

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: P855125

Luminaire Tested: SQ2-PP3-125U-075D-835-UNV-STD-W-4

Issue Date: 7/12/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P855125  
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-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: -

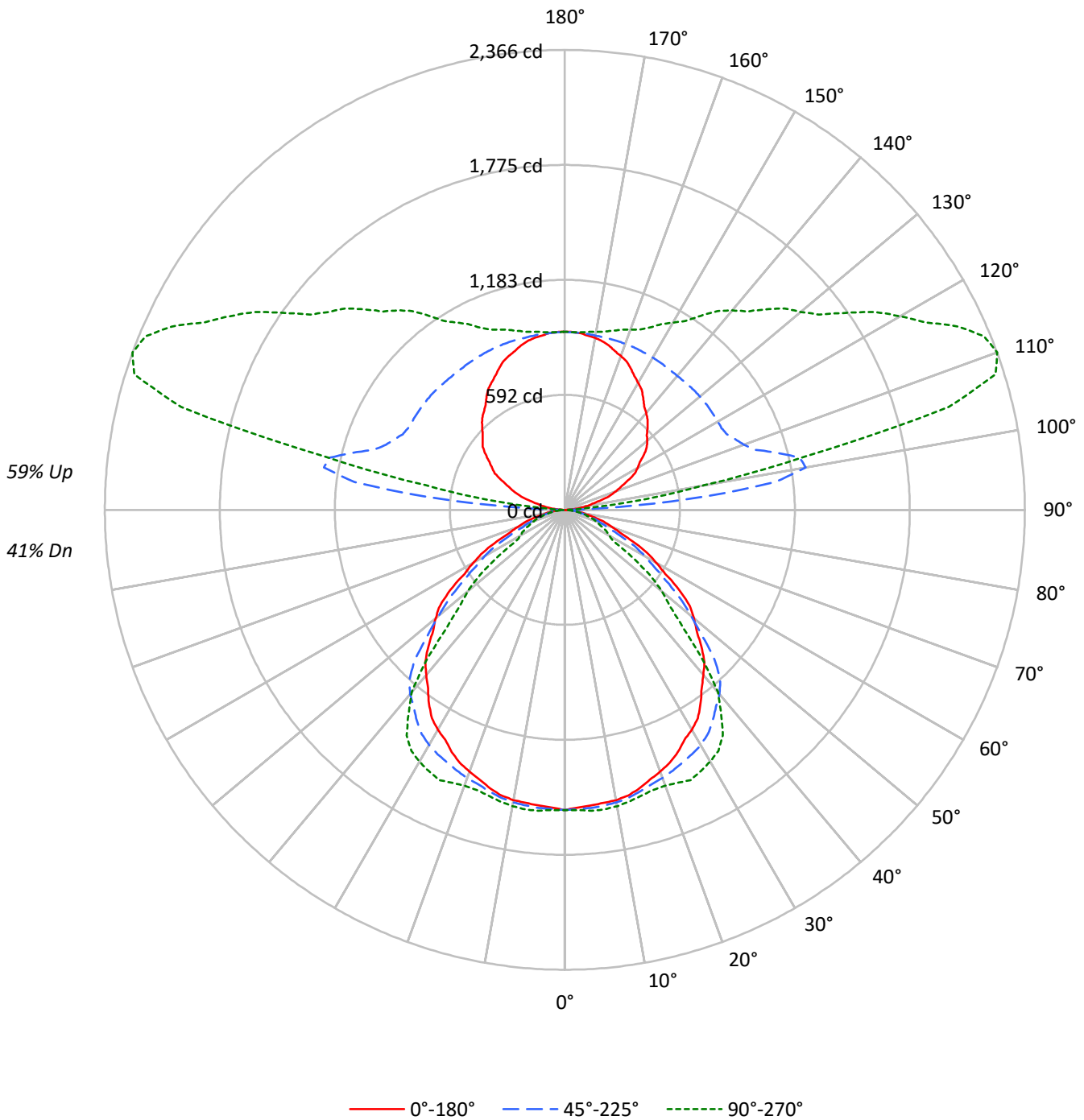
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 9540.3 lumens  
Efficiency: N/A  
Efficacy: 135.1 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): 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

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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 | 50 | 30 | 10 |
| RCR |     |     |     |     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| 0   | 105 | 105 | 105 | 105 | 96 | 96 | 96 | 96 | 78 | 78 | 78 | 62 | 62 | 62 | 48 | 48 | 48 | 41 | 41 | 41 |
| 1   | 96  | 92  | 88  | 85  | 88 | 84 | 81 | 78 | 69 | 67 | 65 | 55 | 54 | 53 | 43 | 42 | 41 | 35 | 35 | 35 |
| 2   | 88  | 81  | 75  | 70  | 80 | 74 | 69 | 65 | 61 | 58 | 54 | 49 | 47 | 45 | 38 | 37 | 35 | 30 | 30 | 30 |
| 3   | 80  | 71  | 64  | 59  | 73 | 65 | 59 | 55 | 54 | 50 | 46 | 44 | 41 | 38 | 34 | 32 | 30 | 26 | 26 | 26 |
| 4   | 74  | 63  | 56  | 50  | 67 | 58 | 52 | 46 | 48 | 43 | 40 | 39 | 36 | 33 | 31 | 28 | 26 | 23 | 23 | 23 |
| 5   | 68  | 56  | 49  | 43  | 61 | 52 | 45 | 40 | 43 | 38 | 34 | 35 | 32 | 29 | 28 | 25 | 23 | 20 | 20 | 20 |
| 6   | 62  | 51  | 43  | 37  | 57 | 47 | 40 | 35 | 39 | 34 | 30 | 32 | 28 | 25 | 25 | 23 | 20 | 17 | 17 | 17 |
| 7   | 58  | 46  | 38  | 33  | 52 | 42 | 35 | 31 | 35 | 30 | 26 | 29 | 25 | 22 | 23 | 20 | 18 | 16 | 16 | 16 |
| 8   | 53  | 41  | 34  | 29  | 49 | 38 | 32 | 27 | 32 | 27 | 23 | 27 | 23 | 20 | 21 | 18 | 16 | 14 | 14 | 14 |
| 9   | 50  | 38  | 31  | 26  | 45 | 35 | 28 | 24 | 29 | 24 | 21 | 24 | 21 | 18 | 19 | 17 | 15 | 13 | 13 | 13 |
| 10  | 46  | 35  | 28  | 23  | 42 | 32 | 26 | 22 | 27 | 22 | 19 | 22 | 19 | 16 | 18 | 15 | 13 | 11 | 11 | 11 |

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

|     | 0°    | 45°   | 90°   |
|-----|-------|-------|-------|
| 0°  | 24936 | 24936 | 24936 |
| 5°  | 24739 | 24951 | 25188 |
| 10° | 24866 | 25053 | 25374 |
| 15° | 24806 | 25051 | 25432 |
| 20° | 24629 | 25218 | 25947 |
| 25° | 24488 | 25536 | 27310 |
| 30° | 24350 | 26053 | 27880 |
| 35° | 24005 | 26128 | 27932 |
| 40° | 23364 | 26083 | 25804 |
| 45° | 22665 | 24900 | 19644 |
| 50° | 21775 | 21243 | 16362 |
| 55° | 20268 | 17878 | 11764 |
| 60° | 17450 | 15342 | 8435  |
| 65° | 14716 | 11851 | 8298  |
| 70° | 12255 | 9328  | 7940  |
| 75° | 10387 | 8047  | 7436  |
| 80° | 8805  | 6983  | 6685  |
| 85° | 6966  | 5743  | 3631  |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 45°  
 Vertical Angle: 45°  
 Luminance: 24900 cd/sqm



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 147.0  | 1.5       |
| 10°-20°   | 425.6  | 4.5       |
| 20°-30°   | 666.7  | 7.0       |
| 30°-40°   | 822.5  | 8.6       |
| 40°-50°   | 774.4  | 8.1       |
| 50°-60°   | 548.3  | 5.7       |
| 60°-70°   | 312.4  | 3.3       |
| 70°-80°   | 154.6  | 1.6       |
| 80°-90°   | 38.8   | 0.4       |
| 90°-100°  | 350.3  | 3.7       |
| 100°-110° | 1140.4 | 12.0      |
| 110°-120° | 1128.1 | 11.8      |
| 120°-130° | 921.9  | 9.7       |
| 130°-140° | 753.5  | 7.9       |
| 140°-150° | 586.9  | 6.2       |
| 150°-160° | 423.0  | 4.4       |
| 160°-170° | 258.6  | 2.7       |
| 170°-180° | 87.2   | 0.9       |
| 0°-30°    | 1239.4 | 13.0      |
| 0°-40°    | 2061.9 | 21.6      |
| 0°-60°    | 3384.6 | 35.5      |
| 0°-90°    | 3890.4 | 40.8      |
| 90°-120°  | 2618.8 | 27.5      |
| 90°-150°  | 4881.1 | 51.2      |
| 90°-180°  | 5650.0 | 59.2      |
| 0°-180°   | 9540.3 | 100.0     |

**CANDELA DISTRIBUTION:**

|      | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|------|------|-------|------|-------|------|------|
| 0°   | 1544 | 1544  | 1544 | 1544  | 1544 |      |
| 5°   | 1526 | 1554  | 1540 | 1543  | 1554 | 145  |
| 15°  | 1484 | 1505  | 1499 | 1514  | 1522 | 418  |
| 25°  | 1375 | 1410  | 1433 | 1491  | 1533 | 633  |
| 35°  | 1218 | 1251  | 1326 | 1401  | 1417 | 760  |
| 45°  | 993  | 1068  | 1090 | 924   | 860  | 764  |
| 55°  | 720  | 763   | 635  | 479   | 418  | 635  |
| 65°  | 385  | 406   | 310  | 219   | 217  | 387  |
| 75°  | 166  | 184   | 129  | 121   | 119  | 180  |
| 85°  | 38   | 34    | 31   | 24    | 20   | 44   |
| 90°  | 0    | 3     | 8    | 7     | 7    | 4    |
| 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  |      |



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**CANDELA DISTRIBUTION (FULL):**

|        | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|--------|--------|--------|--------|--------|--------|
| 0°     | 1544.4 | 1544.4 | 1544.4 | 1544.4 | 1544.4 |
| 2.5°   | 1532.6 | 1554.3 | 1540.4 | 1543.1 | 1545.6 |
| 5°     | 1526.4 | 1553.5 | 1539.5 | 1543.0 | 1554.1 |
| 7.5°   | 1520.5 | 1548.3 | 1534.5 | 1540.4 | 1554.1 |
| 10°    | 1516.7 | 1540.5 | 1528.1 | 1536.5 | 1547.7 |
| 12.5°  | 1504.9 | 1527.5 | 1516.3 | 1527.3 | 1537.1 |
| 15°    | 1484.0 | 1504.7 | 1498.7 | 1513.5 | 1521.5 |
| 17.5°  | 1455.5 | 1480.8 | 1480.7 | 1501.8 | 1510.1 |
| 20°    | 1433.4 | 1463.7 | 1467.7 | 1494.1 | 1510.1 |
| 22.5°  | 1409.8 | 1445.2 | 1451.9 | 1491.8 | 1519.3 |
| 25°    | 1374.6 | 1409.7 | 1433.4 | 1491.4 | 1533.0 |
| 27.5°  | 1333.4 | 1368.2 | 1417.1 | 1482.1 | 1515.0 |
| 30°    | 1306.1 | 1339.6 | 1397.4 | 1465.1 | 1495.4 |
| 32.5°  | 1272.1 | 1306.8 | 1368.7 | 1441.5 | 1469.2 |
| 35°    | 1217.9 | 1251.4 | 1325.6 | 1401.1 | 1417.1 |
| 37.5°  | 1155.5 | 1193.5 | 1276.6 | 1318.7 | 1319.7 |
| 40°    | 1108.5 | 1157.9 | 1237.5 | 1245.2 | 1224.3 |
| 42.5°  | 1062.7 | 1126.3 | 1182.6 | 1148.2 | 1056.0 |
| 45°    | 992.6  | 1067.6 | 1090.5 | 924.2  | 860.3  |
| 47.5°  | 917.8  | 991.9  | 955.4  | 775.1  | 731.1  |
| 50°    | 866.9  | 937.1  | 845.7  | 692.9  | 651.4  |
| 52.5°  | 809.4  | 871.9  | 747.7  | 614.0  | 550.8  |
| 55°    | 720.0  | 763.1  | 635.1  | 478.6  | 417.9  |
| 57.5°  | 612.2  | 642.6  | 543.0  | 359.2  | 291.3  |
| 60°    | 540.4  | 564.4  | 475.1  | 294.7  | 261.2  |
| 62.5°  | 475.1  | 496.5  | 404.6  | 256.0  | 244.2  |
| 65°    | 385.2  | 406.0  | 310.2  | 218.8  | 217.2  |
| 67.5°  | 306.6  | 329.2  | 238.0  | 190.9  | 189.1  |
| 70°    | 259.6  | 283.5  | 197.6  | 171.3  | 168.2  |
| 72.5°  | 220.3  | 243.1  | 167.5  | 150.5  | 148.6  |
| 75°    | 166.5  | 184.1  | 129.0  | 120.7  | 119.2  |
| 77.5°  | 120.9  | 132.0  | 96.0   | 91.7   | 90.1   |
| 80°    | 94.7   | 99.5   | 75.1   | 73.4   | 71.9   |
| 82.5°  | 71.2   | 69.6   | 56.8   | 55.1   | 52.3   |
| 85°    | 37.6   | 34.4   | 31.0   | 24.3   | 19.6   |
| 87.5°  | 11.8   | 12.4   | 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 |



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**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  |

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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 | 17.79            | 18.55 | 18.83 | 19.59 | 20.99 | 14.19          | 14.95 | 15.23 | 15.99 | 17.39 |
|                 | 3H   | 18.88            | 19.56 | 19.93 | 20.61 | 22.03 | 15.28          | 15.96 | 16.33 | 17.01 | 18.43 |
|                 | 4H   | 19.22            | 19.86 | 20.28 | 20.91 | 22.34 | 15.74          | 16.38 | 16.80 | 17.44 | 18.86 |
|                 | 6H   | 19.43            | 20.02 | 20.50 | 21.07 | 22.51 | 16.08          | 16.67 | 17.15 | 17.73 | 19.17 |
|                 | 8H   | 19.47            | 20.03 | 20.55 | 21.11 | 22.54 | 16.17          | 16.73 | 17.24 | 17.80 | 19.23 |
|                 | 12H  | 19.48            | 20.02 | 20.56 | 21.08 | 22.54 | 16.18          | 16.71 | 17.26 | 17.78 | 19.23 |
| 4H              | 2H   | 17.89            | 18.53 | 18.95 | 19.58 | 21.01 | 14.89          | 15.53 | 15.96 | 16.58 | 18.01 |
|                 | 3H   | 19.19            | 19.72 | 20.26 | 20.80 | 22.24 | 16.13          | 16.66 | 17.20 | 17.74 | 19.18 |
|                 | 4H   | 19.66            | 20.14 | 20.74 | 21.21 | 22.67 | 16.68          | 17.17 | 17.76 | 18.24 | 19.70 |
|                 | 6H   | 19.99            | 20.41 | 21.08 | 21.50 | 22.95 | 17.12          | 17.53 | 18.20 | 18.63 | 20.08 |
|                 | 8H   | 20.08            | 20.47 | 21.17 | 21.56 | 23.03 | 17.23          | 17.62 | 18.32 | 18.71 | 20.18 |
|                 | 12H  | 20.11            | 20.46 | 21.22 | 21.56 | 23.04 | 17.26          | 17.61 | 18.36 | 18.71 | 20.18 |
| 8H              | 4H   | 19.67            | 20.06 | 20.76 | 21.14 | 22.61 | 16.95          | 17.34 | 18.03 | 18.42 | 19.89 |
|                 | 6H   | 20.10            | 20.42 | 21.21 | 21.54 | 23.01 | 17.49          | 17.81 | 18.60 | 18.94 | 20.40 |
|                 | 8H   | 20.25            | 20.53 | 21.37 | 21.64 | 23.13 | 17.67          | 17.96 | 18.79 | 19.07 | 20.55 |
|                 | 12H  | 20.33            | 20.58 | 21.45 | 21.69 | 23.21 | 17.74          | 17.99 | 18.86 | 19.10 | 20.62 |
| 12H             | 4H   | 19.62            | 19.97 | 20.73 | 21.07 | 22.55 | 16.95          | 17.30 | 18.06 | 18.40 | 19.88 |
|                 | 6H   | 20.08            | 20.37 | 21.20 | 21.48 | 22.96 | 17.54          | 17.82 | 18.66 | 18.93 | 20.42 |
|                 | 8H   | 20.25            | 20.50 | 21.37 | 21.60 | 23.13 | 17.75          | 17.99 | 18.87 | 19.10 | 20.62 |