

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: P854062

Luminaire Tested: SQ2-PH1-125U-125D-935-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P854062
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-13, G2-2308-131-10)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-PH1-125U-125D-935-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 1250 LUMENS PER FOOT
UPLIGHT 1250 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

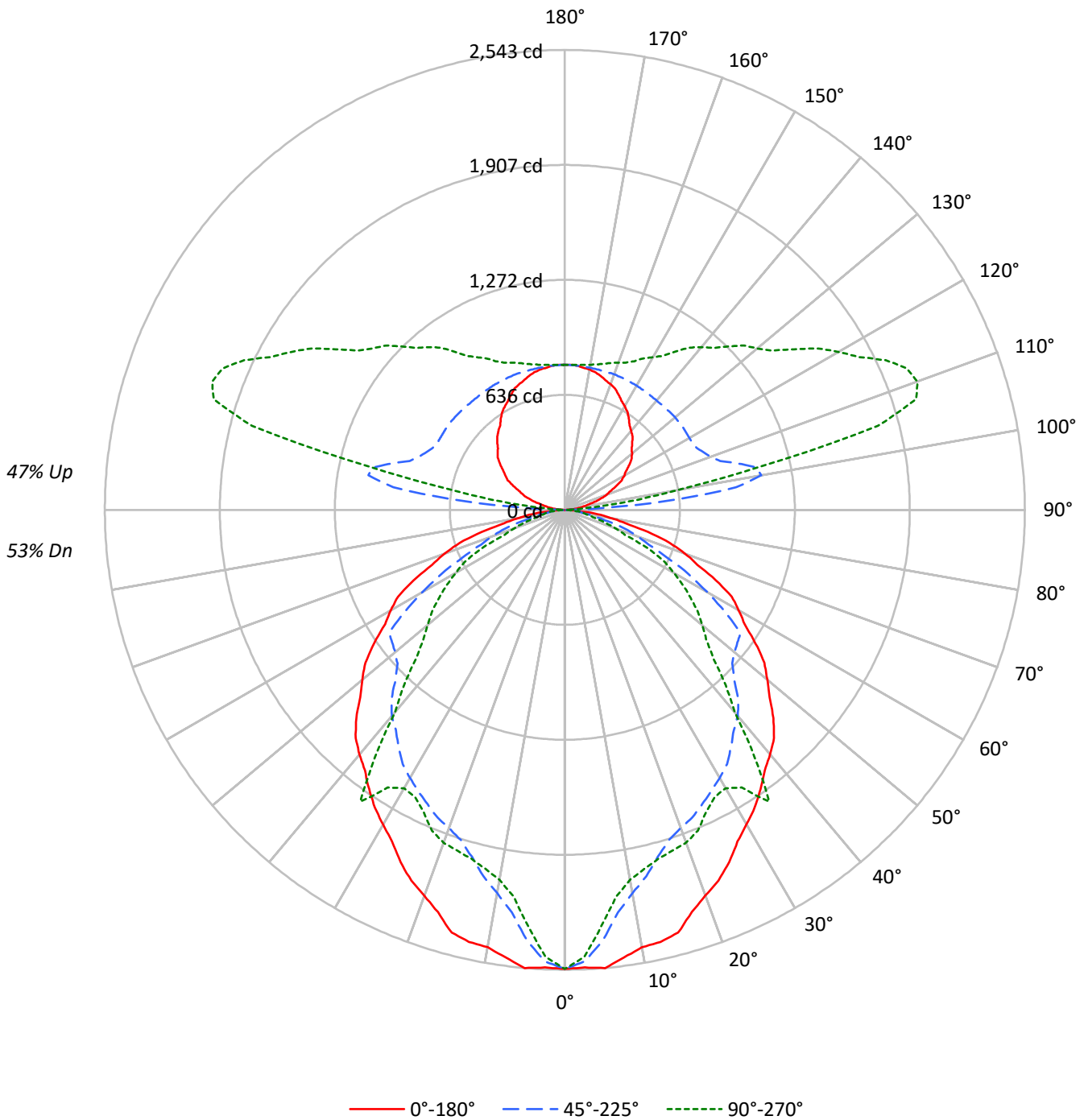
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 10568.1 lumens
Efficiency: N/A
Efficacy: 113.5 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.02 / 1.23
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: General Diffuse

Input Watts (W): 93.1
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





TEST NUMBER: P854062

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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 | 108 | 108 | 108 | 108 | 100 | 100 | 100 | 100 | 85 | 85 | 85 | 71 | 71 | 71 | 59 | 59 | 59 | 53 | 53 | 53 | 53 | |
| 1 | 99 | 94 | 91 | 87 | 91 | 88 | 84 | 81 | 75 | 73 | 70 | 63 | 62 | 60 | 53 | 51 | 50 | 45 | 45 | 45 | 45 | |
| 2 | 90 | 83 | 77 | 72 | 83 | 77 | 72 | 67 | 66 | 62 | 59 | 56 | 53 | 50 | 46 | 44 | 43 | 38 | 38 | 38 | 38 | |
| 3 | 82 | 73 | 66 | 60 | 76 | 68 | 61 | 56 | 58 | 53 | 49 | 49 | 46 | 43 | 41 | 39 | 36 | 32 | 32 | 32 | 32 | |
| 4 | 75 | 64 | 57 | 51 | 69 | 60 | 53 | 48 | 52 | 46 | 42 | 44 | 40 | 37 | 37 | 34 | 31 | 28 | 28 | 28 | 28 | |
| 5 | 69 | 57 | 49 | 43 | 64 | 54 | 46 | 41 | 46 | 41 | 36 | 40 | 35 | 32 | 33 | 30 | 27 | 24 | 24 | 24 | 24 | |
| 6 | 64 | 52 | 44 | 38 | 59 | 48 | 41 | 36 | 42 | 36 | 32 | 36 | 31 | 28 | 30 | 27 | 24 | 21 | 21 | 21 | 21 | |
| 7 | 59 | 47 | 39 | 33 | 54 | 44 | 36 | 31 | 38 | 32 | 28 | 33 | 28 | 25 | 28 | 24 | 22 | 19 | 19 | 19 | 19 | |
| 8 | 55 | 42 | 35 | 29 | 51 | 40 | 33 | 28 | 35 | 29 | 25 | 30 | 25 | 22 | 25 | 22 | 19 | 17 | 17 | 17 | 17 | |
| 9 | 51 | 39 | 31 | 26 | 47 | 36 | 30 | 25 | 32 | 26 | 22 | 27 | 23 | 20 | 23 | 20 | 17 | 15 | 15 | 15 | 15 | |
| 10 | 48 | 36 | 28 | 23 | 44 | 33 | 27 | 22 | 29 | 24 | 20 | 25 | 21 | 18 | 22 | 18 | 16 | 14 | 14 | 14 | 14 | |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|-------|-------|-------|
| 0° | 40981 | 40981 | 40981 |
| 5° | 41217 | 38751 | 37459 |
| 10° | 40268 | 35279 | 34051 |
| 15° | 40450 | 33183 | 33386 |
| 20° | 39007 | 32160 | 33653 |
| 25° | 38291 | 32010 | 32870 |
| 30° | 37461 | 31923 | 33139 |
| 35° | 37178 | 31560 | 38843 |
| 40° | 37209 | 31356 | 30795 |
| 45° | 37223 | 30163 | 26524 |
| 50° | 36701 | 30755 | 24872 |
| 55° | 36234 | 33380 | 23862 |
| 60° | 35873 | 29243 | 22381 |
| 65° | 35247 | 23713 | 19469 |
| 70° | 33291 | 20181 | 13907 |
| 75° | 29682 | 15215 | 10549 |
| 80° | 24249 | 9884 | 9884 |
| 85° | 15209 | 8948 | 6706 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 37223 cd/sqm



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 223.3 | 2.1 |
| 10°-20° | 587.5 | 5.6 |
| 20°-30° | 861.4 | 8.2 |
| 30°-40° | 1043.2 | 9.9 |
| 40°-50° | 1025.8 | 9.7 |
| 50°-60° | 893.0 | 8.4 |
| 60°-70° | 620.8 | 5.9 |
| 70°-80° | 294.4 | 2.8 |
| 80°-90° | 65.8 | 0.6 |
| 90°-100° | 307.1 | 2.9 |
| 100°-110° | 999.7 | 9.5 |
| 110°-120° | 988.9 | 9.4 |
| 120°-130° | 808.2 | 7.6 |
| 130°-140° | 660.5 | 6.3 |
| 140°-150° | 514.5 | 4.9 |
| 150°-160° | 370.8 | 3.5 |
| 160°-170° | 226.7 | 2.1 |
| 170°-180° | 76.5 | 0.7 |
| 0°-30° | 1672.2 | 15.8 |
| 0°-40° | 2715.4 | 25.7 |
| 0°-60° | 4634.2 | 43.9 |
| 0°-90° | 5615.2 | 53.1 |
| 90°-120° | 2295.8 | 21.7 |
| 90°-150° | 4278.9 | 40.5 |
| 90°-180° | 4953.0 | 46.9 |
| 0°-180° | 10568.1 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|------|------|-------|------|-------|------|------|
| 0° | 2538 | 2538 | 2538 | 2538 | 2538 | |
| 5° | 2543 | 2541 | 2391 | 2316 | 2311 | 239 |
| 15° | 2420 | 2155 | 1985 | 1971 | 1997 | 675 |
| 25° | 2149 | 1828 | 1797 | 1852 | 1845 | 988 |
| 35° | 1886 | 1525 | 1601 | 1739 | 1971 | 1181 |
| 45° | 1630 | 1208 | 1321 | 1367 | 1162 | 1253 |
| 55° | 1287 | 940 | 1186 | 855 | 848 | 1150 |
| 65° | 923 | 646 | 621 | 510 | 510 | 907 |
| 75° | 476 | 329 | 244 | 174 | 169 | 504 |
| 85° | 82 | 54 | 48 | 39 | 36 | 110 |
| 90° | 0 | 3 | 7 | 6 | 6 | 4 |
| 95° | 42 | 126 | 563 | 201 | 123 | 48 |
| 105° | 170 | 245 | 990 | 1892 | 1791 | 181 |
| 115° | 314 | 375 | 807 | 1663 | 1956 | 311 |
| 125° | 436 | 487 | 796 | 1313 | 1547 | 388 |
| 135° | 527 | 582 | 792 | 1133 | 1278 | 407 |
| 145° | 616 | 662 | 790 | 976 | 1068 | 386 |
| 155° | 703 | 726 | 795 | 874 | 906 | 324 |
| 165° | 767 | 774 | 797 | 827 | 836 | 216 |
| 175° | 800 | 800 | 800 | 806 | 804 | 76 |
| 180° | 803 | 803 | 803 | 803 | 803 | |



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CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|--------|--------|--------|--------|--------|
| 0° | 2538.2 | 2538.2 | 2538.2 | 2538.2 | 2538.2 |
| 2.5° | 2532.4 | 2558.9 | 2499.6 | 2476.3 | 2472.5 |
| 5° | 2543.1 | 2540.7 | 2390.9 | 2315.9 | 2311.2 |
| 7.5° | 2496.7 | 2423.5 | 2244.6 | 2161.9 | 2158.1 |
| 10° | 2456.1 | 2345.1 | 2151.8 | 2076.9 | 2076.9 |
| 12.5° | 2446.5 | 2271.2 | 2076.5 | 2021.2 | 2032.5 |
| 15° | 2419.9 | 2155.4 | 1985.2 | 1971.3 | 1997.3 |
| 17.5° | 2332.0 | 2047.2 | 1914.2 | 1945.8 | 1976.0 |
| 20° | 2270.2 | 1989.1 | 1871.7 | 1930.3 | 1958.6 |
| 22.5° | 2218.0 | 1933.2 | 1840.8 | 1904.9 | 1920.0 |
| 25° | 2149.4 | 1828.3 | 1796.8 | 1852.2 | 1845.1 |
| 27.5° | 2067.3 | 1732.0 | 1752.8 | 1786.8 | 1791.0 |
| 30° | 2009.3 | 1674.0 | 1712.3 | 1746.8 | 1777.5 |
| 32.5° | 1953.3 | 1606.6 | 1667.8 | 1749.6 | 1820.0 |
| 35° | 1886.2 | 1524.9 | 1601.2 | 1739.3 | 1970.7 |
| 37.5° | 1815.6 | 1428.4 | 1534.0 | 1650.2 | 1723.9 |
| 40° | 1765.4 | 1359.2 | 1487.7 | 1631.1 | 1461.1 |
| 42.5° | 1711.3 | 1305.1 | 1418.1 | 1603.3 | 1316.2 |
| 45° | 1630.2 | 1207.5 | 1321.0 | 1367.1 | 1161.6 |
| 47.5° | 1534.5 | 1131.7 | 1255.3 | 1140.0 | 1059.7 |
| 50° | 1461.1 | 1080.9 | 1224.4 | 1042.1 | 990.2 |
| 52.5° | 1389.6 | 1028.3 | 1203.2 | 961.4 | 926.4 |
| 55° | 1287.2 | 940.1 | 1185.8 | 854.8 | 847.7 |
| 57.5° | 1178.5 | 850.3 | 1048.6 | 762.0 | 774.3 |
| 60° | 1110.9 | 792.1 | 905.6 | 707.3 | 693.1 |
| 62.5° | 1039.4 | 735.8 | 772.3 | 637.7 | 623.6 |
| 65° | 922.6 | 646.3 | 620.7 | 509.6 | 509.6 |
| 67.5° | 794.1 | 553.2 | 502.8 | 417.0 | 360.3 |
| 70° | 705.2 | 492.7 | 427.5 | 332.4 | 294.6 |
| 72.5° | 610.5 | 428.2 | 350.2 | 272.4 | 228.9 |
| 75° | 475.8 | 329.4 | 243.9 | 173.8 | 169.1 |
| 77.5° | 343.9 | 237.2 | 164.2 | 129.0 | 129.4 |
| 80° | 260.8 | 180.5 | 106.3 | 103.9 | 106.3 |
| 82.5° | 183.5 | 124.0 | 79.2 | 82.6 | 83.1 |
| 85° | 82.1 | 53.8 | 48.3 | 38.6 | 36.2 |
| 87.5° | 17.4 | 16.1 | 11.0 | 10.8 | 10.8 |
| 90° | 0.0 | 2.9 | 6.9 | 5.9 | 5.9 |
| 92.5° | 14.2 | 51.1 | 163.3 | 53.8 | 41.5 |
| 95° | 41.5 | 126.4 | 562.8 | 200.7 | 123.4 |
| 97.5° | 78.0 | 164.5 | 955.2 | 581.8 | 355.1 |
| 100° | 101.7 | 186.7 | 1102.9 | 983.5 | 637.9 |
| 102.5° | 128.6 | 210.4 | 1084.8 | 1455.0 | 1106.3 |
| 105° | 169.8 | 245.1 | 990.4 | 1891.6 | 1791.2 |
| 107.5° | 214.5 | 285.3 | 900.7 | 1929.4 | 2035.8 |
| 110° | 246.9 | 311.5 | 858.1 | 1882.4 | 2074.6 |



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CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|-------|-------|-------|--------|--------|
| 112.5° | 273.7 | 337.6 | 831.2 | 1797.6 | 2045.3 |
| 115° | 314.0 | 374.8 | 806.7 | 1662.6 | 1956.1 |
| 117.5° | 355.5 | 410.3 | 797.2 | 1538.9 | 1831.1 |
| 120° | 379.2 | 433.2 | 794.9 | 1462.9 | 1745.7 |
| 122.5° | 402.1 | 455.4 | 795.7 | 1396.9 | 1660.4 |
| 125° | 436.4 | 486.6 | 795.9 | 1312.7 | 1547.3 |
| 127.5° | 465.9 | 517.2 | 795.7 | 1249.6 | 1445.2 |
| 130° | 484.8 | 537.0 | 794.9 | 1213.5 | 1388.3 |
| 132.5° | 501.4 | 555.9 | 794.1 | 1180.1 | 1344.1 |
| 135° | 527.3 | 582.3 | 791.9 | 1132.9 | 1277.7 |
| 137.5° | 552.6 | 608.0 | 789.7 | 1084.9 | 1213.5 |
| 140° | 570.7 | 623.8 | 788.9 | 1052.4 | 1174.0 |
| 142.5° | 588.1 | 638.9 | 788.9 | 1021.3 | 1129.8 |
| 145° | 616.1 | 661.5 | 789.9 | 975.7 | 1068.4 |
| 147.5° | 643.4 | 682.8 | 791.3 | 936.9 | 1008.5 |
| 150° | 661.6 | 696.3 | 792.9 | 913.7 | 974.6 |
| 152.5° | 679.7 | 708.3 | 793.7 | 896.1 | 944.6 |
| 155° | 703.0 | 726.2 | 794.9 | 873.6 | 906.4 |
| 157.5° | 725.2 | 741.8 | 796.1 | 857.0 | 880.0 |
| 160° | 738.6 | 752.1 | 796.8 | 846.6 | 865.0 |
| 162.5° | 750.4 | 760.9 | 796.8 | 837.8 | 851.5 |
| 165° | 767.2 | 774.0 | 796.8 | 826.7 | 836.3 |
| 167.5° | 779.1 | 783.3 | 797.0 | 818.3 | 823.3 |
| 170° | 787.0 | 788.9 | 797.8 | 812.7 | 814.6 |
| 172.5° | 792.5 | 793.7 | 799.4 | 809.5 | 809.1 |
| 175° | 799.8 | 799.8 | 799.8 | 805.7 | 803.8 |
| 177.5° | 802.8 | 802.0 | 801.2 | 805.1 | 802.0 |
| 180° | 802.8 | 802.8 | 802.8 | 802.8 | 802.8 |



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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 | 20.51 | 21.40 | 21.45 | 22.34 | 23.57 | 19.19 | 20.07 | 20.12 | 21.02 | 22.24 |
| | 3H | 22.54 | 23.33 | 23.48 | 24.29 | 25.54 | 20.22 | 21.01 | 21.17 | 21.97 | 23.22 |
| | 4H | 23.27 | 24.02 | 24.23 | 24.98 | 26.24 | 20.44 | 21.18 | 21.40 | 22.15 | 23.41 |
| | 6H | 23.76 | 24.45 | 24.73 | 25.41 | 26.69 | 20.58 | 21.27 | 21.55 | 22.24 | 23.51 |
| | 8H | 23.89 | 24.54 | 24.86 | 25.52 | 26.79 | 20.62 | 21.27 | 21.59 | 22.25 | 23.52 |
| | 12H | 23.93 | 24.55 | 24.91 | 25.53 | 26.82 | 20.62 | 21.24 | 21.60 | 22.22 | 23.51 |
| 4H | 2H | 20.89 | 21.64 | 21.86 | 22.60 | 23.86 | 19.83 | 20.58 | 20.80 | 21.54 | 22.80 |
| | 3H | 23.00 | 23.62 | 23.97 | 24.61 | 25.89 | 21.01 | 21.63 | 21.99 | 22.63 | 23.90 |
| | 4H | 23.82 | 24.38 | 24.80 | 25.37 | 26.67 | 21.29 | 21.86 | 22.27 | 22.84 | 24.14 |
| | 6H | 24.40 | 24.89 | 25.40 | 25.90 | 27.19 | 21.50 | 21.99 | 22.49 | 23.00 | 24.29 |
| | 8H | 24.57 | 25.03 | 25.57 | 26.03 | 27.34 | 21.56 | 22.01 | 22.55 | 23.01 | 24.32 |
| | 12H | 24.64 | 25.05 | 25.66 | 26.07 | 27.39 | 21.56 | 21.98 | 22.58 | 22.99 | 24.31 |
| 8H | 4H | 23.84 | 24.29 | 24.83 | 25.29 | 26.60 | 21.51 | 21.96 | 22.50 | 22.96 | 24.27 |
| | 6H | 24.49 | 24.86 | 25.51 | 25.91 | 27.22 | 21.78 | 22.16 | 22.80 | 23.20 | 24.51 |
| | 8H | 24.71 | 25.04 | 25.74 | 26.08 | 27.40 | 21.88 | 22.21 | 22.91 | 23.24 | 24.57 |
| | 12H | 24.83 | 25.12 | 25.86 | 26.14 | 27.52 | 21.93 | 22.22 | 22.96 | 23.24 | 24.62 |
| 12H | 4H | 23.79 | 24.20 | 24.80 | 25.22 | 26.53 | 21.51 | 21.92 | 22.52 | 22.93 | 24.25 |
| | 6H | 24.46 | 24.79 | 25.49 | 25.82 | 27.15 | 21.81 | 22.14 | 22.84 | 23.17 | 24.50 |
| | 8H | 24.70 | 24.99 | 25.73 | 26.01 | 27.38 | 21.93 | 22.22 | 22.96 | 23.24 | 24.61 |