

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: P855097

Luminaire Tested: SQ2-PR1-125U-075D-835-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P855097
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-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

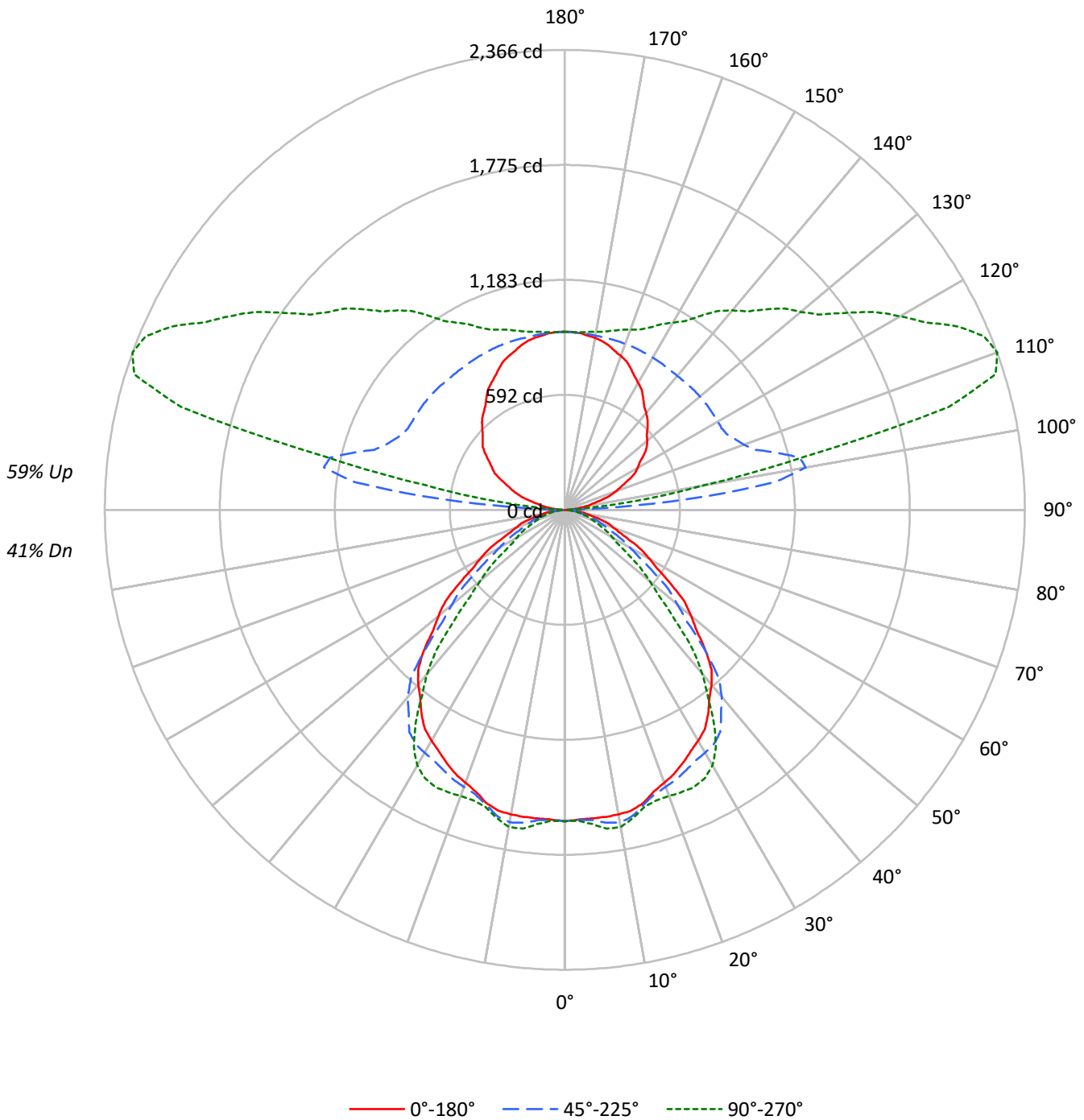
Lumens per Lamp: N/A
Luminaire Lumens: 9503.6 lumens
Efficiency: N/A
Efficacy: 134.6 lumens/watt
Spacing Criteria (0/90/45): 1.28 / 1.34 / 1.36
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: General Diffuse

Input Watts (W): 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

TEST NUMBER: P855097

CATALOG NUMBER: SQ2-PR1-125U-075D-835-UNV-STD-W-4

Luminous Intensity Polar Plot





TEST NUMBER: P855097

CATALOG NUMBER: SQ2-PR1-125U-075D-835-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 | 105 | 105 | 105 | 105 | 96 | 96 | 96 | 96 | 78 | 78 | 78 | 62 | 62 | 62 | 47 | 47 | 47 | 41 | | | | 41 |
| 1 | 96 | 92 | 88 | 85 | 88 | 84 | 81 | 78 | 69 | 67 | 65 | 55 | 54 | 53 | 43 | 42 | 41 | | | | 35 | |
| 2 | 88 | 81 | 75 | 70 | 80 | 74 | 69 | 65 | 61 | 58 | 55 | 49 | 47 | 45 | 38 | 37 | 35 | | | | 30 | |
| 3 | 81 | 72 | 65 | 59 | 73 | 66 | 60 | 55 | 54 | 50 | 46 | 44 | 41 | 38 | 34 | 32 | 31 | | | | 26 | |
| 4 | 74 | 64 | 56 | 50 | 67 | 58 | 52 | 47 | 49 | 44 | 40 | 39 | 36 | 33 | 31 | 29 | 27 | | | | 23 | |
| 5 | 68 | 57 | 49 | 43 | 62 | 52 | 45 | 40 | 44 | 38 | 35 | 35 | 32 | 29 | 28 | 25 | 23 | | | | 20 | |
| 6 | 63 | 51 | 43 | 38 | 57 | 47 | 40 | 35 | 39 | 34 | 30 | 32 | 28 | 26 | 25 | 23 | 21 | | | | 18 | |
| 7 | 58 | 46 | 38 | 33 | 53 | 42 | 36 | 31 | 36 | 31 | 27 | 29 | 25 | 23 | 23 | 21 | 19 | | | | 16 | |
| 8 | 54 | 42 | 34 | 29 | 49 | 39 | 32 | 27 | 33 | 27 | 24 | 27 | 23 | 20 | 21 | 19 | 17 | | | | 14 | |
| 9 | 50 | 38 | 31 | 26 | 46 | 35 | 29 | 24 | 30 | 25 | 21 | 25 | 21 | 18 | 20 | 17 | 15 | | | | 13 | |
| 10 | 47 | 35 | 28 | 23 | 43 | 32 | 26 | 22 | 27 | 23 | 19 | 23 | 19 | 16 | 18 | 16 | 14 | | | | 12 | |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|-------|-------|-------|
| 0° | 25858 | 25858 | 25858 |
| 5° | 25825 | 25982 | 26300 |
| 10° | 26096 | 26765 | 27166 |
| 15° | 26088 | 26223 | 26444 |
| 20° | 25667 | 26060 | 26928 |
| 25° | 25593 | 26320 | 28035 |
| 30° | 25568 | 26905 | 28305 |
| 35° | 25324 | 27480 | 26355 |
| 40° | 24740 | 26460 | 23191 |
| 45° | 23409 | 23222 | 18338 |
| 50° | 21283 | 18985 | 14230 |
| 55° | 18702 | 15626 | 11077 |
| 60° | 16185 | 12494 | 9122 |
| 65° | 13967 | 10353 | 7985 |
| 70° | 12562 | 9172 | 7091 |
| 75° | 11510 | 7941 | 6519 |
| 80° | 10014 | 6378 | 6378 |
| 85° | 7262 | 5743 | 3020 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
 Vertical Angle: 45°
 Luminance: 25304 cd/sqm



TEST NUMBER: P855097

CATALOG NUMBER: SQ2-PR1-125U-075D-835-UNV-STD-W-4

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 154.7 | 1.6 |
| 10°-20° | 447.7 | 4.7 |
| 20°-30° | 692.0 | 7.3 |
| 30°-40° | 832.4 | 8.8 |
| 40°-50° | 747.4 | 7.9 |
| 50°-60° | 500.7 | 5.3 |
| 60°-70° | 291.3 | 3.1 |
| 70°-80° | 149.6 | 1.6 |
| 80°-90° | 37.9 | 0.4 |
| 90°-100° | 350.3 | 3.7 |
| 100°-110° | 1140.4 | 12.0 |
| 110°-120° | 1128.1 | 11.9 |
| 120°-130° | 921.9 | 9.7 |
| 130°-140° | 753.5 | 7.9 |
| 140°-150° | 586.9 | 6.2 |
| 150°-160° | 423.0 | 4.5 |
| 160°-170° | 258.6 | 2.7 |
| 170°-180° | 87.2 | 0.9 |
| 0°-30° | 1294.4 | 13.6 |
| 0°-40° | 2126.8 | 22.4 |
| 0°-60° | 3374.9 | 35.5 |
| 0°-90° | 3853.7 | 40.5 |
| 90°-120° | 2618.8 | 27.6 |
| 90°-150° | 4881.1 | 51.4 |
| 90°-180° | 5650.0 | 59.5 |
| 0°-180° | 9503.6 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|------|------|-------|------|-------|------|------|
| 0° | 1602 | 1602 | 1602 | 1602 | 1602 | |
| 5° | 1593 | 1620 | 1603 | 1607 | 1623 | 152 |
| 15° | 1561 | 1624 | 1569 | 1574 | 1582 | 438 |
| 25° | 1437 | 1494 | 1477 | 1532 | 1574 | 663 |
| 35° | 1285 | 1296 | 1394 | 1367 | 1337 | 801 |
| 45° | 1025 | 1108 | 1017 | 858 | 803 | 784 |
| 55° | 664 | 690 | 555 | 429 | 394 | 597 |
| 65° | 366 | 374 | 271 | 220 | 209 | 370 |
| 75° | 184 | 180 | 127 | 108 | 104 | 196 |
| 85° | 39 | 31 | 31 | 21 | 16 | 49 |
| 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 | |



TEST NUMBER: P855097

CATALOG NUMBER: SQ2-PR1-125U-075D-835-UNV-STD-W-4

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|--------|--------|--------|--------|--------|
| 0° | 1601.5 | 1601.5 | 1601.5 | 1601.5 | 1601.5 |
| 2.5° | 1595.0 | 1614.1 | 1596.3 | 1597.7 | 1601.5 |
| 5° | 1593.4 | 1620.4 | 1603.1 | 1606.7 | 1622.7 |
| 7.5° | 1593.0 | 1631.6 | 1623.4 | 1633.3 | 1654.4 |
| 10° | 1591.7 | 1638.0 | 1632.5 | 1634.7 | 1657.0 |
| 12.5° | 1583.9 | 1637.9 | 1613.0 | 1610.9 | 1623.0 |
| 15° | 1560.7 | 1624.5 | 1568.8 | 1573.9 | 1582.0 |
| 17.5° | 1519.8 | 1586.6 | 1533.6 | 1551.6 | 1567.2 |
| 20° | 1493.8 | 1559.2 | 1516.7 | 1540.1 | 1567.2 |
| 22.5° | 1470.3 | 1535.7 | 1500.9 | 1533.7 | 1571.1 |
| 25° | 1436.6 | 1494.0 | 1477.4 | 1532.3 | 1573.7 |
| 27.5° | 1401.3 | 1435.2 | 1454.9 | 1528.4 | 1557.4 |
| 30° | 1371.4 | 1393.6 | 1443.1 | 1507.0 | 1518.2 |
| 32.5° | 1338.6 | 1352.1 | 1427.5 | 1460.8 | 1446.4 |
| 35° | 1284.8 | 1296.0 | 1394.2 | 1367.4 | 1337.1 |
| 37.5° | 1220.8 | 1243.8 | 1319.4 | 1242.2 | 1207.4 |
| 40° | 1173.8 | 1212.1 | 1255.4 | 1140.3 | 1100.3 |
| 42.5° | 1116.3 | 1177.6 | 1170.5 | 1023.8 | 974.9 |
| 45° | 1025.2 | 1108.2 | 1017.0 | 857.5 | 803.1 |
| 47.5° | 917.8 | 1003.0 | 853.8 | 711.3 | 660.6 |
| 50° | 847.3 | 916.0 | 755.8 | 622.3 | 566.5 |
| 52.5° | 775.4 | 825.0 | 672.3 | 538.9 | 488.1 |
| 55° | 664.4 | 690.0 | 555.1 | 428.6 | 393.5 |
| 57.5° | 562.6 | 578.8 | 453.5 | 346.2 | 320.3 |
| 60° | 501.2 | 512.3 | 386.9 | 303.2 | 282.5 |
| 62.5° | 445.0 | 453.7 | 333.4 | 266.7 | 251.1 |
| 65° | 365.6 | 373.7 | 271.0 | 220.1 | 209.0 |
| 67.5° | 302.7 | 306.8 | 223.1 | 182.9 | 172.4 |
| 70° | 266.1 | 267.8 | 194.3 | 158.2 | 150.2 |
| 72.5° | 233.5 | 231.2 | 166.8 | 137.4 | 132.0 |
| 75° | 184.5 | 179.7 | 127.3 | 107.6 | 104.5 |
| 77.5° | 137.8 | 132.6 | 89.5 | 83.0 | 83.0 |
| 80° | 107.7 | 101.4 | 68.6 | 68.6 | 68.6 |
| 82.5° | 80.3 | 71.4 | 52.8 | 52.8 | 51.6 |
| 85° | 39.2 | 31.2 | 31.0 | 21.2 | 16.3 |
| 87.5° | 10.4 | 11.1 | 5.5 | 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 |



TEST NUMBER: P855097

CATALOG NUMBER: SQ2-PR1-125U-075D-835-UNV-STD-W-4

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 |



TEST NUMBER: P855097

CATALOG NUMBER: SQ2-PR1-125U-075D-835-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 | 17.13 | 17.88 | 18.17 | 18.92 | 20.33 | 13.85 | 14.61 | 14.90 | 15.65 | 17.05 |
| | 3H | 18.35 | 19.02 | 19.41 | 20.08 | 21.50 | 14.91 | 15.58 | 15.96 | 16.63 | 18.06 |
| | 4H | 18.80 | 19.44 | 19.86 | 20.49 | 21.92 | 15.31 | 15.94 | 16.37 | 16.99 | 18.42 |
| | 6H | 19.11 | 19.70 | 20.18 | 20.75 | 22.19 | 15.63 | 16.22 | 16.70 | 17.27 | 18.71 |
| | 8H | 19.19 | 19.75 | 20.27 | 20.82 | 22.25 | 15.71 | 16.27 | 16.79 | 17.34 | 18.78 |
| | 12H | 19.22 | 19.74 | 20.30 | 20.81 | 22.27 | 15.72 | 16.25 | 16.80 | 17.31 | 18.77 |
| 4H | 2H | 17.19 | 17.83 | 18.26 | 18.88 | 20.31 | 14.41 | 15.04 | 15.48 | 16.10 | 17.53 |
| | 3H | 18.65 | 19.18 | 19.73 | 20.26 | 21.70 | 15.66 | 16.19 | 16.74 | 17.27 | 18.72 |
| | 4H | 19.25 | 19.73 | 20.33 | 20.80 | 22.26 | 16.17 | 16.65 | 17.25 | 17.72 | 19.18 |
| | 6H | 19.69 | 20.11 | 20.78 | 21.20 | 22.66 | 16.60 | 17.01 | 17.69 | 18.10 | 19.56 |
| | 8H | 19.82 | 20.21 | 20.91 | 21.30 | 22.77 | 16.72 | 17.10 | 17.81 | 18.19 | 19.66 |
| | 12H | 19.87 | 20.22 | 20.98 | 21.32 | 22.80 | 16.73 | 17.08 | 17.84 | 18.18 | 19.66 |
| 8H | 4H | 19.26 | 19.65 | 20.36 | 20.74 | 22.21 | 16.46 | 16.85 | 17.56 | 17.94 | 19.41 |
| | 6H | 19.81 | 20.13 | 20.92 | 21.26 | 22.73 | 17.00 | 17.31 | 18.11 | 18.44 | 19.91 |
| | 8H | 20.01 | 20.29 | 21.13 | 21.40 | 22.89 | 17.18 | 17.46 | 18.30 | 18.57 | 20.06 |
| | 12H | 20.11 | 20.35 | 21.23 | 21.46 | 22.99 | 17.24 | 17.49 | 18.36 | 18.59 | 20.12 |
| 12H | 4H | 19.22 | 19.57 | 20.33 | 20.67 | 22.14 | 16.48 | 16.82 | 17.58 | 17.93 | 19.40 |
| | 6H | 19.80 | 20.07 | 20.92 | 21.19 | 22.68 | 17.06 | 17.34 | 18.18 | 18.45 | 19.94 |
| | 8H | 20.00 | 20.25 | 21.13 | 21.36 | 22.88 | 17.26 | 17.51 | 18.38 | 18.61 | 20.14 |