

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: P855069

Luminaire Tested: SQ2-PW1-125U-075D-835-UNV-STD-W-4

Issue Date: 7/12/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P855069  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-13, G2-2308-131-8)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/12/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ2-PW1-125U-075D-835-UNV-STD-W-4  
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE  
DOWNLIGHT 750 LUMENS PER FOOT  
UPLIGHT 1250 LUMENS PER FOOT  
Light Source: -  
Ballast/Driver: -

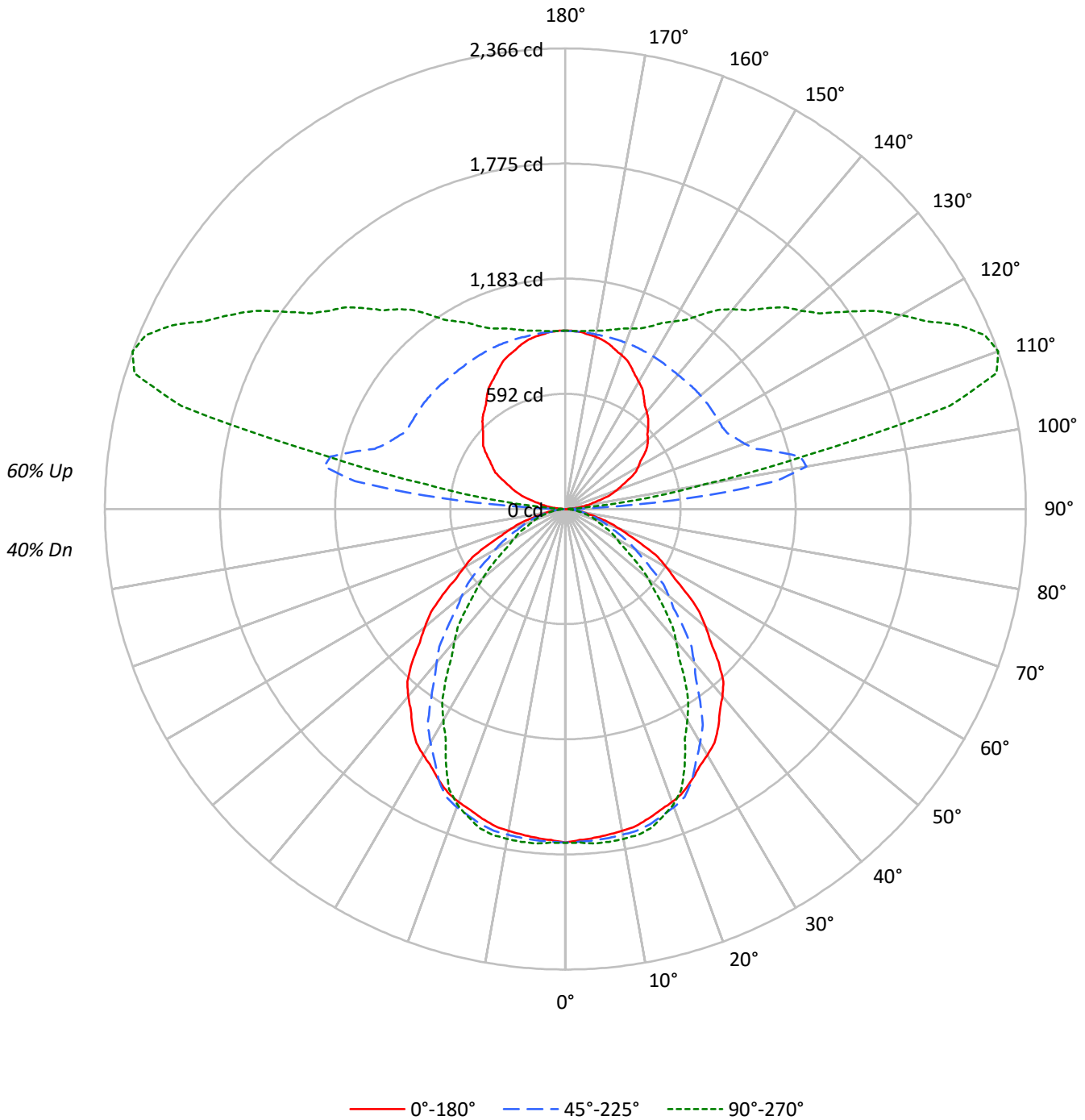
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 9454.3 lumens  
Efficiency: N/A  
Efficacy: 133.9 lumens/watt  
Spacing Criteria (0/90/45): 1.27 / 1.11 / 1.22  
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')  
CIE Type: General Diffuse  
  
Input Watts (W): 70.6  
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

TEST NUMBER: P855069

CATALOG NUMBER: SQ2-PW1-125U-075D-835-UNV-STD-W-4

### Luminous Intensity Polar Plot





TEST NUMBER: P855069

CATALOG NUMBER: SQ2-PW1-125U-075D-835-UNV-STD-W-4

**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   | 105 | 105 | 105 | 105 | 95 | 95 | 95 | 95 | 78 | 78 | 78 | 62 | 62 | 62 | 47 | 47 | 47 | 40 |    |    |    |   |
| 1   | 96  | 92  | 88  | 85  | 87 | 84 | 81 | 78 | 69 | 67 | 65 | 55 | 54 | 52 | 42 | 42 | 41 | 35 |    |    |    |   |
| 2   | 88  | 81  | 75  | 70  | 80 | 74 | 69 | 65 | 61 | 57 | 54 | 49 | 47 | 44 | 38 | 36 | 35 | 30 |    |    |    |   |
| 3   | 80  | 71  | 64  | 59  | 73 | 65 | 59 | 55 | 54 | 50 | 46 | 44 | 41 | 38 | 34 | 32 | 30 | 26 |    |    |    |   |
| 4   | 74  | 63  | 56  | 50  | 67 | 58 | 52 | 47 | 48 | 44 | 40 | 39 | 36 | 33 | 31 | 28 | 26 | 23 |    |    |    |   |
| 5   | 68  | 57  | 49  | 43  | 62 | 52 | 45 | 40 | 43 | 38 | 34 | 35 | 32 | 29 | 28 | 25 | 23 | 20 |    |    |    |   |
| 6   | 62  | 51  | 43  | 38  | 57 | 47 | 40 | 35 | 39 | 34 | 30 | 32 | 28 | 25 | 25 | 23 | 21 | 18 |    |    |    |   |
| 7   | 58  | 46  | 38  | 33  | 53 | 42 | 36 | 31 | 36 | 30 | 27 | 29 | 25 | 23 | 23 | 21 | 19 | 16 |    |    |    |   |
| 8   | 54  | 42  | 34  | 29  | 49 | 39 | 32 | 27 | 33 | 27 | 24 | 27 | 23 | 20 | 21 | 19 | 17 | 14 |    |    |    |   |
| 9   | 50  | 38  | 31  | 26  | 46 | 35 | 29 | 24 | 30 | 25 | 21 | 25 | 21 | 18 | 20 | 17 | 15 | 13 |    |    |    |   |
| 10  | 47  | 35  | 28  | 23  | 43 | 32 | 26 | 22 | 27 | 23 | 19 | 23 | 19 | 17 | 18 | 16 | 14 | 12 |    |    |    |   |

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

|     | 0°    | 45°   | 90°   |
|-----|-------|-------|-------|
| 0°  | 27676 | 27676 | 27676 |
| 5°  | 27490 | 27704 | 27968 |
| 10° | 27540 | 27862 | 28211 |
| 15° | 27534 | 28053 | 28379 |
| 20° | 27545 | 28020 | 27825 |
| 25° | 27396 | 27426 | 25857 |
| 30° | 27210 | 25842 | 23375 |
| 35° | 26997 | 23781 | 21108 |
| 40° | 26460 | 21678 | 18649 |
| 45° | 25421 | 19495 | 16290 |
| 50° | 23662 | 17427 | 13943 |
| 55° | 21647 | 15395 | 11305 |
| 60° | 19401 | 13388 | 9752  |
| 65° | 16967 | 11538 | 8669  |
| 70° | 13874 | 10253 | 7860  |
| 75° | 10792 | 8858  | 7230  |
| 80° | 8052  | 7587  | 6378  |
| 85° | 5446  | 5743  | 3631  |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 25421 cd/sqm



TEST NUMBER: P855069

CATALOG NUMBER: SQ2-PW1-125U-075D-835-UNV-STD-W-4

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 163.2  | 1.7       |
| 10°-20°   | 472.9  | 5.0       |
| 20°-30°   | 696.0  | 7.4       |
| 30°-40°   | 760.9  | 8.0       |
| 40°-50°   | 682.6  | 7.2       |
| 50°-60°   | 509.2  | 5.4       |
| 60°-70°   | 321.8  | 3.4       |
| 70°-80°   | 159.4  | 1.7       |
| 80°-90°   | 38.3   | 0.4       |
| 90°-100°  | 350.3  | 3.7       |
| 100°-110° | 1140.4 | 12.1      |
| 110°-120° | 1128.1 | 11.9      |
| 120°-130° | 921.9  | 9.8       |
| 130°-140° | 753.5  | 8.0       |
| 140°-150° | 586.9  | 6.2       |
| 150°-160° | 423.0  | 4.5       |
| 160°-170° | 258.6  | 2.7       |
| 170°-180° | 87.2   | 0.9       |
| 0°-30°    | 1332.1 | 14.1      |
| 0°-40°    | 2093.0 | 22.1      |
| 0°-60°    | 3284.9 | 34.7      |
| 0°-90°    | 3804.4 | 40.2      |
| 90°-120°  | 2618.8 | 27.7      |
| 90°-150°  | 4881.1 | 51.6      |
| 90°-180°  | 5650.0 | 59.8      |
| 0°-180°   | 9454.3 | 100.0     |

**CANDELA DISTRIBUTION:**

|      | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|------|------|-------|------|-------|------|------|
| 0°   | 1714 | 1714  | 1714 | 1714  | 1714 |      |
| 5°   | 1696 | 1723  | 1709 | 1711  | 1726 | 161  |
| 15°  | 1647 | 1679  | 1678 | 1690  | 1698 | 465  |
| 25°  | 1538 | 1571  | 1540 | 1475  | 1451 | 708  |
| 35°  | 1370 | 1355  | 1206 | 1101  | 1071 | 854  |
| 45°  | 1113 | 1024  | 854  | 747   | 713  | 854  |
| 55°  | 769  | 696   | 547  | 429   | 402  | 687  |
| 65°  | 444  | 407   | 302  | 243   | 227  | 440  |
| 75°  | 173  | 186   | 142  | 119   | 116  | 191  |
| 85°  | 29   | 37    | 31   | 21    | 20   | 37   |
| 90°  | 0    | 3     | 8    | 7     | 7    | 3    |
| 95°  | 47   | 144   | 642  | 229   | 141  | 55   |
| 105° | 194  | 280   | 1130 | 2158  | 2043 | 207  |
| 115° | 358  | 428   | 920  | 1897  | 2231 | 355  |
| 125° | 498  | 555   | 908  | 1497  | 1765 | 443  |
| 135° | 602  | 664   | 903  | 1292  | 1458 | 465  |
| 145° | 703  | 755   | 901  | 1113  | 1219 | 440  |
| 155° | 802  | 828   | 907  | 996   | 1034 | 369  |
| 165° | 875  | 883   | 909  | 943   | 954  | 246  |
| 175° | 912  | 912   | 912  | 919   | 917  | 87   |
| 180° | 916  | 916   | 916  | 916   | 916  |      |



TEST NUMBER: P855069

CATALOG NUMBER: SQ2-PW1-125U-075D-835-UNV-STD-W-4

**CANDELA DISTRIBUTION (FULL):**

|        | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|--------|--------|--------|--------|--------|--------|
| 0°     | 1714.1 | 1714.1 | 1714.1 | 1714.1 | 1714.1 |
| 2.5°   | 1702.4 | 1724.1 | 1710.3 | 1711.6 | 1715.5 |
| 5°     | 1696.1 | 1723.3 | 1709.3 | 1711.2 | 1725.6 |
| 7.5°   | 1687.7 | 1715.1 | 1704.6 | 1710.5 | 1724.5 |
| 10°    | 1679.8 | 1708.6 | 1699.4 | 1707.9 | 1720.7 |
| 12.5°  | 1669.4 | 1699.4 | 1693.0 | 1702.7 | 1715.5 |
| 15°    | 1647.2 | 1679.2 | 1678.3 | 1689.8 | 1697.8 |
| 17.5°  | 1621.4 | 1653.4 | 1651.8 | 1654.8 | 1658.7 |
| 20°    | 1603.1 | 1635.0 | 1630.8 | 1619.4 | 1619.4 |
| 22.5°  | 1577.0 | 1611.5 | 1600.9 | 1569.6 | 1559.4 |
| 25°    | 1537.8 | 1571.3 | 1539.5 | 1475.2 | 1451.4 |
| 27.5°  | 1492.1 | 1519.3 | 1455.2 | 1364.0 | 1330.8 |
| 30°    | 1459.5 | 1480.2 | 1386.1 | 1285.7 | 1253.8 |
| 32.5°  | 1425.6 | 1433.5 | 1315.4 | 1211.2 | 1176.7 |
| 35°    | 1369.7 | 1355.3 | 1206.5 | 1101.2 | 1070.9 |
| 37.5°  | 1303.7 | 1260.9 | 1101.7 | 991.5  | 958.0  |
| 40°    | 1255.4 | 1194.7 | 1028.5 | 918.3  | 884.8  |
| 42.5°  | 1201.8 | 1125.9 | 959.3  | 849.1  | 814.3  |
| 45°    | 1113.3 | 1024.0 | 853.8  | 746.9  | 713.4  |
| 47.5°  | 1013.7 | 925.0  | 755.2  | 651.7  | 623.0  |
| 50°    | 942.0  | 855.8  | 693.8  | 590.2  | 555.1  |
| 52.5°  | 868.8  | 791.6  | 633.7  | 527.2  | 479.3  |
| 55°    | 769.0  | 695.5  | 546.9  | 428.8  | 401.6  |
| 57.5°  | 666.1  | 602.5  | 468.2  | 360.9  | 338.6  |
| 60°    | 600.8  | 544.9  | 414.6  | 324.3  | 302.0  |
| 62.5°  | 538.1  | 488.5  | 362.5  | 290.5  | 271.9  |
| 65°    | 444.1  | 407.3  | 302.0  | 242.9  | 226.9  |
| 67.5°  | 352.6  | 332.1  | 251.1  | 199.3  | 188.8  |
| 70°    | 293.9  | 287.4  | 217.2  | 174.5  | 166.5  |
| 72.5°  | 243.0  | 245.5  | 184.5  | 151.1  | 145.6  |
| 75°    | 173.0  | 185.8  | 142.0  | 119.1  | 115.9  |
| 77.5°  | 117.9  | 137.0  | 105.1  | 88.0   | 85.6   |
| 80°    | 86.6   | 105.7  | 81.6   | 68.6   | 68.6   |
| 82.5°  | 60.4   | 75.7   | 58.2   | 51.6   | 51.6   |
| 85°    | 29.4   | 37.3   | 31.0   | 21.2   | 19.6   |
| 87.5°  | 7.8    | 12.3   | 6.8    | 5.3    | 5.3    |
| 90°    | 0.0    | 3.3    | 7.9    | 6.8    | 6.8    |
| 92.5°  | 16.2   | 58.3   | 186.3  | 61.4   | 47.3   |
| 95°    | 47.3   | 144.2  | 642.0  | 228.9  | 140.8  |
| 97.5°  | 88.9   | 187.6  | 1089.7 | 663.6  | 405.0  |
| 100°   | 116.0  | 213.0  | 1258.2 | 1121.9 | 727.7  |
| 102.5° | 146.7  | 240.0  | 1237.5 | 1659.8 | 1262.0 |
| 105°   | 193.7  | 279.6  | 1129.7 | 2157.7 | 2043.2 |
| 107.5° | 244.7  | 325.5  | 1027.4 | 2201.0 | 2322.4 |
| 110°   | 281.6  | 355.3  | 978.8  | 2147.3 | 2366.5 |



TEST NUMBER: P855069

CATALOG NUMBER: SQ2-PW1-125U-075D-835-UNV-STD-W-4

**CANDELA DISTRIBUTION (continued):**

|        | 0°    | 22.5° | 45°   | 67.5°  | 90°    |
|--------|-------|-------|-------|--------|--------|
| 112.5° | 312.2 | 385.1 | 948.2 | 2050.6 | 2333.2 |
| 115°   | 358.2 | 427.5 | 920.3 | 1896.6 | 2231.3 |
| 117.5° | 405.5 | 468.1 | 909.4 | 1755.4 | 2088.7 |
| 120°   | 432.5 | 494.2 | 906.7 | 1668.8 | 1991.4 |
| 122.5° | 458.7 | 519.4 | 907.6 | 1593.5 | 1894.1 |
| 125°   | 497.8 | 555.1 | 907.8 | 1497.4 | 1765.1 |
| 127.5° | 531.4 | 590.0 | 907.6 | 1425.4 | 1648.6 |
| 130°   | 553.0 | 612.6 | 906.7 | 1384.4 | 1583.7 |
| 132.5° | 571.9 | 634.1 | 905.8 | 1346.2 | 1533.2 |
| 135°   | 601.5 | 664.3 | 903.4 | 1292.4 | 1457.6 |
| 137.5° | 630.3 | 693.5 | 900.9 | 1237.6 | 1384.4 |
| 140°   | 651.0 | 711.6 | 900.0 | 1200.5 | 1339.2 |
| 142.5° | 670.9 | 728.8 | 900.0 | 1165.0 | 1288.9 |
| 145°   | 702.9 | 754.6 | 901.1 | 1113.0 | 1218.7 |
| 147.5° | 734.0 | 778.9 | 902.7 | 1068.7 | 1150.4 |
| 150°   | 754.7 | 794.3 | 904.4 | 1042.4 | 1111.7 |
| 152.5° | 775.4 | 808.0 | 905.3 | 1022.2 | 1077.5 |
| 155°   | 802.0 | 828.4 | 906.7 | 996.5  | 1034.0 |
| 157.5° | 827.2 | 846.1 | 908.0 | 977.6  | 1003.8 |
| 160°   | 842.5 | 857.9 | 909.0 | 965.8  | 986.7  |
| 162.5° | 856.0 | 868.0 | 909.0 | 955.8  | 971.4  |
| 165°   | 875.2 | 882.9 | 909.0 | 943.0  | 954.0  |
| 167.5° | 888.7 | 893.6 | 909.2 | 933.4  | 939.2  |
| 170°   | 897.7 | 899.9 | 910.1 | 927.1  | 929.2  |
| 172.5° | 904.1 | 905.3 | 911.9 | 923.4  | 923.0  |
| 175°   | 912.3 | 912.3 | 912.3 | 919.0  | 916.9  |
| 177.5° | 915.7 | 914.8 | 913.9 | 918.3  | 914.8  |
| 180°   | 915.7 | 915.7 | 915.7 | 915.7  | 915.7  |

-----



TEST NUMBER: P855069

CATALOG NUMBER: SQ2-PW1-125U-075D-835-UNV-STD-W-4

**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 | 17.61            | 18.36 | 18.65 | 19.40 | 20.81 | 14.09          | 14.84 | 15.14 | 15.89 | 17.29 |
|                 | 3H   | 18.92            | 19.59 | 19.97 | 20.64 | 22.07 | 15.29          | 15.96 | 16.34 | 17.01 | 18.44 |
|                 | 4H   | 19.29            | 19.92 | 20.35 | 20.98 | 22.41 | 15.73          | 16.37 | 16.80 | 17.42 | 18.85 |
|                 | 6H   | 19.49            | 20.07 | 20.56 | 21.13 | 22.57 | 16.04          | 16.63 | 17.12 | 17.69 | 19.13 |
|                 | 8H   | 19.52            | 20.07 | 20.60 | 21.15 | 22.59 | 16.11          | 16.67 | 17.19 | 17.74 | 19.18 |
|                 | 12H  | 19.51            | 20.04 | 20.59 | 21.11 | 22.57 | 16.12          | 16.65 | 17.21 | 17.72 | 19.18 |
| 4H              | 2H   | 17.70            | 18.33 | 18.77 | 19.39 | 20.82 | 14.76          | 15.40 | 15.83 | 16.45 | 17.89 |
|                 | 3H   | 19.23            | 19.76 | 20.31 | 20.84 | 22.29 | 16.14          | 16.67 | 17.22 | 17.75 | 19.20 |
|                 | 4H   | 19.73            | 20.22 | 20.82 | 21.29 | 22.76 | 16.68          | 17.16 | 17.77 | 18.24 | 19.71 |
|                 | 6H   | 20.06            | 20.47 | 21.15 | 21.57 | 23.03 | 17.08          | 17.49 | 18.17 | 18.59 | 20.05 |
|                 | 8H   | 20.14            | 20.52 | 21.23 | 21.61 | 23.09 | 17.18          | 17.57 | 18.28 | 18.66 | 20.14 |
|                 | 12H  | 20.15            | 20.50 | 21.26 | 21.60 | 23.08 | 17.20          | 17.55 | 18.31 | 18.65 | 20.13 |
| 8H              | 4H   | 19.77            | 20.15 | 20.86 | 21.24 | 22.72 | 17.00          | 17.39 | 18.09 | 18.48 | 19.95 |
|                 | 6H   | 20.20            | 20.52 | 21.31 | 21.65 | 23.12 | 17.50          | 17.82 | 18.62 | 18.95 | 20.43 |
|                 | 8H   | 20.34            | 20.62 | 21.46 | 21.73 | 23.23 | 17.66          | 17.94 | 18.79 | 19.06 | 20.55 |
|                 | 12H  | 20.40            | 20.65 | 21.53 | 21.76 | 23.29 | 17.72          | 17.97 | 18.85 | 19.07 | 20.61 |
| 12H             | 4H   | 19.72            | 20.07 | 20.83 | 21.17 | 22.65 | 17.01          | 17.36 | 18.12 | 18.46 | 19.94 |
|                 | 6H   | 20.19            | 20.47 | 21.31 | 21.58 | 23.07 | 17.57          | 17.85 | 18.69 | 18.96 | 20.45 |
|                 | 8H   | 20.35            | 20.59 | 21.47 | 21.70 | 23.23 | 17.75          | 17.99 | 18.87 | 19.10 | 20.63 |