

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: P854228

Luminaire Tested: SQ2-PR1-125U-100D-940-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P854228
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-13, G2-2308-131-9)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-PR1-125U-100D-940-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 1000 LUMENS PER FOOT
UPLIGHT 1250 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

Summary

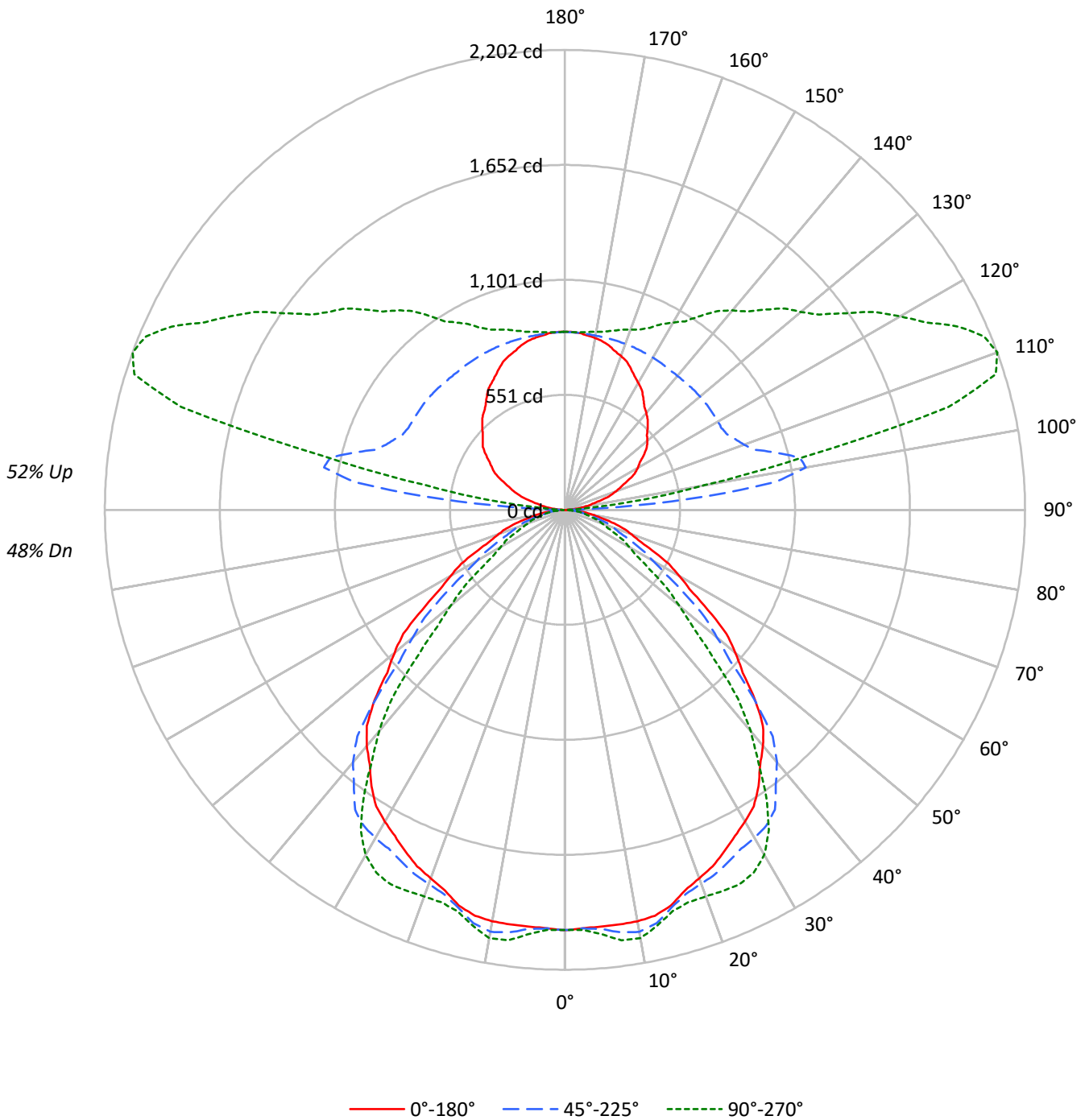
Lumens per Lamp: N/A
Luminaire Lumens: 10099.8 lumens
Efficiency: N/A
Efficacy: 123.9 lumens/watt
Spacing Criteria (0/90/45): 1.28 / 1.34 / 1.36
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: General Diffuse

Input Watts (W): 81.5
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: P854228

CATALOG NUMBER: SQ2-PR1-125U-100D-940-UNV-STD-W-4

Luminous Intensity Polar Plot





TEST NUMBER: P854228

CATALOG NUMBER: SQ2-PR1-125U-100D-940-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 | 107 | 107 | 107 | 107 | 98 | 98 | 98 | 98 | 82 | 82 | 82 | 68 | 68 | 68 | 54 | 54 | 54 | 48 | | | | 48 |
| 1 | 98 | 94 | 90 | 87 | 90 | 87 | 83 | 81 | 73 | 71 | 69 | 60 | 59 | 58 | 49 | 48 | 47 | | | | 42 | |
| 2 | 90 | 83 | 77 | 72 | 82 | 76 | 71 | 67 | 65 | 61 | 58 | 54 | 51 | 49 | 44 | 42 | 40 | | | | 36 | |
| 3 | 82 | 73 | 66 | 61 | 75 | 68 | 62 | 57 | 57 | 53 | 49 | 48 | 45 | 42 | 39 | 37 | 35 | | | | 31 | |
| 4 | 75 | 65 | 57 | 52 | 69 | 60 | 54 | 49 | 51 | 46 | 42 | 43 | 39 | 36 | 35 | 33 | 31 | | | | 27 | |
| 5 | 69 | 58 | 50 | 45 | 64 | 54 | 47 | 42 | 46 | 41 | 37 | 39 | 35 | 32 | 32 | 29 | 27 | | | | 24 | |
| 6 | 64 | 52 | 44 | 39 | 59 | 49 | 42 | 37 | 42 | 36 | 32 | 35 | 31 | 28 | 29 | 26 | 24 | | | | 21 | |
| 7 | 59 | 47 | 40 | 34 | 54 | 44 | 37 | 32 | 38 | 33 | 29 | 32 | 28 | 25 | 27 | 24 | 21 | | | | 19 | |
| 8 | 55 | 43 | 35 | 30 | 51 | 40 | 33 | 29 | 35 | 29 | 25 | 29 | 25 | 22 | 25 | 22 | 19 | | | | 17 | |
| 9 | 51 | 39 | 32 | 27 | 47 | 37 | 30 | 26 | 32 | 27 | 23 | 27 | 23 | 20 | 23 | 20 | 17 | | | | 15 | |
| 10 | 48 | 36 | 29 | 24 | 44 | 34 | 27 | 23 | 29 | 24 | 21 | 25 | 21 | 18 | 21 | 18 | 16 | | | | 14 | |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|-------|-------|-------|
| 0° | 32495 | 32495 | 32495 |
| 5° | 32454 | 32653 | 33052 |
| 10° | 32795 | 33636 | 34141 |
| 15° | 32784 | 32956 | 33230 |
| 20° | 32254 | 32747 | 33840 |
| 25° | 32163 | 33077 | 35234 |
| 30° | 32130 | 33812 | 35572 |
| 35° | 31824 | 34535 | 33119 |
| 40° | 31091 | 33253 | 29145 |
| 45° | 29419 | 29186 | 23048 |
| 50° | 26746 | 23860 | 17882 |
| 55° | 23505 | 19634 | 13917 |
| 60° | 20337 | 15700 | 11460 |
| 65° | 17559 | 13012 | 10032 |
| 70° | 15786 | 11523 | 8908 |
| 75° | 14460 | 9981 | 8191 |
| 80° | 12590 | 8015 | 8015 |
| 85° | 9114 | 7225 | 3798 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
 Vertical Angle: 45°
 Luminance: 31800 cd/sqm



TEST NUMBER: P854228

CATALOG NUMBER: SQ2-PR1-125U-100D-940-UNV-STD-W-4

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 194.4 | 1.9 |
| 10°-20° | 562.6 | 5.6 |
| 20°-30° | 869.7 | 8.6 |
| 30°-40° | 1046.1 | 10.4 |
| 40°-50° | 939.3 | 9.3 |
| 50°-60° | 629.2 | 6.2 |
| 60°-70° | 366.0 | 3.6 |
| 70°-80° | 188.0 | 1.9 |
| 80°-90° | 47.3 | 0.5 |
| 90°-100° | 325.9 | 3.2 |
| 100°-110° | 1061.2 | 10.5 |
| 110°-120° | 1049.7 | 10.4 |
| 120°-130° | 857.8 | 8.5 |
| 130°-140° | 701.1 | 6.9 |
| 140°-150° | 546.1 | 5.4 |
| 150°-160° | 393.6 | 3.9 |
| 160°-170° | 240.6 | 2.4 |
| 170°-180° | 81.2 | 0.8 |
| 0°-30° | 1626.7 | 16.1 |
| 0°-40° | 2672.8 | 26.5 |
| 0°-60° | 4241.3 | 42.0 |
| 0°-90° | 4842.6 | 47.9 |
| 90°-120° | 2436.8 | 24.1 |
| 90°-150° | 4541.8 | 45.0 |
| 90°-180° | 5257.0 | 52.1 |
| 0°-180° | 10099.8 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|------|------|-------|------|-------|------|------|
| 0° | 2013 | 2013 | 2013 | 2013 | 2013 | |
| 5° | 2002 | 2036 | 2015 | 2019 | 2039 | 191 |
| 15° | 1961 | 2042 | 1972 | 1978 | 1988 | 551 |
| 25° | 1805 | 1878 | 1857 | 1926 | 1978 | 833 |
| 35° | 1615 | 1629 | 1752 | 1718 | 1680 | 1007 |
| 45° | 1288 | 1393 | 1278 | 1078 | 1009 | 986 |
| 55° | 835 | 867 | 698 | 539 | 494 | 750 |
| 65° | 460 | 470 | 341 | 277 | 263 | 465 |
| 75° | 232 | 226 | 160 | 135 | 131 | 246 |
| 85° | 49 | 39 | 39 | 26 | 20 | 61 |
| 90° | 0 | 3 | 7 | 6 | 6 | 4 |
| 95° | 44 | 134 | 597 | 213 | 131 | 51 |
| 105° | 180 | 260 | 1051 | 2008 | 1901 | 192 |
| 115° | 333 | 398 | 856 | 1765 | 2076 | 330 |
| 125° | 463 | 516 | 845 | 1393 | 1642 | 412 |
| 135° | 560 | 618 | 841 | 1202 | 1356 | 432 |
| 145° | 654 | 702 | 838 | 1036 | 1134 | 409 |
| 155° | 746 | 771 | 844 | 927 | 962 | 344 |
| 165° | 814 | 822 | 846 | 878 | 888 | 229 |
| 175° | 849 | 849 | 849 | 855 | 853 | 81 |
| 180° | 852 | 852 | 852 | 852 | 852 | |



TEST NUMBER: P854228

CATALOG NUMBER: SQ2-PR1-125U-100D-940-UNV-STD-W-4

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|--------|--------|--------|--------|--------|
| 0° | 2012.6 | 2012.6 | 2012.6 | 2012.6 | 2012.6 |
| 2.5° | 2004.4 | 2028.5 | 2006.1 | 2007.8 | 2012.6 |
| 5° | 2002.4 | 2036.5 | 2014.7 | 2019.2 | 2039.3 |
| 7.5° | 2002.0 | 2050.5 | 2040.1 | 2052.6 | 2079.1 |
| 10° | 2000.3 | 2058.5 | 2051.6 | 2054.3 | 2082.4 |
| 12.5° | 1990.5 | 2058.3 | 2027.0 | 2024.5 | 2039.7 |
| 15° | 1961.3 | 2041.6 | 1971.6 | 1978.0 | 1988.0 |
| 17.5° | 1910.0 | 1993.9 | 1927.3 | 1949.9 | 1969.5 |
| 20° | 1877.2 | 1959.5 | 1905.9 | 1935.4 | 1969.5 |
| 22.5° | 1847.7 | 1929.9 | 1886.2 | 1927.5 | 1974.5 |
| 25° | 1805.4 | 1877.6 | 1856.7 | 1925.6 | 1977.8 |
| 27.5° | 1761.1 | 1803.6 | 1828.4 | 1920.7 | 1957.2 |
| 30° | 1723.4 | 1751.4 | 1813.6 | 1894.0 | 1908.0 |
| 32.5° | 1682.3 | 1699.2 | 1793.9 | 1835.8 | 1817.7 |
| 35° | 1614.6 | 1628.7 | 1752.1 | 1718.4 | 1680.3 |
| 37.5° | 1534.2 | 1563.1 | 1658.1 | 1561.1 | 1517.4 |
| 40° | 1475.1 | 1523.3 | 1577.7 | 1432.9 | 1382.8 |
| 42.5° | 1402.9 | 1479.9 | 1471.0 | 1286.6 | 1225.2 |
| 45° | 1288.4 | 1392.7 | 1278.2 | 1077.6 | 1009.4 |
| 47.5° | 1153.4 | 1260.5 | 1073.0 | 893.9 | 830.1 |
| 50° | 1064.8 | 1151.0 | 949.9 | 782.1 | 711.9 |
| 52.5° | 974.5 | 1036.7 | 844.9 | 677.2 | 613.4 |
| 55° | 835.0 | 867.1 | 697.5 | 538.6 | 494.4 |
| 57.5° | 707.0 | 727.4 | 569.9 | 435.0 | 402.5 |
| 60° | 629.8 | 643.9 | 486.2 | 381.0 | 354.9 |
| 62.5° | 559.3 | 570.1 | 418.9 | 335.2 | 315.5 |
| 65° | 459.6 | 469.6 | 340.6 | 276.6 | 262.6 |
| 67.5° | 380.4 | 385.6 | 280.2 | 229.9 | 216.6 |
| 70° | 334.4 | 336.4 | 244.1 | 198.8 | 188.7 |
| 72.5° | 293.4 | 290.6 | 209.7 | 172.6 | 165.8 |
| 75° | 231.8 | 225.8 | 160.0 | 135.3 | 131.3 |
| 77.5° | 173.2 | 166.7 | 112.4 | 104.2 | 104.2 |
| 80° | 135.4 | 127.4 | 86.2 | 86.2 | 86.2 |
| 82.5° | 100.9 | 89.7 | 66.5 | 66.4 | 64.8 |
| 85° | 49.2 | 39.2 | 39.0 | 26.5 | 20.5 |
| 87.5° | 13.1 | 13.7 | 6.4 | 6.2 | 6.2 |
| 90° | 0.0 | 3.1 | 7.3 | 6.3 | 6.3 |
| 92.5° | 15.1 | 54.2 | 173.4 | 57.1 | 44.0 |
| 95° | 44.0 | 134.2 | 597.4 | 213.0 | 131.0 |
| 97.5° | 82.8 | 174.6 | 1013.9 | 617.5 | 376.9 |
| 100° | 108.0 | 198.1 | 1170.7 | 1043.9 | 677.1 |
| 102.5° | 136.5 | 223.4 | 1151.4 | 1544.4 | 1174.3 |
| 105° | 180.3 | 260.2 | 1051.2 | 2007.8 | 1901.2 |
| 107.5° | 227.6 | 302.9 | 956.1 | 2048.0 | 2160.9 |
| 110° | 262.0 | 330.7 | 910.8 | 1998.1 | 2202.0 |



TEST NUMBER: P854228

CATALOG NUMBER: SQ2-PR1-125U-100D-940-UNV-STD-W-4

CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|-------|-------|-------|--------|--------|
| 112.5° | 290.5 | 358.4 | 882.3 | 1908.0 | 2171.0 |
| 115° | 333.3 | 397.9 | 856.3 | 1764.7 | 2076.3 |
| 117.5° | 377.3 | 435.5 | 846.2 | 1633.5 | 1943.6 |
| 120° | 402.5 | 459.9 | 843.7 | 1552.7 | 1853.0 |
| 122.5° | 426.8 | 483.3 | 844.5 | 1482.7 | 1762.5 |
| 125° | 463.3 | 516.5 | 844.8 | 1393.3 | 1642.3 |
| 127.5° | 494.5 | 549.0 | 844.5 | 1326.4 | 1534.0 |
| 130° | 514.6 | 569.9 | 843.7 | 1288.1 | 1473.6 |
| 132.5° | 532.2 | 590.0 | 842.9 | 1252.6 | 1426.7 |
| 135° | 559.7 | 618.1 | 840.6 | 1202.5 | 1356.2 |
| 137.5° | 586.5 | 645.3 | 838.3 | 1151.6 | 1288.1 |
| 140° | 605.8 | 662.2 | 837.4 | 1117.0 | 1246.2 |
| 142.5° | 624.2 | 678.1 | 837.4 | 1084.0 | 1199.2 |
| 145° | 654.0 | 702.2 | 838.5 | 1035.6 | 1134.0 |
| 147.5° | 682.9 | 724.7 | 839.9 | 994.5 | 1070.5 |
| 150° | 702.2 | 739.1 | 841.6 | 969.9 | 1034.5 |
| 152.5° | 721.5 | 751.8 | 842.5 | 951.2 | 1002.6 |
| 155° | 746.2 | 770.8 | 843.7 | 927.3 | 962.1 |
| 157.5° | 769.7 | 787.3 | 845.0 | 909.7 | 934.1 |
| 160° | 784.0 | 798.3 | 845.8 | 898.7 | 918.1 |
| 162.5° | 796.5 | 807.6 | 845.8 | 889.3 | 903.9 |
| 165° | 814.4 | 821.5 | 845.8 | 877.5 | 887.7 |
| 167.5° | 826.9 | 831.4 | 846.0 | 868.6 | 873.9 |
| 170° | 835.3 | 837.4 | 846.9 | 862.6 | 864.7 |
| 172.5° | 841.2 | 842.4 | 848.5 | 859.2 | 858.8 |
| 175° | 848.9 | 848.9 | 848.9 | 855.2 | 853.1 |
| 177.5° | 852.1 | 851.3 | 850.4 | 854.5 | 851.3 |
| 180° | 852.1 | 852.1 | 852.1 | 852.1 | 852.1 |

TEST NUMBER: P854228

CATALOG NUMBER: SQ2-PR1-125U-100D-940-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 | 18.68 | 19.48 | 19.66 | 20.47 | 21.78 | 15.40 | 16.21 | 16.39 | 17.20 | 18.50 |
| | 3H | 19.91 | 20.63 | 20.90 | 21.63 | 22.95 | 16.47 | 17.18 | 17.46 | 18.18 | 19.51 |
| | 4H | 20.36 | 21.04 | 21.37 | 22.04 | 23.37 | 16.86 | 17.54 | 17.87 | 18.54 | 19.88 |
| | 6H | 20.67 | 21.30 | 21.69 | 22.30 | 23.65 | 17.19 | 17.82 | 18.21 | 18.82 | 20.17 |
| | 8H | 20.75 | 21.35 | 21.78 | 22.37 | 23.71 | 17.28 | 17.87 | 18.30 | 18.89 | 20.23 |
| | 12H | 20.78 | 21.34 | 21.81 | 22.36 | 23.73 | 17.28 | 17.85 | 18.31 | 18.86 | 20.23 |
| 4H | 2H | 18.75 | 19.43 | 19.76 | 20.43 | 21.77 | 15.97 | 16.64 | 16.98 | 17.65 | 18.98 |
| | 3H | 20.22 | 20.78 | 21.24 | 21.81 | 23.16 | 17.23 | 17.79 | 18.25 | 18.82 | 20.17 |
| | 4H | 20.81 | 21.32 | 21.84 | 22.35 | 23.72 | 17.73 | 18.25 | 18.76 | 19.27 | 20.64 |
| | 6H | 21.26 | 21.70 | 22.30 | 22.75 | 24.11 | 18.16 | 18.61 | 19.20 | 19.65 | 21.02 |
| | 8H | 21.39 | 21.80 | 22.43 | 22.84 | 24.22 | 18.29 | 18.70 | 19.33 | 19.74 | 21.12 |
| | 12H | 21.44 | 21.81 | 22.50 | 22.87 | 24.25 | 18.30 | 18.68 | 19.36 | 19.73 | 21.12 |
| 8H | 4H | 20.83 | 21.24 | 21.87 | 22.28 | 23.66 | 18.03 | 18.44 | 19.07 | 19.48 | 20.87 |
| | 6H | 21.38 | 21.72 | 22.44 | 22.80 | 24.18 | 18.57 | 18.91 | 19.63 | 19.99 | 21.37 |
| | 8H | 21.58 | 21.88 | 22.65 | 22.94 | 24.34 | 18.75 | 19.05 | 19.82 | 20.12 | 21.51 |
| | 12H | 21.68 | 21.94 | 22.75 | 23.00 | 24.44 | 18.81 | 19.08 | 19.89 | 20.14 | 21.58 |
| 12H | 4H | 20.79 | 21.16 | 21.85 | 22.21 | 23.60 | 18.05 | 18.42 | 19.11 | 19.47 | 20.86 |
| | 6H | 21.37 | 21.66 | 22.44 | 22.73 | 24.13 | 18.63 | 18.93 | 19.70 | 19.99 | 21.39 |
| | 8H | 21.58 | 21.84 | 22.65 | 22.90 | 24.34 | 18.83 | 19.10 | 19.91 | 20.16 | 21.60 |