

Scaled data based on original data using  
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-  
State Lighting Products

Test Report Prepared for  
Cooper Lighting Solutions

Brand: CORELITE

Report Number: P854146

Luminaire Tested: SQ2-PP3-125U-125D-935-UNV-STD-W-4

Issue Date: 7/12/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P854146  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-13, G2-2308-131-7)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/12/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ2-PP3-125U-125D-935-UNV-STD-W-4  
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE  
DOWNLIGHT 1250 LUMENS PER FOOT  
UPLIGHT 1250 LUMENS PER FOOT  
Light Source: -  
Ballast/Driver: -

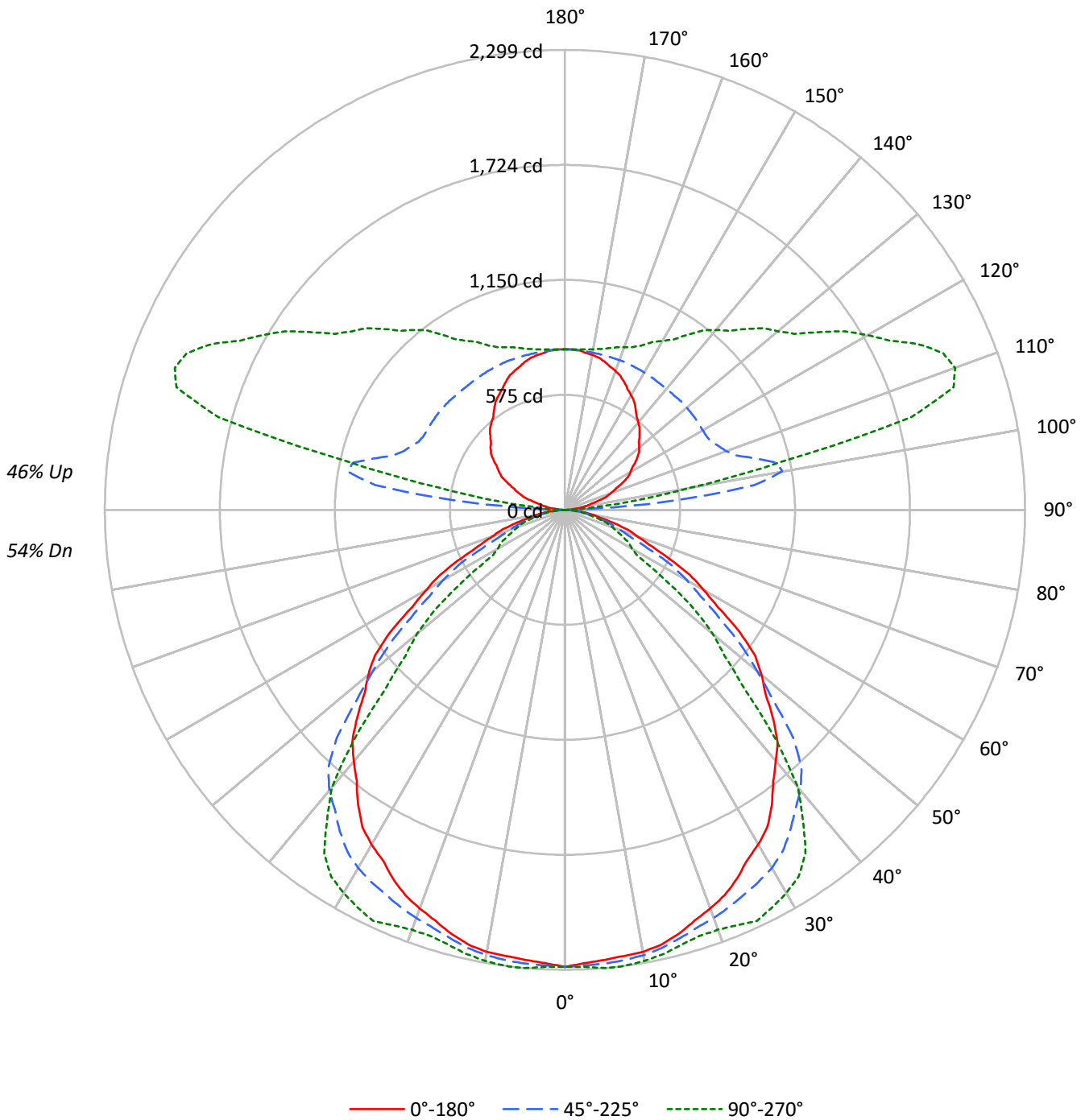
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 10707.5 lumens  
Efficiency: N/A  
Efficacy: 115.0 lumens/watt  
Spacing Criteria (0/90/45): 1.26 / 1.41 / 1.4  
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')  
CIE Type: General Diffuse  
  
Input Watts (W): 93.1  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT

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### Luminous Intensity Polar Plot





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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

|     |     |     |     |     |     |     |     |     |    |    |    |    |    |    |    |    |    |    |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|----|----|----|----|----|----|----|----|----|
| RF  | 20  |     |     |     | 20  |     |     |     | 20 |    |    |    | 20 |    |    |    | 20 |    |
| RC  | 80  |     |     |     | 70  |     |     |     | 50 |    |    |    | 30 |    |    |    | 10 | 0  |
| RW  | 70  | 50  | 30  | 10  | 70  | 50  | 30  | 10  | 50 | 30 | 10 | 50 | 30 | 10 | 50 | 30 | 10 | 0  |
| RCR |     |     |     |     |     |     |     |     |    |    |    |    |    |    |    |    |    |    |
| 0   | 108 | 108 | 108 | 108 | 100 | 100 | 100 | 100 | 85 | 85 | 85 | 72 | 72 | 72 | 60 | 60 | 60 | 54 |
| 1   | 99  | 95  | 91  | 88  | 92  | 88  | 85  | 82  | 76 | 74 | 71 | 64 | 63 | 61 | 54 | 53 | 51 | 46 |
| 2   | 91  | 84  | 78  | 73  | 84  | 78  | 73  | 68  | 67 | 63 | 60 | 57 | 54 | 52 | 48 | 46 | 44 | 40 |
| 3   | 83  | 74  | 67  | 61  | 77  | 69  | 63  | 58  | 60 | 55 | 51 | 51 | 47 | 44 | 43 | 40 | 38 | 34 |
| 4   | 76  | 66  | 58  | 52  | 71  | 61  | 55  | 49  | 53 | 48 | 44 | 46 | 42 | 38 | 38 | 36 | 33 | 30 |
| 5   | 70  | 59  | 51  | 45  | 65  | 55  | 48  | 43  | 48 | 42 | 38 | 41 | 37 | 34 | 35 | 32 | 29 | 26 |
| 6   | 65  | 53  | 45  | 39  | 60  | 49  | 42  | 37  | 43 | 38 | 33 | 37 | 33 | 30 | 32 | 28 | 26 | 23 |
| 7   | 60  | 48  | 40  | 34  | 55  | 45  | 38  | 33  | 39 | 34 | 29 | 34 | 29 | 26 | 29 | 26 | 23 | 20 |
| 8   | 56  | 43  | 36  | 31  | 52  | 41  | 34  | 29  | 36 | 30 | 26 | 31 | 27 | 23 | 27 | 23 | 21 | 18 |
| 9   | 52  | 40  | 32  | 27  | 48  | 37  | 31  | 26  | 33 | 27 | 24 | 29 | 24 | 21 | 25 | 21 | 19 | 17 |
| 10  | 48  | 36  | 29  | 24  | 45  | 34  | 28  | 23  | 30 | 25 | 21 | 26 | 22 | 19 | 23 | 19 | 17 | 15 |

**AVERAGE LUMINANCE (cd/sqm):**

|     | 0°    | 45°   | 90°   |
|-----|-------|-------|-------|
| 0°  | 36887 | 36887 | 36887 |
| 5°  | 36598 | 36911 | 37263 |
| 10° | 36784 | 37061 | 37536 |
| 15° | 36695 | 37058 | 37623 |
| 20° | 36433 | 37304 | 38383 |
| 25° | 36227 | 37775 | 40399 |
| 30° | 36019 | 38542 | 41243 |
| 35° | 35510 | 38652 | 41319 |
| 40° | 34562 | 38583 | 38177 |
| 45° | 33529 | 36838 | 29060 |
| 50° | 32212 | 31423 | 24204 |
| 55° | 29979 | 26446 | 17405 |
| 60° | 25814 | 22695 | 12478 |
| 65° | 21776 | 17532 | 12271 |
| 70° | 18128 | 13794 | 11745 |
| 75° | 15365 | 11903 | 10998 |
| 80° | 13027 | 10330 | 9884  |
| 85° | 10282 | 8503  | 5372  |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 45°  
 Vertical Angle: 45°  
 Luminance: 36838 cd/sqm



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**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 217.5   | 2.0       |
| 10°-20°   | 629.6   | 5.9       |
| 20°-30°   | 986.3   | 9.2       |
| 30°-40°   | 1216.8  | 11.4      |
| 40°-50°   | 1145.6  | 10.7      |
| 50°-60°   | 811.1   | 7.6       |
| 60°-70°   | 462.2   | 4.3       |
| 70°-80°   | 228.7   | 2.1       |
| 80°-90°   | 56.8    | 0.5       |
| 90°-100°  | 307.1   | 2.9       |
| 100°-110° | 999.7   | 9.3       |
| 110°-120° | 988.9   | 9.2       |
| 120°-130° | 808.2   | 7.5       |
| 130°-140° | 660.5   | 6.2       |
| 140°-150° | 514.5   | 4.8       |
| 150°-160° | 370.8   | 3.5       |
| 160°-170° | 226.7   | 2.1       |
| 170°-180° | 76.5    | 0.7       |
| 0°-30°    | 1833.5  | 17.1      |
| 0°-40°    | 3050.2  | 28.5      |
| 0°-60°    | 5006.9  | 46.8      |
| 0°-90°    | 5754.5  | 53.7      |
| 90°-120°  | 2295.8  | 21.4      |
| 90°-150°  | 4278.9  | 40.0      |
| 90°-180°  | 4953.0  | 46.3      |
| 0°-180°   | 10707.5 | 100.0     |

**CANDELA DISTRIBUTION:**

|      | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|------|------|-------|------|-------|------|------|
| 0°   | 2285 | 2285  | 2285 | 2285  | 2285 |      |
| 5°   | 2258 | 2298  | 2277 | 2283  | 2299 | 215  |
| 15°  | 2195 | 2226  | 2217 | 2239  | 2251 | 619  |
| 25°  | 2034 | 2085  | 2120 | 2206  | 2268 | 937  |
| 35°  | 1802 | 1851  | 1961 | 2073  | 2096 | 1124 |
| 45°  | 1468 | 1579  | 1613 | 1367  | 1273 | 1130 |
| 55°  | 1065 | 1129  | 940  | 708   | 618  | 940  |
| 65°  | 570  | 601   | 459  | 324   | 321  | 572  |
| 75°  | 246  | 272   | 191  | 179   | 176  | 267  |
| 85°  | 56   | 51    | 46   | 36    | 29   | 65   |
| 90°  | 0    | 3     | 7    | 6     | 6    | 4    |
| 95°  | 42   | 126   | 563  | 201   | 123  | 48   |
| 105° | 170  | 245   | 990  | 1892  | 1791 | 181  |
| 115° | 314  | 375   | 807  | 1663  | 1956 | 311  |
| 125° | 436  | 487   | 796  | 1313  | 1547 | 388  |
| 135° | 527  | 582   | 792  | 1133  | 1278 | 407  |
| 145° | 616  | 662   | 790  | 976   | 1068 | 386  |
| 155° | 703  | 726   | 795  | 874   | 906  | 324  |
| 165° | 767  | 774   | 797  | 827   | 836  | 216  |
| 175° | 800  | 800   | 800  | 806   | 804  | 76   |
| 180° | 803  | 803   | 803  | 803   | 803  |      |



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**CANDELA DISTRIBUTION (FULL):**

|        | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|--------|--------|--------|--------|--------|--------|
| 0°     | 2284.6 | 2284.6 | 2284.6 | 2284.6 | 2284.6 |
| 2.5°   | 2267.3 | 2299.4 | 2278.8 | 2282.8 | 2286.6 |
| 5°     | 2258.1 | 2298.2 | 2277.4 | 2282.6 | 2299.1 |
| 7.5°   | 2249.4 | 2290.5 | 2270.2 | 2278.8 | 2299.1 |
| 10°    | 2243.6 | 2279.0 | 2260.5 | 2272.9 | 2289.5 |
| 12.5°  | 2226.2 | 2259.7 | 2243.1 | 2259.4 | 2274.0 |
| 15°    | 2195.3 | 2226.0 | 2217.0 | 2239.0 | 2250.8 |
| 17.5°  | 2153.3 | 2190.6 | 2190.5 | 2221.6 | 2233.9 |
| 20°    | 2120.4 | 2165.3 | 2171.1 | 2210.3 | 2233.9 |
| 22.5°  | 2085.6 | 2138.1 | 2147.9 | 2206.8 | 2247.5 |
| 25°    | 2033.5 | 2085.4 | 2120.4 | 2206.3 | 2267.7 |
| 27.5°  | 1972.6 | 2024.1 | 2096.3 | 2192.5 | 2241.2 |
| 30°    | 1932.0 | 1981.6 | 2067.3 | 2167.3 | 2212.2 |
| 32.5°  | 1881.8 | 1933.3 | 2024.8 | 2132.5 | 2173.5 |
| 35°    | 1801.6 | 1851.2 | 1961.0 | 2072.7 | 2096.3 |
| 37.5°  | 1709.4 | 1765.6 | 1888.6 | 1950.9 | 1952.3 |
| 40°    | 1639.8 | 1713.0 | 1830.6 | 1842.0 | 1811.3 |
| 42.5°  | 1572.2 | 1666.2 | 1749.5 | 1698.5 | 1562.1 |
| 45°    | 1468.4 | 1579.3 | 1613.3 | 1367.2 | 1272.7 |
| 47.5°  | 1357.7 | 1467.3 | 1413.3 | 1146.6 | 1081.5 |
| 50°    | 1282.4 | 1386.3 | 1251.0 | 1025.0 | 963.6  |
| 52.5°  | 1197.4 | 1290.0 | 1106.1 | 908.4  | 814.8  |
| 55°    | 1065.0 | 1128.8 | 939.5  | 708.0  | 618.3  |
| 57.5°  | 905.6  | 950.5  | 803.2  | 531.4  | 430.8  |
| 60°    | 799.4  | 834.8  | 702.8  | 436.0  | 386.4  |
| 62.5°  | 702.8  | 734.4  | 598.5  | 378.8  | 361.3  |
| 65°    | 570.0  | 600.7  | 458.9  | 323.6  | 321.2  |
| 67.5°  | 453.5  | 487.1  | 352.1  | 282.5  | 279.7  |
| 70°    | 384.0  | 419.4  | 292.2  | 253.5  | 248.8  |
| 72.5°  | 326.0  | 359.6  | 247.8  | 222.6  | 219.8  |
| 75°    | 246.3  | 272.3  | 190.8  | 178.7  | 176.3  |
| 77.5°  | 178.7  | 195.2  | 142.0  | 135.7  | 133.3  |
| 80°    | 140.1  | 147.2  | 111.1  | 108.6  | 106.3  |
| 82.5°  | 105.3  | 102.9  | 84.0   | 81.5   | 77.3   |
| 85°    | 55.5   | 50.8   | 45.9   | 36.1   | 29.0   |
| 87.5°  | 17.4   | 18.0   | 9.1    | 7.0    | 7.0    |
| 90°    | 0.0    | 2.9    | 6.9    | 5.9    | 5.9    |
| 92.5°  | 14.2   | 51.1   | 163.3  | 53.8   | 41.5   |
| 95°    | 41.5   | 126.4  | 562.8  | 200.7  | 123.4  |
| 97.5°  | 78.0   | 164.5  | 955.2  | 581.8  | 355.1  |
| 100°   | 101.7  | 186.7  | 1102.9 | 983.5  | 637.9  |
| 102.5° | 128.6  | 210.4  | 1084.8 | 1455.0 | 1106.3 |
| 105°   | 169.8  | 245.1  | 990.4  | 1891.6 | 1791.2 |
| 107.5° | 214.5  | 285.3  | 900.7  | 1929.4 | 2035.8 |
| 110°   | 246.9  | 311.5  | 858.1  | 1882.4 | 2074.6 |



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**CANDELA DISTRIBUTION (continued):**

|        | 0°    | 22.5° | 45°   | 67.5°  | 90°    |
|--------|-------|-------|-------|--------|--------|
| 112.5° | 273.7 | 337.6 | 831.2 | 1797.6 | 2045.3 |
| 115°   | 314.0 | 374.8 | 806.7 | 1662.6 | 1956.1 |
| 117.5° | 355.5 | 410.3 | 797.2 | 1538.9 | 1831.1 |
| 120°   | 379.2 | 433.2 | 794.9 | 1462.9 | 1745.7 |
| 122.5° | 402.1 | 455.4 | 795.7 | 1396.9 | 1660.4 |
| 125°   | 436.4 | 486.6 | 795.9 | 1312.7 | 1547.3 |
| 127.5° | 465.9 | 517.2 | 795.7 | 1249.6 | 1445.2 |
| 130°   | 484.8 | 537.0 | 794.9 | 1213.5 | 1388.3 |
| 132.5° | 501.4 | 555.9 | 794.1 | 1180.1 | 1344.1 |
| 135°   | 527.3 | 582.3 | 791.9 | 1132.9 | 1277.7 |
| 137.5° | 552.6 | 608.0 | 789.7 | 1084.9 | 1213.5 |
| 140°   | 570.7 | 623.8 | 788.9 | 1052.4 | 1174.0 |
| 142.5° | 588.1 | 638.9 | 788.9 | 1021.3 | 1129.8 |
| 145°   | 616.1 | 661.5 | 789.9 | 975.7  | 1068.4 |
| 147.5° | 643.4 | 682.8 | 791.3 | 936.9  | 1008.5 |
| 150°   | 661.6 | 696.3 | 792.9 | 913.7  | 974.6  |
| 152.5° | 679.7 | 708.3 | 793.7 | 896.1  | 944.6  |
| 155°   | 703.0 | 726.2 | 794.9 | 873.6  | 906.4  |
| 157.5° | 725.2 | 741.8 | 796.1 | 857.0  | 880.0  |
| 160°   | 738.6 | 752.1 | 796.8 | 846.6  | 865.0  |
| 162.5° | 750.4 | 760.9 | 796.8 | 837.8  | 851.5  |
| 165°   | 767.2 | 774.0 | 796.8 | 826.7  | 836.3  |
| 167.5° | 779.1 | 783.3 | 797.0 | 818.3  | 823.3  |
| 170°   | 787.0 | 788.9 | 797.8 | 812.7  | 814.6  |
| 172.5° | 792.5 | 793.7 | 799.4 | 809.5  | 809.1  |
| 175°   | 799.8 | 799.8 | 799.8 | 805.7  | 803.8  |
| 177.5° | 802.8 | 802.0 | 801.2 | 805.1  | 802.0  |
| 180°   | 802.8 | 802.8 | 802.8 | 802.8  | 802.8  |



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**CIE UGR TABLE:**

| Reflectances:   |      |                  |       |       |       |       |                |       |       |       |       |
|-----------------|------|------------------|-------|-------|-------|-------|----------------|-------|-------|-------|-------|
| Ceiling         |      | 0.7              | 0.7   | 0.5   | 0.5   | 0.3   | 0.7            | 0.7   | 0.5   | 0.5   | 0.3   |
| Wall            |      | 0.5              | 0.3   | 0.5   | 0.3   | 0.3   | 0.5            | 0.3   | 0.5   | 0.3   | 0.3   |
| Reference plane |      | 0.2              | 0.2   | 0.2   | 0.2   | 0.2   | 0.2            | 0.2   | 0.2   | 0.2   | 0.2   |
| Room dimensions |      | Viewed crosswise |       |       |       |       | Viewed endwise |       |       |       |       |
| X=2H            | Y=2H | 20.42            | 21.28 | 21.35 | 22.23 | 23.45 | 16.82          | 17.68 | 17.75 | 18.62 | 19.84 |
|                 | 3H   | 21.52            | 22.29 | 22.46 | 23.24 | 24.48 | 17.92          | 18.69 | 18.86 | 19.64 | 20.89 |
|                 | 4H   | 21.86            | 22.58 | 22.82 | 23.54 | 24.79 | 18.38          | 19.11 | 19.34 | 20.07 | 21.32 |
|                 | 6H   | 22.07            | 22.74 | 23.04 | 23.70 | 24.97 | 18.73          | 19.40 | 19.70 | 20.36 | 21.63 |
|                 | 8H   | 22.12            | 22.76 | 23.10 | 23.74 | 25.00 | 18.82          | 19.45 | 19.79 | 20.43 | 21.69 |
|                 | 12H  | 22.14            | 22.74 | 23.12 | 23.71 | 25.00 | 18.83          | 19.43 | 19.81 | 20.41 | 21.70 |
| 4H              | 2H   | 20.53            | 21.25 | 21.49 | 22.21 | 23.47 | 17.53          | 18.26 | 18.49 | 19.21 | 20.47 |
|                 | 3H   | 21.84            | 22.44 | 22.81 | 23.43 | 24.69 | 18.78          | 19.38 | 19.75 | 20.37 | 21.64 |
|                 | 4H   | 22.31            | 22.86 | 23.29 | 23.84 | 25.13 | 19.34          | 19.88 | 20.32 | 20.87 | 22.16 |
|                 | 6H   | 22.65            | 23.12 | 23.64 | 24.13 | 25.42 | 19.78          | 20.25 | 20.77 | 21.25 | 22.54 |
|                 | 8H   | 22.74            | 23.18 | 23.74 | 24.18 | 25.48 | 19.90          | 20.34 | 20.89 | 21.34 | 22.64 |
|                 | 12H  | 22.78            | 23.18 | 23.79 | 24.19 | 25.50 | 19.93          | 20.32 | 20.94 | 21.34 | 22.65 |
| 8H              | 4H   | 22.33            | 22.77 | 23.33 | 23.77 | 25.07 | 19.61          | 20.05 | 20.61 | 21.05 | 22.35 |
|                 | 6H   | 22.76            | 23.12 | 23.78 | 24.17 | 25.47 | 20.16          | 20.52 | 21.18 | 21.56 | 22.86 |
|                 | 8H   | 22.92            | 23.24 | 23.95 | 24.27 | 25.59 | 20.34          | 20.66 | 21.37 | 21.69 | 23.01 |
|                 | 12H  | 23.00            | 23.29 | 24.04 | 24.31 | 25.67 | 20.42          | 20.70 | 21.45 | 21.72 | 23.08 |
| 12H             | 4H   | 22.29            | 22.69 | 23.30 | 23.70 | 25.01 | 19.62          | 20.01 | 20.63 | 21.03 | 22.34 |
|                 | 6H   | 22.75            | 23.07 | 23.78 | 24.10 | 25.42 | 20.21          | 20.53 | 21.24 | 21.56 | 22.88 |
|                 | 8H   | 22.92            | 23.20 | 23.95 | 24.22 | 25.59 | 20.42          | 20.70 | 21.45 | 21.72 | 23.09 |