

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: P855306

Luminaire Tested: SQ2-PR1-100U-125D-840-UNV-STD-W-4

Issue Date: 7/12/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P855306  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-12, G2-2308-131-9)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/12/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ2-PR1-100U-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: -

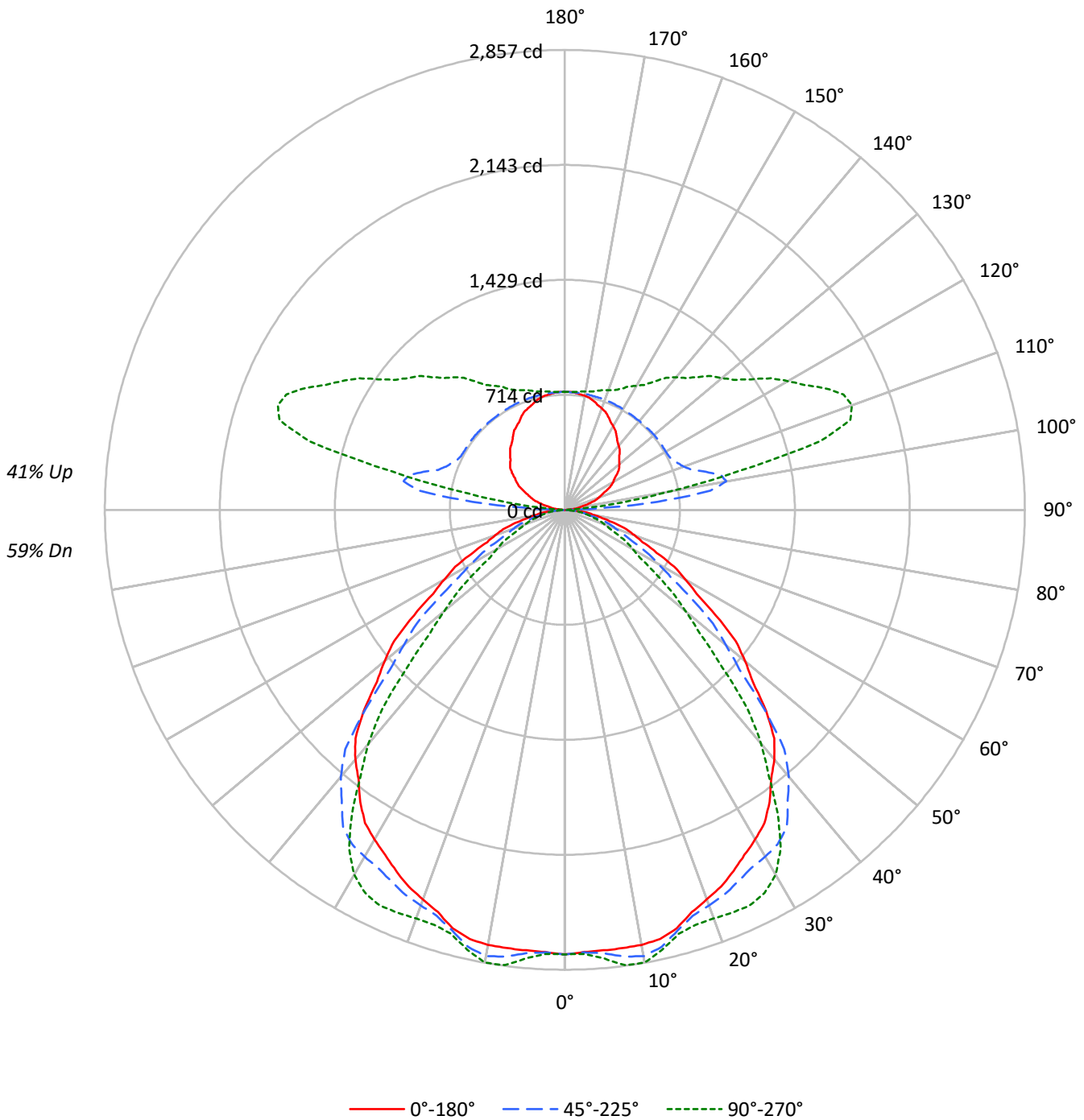
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 11204.7 lumens  
Efficiency: N/A  
Efficacy: 137.0 lumens/watt  
Spacing Criteria (0/90/45): 1.28 / 1.34 / 1.36  
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

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CATALOG NUMBER: SQ2-PR1-100U-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 | 88 | 88 | 88 | 76 | 76 | 76 | 65 | 65 | 65 | 59 |    |    |    |   |
| 1   | 101 | 97  | 93  | 90  | 94  | 90  | 87  | 84  | 79 | 76 | 74 | 68 | 66 | 65 | 58 | 57 | 56 | 51 |    |    |    |   |
| 2   | 92  | 85  | 79  | 74  | 86  | 80  | 75  | 70  | 70 | 66 | 63 | 61 | 58 | 55 | 52 | 50 | 48 | 44 |    |    |    |   |
| 3   | 85  | 75  | 68  | 63  | 79  | 71  | 65  | 60  | 62 | 57 | 54 | 54 | 51 | 48 | 47 | 44 | 42 | 38 |    |    |    |   |
| 4   | 78  | 67  | 60  | 54  | 72  | 63  | 56  | 51  | 56 | 50 | 46 | 49 | 45 | 41 | 42 | 39 | 37 | 33 |    |    |    |   |
| 5   | 72  | 60  | 52  | 46  | 67  | 57  | 50  | 44  | 50 | 45 | 40 | 44 | 40 | 36 | 38 | 35 | 32 | 29 |    |    |    |   |
| 6   | 66  | 54  | 46  | 41  | 62  | 51  | 44  | 39  | 45 | 40 | 35 | 40 | 36 | 32 | 35 | 31 | 29 | 26 |    |    |    |   |
| 7   | 61  | 49  | 41  | 36  | 57  | 47  | 39  | 34  | 41 | 36 | 31 | 37 | 32 | 29 | 32 | 28 | 26 | 23 |    |    |    |   |
| 8   | 57  | 45  | 37  | 32  | 53  | 42  | 35  | 31  | 38 | 32 | 28 | 34 | 29 | 26 | 30 | 26 | 23 | 21 |    |    |    |   |
| 9   | 53  | 41  | 34  | 29  | 50  | 39  | 32  | 27  | 35 | 29 | 25 | 31 | 26 | 23 | 27 | 24 | 21 | 19 |    |    |    |   |
| 10  | 50  | 38  | 31  | 26  | 47  | 36  | 29  | 25  | 32 | 27 | 23 | 29 | 24 | 21 | 25 | 22 | 19 | 17 |    |    |    |   |

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

|     | 0°    | 45°   | 90°   |
|-----|-------|-------|-------|
| 0°  | 44580 | 44580 | 44580 |
| 5°  | 44522 | 44796 | 45344 |
| 10° | 44991 | 46145 | 46835 |
| 15° | 44976 | 45212 | 45588 |
| 20° | 44249 | 44926 | 46426 |
| 25° | 44122 | 45376 | 48336 |
| 30° | 44075 | 46385 | 48800 |
| 35° | 43659 | 47376 | 45433 |
| 40° | 42651 | 45619 | 39981 |
| 45° | 40361 | 40039 | 31618 |
| 50° | 36691 | 32734 | 24531 |
| 55° | 32245 | 26936 | 19094 |
| 60° | 27900 | 21542 | 15723 |
| 65° | 24088 | 17849 | 13761 |
| 70° | 21659 | 15810 | 12227 |
| 75° | 19838 | 13699 | 11241 |
| 80° | 17276 | 10990 | 10990 |
| 85° | 12523 | 9911  | 5224  |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 22.5°  
 Vertical Angle: 45°  
 Luminance: 43626 cd/sqm



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**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 266.6   | 2.4       |
| 10°-20°   | 771.8   | 6.9       |
| 20°-30°   | 1193.1  | 10.6      |
| 30°-40°   | 1435.1  | 12.8      |
| 40°-50°   | 1288.5  | 11.5      |
| 50°-60°   | 863.3   | 7.7       |
| 60°-70°   | 502.1   | 4.5       |
| 70°-80°   | 257.9   | 2.3       |
| 80°-90°   | 64.9    | 0.6       |
| 90°-100°  | 306.1   | 2.7       |
| 100°-110° | 925.7   | 8.3       |
| 110°-120° | 903.7   | 8.1       |
| 120°-130° | 738.5   | 6.6       |
| 130°-140° | 602.8   | 5.4       |
| 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°    | 2231.6  | 19.9      |
| 0°-40°    | 3666.6  | 32.7      |
| 0°-60°    | 5818.4  | 51.9      |
| 0°-90°    | 6643.4  | 59.3      |
| 90°-120°  | 2135.5  | 19.1      |
| 90°-150°  | 3946.0  | 35.2      |
| 90°-180°  | 4561.0  | 40.7      |
| 0°-180°   | 11204.7 | 100.0     |

**CANDELA DISTRIBUTION:**

|      | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|------|------|-------|------|-------|------|------|
| 0°   | 2761 | 2761  | 2761 | 2761  | 2761 |      |
| 5°   | 2747 | 2794  | 2764 | 2770  | 2798 | 262  |
| 15°  | 2691 | 2801  | 2705 | 2714  | 2727 | 756  |
| 25°  | 2477 | 2576  | 2547 | 2642  | 2713 | 1142 |
| 35°  | 2215 | 2234  | 2404 | 2357  | 2305 | 1381 |
| 45°  | 1768 | 1911  | 1754 | 1478  | 1385 | 1352 |
| 55°  | 1146 | 1190  | 957  | 739   | 678  | 1029 |
| 65°  | 630  | 644   | 467  | 380   | 360  | 638  |
| 75°  | 318  | 310   | 220  | 186   | 180  | 337  |
| 85°  | 68   | 54    | 54   | 36    | 28   | 84   |
| 90°  | 0    | 2     | 14   | 8     | 7    | 4    |
| 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  |      |



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**CANDELA DISTRIBUTION (FULL):**

|        | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|--------|--------|--------|--------|--------|--------|
| 0°     | 2761.1 | 2761.1 | 2761.1 | 2761.1 | 2761.1 |
| 2.5°   | 2749.8 | 2782.7 | 2752.0 | 2754.4 | 2761.1 |
| 5°     | 2747.0 | 2793.7 | 2763.9 | 2770.2 | 2797.7 |
| 7.5°   | 2746.4 | 2813.0 | 2798.7 | 2815.8 | 2852.2 |
| 10°    | 2744.2 | 2824.0 | 2814.6 | 2818.2 | 2856.7 |
| 12.5°  | 2730.7 | 2823.7 | 2780.8 | 2777.3 | 2798.1 |
| 15°    | 2690.7 | 2800.7 | 2704.8 | 2713.5 | 2727.3 |
| 17.5°  | 2620.3 | 2735.3 | 2643.9 | 2674.9 | 2702.0 |
| 20°    | 2575.3 | 2688.1 | 2614.7 | 2655.1 | 2702.0 |
| 22.5°  | 2534.7 | 2647.6 | 2587.7 | 2644.3 | 2708.7 |
| 25°    | 2476.7 | 2575.9 | 2547.1 | 2641.6 | 2713.2 |
| 27.5°  | 2416.0 | 2474.3 | 2508.3 | 2635.0 | 2685.1 |
| 30°    | 2364.1 | 2402.7 | 2488.0 | 2598.3 | 2617.5 |
| 32.5°  | 2307.8 | 2331.0 | 2461.0 | 2518.4 | 2493.6 |
| 35°    | 2215.0 | 2234.3 | 2403.6 | 2357.4 | 2305.0 |
| 37.5°  | 2104.7 | 2144.3 | 2274.6 | 2141.7 | 2081.6 |
| 40°    | 2023.6 | 2089.7 | 2164.4 | 1965.8 | 1896.9 |
| 42.5°  | 1924.5 | 2030.2 | 2018.0 | 1765.0 | 1680.9 |
| 45°    | 1767.6 | 1910.6 | 1753.5 | 1478.3 | 1384.7 |
| 47.5°  | 1582.3 | 1729.2 | 1472.0 | 1226.2 | 1138.7 |
| 50°    | 1460.7 | 1579.1 | 1303.2 | 1073.0 | 976.6  |
| 52.5°  | 1336.9 | 1422.3 | 1159.0 | 929.1  | 841.5  |
| 55°    | 1145.5 | 1189.5 | 956.9  | 738.9  | 678.3  |
| 57.5°  | 969.8  | 997.9  | 781.9  | 596.8  | 552.2  |
| 60°    | 864.0  | 883.4  | 667.1  | 522.7  | 486.9  |
| 62.5°  | 767.2  | 782.1  | 574.8  | 459.9  | 432.8  |
| 65°    | 630.5  | 644.2  | 467.2  | 379.6  | 360.2  |
| 67.5°  | 521.9  | 529.0  | 384.5  | 315.4  | 297.2  |
| 70°    | 458.8  | 461.5  | 334.9  | 272.7  | 259.0  |
| 72.5°  | 402.5  | 398.6  | 287.6  | 236.8  | 227.4  |
| 75°    | 318.0  | 309.8  | 219.6  | 185.6  | 180.2  |
| 77.5°  | 237.5  | 228.8  | 154.2  | 143.0  | 143.0  |
| 80°    | 185.8  | 174.7  | 118.2  | 118.2  | 118.2  |
| 82.5°  | 138.4  | 123.1  | 91.1   | 91.1   | 88.9   |
| 85°    | 67.6   | 53.8   | 53.5   | 36.4   | 28.2   |
| 87.5°  | 18.1   | 18.4   | 9.6    | 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 |



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**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 | 20.80            | 21.70 | 21.68 | 22.60 | 23.73 | 17.53          | 18.43 | 18.41 | 19.32 | 20.46 |
|                 | 3H   | 22.04            | 22.84 | 22.93 | 23.75 | 24.91 | 18.60          | 19.40 | 19.49 | 20.31 | 21.47 |
|                 | 4H   | 22.49            | 23.25 | 23.40 | 24.16 | 25.33 | 19.00          | 19.76 | 19.91 | 20.67 | 21.84 |
|                 | 6H   | 22.81            | 23.51 | 23.73 | 24.43 | 25.61 | 19.33          | 20.03 | 20.25 | 20.95 | 22.13 |
|                 | 8H   | 22.89            | 23.56 | 23.82 | 24.49 | 25.68 | 19.42          | 20.08 | 20.35 | 21.02 | 22.20 |
|                 | 12H  | 22.93            | 23.56 | 23.86 | 24.48 | 25.69 | 19.43          | 20.06 | 20.36 | 20.99 | 22.19 |
| 4H              | 2H   | 20.88            | 21.64 | 21.80 | 22.55 | 23.73 | 18.10          | 18.86 | 19.02 | 19.77 | 20.94 |
|                 | 3H   | 22.36            | 22.99 | 23.29 | 23.93 | 25.12 | 19.37          | 20.00 | 20.30 | 20.94 | 22.13 |
|                 | 4H   | 22.96            | 23.53 | 23.89 | 24.47 | 25.68 | 19.88          | 20.45 | 20.82 | 21.39 | 22.60 |
|                 | 6H   | 23.41            | 23.90 | 24.36 | 24.86 | 26.08 | 20.32          | 20.81 | 21.27 | 21.77 | 22.98 |
|                 | 8H   | 23.54            | 24.00 | 24.50 | 24.96 | 26.18 | 20.44          | 20.90 | 21.39 | 21.85 | 23.08 |
|                 | 12H  | 23.60            | 24.01 | 24.57 | 24.99 | 26.22 | 20.46          | 20.88 | 21.43 | 21.85 | 23.08 |
| 8H              | 4H   | 22.99            | 23.44 | 23.94 | 24.40 | 25.63 | 20.19          | 20.65 | 21.14 | 21.60 | 22.83 |
|                 | 6H   | 23.54            | 23.91 | 24.51 | 24.91 | 26.14 | 20.72          | 21.10 | 21.70 | 22.10 | 23.32 |
|                 | 8H   | 23.73            | 24.07 | 24.72 | 25.06 | 26.30 | 20.91          | 21.24 | 21.89 | 22.23 | 23.47 |
|                 | 12H  | 23.84            | 24.14 | 24.83 | 25.12 | 26.41 | 20.97          | 21.27 | 21.96 | 22.25 | 23.54 |
| 12H             | 4H   | 22.95            | 23.36 | 23.92 | 24.33 | 25.56 | 20.21          | 20.62 | 21.18 | 21.59 | 22.82 |
|                 | 6H   | 23.52            | 23.86 | 24.51 | 24.84 | 26.09 | 20.78          | 21.12 | 21.77 | 22.11 | 23.35 |
|                 | 8H   | 23.74            | 24.03 | 24.72 | 25.01 | 26.30 | 20.99          | 21.29 | 21.98 | 22.27 | 23.56 |