

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: P855334

Luminaire Tested: SQ2-PP3-100U-125D-840-UNV-STD-W-4

Issue Date: 7/12/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P855334  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-12, G2-2308-131-7)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/12/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ2-PP3-100U-125D-840-UNV-STD-W-4  
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE  
DOWNLIGHT 1250 LUMENS PER FOOT  
UPLIGHT 1000 LUMENS PER FOOT  
Light Source: -  
Ballast/Driver: -

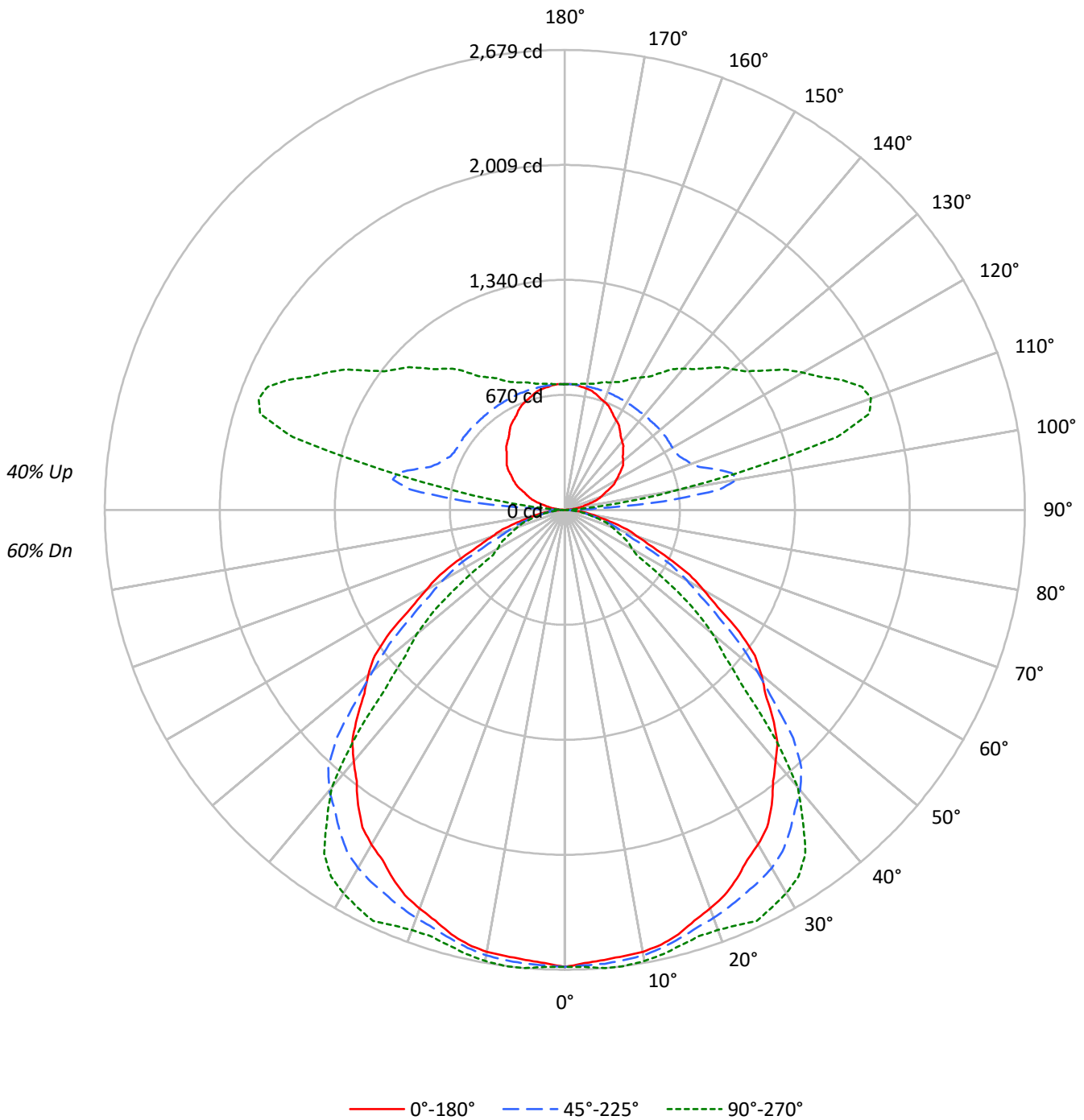
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 11267.9 lumens  
Efficiency: N/A  
Efficacy: 137.7 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): 81.8  
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

TEST NUMBER: P855334

CATALOG NUMBER: SQ2-PP3-100U-125D-840-UNV-STD-W-4

### 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 | 50 | 30 | 10 | 0  |   |
| RCR |     |     |     |     |     |     |     |     |    |    |    |    |    |    |    |    |    |    |    |    |    |   |
| 0   | 109 | 109 | 109 | 109 | 102 | 102 | 102 | 102 | 89 | 89 | 89 | 76 | 76 | 76 | 65 | 65 | 65 | 60 |    |    |    |   |
| 1   | 101 | 96  | 93  | 89  | 94  | 90  | 87  | 84  | 79 | 76 | 74 | 68 | 66 | 65 | 58 | 57 | 56 | 51 |    |    |    |   |
| 2   | 92  | 85  | 79  | 74  | 86  | 80  | 74  | 70  | 70 | 66 | 62 | 61 | 58 | 55 | 52 | 50 | 48 | 44 |    |    |    |   |
| 3   | 84  | 75  | 68  | 62  | 79  | 71  | 64  | 59  | 62 | 57 | 53 | 54 | 50 | 47 | 47 | 44 | 42 | 38 |    |    |    |   |
| 4   | 77  | 67  | 59  | 53  | 72  | 63  | 56  | 51  | 55 | 50 | 46 | 48 | 44 | 41 | 42 | 39 | 36 | 33 |    |    |    |   |
| 5   | 71  | 60  | 52  | 46  | 66  | 56  | 49  | 44  | 50 | 44 | 40 | 44 | 39 | 36 | 38 | 35 | 32 | 29 |    |    |    |   |
| 6   | 66  | 54  | 46  | 40  | 61  | 51  | 44  | 38  | 45 | 39 | 35 | 40 | 35 | 31 | 35 | 31 | 28 | 25 |    |    |    |   |
| 7   | 61  | 49  | 41  | 35  | 57  | 46  | 39  | 34  | 41 | 35 | 31 | 36 | 31 | 28 | 32 | 28 | 25 | 23 |    |    |    |   |
| 8   | 57  | 44  | 37  | 31  | 53  | 42  | 35  | 30  | 37 | 32 | 27 | 33 | 28 | 25 | 29 | 25 | 23 | 20 |    |    |    |   |
| 9   | 53  | 41  | 33  | 28  | 49  | 38  | 32  | 27  | 34 | 29 | 25 | 30 | 26 | 23 | 27 | 23 | 20 | 18 |    |    |    |   |
| 10  | 49  | 37  | 30  | 25  | 46  | 35  | 29  | 24  | 32 | 26 | 22 | 28 | 24 | 20 | 25 | 21 | 19 | 17 |    |    |    |   |

**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



TEST NUMBER: P855334

CATALOG NUMBER: SQ2-PP3-100U-125D-840-UNV-STD-W-4

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 253.5   | 2.2       |
| 10°-20°   | 733.7   | 6.5       |
| 20°-30°   | 1149.5  | 10.2      |
| 30°-40°   | 1418.0  | 12.6      |
| 40°-50°   | 1335.1  | 11.8      |
| 50°-60°   | 945.3   | 8.4       |
| 60°-70°   | 538.6   | 4.8       |
| 70°-80°   | 266.5   | 2.4       |
| 80°-90°   | 66.5    | 0.6       |
| 90°-100°  | 306.1   | 2.7       |
| 100°-110° | 925.7   | 8.2       |
| 110°-120° | 903.7   | 8.0       |
| 120°-130° | 738.5   | 6.6       |
| 130°-140° | 602.8   | 5.3       |
| 140°-150° | 469.2   | 4.2       |
| 150°-160° | 338.3   | 3.0       |
| 160°-170° | 207.1   | 1.8       |
| 170°-180° | 69.9    | 0.6       |
| 0°-30°    | 2136.7  | 19.0      |
| 0°-40°    | 3554.7  | 31.5      |
| 0°-60°    | 5835.1  | 51.8      |
| 0°-90°    | 6706.6  | 59.5      |
| 90°-120°  | 2135.5  | 19.0      |
| 90°-150°  | 3946.0  | 35.0      |
| 90°-180°  | 4561.0  | 40.5      |
| 0°-180°   | 11267.9 | 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    | 2     | 14   | 8     | 7    | 5    |
| 95°  | 38   | 120   | 578  | 213   | 135  | 45   |
| 105° | 161  | 226   | 909  | 1726  | 1641 | 169  |
| 115° | 286  | 342   | 735  | 1521  | 1787 | 283  |
| 125° | 400  | 444   | 725  | 1201  | 1414 | 356  |
| 135° | 480  | 530   | 720  | 1036  | 1166 | 372  |
| 145° | 560  | 602   | 720  | 891   | 974  | 351  |
| 155° | 638  | 660   | 725  | 799   | 830  | 294  |
| 165° | 698  | 706   | 728  | 756   | 765  | 197  |
| 175° | 731  | 731   | 732  | 738   | 735  | 69   |
| 180° | 733  | 733   | 733  | 733   | 733  |      |



TEST NUMBER: P855334

CATALOG NUMBER: SQ2-PP3-100U-125D-840-UNV-STD-W-4

**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   | 20.7   | 11.8   | 8.4    | 8.2    |
| 90°    | 0.0    | 2.2    | 13.8   | 8.0    | 6.9    |
| 92.5°  | 12.9   | 52.1   | 186.8  | 62.0   | 44.6   |
| 95°    | 38.0   | 120.0  | 577.6  | 213.4  | 134.6  |
| 97.5°  | 73.4   | 152.8  | 910.3  | 602.4  | 366.8  |
| 100°   | 95.4   | 173.1  | 1017.0 | 983.2  | 660.4  |
| 102.5° | 120.4  | 195.3  | 995.0  | 1379.1 | 1099.4 |
| 105°   | 161.1  | 226.3  | 908.9  | 1726.2 | 1640.7 |
| 107.5° | 199.7  | 262.1  | 826.2  | 1760.6 | 1859.5 |
| 110°   | 225.5  | 285.2  | 784.7  | 1717.2 | 1897.3 |



TEST NUMBER: P855334

CATALOG NUMBER: SQ2-PP3-100U-125D-840-UNV-STD-W-4

**CANDELA DISTRIBUTION (continued):**

|        | 0°    | 22.5° | 45°   | 67.5°  | 90°    |
|--------|-------|-------|-------|--------|--------|
| 112.5° | 250.3 | 308.1 | 759.8 | 1644.7 | 1872.5 |
| 115°   | 286.5 | 341.6 | 735.3 | 1521.3 | 1786.8 |
| 117.5° | 322.3 | 374.6 | 726.5 | 1405.7 | 1677.5 |
| 120°   | 346.4 | 395.8 | 723.7 | 1338.2 | 1599.3 |
| 122.5° | 368.4 | 415.2 | 723.7 | 1278.9 | 1520.1 |
| 125°   | 400.4 | 444.3 | 724.9 | 1201.4 | 1414.0 |
| 127.5° | 426.4 | 471.9 | 723.7 | 1142.9 | 1324.2 |
| 130°   | 443.0 | 490.2 | 723.7 | 1109.5 | 1273.7 |
| 132.5° | 457.7 | 505.8 | 722.8 | 1078.8 | 1230.4 |
| 135°   | 479.8 | 530.4 | 720.2 | 1036.2 | 1165.5 |
| 137.5° | 504.4 | 552.5 | 720.2 | 990.6  | 1110.5 |
| 140°   | 520.0 | 567.3 | 720.2 | 961.0  | 1074.6 |
| 142.5° | 535.7 | 581.2 | 719.3 | 934.0  | 1033.2 |
| 145°   | 560.3 | 601.9 | 720.2 | 891.3  | 974.5  |
| 147.5° | 584.9 | 620.2 | 721.6 | 856.1  | 920.0  |
| 150°   | 600.6 | 633.2 | 722.5 | 836.5  | 890.5  |
| 152.5° | 615.3 | 644.4 | 723.5 | 819.7  | 863.8  |
| 155°   | 638.5 | 660.0 | 724.9 | 799.2  | 829.5  |
| 157.5° | 658.8 | 676.2 | 726.3 | 784.0  | 805.2  |
| 160°   | 670.8 | 685.4 | 727.1 | 774.6  | 790.4  |
| 162.5° | 682.7 | 693.8 | 728.0 | 766.4  | 779.4  |
| 165°   | 698.4 | 706.2 | 728.3 | 756.1  | 765.1  |
| 167.5° | 711.7 | 715.8 | 729.7 | 748.2  | 752.0  |
| 170°   | 719.1 | 721.4 | 730.6 | 744.5  | 745.5  |
| 172.5° | 723.7 | 725.0 | 730.6 | 740.7  | 741.0  |
| 175°   | 730.6 | 730.6 | 731.8 | 737.5  | 735.3  |
| 177.5° | 733.9 | 732.9 | 732.0 | 734.7  | 732.9  |
| 180°   | 732.9 | 732.9 | 732.9 | 732.9  | 732.9  |



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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 | 21.45            | 22.37 | 22.33 | 23.26 | 24.39 | 17.85          | 18.76 | 18.73 | 19.66 | 20.79 |
|                 | 3H   | 22.55            | 23.37 | 23.44 | 24.27 | 25.43 | 18.96          | 19.77 | 19.85 | 20.68 | 21.84 |
|                 | 4H   | 22.90            | 23.67 | 23.80 | 24.58 | 25.74 | 19.42          | 20.19 | 20.33 | 21.10 | 22.27 |
|                 | 6H   | 23.12            | 23.82 | 24.03 | 24.74 | 25.92 | 19.77          | 20.48 | 20.69 | 21.40 | 22.58 |
|                 | 8H   | 23.17            | 23.84 | 24.09 | 24.77 | 25.95 | 19.86          | 20.53 | 20.79 | 21.47 | 22.65 |
|                 | 12H  | 23.18            | 23.82 | 24.11 | 24.75 | 25.95 | 19.88          | 20.52 | 20.81 | 21.44 | 22.65 |
| 4H              | 2H   | 21.57            | 22.34 | 22.48 | 23.25 | 24.42 | 18.57          | 19.34 | 19.48 | 20.25 | 21.42 |
|                 | 3H   | 22.88            | 23.52 | 23.81 | 24.46 | 25.64 | 19.83          | 20.46 | 20.75 | 21.40 | 22.59 |
|                 | 4H   | 23.36            | 23.94 | 24.29 | 24.87 | 26.08 | 20.38          | 20.96 | 21.32 | 21.90 | 23.11 |
|                 | 6H   | 23.70            | 24.20 | 24.65 | 25.16 | 26.37 | 20.83          | 21.33 | 21.77 | 22.29 | 23.49 |
|                 | 8H   | 23.79            | 24.26 | 24.74 | 25.21 | 26.43 | 20.95          | 21.42 | 21.90 | 22.37 | 23.59 |
|                 | 12H  | 23.83            | 24.25 | 24.80 | 25.22 | 26.45 | 20.98          | 21.40 | 21.95 | 22.37 | 23.60 |
| 8H              | 4H   | 23.38            | 23.85 | 24.33 | 24.80 | 26.02 | 20.66          | 21.13 | 21.61 | 22.08 | 23.30 |
|                 | 6H   | 23.81            | 24.20 | 24.79 | 25.19 | 26.41 | 21.21          | 21.59 | 22.18 | 22.59 | 23.81 |
|                 | 8H   | 23.97            | 24.31 | 24.95 | 25.30 | 26.53 | 21.39          | 21.73 | 22.38 | 22.72 | 23.96 |
|                 | 12H  | 24.06            | 24.36 | 25.05 | 25.34 | 26.62 | 21.47          | 21.77 | 22.46 | 22.75 | 24.03 |
| 12H             | 4H   | 23.34            | 23.76 | 24.31 | 24.73 | 25.96 | 20.67          | 21.09 | 21.64 | 22.06 | 23.29 |
|                 | 6H   | 23.80            | 24.14 | 24.79 | 25.13 | 26.37 | 21.26          | 21.60 | 22.24 | 22.59 | 23.82 |
|                 | 8H   | 23.98            | 24.28 | 24.96 | 25.25 | 26.54 | 21.47          | 21.77 | 22.46 | 22.75 | 24.04 |