

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: P854158

Luminaire Tested: SQ2-PP3-150U-125D-935-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P854158
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-14, G2-2308-131-7)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-PP3-150U-125D-935-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 1250 LUMENS PER FOOT
UPLIGHT 1500 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

Summary

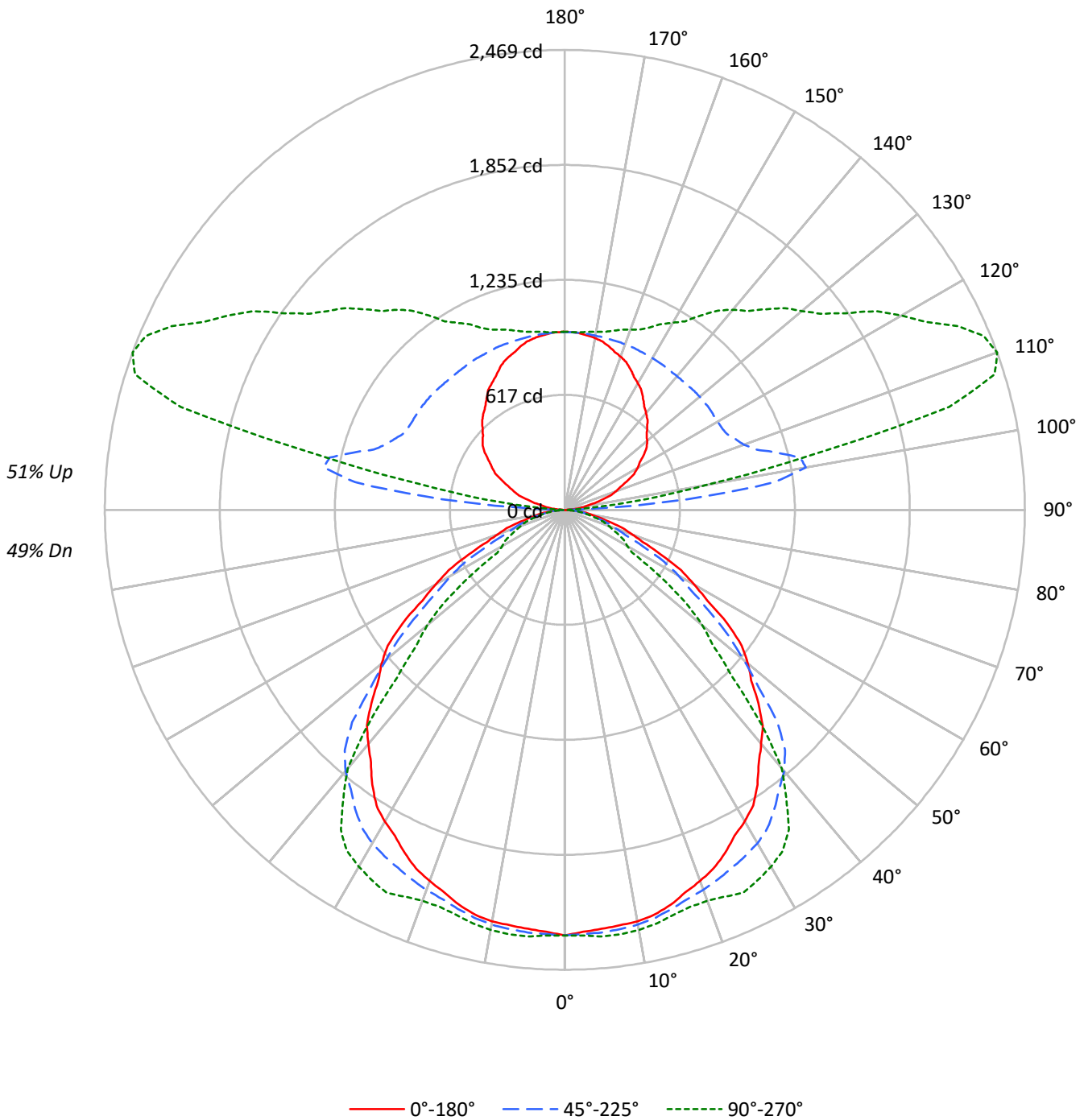
Lumens per Lamp: N/A
Luminaire Lumens: 11649.4 lumens
Efficiency: N/A
Efficacy: 110.1 lumens/watt
Spacing Criteria (0/90/45): 1.26 / 1.41 / 1.4
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: General Diffuse

Input Watts (W): 105.8
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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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 | 107 | 107 | 107 | 107 | 99 | 99 | 99 | 99 | 83 | 83 | 83 | 69 | 69 | 69 | 56 | 56 | 56 | 49 | | | | |
| 1 | 98 | 94 | 90 | 87 | 90 | 87 | 84 | 81 | 74 | 71 | 69 | 61 | 60 | 58 | 50 | 49 | 48 | 43 | | | | |
| 2 | 90 | 83 | 77 | 72 | 83 | 77 | 72 | 67 | 65 | 61 | 58 | 54 | 52 | 49 | 45 | 43 | 41 | 37 | | | | |
| 3 | 82 | 73 | 66 | 60 | 76 | 68 | 62 | 57 | 58 | 53 | 49 | 48 | 45 | 42 | 40 | 38 | 36 | 31 | | | | |
| 4 | 75 | 65 | 57 | 51 | 69 | 60 | 54 | 48 | 52 | 46 | 42 | 43 | 40 | 37 | 36 | 33 | 31 | 27 | | | | |
| 5 | 69 | 58 | 50 | 44 | 64 | 54 | 47 | 42 | 46 | 41 | 37 | 39 | 35 | 32 | 32 | 30 | 27 | 24 | | | | |
| 6 | 64 | 52 | 44 | 39 | 59 | 49 | 41 | 36 | 42 | 36 | 32 | 35 | 31 | 28 | 30 | 26 | 24 | 21 | | | | |
| 7 | 59 | 47 | 39 | 34 | 54 | 44 | 37 | 32 | 38 | 32 | 28 | 32 | 28 | 25 | 27 | 24 | 21 | 19 | | | | |
| 8 | 55 | 43 | 35 | 30 | 51 | 40 | 33 | 28 | 35 | 29 | 25 | 30 | 25 | 22 | 25 | 22 | 19 | 17 | | | | |
| 9 | 51 | 39 | 32 | 27 | 47 | 37 | 30 | 25 | 32 | 26 | 23 | 27 | 23 | 20 | 23 | 20 | 17 | 15 | | | | |
| 10 | 48 | 36 | 29 | 24 | 44 | 34 | 27 | 23 | 29 | 24 | 20 | 25 | 21 | 18 | 21 | 18 | 16 | 14 | | | | |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|-------|-------|-------|
| 0° | 36887 | 36887 | 36887 |
| 5° | 36598 | 36911 | 37263 |
| 10° | 36784 | 37061 | 37536 |
| 15° | 36695 | 37058 | 37623 |
| 20° | 36433 | 37304 | 38383 |
| 25° | 36227 | 37775 | 40399 |
| 30° | 36019 | 38542 | 41243 |
| 35° | 35510 | 38652 | 41319 |
| 40° | 34562 | 38583 | 38177 |
| 45° | 33529 | 36838 | 29060 |
| 50° | 32212 | 31423 | 24204 |
| 55° | 29979 | 26446 | 17405 |
| 60° | 25814 | 22695 | 12478 |
| 65° | 21776 | 17532 | 12271 |
| 70° | 18128 | 13794 | 11745 |
| 75° | 15365 | 11903 | 10998 |
| 80° | 13027 | 10330 | 9884 |
| 85° | 10282 | 8503 | 5372 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 36838 cd/sqm



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 217.5 | 1.9 |
| 10°-20° | 629.6 | 5.4 |
| 20°-30° | 986.3 | 8.5 |
| 30°-40° | 1216.8 | 10.4 |
| 40°-50° | 1145.6 | 9.8 |
| 50°-60° | 811.1 | 7.0 |
| 60°-70° | 462.2 | 4.0 |
| 70°-80° | 228.7 | 2.0 |
| 80°-90° | 57.0 | 0.5 |
| 90°-100° | 363.9 | 3.1 |
| 100°-110° | 1191.6 | 10.2 |
| 110°-120° | 1178.0 | 10.1 |
| 120°-130° | 963.0 | 8.3 |
| 130°-140° | 785.9 | 6.7 |
| 140°-150° | 611.6 | 5.2 |
| 150°-160° | 440.4 | 3.8 |
| 160°-170° | 269.4 | 2.3 |
| 170°-180° | 91.0 | 0.8 |
| 0°-30° | 1833.5 | 15.7 |
| 0°-40° | 3050.2 | 26.2 |
| 0°-60° | 5006.9 | 43.0 |
| 0°-90° | 5754.7 | 49.4 |
| 90°-120° | 2733.5 | 23.5 |
| 90°-150° | 5093.9 | 43.7 |
| 90°-180° | 5895.0 | 50.6 |
| 0°-180° | 11649.4 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|------|------|-------|------|-------|------|------|
| 0° | 2285 | 2285 | 2285 | 2285 | 2285 | |
| 5° | 2258 | 2298 | 2277 | 2283 | 2299 | 215 |
| 15° | 2195 | 2226 | 2217 | 2239 | 2251 | 619 |
| 25° | 2034 | 2085 | 2120 | 2206 | 2268 | 937 |
| 35° | 1802 | 1851 | 1961 | 2073 | 2096 | 1124 |
| 45° | 1468 | 1579 | 1613 | 1367 | 1273 | 1130 |
| 55° | 1065 | 1129 | 940 | 708 | 618 | 940 |
| 65° | 570 | 601 | 459 | 324 | 321 | 572 |
| 75° | 246 | 272 | 191 | 179 | 176 | 267 |
| 85° | 56 | 51 | 46 | 36 | 29 | 65 |
| 90° | 1 | 3 | 8 | 7 | 8 | 5 |
| 95° | 51 | 148 | 662 | 236 | 153 | 58 |
| 105° | 207 | 295 | 1183 | 2247 | 2135 | 218 |
| 115° | 373 | 446 | 961 | 1986 | 2331 | 368 |
| 125° | 519 | 579 | 947 | 1566 | 1839 | 462 |
| 135° | 625 | 692 | 939 | 1351 | 1522 | 484 |
| 145° | 731 | 785 | 937 | 1162 | 1273 | 458 |
| 155° | 833 | 861 | 943 | 1039 | 1080 | 384 |
| 165° | 910 | 918 | 947 | 984 | 994 | 256 |
| 175° | 951 | 951 | 952 | 959 | 957 | 90 |
| 180° | 955 | 955 | 955 | 955 | 955 | |



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CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|--------|--------|--------|--------|--------|
| 0° | 2284.6 | 2284.6 | 2284.6 | 2284.6 | 2284.6 |
| 2.5° | 2267.3 | 2299.4 | 2278.8 | 2282.8 | 2286.6 |
| 5° | 2258.1 | 2298.2 | 2277.4 | 2282.6 | 2299.1 |
| 7.5° | 2249.4 | 2290.5 | 2270.2 | 2278.8 | 2299.1 |
| 10° | 2243.6 | 2279.0 | 2260.5 | 2272.9 | 2289.5 |
| 12.5° | 2226.2 | 2259.7 | 2243.1 | 2259.4 | 2274.0 |
| 15° | 2195.3 | 2226.0 | 2217.0 | 2239.0 | 2250.8 |
| 17.5° | 2153.3 | 2190.6 | 2190.5 | 2221.6 | 2233.9 |
| 20° | 2120.4 | 2165.3 | 2171.1 | 2210.3 | 2233.9 |
| 22.5° | 2085.6 | 2138.1 | 2147.9 | 2206.8 | 2247.5 |
| 25° | 2033.5 | 2085.4 | 2120.4 | 2206.3 | 2267.7 |
| 27.5° | 1972.6 | 2024.1 | 2096.3 | 2192.5 | 2241.2 |
| 30° | 1932.0 | 1981.6 | 2067.3 | 2167.3 | 2212.2 |
| 32.5° | 1881.8 | 1933.3 | 2024.8 | 2132.5 | 2173.5 |
| 35° | 1801.6 | 1851.2 | 1961.0 | 2072.7 | 2096.3 |
| 37.5° | 1709.4 | 1765.6 | 1888.6 | 1950.9 | 1952.3 |
| 40° | 1639.8 | 1713.0 | 1830.6 | 1842.0 | 1811.3 |
| 42.5° | 1572.2 | 1666.2 | 1749.5 | 1698.5 | 1562.1 |
| 45° | 1468.4 | 1579.3 | 1613.3 | 1367.2 | 1272.7 |
| 47.5° | 1357.7 | 1467.3 | 1413.3 | 1146.6 | 1081.5 |
| 50° | 1282.4 | 1386.3 | 1251.0 | 1025.0 | 963.6 |
| 52.5° | 1197.4 | 1290.0 | 1106.1 | 908.4 | 814.8 |
| 55° | 1065.0 | 1128.8 | 939.5 | 708.0 | 618.3 |
| 57.5° | 905.6 | 950.5 | 803.2 | 531.4 | 430.8 |
| 60° | 799.4 | 834.8 | 702.8 | 436.0 | 386.4 |
| 62.5° | 702.8 | 734.4 | 598.5 | 378.8 | 361.3 |
| 65° | 570.0 | 600.7 | 458.9 | 323.6 | 321.2 |
| 67.5° | 453.5 | 487.1 | 352.1 | 282.5 | 279.7 |
| 70° | 384.0 | 419.4 | 292.2 | 253.5 | 248.8 |
| 72.5° | 326.0 | 359.6 | 247.8 | 222.6 | 219.8 |
| 75° | 246.3 | 272.3 | 190.8 | 178.7 | 176.3 |
| 77.5° | 178.7 | 195.2 | 142.0 | 135.7 | 133.3 |
| 80° | 140.1 | 147.2 | 111.1 | 108.6 | 106.3 |
| 82.5° | 105.3 | 102.9 | 84.0 | 81.5 | 77.3 |
| 85° | 55.5 | 50.8 | 45.9 | 36.1 | 29.0 |
| 87.5° | 17.6 | 18.0 | 9.3 | 7.2 | 7.4 |
| 90° | 1.0 | 2.9 | 7.9 | 6.9 | 7.9 |
| 92.5° | 16.7 | 60.8 | 186.9 | 60.8 | 48.7 |
| 95° | 51.0 | 148.0 | 661.6 | 235.7 | 153.1 |
| 97.5° | 92.7 | 195.2 | 1135.1 | 686.6 | 425.6 |
| 100° | 121.7 | 219.6 | 1313.3 | 1172.8 | 777.4 |
| 102.5° | 154.7 | 250.3 | 1293.7 | 1728.1 | 1339.6 |
| 105° | 207.1 | 295.4 | 1182.8 | 2247.2 | 2134.9 |
| 107.5° | 258.7 | 339.7 | 1074.6 | 2295.7 | 2419.1 |
| 110° | 292.5 | 371.2 | 1022.8 | 2239.2 | 2468.6 |



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CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|-------|-------|-------|--------|--------|
| 112.5° | 324.7 | 401.1 | 991.4 | 2141.0 | 2434.8 |
| 115° | 373.0 | 445.9 | 960.9 | 1985.7 | 2331.2 |
| 117.5° | 419.9 | 488.0 | 949.4 | 1833.1 | 2183.9 |
| 120° | 450.5 | 514.8 | 946.2 | 1744.1 | 2085.8 |
| 122.5° | 478.0 | 540.8 | 946.2 | 1667.4 | 1984.5 |
| 125° | 519.2 | 578.7 | 947.2 | 1565.9 | 1839.4 |
| 127.5° | 554.2 | 614.8 | 946.0 | 1491.1 | 1729.1 |
| 130° | 576.2 | 637.6 | 945.2 | 1445.8 | 1660.8 |
| 132.5° | 595.8 | 658.8 | 942.9 | 1406.9 | 1601.9 |
| 135° | 625.2 | 691.5 | 939.3 | 1350.6 | 1522.4 |
| 137.5° | 656.3 | 721.9 | 937.2 | 1291.9 | 1447.2 |
| 140° | 678.3 | 741.6 | 936.4 | 1254.8 | 1401.7 |
| 142.5° | 700.2 | 759.7 | 936.4 | 1215.2 | 1348.3 |
| 145° | 731.3 | 785.0 | 937.4 | 1161.7 | 1273.1 |
| 147.5° | 763.8 | 808.6 | 938.8 | 1115.2 | 1199.3 |
| 150° | 784.3 | 823.6 | 940.3 | 1088.2 | 1159.2 |
| 152.5° | 804.7 | 839.4 | 941.1 | 1065.9 | 1124.7 |
| 155° | 833.3 | 861.2 | 943.3 | 1039.4 | 1079.7 |
| 157.5° | 859.1 | 879.2 | 945.4 | 1018.5 | 1047.7 |
| 160° | 875.5 | 891.9 | 946.2 | 1006.6 | 1029.6 |
| 162.5° | 889.7 | 902.9 | 946.2 | 997.0 | 1013.9 |
| 165° | 909.9 | 918.5 | 947.2 | 983.8 | 994.3 |
| 167.5° | 927.0 | 931.2 | 948.4 | 973.4 | 979.2 |
| 170° | 936.4 | 938.3 | 949.2 | 967.9 | 969.8 |
| 172.5° | 943.5 | 944.6 | 951.5 | 963.9 | 964.3 |
| 175° | 951.1 | 951.1 | 952.1 | 958.9 | 957.0 |
| 177.5° | 955.0 | 954.3 | 953.5 | 958.1 | 955.0 |
| 180° | 955.0 | 955.0 | 955.0 | 955.0 | 955.0 |



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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 | 20.02 | 20.85 | 20.99 | 21.82 | 23.11 | 16.42 | 17.24 | 17.39 | 18.22 | 19.50 |
| | 3H | 21.11 | 21.85 | 22.09 | 22.84 | 24.14 | 17.52 | 18.26 | 18.50 | 19.24 | 20.55 |
| | 4H | 21.45 | 22.15 | 22.45 | 23.14 | 24.45 | 17.98 | 18.68 | 18.97 | 19.67 | 20.98 |
| | 6H | 21.67 | 22.31 | 22.67 | 23.30 | 24.63 | 18.32 | 18.96 | 19.33 | 19.96 | 21.29 |
| | 8H | 21.72 | 22.32 | 22.73 | 23.34 | 24.66 | 18.41 | 19.02 | 19.42 | 20.03 | 21.35 |
| | 12H | 21.73 | 22.31 | 22.74 | 23.31 | 24.66 | 18.42 | 19.00 | 19.44 | 20.01 | 21.35 |
| 4H | 2H | 20.12 | 20.82 | 21.12 | 21.81 | 23.13 | 17.13 | 17.82 | 18.13 | 18.81 | 20.13 |
| | 3H | 21.43 | 22.01 | 22.44 | 23.03 | 24.35 | 18.37 | 18.95 | 19.38 | 19.97 | 21.30 |
| | 4H | 21.90 | 22.43 | 22.92 | 23.44 | 24.79 | 18.93 | 19.45 | 19.94 | 20.47 | 21.82 |
| | 6H | 22.24 | 22.69 | 23.27 | 23.73 | 25.07 | 19.37 | 19.82 | 20.39 | 20.85 | 22.20 |
| | 8H | 22.33 | 22.75 | 23.36 | 23.78 | 25.14 | 19.49 | 19.91 | 20.52 | 20.94 | 22.30 |
| | 12H | 22.37 | 22.75 | 23.41 | 23.79 | 25.16 | 19.51 | 19.89 | 20.56 | 20.94 | 22.31 |
| 8H | 4H | 21.92 | 22.34 | 22.95 | 23.37 | 24.73 | 19.20 | 19.62 | 20.23 | 20.65 | 22.01 |
| | 6H | 22.35 | 22.70 | 23.40 | 23.77 | 25.13 | 19.74 | 20.09 | 20.79 | 21.16 | 22.52 |
| | 8H | 22.51 | 22.81 | 23.57 | 23.87 | 25.25 | 19.93 | 20.23 | 20.99 | 21.29 | 22.67 |
| | 12H | 22.59 | 22.86 | 23.65 | 23.91 | 25.33 | 20.00 | 20.27 | 21.06 | 21.32 | 22.74 |
| 12H | 4H | 21.88 | 22.26 | 22.92 | 23.30 | 24.67 | 19.20 | 19.58 | 20.25 | 20.63 | 22.00 |
| | 6H | 22.34 | 22.64 | 23.40 | 23.70 | 25.08 | 19.79 | 20.10 | 20.85 | 21.16 | 22.54 |
| | 8H | 22.51 | 22.78 | 23.57 | 23.83 | 25.25 | 20.00 | 20.27 | 21.06 | 21.32 | 22.74 |