

L. Bataille

Nouvelles tables nautiques

Azimut des astres par l'heure

**pour tous les astres, par toutes les latitudes et à tous les
instants**

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Table I.

| | 00h00 0° | 00h20 5° | 00h40 10° | 01h00 15° | 01h20 20° | 01h36 24° | 01h48 27° | 02h00 30° | 02h08 32° | 02h16 34° | 02h24 36° | 02h32 38° | 02h40 40° | 02h48 42° | 02h56 44° | 03h00 45° | |
|-----|-------------|-------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|-----|
| 0° | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 90° |
| 1° | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 89° |
| 2° | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 88° |
| 3° | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 87° |
| 4° | 0.07 | 0.07 | 0.07 | 0.07 | 0.07 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 86° |
| 5° | 0.09 | 0.09 | 0.09 | 0.08 | 0.08 | 0.08 | 0.08 | 0.08 | 0.07 | 0.07 | 0.07 | 0.07 | 0.07 | 0.06 | 0.06 | 0.06 | 85° |
| 6° | 0.10 | 0.10 | 0.10 | 0.10 | 0.10 | 0.10 | 0.09 | 0.09 | 0.09 | 0.09 | 0.08 | 0.08 | 0.08 | 0.08 | 0.08 | 0.08 | 84° |
| 7° | 0.12 | 0.12 | 0.12 | 0.12 | 0.11 | 0.11 | 0.11 | 0.11 | 0.10 | 0.10 | 0.10 | 0.10 | 0.09 | 0.09 | 0.09 | 0.09 | 83° |
| 8° | 0.14 | 0.14 | 0.14 | 0.13 | 0.13 | 0.13 | 0.12 | 0.12 | 0.12 | 0.12 | 0.11 | 0.11 | 0.11 | 0.10 | 0.10 | 0.10 | 82° |
| 9° | 0.16 | 0.16 | 0.15 | 0.15 | 0.15 | 0.14 | 0.14 | 0.14 | 0.13 | 0.13 | 0.13 | 0.12 | 0.12 | 0.12 | 0.11 | 0.11 | 81° |
| 10° | 0.17 | 0.17 | 0.17 | 0.17 | 0.16 | 0.16 | 0.15 | 0.15 | 0.15 | 0.14 | 0.14 | 0.14 | 0.13 | 0.13 | 0.12 | 0.12 | 80° |
| 11° | 0.19 | 0.19 | 0.19 | 0.18 | 0.18 | 0.17 | 0.17 | 0.17 | 0.16 | 0.16 | 0.15 | 0.15 | 0.15 | 0.14 | 0.14 | 0.13 | 79° |
| 12° | 0.21 | 0.21 | 0.20 | 0.20 | 0.20 | 0.19 | 0.19 | 0.18 | 0.18 | 0.17 | 0.17 | 0.16 | 0.16 | 0.15 | 0.15 | 0.15 | 78° |
| 13° | 0.22 | 0.22 | 0.22 | 0.22 | 0.21 | 0.21 | 0.20 | 0.19 | 0.19 | 0.19 | 0.18 | 0.18 | 0.17 | 0.17 | 0.16 | 0.16 | 77° |
| 14° | 0.24 | 0.24 | 0.24 | 0.23 | 0.23 | 0.22 | 0.22 | 0.21 | 0.21 | 0.20 | 0.20 | 0.19 | 0.19 | 0.18 | 0.17 | 0.17 | 76° |
| 15° | 0.26 | 0.26 | 0.25 | 0.25 | 0.24 | 0.24 | 0.23 | 0.22 | 0.22 | 0.21 | 0.21 | 0.20 | 0.20 | 0.19 | 0.19 | 0.18 | 75° |
| 16° | 0.28 | 0.27 | 0.27 | 0.27 | 0.26 | 0.25 | 0.25 | 0.24 | 0.23 | 0.23 | 0.22 | 0.22 | 0.21 | 0.20 | 0.20 | 0.19 | 74° |
| 17° | 0.29 | 0.29 | 0.29 | 0.28 | 0.27 | 0.27 | 0.26 | 0.25 | 0.25 | 0.24 | 0.24 | 0.23 | 0.22 | 0.22 | 0.21 | 0.21 | 73° |
| 18° | 0.31 | 0.31 | 0.30 | 0.30 | 0.29 | 0.28 | 0.28 | 0.27 | 0.26 | 0.26 | 0.25 | 0.24 | 0.24 | 0.23 | 0.22 | 0.22 | 72° |
| 19° | 0.33 | 0.32 | 0.32 | 0.31 | 0.31 | 0.30 | 0.29 | 0.28 | 0.28 | 0.27 | 0.26 | 0.26 | 0.25 | 0.24 | 0.23 | 0.23 | 71° |
| 20° | 0.34 | 0.34 | 0.34 | 0.33 | 0.32 | 0.31 | 0.30 | 0.30 | 0.29 | 0.28 | 0.28 | 0.27 | 0.26 | 0.25 | 0.25 | 0.24 | 70° |
| 21° | 0.36 | 0.36 | 0.35 | 0.35 | 0.34 | 0.33 | 0.32 | 0.31 | 0.30 | 0.30 | 0.29 | 0.28 | 0.27 | 0.27 | 0.26 | 0.25 | 69° |
| 22° | 0.37 | 0.37 | 0.37 | 0.36 | 0.35 | 0.34 | 0.33 | 0.32 | 0.32 | 0.31 | 0.30 | 0.30 | 0.29 | 0.28 | 0.27 | 0.26 | 68° |
| 23° | 0.39 | 0.39 | 0.38 | 0.38 | 0.37 | 0.36 | 0.35 | 0.34 | 0.33 | 0.32 | 0.32 | 0.31 | 0.30 | 0.29 | 0.28 | 0.28 | 67° |
| 24° | 0.41 | 0.41 | 0.40 | 0.39 | 0.38 | 0.37 | 0.36 | 0.35 | 0.34 | 0.34 | 0.33 | 0.32 | 0.31 | 0.30 | 0.29 | 0.29 | 66° |
| 25° | 0.42 | 0.42 | 0.42 | 0.41 | 0.40 | 0.39 | 0.38 | 0.37 | 0.36 | 0.35 | 0.34 | 0.33 | 0.32 | 0.31 | 0.30 | 0.30 | 65° |
| 26° | 0.44 | 0.44 | 0.43 | 0.42 | 0.41 | 0.40 | 0.39 | 0.38 | 0.37 | 0.36 | 0.35 | 0.35 | 0.34 | 0.33 | 0.32 | 0.31 | 64° |
| 27° | 0.45 | 0.45 | 0.45 | 0.44 | 0.43 | 0.41 | 0.40 | 0.39 | 0.39 | 0.38 | 0.37 | 0.36 | 0.35 | 0.34 | 0.33 | 0.32 | 63° |
| 28° | 0.47 | 0.47 | 0.46 | 0.45 | 0.44 | 0.43 | 0.42 | 0.41 | 0.40 | 0.39 | 0.38 | 0.37 | 0.36 | 0.35 | 0.34 | 0.33 | 62° |
| 29° | 0.48 | 0.48 | 0.48 | 0.47 | 0.46 | 0.44 | 0.43 | 0.42 | 0.41 | 0.40 | 0.39 | 0.38 | 0.37 | 0.36 | 0.35 | 0.34 | 61° |
| 30° | 0.50 | 0.50 | 0.49 | 0.48 | 0.47 | 0.46 | 0.45 | 0.43 | 0.42 | 0.41 | 0.40 | 0.39 | 0.38 | 0.37 | 0.36 | 0.35 | 60° |
| 31° | 0.52 | 0.51 | 0.51 | 0.50 | 0.48 | 0.47 | 0.46 | 0.45 | 0.44 | 0.43 | 0.42 | 0.41 | 0.39 | 0.38 | 0.37 | 0.36 | 59° |
| 32° | 0.53 | 0.53 | 0.52 | 0.51 | 0.50 | 0.48 | 0.47 | 0.46 | 0.45 | 0.44 | 0.43 | 0.42 | 0.41 | 0.39 | 0.38 | 0.37 | 58° |
| 33° | 0.54 | 0.54 | 0.54 | 0.53 | 0.51 | 0.50 | 0.49 | 0.47 | 0.46 | 0.45 | 0.44 | 0.43 | 0.42 | 0.40 | 0.39 | 0.39 | 57° |
| 34° | 0.56 | 0.56 | 0.55 | 0.54 | 0.53 | 0.51 | 0.50 | 0.48 | 0.47 | 0.46 | 0.45 | 0.44 | 0.43 | 0.42 | 0.40 | 0.40 | 56° |
| 35° | 0.57 | 0.57 | 0.56 | 0.55 | 0.54 | 0.52 | 0.51 | 0.50 | 0.49 | 0.48 | 0.46 | 0.45 | 0.44 | 0.43 | 0.41 | 0.41 | 55° |
| 36° | 0.59 | 0.59 | 0.58 | 0.57 | 0.55 | 0.54 | 0.52 | 0.51 | 0.50 | 0.49 | 0.48 | 0.46 | 0.45 | 0.44 | 0.42 | 0.42 | 54° |
| 37° | 0.60 | 0.60 | 0.59 | 0.58 | 0.57 | 0.55 | 0.54 | 0.52 | 0.51 | 0.50 | 0.49 | 0.47 | 0.46 | 0.45 | 0.43 | 0.43 | 53° |
| 38° | 0.62 | 0.61 | 0.61 | 0.59 | 0.58 | 0.56 | 0.55 | 0.53 | 0.52 | 0.51 | 0.50 | 0.49 | 0.47 | 0.46 | 0.44 | 0.44 | 52° |
| 39° | 0.63 | 0.63 | 0.62 | 0.61 | 0.59 | 0.57 | 0.56 | 0.55 | 0.53 | 0.52 | 0.51 | 0.50 | 0.48 | 0.47 | 0.45 | 0.44 | 51° |
| 40° | 0.64 | 0.64 | 0.63 | 0.62 | 0.60 | 0.59 | 0.57 | 0.56 | 0.55 | 0.53 | 0.52 | 0.51 | 0.49 | 0.48 | 0.46 | 0.45 | 50° |
| 41° | 0.66 | 0.65 | 0.65 | 0.63 | 0.62 | 0.60 | 0.58 | 0.57 | 0.56 | 0.54 | 0.53 | 0.52 | 0.50 | 0.49 | 0.47 | 0.46 | 49° |
| 42° | 0.67 | 0.67 | 0.66 | 0.65 | 0.63 | 0.61 | 0.60 | 0.58 | 0.57 | 0.55 | 0.54 | 0.53 | 0.51 | 0.50 | 0.48 | 0.47 | 48° |
| 43° | 0.68 | 0.68 | 0.67 | 0.66 | 0.64 | 0.62 | 0.61 | 0.59 | 0.58 | 0.57 | 0.55 | 0.54 | 0.52 | 0.51 | 0.49 | 0.48 | 47° |
| 44° | 0.69 | 0.69 | 0.68 | 0.67 | 0.65 | 0.63 | 0.62 | 0.60 | 0.59 | 0.58 | 0.56 | 0.55 | 0.53 | 0.52 | 0.50 | 0.49 | 46° |
| 45° | 0.71 | 0.70 | 0.70 | 0.68 | 0.66 | 0.65 | 0.63 | 0.61 | 0.60 | 0.59 | 0.57 | 0.56 | 0.54 | 0.53 | 0.51 | 0.50 | 45° |
| 46° | 0.72 | 0.72 | 0.71 | 0.69 | 0.68 | 0.66 | 0.64 | 0.62 | 0.61 | 0.60 | 0.58 | 0.57 | 0.55 | 0.53 | 0.52 | 0.51 | 44° |
| 47° | 0.73 | 0.73 | 0.72 | 0.71 | 0.69 | 0.67 | 0.65 | 0.63 | 0.62 | 0.61 | 0.59 | 0.58 | 0.56 | 0.54 | 0.53 | 0.52 | 43° |
| 48° | 0.74 | 0.74 | 0.73 | 0.72 | 0.70 | 0.68 | 0.66 | 0.64 | 0.63 | 0.62 | 0.60 | 0.59 | 0.57 | 0.55 | 0.53 | 0.53 | 42° |
| 49° | 0.75 | 0.75 | 0.74 | 0.73 | 0.71 | 0.69 | 0.67 | 0.65 | 0.64 | 0.63 | 0.61 | 0.59 | 0.58 | 0.56 | 0.54 | 0.53 | 41° |
| 50° | 0.77 | 0.76 | 0.75 | 0.74 | 0.72 | 0.70 | 0.68 | 0.66 | 0.65 | 0.64 | 0.62 | 0.60 | 0.59 | 0.57 | 0.55 | 0.54 | 40° |
| 51° | 0.78 | 0.77 | 0.77 | 0.75 | 0.73 | 0.71 | 0.69 | 0.67 | 0.66 | 0.64 | 0.63 | 0.61 | 0.60 | 0.58 | 0.56 | 0.55 | 39° |
| 52° | 0.79 | 0.79 | 0.78 | 0.76 | 0.74 | 0.72 | 0.70 | 0.68 | 0.67 | 0.65 | 0.64 | 0.62 | 0.60 | 0.59 | 0.57 | 0.56 | 38° |
| 53° | 0.80 | 0.80 | 0.79 | 0.77 | 0.75 | 0.73 | 0.71 | 0.69 | 0.68 | 0.66 | 0.65 | 0.63 | 0.61 | 0.59 | 0.57 | 0.56 | 37° |
| 54° | 0.81 | 0.81 | 0.80 | 0.78 | 0.76 | 0.74 | 0.72 | 0.70 | 0.69 | 0.67 | 0.65 | 0.64 | 0.62 | 0.60 | 0.58 | 0.57 | 36° |
| 55° | 0.82 | 0.82 | 0.81 | 0.79 | 0.77 | 0.75 | 0.73 | 0.71 | 0.69 | 0.68 | 0.66 | 0.65 | 0.63 | 0.61 | 0.59 | 0.58 | 35° |
| 56° | 0.83 | 0.83 | 0.82 | 0.80 | 0.78 | 0.76 | 0.74 | 0.72 | 0.70 | 0.69 | 0.67 | 0.65 | 0.64 | 0.62 | 0.60 | 0.59 | 34° |
| 57° | 0.84 | 0.84 | 0.83 | 0.81 | 0.79 | 0.77 | 0.75 | 0.73 | 0.71 | 0.70 | 0.68 | 0.66 | 0.64 | 0.62 | 0.60 | 0.59 | 33° |
| 58° | 0.85 | 0.84 | 0.84 | 0.82 | 0.80 | 0.77 | 0.76 | 0.73 | 0.72 | 0.70 | 0.69 | 0.67 | 0.65 | 0.63 | 0.61 | 0.60 | 32° |
| 59° | 0.86 | 0.85 | 0.84 | 0.83 | 0.81 | 0.78 | 0.76 | 0.74 | 0.73 | 0.71 | 0.69 | 0.68 | 0.66 | 0.64 | 0.62 | 0.61 | 31° |
| 60° | 0.87 | 0.86 | 0.85 | 0.84 | 0.81 | 0.79 | 0.77 | 0.75 | 0.73 | 0.72 | 0.70 | 0.68 | 0.66 | 0.64 | 0.62 | 0.61 | 30° |
| 61° | 0.87 | 0.87 | 0.86 | 0.84 | 0.82 | 0.80 | 0.78 | 0.76 | 0.74 | 0.73 | 0.71 | 0.69 | 0.67 | 0.65 | 0.63 | 0.62 | 29° |
| 62° | 0.88 | 0.88 | 0.87 | 0.85 | 0.83 | 0.81 | 0.79 | 0.76 | 0.75 | 0.73 | 0.71 | 0.70 | 0.68 | 0.66 | 0.64 | 0.62 | 28° |
| 63° | 0.89 | 0.89 | 0.88 | 0.86 | 0.84 | 0.81 | 0.79 | 0.77 | 0.76 | 0.74 | 0.72 | 0.70 | 0.68 | 0.66 | 0.64 | 0.63 | 27° |
| 64° | 0.90 | 0.90 | 0.89 | 0.87 | 0.84 | 0.82 | 0.80 | 0.78 | 0.76 | 0.75 | 0.73 | 0.71 | 0.69 | 0.67 | 0.65 | 0.64 | 26° |
| 65° | 0.91 | 0.90 | 0.89 | 0.88 | 0.85 | 0.83 | 0.81 | 0.78 | 0.77 | 0.75 | 0.73 | 0.71 | 0.69 | 0.67 | 0.65 | 0.64 | 25° |
| 66° | 0.91 | 0.91 | 0.90 | 0.88 | 0.86 | 0.83 | 0.81 | 0.79 | 0.77 | 0.76 | 0.74 | 0.72 | 0.70 | 0.68 | 0.66 | 0.65 | 24° |
| 67° | 0.92 | 0.92 | 0.91 | 0.89 | 0.86 | 0.84 | 0.82 | 0.80 | 0.78 | 0.76 | 0.74 | 0.73 | 0.71 | 0.68 | 0.66 | 0.65 | 23° |
| 68° | 0.93 | 0.92 | 0.91 | 0.90 | 0.87 | 0.85 | 0.83 | 0.80 | 0.79 | 0.77 | 0.75 | 0.73 | 0.71 | 0.69 | 0.67 | 0.66 | 22° |
| 69° | 0.93 | 0.93 | 0.92 | 0.90 | 0.88 | 0.85 | 0.83 | 0.81 | 0.79 | 0.77 | 0.76 | 0.74 | 0.72 | 0.69 | 0.67 | 0.66 | 21° |
| 70° | 0.94 | 0.94 | 0.93 | 0.91 | 0.88 | 0.86 | 0.84 | 0.81 | 0.80 | 0.78 | 0.76 | 0.74 | 0.72 | 0.70 | 0.68 | 0.66 | 20° |
| 71° | 0.95 | 0.94 | 0.93 | 0.91 | 0.89 | 0.86 | 0.84 | 0.82 | 0.80 | 0.78 | 0.76 | 0.75 | 0.72 | 0.70 | 0.68 | 0.67 | 19° |
| 72° | 0.95 | 0.95 | 0.94 | 0.92 | 0.89 | 0.87 | 0.85 | 0.82 | 0.81 | 0.79 | 0.77 | 0.75 | 0.73 | 0.71 | 0.68 | 0.67 | 18° |

Table I.

| | 03h04 46° | 03h08 47° | 03h12 48° | 03h16 49° | 03h20 50° | 03h24 51° | 03h28 52° | 03h32 53° | 03h36 54° | 03h40 55° | 03h44 56° | 03h48 57° | 03h52 58° | 03h56 59° | 04h00 60° | 04h04 61° | |
|-----|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|-------|
| 0° | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 90° |
| 1° | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 89° |
| 2° | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 88° |
| 3° | 0.04 | 0.04 | 0.04 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 87° |
| 4° | 0.05 | 0.05 | 0.05 | 0.05 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.03 | 0.03 | 86° |
| 5° | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.04 | 0.04 | 0.04 | 85° |
| 6° | 0.07 | 0.07 | 0.07 | 0.07 | 0.07 | 0.07 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.05 | 0.05 | 0.05 | 84° |
| 7° | 0.08 | 0.08 | 0.08 | 0.08 | 0.08 | 0.08 | 0.08 | 0.07 | 0.07 | 0.07 | 0.07 | 0.07 | 0.06 | 0.06 | 0.06 | 0.06 | 83° |
| 8° | 0.10 | 0.09 | 0.09 | 0.09 | 0.09 | 0.09 | 0.09 | 0.08 | 0.08 | 0.08 | 0.08 | 0.08 | 0.07 | 0.07 | 0.07 | 0.07 | 82° |
| 9° | 0.11 | 0.11 | 0.10 | 0.10 | 0.10 | 0.10 | 0.10 | 0.09 | 0.09 | 0.09 | 0.09 | 0.09 | 0.08 | 0.08 | 0.08 | 0.08 | 81° |
| 10° | 0.12 | 0.12 | 0.12 | 0.11 | 0.11 | 0.11 | 0.11 | 0.10 | 0.10 | 0.10 | 0.10 | 0.09 | 0.09 | 0.09 | 0.09 | 0.08 | 80° |
| 11° | 0.13 | 0.13 | 0.13 | 0.13 | 0.12 | 0.12 | 0.12 | 0.11 | 0.11 | 0.11 | 0.11 | 0.10 | 0.10 | 0.10 | 0.10 | 0.09 | 79° |
| 12° | 0.14 | 0.14 | 0.14 | 0.14 | 0.13 | 0.13 | 0.13 | 0.13 | 0.12 | 0.12 | 0.12 | 0.11 | 0.11 | 0.11 | 0.10 | 0.10 | 78° |
| 13° | 0.16 | 0.15 | 0.15 | 0.15 | 0.14 | 0.14 | 0.14 | 0.14 | 0.13 | 0.13 | 0.13 | 0.12 | 0.12 | 0.12 | 0.11 | 0.11 | 77° |
| 14° | 0.17 | 0.16 | 0.16 | 0.16 | 0.16 | 0.15 | 0.15 | 0.15 | 0.14 | 0.14 | 0.14 | 0.13 | 0.13 | 0.12 | 0.12 | 0.12 | 76° |
| 15° | 0.18 | 0.18 | 0.17 | 0.17 | 0.17 | 0.16 | 0.16 | 0.16 | 0.15 | 0.15 | 0.14 | 0.14 | 0.14 | 0.13 | 0.13 | 0.13 | 75° |
| 16° | 0.19 | 0.19 | 0.18 | 0.18 | 0.18 | 0.17 | 0.17 | 0.17 | 0.16 | 0.16 | 0.15 | 0.15 | 0.15 | 0.14 | 0.14 | 0.13 | 74° |
| 17° | 0.20 | 0.20 | 0.20 | 0.19 | 0.19 | 0.18 | 0.18 | 0.18 | 0.17 | 0.17 | 0.16 | 0.16 | 0.15 | 0.15 | 0.15 | 0.14 | 73° |
| 18° | 0.21 | 0.21 | 0.21 | 0.20 | 0.20 | 0.19 | 0.19 | 0.19 | 0.18 | 0.18 | 0.17 | 0.17 | 0.16 | 0.16 | 0.15 | 0.15 | 72° |
| 19° | 0.23 | 0.22 | 0.22 | 0.21 | 0.21 | 0.20 | 0.20 | 0.20 | 0.19 | 0.19 | 0.18 | 0.18 | 0.17 | 0.17 | 0.16 | 0.16 | 71° |
| 20° | 0.24 | 0.23 | 0.23 | 0.22 | 0.22 | 0.22 | 0.21 | 0.21 | 0.20 | 0.20 | 0.19 | 0.19 | 0.18 | 0.18 | 0.17 | 0.17 | 70° |
| 21° | 0.25 | 0.24 | 0.24 | 0.24 | 0.23 | 0.23 | 0.23 | 0.22 | 0.21 | 0.21 | 0.20 | 0.20 | 0.19 | 0.18 | 0.18 | 0.17 | 69° |
| 22° | 0.26 | 0.26 | 0.25 | 0.25 | 0.24 | 0.24 | 0.23 | 0.23 | 0.22 | 0.21 | 0.21 | 0.20 | 0.20 | 0.19 | 0.19 | 0.18 | 68° |
| 23° | 0.27 | 0.27 | 0.26 | 0.26 | 0.25 | 0.25 | 0.24 | 0.24 | 0.23 | 0.22 | 0.22 | 0.21 | 0.21 | 0.20 | 0.20 | 0.19 | 67° |
| 24° | 0.28 | 0.28 | 0.27 | 0.27 | 0.26 | 0.26 | 0.25 | 0.24 | 0.24 | 0.23 | 0.23 | 0.22 | 0.22 | 0.21 | 0.20 | 0.20 | 66° |
| 25° | 0.29 | 0.29 | 0.28 | 0.28 | 0.27 | 0.27 | 0.26 | 0.25 | 0.25 | 0.24 | 0.24 | 0.23 | 0.22 | 0.22 | 0.21 | 0.20 | 65° |
| 26° | 0.30 | 0.30 | 0.29 | 0.29 | 0.28 | 0.28 | 0.27 | 0.26 | 0.26 | 0.25 | 0.25 | 0.24 | 0.23 | 0.23 | 0.22 | 0.21 | 64° |
| 27° | 0.32 | 0.31 | 0.30 | 0.30 | 0.29 | 0.29 | 0.28 | 0.27 | 0.27 | 0.26 | 0.25 | 0.25 | 0.24 | 0.23 | 0.23 | 0.22 | 63° |
| 28° | 0.33 | 0.32 | 0.31 | 0.31 | 0.30 | 0.30 | 0.29 | 0.28 | 0.28 | 0.27 | 0.26 | 0.26 | 0.25 | 0.24 | 0.23 | 0.23 | 62° |
| 29° | 0.34 | 0.33 | 0.32 | 0.32 | 0.31 | 0.31 | 0.30 | 0.29 | 0.28 | 0.28 | 0.27 | 0.26 | 0.26 | 0.25 | 0.24 | 0.24 | 61° |
| 30° | 0.35 | 0.34 | 0.33 | 0.33 | 0.32 | 0.31 | 0.31 | 0.30 | 0.29 | 0.29 | 0.28 | 0.27 | 0.26 | 0.26 | 0.25 | 0.24 | 60° |
| 31° | 0.36 | 0.35 | 0.34 | 0.34 | 0.33 | 0.32 | 0.32 | 0.31 | 0.30 | 0.30 | 0.29 | 0.28 | 0.27 | 0.27 | 0.26 | 0.25 | 59° |
| 32° | 0.37 | 0.36 | 0.35 | 0.35 | 0.34 | 0.33 | 0.33 | 0.32 | 0.31 | 0.30 | 0.30 | 0.29 | 0.28 | 0.27 | 0.26 | 0.26 | 58° |
| 33° | 0.38 | 0.37 | 0.36 | 0.36 | 0.35 | 0.34 | 0.34 | 0.33 | 0.32 | 0.31 | 0.30 | 0.30 | 0.29 | 0.28 | 0.27 | 0.26 | 57° |
| 34° | 0.39 | 0.38 | 0.37 | 0.37 | 0.36 | 0.35 | 0.34 | 0.34 | 0.33 | 0.32 | 0.31 | 0.30 | 0.30 | 0.29 | 0.28 | 0.27 | 56° |
| 35° | 0.40 | 0.39 | 0.38 | 0.38 | 0.37 | 0.36 | 0.35 | 0.35 | 0.34 | 0.33 | 0.32 | 0.31 | 0.30 | 0.30 | 0.29 | 0.28 | 55° |
| 36° | 0.41 | 0.40 | 0.39 | 0.39 | 0.38 | 0.37 | 0.36 | 0.35 | 0.35 | 0.34 | 0.33 | 0.32 | 0.31 | 0.30 | 0.29 | 0.28 | 54° |
| 37° | 0.42 | 0.41 | 0.40 | 0.39 | 0.39 | 0.38 | 0.37 | 0.36 | 0.35 | 0.35 | 0.34 | 0.33 | 0.32 | 0.31 | 0.30 | 0.29 | 53° |
| 38° | 0.43 | 0.42 | 0.41 | 0.40 | 0.40 | 0.39 | 0.38 | 0.37 | 0.36 | 0.35 | 0.34 | 0.34 | 0.33 | 0.32 | 0.31 | 0.30 | 52° |
| 39° | 0.44 | 0.43 | 0.42 | 0.41 | 0.40 | 0.40 | 0.39 | 0.38 | 0.37 | 0.36 | 0.35 | 0.34 | 0.33 | 0.32 | 0.31 | 0.31 | 51° |
| 40° | 0.45 | 0.44 | 0.43 | 0.42 | 0.41 | 0.40 | 0.40 | 0.39 | 0.38 | 0.37 | 0.36 | 0.35 | 0.34 | 0.33 | 0.32 | 0.31 | 50° |
| 41° | 0.46 | 0.45 | 0.44 | 0.43 | 0.42 | 0.41 | 0.40 | 0.39 | 0.39 | 0.38 | 0.37 | 0.36 | 0.35 | 0.34 | 0.33 | 0.32 | 49° |
| 42° | 0.46 | 0.46 | 0.45 | 0.44 | 0.43 | 0.42 | 0.41 | 0.40 | 0.39 | 0.38 | 0.37 | 0.36 | 0.35 | 0.34 | 0.33 | 0.32 | 48° |
| 43° | 0.47 | 0.47 | 0.46 | 0.45 | 0.44 | 0.43 | 0.42 | 0.41 | 0.40 | 0.39 | 0.38 | 0.37 | 0.36 | 0.35 | 0.34 | 0.33 | 47° |
| 44° | 0.48 | 0.47 | 0.46 | 0.46 | 0.45 | 0.44 | 0.43 | 0.42 | 0.41 | 0.40 | 0.39 | 0.38 | 0.37 | 0.36 | 0.35 | 0.34 | 46° |
| 45° | 0.49 | 0.48 | 0.47 | 0.46 | 0.45 | 0.44 | 0.44 | 0.43 | 0.42 | 0.41 | 0.40 | 0.39 | 0.37 | 0.36 | 0.35 | 0.34 | 45° |
| 46° | 0.50 | 0.49 | 0.48 | 0.47 | 0.46 | 0.45 | 0.44 | 0.43 | 0.42 | 0.41 | 0.40 | 0.39 | 0.38 | 0.37 | 0.36 | 0.35 | 44° |
| 47° | 0.51 | 0.50 | 0.49 | 0.48 | 0.47 | 0.46 | 0.45 | 0.44 | 0.43 | 0.42 | 0.41 | 0.40 | 0.39 | 0.38 | 0.37 | 0.35 | 43° |
| 48° | 0.52 | 0.51 | 0.50 | 0.49 | 0.48 | 0.47 | 0.46 | 0.45 | 0.44 | 0.43 | 0.42 | 0.40 | 0.39 | 0.38 | 0.37 | 0.36 | 42° |
| 49° | 0.52 | 0.51 | 0.50 | 0.50 | 0.49 | 0.47 | 0.46 | 0.45 | 0.44 | 0.43 | 0.42 | 0.41 | 0.40 | 0.39 | 0.38 | 0.37 | 41° |
| 50° | 0.53 | 0.52 | 0.51 | 0.50 | 0.49 | 0.48 | 0.47 | 0.46 | 0.45 | 0.44 | 0.43 | 0.42 | 0.41 | 0.39 | 0.38 | 0.37 | 40° |
| 51° | 0.54 | 0.53 | 0.52 | 0.51 | 0.50 | 0.49 | 0.48 | 0.47 | 0.46 | 0.45 | 0.43 | 0.42 | 0.41 | 0.40 | 0.39 | 0.38 | 39° |
| 52° | 0.55 | 0.54 | 0.53 | 0.52 | 0.51 | 0.50 | 0.49 | 0.47 | 0.46 | 0.45 | 0.44 | 0.43 | 0.42 | 0.41 | 0.39 | 0.38 | 38° |
| 53° | 0.55 | 0.54 | 0.53 | 0.52 | 0.51 | 0.50 | 0.49 | 0.48 | 0.47 | 0.46 | 0.45 | 0.43 | 0.42 | 0.41 | 0.40 | 0.39 | 37° |
| 54° | 0.56 | 0.55 | 0.54 | 0.53 | 0.52 | 0.51 | 0.50 | 0.49 | 0.48 | 0.46 | 0.45 | 0.44 | 0.43 | 0.42 | 0.40 | 0.39 | 36° |
| 55° | 0.57 | 0.56 | 0.55 | 0.54 | 0.53 | 0.52 | 0.50 | 0.49 | 0.48 | 0.47 | 0.46 | 0.45 | 0.43 | 0.42 | 0.41 | 0.40 | 35° |
| 56° | 0.58 | 0.57 | 0.55 | 0.54 | 0.53 | 0.52 | 0.51 | 0.50 | 0.49 | 0.48 | 0.46 | 0.45 | 0.44 | 0.43 | 0.41 | 0.40 | 34° |
| 57° | 0.58 | 0.57 | 0.56 | 0.55 | 0.54 | 0.53 | 0.52 | 0.50 | 0.49 | 0.48 | 0.47 | 0.46 | 0.44 | 0.43 | 0.42 | 0.41 | 33° |
| 58° | 0.59 | 0.58 | 0.57 | 0.56 | 0.55 | 0.53 | 0.52 | 0.51 | 0.50 | 0.49 | 0.47 | 0.46 | 0.45 | 0.44 | 0.42 | 0.41 | 32° |
| 59° | 0.60 | 0.58 | 0.57 | 0.56 | 0.55 | 0.54 | 0.53 | 0.52 | 0.50 | 0.49 | 0.48 | 0.47 | 0.45 | 0.44 | 0.43 | 0.42 | 31° |
| 60° | 0.60 | 0.59 | 0.58 | 0.57 | 0.56 | 0.55 | 0.53 | 0.52 | 0.51 | 0.50 | 0.48 | 0.47 | 0.46 | 0.45 | 0.43 | 0.42 | 30° |
| 61° | 0.61 | 0.60 | 0.59 | 0.57 | 0.56 | 0.55 | 0.54 | 0.53 | 0.51 | 0.50 | 0.49 | 0.48 | 0.46 | 0.45 | 0.44 | 0.42 | 29° |
| 62° | 0.61 | 0.60 | 0.59 | 0.58 | 0.57 | 0.56 | 0.54 | 0.53 | 0.52 | 0.51 | 0.49 | 0.48 | 0.47 | 0.45 | 0.44 | 0.43 | 28° |
| 63° | 0.62 | 0.61 | 0.60 | 0.58 | 0.57 | 0.56 | 0.55 | 0.54 | 0.52 | 0.51 | 0.50 | 0.49 | 0.47 | 0.46 | 0.45 | 0.43 | 27° |
| 64° | 0.62 | 0.61 | 0.60 | 0.59 | 0.58 | 0.57 | 0.55 | 0.54 | 0.53 | 0.52 | 0.50 | 0.49 | 0.48 | 0.46 | 0.45 | 0.44 | 26° |
| 65° | 0.63 | 0.62 | 0.61 | 0.59 | 0.58 | 0.57 | 0.56 | 0.55 | 0.53 | 0.52 | 0.51 | 0.49 | 0.48 | 0.47 | 0.45 | 0.44 | 25° |
| 66° | 0.63 | 0.62 | 0.61 | 0.60 | 0.59 | 0.57 | 0.56 | 0.55 | 0.54 | 0.52 | 0.51 | 0.50 | 0.48 | 0.47 | 0.46 | 0.44 | 24° |
| 67° | 0.64 | 0.63 | 0.62 | 0.60 | 0.59 | 0.58 | 0.57 | 0.55 | 0.54 | 0.53 | 0.51 | 0.50 | 0.49 | 0.47 | 0.46 | 0.45 | 23° |
| 68° | 0.64 | 0.63 | 0.62 | 0.61 | 0.60 | 0.58 | 0.57 | 0.56 | 0.54 | 0.53 | 0.52 | 0.50 | 0.49 | 0.48 | 0.46 | 0.45 | 22° |
| 69° | 0.65 | 0.64 | 0.62 | 0.61 | 0.60 | 0.59 | 0.57 | 0.56 | 0.55 | 0.54 | 0.52 | 0.51 | 0.49 | 0.48 | 0.47 | 0.45 | 21° |
| 70° | 0.65 | 0.64 | 0.63 | 0.62 | 0.60 | 0.59 | 0.58 | 0.57 | 0.55 | 0.54 | 0.53 | 0.51 | 0.50 | 0.48 | 0.47 | 0.46 | 20° |
| 71° | 0.66 | 0.64 | 0.63 | 0.62 | 0.61 | 0.60 | 0.58 | 0.57 | 0.56 | 0.54 | 0.53 | 0.51 | 0.50 | 0.49 | 0.47 | 0.46 | 19° |
| 72° | 0.66 | 0.65 | 0.64 | 0.62 | 0.61 | 0.60 | 0.59 | 0.57 | 0.56 | 0.55 | 0.53 | 0.52 | 0.50 | 0.49 | 0.48 | 0.46 | 18°</ |

Table I.

| | 04h08 62° | 04h12 63° | 04h16 64° | 04h20 65° | 04h24 66° | 04h28 67° | 04h32 68° | 04h36 69° | 04h40 70° | 04h44 71° | 04h48 72° | 04h52 73° | 04h56 74° | 05h00 75° | 05h04 76° | 05h08 77° | |
|-----|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|-------|
| 0° | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 90° |
| 1° | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 | 89° |
| 2° | 0.02 | 0.02 | 0.02 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 88° |
| 3° | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.01 | 0.01 | 0.01 | 0.01 | 87° |
| 4° | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 86° |
| 5° | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.02 | 0.02 | 0.02 | 0.02 | 85° |
| 6° | 0.05 | 0.05 | 0.05 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.02 | 84° |
| 7° | 0.06 | 0.06 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.03 | 0.03 | 0.03 | 0.03 | 83° |
| 8° | 0.07 | 0.06 | 0.06 | 0.06 | 0.06 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.04 | 0.04 | 0.04 | 0.04 | 0.03 | 0.03 | 82° |
| 9° | 0.07 | 0.07 | 0.07 | 0.07 | 0.06 | 0.06 | 0.06 | 0.06 | 0.05 | 0.05 | 0.05 | 0.05 | 0.04 | 0.04 | 0.04 | 0.04 | 81° |
| 10° | 0.08 | 0.08 | 0.08 | 0.07 | 0.07 | 0.07 | 0.07 | 0.06 | 0.06 | 0.06 | 0.05 | 0.05 | 0.05 | 0.04 | 0.04 | 0.04 | 80° |
| 11° | 0.09 | 0.09 | 0.08 | 0.08 | 0.08 | 0.07 | 0.07 | 0.07 | 0.07 | 0.06 | 0.06 | 0.06 | 0.05 | 0.05 | 0.05 | 0.04 | 79° |
| 12° | 0.10 | 0.09 | 0.09 | 0.09 | 0.08 | 0.08 | 0.08 | 0.07 | 0.07 | 0.07 | 0.06 | 0.06 | 0.06 | 0.05 | 0.05 | 0.05 | 78° |
| 13° | 0.11 | 0.10 | 0.10 | 0.10 | 0.09 | 0.09 | 0.08 | 0.08 | 0.08 | 0.07 | 0.07 | 0.07 | 0.06 | 0.06 | 0.05 | 0.05 | 77° |
| 14° | 0.11 | 0.11 | 0.11 | 0.10 | 0.10 | 0.09 | 0.09 | 0.09 | 0.08 | 0.08 | 0.07 | 0.07 | 0.07 | 0.06 | 0.06 | 0.05 | 76° |
| 15° | 0.12 | 0.12 | 0.11 | 0.11 | 0.11 | 0.10 | 0.10 | 0.09 | 0.09 | 0.08 | 0.08 | 0.08 | 0.07 | 0.07 | 0.06 | 0.06 | 75° |
| 16° | 0.13 | 0.13 | 0.12 | 0.12 | 0.11 | 0.11 | 0.10 | 0.10 | 0.09 | 0.09 | 0.09 | 0.08 | 0.08 | 0.07 | 0.07 | 0.06 | 74° |
| 17° | 0.14 | 0.13 | 0.13 | 0.12 | 0.12 | 0.11 | 0.11 | 0.10 | 0.10 | 0.10 | 0.09 | 0.09 | 0.08 | 0.08 | 0.07 | 0.07 | 73° |
| 18° | 0.15 | 0.14 | 0.14 | 0.13 | 0.13 | 0.12 | 0.12 | 0.11 | 0.11 | 0.10 | 0.10 | 0.09 | 0.09 | 0.08 | 0.07 | 0.07 | 72° |
| 19° | 0.15 | 0.15 | 0.14 | 0.14 | 0.13 | 0.13 | 0.12 | 0.12 | 0.11 | 0.11 | 0.10 | 0.10 | 0.09 | 0.08 | 0.08 | 0.07 | 71° |
| 20° | 0.16 | 0.16 | 0.15 | 0.14 | 0.14 | 0.13 | 0.13 | 0.12 | 0.12 | 0.11 | 0.11 | 0.10 | 0.09 | 0.09 | 0.08 | 0.08 | 70° |
| 21° | 0.17 | 0.16 | 0.16 | 0.15 | 0.15 | 0.14 | 0.13 | 0.13 | 0.12 | 0.12 | 0.11 | 0.10 | 0.10 | 0.09 | 0.09 | 0.08 | 69° |
| 22° | 0.18 | 0.17 | 0.16 | 0.16 | 0.15 | 0.15 | 0.14 | 0.13 | 0.13 | 0.12 | 0.12 | 0.11 | 0.10 | 0.10 | 0.09 | 0.08 | 68° |
| 23° | 0.18 | 0.18 | 0.17 | 0.17 | 0.16 | 0.15 | 0.15 | 0.14 | 0.13 | 0.13 | 0.12 | 0.11 | 0.11 | 0.10 | 0.09 | 0.09 | 67° |
| 24° | 0.19 | 0.18 | 0.18 | 0.17 | 0.17 | 0.16 | 0.15 | 0.15 | 0.14 | 0.13 | 0.13 | 0.12 | 0.11 | 0.11 | 0.10 | 0.09 | 66° |
| 25° | 0.20 | 0.19 | 0.19 | 0.18 | 0.17 | 0.17 | 0.16 | 0.15 | 0.14 | 0.14 | 0.13 | 0.12 | 0.12 | 0.11 | 0.10 | 0.10 | 65° |
| 26° | 0.21 | 0.20 | 0.19 | 0.19 | 0.18 | 0.17 | 0.16 | 0.16 | 0.15 | 0.14 | 0.14 | 0.13 | 0.12 | 0.11 | 0.11 | 0.10 | 64° |
| 27° | 0.21 | 0.21 | 0.20 | 0.19 | 0.18 | 0.18 | 0.17 | 0.16 | 0.16 | 0.15 | 0.14 | 0.13 | 0.13 | 0.12 | 0.11 | 0.10 | 63° |
| 28° | 0.22 | 0.21 | 0.21 | 0.20 | 0.19 | 0.18 | 0.18 | 0.17 | 0.16 | 0.15 | 0.15 | 0.14 | 0.13 | 0.12 | 0.11 | 0.11 | 62° |
| 29° | 0.23 | 0.22 | 0.21 | 0.20 | 0.20 | 0.19 | 0.18 | 0.17 | 0.17 | 0.16 | 0.15 | 0.14 | 0.13 | 0.13 | 0.12 | 0.11 | 61° |
| 30° | 0.23 | 0.23 | 0.22 | 0.21 | 0.20 | 0.20 | 0.19 | 0.18 | 0.17 | 0.16 | 0.15 | 0.15 | 0.14 | 0.13 | 0.12 | 0.11 | 60° |
| 31° | 0.24 | 0.23 | 0.23 | 0.22 | 0.21 | 0.20 | 0.19 | 0.18 | 0.18 | 0.17 | 0.16 | 0.15 | 0.14 | 0.13 | 0.12 | 0.12 | 59° |
| 32° | 0.25 | 0.24 | 0.23 | 0.22 | 0.22 | 0.21 | 0.20 | 0.19 | 0.18 | 0.17 | 0.16 | 0.15 | 0.15 | 0.14 | 0.13 | 0.12 | 58° |
| 33° | 0.26 | 0.25 | 0.24 | 0.23 | 0.22 | 0.21 | 0.20 | 0.20 | 0.19 | 0.18 | 0.17 | 0.16 | 0.15 | 0.14 | 0.13 | 0.12 | 57° |
| 34° | 0.26 | 0.25 | 0.25 | 0.24 | 0.23 | 0.22 | 0.21 | 0.20 | 0.19 | 0.18 | 0.17 | 0.16 | 0.15 | 0.14 | 0.14 | 0.13 | 56° |
| 35° | 0.27 | 0.26 | 0.25 | 0.24 | 0.23 | 0.22 | 0.21 | 0.21 | 0.20 | 0.19 | 0.18 | 0.17 | 0.16 | 0.15 | 0.14 | 0.13 | 55° |
| 36° | 0.28 | 0.27 | 0.26 | 0.25 | 0.24 | 0.23 | 0.22 | 0.21 | 0.20 | 0.19 | 0.18 | 0.17 | 0.16 | 0.15 | 0.14 | 0.13 | 54° |
| 37° | 0.28 | 0.27 | 0.26 | 0.25 | 0.24 | 0.24 | 0.23 | 0.22 | 0.21 | 0.20 | 0.19 | 0.18 | 0.17 | 0.16 | 0.15 | 0.14 | 53° |
| 38° | 0.29 | 0.28 | 0.27 | 0.26 | 0.25 | 0.24 | 0.23 | 0.22 | 0.21 | 0.20 | 0.19 | 0.18 | 0.17 | 0.16 | 0.15 | 0.14 | 52° |
| 39° | 0.30 | 0.29 | 0.28 | 0.27 | 0.26 | 0.25 | 0.24 | 0.23 | 0.22 | 0.20 | 0.19 | 0.18 | 0.17 | 0.16 | 0.15 | 0.14 | 51° |
| 40° | 0.30 | 0.29 | 0.28 | 0.27 | 0.26 | 0.25 | 0.24 | 0.23 | 0.22 | 0.21 | 0.20 | 0.19 | 0.18 | 0.17 | 0.16 | 0.14 | 50° |
| 41° | 0.31 | 0.30 | 0.29 | 0.28 | 0.27 | 0.26 | 0.25 | 0.24 | 0.22 | 0.21 | 0.20 | 0.19 | 0.18 | 0.17 | 0.16 | 0.15 | 49° |
| 42° | 0.31 | 0.30 | 0.29 | 0.28 | 0.27 | 0.26 | 0.25 | 0.24 | 0.23 | 0.22 | 0.21 | 0.20 | 0.18 | 0.17 | 0.16 | 0.15 | 48° |
| 43° | 0.32 | 0.31 | 0.30 | 0.29 | 0.28 | 0.27 | 0.26 | 0.24 | 0.23 | 0.22 | 0.21 | 0.20 | 0.19 | 0.18 | 0.16 | 0.15 | 47° |
| 44° | 0.33 | 0.32 | 0.30 | 0.29 | 0.28 | 0.27 | 0.26 | 0.25 | 0.24 | 0.23 | 0.21 | 0.20 | 0.19 | 0.18 | 0.17 | 0.16 | 46° |
| 45° | 0.33 | 0.32 | 0.31 | 0.30 | 0.29 | 0.28 | 0.26 | 0.25 | 0.24 | 0.23 | 0.22 | 0.21 | 0.19 | 0.18 | 0.17 | 0.16 | 45° |
| 46° | 0.34 | 0.33 | 0.32 | 0.30 | 0.29 | 0.28 | 0.27 | 0.26 | 0.25 | 0.23 | 0.22 | 0.21 | 0.20 | 0.19 | 0.17 | 0.16 | 44° |
| 47° | 0.34 | 0.33 | 0.32 | 0.31 | 0.30 | 0.29 | 0.27 | 0.26 | 0.25 | 0.24 | 0.23 | 0.21 | 0.20 | 0.19 | 0.18 | 0.16 | 43° |
| 48° | 0.35 | 0.34 | 0.33 | 0.31 | 0.30 | 0.29 | 0.28 | 0.27 | 0.25 | 0.24 | 0.23 | 0.22 | 0.20 | 0.19 | 0.18 | 0.17 | 42° |
| 49° | 0.35 | 0.34 | 0.33 | 0.32 | 0.31 | 0.29 | 0.28 | 0.27 | 0.26 | 0.25 | 0.23 | 0.22 | 0.21 | 0.20 | 0.18 | 0.17 | 41° |
| 50° | 0.36 | 0.35 | 0.34 | 0.32 | 0.31 | 0.30 | 0.29 | 0.27 | 0.26 | 0.25 | 0.24 | 0.22 | 0.21 | 0.20 | 0.19 | 0.17 | 40° |
| 51° | 0.36 | 0.35 | 0.34 | 0.33 | 0.32 | 0.30 | 0.29 | 0.28 | 0.27 | 0.25 | 0.24 | 0.23 | 0.21 | 0.20 | 0.19 | 0.17 | 39° |
| 52° | 0.37 | 0.36 | 0.35 | 0.33 | 0.32 | 0.31 | 0.30 | 0.28 | 0.27 | 0.26 | 0.24 | 0.23 | 0.22 | 0.20 | 0.19 | 0.18 | 38° |
| 53° | 0.37 | 0.36 | 0.35 | 0.34 | 0.32 | 0.31 | 0.30 | 0.29 | 0.27 | 0.26 | 0.25 | 0.23 | 0.22 | 0.21 | 0.19 | 0.18 | 37° |
| 54° | 0.38 | 0.37 | 0.35 | 0.34 | 0.33 | 0.32 | 0.30 | 0.29 | 0.28 | 0.26 | 0.25 | 0.24 | 0.22 | 0.21 | 0.20 | 0.18 | 36° |
| 55° | 0.38 | 0.37 | 0.36 | 0.35 | 0.33 | 0.32 | 0.31 | 0.29 | 0.28 | 0.27 | 0.25 | 0.24 | 0.23 | 0.21 | 0.20 | 0.18 | 35° |
| 56° | 0.39 | 0.38 | 0.36 | 0.35 | 0.34 | 0.32 | 0.31 | 0.30 | 0.28 | 0.27 | 0.26 | 0.24 | 0.23 | 0.21 | 0.20 | 0.19 | 34° |
| 57° | 0.39 | 0.38 | 0.37 | 0.35 | 0.34 | 0.33 | 0.31 | 0.30 | 0.29 | 0.27 | 0.26 | 0.25 | 0.23 | 0.22 | 0.20 | 0.19 | 33° |
| 58° | 0.40 | 0.39 | 0.37 | 0.36 | 0.34 | 0.33 | 0.32 | 0.30 | 0.29 | 0.28 | 0.26 | 0.25 | 0.23 | 0.22 | 0.21 | 0.19 | 32° |
| 59° | 0.40 | 0.39 | 0.38 | 0.36 | 0.35 | 0.33 | 0.32 | 0.31 | 0.29 | 0.28 | 0.26 | 0.25 | 0.24 | 0.22 | 0.21 | 0.19 | 31° |
| 60° | 0.41 | 0.39 | 0.38 | 0.37 | 0.35 | 0.34 | 0.32 | 0.31 | 0.30 | 0.28 | 0.27 | 0.25 | 0.24 | 0.22 | 0.21 | 0.19 | 30° |
| 61° | 0.41 | 0.40 | 0.38 | 0.37 | 0.36 | 0.34 | 0.33 | 0.31 | 0.30 | 0.28 | 0.27 | 0.26 | 0.24 | 0.23 | 0.21 | 0.20 | 29° |
| 62° | 0.41 | 0.40 | 0.39 | 0.37 | 0.36 | 0.34 | 0.33 | 0.32 | 0.30 | 0.29 | 0.27 | 0.26 | 0.24 | 0.23 | 0.21 | 0.20 | 28° |
| 63° | 0.42 | 0.40 | 0.39 | 0.38 | 0.36 | 0.35 | 0.33 | 0.32 | 0.30 | 0.29 | 0.28 | 0.26 | 0.25 | 0.23 | 0.22 | 0.20 | 27° |
| 64° | 0.42 | 0.41 | 0.39 | 0.38 | 0.37 | 0.35 | 0.34 | 0.32 | 0.31 | 0.29 | 0.28 | 0.26 | 0.25 | 0.23 | 0.22 | 0.20 | 26° |
| 65° | 0.43 | 0.41 | 0.40 | 0.38 | 0.37 | 0.35 | 0.34 | 0.32 | 0.31 | 0.30 | 0.28 | 0.26 | 0.25 | 0.23 | 0.22 | 0.20 | 25° |
| 66° | 0.43 | 0.41 | 0.40 | 0.39 | 0.37 | 0.36 | 0.34 | 0.33 | 0.31 | 0.30 | 0.28 | 0.27 | 0.25 | 0.24 | 0.22 | 0.21 | 24° |
| 67° | 0.43 | 0.42 | 0.40 | 0.39 | 0.37 | 0.36 | 0.34 | 0.33 | 0.31 | 0.30 | 0.28 | 0.27 | 0.25 | 0.24 | 0.22 | 0.21 | 23° |
| 68° | 0.44 | 0.42 | 0.41 | 0.39 | 0.38 | 0.36 | 0.35 | 0.33 | 0.32 | 0.30 | 0.29 | 0.27 | 0.26 | 0.24 | 0.22 | 0.21 | 22° |
| 69° | 0.44 | 0.42 | 0.41 | 0.39 | 0.38 | 0.36 | 0.35 | 0.33 | 0.32 | 0.30 | 0.29 | 0.27 | 0.26 | 0.24 | 0.23 | 0.21 | 21° |
| 70° | 0.44 | 0.43 | 0.41 | 0.40 | 0.38 | 0.37 | 0.35 | 0.34 | 0.32 | 0.31 | 0.29 | 0.27 | 0.26 | 0.24 | 0.23 | 0.21 | 20° |
| 71° | 0.44 | 0.43 | 0.41 | 0.40 | 0.38 | 0.37 | 0.35 | 0.34 | 0.32 | 0.31 | 0.29 | 0.28 | 0.26 | 0.24 | 0.23 | 0.21 | 19° |
| 72° | 0.45 | 0.43 | 0.42 | 0.40 | 0.39 | 0.37 | 0.36 | 0.34 | 0.33 | 0.31 | 0.29 | 0.28 | 0.26 | 0.25 | 0.23 | 0.21 | 18°</ |

Table II.

| Lat. | 15° | 16° | 17° | 18° | 19° | 20° | 21° | 22° | 23° | 24° | 25° | 26° | 27° | 28° | 29° | Angle au Pôle | |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|---------------|-------|
| 0° | 0.27 | 0.29 | 0.31 | 0.32 | 0.34 | 0.36 | 0.38 | 0.40 | 0.42 | 0.45 | 0.47 | 0.49 | 0.51 | 0.53 | 0.55 | 06h00 | 06h00 |
| 1° | 0.27 | 0.29 | 0.31 | 0.32 | 0.34 | 0.36 | 0.38 | 0.40 | 0.42 | 0.45 | 0.47 | 0.49 | 0.51 | 0.53 | 0.55 | 05h56 | 06h04 |
| 2° | 0.27 | 0.29 | 0.31 | 0.32 | 0.34 | 0.36 | 0.38 | 0.40 | 0.42 | 0.44 | 0.47 | 0.49 | 0.51 | 0.53 | 0.55 | 05h52 | 06h08 |
| 3° | 0.27 | 0.29 | 0.31 | 0.32 | 0.34 | 0.36 | 0.38 | 0.40 | 0.42 | 0.44 | 0.47 | 0.49 | 0.51 | 0.53 | 0.55 | 05h48 | 06h12 |
| 4° | 0.27 | 0.29 | 0.30 | 0.32 | 0.34 | 0.36 | 0.38 | 0.40 | 0.42 | 0.44 | 0.47 | 0.49 | 0.51 | 0.53 | 0.55 | 05h44 | 06h16 |
| 5° | 0.27 | 0.29 | 0.30 | 0.32 | 0.34 | 0.36 | 0.38 | 0.40 | 0.42 | 0.44 | 0.46 | 0.49 | 0.51 | 0.53 | 0.55 | 05h40 | 06h20 |
| 6° | 0.27 | 0.29 | 0.30 | 0.32 | 0.34 | 0.36 | 0.38 | 0.40 | 0.42 | 0.44 | 0.46 | 0.49 | 0.51 | 0.53 | 0.55 | 05h36 | 06h24 |
| 7° | 0.27 | 0.28 | 0.30 | 0.32 | 0.34 | 0.36 | 0.38 | 0.40 | 0.42 | 0.44 | 0.46 | 0.48 | 0.51 | 0.53 | 0.55 | 05h32 | 06h28 |
| 8° | 0.27 | 0.28 | 0.30 | 0.32 | 0.34 | 0.36 | 0.38 | 0.40 | 0.42 | 0.44 | 0.46 | 0.48 | 0.50 | 0.53 | 0.55 | 05h28 | 06h32 |
| 9° | 0.26 | 0.28 | 0.30 | 0.32 | 0.34 | 0.36 | 0.38 | 0.40 | 0.42 | 0.44 | 0.46 | 0.48 | 0.50 | 0.53 | 0.55 | 05h24 | 06h36 |
| 10° | 0.26 | 0.28 | 0.30 | 0.32 | 0.34 | 0.36 | 0.38 | 0.40 | 0.42 | 0.44 | 0.46 | 0.48 | 0.50 | 0.52 | 0.55 | 05h20 | 06h40 |
| 11° | 0.26 | 0.28 | 0.30 | 0.32 | 0.34 | 0.36 | 0.38 | 0.40 | 0.42 | 0.44 | 0.46 | 0.48 | 0.50 | 0.52 | 0.54 | 05h16 | 06h44 |
| 12° | 0.26 | 0.28 | 0.30 | 0.32 | 0.34 | 0.36 | 0.38 | 0.40 | 0.42 | 0.44 | 0.46 | 0.48 | 0.50 | 0.52 | 0.54 | 05h12 | 06h48 |
| 13° | 0.26 | 0.28 | 0.30 | 0.32 | 0.34 | 0.35 | 0.37 | 0.39 | 0.41 | 0.43 | 0.45 | 0.48 | 0.50 | 0.52 | 0.54 | 05h08 | 06h52 |
| 14° | 0.26 | 0.28 | 0.30 | 0.32 | 0.33 | 0.35 | 0.37 | 0.39 | 0.41 | 0.43 | 0.45 | 0.47 | 0.49 | 0.52 | 0.54 | 05h04 | 06h56 |
| 15° | 0.26 | 0.28 | 0.30 | 0.31 | 0.33 | 0.35 | 0.37 | 0.39 | 0.41 | 0.43 | 0.45 | 0.47 | 0.49 | 0.51 | 0.54 | 05h00 | 07h00 |
| 16° | 0.26 | 0.28 | 0.29 | 0.31 | 0.33 | 0.35 | 0.37 | 0.39 | 0.41 | 0.43 | 0.45 | 0.47 | 0.49 | 0.51 | 0.53 | 04h56 | 07h04 |
| 17° | 0.26 | 0.27 | 0.29 | 0.31 | 0.33 | 0.35 | 0.37 | 0.39 | 0.41 | 0.43 | 0.45 | 0.47 | 0.49 | 0.51 | 0.53 | 04h52 | 07h08 |
| 18° | 0.25 | 0.27 | 0.29 | 0.31 | 0.33 | 0.35 | 0.37 | 0.38 | 0.40 | 0.42 | 0.44 | 0.46 | 0.48 | 0.51 | 0.53 | 04h48 | 07h12 |
| 19° | 0.25 | 0.27 | 0.29 | 0.31 | 0.33 | 0.34 | 0.36 | 0.38 | 0.40 | 0.42 | 0.44 | 0.46 | 0.48 | 0.50 | 0.52 | 04h44 | 07h16 |
| 20° | 0.25 | 0.27 | 0.29 | 0.31 | 0.32 | 0.34 | 0.36 | 0.38 | 0.40 | 0.42 | 0.44 | 0.46 | 0.48 | 0.50 | 0.52 | 04h40 | 07h20 |
| 21° | 0.25 | 0.27 | 0.29 | 0.30 | 0.32 | 0.34 | 0.36 | 0.38 | 0.40 | 0.42 | 0.44 | 0.46 | 0.48 | 0.50 | 0.52 | 04h36 | 07h24 |
| 22° | 0.25 | 0.27 | 0.28 | 0.30 | 0.32 | 0.34 | 0.36 | 0.37 | 0.39 | 0.41 | 0.43 | 0.45 | 0.47 | 0.49 | 0.51 | 04h32 | 07h28 |
| 23° | 0.25 | 0.26 | 0.28 | 0.30 | 0.32 | 0.34 | 0.35 | 0.37 | 0.39 | 0.41 | 0.43 | 0.45 | 0.47 | 0.49 | 0.51 | 04h28 | 07h32 |
| 24° | 0.24 | 0.26 | 0.28 | 0.30 | 0.31 | 0.33 | 0.35 | 0.37 | 0.39 | 0.41 | 0.43 | 0.45 | 0.47 | 0.49 | 0.51 | 04h24 | 07h36 |
| 25° | 0.24 | 0.26 | 0.28 | 0.29 | 0.31 | 0.33 | 0.35 | 0.37 | 0.38 | 0.40 | 0.42 | 0.44 | 0.46 | 0.48 | 0.50 | 04h20 | 07h40 |
| 26° | 0.24 | 0.26 | 0.27 | 0.29 | 0.31 | 0.33 | 0.35 | 0.36 | 0.38 | 0.40 | 0.42 | 0.44 | 0.46 | 0.48 | 0.50 | 04h16 | 07h44 |
| 27° | 0.24 | 0.26 | 0.27 | 0.29 | 0.31 | 0.32 | 0.34 | 0.36 | 0.38 | 0.40 | 0.42 | 0.43 | 0.45 | 0.47 | 0.49 | 04h12 | 07h48 |
| 28° | 0.24 | 0.25 | 0.27 | 0.29 | 0.30 | 0.32 | 0.34 | 0.36 | 0.37 | 0.39 | 0.41 | 0.43 | 0.45 | 0.47 | 0.49 | 04h08 | 07h52 |
| 29° | 0.23 | 0.25 | 0.27 | 0.28 | 0.30 | 0.32 | 0.34 | 0.35 | 0.37 | 0.39 | 0.41 | 0.43 | 0.45 | 0.47 | 0.48 | 04h04 | 07h56 |
| 30° | 0.23 | 0.25 | 0.26 | 0.28 | 0.30 | 0.32 | 0.33 | 0.35 | 0.37 | 0.39 | 0.40 | 0.42 | 0.44 | 0.46 | 0.48 | 04h00 | 08h00 |
| 31° | 0.23 | 0.25 | 0.26 | 0.28 | 0.30 | 0.31 | 0.33 | 0.35 | 0.36 | 0.38 | 0.40 | 0.42 | 0.44 | 0.46 | 0.48 | 03h56 | 08h04 |
| 32° | 0.23 | 0.24 | 0.26 | 0.28 | 0.29 | 0.31 | 0.33 | 0.34 | 0.36 | 0.38 | 0.40 | 0.41 | 0.43 | 0.45 | 0.47 | 03h52 | 08h08 |
| 33° | 0.22 | 0.24 | 0.26 | 0.27 | 0.29 | 0.31 | 0.32 | 0.34 | 0.36 | 0.37 | 0.39 | 0.41 | 0.43 | 0.45 | 0.46 | 03h48 | 08h12 |
| 34° | 0.22 | 0.24 | 0.25 | 0.27 | 0.29 | 0.30 | 0.32 | 0.33 | 0.35 | 0.37 | 0.39 | 0.40 | 0.42 | 0.44 | 0.46 | 03h44 | 08h16 |
| 35° | 0.22 | 0.23 | 0.25 | 0.27 | 0.28 | 0.30 | 0.31 | 0.33 | 0.35 | 0.36 | 0.38 | 0.40 | 0.42 | 0.44 | 0.45 | 03h40 | 08h20 |
| 36° | 0.22 | 0.23 | 0.25 | 0.26 | 0.28 | 0.29 | 0.31 | 0.33 | 0.34 | 0.36 | 0.38 | 0.39 | 0.41 | 0.43 | 0.45 | 03h36 | 08h24 |
| 37° | 0.21 | 0.23 | 0.24 | 0.26 | 0.27 | 0.29 | 0.31 | 0.32 | 0.34 | 0.36 | 0.37 | 0.39 | 0.41 | 0.42 | 0.44 | 03h32 | 08h28 |
| 38° | 0.21 | 0.23 | 0.24 | 0.26 | 0.27 | 0.29 | 0.30 | 0.32 | 0.33 | 0.35 | 0.37 | 0.38 | 0.40 | 0.42 | 0.44 | 03h28 | 08h32 |
| 39° | 0.21 | 0.22 | 0.24 | 0.25 | 0.27 | 0.28 | 0.30 | 0.31 | 0.33 | 0.35 | 0.36 | 0.38 | 0.40 | 0.41 | 0.43 | 03h24 | 08h36 |
| 40° | 0.21 | 0.22 | 0.23 | 0.25 | 0.26 | 0.28 | 0.29 | 0.31 | 0.33 | 0.34 | 0.36 | 0.37 | 0.39 | 0.41 | 0.42 | 03h20 | 08h40 |
| 41° | 0.20 | 0.22 | 0.23 | 0.25 | 0.26 | 0.27 | 0.29 | 0.30 | 0.32 | 0.34 | 0.35 | 0.37 | 0.38 | 0.40 | 0.42 | 03h16 | 08h44 |
| 42° | 0.20 | 0.21 | 0.23 | 0.24 | 0.26 | 0.27 | 0.29 | 0.30 | 0.32 | 0.33 | 0.35 | 0.36 | 0.38 | 0.40 | 0.41 | 03h12 | 08h48 |
| 43° | 0.20 | 0.21 | 0.22 | 0.24 | 0.25 | 0.27 | 0.28 | 0.30 | 0.31 | 0.33 | 0.34 | 0.36 | 0.37 | 0.39 | 0.41 | 03h08 | 08h52 |
| 44° | 0.19 | 0.21 | 0.22 | 0.23 | 0.25 | 0.26 | 0.28 | 0.29 | 0.31 | 0.32 | 0.34 | 0.35 | 0.37 | 0.38 | 0.40 | 03h04 | 08h56 |
| 45° | 0.19 | 0.20 | 0.22 | 0.23 | 0.24 | 0.26 | 0.27 | 0.29 | 0.30 | 0.31 | 0.33 | 0.34 | 0.36 | 0.38 | 0.39 | 03h00 | 09h00 |
| 46° | 0.19 | 0.20 | 0.21 | 0.23 | 0.24 | 0.25 | 0.27 | 0.28 | 0.29 | 0.31 | 0.32 | 0.34 | 0.35 | 0.37 | 0.39 | 02h56 | 09h04 |
| 47° | 0.18 | 0.20 | 0.21 | 0.22 | 0.23 | 0.25 | 0.26 | 0.28 | 0.29 | 0.30 | 0.32 | 0.33 | 0.35 | 0.36 | 0.38 | 02h52 | 09h08 |
| 48° | 0.18 | 0.19 | 0.20 | 0.22 | 0.23 | 0.24 | 0.26 | 0.27 | 0.28 | 0.30 | 0.31 | 0.33 | 0.34 | 0.36 | 0.37 | 02h48 | 09h12 |
| 49° | 0.18 | 0.19 | 0.20 | 0.21 | 0.23 | 0.24 | 0.25 | 0.27 | 0.28 | 0.29 | 0.31 | 0.32 | 0.33 | 0.35 | 0.36 | 02h44 | 09h16 |
| 50° | 0.17 | 0.18 | 0.20 | 0.21 | 0.22 | 0.23 | 0.25 | 0.26 | 0.27 | 0.29 | 0.30 | 0.31 | 0.33 | 0.34 | 0.36 | 02h40 | 09h20 |
| 51° | 0.17 | 0.18 | 0.19 | 0.20 | 0.22 | 0.23 | 0.24 | 0.25 | 0.27 | 0.28 | 0.29 | 0.31 | 0.32 | 0.33 | 0.35 | 02h36 | 09h24 |
| 52° | 0.16 | 0.18 | 0.19 | 0.20 | 0.21 | 0.22 | 0.24 | 0.25 | 0.26 | 0.27 | 0.29 | 0.30 | 0.31 | 0.33 | 0.34 | 02h32 | 09h28 |
| 53° | 0.16 | 0.17 | 0.18 | 0.20 | 0.21 | 0.22 | 0.23 | 0.24 | 0.26 | 0.27 | 0.28 | 0.29 | 0.31 | 0.32 | 0.33 | 02h28 | 09h32 |
| 54° | 0.16 | 0.17 | 0.18 | 0.19 | 0.20 | 0.21 | 0.23 | 0.24 | 0.25 | 0.26 | 0.27 | 0.29 | 0.30 | 0.31 | 0.33 | 02h24 | 09h36 |
| 55° | 0.15 | 0.16 | 0.18 | 0.19 | 0.20 | 0.21 | 0.22 | 0.23 | 0.24 | 0.26 | 0.27 | 0.28 | 0.29 | 0.30 | 0.32 | 02h20 | 09h40 |
| 56° | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.20 | 0.21 | 0.23 | 0.24 | 0.25 | 0.26 | 0.27 | 0.28 | 0.30 | 0.31 | 02h16 | 09h44 |
| 57° | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.20 | 0.21 | 0.22 | 0.23 | 0.24 | 0.25 | 0.27 | 0.28 | 0.29 | 0.30 | 02h12 | 09h48 |
| 58° | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.20 | 0.21 | 0.22 | 0.24 | 0.25 | 0.26 | 0.27 | 0.28 | 0.29 | 02h08 | 09h52 |
| 59° | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.20 | 0.21 | 0.22 | 0.23 | 0.24 | 0.25 | 0.26 | 0.27 | 0.29 | 02h04 | 09h56 |
| 60° | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.20 | 0.21 | 0.22 | 0.23 | 0.24 | 0.25 | 0.27 | 0.28 | 02h00 | 10h00 |
| 61° | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.20 | 0.21 | 0.22 | 0.23 | 0.24 | 0.25 | 0.26 | 0.27 | 01h56 | 10h04 |
| 62° | 0.13 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.20 | 0.21 | 0.22 | 0.23 | 0.24 | 0.25 | 0.26 | 01h52 | 10h08 |
| 63° | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.17 | 0.18 | 0.19 | 0.20 | 0.21 | 0.22 | 0.23 | 0.24 | 0.25 | 01h48 | 10h12 |
| 64° | 0.12 | 0.13 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.20 | 0.20 | 0.21 | 0.22 | 0.23 | 0.24 | 01h44 | 10h16 |
| 65° | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.20 | 0.21 | 0.22 | 0.22 | 0.23 | 01h40 | 10h20 |
| 66° | 0.11 | 0.12 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.16 | 0.17 | 0.18 | 0.19 | 0.20 | 0.21 | 0.22 | 0.23 | 01h36 | 10h24 |
| 67° | 0.10 | 0.11 | 0.12 | 0.13 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.17 | 0.18 | 0.19 | 0.20 | 0.21 | 0.22 | 01h32 | 10h28 |
| 68° | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.14 | 0.14 | 0.15 | 0.16 | 0.17 | 0.17 | 0.18 | 0.19 | 0.20 | 0.21 | 01h28 | 10h32 |
| 69° | 0.10 | 0.10 | 0.11 | 0.12 | 0.12 | 0.13 | 0.14 | 0.14 | 0.15 | 0.16 | 0.17 | 0.17 | 0.18 | 0.19 | 0.20 | 01h24 | 10h36 |
| 70° | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.12 | 0.13 | 0.14 | 0.15 | 0.15 | 0.16 | 0.17 | 0.17 | 0.18 | 0.19 | 01h20 | 10h40 |
| 71° | 0.09 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.12 | 0.13 | 0.14 | 0.14 | 0.15 | 0.16 | 0.17 | 0.17 | 0.18 | 01h16 | 10h44 |
| 72° | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0. | | | | | | | | | | | |

Table II.

| Lat. | 30° | 31° | 32° | 33° | 34° | 35° | 36° | 37° | 38° | 39° | 40° | 41° | 42° | 43° | 44° | Angle au Pôle |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|---------------|
| 0° | 0.58 | 0.60 | 0.62 | 0.65 | 0.67 | 0.70 | 0.73 | 0.75 | 0.78 | 0.81 | 0.84 | 0.87 | 0.90 | 0.93 | 0.97 | 06h00 06h00 |
| 1° | 0.58 | 0.60 | 0.62 | 0.65 | 0.67 | 0.70 | 0.73 | 0.75 | 0.78 | 0.81 | 0.84 | 0.87 | 0.90 | 0.93 | 0.97 | 05h56 06h04 |
| 2° | 0.58 | 0.60 | 0.62 | 0.65 | 0.67 | 0.70 | 0.73 | 0.75 | 0.78 | 0.81 | 0.84 | 0.87 | 0.90 | 0.93 | 0.97 | 05h52 06h08 |
| 3° | 0.58 | 0.60 | 0.62 | 0.65 | 0.67 | 0.70 | 0.73 | 0.75 | 0.78 | 0.81 | 0.84 | 0.87 | 0.90 | 0.93 | 0.96 | 05h48 06h12 |
| 4° | 0.58 | 0.60 | 0.62 | 0.65 | 0.67 | 0.70 | 0.72 | 0.75 | 0.78 | 0.81 | 0.84 | 0.87 | 0.90 | 0.93 | 0.96 | 05h44 06h16 |
| 5° | 0.58 | 0.60 | 0.62 | 0.65 | 0.67 | 0.70 | 0.72 | 0.75 | 0.78 | 0.81 | 0.84 | 0.87 | 0.90 | 0.93 | 0.96 | 05h40 06h20 |
| 6° | 0.57 | 0.60 | 0.62 | 0.65 | 0.67 | 0.70 | 0.72 | 0.75 | 0.78 | 0.81 | 0.83 | 0.86 | 0.90 | 0.93 | 0.96 | 05h36 06h24 |
| 7° | 0.57 | 0.60 | 0.62 | 0.64 | 0.67 | 0.69 | 0.72 | 0.75 | 0.78 | 0.80 | 0.83 | 0.86 | 0.89 | 0.93 | 0.96 | 05h32 06h28 |
| 8° | 0.57 | 0.60 | 0.62 | 0.64 | 0.67 | 0.69 | 0.72 | 0.75 | 0.77 | 0.80 | 0.83 | 0.86 | 0.89 | 0.92 | 0.96 | 05h28 06h32 |
| 9° | 0.57 | 0.59 | 0.62 | 0.64 | 0.67 | 0.69 | 0.72 | 0.74 | 0.77 | 0.80 | 0.83 | 0.86 | 0.89 | 0.92 | 0.95 | 05h24 06h36 |
| 10° | 0.57 | 0.59 | 0.62 | 0.64 | 0.66 | 0.69 | 0.72 | 0.74 | 0.77 | 0.80 | 0.83 | 0.86 | 0.89 | 0.92 | 0.95 | 05h20 06h40 |
| 11° | 0.57 | 0.59 | 0.61 | 0.64 | 0.66 | 0.69 | 0.71 | 0.74 | 0.77 | 0.79 | 0.82 | 0.85 | 0.88 | 0.92 | 0.95 | 05h16 06h44 |
| 12° | 0.56 | 0.59 | 0.61 | 0.64 | 0.66 | 0.68 | 0.71 | 0.74 | 0.76 | 0.79 | 0.82 | 0.85 | 0.88 | 0.91 | 0.94 | 05h12 06h48 |
| 13° | 0.56 | 0.59 | 0.61 | 0.63 | 0.66 | 0.68 | 0.71 | 0.73 | 0.76 | 0.79 | 0.82 | 0.85 | 0.88 | 0.91 | 0.94 | 05h08 06h52 |
| 14° | 0.56 | 0.58 | 0.61 | 0.63 | 0.65 | 0.68 | 0.70 | 0.73 | 0.76 | 0.79 | 0.81 | 0.84 | 0.87 | 0.90 | 0.94 | 05h04 06h56 |
| 15° | 0.56 | 0.58 | 0.60 | 0.63 | 0.65 | 0.68 | 0.70 | 0.73 | 0.75 | 0.78 | 0.81 | 0.84 | 0.87 | 0.90 | 0.93 | 05h00 07h00 |
| 16° | 0.55 | 0.58 | 0.60 | 0.62 | 0.65 | 0.67 | 0.70 | 0.72 | 0.75 | 0.78 | 0.81 | 0.84 | 0.87 | 0.90 | 0.93 | 04h56 07h04 |
| 17° | 0.55 | 0.57 | 0.60 | 0.62 | 0.65 | 0.67 | 0.69 | 0.72 | 0.75 | 0.77 | 0.80 | 0.83 | 0.86 | 0.89 | 0.92 | 04h52 07h08 |
| 18° | 0.55 | 0.57 | 0.59 | 0.62 | 0.64 | 0.67 | 0.69 | 0.72 | 0.74 | 0.77 | 0.80 | 0.83 | 0.86 | 0.89 | 0.92 | 04h48 07h12 |
| 19° | 0.55 | 0.57 | 0.59 | 0.61 | 0.64 | 0.66 | 0.69 | 0.71 | 0.74 | 0.77 | 0.79 | 0.82 | 0.85 | 0.88 | 0.91 | 04h44 07h16 |
| 20° | 0.54 | 0.56 | 0.59 | 0.61 | 0.63 | 0.66 | 0.68 | 0.71 | 0.73 | 0.76 | 0.79 | 0.82 | 0.85 | 0.88 | 0.91 | 04h40 07h20 |
| 21° | 0.54 | 0.56 | 0.58 | 0.61 | 0.63 | 0.65 | 0.68 | 0.70 | 0.73 | 0.76 | 0.78 | 0.81 | 0.84 | 0.87 | 0.90 | 04h36 07h24 |
| 22° | 0.54 | 0.56 | 0.58 | 0.60 | 0.63 | 0.65 | 0.67 | 0.70 | 0.72 | 0.75 | 0.78 | 0.81 | 0.83 | 0.86 | 0.90 | 04h32 07h28 |
| 23° | 0.53 | 0.55 | 0.58 | 0.60 | 0.62 | 0.64 | 0.67 | 0.69 | 0.72 | 0.75 | 0.77 | 0.80 | 0.83 | 0.86 | 0.89 | 04h28 07h32 |
| 24° | 0.53 | 0.55 | 0.57 | 0.59 | 0.62 | 0.64 | 0.66 | 0.69 | 0.71 | 0.74 | 0.77 | 0.79 | 0.82 | 0.85 | 0.88 | 04h24 07h36 |
| 25° | 0.52 | 0.54 | 0.57 | 0.59 | 0.61 | 0.63 | 0.66 | 0.68 | 0.71 | 0.73 | 0.76 | 0.79 | 0.82 | 0.85 | 0.88 | 04h20 07h40 |
| 26° | 0.52 | 0.54 | 0.56 | 0.58 | 0.61 | 0.63 | 0.65 | 0.68 | 0.70 | 0.73 | 0.75 | 0.78 | 0.81 | 0.84 | 0.87 | 04h16 07h44 |
| 27° | 0.51 | 0.54 | 0.56 | 0.58 | 0.60 | 0.62 | 0.65 | 0.67 | 0.70 | 0.72 | 0.75 | 0.77 | 0.80 | 0.83 | 0.86 | 04h12 07h48 |
| 28° | 0.51 | 0.53 | 0.55 | 0.57 | 0.60 | 0.62 | 0.64 | 0.67 | 0.69 | 0.71 | 0.74 | 0.77 | 0.80 | 0.82 | 0.85 | 04h08 07h52 |
| 29° | 0.50 | 0.53 | 0.55 | 0.57 | 0.59 | 0.61 | 0.64 | 0.66 | 0.68 | 0.71 | 0.73 | 0.76 | 0.79 | 0.82 | 0.84 | 04h04 07h56 |
| 30° | 0.50 | 0.52 | 0.54 | 0.56 | 0.58 | 0.61 | 0.63 | 0.65 | 0.68 | 0.70 | 0.73 | 0.75 | 0.78 | 0.81 | 0.84 | 04h00 08h00 |
| 31° | 0.49 | 0.52 | 0.54 | 0.56 | 0.58 | 0.60 | 0.62 | 0.65 | 0.67 | 0.69 | 0.72 | 0.75 | 0.77 | 0.80 | 0.83 | 03h56 08h04 |
| 32° | 0.49 | 0.51 | 0.53 | 0.55 | 0.57 | 0.59 | 0.62 | 0.64 | 0.66 | 0.69 | 0.71 | 0.74 | 0.76 | 0.79 | 0.82 | 03h52 08h08 |
| 33° | 0.48 | 0.50 | 0.52 | 0.54 | 0.57 | 0.59 | 0.61 | 0.63 | 0.66 | 0.68 | 0.70 | 0.73 | 0.76 | 0.78 | 0.81 | 03h48 08h12 |
| 34° | 0.48 | 0.50 | 0.52 | 0.54 | 0.56 | 0.58 | 0.60 | 0.62 | 0.65 | 0.67 | 0.70 | 0.72 | 0.75 | 0.77 | 0.80 | 03h44 08h16 |
| 35° | 0.47 | 0.49 | 0.51 | 0.53 | 0.55 | 0.57 | 0.60 | 0.62 | 0.64 | 0.66 | 0.69 | 0.71 | 0.74 | 0.76 | 0.79 | 03h40 08h20 |
| 36° | 0.47 | 0.49 | 0.51 | 0.53 | 0.55 | 0.57 | 0.59 | 0.61 | 0.63 | 0.66 | 0.68 | 0.70 | 0.73 | 0.75 | 0.78 | 03h36 08h24 |
| 37° | 0.46 | 0.48 | 0.50 | 0.52 | 0.54 | 0.56 | 0.58 | 0.60 | 0.62 | 0.65 | 0.67 | 0.69 | 0.72 | 0.74 | 0.77 | 03h32 08h28 |
| 38° | 0.45 | 0.47 | 0.49 | 0.51 | 0.53 | 0.55 | 0.57 | 0.59 | 0.62 | 0.64 | 0.66 | 0.69 | 0.71 | 0.73 | 0.76 | 03h28 08h32 |
| 39° | 0.45 | 0.47 | 0.49 | 0.50 | 0.52 | 0.54 | 0.56 | 0.59 | 0.61 | 0.63 | 0.65 | 0.68 | 0.70 | 0.72 | 0.75 | 03h24 08h36 |
| 40° | 0.44 | 0.46 | 0.48 | 0.50 | 0.52 | 0.54 | 0.56 | 0.58 | 0.60 | 0.62 | 0.64 | 0.67 | 0.69 | 0.71 | 0.74 | 03h20 08h40 |
| 41° | 0.44 | 0.45 | 0.47 | 0.49 | 0.51 | 0.53 | 0.55 | 0.57 | 0.59 | 0.61 | 0.63 | 0.66 | 0.68 | 0.70 | 0.73 | 03h16 08h44 |
| 42° | 0.43 | 0.45 | 0.46 | 0.48 | 0.50 | 0.52 | 0.54 | 0.56 | 0.58 | 0.60 | 0.62 | 0.65 | 0.67 | 0.69 | 0.72 | 03h12 08h48 |
| 43° | 0.42 | 0.44 | 0.46 | 0.47 | 0.49 | 0.51 | 0.53 | 0.55 | 0.57 | 0.59 | 0.61 | 0.64 | 0.66 | 0.68 | 0.71 | 03h08 08h52 |
| 44° | 0.42 | 0.43 | 0.45 | 0.47 | 0.49 | 0.50 | 0.52 | 0.54 | 0.56 | 0.58 | 0.60 | 0.63 | 0.65 | 0.67 | 0.69 | 03h04 08h56 |
| 45° | 0.41 | 0.42 | 0.44 | 0.46 | 0.48 | 0.50 | 0.51 | 0.53 | 0.55 | 0.57 | 0.59 | 0.61 | 0.64 | 0.66 | 0.68 | 03h00 09h00 |
| 46° | 0.40 | 0.42 | 0.43 | 0.45 | 0.47 | 0.49 | 0.50 | 0.52 | 0.54 | 0.56 | 0.58 | 0.60 | 0.63 | 0.65 | 0.67 | 02h56 09h04 |
| 47° | 0.39 | 0.41 | 0.43 | 0.44 | 0.46 | 0.48 | 0.50 | 0.51 | 0.53 | 0.55 | 0.57 | 0.59 | 0.61 | 0.64 | 0.66 | 02h52 09h08 |
| 48° | 0.39 | 0.40 | 0.42 | 0.43 | 0.45 | 0.47 | 0.49 | 0.50 | 0.52 | 0.54 | 0.56 | 0.58 | 0.60 | 0.62 | 0.65 | 02h48 09h12 |
| 49° | 0.38 | 0.39 | 0.41 | 0.43 | 0.44 | 0.46 | 0.48 | 0.49 | 0.51 | 0.53 | 0.55 | 0.57 | 0.59 | 0.61 | 0.63 | 02h44 09h16 |
| 50° | 0.37 | 0.39 | 0.40 | 0.42 | 0.43 | 0.45 | 0.47 | 0.48 | 0.50 | 0.52 | 0.54 | 0.56 | 0.58 | 0.60 | 0.62 | 02h40 09h20 |
| 51° | 0.36 | 0.38 | 0.39 | 0.41 | 0.42 | 0.44 | 0.46 | 0.47 | 0.49 | 0.51 | 0.53 | 0.55 | 0.57 | 0.59 | 0.61 | 02h36 09h24 |
| 52° | 0.36 | 0.37 | 0.38 | 0.40 | 0.42 | 0.43 | 0.45 | 0.46 | 0.48 | 0.50 | 0.52 | 0.54 | 0.55 | 0.57 | 0.59 | 02h32 09h28 |
| 53° | 0.35 | 0.36 | 0.38 | 0.39 | 0.41 | 0.42 | 0.44 | 0.45 | 0.47 | 0.49 | 0.50 | 0.52 | 0.54 | 0.56 | 0.58 | 02h28 09h32 |
| 54° | 0.34 | 0.35 | 0.37 | 0.38 | 0.40 | 0.41 | 0.43 | 0.44 | 0.46 | 0.48 | 0.49 | 0.51 | 0.53 | 0.55 | 0.57 | 02h24 09h36 |
| 55° | 0.33 | 0.34 | 0.36 | 0.37 | 0.39 | 0.40 | 0.42 | 0.43 | 0.45 | 0.46 | 0.48 | 0.50 | 0.52 | 0.53 | 0.55 | 02h20 09h40 |
| 56° | 0.32 | 0.34 | 0.35 | 0.36 | 0.38 | 0.39 | 0.41 | 0.42 | 0.44 | 0.45 | 0.47 | 0.49 | 0.50 | 0.52 | 0.54 | 02h16 09h44 |
| 57° | 0.31 | 0.33 | 0.34 | 0.35 | 0.37 | 0.38 | 0.40 | 0.41 | 0.43 | 0.44 | 0.46 | 0.47 | 0.49 | 0.51 | 0.53 | 02h12 09h48 |
| 58° | 0.31 | 0.32 | 0.33 | 0.34 | 0.36 | 0.37 | 0.39 | 0.40 | 0.41 | 0.43 | 0.44 | 0.46 | 0.48 | 0.49 | 0.51 | 02h08 09h52 |
| 59° | 0.30 | 0.31 | 0.32 | 0.33 | 0.35 | 0.36 | 0.37 | 0.39 | 0.40 | 0.42 | 0.43 | 0.45 | 0.46 | 0.48 | 0.50 | 02h04 09h56 |
| 60° | 0.29 | 0.30 | 0.31 | 0.32 | 0.34 | 0.35 | 0.36 | 0.38 | 0.39 | 0.40 | 0.42 | 0.43 | 0.45 | 0.47 | 0.48 | 02h00 10h00 |
| 61° | 0.28 | 0.29 | 0.30 | 0.31 | 0.33 | 0.34 | 0.35 | 0.37 | 0.38 | 0.39 | 0.41 | 0.42 | 0.44 | 0.45 | 0.47 | 01h56 10h04 |
| 62° | 0.27 | 0.28 | 0.29 | 0.30 | 0.32 | 0.33 | 0.34 | 0.35 | 0.37 | 0.38 | 0.39 | 0.41 | 0.42 | 0.44 | 0.45 | 01h52 10h08 |
| 63° | 0.26 | 0.27 | 0.28 | 0.29 | 0.31 | 0.32 | 0.33 | 0.34 | 0.35 | 0.37 | 0.38 | 0.39 | 0.41 | 0.42 | 0.44 | 01h48 10h12 |
| 64° | 0.25 | 0.26 | 0.27 | 0.28 | 0.30 | 0.31 | 0.32 | 0.33 | 0.34 | 0.35 | 0.37 | 0.38 | 0.39 | 0.41 | 0.42 | 01h44 10h16 |
| 65° | 0.24 | 0.25 | 0.26 | 0.27 | 0.29 | 0.30 | 0.31 | 0.32 | 0.33 | 0.34 | 0.35 | 0.37 | 0.38 | 0.39 | 0.41 | 01h40 10h20 |
| 66° | 0.23 | 0.24 | 0.25 | 0.26 | 0.27 | 0.28 | 0.30 | 0.31 | 0.32 | 0.33 | 0.34 | 0.35 | 0.37 | 0.38 | 0.39 | 01h36 10h24 |
| 67° | 0.23 | 0.23 | 0.24 | 0.25 | 0.26 | 0.27 | 0.28 | 0.29 | 0.31 | 0.32 | 0.33 | 0.34 | 0.35 | 0.36 | 0.38 | 01h32 10h28 |
| 68° | 0.22 | 0.23 | 0.23 | 0.24 | 0.25 | 0.26 | 0.27 | 0.28 | 0.29 | 0.30 | 0.31 | 0.33 | 0.34 | 0.35 | 0.36 | 01h28 10h32 |
| 69° | 0.21 | 0.22 | 0.22 | 0.23 | 0.24 | 0.25 | 0.26 | 0.27 | 0.28 | 0.29 | 0.30 | 0.31 | 0.32 | 0.33 | 0.35 | 01h24 10h36 |
| 70° | 0.20 | 0.21 | 0.21 | 0.22 | 0.23 | 0.24 | 0.25 | 0.26 | 0.27 | 0.28 | 0.29 | 0.30 | 0.31 | 0.32 | 0.33 | 01h20 10h40 |
| 71° | 0.19 | 0.20 | 0.20 | 0.21 | 0.22 | 0.23 | 0.24 | 0.25 | 0.25 | 0.26 | 0.27 | 0.28 | 0.29 | 0.30 | 0.31 | 01h16 10h44 |
| 72° | 0.18 | 0.19 | 0.19 | 0.20 | 0.21 | 0.22 | 0.22 | 0.23 | 0.24 | 0.25 | 0.26 | 0.27 | 0.28 | 0.29 | 0.30 | 01h12 10h48 |
| 73° | 0.17 | 0.18 | 0.18 | 0.19 | 0.20 | 0.20 | 0.21 | 0.22 | 0.23 | 0.24 | 0.25 | 0.25 | 0.26 | 0.27 | 0.28 | 01h08 10h52 |
| 74° | 0.16 | | | | | | | | | | | | | | | |

Table II.

| Lat. | 45° | 46° | 47° | 48° | 49° | 50° | 51° | 52° | 53° | 54° | 55° | 56° | 57° | 58° | 59° | Angle au Pôle |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|---------------|
| 0° | 1.00 | 1.04 | 1.07 | 1.11 | 1.15 | 1.19 | 1.23 | 1.28 | 1.33 | 1.38 | 1.43 | 1.48 | 1.54 | 1.60 | 1.66 | 06h00 |
| 1° | 1.00 | 1.04 | 1.07 | 1.11 | 1.15 | 1.19 | 1.23 | 1.28 | 1.33 | 1.38 | 1.43 | 1.48 | 1.54 | 1.60 | 1.66 | 05h56 |
| 2° | 1.00 | 1.03 | 1.07 | 1.11 | 1.15 | 1.19 | 1.23 | 1.28 | 1.33 | 1.38 | 1.43 | 1.48 | 1.54 | 1.60 | 1.66 | 05h52 |
| 3° | 1.00 | 1.03 | 1.07 | 1.11 | 1.15 | 1.19 | 1.23 | 1.28 | 1.33 | 1.37 | 1.43 | 1.48 | 1.54 | 1.60 | 1.66 | 05h48 |
| 4° | 1.00 | 1.03 | 1.07 | 1.11 | 1.15 | 1.19 | 1.23 | 1.28 | 1.32 | 1.37 | 1.42 | 1.48 | 1.54 | 1.60 | 1.66 | 05h44 |
| 5° | 1.00 | 1.03 | 1.07 | 1.11 | 1.15 | 1.19 | 1.23 | 1.28 | 1.32 | 1.37 | 1.42 | 1.48 | 1.53 | 1.59 | 1.66 | 05h40 |
| 6° | 0.99 | 1.03 | 1.07 | 1.10 | 1.14 | 1.19 | 1.23 | 1.27 | 1.32 | 1.37 | 1.42 | 1.47 | 1.53 | 1.59 | 1.66 | 05h36 |
| 7° | 0.99 | 1.03 | 1.06 | 1.10 | 1.14 | 1.18 | 1.23 | 1.27 | 1.32 | 1.37 | 1.42 | 1.47 | 1.53 | 1.59 | 1.65 | 05h32 |
| 8° | 0.99 | 1.03 | 1.06 | 1.10 | 1.14 | 1.18 | 1.22 | 1.27 | 1.31 | 1.36 | 1.41 | 1.47 | 1.52 | 1.58 | 1.65 | 05h28 |
| 9° | 0.99 | 1.02 | 1.06 | 1.10 | 1.14 | 1.18 | 1.22 | 1.26 | 1.31 | 1.36 | 1.41 | 1.46 | 1.52 | 1.58 | 1.64 | 05h24 |
| 10° | 0.98 | 1.02 | 1.06 | 1.09 | 1.13 | 1.17 | 1.22 | 1.26 | 1.31 | 1.36 | 1.41 | 1.46 | 1.52 | 1.58 | 1.64 | 05h20 |
| 11° | 0.98 | 1.02 | 1.05 | 1.09 | 1.13 | 1.17 | 1.21 | 1.26 | 1.30 | 1.35 | 1.40 | 1.46 | 1.51 | 1.57 | 1.63 | 05h16 |
| 12° | 0.98 | 1.01 | 1.05 | 1.09 | 1.13 | 1.17 | 1.21 | 1.25 | 1.30 | 1.35 | 1.40 | 1.45 | 1.51 | 1.57 | 1.63 | 05h12 |
| 13° | 0.97 | 1.01 | 1.04 | 1.08 | 1.12 | 1.16 | 1.20 | 1.25 | 1.29 | 1.34 | 1.39 | 1.44 | 1.50 | 1.56 | 1.62 | 05h08 |
| 14° | 0.97 | 1.00 | 1.04 | 1.08 | 1.12 | 1.16 | 1.20 | 1.24 | 1.29 | 1.34 | 1.39 | 1.44 | 1.49 | 1.55 | 1.61 | 05h04 |
| 15° | 0.97 | 1.00 | 1.04 | 1.07 | 1.11 | 1.15 | 1.19 | 1.24 | 1.28 | 1.33 | 1.38 | 1.43 | 1.49 | 1.55 | 1.61 | 05h00 |
| 16° | 0.96 | 1.00 | 1.03 | 1.07 | 1.11 | 1.15 | 1.19 | 1.23 | 1.28 | 1.32 | 1.37 | 1.43 | 1.48 | 1.54 | 1.60 | 04h56 |
| 17° | 0.96 | 0.99 | 1.03 | 1.06 | 1.10 | 1.14 | 1.18 | 1.22 | 1.27 | 1.32 | 1.37 | 1.42 | 1.47 | 1.53 | 1.59 | 04h52 |
| 18° | 0.95 | 0.98 | 1.02 | 1.06 | 1.09 | 1.13 | 1.17 | 1.22 | 1.26 | 1.31 | 1.36 | 1.41 | 1.46 | 1.52 | 1.58 | 04h48 |
| 19° | 0.95 | 0.98 | 1.01 | 1.05 | 1.09 | 1.13 | 1.17 | 1.21 | 1.25 | 1.30 | 1.35 | 1.40 | 1.46 | 1.51 | 1.57 | 04h44 |
| 20° | 0.94 | 0.97 | 1.01 | 1.04 | 1.08 | 1.12 | 1.16 | 1.20 | 1.25 | 1.29 | 1.34 | 1.39 | 1.45 | 1.50 | 1.56 | 04h40 |
| 21° | 0.93 | 0.97 | 1.00 | 1.04 | 1.07 | 1.11 | 1.15 | 1.19 | 1.24 | 1.28 | 1.33 | 1.38 | 1.44 | 1.49 | 1.55 | 04h36 |
| 22° | 0.93 | 0.96 | 0.99 | 1.03 | 1.07 | 1.10 | 1.14 | 1.19 | 1.23 | 1.28 | 1.32 | 1.37 | 1.43 | 1.48 | 1.54 | 04h32 |
| 23° | 0.92 | 0.95 | 0.99 | 1.02 | 1.06 | 1.10 | 1.14 | 1.18 | 1.22 | 1.27 | 1.31 | 1.36 | 1.42 | 1.47 | 1.53 | 04h28 |
| 24° | 0.91 | 0.95 | 0.98 | 1.01 | 1.05 | 1.09 | 1.13 | 1.17 | 1.21 | 1.26 | 1.30 | 1.35 | 1.41 | 1.46 | 1.52 | 04h24 |
| 25° | 0.91 | 0.94 | 0.97 | 1.01 | 1.04 | 1.08 | 1.12 | 1.16 | 1.20 | 1.25 | 1.29 | 1.34 | 1.40 | 1.45 | 1.51 | 04h20 |
| 26° | 0.90 | 0.93 | 0.96 | 1.00 | 1.03 | 1.07 | 1.11 | 1.15 | 1.19 | 1.24 | 1.28 | 1.33 | 1.38 | 1.44 | 1.50 | 04h16 |
| 27° | 0.89 | 0.92 | 0.96 | 0.99 | 1.02 | 1.06 | 1.10 | 1.14 | 1.18 | 1.23 | 1.27 | 1.32 | 1.37 | 1.43 | 1.48 | 04h12 |
| 28° | 0.88 | 0.91 | 0.95 | 0.98 | 1.02 | 1.05 | 1.09 | 1.13 | 1.17 | 1.22 | 1.26 | 1.31 | 1.36 | 1.41 | 1.47 | 04h08 |
| 29° | 0.87 | 0.91 | 0.94 | 0.97 | 1.01 | 1.04 | 1.08 | 1.12 | 1.16 | 1.20 | 1.25 | 1.30 | 1.35 | 1.40 | 1.46 | 04h04 |
| 30° | 0.87 | 0.90 | 0.93 | 0.96 | 1.00 | 1.03 | 1.07 | 1.11 | 1.15 | 1.19 | 1.24 | 1.28 | 1.33 | 1.39 | 1.44 | 04h00 |
| 31° | 0.86 | 0.89 | 0.92 | 0.95 | 0.99 | 1.02 | 1.06 | 1.10 | 1.14 | 1.18 | 1.22 | 1.27 | 1.32 | 1.37 | 1.43 | 03h56 |
| 32° | 0.85 | 0.88 | 0.91 | 0.94 | 0.98 | 1.01 | 1.05 | 1.09 | 1.13 | 1.17 | 1.21 | 1.26 | 1.31 | 1.36 | 1.41 | 03h52 |
| 33° | 0.84 | 0.87 | 0.90 | 0.93 | 0.96 | 1.00 | 1.04 | 1.07 | 1.11 | 1.15 | 1.20 | 1.24 | 1.29 | 1.34 | 1.40 | 03h48 |
| 34° | 0.83 | 0.86 | 0.89 | 0.92 | 0.95 | 0.99 | 1.02 | 1.06 | 1.10 | 1.14 | 1.18 | 1.23 | 1.28 | 1.33 | 1.38 | 03h44 |
| 35° | 0.82 | 0.85 | 0.88 | 0.91 | 0.94 | 0.98 | 1.01 | 1.05 | 1.09 | 1.13 | 1.17 | 1.21 | 1.26 | 1.31 | 1.36 | 03h40 |
| 36° | 0.81 | 0.84 | 0.87 | 0.90 | 0.93 | 0.96 | 1.00 | 1.04 | 1.07 | 1.11 | 1.16 | 1.20 | 1.25 | 1.29 | 1.35 | 03h36 |
| 37° | 0.80 | 0.83 | 0.86 | 0.89 | 0.92 | 0.95 | 0.99 | 1.02 | 1.06 | 1.10 | 1.14 | 1.18 | 1.23 | 1.28 | 1.33 | 03h32 |
| 38° | 0.79 | 0.82 | 0.85 | 0.88 | 0.91 | 0.94 | 0.97 | 1.01 | 1.05 | 1.08 | 1.13 | 1.17 | 1.21 | 1.26 | 1.31 | 03h28 |
| 39° | 0.78 | 0.80 | 0.83 | 0.86 | 0.89 | 0.93 | 0.96 | 0.99 | 1.03 | 1.07 | 1.11 | 1.15 | 1.20 | 1.24 | 1.29 | 03h24 |
| 40° | 0.77 | 0.79 | 0.82 | 0.85 | 0.88 | 0.91 | 0.95 | 0.98 | 1.02 | 1.05 | 1.09 | 1.14 | 1.18 | 1.23 | 1.27 | 03h20 |
| 41° | 0.75 | 0.78 | 0.81 | 0.84 | 0.87 | 0.90 | 0.93 | 0.97 | 1.00 | 1.04 | 1.08 | 1.12 | 1.16 | 1.21 | 1.26 | 03h16 |
| 42° | 0.74 | 0.77 | 0.80 | 0.83 | 0.85 | 0.89 | 0.92 | 0.95 | 0.99 | 1.02 | 1.06 | 1.10 | 1.14 | 1.19 | 1.24 | 03h12 |
| 43° | 0.73 | 0.76 | 0.78 | 0.81 | 0.84 | 0.87 | 0.90 | 0.94 | 0.97 | 1.01 | 1.04 | 1.08 | 1.13 | 1.17 | 1.22 | 03h08 |
| 44° | 0.72 | 0.74 | 0.77 | 0.80 | 0.83 | 0.86 | 0.89 | 0.92 | 0.95 | 0.99 | 1.03 | 1.07 | 1.11 | 1.15 | 1.20 | 03h04 |
| 45° | 0.71 | 0.73 | 0.76 | 0.79 | 0.81 | 0.84 | 0.87 | 0.91 | 0.94 | 0.97 | 1.01 | 1.05 | 1.09 | 1.13 | 1.18 | 03h00 |
| 46° | 0.69 | 0.72 | 0.74 | 0.77 | 0.80 | 0.83 | 0.86 | 0.89 | 0.92 | 0.96 | 0.99 | 1.03 | 1.07 | 1.11 | 1.16 | 02h56 |
| 47° | 0.68 | 0.71 | 0.73 | 0.76 | 0.78 | 0.81 | 0.84 | 0.87 | 0.91 | 0.94 | 0.97 | 1.01 | 1.05 | 1.09 | 1.14 | 02h52 |
| 48° | 0.67 | 0.69 | 0.72 | 0.74 | 0.77 | 0.80 | 0.83 | 0.86 | 0.89 | 0.92 | 0.96 | 0.99 | 1.03 | 1.07 | 1.11 | 02h48 |
| 49° | 0.66 | 0.68 | 0.70 | 0.73 | 0.75 | 0.78 | 0.81 | 0.84 | 0.87 | 0.90 | 0.94 | 0.97 | 1.01 | 1.05 | 1.09 | 02h44 |
| 50° | 0.64 | 0.67 | 0.69 | 0.71 | 0.74 | 0.77 | 0.79 | 0.82 | 0.85 | 0.88 | 0.92 | 0.95 | 0.99 | 1.03 | 1.07 | 02h40 |
| 51° | 0.63 | 0.65 | 0.67 | 0.70 | 0.72 | 0.75 | 0.78 | 0.81 | 0.84 | 0.87 | 0.90 | 0.93 | 0.97 | 1.01 | 1.05 | 02h36 |
| 52° | 0.62 | 0.64 | 0.66 | 0.68 | 0.71 | 0.73 | 0.76 | 0.79 | 0.82 | 0.85 | 0.88 | 0.91 | 0.95 | 0.99 | 1.02 | 02h32 |
| 53° | 0.60 | 0.62 | 0.65 | 0.67 | 0.69 | 0.72 | 0.74 | 0.77 | 0.80 | 0.83 | 0.86 | 0.89 | 0.93 | 0.96 | 1.00 | 02h28 |
| 54° | 0.59 | 0.61 | 0.63 | 0.65 | 0.68 | 0.70 | 0.73 | 0.75 | 0.78 | 0.81 | 0.84 | 0.87 | 0.91 | 0.94 | 0.98 | 02h24 |
| 55° | 0.57 | 0.59 | 0.62 | 0.64 | 0.66 | 0.68 | 0.71 | 0.73 | 0.76 | 0.79 | 0.82 | 0.85 | 0.88 | 0.92 | 0.95 | 02h20 |
| 56° | 0.56 | 0.58 | 0.60 | 0.62 | 0.64 | 0.67 | 0.69 | 0.72 | 0.74 | 0.77 | 0.80 | 0.83 | 0.86 | 0.89 | 0.93 | 02h16 |
| 57° | 0.54 | 0.56 | 0.58 | 0.60 | 0.63 | 0.65 | 0.67 | 0.70 | 0.72 | 0.75 | 0.78 | 0.81 | 0.84 | 0.87 | 0.91 | 02h12 |
| 58° | 0.53 | 0.55 | 0.57 | 0.59 | 0.61 | 0.63 | 0.65 | 0.68 | 0.70 | 0.73 | 0.76 | 0.79 | 0.82 | 0.85 | 0.88 | 02h08 |
| 59° | 0.52 | 0.53 | 0.55 | 0.57 | 0.59 | 0.61 | 0.64 | 0.66 | 0.68 | 0.71 | 0.74 | 0.76 | 0.79 | 0.82 | 0.86 | 02h04 |
| 60° | 0.50 | 0.52 | 0.54 | 0.56 | 0.58 | 0.60 | 0.62 | 0.64 | 0.66 | 0.69 | 0.71 | 0.74 | 0.77 | 0.80 | 0.83 | 02h00 |
| 61° | 0.48 | 0.50 | 0.52 | 0.54 | 0.56 | 0.58 | 0.60 | 0.62 | 0.64 | 0.67 | 0.69 | 0.72 | 0.75 | 0.78 | 0.81 | 01h56 |
| 62° | 0.47 | 0.49 | 0.50 | 0.52 | 0.54 | 0.56 | 0.58 | 0.60 | 0.62 | 0.65 | 0.67 | 0.70 | 0.72 | 0.75 | 0.78 | 01h52 |
| 63° | 0.45 | 0.47 | 0.49 | 0.50 | 0.52 | 0.54 | 0.56 | 0.58 | 0.60 | 0.62 | 0.65 | 0.67 | 0.70 | 0.73 | 0.76 | 01h48 |
| 64° | 0.44 | 0.45 | 0.47 | 0.49 | 0.50 | 0.52 | 0.54 | 0.56 | 0.58 | 0.60 | 0.63 | 0.65 | 0.68 | 0.70 | 0.73 | 01h44 |
| 65° | 0.42 | 0.44 | 0.45 | 0.47 | 0.49 | 0.50 | 0.52 | 0.54 | 0.56 | 0.58 | 0.60 | 0.63 | 0.65 | 0.68 | 0.70 | 01h40 |
| 66° | 0.41 | 0.42 | 0.44 | 0.45 | 0.47 | 0.48 | 0.50 | 0.52 | 0.54 | 0.56 | 0.58 | 0.60 | 0.63 | 0.65 | 0.68 | 01h36 |
| 67° | 0.39 | 0.40 | 0.42 | 0.43 | 0.45 | 0.47 | 0.48 | 0.50 | 0.52 | 0.54 | 0.56 | 0.58 | 0.60 | 0.63 | 0.65 | 01h32 |
| 68° | 0.37 | 0.39 | 0.40 | 0.42 | 0.43 | 0.45 | 0.46 | 0.48 | 0.50 | 0.52 | 0.53 | 0.56 | 0.58 | 0.60 | 0.62 | 01h28 |
| 69° | 0.36 | 0.37 | 0.38 | 0.40 | 0.41 | 0.43 | 0.44 | 0.46 | 0.48 | 0.49 | 0.51 | 0.53 | 0.55 | 0.57 | 0.60 | 01h24 |
| 70° | 0.34 | 0.35 | 0.37 | 0.38 | 0.39 | 0.41 | 0.42 | 0.44 | 0.45 | 0.47 | 0.49 | 0.51 | 0.53 | 0.55 | 0.57 | 01h20 |
| 71° | 0.33 | 0.34 | 0.35 | 0.36 | 0.37 | 0.39 | 0.40 | 0.42 | 0.43 | 0.45 | 0.46 | 0.48 | 0.50 | 0.52 | 0.54 | 01h16 |
| 72° | 0.31 | 0.32 | 0.33 | 0.34 | 0.36 | 0.37 | 0.38 | 0.40 | 0.41 | 0.43 | 0.44 | 0.46 | 0.48 | 0.49 | 0.51 | 01h12 |
| 73° | 0.29 | 0.30 | 0.31 | 0.32 | 0.34 | 0.35 | 0.36 | 0.37 | 0.39 | 0.40 | 0.42 | 0.43 | 0.45 | 0.47 | 0.49 | 01h08 |
| 74° | 0.28 | 0.29 | 0.30 | 0.31 | 0.32 | 0.33 | 0.34 | 0.35 | 0.37 | 0.38 | 0.39 | 0.41 | 0.42 | 0.44 | 0.46 | 01h04 |
| 75° | 0.26 | 0.27 | 0.28 | 0.29 | 0.30 | 0.31 | 0.32 | 0.33 | 0.34 | 0.36 | 0.37 | 0.38 | 0.40 | 0.41 | 0.43 | 01h00 |
| 76° | 0.24 | 0.25 | 0.26 | 0.27 | 0.28 | 0.29 | 0.30 | 0.31 | 0.32 | 0.33 | 0.35 | 0.36 | 0.37 | 0.39 | 0.40 | |

Table II.

| Lat. | 60° | 61° | 62° | 63° | 64° | 65° | 66° | 67° | 68° | 69° | 70° | 71° | 72° | 73° | 74° | Angle au Pôle |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|---------------|
| 0° | 1.73 | 1.80 | 1.88 | 1.96 | 2.05 | 2.14 | 2.25 | 2.36 | 2.48 | 2.61 | 2.75 | 2.90 | 3.08 | 3.27 | 3.49 | 06h00 06h00 |
| 1° | 1.73 | 1.80 | 1.88 | 1.96 | 2.05 | 2.14 | 2.25 | 2.36 | 2.47 | 2.60 | 2.75 | 2.90 | 3.08 | 3.27 | 3.49 | 05h56 06h04 |
| 2° | 1.73 | 1.80 | 1.88 | 1.96 | 2.05 | 2.14 | 2.24 | 2.35 | 2.47 | 2.60 | 2.75 | 2.90 | 3.08 | 3.27 | 3.49 | 05h52 06h08 |
| 3° | 1.73 | 1.80 | 1.88 | 1.96 | 2.05 | 2.14 | 2.24 | 2.35 | 2.47 | 2.60 | 2.74 | 2.90 | 3.07 | 3.27 | 3.48 | 05h48 06h12 |
| 4° | 1.73 | 1.80 | 1.88 | 1.96 | 2.05 | 2.14 | 2.24 | 2.35 | 2.47 | 2.60 | 2.74 | 2.90 | 3.07 | 3.26 | 3.48 | 05h44 06h16 |
| 5° | 1.73 | 1.80 | 1.87 | 1.96 | 2.04 | 2.14 | 2.24 | 2.35 | 2.47 | 2.60 | 2.74 | 2.89 | 3.07 | 3.26 | 3.47 | 05h40 06h20 |
| 6° | 1.72 | 1.79 | 1.87 | 1.95 | 2.04 | 2.13 | 2.23 | 2.34 | 2.46 | 2.59 | 2.73 | 2.89 | 3.06 | 3.25 | 3.47 | 05h36 06h24 |
| 7° | 1.72 | 1.79 | 1.87 | 1.95 | 2.04 | 2.13 | 2.23 | 2.34 | 2.46 | 2.59 | 2.73 | 2.88 | 3.05 | 3.25 | 3.46 | 05h32 06h28 |
| 8° | 1.72 | 1.79 | 1.86 | 1.94 | 2.03 | 2.12 | 2.22 | 2.33 | 2.45 | 2.58 | 2.72 | 2.88 | 3.05 | 3.24 | 3.45 | 05h28 06h32 |
| 9° | 1.71 | 1.78 | 1.86 | 1.94 | 2.03 | 2.12 | 2.22 | 2.33 | 2.44 | 2.57 | 2.71 | 2.87 | 3.04 | 3.23 | 3.44 | 05h24 06h36 |
| 10° | 1.71 | 1.78 | 1.85 | 1.93 | 2.02 | 2.11 | 2.21 | 2.32 | 2.44 | 2.57 | 2.71 | 2.86 | 3.03 | 3.22 | 3.43 | 05h20 06h40 |
| 11° | 1.70 | 1.77 | 1.85 | 1.93 | 2.01 | 2.11 | 2.20 | 2.31 | 2.43 | 2.56 | 2.70 | 2.85 | 3.02 | 3.21 | 3.42 | 05h16 06h44 |
| 12° | 1.69 | 1.76 | 1.84 | 1.92 | 2.01 | 2.10 | 2.20 | 2.30 | 2.42 | 2.55 | 2.69 | 2.84 | 3.01 | 3.20 | 3.41 | 05h12 06h48 |
| 13° | 1.69 | 1.76 | 1.83 | 1.91 | 2.00 | 2.09 | 2.19 | 2.30 | 2.41 | 2.54 | 2.68 | 2.83 | 3.00 | 3.19 | 3.40 | 05h08 06h52 |
| 14° | 1.68 | 1.75 | 1.82 | 1.90 | 1.99 | 2.08 | 2.18 | 2.29 | 2.40 | 2.53 | 2.67 | 2.82 | 2.99 | 3.17 | 3.38 | 05h04 06h56 |
| 15° | 1.67 | 1.74 | 1.82 | 1.90 | 1.98 | 2.07 | 2.17 | 2.28 | 2.39 | 2.52 | 2.65 | 2.81 | 2.97 | 3.16 | 3.37 | 05h00 07h00 |
| 16° | 1.66 | 1.73 | 1.81 | 1.89 | 1.97 | 2.06 | 2.16 | 2.26 | 2.38 | 2.50 | 2.64 | 2.79 | 2.96 | 3.14 | 3.35 | 04h56 07h04 |
| 17° | 1.66 | 1.73 | 1.80 | 1.88 | 1.96 | 2.05 | 2.15 | 2.25 | 2.37 | 2.49 | 2.63 | 2.78 | 2.94 | 3.13 | 3.34 | 04h52 07h08 |
| 18° | 1.65 | 1.72 | 1.79 | 1.87 | 1.95 | 2.04 | 2.14 | 2.24 | 2.35 | 2.48 | 2.61 | 2.76 | 2.93 | 3.11 | 3.32 | 04h48 07h12 |
| 19° | 1.64 | 1.71 | 1.78 | 1.86 | 1.94 | 2.03 | 2.12 | 2.23 | 2.34 | 2.46 | 2.60 | 2.75 | 2.91 | 3.09 | 3.30 | 04h44 07h16 |
| 20° | 1.63 | 1.70 | 1.77 | 1.84 | 1.93 | 2.02 | 2.11 | 2.21 | 2.33 | 2.45 | 2.58 | 2.73 | 2.89 | 3.07 | 3.28 | 04h40 07h20 |
| 21° | 1.62 | 1.68 | 1.76 | 1.83 | 1.91 | 2.00 | 2.10 | 2.20 | 2.31 | 2.43 | 2.56 | 2.71 | 2.87 | 3.05 | 3.26 | 04h36 07h24 |
| 22° | 1.61 | 1.67 | 1.74 | 1.82 | 1.90 | 1.99 | 2.08 | 2.18 | 2.29 | 2.42 | 2.55 | 2.69 | 2.85 | 3.03 | 3.23 | 04h32 07h28 |
| 23° | 1.59 | 1.66 | 1.73 | 1.81 | 1.89 | 1.97 | 2.07 | 2.17 | 2.28 | 2.40 | 2.53 | 2.67 | 2.83 | 3.01 | 3.21 | 04h28 07h32 |
| 24° | 1.58 | 1.65 | 1.72 | 1.79 | 1.87 | 1.96 | 2.05 | 2.15 | 2.26 | 2.38 | 2.51 | 2.65 | 2.81 | 2.99 | 3.19 | 04h24 07h36 |
| 25° | 1.57 | 1.64 | 1.70 | 1.78 | 1.86 | 1.94 | 2.04 | 2.14 | 2.24 | 2.36 | 2.49 | 2.63 | 2.79 | 2.96 | 3.16 | 04h20 07h40 |
| 26° | 1.56 | 1.62 | 1.69 | 1.76 | 1.84 | 1.93 | 2.02 | 2.12 | 2.22 | 2.34 | 2.47 | 2.61 | 2.77 | 2.94 | 3.13 | 04h16 07h44 |
| 27° | 1.54 | 1.61 | 1.68 | 1.75 | 1.83 | 1.91 | 2.00 | 2.10 | 2.21 | 2.32 | 2.45 | 2.59 | 2.74 | 2.91 | 3.11 | 04h12 07h48 |
| 28° | 1.53 | 1.59 | 1.66 | 1.73 | 1.81 | 1.89 | 1.98 | 2.08 | 2.19 | 2.30 | 2.43 | 2.56 | 2.72 | 2.89 | 3.08 | 04h08 07h52 |
| 29° | 1.51 | 1.58 | 1.64 | 1.72 | 1.79 | 1.88 | 1.96 | 2.06 | 2.16 | 2.28 | 2.40 | 2.54 | 2.69 | 2.86 | 3.05 | 04h04 07h56 |
| 30° | 1.50 | 1.56 | 1.63 | 1.70 | 1.78 | 1.86 | 1.95 | 2.04 | 2.14 | 2.26 | 2.38 | 2.52 | 2.67 | 2.83 | 3.02 | 04h00 08h00 |
| 31° | 1.48 | 1.55 | 1.61 | 1.68 | 1.76 | 1.84 | 1.93 | 2.02 | 2.12 | 2.23 | 2.36 | 2.49 | 2.64 | 2.80 | 2.99 | 03h56 08h04 |
| 32° | 1.47 | 1.53 | 1.59 | 1.66 | 1.74 | 1.82 | 1.90 | 2.00 | 2.10 | 2.21 | 2.33 | 2.46 | 2.61 | 2.77 | 2.96 | 03h52 08h08 |
| 33° | 1.45 | 1.51 | 1.58 | 1.65 | 1.72 | 1.80 | 1.88 | 1.98 | 2.08 | 2.18 | 2.30 | 2.44 | 2.58 | 2.74 | 2.92 | 03h48 08h12 |
| 34° | 1.44 | 1.50 | 1.56 | 1.63 | 1.70 | 1.78 | 1.86 | 1.95 | 2.05 | 2.16 | 2.28 | 2.41 | 2.55 | 2.71 | 2.89 | 03h44 08h16 |
| 35° | 1.42 | 1.48 | 1.54 | 1.61 | 1.68 | 1.76 | 1.84 | 1.93 | 2.03 | 2.13 | 2.25 | 2.38 | 2.52 | 2.68 | 2.86 | 03h40 08h20 |
| 36° | 1.40 | 1.46 | 1.52 | 1.59 | 1.66 | 1.73 | 1.82 | 1.91 | 2.00 | 2.11 | 2.22 | 2.35 | 2.49 | 2.65 | 2.82 | 03h36 08h24 |
| 37° | 1.38 | 1.44 | 1.50 | 1.57 | 1.64 | 1.71 | 1.79 | 1.88 | 1.98 | 2.08 | 2.19 | 2.32 | 2.46 | 2.61 | 2.79 | 03h32 08h28 |
| 38° | 1.36 | 1.42 | 1.48 | 1.55 | 1.62 | 1.69 | 1.77 | 1.86 | 1.95 | 2.05 | 2.17 | 2.29 | 2.43 | 2.58 | 2.75 | 03h28 08h32 |
| 39° | 1.35 | 1.40 | 1.46 | 1.53 | 1.59 | 1.67 | 1.75 | 1.83 | 1.92 | 2.02 | 2.14 | 2.26 | 2.39 | 2.54 | 2.71 | 03h24 08h36 |
| 40° | 1.33 | 1.38 | 1.44 | 1.50 | 1.57 | 1.64 | 1.72 | 1.80 | 1.90 | 2.00 | 2.10 | 2.22 | 2.36 | 2.51 | 2.67 | 03h20 08h40 |
| 41° | 1.31 | 1.36 | 1.42 | 1.48 | 1.55 | 1.62 | 1.70 | 1.78 | 1.87 | 1.97 | 2.07 | 2.19 | 2.32 | 2.47 | 2.63 | 03h16 08h44 |
| 42° | 1.29 | 1.34 | 1.40 | 1.46 | 1.52 | 1.59 | 1.67 | 1.75 | 1.84 | 1.94 | 2.04 | 2.16 | 2.29 | 2.43 | 2.59 | 03h12 08h48 |
| 43° | 1.27 | 1.32 | 1.38 | 1.44 | 1.50 | 1.57 | 1.64 | 1.72 | 1.81 | 1.91 | 2.01 | 2.12 | 2.25 | 2.39 | 2.55 | 03h08 08h52 |
| 44° | 1.25 | 1.30 | 1.35 | 1.41 | 1.47 | 1.54 | 1.62 | 1.69 | 1.78 | 1.87 | 1.98 | 2.09 | 2.21 | 2.35 | 2.51 | 03h04 08h56 |
| 45° | 1.22 | 1.28 | 1.33 | 1.39 | 1.45 | 1.52 | 1.59 | 1.67 | 1.75 | 1.84 | 1.94 | 2.05 | 2.18 | 2.31 | 2.47 | 03h00 09h00 |
| 46° | 1.20 | 1.25 | 1.31 | 1.36 | 1.42 | 1.49 | 1.56 | 1.64 | 1.72 | 1.81 | 1.91 | 2.02 | 2.14 | 2.27 | 2.42 | 02h56 09h04 |
| 47° | 1.18 | 1.23 | 1.28 | 1.34 | 1.40 | 1.46 | 1.53 | 1.61 | 1.69 | 1.78 | 1.87 | 1.98 | 2.10 | 2.23 | 2.38 | 02h52 09h08 |
| 48° | 1.16 | 1.21 | 1.26 | 1.31 | 1.37 | 1.43 | 1.50 | 1.58 | 1.66 | 1.74 | 1.84 | 1.94 | 2.06 | 2.19 | 2.33 | 02h48 09h12 |
| 49° | 1.14 | 1.18 | 1.23 | 1.29 | 1.35 | 1.41 | 1.47 | 1.55 | 1.62 | 1.71 | 1.80 | 1.91 | 2.02 | 2.15 | 2.29 | 02h44 09h16 |
| 50° | 1.11 | 1.16 | 1.21 | 1.26 | 1.32 | 1.38 | 1.44 | 1.51 | 1.59 | 1.67 | 1.77 | 1.87 | 1.98 | 2.10 | 2.24 | 02h40 09h20 |
| 51° | 1.09 | 1.14 | 1.18 | 1.24 | 1.29 | 1.35 | 1.41 | 1.48 | 1.56 | 1.64 | 1.73 | 1.83 | 1.94 | 2.06 | 2.19 | 02h36 09h24 |
| 52° | 1.07 | 1.11 | 1.16 | 1.21 | 1.26 | 1.32 | 1.38 | 1.45 | 1.52 | 1.60 | 1.69 | 1.79 | 1.89 | 2.01 | 2.15 | 02h32 09h28 |
| 53° | 1.04 | 1.09 | 1.13 | 1.18 | 1.23 | 1.29 | 1.35 | 1.42 | 1.49 | 1.57 | 1.65 | 1.75 | 1.85 | 1.97 | 2.10 | 02h28 09h32 |
| 54° | 1.02 | 1.06 | 1.11 | 1.15 | 1.21 | 1.26 | 1.32 | 1.38 | 1.45 | 1.53 | 1.61 | 1.71 | 1.81 | 1.92 | 2.05 | 02h24 09h36 |
| 55° | 0.99 | 1.03 | 1.08 | 1.13 | 1.18 | 1.23 | 1.29 | 1.35 | 1.42 | 1.49 | 1.58 | 1.67 | 1.77 | 1.88 | 2.00 | 02h20 09h40 |
| 56° | 0.97 | 1.01 | 1.05 | 1.10 | 1.15 | 1.20 | 1.26 | 1.32 | 1.38 | 1.46 | 1.54 | 1.62 | 1.72 | 1.83 | 1.95 | 02h16 09h44 |
| 57° | 0.94 | 0.98 | 1.02 | 1.07 | 1.12 | 1.17 | 1.22 | 1.28 | 1.35 | 1.42 | 1.50 | 1.58 | 1.68 | 1.78 | 1.90 | 02h12 09h48 |
| 58° | 0.92 | 0.96 | 1.00 | 1.04 | 1.09 | 1.14 | 1.19 | 1.25 | 1.31 | 1.38 | 1.46 | 1.54 | 1.63 | 1.73 | 1.85 | 02h08 09h52 |
| 59° | 0.89 | 0.93 | 0.97 | 1.01 | 1.06 | 1.10 | 1.16 | 1.21 | 1.27 | 1.34 | 1.42 | 1.50 | 1.59 | 1.68 | 1.80 | 02h04 09h56 |
| 60° | 0.87 | 0.90 | 0.94 | 0.98 | 1.03 | 1.07 | 1.12 | 1.18 | 1.24 | 1.30 | 1.37 | 1.45 | 1.54 | 1.64 | 1.74 | 02h00 10h00 |
| 61° | 0.84 | 0.87 | 0.91 | 0.95 | 0.99 | 1.04 | 1.09 | 1.14 | 1.20 | 1.26 | 1.33 | 1.41 | 1.49 | 1.59 | 1.69 | 01h56 10h04 |
| 62° | 0.81 | 0.85 | 0.88 | 0.92 | 0.96 | 1.01 | 1.05 | 1.11 | 1.16 | 1.22 | 1.29 | 1.36 | 1.44 | 1.54 | 1.64 | 01h52 10h08 |
| 63° | 0.79 | 0.82 | 0.85 | 0.89 | 0.93 | 0.97 | 1.02 | 1.07 | 1.12 | 1.18 | 1.25 | 1.32 | 1.40 | 1.48 | 1.58 | 01h48 10h12 |
| 64° | 0.76 | 0.79 | 0.82 | 0.86 | 0.90 | 0.94 | 0.98 | 1.03 | 1.09 | 1.14 | 1.20 | 1.27 | 1.35 | 1.43 | 1.53 | 01h44 10h16 |
| 65° | 0.73 | 0.76 | 0.79 | 0.83 | 0.87 | 0.91 | 0.95 | 1.00 | 1.05 | 1.10 | 1.16 | 1.23 | 1.30 | 1.38 | 1.47 | 01h40 10h20 |
| 66° | 0.70 | 0.73 | 0.76 | 0.80 | 0.83 | 0.87 | 0.91 | 0.96 | 1.01 | 1.06 | 1.12 | 1.18 | 1.25 | 1.33 | 1.42 | 01h36 10h24 |
| 67° | 0.68 | 0.70 | 0.73 | 0.77 | 0.80 | 0.84 | 0.88 | 0.92 | 0.97 | 1.02 | 1.07 | 1.13 | 1.20 | 1.28 | 1.36 | 01h32 10h28 |
| 68° | 0.65 | 0.68 | 0.70 | 0.74 | 0.77 | 0.80 | 0.84 | 0.88 | 0.93 | 0.98 | 1.03 | 1.09 | 1.15 | 1.23 | 1.31 | 01h28 10h32 |
| 69° | 0.62 | 0.65 | 0.67 | 0.70 | 0.73 | 0.77 | 0.80 | 0.84 | 0.89 | 0.93 | 0.98 | 1.04 | 1.10 | 1.17 | 1.25 | 01h24 10h36 |
| 70° | 0.59 | 0.62 | 0.64 | 0.67 | 0.70 | 0.73 | 0.77 | 0.81 | 0.85 | 0.89 | 0.94 | 0.99 | 1.05 | 1.12 | 1.19 | 01h20 10h40 |
| 71° | 0.56 | 0.59 | 0.61 | 0.64 | 0.67 | 0.70 | 0.73 | 0.77 | 0.81 | 0.85 | 0.89 | 0.95 | 1.00 | 1.06 | 1.14 | 01h16 10h44 |
| 72° | 0.54 | 0.56 | 0.58 | 0.61 | 0.63 | 0.66 | 0.69 | 0.73 | 0.76 | 0.81 | 0.85 | 0.90 | 0.95 | 1.01 | 1.08 | 01h12 10h48 |
| 73° | 0.51 | 0.53 | 0.55 | 0.57 | 0.60 | 0.63 | 0.66 | 0.69 | 0.72 | 0.76 | 0.80 | 0.85 | 0.90 | 0.96 | 1.02 | 01h08 10h52 |
| 74° | 0.48 | | | | | | | | | | | | | | | |

Table II.

| Lat. | 75° | 76° | 77° | 78° | 79° | 80° | 81° | 82° | 83° | 84° | 85° | 86° | 87° | 88° | 89° | Angle au Pôle |
|------|------|------|------|------|------|------|------|------|------|------|-------|-------|-------|-------|-------|---------------|
| 0° | 3.73 | 4.01 | 4.33 | 4.70 | 5.14 | 5.67 | 6.31 | 7.12 | 8.14 | 9.51 | 11.43 | 14.30 | 19.08 | 28.64 | 57.29 | 06h00 |
| 1° | 3.73 | 4.01 | 4.33 | 4.70 | 5.14 | 5.67 | 6.31 | 7.11 | 8.14 | 9.51 | 11.43 | 14.30 | 19.08 | 28.63 | 57.28 | 05h56 |
| 2° | 3.73 | 4.01 | 4.33 | 4.70 | 5.14 | 5.67 | 6.31 | 7.11 | 8.14 | 9.51 | 11.42 | 14.29 | 19.07 | 28.62 | 57.26 | 05h52 |
| 3° | 3.73 | 4.01 | 4.33 | 4.70 | 5.14 | 5.66 | 6.31 | 7.11 | 8.13 | 9.50 | 11.41 | 14.28 | 19.05 | 28.60 | 57.21 | 05h48 |
| 4° | 3.72 | 4.00 | 4.32 | 4.69 | 5.13 | 5.66 | 6.30 | 7.10 | 8.12 | 9.49 | 11.40 | 14.27 | 19.03 | 28.57 | 57.15 | 05h44 |
| 5° | 3.72 | 4.00 | 4.31 | 4.69 | 5.12 | 5.65 | 6.29 | 7.09 | 8.11 | 9.48 | 11.39 | 14.25 | 19.01 | 28.53 | 57.07 | 05h40 |
| 6° | 3.71 | 3.99 | 4.31 | 4.68 | 5.12 | 5.64 | 6.28 | 7.08 | 8.10 | 9.46 | 11.37 | 14.22 | 18.98 | 28.48 | 56.98 | 05h36 |
| 7° | 3.70 | 3.98 | 4.30 | 4.67 | 5.11 | 5.63 | 6.27 | 7.06 | 8.08 | 9.44 | 11.34 | 14.19 | 18.94 | 28.42 | 56.86 | 05h32 |
| 8° | 3.70 | 3.97 | 4.29 | 4.66 | 5.09 | 5.62 | 6.25 | 7.05 | 8.07 | 9.42 | 11.32 | 14.16 | 18.90 | 28.36 | 56.73 | 05h28 |
| 9° | 3.69 | 3.96 | 4.28 | 4.65 | 5.08 | 5.60 | 6.24 | 7.03 | 8.04 | 9.40 | 11.29 | 14.12 | 18.85 | 28.28 | 56.58 | 05h24 |
| 10° | 3.68 | 3.95 | 4.27 | 4.63 | 5.07 | 5.59 | 6.22 | 7.01 | 8.02 | 9.37 | 11.26 | 14.08 | 18.79 | 28.20 | 56.42 | 05h20 |
| 11° | 3.66 | 3.94 | 4.25 | 4.62 | 5.05 | 5.57 | 6.20 | 6.98 | 7.99 | 9.34 | 11.22 | 14.04 | 18.73 | 28.11 | 56.24 | 05h16 |
| 12° | 3.65 | 3.92 | 4.24 | 4.60 | 5.03 | 5.55 | 6.18 | 6.96 | 7.97 | 9.31 | 11.18 | 13.99 | 18.66 | 28.01 | 56.04 | 05h12 |
| 13° | 3.64 | 3.91 | 4.22 | 4.58 | 5.01 | 5.53 | 6.15 | 6.93 | 7.94 | 9.27 | 11.14 | 13.93 | 18.59 | 27.90 | 55.82 | 05h08 |
| 14° | 3.62 | 3.89 | 4.20 | 4.56 | 4.99 | 5.50 | 6.13 | 6.90 | 7.90 | 9.23 | 11.09 | 13.88 | 18.51 | 27.79 | 55.59 | 05h04 |
| 15° | 3.60 | 3.87 | 4.18 | 4.54 | 4.97 | 5.48 | 6.10 | 6.87 | 7.87 | 9.19 | 11.04 | 13.81 | 18.43 | 27.66 | 55.34 | 05h00 |
| 16° | 3.59 | 3.86 | 4.16 | 4.52 | 4.95 | 5.45 | 6.07 | 6.84 | 7.83 | 9.15 | 10.99 | 13.75 | 18.34 | 27.53 | 55.07 | 04h56 |
| 17° | 3.57 | 3.84 | 4.14 | 4.50 | 4.92 | 5.42 | 6.04 | 6.80 | 7.79 | 9.10 | 10.93 | 13.68 | 18.25 | 27.38 | 54.79 | 04h52 |
| 18° | 3.55 | 3.81 | 4.12 | 4.47 | 4.89 | 5.39 | 6.00 | 6.77 | 7.75 | 9.05 | 10.87 | 13.60 | 18.15 | 27.23 | 54.49 | 04h48 |
| 19° | 3.53 | 3.79 | 4.10 | 4.45 | 4.86 | 5.36 | 5.97 | 6.73 | 7.70 | 9.00 | 10.81 | 13.52 | 18.04 | 27.08 | 54.17 | 04h44 |
| 20° | 3.51 | 3.77 | 4.07 | 4.42 | 4.83 | 5.33 | 5.93 | 6.69 | 7.65 | 8.94 | 10.74 | 13.44 | 17.93 | 26.91 | 53.83 | 04h40 |
| 21° | 3.48 | 3.74 | 4.04 | 4.39 | 4.80 | 5.29 | 5.89 | 6.64 | 7.60 | 8.88 | 10.67 | 13.35 | 17.81 | 26.73 | 53.48 | 04h36 |
| 22° | 3.46 | 3.72 | 4.02 | 4.36 | 4.77 | 5.26 | 5.85 | 6.60 | 7.55 | 8.82 | 10.60 | 13.26 | 17.69 | 26.55 | 53.12 | 04h32 |
| 23° | 3.44 | 3.69 | 3.99 | 4.33 | 4.74 | 5.22 | 5.81 | 6.55 | 7.50 | 8.76 | 10.52 | 13.16 | 17.56 | 26.36 | 52.74 | 04h28 |
| 24° | 3.41 | 3.66 | 3.96 | 4.30 | 4.70 | 5.18 | 5.77 | 6.50 | 7.44 | 8.69 | 10.44 | 13.06 | 17.43 | 26.16 | 52.34 | 04h24 |
| 25° | 3.38 | 3.64 | 3.93 | 4.26 | 4.66 | 5.14 | 5.72 | 6.45 | 7.38 | 8.62 | 10.36 | 12.96 | 17.29 | 25.95 | 51.92 | 04h20 |
| 26° | 3.35 | 3.60 | 3.89 | 4.23 | 4.62 | 5.10 | 5.67 | 6.40 | 7.32 | 8.55 | 10.27 | 12.85 | 17.15 | 25.74 | 51.49 | 04h16 |
| 27° | 3.33 | 3.57 | 3.86 | 4.19 | 4.58 | 5.05 | 5.63 | 6.34 | 7.26 | 8.48 | 10.18 | 12.74 | 17.00 | 25.52 | 51.05 | 04h12 |
| 28° | 3.30 | 3.54 | 3.82 | 4.15 | 4.54 | 5.01 | 5.57 | 6.28 | 7.19 | 8.40 | 10.09 | 12.63 | 16.85 | 25.28 | 50.58 | 04h08 |
| 29° | 3.26 | 3.51 | 3.79 | 4.11 | 4.50 | 4.96 | 5.52 | 6.22 | 7.12 | 8.32 | 10.00 | 12.51 | 16.69 | 25.05 | 50.11 | 04h04 |
| 30° | 3.23 | 3.47 | 3.75 | 4.07 | 4.46 | 4.91 | 5.47 | 6.16 | 7.05 | 8.24 | 9.90 | 12.38 | 16.52 | 24.80 | 49.61 | 04h00 |
| 31° | 3.20 | 3.44 | 3.71 | 4.03 | 4.41 | 4.86 | 5.41 | 6.10 | 6.98 | 8.16 | 9.80 | 12.26 | 16.36 | 24.55 | 49.11 | 03h56 |
| 32° | 3.16 | 3.40 | 3.67 | 3.99 | 4.36 | 4.81 | 5.35 | 6.03 | 6.91 | 8.07 | 9.69 | 12.13 | 16.18 | 24.28 | 48.58 | 03h52 |
| 33° | 3.13 | 3.36 | 3.63 | 3.95 | 4.31 | 4.76 | 5.30 | 5.97 | 6.83 | 7.98 | 9.59 | 11.99 | 16.00 | 24.02 | 48.05 | 03h48 |
| 34° | 3.09 | 3.33 | 3.59 | 3.90 | 4.27 | 4.70 | 5.23 | 5.90 | 6.75 | 7.89 | 9.48 | 11.86 | 15.82 | 23.74 | 47.50 | 03h44 |
| 35° | 3.06 | 3.29 | 3.55 | 3.85 | 4.21 | 4.65 | 5.17 | 5.83 | 6.67 | 7.79 | 9.36 | 11.71 | 15.63 | 23.46 | 46.93 | 03h40 |
| 36° | 3.02 | 3.24 | 3.50 | 3.81 | 4.16 | 4.59 | 5.11 | 5.76 | 6.59 | 7.70 | 9.25 | 11.57 | 15.44 | 23.17 | 46.35 | 03h36 |
| 37° | 2.98 | 3.20 | 3.46 | 3.76 | 4.11 | 4.53 | 5.04 | 5.68 | 6.50 | 7.60 | 9.13 | 11.42 | 15.24 | 22.87 | 45.75 | 03h32 |
| 38° | 2.94 | 3.16 | 3.41 | 3.71 | 4.05 | 4.47 | 4.98 | 5.61 | 6.42 | 7.50 | 9.01 | 11.27 | 15.04 | 22.57 | 45.15 | 03h28 |
| 39° | 2.90 | 3.12 | 3.37 | 3.66 | 4.00 | 4.41 | 4.91 | 5.53 | 6.33 | 7.39 | 8.88 | 11.11 | 14.83 | 22.25 | 44.52 | 03h24 |
| 40° | 2.86 | 3.07 | 3.32 | 3.60 | 3.94 | 4.34 | 4.84 | 5.45 | 6.24 | 7.29 | 8.76 | 10.95 | 14.62 | 21.94 | 43.89 | 03h20 |
| 41° | 2.82 | 3.03 | 3.27 | 3.55 | 3.88 | 4.28 | 4.77 | 5.37 | 6.15 | 7.18 | 8.63 | 10.79 | 14.40 | 21.61 | 43.24 | 03h16 |
| 42° | 2.77 | 2.98 | 3.22 | 3.50 | 3.82 | 4.21 | 4.69 | 5.29 | 6.05 | 7.07 | 8.49 | 10.63 | 14.18 | 21.28 | 42.57 | 03h12 |
| 43° | 2.73 | 2.93 | 3.17 | 3.44 | 3.76 | 4.15 | 4.62 | 5.20 | 5.96 | 6.96 | 8.36 | 10.46 | 13.96 | 20.94 | 41.90 | 03h08 |
| 44° | 2.68 | 2.89 | 3.12 | 3.38 | 3.70 | 4.08 | 4.54 | 5.12 | 5.86 | 6.84 | 8.22 | 10.29 | 13.73 | 20.60 | 41.21 | 03h04 |
| 45° | 2.64 | 2.84 | 3.06 | 3.33 | 3.64 | 4.01 | 4.46 | 5.03 | 5.76 | 6.73 | 8.08 | 10.11 | 13.49 | 20.25 | 40.51 | 03h00 |
| 46° | 2.59 | 2.79 | 3.01 | 3.27 | 3.57 | 3.94 | 4.39 | 4.94 | 5.66 | 6.61 | 7.94 | 9.93 | 13.25 | 19.89 | 39.80 | 02h56 |
| 47° | 2.55 | 2.74 | 2.95 | 3.21 | 3.51 | 3.87 | 4.31 | 4.85 | 5.55 | 6.49 | 7.80 | 9.75 | 13.01 | 19.53 | 39.07 | 02h52 |
| 48° | 2.50 | 2.68 | 2.90 | 3.15 | 3.44 | 3.79 | 4.22 | 4.76 | 5.45 | 6.37 | 7.65 | 9.57 | 12.77 | 19.16 | 38.33 | 02h48 |
| 49° | 2.45 | 2.63 | 2.84 | 3.09 | 3.38 | 3.72 | 4.14 | 4.67 | 5.34 | 6.24 | 7.50 | 9.38 | 12.52 | 18.79 | 37.59 | 02h44 |
| 50° | 2.40 | 2.58 | 2.78 | 3.02 | 3.31 | 3.65 | 4.06 | 4.57 | 5.24 | 6.12 | 7.35 | 9.19 | 12.27 | 18.41 | 36.83 | 02h40 |
| 51° | 2.35 | 2.52 | 2.73 | 2.96 | 3.24 | 3.57 | 3.97 | 4.48 | 5.13 | 5.99 | 7.19 | 9.00 | 12.01 | 18.02 | 36.05 | 02h36 |
| 52° | 2.30 | 2.47 | 2.67 | 2.90 | 3.17 | 3.49 | 3.89 | 4.38 | 5.01 | 5.86 | 7.04 | 8.80 | 11.75 | 17.63 | 35.27 | 02h32 |
| 53° | 2.25 | 2.41 | 2.61 | 2.83 | 3.10 | 3.41 | 3.80 | 4.28 | 4.90 | 5.73 | 6.88 | 8.61 | 11.48 | 17.23 | 34.48 | 02h28 |
| 54° | 2.19 | 2.36 | 2.55 | 2.77 | 3.02 | 3.33 | 3.71 | 4.18 | 4.79 | 5.59 | 6.72 | 8.41 | 11.22 | 16.83 | 33.67 | 02h24 |
| 55° | 2.14 | 2.30 | 2.48 | 2.70 | 2.95 | 3.25 | 3.62 | 4.08 | 4.67 | 5.46 | 6.56 | 8.20 | 10.94 | 16.43 | 32.86 | 02h20 |
| 56° | 2.09 | 2.24 | 2.42 | 2.63 | 2.88 | 3.17 | 3.53 | 3.98 | 4.55 | 5.32 | 6.39 | 8.00 | 10.67 | 16.01 | 32.04 | 02h16 |
| 57° | 2.03 | 2.18 | 2.36 | 2.56 | 2.80 | 3.09 | 3.44 | 3.88 | 4.44 | 5.18 | 6.23 | 7.79 | 10.39 | 15.60 | 31.20 | 02h12 |
| 58° | 1.98 | 2.13 | 2.30 | 2.49 | 2.73 | 3.01 | 3.35 | 3.77 | 4.32 | 5.04 | 6.06 | 7.58 | 10.11 | 15.17 | 30.36 | 02h08 |
| 59° | 1.92 | 2.07 | 2.23 | 2.42 | 2.65 | 2.92 | 3.25 | 3.66 | 4.19 | 4.90 | 5.89 | 7.37 | 9.83 | 14.75 | 29.51 | 02h04 |
| 60° | 1.87 | 2.01 | 2.17 | 2.35 | 2.57 | 2.84 | 3.16 | 3.56 | 4.07 | 4.76 | 5.72 | 7.15 | 9.54 | 14.32 | 28.64 | 02h00 |
| 61° | 1.81 | 1.94 | 2.10 | 2.28 | 2.49 | 2.75 | 3.06 | 3.45 | 3.95 | 4.61 | 5.54 | 6.93 | 9.25 | 13.88 | 27.77 | 01h56 |
| 62° | 1.75 | 1.88 | 2.03 | 2.21 | 2.42 | 2.66 | 2.96 | 3.34 | 3.82 | 4.47 | 5.37 | 6.71 | 8.96 | 13.44 | 26.90 | 01h52 |
| 63° | 1.69 | 1.82 | 1.97 | 2.14 | 2.34 | 2.57 | 2.87 | 3.23 | 3.70 | 4.32 | 5.19 | 6.49 | 8.66 | 13.00 | 26.01 | 01h48 |
| 64° | 1.64 | 1.76 | 1.90 | 2.06 | 2.26 | 2.49 | 2.77 | 3.12 | 3.57 | 4.17 | 5.01 | 6.27 | 8.36 | 12.55 | 25.11 | 01h44 |
| 65° | 1.58 | 1.70 | 1.83 | 1.99 | 2.17 | 2.40 | 2.67 | 3.01 | 3.44 | 4.02 | 4.83 | 6.04 | 8.06 | 12.10 | 24.21 | 01h40 |
| 66° | 1.52 | 1.63 | 1.76 | 1.91 | 2.09 | 2.31 | 2.57 | 2.89 | 3.31 | 3.87 | 4.65 | 5.82 | 7.76 | 11.65 | 23.30 | 01h36 |
| 67° | 1.46 | 1.57 | 1.69 | 1.84 | 2.01 | 2.22 | 2.47 | 2.78 | 3.18 | 3.72 | 4.47 | 5.59 | 7.46 | 11.19 | 22.38 | 01h32 |
| 68° | 1.40 | 1.50 | 1.62 | 1.76 | 1.93 | 2.12 | 2.37 | 2.67 | 3.05 | 3.56 | 4.28 | 5.36 | 7.15 | 10.73 | 21.46 | 01h28 |
| 69° | 1.34 | 1.44 | 1.55 | 1.69 | 1.84 | 2.03 | 2.26 | 2.55 | 2.92 | 3.41 | 4.10 | 5.12 | 6.84 | 10.26 | 20.53 | 01h24 |
| 70° | 1.28 | 1.37 | 1.48 | 1.61 | 1.76 | 1.94 | 2.16 | 2.43 | 2.79 | 3.25 | 3.91 | 4.89 | 6.53 | 9.79 | 19.59 | 01h20 |
| 71° | 1.22 | 1.31 | 1.41 | 1.53 | 1.67 | 1.85 | 2.06 | 2.32 | 2.65 | 3.10 | 3.72 | 4.66 | 6.21 | 9.32 | 18.65 | 01h16 |
| 72° | 1.15 | 1.24 | 1.34 | 1.45 | 1.59 | 1.75 | 1.95 | 2.20 | 2.52 | 2.94 | 3.53 | 4.42 | 5.90 | 8.85 | 17.70 | 01h12 |
| 73° | 1.09 | 1.17 | 1.27 | 1.38 | 1.50 | 1.66 | 1.85 | 2.08 | 2.38 | 2.78 | 3.34 | 4.18 | 5.58 | 8.37 | 16.75 | 01h08 |
| 74° | 1.03 | 1.11 | 1.19 | 1.30 | 1.42 | 1.56 | 1.74 | 1.96 | 2.24 | 2.62 | 3.15 | 3.94 | 5.26 | 7.89 | 15.79 | 01h04 |
| 75° | 0.97 | 1.04 | | | | | | | | | | | | | | |

