

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: P855350

Luminaire Tested: SQ2-PP3-025U-125D-840-UNV-STD-W-4

Issue Date: 7/12/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P855350  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-9, G2-2308-131-7)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/12/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ2-PP3-025U-125D-840-UNV-STD-W-4  
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE  
DOWNLIGHT 1250 LUMENS PER FOOT  
UPLIGHT 250 LUMENS PER FOOT  
Light Source: -  
Ballast/Driver: -

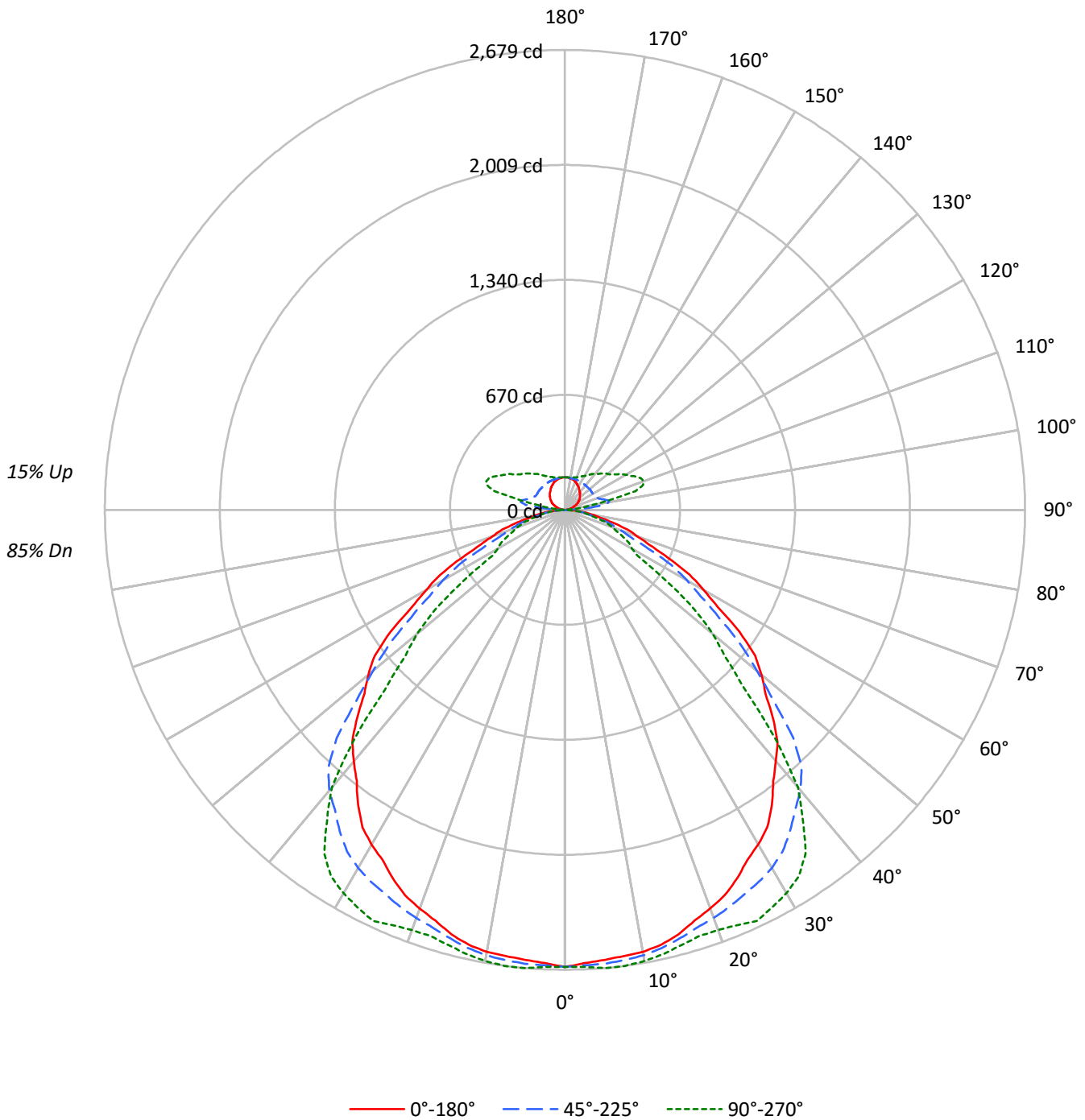
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 7876.6 lumens  
Efficiency: N/A  
Efficacy: 139.2 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: Semi-Direct  
  
Input Watts (W): 56.6  
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   | 116 | 116 | 116 | 116 | 111 | 111 | 111 | 111 | 103 | 103 | 103 | 95 | 95 | 95 | 88 | 88 | 88 | 85 |
| 1   | 107 | 102 | 99  | 95  | 102 | 99  | 95  | 92  | 92  | 89  | 87  | 86 | 83 | 82 | 80 | 78 | 77 | 74 |
| 2   | 98  | 91  | 84  | 79  | 94  | 87  | 82  | 77  | 82  | 77  | 73  | 76 | 73 | 69 | 71 | 68 | 66 | 63 |
| 3   | 90  | 80  | 73  | 67  | 86  | 78  | 71  | 66  | 73  | 67  | 63  | 68 | 64 | 60 | 64 | 60 | 57 | 54 |
| 4   | 83  | 72  | 64  | 58  | 79  | 69  | 62  | 56  | 65  | 59  | 54  | 61 | 56 | 52 | 57 | 53 | 50 | 47 |
| 5   | 76  | 64  | 56  | 50  | 73  | 62  | 55  | 49  | 59  | 52  | 47  | 55 | 50 | 45 | 52 | 47 | 44 | 41 |
| 6   | 70  | 58  | 50  | 44  | 68  | 56  | 49  | 43  | 53  | 47  | 42  | 50 | 44 | 40 | 47 | 42 | 39 | 36 |
| 7   | 65  | 53  | 45  | 39  | 63  | 51  | 44  | 38  | 48  | 42  | 37  | 46 | 40 | 36 | 43 | 38 | 35 | 32 |
| 8   | 61  | 48  | 40  | 35  | 59  | 47  | 39  | 34  | 44  | 38  | 33  | 42 | 36 | 32 | 40 | 35 | 31 | 29 |
| 9   | 57  | 44  | 36  | 31  | 55  | 43  | 36  | 31  | 41  | 34  | 30  | 39 | 33 | 29 | 37 | 32 | 28 | 26 |
| 10  | 53  | 41  | 33  | 28  | 51  | 40  | 33  | 28  | 38  | 31  | 27  | 36 | 30 | 26 | 34 | 29 | 26 | 24 |

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

|     | 0°    | 45°   | 90°   |
|-----|-------|-------|-------|
| 0°  | 42988 | 42988 | 42988 |
| 5°  | 42652 | 43016 | 43426 |
| 10° | 42868 | 43191 | 43745 |
| 15° | 42765 | 43188 | 43846 |
| 20° | 42459 | 43474 | 44732 |
| 25° | 42218 | 44023 | 47081 |
| 30° | 41978 | 44916 | 48065 |
| 35° | 41384 | 45046 | 48153 |
| 40° | 40278 | 44965 | 44491 |
| 45° | 39075 | 42930 | 33867 |
| 50° | 37540 | 36620 | 28208 |
| 55° | 34939 | 30821 | 20284 |
| 60° | 30083 | 26447 | 14541 |
| 65° | 25379 | 20432 | 14300 |
| 70° | 21125 | 16074 | 13690 |
| 75° | 17904 | 13874 | 12820 |
| 80° | 15184 | 12041 | 11520 |
| 85° | 11986 | 9911  | 6262  |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 45°  
 Vertical Angle: 45°  
 Luminance: 42930 cd/sqm



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 253.5  | 3.2       |
| 10°-20°   | 733.7  | 9.3       |
| 20°-30°   | 1149.5 | 14.6      |
| 30°-40°   | 1418.0 | 18.0      |
| 40°-50°   | 1335.1 | 16.9      |
| 50°-60°   | 945.3  | 12.0      |
| 60°-70°   | 538.6  | 6.8       |
| 70°-80°   | 266.5  | 3.4       |
| 80°-90°   | 65.6   | 0.8       |
| 90°-100°  | 76.3   | 1.0       |
| 100°-110° | 237.5  | 3.0       |
| 110°-120° | 232.3  | 2.9       |
| 120°-130° | 189.6  | 2.4       |
| 130°-140° | 155.2  | 2.0       |
| 140°-150° | 121.1  | 1.5       |
| 150°-160° | 87.4   | 1.1       |
| 160°-170° | 53.4   | 0.7       |
| 170°-180° | 18.0   | 0.2       |
| 0°-30°    | 2136.7 | 27.1      |
| 0°-40°    | 3554.7 | 45.1      |
| 0°-60°    | 5835.1 | 74.1      |
| 0°-90°    | 6705.8 | 85.1      |
| 90°-120°  | 546.1  | 6.9       |
| 90°-150°  | 1012.0 | 12.8      |
| 90°-180°  | 1171.0 | 14.9      |
| 0°-180°   | 7876.6 | 100.0     |

**CANDELA DISTRIBUTION:**

|      | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|------|------|-------|------|-------|------|------|
| 0°   | 2662 | 2662  | 2662 | 2662  | 2662 |      |
| 5°   | 2632 | 2678  | 2654 | 2660  | 2679 | 251  |
| 15°  | 2558 | 2594  | 2584 | 2609  | 2623 | 721  |
| 25°  | 2370 | 2430  | 2471 | 2571  | 2643 | 1092 |
| 35°  | 2100 | 2157  | 2285 | 2416  | 2443 | 1309 |
| 45°  | 1711 | 1840  | 1880 | 1593  | 1483 | 1317 |
| 55°  | 1241 | 1316  | 1095 | 825   | 721  | 1095 |
| 65°  | 664  | 700   | 535  | 377   | 374  | 667  |
| 75°  | 287  | 317   | 222  | 208   | 206  | 311  |
| 85°  | 65   | 59    | 54   | 42    | 34   | 76   |
| 90°  | 0    | 1     | 4    | 4     | 4    | 3    |
| 95°  | 10   | 31    | 140  | 52    | 34   | 12   |
| 105° | 42   | 59    | 234  | 446   | 426  | 44   |
| 115° | 74   | 88    | 190  | 392   | 458  | 73   |
| 125° | 103  | 114   | 188  | 308   | 361  | 91   |
| 135° | 124  | 137   | 186  | 266   | 299  | 96   |
| 145° | 145  | 156   | 186  | 230   | 250  | 91   |
| 155° | 166  | 171   | 188  | 206   | 213  | 76   |
| 165° | 182  | 183   | 189  | 194   | 197  | 51   |
| 175° | 189  | 189   | 189  | 190   | 189  | 18   |
| 180° | 189  | 189   | 189  | 189   | 189  |      |



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**CANDELA DISTRIBUTION (FULL):**

|        | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|--------|--------|--------|--------|--------|--------|
| 0°     | 2662.5 | 2662.5 | 2662.5 | 2662.5 | 2662.5 |
| 2.5°   | 2642.3 | 2679.7 | 2655.7 | 2660.4 | 2664.8 |
| 5°     | 2631.6 | 2678.3 | 2654.1 | 2660.1 | 2679.4 |
| 7.5°   | 2621.5 | 2669.4 | 2645.7 | 2655.7 | 2679.4 |
| 10°    | 2614.7 | 2655.9 | 2634.4 | 2648.8 | 2668.2 |
| 12.5°  | 2594.4 | 2633.5 | 2614.1 | 2633.1 | 2650.1 |
| 15°    | 2558.4 | 2594.2 | 2583.7 | 2609.3 | 2623.1 |
| 17.5°  | 2509.5 | 2552.9 | 2552.8 | 2589.1 | 2603.4 |
| 20°    | 2471.1 | 2523.4 | 2530.2 | 2575.9 | 2603.4 |
| 22.5°  | 2430.6 | 2491.7 | 2503.2 | 2571.8 | 2619.2 |
| 25°    | 2369.8 | 2430.3 | 2471.1 | 2571.2 | 2642.8 |
| 27.5°  | 2298.9 | 2358.9 | 2443.0 | 2555.1 | 2611.9 |
| 30°    | 2251.6 | 2309.4 | 2409.2 | 2525.8 | 2578.1 |
| 32.5°  | 2193.1 | 2253.1 | 2359.7 | 2485.2 | 2533.0 |
| 35°    | 2099.6 | 2157.4 | 2285.4 | 2415.5 | 2443.0 |
| 37.5°  | 1992.1 | 2057.6 | 2201.0 | 2273.6 | 2275.2 |
| 40°    | 1911.0 | 1996.3 | 2133.4 | 2146.7 | 2110.9 |
| 42.5°  | 1832.2 | 1941.8 | 2038.9 | 1979.4 | 1820.5 |
| 45°    | 1711.3 | 1840.5 | 1880.1 | 1593.3 | 1483.2 |
| 47.5°  | 1582.3 | 1710.0 | 1647.1 | 1336.2 | 1260.4 |
| 50°    | 1494.5 | 1615.6 | 1457.9 | 1194.5 | 1123.0 |
| 52.5°  | 1395.5 | 1503.4 | 1289.1 | 1058.7 | 949.6  |
| 55°    | 1241.2 | 1315.5 | 1094.9 | 825.1  | 720.6  |
| 57.5°  | 1055.4 | 1107.7 | 936.1  | 619.3  | 502.1  |
| 60°    | 931.6  | 972.9  | 819.0  | 508.1  | 450.3  |
| 62.5°  | 819.0  | 855.9  | 697.5  | 441.5  | 421.1  |
| 65°    | 664.3  | 700.1  | 534.8  | 377.1  | 374.3  |
| 67.5°  | 528.5  | 567.7  | 410.3  | 329.2  | 326.0  |
| 70°    | 447.5  | 488.8  | 340.5  | 295.4  | 290.0  |
| 72.5°  | 379.9  | 419.1  | 288.8  | 259.4  | 256.2  |
| 75°    | 287.0  | 317.3  | 222.4  | 208.3  | 205.5  |
| 77.5°  | 208.3  | 227.5  | 165.5  | 158.1  | 155.3  |
| 80°    | 163.3  | 171.5  | 129.5  | 126.6  | 123.9  |
| 82.5°  | 122.7  | 119.9  | 97.9   | 95.0   | 90.1   |
| 85°    | 64.7   | 59.2   | 53.5   | 42.1   | 33.8   |
| 87.5°  | 20.3   | 20.5   | 9.7    | 7.5    | 7.5    |
| 90°    | 0.0    | 1.2    | 3.5    | 3.5    | 3.5    |
| 92.5°  | 3.7    | 12.9   | 44.2   | 14.6   | 11.8   |
| 95°    | 10.4   | 30.8   | 140.1  | 51.6   | 33.6   |
| 97.5°  | 19.0   | 40.0   | 231.9  | 144.4  | 91.0   |
| 100°   | 25.4   | 44.8   | 261.5  | 244.6  | 163.2  |
| 102.5° | 31.9   | 50.2   | 256.0  | 349.4  | 274.3  |
| 105°   | 41.7   | 58.6   | 233.8  | 446.2  | 426.0  |
| 107.5° | 51.4   | 67.2   | 212.5  | 453.7  | 476.2  |
| 110°   | 57.9   | 73.7   | 201.4  | 443.1  | 487.3  |



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**CANDELA DISTRIBUTION (continued):**

|        | 0°    | 22.5° | 45°   | 67.5° | 90°   |
|--------|-------|-------|-------|-------|-------|
| 112.5° | 64.3  | 79.2  | 195.8 | 424.0 | 479.8 |
| 115°   | 74.1  | 87.6  | 189.8 | 391.6 | 458.4 |
| 117.5° | 83.6  | 96.0  | 187.3 | 360.6 | 428.9 |
| 120°   | 89.2  | 101.6 | 186.3 | 342.9 | 408.6 |
| 122.5° | 94.6  | 107.1 | 187.3 | 327.9 | 388.2 |
| 125°   | 103.0 | 114.3 | 187.5 | 307.9 | 361.0 |
| 127.5° | 109.7 | 121.3 | 187.5 | 292.9 | 338.2 |
| 130°   | 113.4 | 125.9 | 187.5 | 284.5 | 325.3 |
| 132.5° | 118.1 | 130.5 | 186.6 | 277.0 | 315.0 |
| 135°   | 123.9 | 137.4 | 186.3 | 265.8 | 298.6 |
| 137.5° | 130.5 | 143.0 | 186.3 | 254.6 | 284.5 |
| 140°   | 134.3 | 146.7 | 186.3 | 247.2 | 274.3 |
| 142.5° | 138.9 | 150.5 | 186.3 | 239.7 | 264.1 |
| 145°   | 144.6 | 155.9 | 186.3 | 229.6 | 250.0 |
| 147.5° | 151.6 | 161.3 | 187.5 | 220.3 | 236.3 |
| 150°   | 156.3 | 164.2 | 187.5 | 215.6 | 228.0 |
| 152.5° | 159.9 | 167.0 | 187.5 | 210.9 | 221.5 |
| 155°   | 165.5 | 171.2 | 187.5 | 206.2 | 212.9 |
| 157.5° | 171.1 | 175.4 | 187.5 | 202.0 | 206.3 |
| 160°   | 174.8 | 178.2 | 187.5 | 199.2 | 202.5 |
| 162.5° | 177.5 | 180.1 | 187.5 | 197.3 | 199.7 |
| 165°   | 181.7 | 182.9 | 188.7 | 194.5 | 196.7 |
| 167.5° | 184.2 | 184.5 | 187.5 | 192.9 | 193.9 |
| 170°   | 185.2 | 186.3 | 187.5 | 191.0 | 192.2 |
| 172.5° | 187.0 | 187.3 | 188.4 | 190.1 | 190.3 |
| 175°   | 188.7 | 188.7 | 188.7 | 189.7 | 188.7 |
| 177.5° | 188.7 | 188.7 | 188.7 | 188.7 | 188.7 |
| 180°   | 188.7 | 188.7 | 188.7 | 188.7 | 188.7 |

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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 | 23.44            | 24.67 | 24.02 | 25.26 | 25.92 | 19.83          | 21.07 | 20.42 | 21.66 | 22.32 |
|                 | 3H   | 24.56            | 25.66 | 25.16 | 26.26 | 26.97 | 20.97          | 22.07 | 21.57 | 22.67 | 23.37 |
|                 | 4H   | 24.92            | 25.95 | 25.54 | 26.57 | 27.29 | 21.45          | 22.48 | 22.07 | 23.10 | 23.81 |
|                 | 6H   | 25.15            | 26.11 | 25.79 | 26.73 | 27.46 | 21.81          | 22.76 | 22.45 | 23.39 | 24.12 |
|                 | 8H   | 25.21            | 26.12 | 25.86 | 26.77 | 27.50 | 21.91          | 22.81 | 22.56 | 23.46 | 24.20 |
|                 | 12H  | 25.24            | 26.10 | 25.89 | 26.75 | 27.51 | 21.93          | 22.80 | 22.59 | 23.44 | 24.20 |
| 4H              | 2H   | 23.59            | 24.62 | 24.22 | 25.24 | 25.96 | 20.59          | 21.63 | 21.22 | 22.24 | 22.96 |
|                 | 3H   | 24.93            | 25.79 | 25.57 | 26.45 | 27.18 | 21.88          | 22.73 | 22.52 | 23.39 | 24.12 |
|                 | 4H   | 25.42            | 26.19 | 26.08 | 26.86 | 27.62 | 22.45          | 23.22 | 23.10 | 23.88 | 24.65 |
|                 | 6H   | 25.78            | 26.45 | 26.46 | 27.13 | 27.91 | 22.91          | 23.57 | 23.58 | 24.26 | 25.04 |
|                 | 8H   | 25.88            | 26.50 | 26.56 | 27.19 | 27.98 | 23.03          | 23.66 | 23.72 | 24.34 | 25.13 |
|                 | 12H  | 25.93            | 26.49 | 26.63 | 27.20 | 27.99 | 23.08          | 23.64 | 23.78 | 24.35 | 25.14 |
| 8H              | 4H   | 25.47            | 26.09 | 26.15 | 26.77 | 27.56 | 22.75          | 23.37 | 23.43 | 24.05 | 24.84 |
|                 | 6H   | 25.91            | 26.43 | 26.62 | 27.15 | 27.95 | 23.30          | 23.82 | 24.02 | 24.55 | 25.34 |
|                 | 8H   | 26.07            | 26.53 | 26.79 | 27.26 | 28.07 | 23.49          | 23.95 | 24.22 | 24.68 | 25.49 |
|                 | 12H  | 26.17            | 26.58 | 26.89 | 27.30 | 28.17 | 23.58          | 23.99 | 24.31 | 24.71 | 25.58 |
| 12H             | 4H   | 25.44            | 26.00 | 26.14 | 26.71 | 27.50 | 22.77          | 23.33 | 23.47 | 24.04 | 24.83 |
|                 | 6H   | 25.90            | 26.36 | 26.63 | 27.09 | 27.90 | 23.36          | 23.82 | 24.08 | 24.55 | 25.36 |
|                 | 8H   | 26.09            | 26.49 | 26.81 | 27.21 | 28.09 | 23.58          | 23.99 | 24.31 | 24.71 | 25.58 |