 𐄀 | 13.81 𐄀 | 28.06 𐄀 | 21.93 𐄀 |
| 110 | 26.81 𐄀 | 2.81 Z | 11.28 𐄀 | 1.27 𐄀 | 1.09 𐄀 | 18.47 𐄀 | 28.92 𐄀 | 22.85 𐄀 | 11.28 𐄀 | 28.47 𐄀 | 26.87 𐄀 | 18.47 𐄀 | 2.21 𐄀 | 25.26 𐄀 |
| 115 | 3.19 𐄀 | 3.50 Z | 14.08 𐄀 | 4.55 𐄀 | 5.35 𐄀 | 23.16 𐄀 | 2.37 𐄀 | 25.64 𐄀 | 14.08 𐄀 | 0.99 𐄀 | 29.88 𐄀 | 23.16 𐄀 | 6.35 𐄀 | 28.60 𐄀 |
| 120 | 9.38 𐄀 | 4.33 Z | 16.88 𐄀 | 7.82 𐄀 | 9.65 𐄀 | 27.91 𐄀 | 5.86 𐄀 | 28.47 𐄀 | 16.88 𐄀 | 3.48 𐄀 | 2.84 𐄀 | 27.91 𐄀 | 10.49 𐄀 | 1.93 𐄀 |
| 125 | 15.38 𐄀 | 5.30 Z | 19.67 𐄀 | 11.08 𐄀 | 14.03 𐄀 | 2.72 𐄀 | 9.40 𐄀 | 1.31 𐄀 | 19.67 𐄀 | 5.94 𐄀 | 5.76 𐄀 | 2.72 𐄀 | 14.63 𐄀 | 5.25 𐄀 |
| 130 | 21.17 𐄀 | 6.41 Z | 22.45 𐄀 | 14.34 𐄀 | 18.49 𐄀 | 7.59 𐄀 | 12.98 𐄀 | 4.18 𐄀 | 22.45 𐄀 | 8.36 𐄀 | 8.64 𐄀 | 7.59 𐄀 | 18.77 𐄀 | 8.57 𐄀 |
| 135 | 26.77 𐄀 | 7.63 Z | 25.21 𐄀 | 17.60 𐄀 | 23.06 𐄀 | 12.54 𐄀 | 16.61 𐄀 | 7.07 𐄀 | 25.21 𐄀 | 10.76 𐄀 | 11.48 𐄀 | 12.54 𐄀 | 22.89 𐄀 | 11.88 𐄀 |
| 140 | 2.18 𐄀 | 8.98 Z | 27.97 𐄀 | 20.87 𐄀 | 27.76 𐄀 | 17.55 𐄀 | 20.27 𐄀 | 9.97 𐄀 | 27.97 𐄀 | 13.13 𐄀 | 14.29 𐄀 | 17.55 𐄀 | 27.00 𐄀 | 15.17 𐄀 |
| 145 | 7.41 𐄀 | 10.43 Z | 0.71 𐄀 | 24.14 𐄀 | 2.62 𐄀 | 22.65 𐄀 | 23.96 𐄀 | 12.89 𐄀 | 0.71 𐄀 | 15.46 𐄀 | 17.06 𐄀 | 22.65 𐄀 | 1.10 𐄀 | 18.45 𐄀 |
| 150 | 12.49 𐄀 | 11.98 Z | 3.43 𐄀 | 27.44 𐄀 | 7.68 𐄀 | 27.82 𐄀 | 27.68 𐄀 | 15.83 𐄀 | 3.43 𐄀 | 17.78 𐄀 | 19.80 𐄀 | 27.82 𐄀 | 5.17 𐄀 | 21.71 𐄀 |
| 155 | 17.42 𐄀 | 13.61 Z | 6.15 𐄀 | 0.76 𐄀 | 12.97 𐄀 | 3.06 𐄀 | 1.43 𐄀 | 18.78 𐄀 | 6.15 𐄀 | 20.06 𐄀 | 22.52 𐄀 | 3.06 𐄀 | 9.21 𐄀 | 24.95 𐄀 |
| 160 | 22.22 𐄀 | 15.33 Z | 8.85 𐄀 | 4.12 𐄀 | 18.53 𐄀 | 8.36 𐄀 | 5.20 𐄀 | 21.74 𐄀 | 8.85 𐄀 | 22.33 𐄀 | 25.21 𐄀 | 8.36 𐄀 | 13.23 𐄀 | 28.17 𐄀 |
| 165 | 26.92 𐄀 | 17.12 Z | 11.53 𐄀 | 7.54 𐄀 | 24.41 𐄀 | 13.72 𐄀 | 8.99 𐄀 | 24.72 𐄀 | 11.53 𐄀 | 24.58 𐄀 | 27.88 𐄀 | 13.72 𐄀 | 17.21 𐄀 | 1.36 𐄀 |
| 170 | 1.52 𐄀 | 18.97 Z | 14.21 𐄀 | 11.04 𐄀 | 0.66 𐄀 | 19.12 𐄀 | 12.79 𐄀 | 27.70 𐄀 | 14.21 𐄀 | 26.81 𐄀 | 0.54 𐄀 | 19.12 𐄀 | 21.16 𐄀 | 4.54 𐄀 |
| 175 | 6.05 𐄀 | 20.87 Z | 16.88 𐄀 | 14.63 𐄀 | 7.33 𐄀 | 24.55 𐄀 | 16.60 𐄀 | 0.69 𐄀 | 16.88 𐄀 | 29.03 𐄀 | 3.20 𐄀 | 24.55 𐄀 | 25.07 𐄀 | 7.70 𐄀 |
| 180 | 10.51 𐄀 | 22.81 Z | 19.53 𐄀 | 18.37 𐄀 | 14.46 𐄀 | 0.00 𐄀 | 20.41 𐄀 | 3.69 𐄀 | 19.53 𐄀 | 1.24 𐄀 | 5.86 𐄀 | 0.00 𐄀 | 28.94 𐄀 | 10.83 𐄀 |

65° NB

| α_z | λ_z | β_z | I | II | III | IV | V | VI | VII | VIII | IX | X | XI | XII |
|------------|-------------|-----------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 185 | 14.92 ♁ | 24.78 Z | 22.19 ♀ | 22.28 ♂ | 22.08 ☿ | 5.45 ♀ | 24.23 ♀ | 6.69 ♂ | 22.19 ♂ | 3.45 ♀ | 8.55 ☿ | 5.45 ♁ | 2.76 ♀ | 13.94 ♀ |
| 190 | 19.30 ♁ | 26.77 Z | 24.84 ♀ | 26.44 ♂ | 0.18 ♀ | 10.88 ♀ | 28.05 ♀ | 9.71 ♂ | 24.84 ♂ | 5.67 ♀ | 11.28 ☿ | 10.88 ♁ | 6.54 ♀ | 17.04 ♀ |
| 195 | 23.65 ♁ | 28.75 Z | 27.49 ♀ | 0.94 ♂ | 8.74 ♀ | 16.28 ♀ | 1.87 ♂ | 12.74 ♂ | 27.49 ♂ | 7.89 ♀ | 14.09 ☿ | 16.28 ♁ | 10.29 ♀ | 20.12 ♀ |
| 200 | 27.98 ♁ | 30.73 Z | 0.15 ♂ | 5.90 ♂ | 17.66 ♀ | 21.64 ♀ | 5.68 ♂ | 15.78 ♂ | 0.15 ♀ | 10.14 ♀ | 17.02 ☿ | 21.64 ♁ | 13.99 ♀ | 23.19 ♀ |
| 205 | 2.31 ♀ | 32.69 Z | 2.82 ♂ | 11.51 ♂ | 26.82 ♀ | 26.94 ♀ | 9.50 ♂ | 18.83 ♂ | 2.82 ♀ | 12.42 ♀ | 20.14 ☿ | 26.94 ♁ | 17.65 ♀ | 26.25 ♀ |
| 210 | 6.65 ♀ | 34.61 Z | 5.52 ♂ | 18.08 ♂ | 6.05 ♀ | 2.18 ♂ | 13.32 ♂ | 21.91 ♂ | 5.52 ♀ | 14.76 ♀ | 23.56 ☿ | 2.18 ♀ | 21.28 ♀ | 29.31 ♀ |
| 215 | 10.99 ♀ | 36.48 Z | 8.25 ♂ | 26.07 ♂ | 15.17 ♀ | 7.35 ♂ | 17.14 ♂ | 25.00 ♂ | 8.25 ♀ | 17.17 ♀ | 27.44 ☿ | 7.35 ♀ | 24.87 ♀ | 2.37 ♂ |
| 220 | 15.34 ♀ | 38.28 Z | 11.03 ♂ | 6.21 ☿ | 24.01 ♀ | 12.45 ♂ | 20.97 ♂ | 28.13 ♂ | 11.03 ♀ | 19.70 ♀ | 2.07 ♂ | 12.45 ♀ | 28.45 ♀ | 5.45 ♂ |
| 225 | 19.72 ♀ | 39.99 Z | 13.89 ♂ | 19.55 ☿ | 2.44 ♂ | 17.46 ♂ | 24.81 ♂ | 1.30 ♀ | 13.89 ♀ | 22.38 ♀ | 7.94 ♂ | 17.46 ♀ | 2.00 ♂ | 8.56 ♂ |
| 230 | 24.11 ♀ | 41.60 Z | 16.85 ♂ | 7.14 ♀ | 10.40 ♂ | 22.41 ♂ | 28.68 ♂ | 4.51 ♀ | 16.85 ♀ | 25.32 ♀ | 15.91 ♂ | 22.41 ♀ | 5.54 ♂ | 11.70 ♂ |
| 235 | 28.53 ♀ | 43.08 Z | 19.97 ♂ | 28.60 ♀ | 17.85 ♂ | 27.28 ♂ | 2.57 ♀ | 7.79 ♀ | 19.97 ♀ | 28.66 ♀ | 27.58 ♂ | 27.28 ♀ | 9.07 ♂ | 14.92 ♂ |
| 240 | 2.97 ♂ | 44.42 Z | 23.33 ♂ | 20.59 ♀ | 24.80 ♂ | 2.09 ♀ | 6.50 ♀ | 11.14 ♀ | 23.33 ♀ | 2.69 ☿ | 15.44 ♀ | 2.09 ♂ | 12.61 ♂ | 18.23 ♂ |
| 245 | 7.43 ♂ | 45.60 Z | 27.09 ♂ | 9.22 ♂ | 1.27 ♀ | 6.84 ♀ | 10.49 ♀ | 14.60 ♀ | 27.09 ♀ | 8.06 ☿ | 10.70 ♁ | 6.84 ♂ | 16.16 ♂ | 21.69 ♂ |
| 250 | 11.92 ♂ | 46.59 Z | 1.53 ♂ | 23.46 ♂ | 7.32 ♀ | 11.53 ♀ | 14.54 ♀ | 18.20 ♀ | 1.53 ☿ | 16.63 ☿ | 7.42 ♀ | 11.53 ♂ | 19.69 ♂ | 25.33 ♂ |
| 255 | 16.42 ♂ | 47.39 Z | 7.31 ♂ | 4.20 ♀ | 12.99 ♀ | 16.19 ♀ | 18.67 ♀ | 21.96 ♀ | 7.31 ☿ | 6.29 ♂ | 27.73 ♀ | 16.19 ♂ | 23.16 ♂ | 29.16 ♂ |
| 260 | 20.94 ♂ | 47.97 Z | 16.22 ♂ | 12.55 ♀ | 18.33 ♀ | 20.81 ♀ | 22.91 ♀ | 25.96 ♀ | 16.22 ☿ | 14.88 ♁ | 11.36 ♂ | 20.81 ♂ | 26.40 ♂ | 2.93 ♂ |
| 265 | 25.47 ♂ | 48.32 Z | 4.97 ☿ | 19.24 ♀ | 23.39 ♀ | 25.41 ♀ | 27.28 ♀ | 0.31 ☿ | 4.97 ♂ | 8.13 ♂ | 20.92 ♂ | 25.41 ♂ | 29.18 ♂ | 5.47 ♂ |
| 270 | 0.00 ♂ | 48.44 Z | 0.00 ♀ | 23.63 ♀ | 27.87 ♀ | 0.00 ☿ | 2.13 ☿ | 6.37 ☿ | 0.00 ♁ | 23.63 ♂ | 27.87 ♂ | 0.00 ♂ | 2.13 ♂ | 6.37 ♂ |
| 275 | 4.53 ♂ | 48.32 Z | 25.03 ♂ | 24.53 ♀ | 0.82 ☿ | 4.59 ☿ | 9.08 ☿ | 21.87 ☿ | 25.03 ♀ | 29.69 ♂ | 2.72 ♂ | 4.59 ♂ | 6.61 ♂ | 10.76 ♂ |
| 280 | 9.06 ♂ | 47.97 Z | 13.78 ♀ | 27.07 ♀ | 3.60 ☿ | 9.19 ☿ | 18.64 ☿ | 15.12 ♀ | 13.78 ♂ | 4.04 ♂ | 7.09 ♂ | 9.19 ♂ | 11.67 ♂ | 17.45 ♂ |
| 285 | 13.58 ♂ | 47.39 Z | 22.69 ♀ | 0.84 ☿ | 6.84 ☿ | 13.81 ☿ | 2.27 ♂ | 23.71 ♀ | 22.69 ♂ | 8.04 ♂ | 11.33 ♂ | 13.81 ♂ | 17.01 ♂ | 25.80 ♂ |
| 290 | 18.08 ♂ | 46.59 Z | 28.47 ♀ | 4.67 ☿ | 10.31 ☿ | 18.47 ☿ | 22.58 ♂ | 13.37 ♂ | 28.47 ♂ | 11.80 ♂ | 15.46 ♂ | 18.47 ♂ | 22.68 ♂ | 6.54 ☿ |
| 295 | 22.57 ♂ | 45.60 Z | 2.91 ☿ | 8.31 ☿ | 13.84 ☿ | 23.16 ☿ | 19.30 ♀ | 21.94 ♂ | 2.91 ♂ | 15.40 ♂ | 19.51 ♂ | 23.16 ♂ | 28.73 ♂ | 20.78 ☿ |
| 300 | 27.03 ♂ | 44.42 Z | 6.67 ☿ | 11.77 ☿ | 17.39 ☿ | 27.91 ☿ | 14.56 ♁ | 27.31 ♂ | 6.67 ♂ | 18.86 ♂ | 23.50 ♂ | 27.91 ♂ | 5.20 ☿ | 9.41 ♀ |
| 305 | 1.47 ☿ | 43.08 Z | 10.03 ☿ | 15.08 ☿ | 20.93 ☿ | 2.72 ♂ | 2.42 ♀ | 1.34 ♂ | 10.03 ♂ | 22.21 ♂ | 27.43 ♂ | 2.72 ☿ | 12.15 ☿ | 1.40 ♀ |
| 310 | 5.89 ☿ | 41.60 Z | 13.15 ☿ | 18.30 ☿ | 24.46 ☿ | 7.59 ♂ | 14.09 ♀ | 4.68 ♂ | 13.15 ♂ | 25.49 ♂ | 1.32 ☿ | 7.59 ☿ | 19.60 ☿ | 22.86 ♀ |
| 315 | 10.28 ☿ | 39.99 Z | 16.11 ☿ | 21.44 ☿ | 28.00 ☿ | 12.54 ♂ | 22.06 ♀ | 7.62 ♂ | 16.11 ♂ | 28.70 ♂ | 5.19 ☿ | 12.54 ☿ | 27.56 ☿ | 10.45 ♂ |
| 320 | 14.66 ☿ | 38.28 Z | 18.97 ☿ | 24.55 ☿ | 1.55 ♂ | 17.55 ♂ | 27.93 ♀ | 10.30 ♂ | 18.97 ♂ | 1.87 ☿ | 9.03 ☿ | 17.55 ☿ | 5.99 ♀ | 23.79 ♂ |
| 325 | 19.01 ☿ | 36.48 Z | 21.75 ☿ | 27.63 ☿ | 5.13 ♂ | 22.65 ♂ | 2.56 ♂ | 12.83 ♂ | 21.75 ♂ | 5.00 ☿ | 12.86 ☿ | 22.65 ☿ | 14.83 ♀ | 3.93 ♀ |
| 330 | 23.35 ☿ | 34.61 Z | 24.48 ☿ | 0.69 ♂ | 8.72 ♂ | 27.82 ♂ | 6.44 ♂ | 15.24 ♂ | 24.48 ♂ | 8.09 ☿ | 16.68 ☿ | 27.82 ☿ | 23.95 ♀ | 11.92 ♀ |
| 335 | 27.69 ☿ | 32.69 Z | 27.18 ☿ | 3.75 ♂ | 12.35 ♂ | 3.06 ♀ | 9.86 ♂ | 17.58 ♂ | 27.18 ♂ | 11.17 ☿ | 20.50 ☿ | 3.06 ♀ | 3.18 ♀ | 18.49 ♀ |
| 340 | 2.02 ♀ | 30.73 Z | 29.85 ☿ | 6.81 ♂ | 16.01 ♂ | 8.36 ♀ | 12.98 ♂ | 19.86 ♂ | 29.85 ♂ | 14.22 ☿ | 24.32 ☿ | 8.36 ♀ | 12.34 ♀ | 24.10 ♀ |
| 345 | 6.35 ♀ | 28.75 Z | 2.51 ♂ | 9.88 ♂ | 19.71 ♂ | 13.72 ♀ | 15.91 ♂ | 22.11 ♂ | 2.51 ☿ | 17.26 ☿ | 28.13 ☿ | 13.72 ♀ | 21.26 ♀ | 29.06 ♀ |
| 350 | 10.70 ♀ | 26.77 Z | 5.16 ♂ | 12.96 ♂ | 23.46 ♂ | 19.12 ♀ | 18.72 ♂ | 24.33 ♂ | 5.16 ☿ | 20.29 ☿ | 1.95 ♀ | 19.12 ♀ | 29.82 ♀ | 3.56 ☿ |
| 355 | 15.08 ♀ | 24.78 Z | 7.81 ♂ | 16.06 ♂ | 27.24 ♂ | 24.55 ♀ | 21.45 ♂ | 26.55 ♂ | 7.81 ☿ | 23.31 ☿ | 5.77 ♀ | 24.55 ♀ | 7.92 ♂ | 7.72 ☿ |
| 360 | 19.49 ♀ | 22.81 Z | 10.47 ♂ | 19.17 ♂ | 1.06 ♀ | 0.00 ♁ | 24.14 ♂ | 28.76 ♂ | 10.47 ☿ | 26.31 ☿ | 9.59 ♀ | 0.00 ♀ | 15.54 ♂ | 11.63 ☿ |

70° NB

| α_z | λ_z | β_z | I | II | III | IV | V | VI | VII | VIII | IX | X | XI | XII |
|------------|-------------|-----------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0 | 21.76 𐄀 | 18.29 Z | 17.54 𐄀 | 23.55 𐄀 | 2.45 𐄀 | 0.00 𐄀 | 15.06 𐄀 | 9.76 𐄀 | 17.54 𐄀 | 0.16 𐄀 | 11.12 𐄀 | 0.00 𐄀 | 23.54 𐄀 | 23.86 𐄀 |
| 5 | 26.28 𐄀 | 16.33 Z | 19.66 𐄀 | 26.24 𐄀 | 5.98 𐄀 | 5.45 𐄀 | 15.39 𐄀 | 11.19 𐄀 | 19.66 𐄀 | 2.83 𐄀 | 14.68 𐄀 | 5.45 𐄀 | 0.78 𐄀 | 26.41 𐄀 |
| 10 | 0.85 𐄀 | 14.41 Z | 21.82 𐄀 | 28.98 𐄀 | 9.57 𐄀 | 10.88 𐄀 | 16.04 𐄀 | 12.69 𐄀 | 21.82 𐄀 | 5.49 𐄀 | 18.23 𐄀 | 10.88 𐄀 | 7.39 𐄀 | 29.00 𐄀 |
| 15 | 5.48 𐄀 | 12.54 Z | 24.02 𐄀 | 1.76 𐄀 | 13.21 𐄀 | 16.28 𐄀 | 16.97 𐄀 | 14.25 𐄀 | 24.02 𐄀 | 8.14 𐄀 | 21.77 𐄀 | 16.28 𐄀 | 13.46 𐄀 | 1.61 𐄀 |
| 20 | 10.20 𐄀 | 10.72 Z | 26.26 𐄀 | 4.57 𐄀 | 16.90 𐄀 | 21.64 𐄀 | 18.13 𐄀 | 15.88 𐄀 | 26.26 𐄀 | 10.79 𐄀 | 25.29 𐄀 | 21.64 𐄀 | 19.09 𐄀 | 4.26 𐄀 |
| 25 | 15.01 𐄀 | 8.96 Z | 28.53 𐄀 | 7.42 𐄀 | 20.62 𐄀 | 26.94 𐄀 | 19.51 𐄀 | 17.56 𐄀 | 28.53 𐄀 | 13.44 𐄀 | 28.79 𐄀 | 26.94 𐄀 | 24.35 𐄀 | 6.93 𐄀 |
| 30 | 19.93 𐄀 | 7.29 Z | 0.83 𐄀 | 10.31 𐄀 | 24.38 𐄀 | 2.18 𐄀 | 21.08 𐄀 | 19.30 𐄀 | 0.83 𐄀 | 16.07 𐄀 | 2.27 𐄀 | 2.18 𐄀 | 29.33 𐄀 | 9.63 𐄀 |
| 35 | 24.97 𐄀 | 5.70 Z | 3.16 𐄀 | 13.21 𐄀 | 28.16 𐄀 | 7.35 𐄀 | 22.81 𐄀 | 21.09 𐄀 | 3.16 𐄀 | 18.69 𐄀 | 5.73 𐄀 | 7.35 𐄀 | 4.07 𐄀 | 12.36 𐄀 |
| 40 | 0.15 𐄀 | 4.22 Z | 5.52 𐄀 | 16.15 𐄀 | 1.98 𐄀 | 12.45 𐄀 | 24.69 𐄀 | 22.94 𐄀 | 5.52 𐄀 | 21.30 𐄀 | 9.15 𐄀 | 12.45 𐄀 | 8.61 𐄀 | 15.12 𐄀 |
| 45 | 5.48 𐄀 | 2.84 Z | 7.90 𐄀 | 19.10 𐄀 | 5.81 𐄀 | 17.46 𐄀 | 26.71 𐄀 | 24.83 𐄀 | 7.90 𐄀 | 23.88 𐄀 | 12.53 𐄀 | 17.46 𐄀 | 13.00 𐄀 | 17.90 𐄀 |
| 50 | 10.96 𐄀 | 1.57 Z | 10.30 𐄀 | 22.07 𐄀 | 9.67 𐄀 | 22.41 𐄀 | 28.84 𐄀 | 26.78 𐄀 | 10.30 𐄀 | 26.45 𐄀 | 15.87 𐄀 | 22.41 𐄀 | 17.27 𐄀 | 20.71 𐄀 |
| 55 | 16.61 𐄀 | 0.44 Z | 12.73 𐄀 | 25.05 𐄀 | 13.53 𐄀 | 27.28 𐄀 | 1.08 𐄀 | 28.77 𐄀 | 12.73 𐄀 | 29.00 𐄀 | 19.17 𐄀 | 27.28 𐄀 | 21.44 𐄀 | 23.54 𐄀 |
| 60 | 22.42 𐄀 | 0.57 N | 15.16 𐄀 | 28.04 𐄀 | 17.41 𐄀 | 2.09 𐄀 | 3.42 𐄀 | 0.81 𐄀 | 15.16 𐄀 | 1.52 𐄀 | 22.42 𐄀 | 2.09 𐄀 | 25.53 𐄀 | 26.40 𐄀 |
| 65 | 28.39 𐄀 | 1.43 N | 17.61 𐄀 | 1.04 𐄀 | 21.29 𐄀 | 6.84 𐄀 | 5.85 𐄀 | 2.90 𐄀 | 17.61 𐄀 | 4.01 𐄀 | 25.62 𐄀 | 6.84 𐄀 | 29.56 𐄀 | 29.28 𐄀 |
| 70 | 4.51 𐄀 | 2.15 N | 20.08 𐄀 | 4.04 𐄀 | 25.18 𐄀 | 11.53 𐄀 | 8.38 𐄀 | 5.03 𐄀 | 20.08 𐄀 | 6.48 𐄀 | 28.77 𐄀 | 11.53 𐄀 | 3.55 𐄀 | 2.18 𐄀 |
| 75 | 10.76 𐄀 | 2.71 N | 22.55 𐄀 | 7.05 𐄀 | 29.07 𐄀 | 16.19 𐄀 | 10.98 𐄀 | 7.21 𐄀 | 22.55 𐄀 | 8.92 𐄀 | 1.86 𐄀 | 16.19 𐄀 | 7.51 𐄀 | 5.10 𐄀 |
| 80 | 17.11 𐄀 | 3.11 N | 25.03 𐄀 | 10.05 𐄀 | 2.96 𐄀 | 20.81 𐄀 | 13.67 𐄀 | 9.42 𐄀 | 25.03 𐄀 | 11.32 𐄀 | 4.88 𐄀 | 20.81 𐄀 | 11.44 𐄀 | 8.05 𐄀 |
| 85 | 23.54 𐄀 | 3.36 N | 27.51 𐄀 | 13.04 𐄀 | 6.85 𐄀 | 25.41 𐄀 | 16.42 𐄀 | 11.68 𐄀 | 27.51 𐄀 | 13.69 𐄀 | 7.85 𐄀 | 25.41 𐄀 | 15.35 𐄀 | 11.00 𐄀 |
| 90 | 0.00 𐄀 | 3.44 N | 0.00 𐄀 | 16.02 𐄀 | 10.75 𐄀 | 0.00 𐄀 | 19.25 𐄀 | 13.98 𐄀 | 0.00 𐄀 | 16.02 𐄀 | 10.75 𐄀 | 0.00 𐄀 | 19.25 𐄀 | 13.98 𐄀 |
| 95 | 6.46 𐄀 | 3.36 N | 2.49 𐄀 | 19.00 𐄀 | 14.65 𐄀 | 4.59 𐄀 | 22.15 𐄀 | 16.31 𐄀 | 2.49 𐄀 | 18.32 𐄀 | 13.58 𐄀 | 4.59 𐄀 | 23.15 𐄀 | 16.96 𐄀 |
| 100 | 12.89 𐄀 | 3.11 N | 4.97 𐄀 | 21.95 𐄀 | 18.56 𐄀 | 9.19 𐄀 | 25.12 𐄀 | 18.68 𐄀 | 4.97 𐄀 | 20.58 𐄀 | 16.33 𐄀 | 9.19 𐄀 | 27.04 𐄀 | 19.95 𐄀 |
| 105 | 19.24 𐄀 | 2.71 N | 7.45 𐄀 | 24.90 𐄀 | 22.49 𐄀 | 13.81 𐄀 | 28.14 𐄀 | 21.08 𐄀 | 7.45 𐄀 | 22.79 𐄀 | 19.02 𐄀 | 13.81 𐄀 | 0.93 𐄀 | 22.95 𐄀 |
| 110 | 25.49 𐄀 | 2.15 N | 9.92 𐄀 | 27.82 𐄀 | 26.45 𐄀 | 18.47 𐄀 | 1.23 𐄀 | 23.52 𐄀 | 9.92 𐄀 | 24.97 𐄀 | 21.62 𐄀 | 18.47 𐄀 | 4.82 𐄀 | 25.96 𐄀 |
| 115 | 1.61 𐄀 | 1.43 N | 12.39 𐄀 | 0.72 𐄀 | 0.44 𐄀 | 23.16 𐄀 | 4.38 𐄀 | 25.99 𐄀 | 12.39 𐄀 | 27.10 𐄀 | 24.15 𐄀 | 23.16 𐄀 | 8.71 𐄀 | 28.96 𐄀 |
| 120 | 7.58 𐄀 | 0.57 N | 14.84 𐄀 | 3.60 𐄀 | 4.47 𐄀 | 27.91 𐄀 | 7.58 𐄀 | 28.48 𐄀 | 14.84 𐄀 | 29.19 𐄀 | 26.58 𐄀 | 27.91 𐄀 | 12.59 𐄀 | 1.96 𐄀 |
| 125 | 13.39 𐄀 | 0.44 Z | 17.27 𐄀 | 6.46 𐄀 | 8.56 𐄀 | 2.72 𐄀 | 10.83 𐄀 | 1.00 𐄀 | 17.27 𐄀 | 1.23 𐄀 | 28.92 𐄀 | 2.72 𐄀 | 16.47 𐄀 | 4.95 𐄀 |
| 130 | 19.04 𐄀 | 1.57 Z | 19.70 𐄀 | 9.29 𐄀 | 12.73 𐄀 | 7.59 𐄀 | 14.13 𐄀 | 3.55 𐄀 | 19.70 𐄀 | 3.22 𐄀 | 1.16 𐄀 | 7.59 𐄀 | 20.33 𐄀 | 7.93 𐄀 |
| 135 | 24.52 𐄀 | 2.84 Z | 22.10 𐄀 | 12.10 𐄀 | 17.00 𐄀 | 12.54 𐄀 | 17.47 𐄀 | 6.12 𐄀 | 22.10 𐄀 | 5.17 𐄀 | 3.29 𐄀 | 12.54 𐄀 | 24.19 𐄀 | 10.90 𐄀 |
| 140 | 29.85 𐄀 | 4.22 Z | 24.48 𐄀 | 14.88 𐄀 | 21.39 𐄀 | 17.55 𐄀 | 20.85 𐄀 | 8.70 𐄀 | 24.48 𐄀 | 7.06 𐄀 | 5.31 𐄀 | 17.55 𐄀 | 28.02 𐄀 | 13.85 𐄀 |
| 145 | 5.03 𐄀 | 5.70 Z | 26.84 𐄀 | 17.64 𐄀 | 25.93 𐄀 | 22.65 𐄀 | 24.27 𐄀 | 11.31 𐄀 | 26.84 𐄀 | 8.91 𐄀 | 7.19 𐄀 | 22.65 𐄀 | 1.84 𐄀 | 16.79 𐄀 |
| 150 | 10.07 𐄀 | 7.29 Z | 29.17 𐄀 | 20.37 𐄀 | 0.67 𐄀 | 27.82 𐄀 | 27.73 𐄀 | 13.93 𐄀 | 29.17 𐄀 | 10.70 𐄀 | 8.92 𐄀 | 27.82 𐄀 | 5.62 𐄀 | 19.69 𐄀 |
| 155 | 14.99 𐄀 | 8.96 Z | 1.47 𐄀 | 23.07 𐄀 | 5.65 𐄀 | 3.06 𐄀 | 1.21 𐄀 | 16.56 𐄀 | 1.47 𐄀 | 12.44 𐄀 | 10.49 𐄀 | 3.06 𐄀 | 9.38 𐄀 | 22.58 𐄀 |
| 160 | 19.80 𐄀 | 10.72 Z | 3.74 𐄀 | 25.74 𐄀 | 10.91 𐄀 | 8.36 𐄀 | 4.71 𐄀 | 19.21 𐄀 | 3.74 𐄀 | 14.12 𐄀 | 11.87 𐄀 | 8.36 𐄀 | 13.10 𐄀 | 25.43 𐄀 |
| 165 | 24.52 𐄀 | 12.54 Z | 5.98 𐄀 | 28.39 𐄀 | 16.54 𐄀 | 13.72 𐄀 | 8.23 𐄀 | 21.86 𐄀 | 5.98 𐄀 | 15.75 𐄀 | 13.03 𐄀 | 13.72 𐄀 | 16.79 𐄀 | 28.24 𐄀 |
| 170 | 29.15 𐄀 | 14.41 Z | 8.18 𐄀 | 1.00 𐄀 | 22.61 𐄀 | 19.12 𐄀 | 11.77 𐄀 | 24.51 𐄀 | 8.18 𐄀 | 17.31 𐄀 | 13.96 𐄀 | 19.12 𐄀 | 20.43 𐄀 | 1.02 𐄀 |
| 175 | 3.72 𐄀 | 16.33 Z | 10.34 𐄀 | 3.59 𐄀 | 29.22 𐄀 | 24.55 𐄀 | 15.32 𐄀 | 27.17 𐄀 | 10.34 𐄀 | 18.81 𐄀 | 14.61 𐄀 | 24.55 𐄀 | 24.02 𐄀 | 3.76 𐄀 |
| 180 | 8.24 𐄀 | 18.29 Z | 12.46 𐄀 | 6.14 𐄀 | 6.46 𐄀 | 0.00 𐄀 | 18.88 𐄀 | 29.84 𐄀 | 12.46 𐄀 | 20.24 𐄀 | 14.94 𐄀 | 0.00 𐄀 | 27.55 𐄀 | 6.45 𐄀 |

70° NB

| α_z | λ_z | β_z | I | II | III | IV | V | VI | VII | VIII | IX | X | XI | XII |
|------------|------------------------------|-----------|------------------------------|------------------------------|------------------|-----------------------------|------------------|------------------|------------------|------------------|------------------|------------------------------|-----------------------------|------------------|
| 185 | 12.71 $\underline{\text{a}}$ | 20.27 Z | 14.52 m | 8.66 a | 14.46 a | 5.45 v | 22.44 v | 2.50 v | 14.52 v | 21.60 v | 14.92 II | 5.45 $\underline{\text{a}}$ | 1.03 m | 9.09 m |
| 190 | 17.16 $\underline{\text{a}}$ | 22.25 Z | 16.53 m | 11.13 a | 23.30 a | 10.88 v | 26.00 v | 5.16 v | 16.53 v | 22.88 v | 14.50 II | 10.88 $\underline{\text{a}}$ | 4.45 m | 11.68 m |
| 195 | 21.59 $\underline{\text{a}}$ | 24.24 Z | 18.47 m | 13.56 a | 3.01 h | 16.28 v | 29.55 v | 7.81 v | 18.47 v | 24.07 v | 13.66 II | 16.28 $\underline{\text{a}}$ | 7.79 m | 14.20 m |
| 200 | 26.01 $\underline{\text{a}}$ | 26.21 Z | 20.34 m | 15.92 a | 13.54 h | 21.64 v | 3.11 v | 10.46 v | 20.34 v | 25.17 v | 12.38 II | 21.64 $\underline{\text{a}}$ | 11.06 m | 16.64 m |
| 205 | 0.44 m | 28.15 Z | 22.12 m | 18.18 a | 24.70 h | 26.94 v | 6.66 v | 13.10 v | 22.12 v | 26.17 v | 10.68 II | 26.94 $\underline{\text{a}}$ | 14.24 m | 19.00 m |
| 210 | 4.87 m | 30.05 Z | 23.79 m | 20.30 a | 6.15 v | 2.18 v | 10.20 v | 15.72 v | 23.79 v | 27.05 v | 8.63 II | 2.18 m | 17.32 m | 21.25 m |
| 215 | 9.32 m | 31.88 Z | 25.33 m | 22.18 a | 17.48 v | 7.35 v | 13.74 v | 18.32 v | 25.33 v | 27.80 v | 6.35 II | 7.35 m | 20.27 m | 23.37 m |
| 220 | 13.80 m | 33.65 Z | 26.70 m | 23.60 a | 28.32 v | 12.45 v | 17.27 v | 20.90 v | 26.70 v | 28.41 v | 4.03 II | 12.45 m | 23.05 m | 25.32 m |
| 225 | 18.30 m | 35.32 Z | 27.87 m | 24.06 a | 8.41 v | 17.46 v | 20.80 v | 23.44 v | 27.87 v | 28.87 v | 1.92 II | 17.46 m | 25.58 m | 27.03 m |
| 230 | 22.83 m | 36.88 Z | 28.75 m | 22.03 a | 17.64 v | 22.41 v | 24.32 v | 25.93 v | 28.75 v | 29.16 v | 0.28 II | 22.41 m | 27.72 m | 28.39 m |
| 235 | 27.38 m | 38.32 Z | 29.24 m | 11.50 a | 26.03 v | 27.28 v | 27.83 v | 28.33 v | 29.24 v | 29.29 v | 29.39 v | 27.28 m | 29.12 m | 29.20 m |
| 240 | 1.97 a | 39.61 Z | 29.18 m | 29.07 m | 28.79 m | 2.09 II | 29.49 v | 29.28 v | 29.18 v | 20.44 a | 3.56 a | 2.09 a | 1.36 a | 0.64 a |
| 245 | 6.59 a | 40.74 Z | 28.27 m | 27.00 m | 22.30 m | 6.84 II | 0.77 II | 29.25 v | 28.27 v | 5.51 v | 10.07 a | 6.84 a | 4.99 a | 3.05 a |
| 250 | 11.24 a | 41.69 Z | 26.00 m | 20.02 m | 23.46 m | 11.53 II | 3.38 II | 29.41 v | 26.00 v | 4.14 v | 15.82 a | 11.53 a | 8.75 a | 5.58 a |
| 255 | 15.91 a | 42.44 Z | 21.39 m | 25.61 $\underline{\text{a}}$ | 11.57 v | 16.19 II | 7.36 II | 0.27 II | 21.39 v | 5.69 v | 21.03 a | 16.19 a | 12.64 a | 8.23 a |
| 260 | 20.59 a | 42.99 Z | 12.52 m | 23.72 v | 3.76 v | 20.81 II | 12.54 II | 2.63 II | 12.52 v | 8.28 v | 25.89 a | 20.81 a | 16.66 a | 10.88 a |
| 265 | 25.29 a | 43.33 Z | 25.98 $\underline{\text{a}}$ | 23.72 v | 3.54 v | 25.41 II | 18.44 II | 7.19 II | 25.98 v | 11.86 v | 0.66 v | 25.41 a | 20.67 a | 13.06 a |
| 270 | 0.00 v | 43.44 Z | 0.00 $\underline{\text{a}}$ | 16.90 v | 5.78 v | 0.00 v | 24.22 II | 13.10 II | 0.00 v | 16.90 v | 5.78 v | 0.00 v | 24.22 a | 13.10 a |
| 275 | 4.71 v | 43.33 Z | 4.02 m | 16.94 v | 9.33 v | 4.59 v | 29.34 II | 18.14 II | 4.02 h | 22.81 v | 11.56 v | 4.59 v | 26.46 a | 6.28 a |
| 280 | 9.41 v | 42.99 Z | 17.48 v | 19.12 v | 13.34 v | 9.19 v | 4.11 v | 21.72 II | 17.48 a | 27.37 v | 17.46 v | 9.19 v | 26.24 a | 6.28 m |
| 285 | 14.09 v | 42.44 Z | 8.61 v | 21.77 v | 17.36 v | 13.81 v | 8.97 v | 24.31 II | 8.61 a | 29.73 v | 22.64 v | 13.81 v | 18.43 a | 4.39 m |
| 290 | 18.76 v | 41.69 Z | 4.00 v | 24.42 v | 21.25 v | 18.47 v | 14.18 v | 25.86 II | 4.00 a | 0.59 a | 26.62 v | 18.47 v | 6.54 $\underline{\text{a}}$ | 9.98 v |
| 295 | 23.41 v | 40.74 Z | 1.73 v | 26.95 v | 25.01 v | 23.16 v | 19.93 v | 24.49 II | 1.73 a | 0.75 a | 29.23 v | 23.16 v | 7.70 v | 3.00 v |
| 300 | 28.03 v | 39.61 Z | 0.82 v | 29.36 v | 28.64 v | 27.91 v | 26.44 v | 9.56 v | 0.82 a | 0.72 a | 0.51 a | 27.91 v | 1.21 v | 0.93 v |
| 305 | 2.62 a | 38.32 Z | 0.76 v | 0.80 v | 0.88 v | 2.72 v | 0.61 a | 0.71 a | 0.76 a | 1.67 a | 2.17 a | 2.72 a | 3.97 a | 18.50 v |
| 310 | 7.17 a | 36.88 Z | 1.25 v | 1.61 v | 2.28 v | 7.59 v | 29.72 v | 0.84 a | 1.25 a | 4.07 a | 5.68 a | 7.59 a | 12.36 a | 7.97 v |
| 315 | 11.70 a | 35.32 Z | 2.13 v | 2.97 v | 4.42 v | 12.54 v | 28.08 v | 1.13 a | 2.13 a | 6.56 a | 9.20 a | 12.54 a | 21.59 a | 5.94 v |
| 320 | 16.20 a | 33.65 Z | 3.30 v | 4.68 v | 6.95 v | 17.55 v | 25.97 v | 1.59 a | 3.30 a | 9.10 a | 12.73 a | 17.55 a | 1.68 h | 6.40 v |
| 325 | 20.68 a | 31.88 Z | 4.67 v | 6.63 v | 9.73 v | 22.65 v | 23.65 v | 2.20 a | 4.67 a | 11.68 a | 16.26 a | 22.65 a | 12.52 h | 7.82 v |
| 330 | 25.13 a | 30.05 Z | 6.21 v | 8.75 v | 12.68 v | 27.82 v | 21.37 v | 2.95 a | 6.21 a | 14.28 a | 19.80 a | 27.82 a | 23.85 h | 9.70 v |
| 335 | 29.56 a | 28.15 Z | 7.88 v | 11.00 v | 15.76 v | 3.06 m | 19.32 v | 3.83 a | 7.88 a | 16.90 a | 23.34 a | 3.06 h | 5.30 v | 11.82 v |
| 340 | 3.99 h | 26.21 Z | 9.66 v | 13.36 v | 18.94 v | 8.36 m | 17.62 v | 4.83 a | 9.66 a | 19.54 a | 26.89 a | 8.36 h | 16.46 v | 14.08 v |
| 345 | 8.41 h | 24.24 Z | 11.53 v | 15.80 v | 22.21 v | 13.72 m | 16.34 v | 5.93 a | 11.53 a | 22.19 a | 0.45 h | 13.72 h | 26.99 v | 16.44 v |
| 350 | 12.84 h | 22.25 Z | 13.47 v | 18.32 v | 25.55 v | 19.12 m | 15.50 v | 7.12 a | 13.47 a | 24.84 a | 4.00 h | 19.12 h | 6.70 v | 18.87 v |
| 355 | 17.29 h | 20.27 Z | 15.48 v | 20.91 v | 28.97 v | 24.55 m | 15.08 v | 8.40 a | 15.48 a | 27.50 a | 7.56 h | 24.55 h | 15.54 v | 21.34 v |
| 360 | 21.76 h | 18.29 Z | 17.54 v | 23.55 v | 2.45 m | 0.00 $\underline{\text{a}}$ | 15.06 v | 9.76 a | 17.54 a | 0.16 h | 11.12 h | 0.00 v | 23.54 v | 23.86 v |