

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: P854914

Luminaire Tested: SQ2-PP3-150U-075D-830-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P854914
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-075D-830-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 750 LUMENS PER FOOT
UPLIGHT 1500 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

Summary

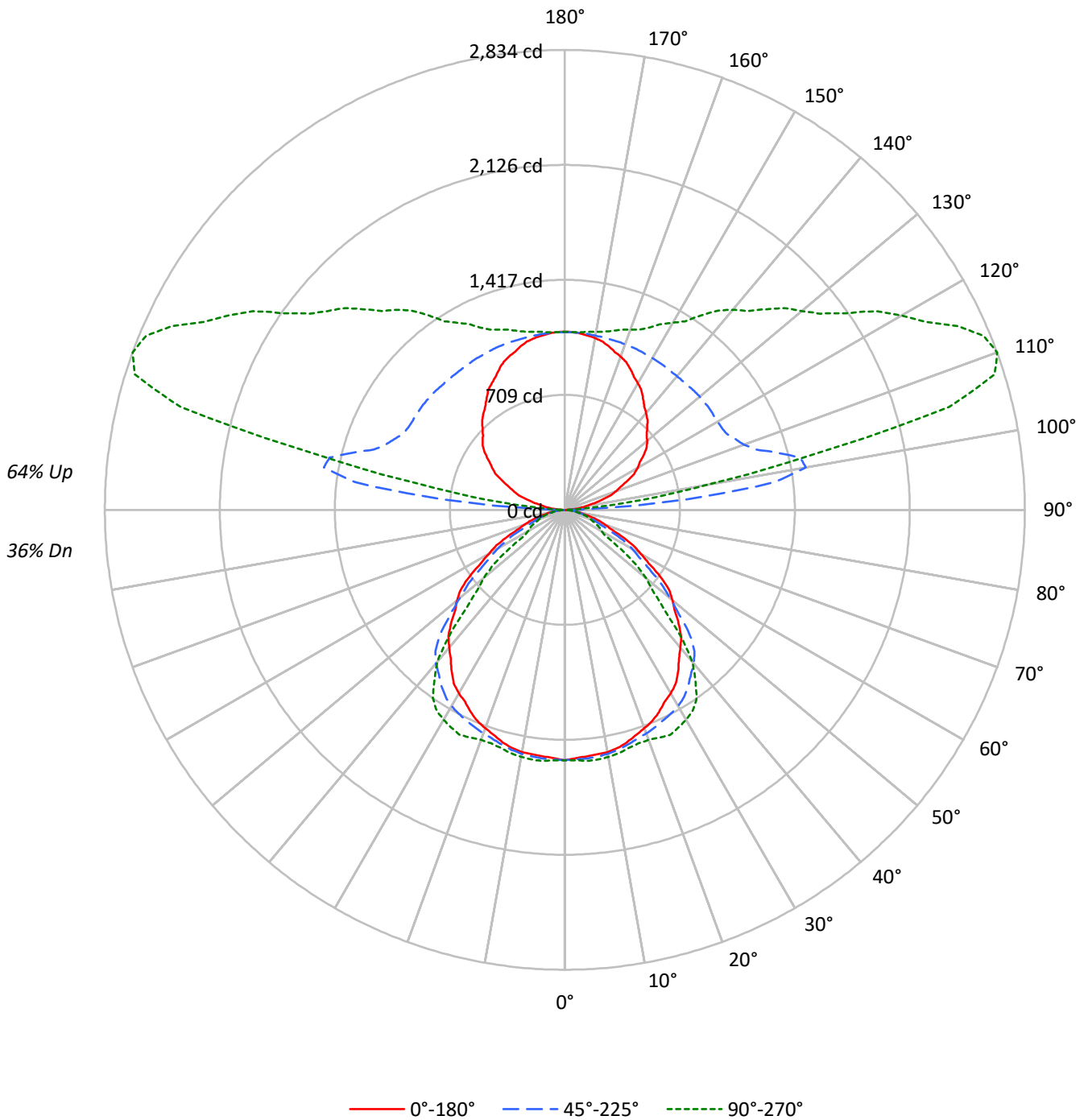
Lumens per Lamp: N/A
Luminaire Lumens: 10653.7 lumens
Efficiency: N/A
Efficacy: 127.9 lumens/watt
Spacing Criteria (0/90/45): 1.26 / 1.41 / 1.4
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Indirect

Input Watts (W): 83.3
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 | 104 | 104 | 104 | 104 | 94 | 94 | 94 | 94 | 76 | 76 | 76 | 59 | 59 | 59 | 44 | 44 | 44 | 36 | | | | |
| 1 | 95 | 91 | 87 | 84 | 86 | 83 | 80 | 77 | 67 | 65 | 63 | 53 | 51 | 50 | 39 | 38 | 38 | 32 | | | | |
| 2 | 87 | 80 | 74 | 69 | 79 | 73 | 68 | 64 | 59 | 56 | 53 | 47 | 44 | 42 | 35 | 34 | 32 | 27 | | | | |
| 3 | 79 | 70 | 64 | 58 | 72 | 64 | 58 | 53 | 52 | 48 | 45 | 41 | 39 | 36 | 31 | 29 | 28 | 23 | | | | |
| 4 | 73 | 62 | 55 | 49 | 66 | 57 | 51 | 45 | 47 | 42 | 38 | 37 | 34 | 31 | 28 | 26 | 24 | 20 | | | | |
| 5 | 67 | 56 | 48 | 42 | 60 | 51 | 44 | 39 | 42 | 37 | 33 | 33 | 30 | 27 | 25 | 23 | 21 | 18 | | | | |
| 6 | 62 | 50 | 42 | 37 | 56 | 46 | 39 | 34 | 38 | 33 | 29 | 30 | 26 | 24 | 23 | 21 | 19 | 16 | | | | |
| 7 | 57 | 45 | 37 | 32 | 51 | 41 | 35 | 30 | 34 | 29 | 25 | 27 | 24 | 21 | 21 | 19 | 17 | 14 | | | | |
| 8 | 53 | 41 | 33 | 28 | 48 | 37 | 31 | 26 | 31 | 26 | 22 | 25 | 21 | 19 | 19 | 17 | 15 | 12 | | | | |
| 9 | 49 | 37 | 30 | 25 | 44 | 34 | 28 | 23 | 28 | 23 | 20 | 23 | 19 | 17 | 18 | 15 | 13 | 11 | | | | |
| 10 | 46 | 34 | 27 | 22 | 41 | 31 | 25 | 21 | 26 | 21 | 18 | 21 | 18 | 15 | 17 | 14 | 12 | 10 | | | | |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|-------|-------|-------|
| 0° | 24913 | 24913 | 24913 |
| 5° | 24716 | 24929 | 25165 |
| 10° | 24843 | 25030 | 25351 |
| 15° | 24782 | 25028 | 25409 |
| 20° | 24606 | 25194 | 25923 |
| 25° | 24467 | 25513 | 27285 |
| 30° | 24328 | 26028 | 27854 |
| 35° | 23984 | 26104 | 27906 |
| 40° | 23343 | 26059 | 25781 |
| 45° | 22644 | 24877 | 19626 |
| 50° | 21755 | 21223 | 16347 |
| 55° | 20248 | 17861 | 11752 |
| 60° | 17434 | 15326 | 8428 |
| 65° | 14705 | 11840 | 8290 |
| 70° | 12246 | 9319 | 7931 |
| 75° | 10374 | 8041 | 7430 |
| 80° | 8796 | 6983 | 6676 |
| 85° | 6947 | 5743 | 3631 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 24877 cd/sqm



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 146.9 | 1.4 |
| 10°-20° | 425.2 | 4.0 |
| 20°-30° | 666.1 | 6.3 |
| 30°-40° | 821.8 | 7.7 |
| 40°-50° | 773.7 | 7.3 |
| 50°-60° | 547.8 | 5.1 |
| 60°-70° | 312.1 | 2.9 |
| 70°-80° | 154.4 | 1.4 |
| 80°-90° | 39.0 | 0.4 |
| 90°-100° | 417.7 | 3.9 |
| 100°-110° | 1367.8 | 12.8 |
| 110°-120° | 1352.3 | 12.7 |
| 120°-130° | 1105.4 | 10.4 |
| 130°-140° | 902.1 | 8.5 |
| 140°-150° | 702.0 | 6.6 |
| 150°-160° | 505.5 | 4.7 |
| 160°-170° | 309.2 | 2.9 |
| 170°-180° | 104.5 | 1.0 |
| 0°-30° | 1238.3 | 11.6 |
| 0°-40° | 2060.0 | 19.3 |
| 0°-60° | 3381.5 | 31.7 |
| 0°-90° | 3887.1 | 36.5 |
| 90°-120° | 3137.9 | 29.5 |
| 90°-150° | 5847.4 | 54.9 |
| 90°-180° | 6767.0 | 63.5 |
| 0°-180° | 10653.7 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|------|------|-------|------|-------|------|------|
| 0° | 1543 | 1543 | 1543 | 1543 | 1543 | |
| 5° | 1525 | 1552 | 1538 | 1542 | 1553 | 145 |
| 15° | 1483 | 1503 | 1497 | 1512 | 1520 | 418 |
| 25° | 1373 | 1408 | 1432 | 1490 | 1532 | 633 |
| 35° | 1217 | 1250 | 1324 | 1400 | 1416 | 759 |
| 45° | 992 | 1067 | 1090 | 923 | 860 | 763 |
| 55° | 719 | 762 | 634 | 478 | 418 | 635 |
| 65° | 385 | 406 | 310 | 219 | 217 | 387 |
| 75° | 166 | 184 | 129 | 121 | 119 | 180 |
| 85° | 38 | 34 | 31 | 24 | 20 | 44 |
| 90° | 1 | 3 | 9 | 8 | 9 | 5 |
| 95° | 59 | 170 | 760 | 271 | 176 | 66 |
| 105° | 238 | 339 | 1358 | 2580 | 2451 | 250 |
| 115° | 428 | 512 | 1103 | 2279 | 2676 | 423 |
| 125° | 596 | 664 | 1087 | 1798 | 2112 | 530 |
| 135° | 718 | 794 | 1078 | 1550 | 1748 | 555 |
| 145° | 839 | 901 | 1076 | 1334 | 1461 | 526 |
| 155° | 957 | 988 | 1083 | 1193 | 1239 | 440 |
| 165° | 1044 | 1054 | 1087 | 1129 | 1141 | 294 |
| 175° | 1092 | 1092 | 1093 | 1101 | 1098 | 104 |
| 180° | 1096 | 1096 | 1096 | 1096 | 1096 | |



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CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|--------|--------|--------|--------|--------|
| 0° | 1543.0 | 1543.0 | 1543.0 | 1543.0 | 1543.0 |
| 2.5° | 1531.2 | 1552.9 | 1539.0 | 1541.7 | 1544.2 |
| 5° | 1525.0 | 1552.1 | 1538.1 | 1541.6 | 1552.7 |
| 7.5° | 1519.1 | 1546.9 | 1533.2 | 1539.0 | 1552.7 |
| 10° | 1515.3 | 1539.1 | 1526.7 | 1535.1 | 1546.3 |
| 12.5° | 1503.5 | 1526.1 | 1514.9 | 1525.9 | 1535.8 |
| 15° | 1482.6 | 1503.3 | 1497.3 | 1512.1 | 1520.1 |
| 17.5° | 1454.2 | 1479.4 | 1479.3 | 1500.5 | 1508.7 |
| 20° | 1432.1 | 1462.4 | 1466.3 | 1492.8 | 1508.7 |
| 22.5° | 1408.6 | 1443.9 | 1450.6 | 1490.4 | 1517.9 |
| 25° | 1373.4 | 1408.4 | 1432.1 | 1490.1 | 1531.6 |
| 27.5° | 1332.2 | 1366.9 | 1415.8 | 1480.8 | 1513.6 |
| 30° | 1304.9 | 1338.3 | 1396.1 | 1463.7 | 1494.0 |
| 32.5° | 1271.0 | 1305.7 | 1367.5 | 1440.2 | 1467.9 |
| 35° | 1216.8 | 1250.3 | 1324.4 | 1399.8 | 1415.8 |
| 37.5° | 1154.5 | 1192.4 | 1275.5 | 1317.5 | 1318.6 |
| 40° | 1107.5 | 1156.9 | 1236.4 | 1244.0 | 1223.2 |
| 42.5° | 1061.8 | 1125.3 | 1181.5 | 1147.2 | 1055.0 |
| 45° | 991.7 | 1066.6 | 1089.5 | 923.4 | 859.5 |
| 47.5° | 917.0 | 991.0 | 954.5 | 774.4 | 730.4 |
| 50° | 866.1 | 936.3 | 844.9 | 692.3 | 650.8 |
| 52.5° | 808.6 | 871.2 | 747.0 | 613.5 | 550.3 |
| 55° | 719.3 | 762.4 | 634.5 | 478.1 | 417.5 |
| 57.5° | 611.7 | 642.0 | 542.5 | 358.9 | 291.0 |
| 60° | 539.9 | 563.9 | 474.6 | 294.4 | 261.0 |
| 62.5° | 474.6 | 496.0 | 404.2 | 255.8 | 244.0 |
| 65° | 384.9 | 405.7 | 309.9 | 218.6 | 217.0 |
| 67.5° | 306.3 | 328.9 | 237.8 | 190.7 | 188.9 |
| 70° | 259.4 | 283.2 | 197.4 | 171.2 | 168.0 |
| 72.5° | 220.1 | 242.9 | 167.3 | 150.4 | 148.5 |
| 75° | 166.3 | 184.0 | 128.9 | 120.6 | 119.1 |
| 77.5° | 120.8 | 131.8 | 95.9 | 91.6 | 90.0 |
| 80° | 94.6 | 99.4 | 75.1 | 73.4 | 71.8 |
| 82.5° | 71.1 | 69.5 | 56.8 | 55.1 | 52.2 |
| 85° | 37.5 | 34.4 | 31.0 | 24.3 | 19.6 |
| 87.5° | 12.0 | 12.4 | 7.0 | 5.5 | 5.8 |
| 90° | 1.1 | 3.3 | 9.0 | 7.9 | 9.0 |
| 92.5° | 19.1 | 69.9 | 214.5 | 69.8 | 55.9 |
| 95° | 58.6 | 169.8 | 759.5 | 270.6 | 175.8 |
| 97.5° | 106.4 | 224.0 | 1303.0 | 788.2 | 488.6 |
| 100° | 139.7 | 252.1 | 1507.6 | 1346.3 | 892.4 |
| 102.5° | 177.6 | 287.3 | 1485.1 | 1983.7 | 1537.8 |
| 105° | 237.8 | 339.1 | 1357.7 | 2579.6 | 2450.7 |
| 107.5° | 297.0 | 390.0 | 1233.5 | 2635.3 | 2777.0 |
| 110° | 335.8 | 426.1 | 1174.1 | 2570.4 | 2833.7 |



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CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|--------|--------|--------|--------|--------|
| 112.5° | 372.8 | 460.4 | 1138.0 | 2457.7 | 2794.9 |
| 115° | 428.2 | 511.8 | 1103.1 | 2279.4 | 2676.0 |
| 117.5° | 482.0 | 560.2 | 1089.8 | 2104.2 | 2507.0 |
| 120° | 517.2 | 591.0 | 1086.2 | 2002.1 | 2394.4 |
| 122.5° | 548.7 | 620.7 | 1086.2 | 1914.1 | 2278.0 |
| 125° | 596.1 | 664.4 | 1087.3 | 1797.5 | 2111.5 |
| 127.5° | 636.2 | 705.7 | 1086.0 | 1711.7 | 1984.8 |
| 130° | 661.4 | 731.9 | 1085.1 | 1659.7 | 1906.5 |
| 132.5° | 683.9 | 756.2 | 1082.4 | 1615.0 | 1838.9 |
| 135° | 717.7 | 793.7 | 1078.3 | 1550.3 | 1747.5 |
| 137.5° | 753.3 | 828.6 | 1075.8 | 1483.1 | 1661.3 |
| 140° | 778.6 | 851.3 | 1074.9 | 1440.4 | 1609.0 |
| 142.5° | 803.8 | 872.2 | 1074.9 | 1395.0 | 1547.7 |
| 145° | 839.4 | 901.1 | 1076.0 | 1333.6 | 1461.4 |
| 147.5° | 876.8 | 928.1 | 1077.6 | 1280.1 | 1376.7 |
| 150° | 900.2 | 945.4 | 1079.4 | 1249.1 | 1330.7 |
| 152.5° | 923.7 | 963.5 | 1080.3 | 1223.6 | 1291.0 |
| 155° | 956.6 | 988.5 | 1082.8 | 1193.2 | 1239.4 |
| 157.5° | 986.1 | 1009.2 | 1085.3 | 1169.2 | 1202.7 |
| 160° | 1005.0 | 1023.8 | 1086.2 | 1155.5 | 1182.0 |
| 162.5° | 1021.3 | 1036.5 | 1086.2 | 1144.5 | 1163.9 |
| 165° | 1044.5 | 1054.4 | 1087.3 | 1129.3 | 1141.4 |
| 167.5° | 1064.0 | 1068.9 | 1088.7 | 1117.4 | 1124.1 |
| 170° | 1074.9 | 1077.2 | 1089.6 | 1111.0 | 1113.2 |
| 172.5° | 1083.0 | 1084.4 | 1092.3 | 1106.4 | 1106.9 |
| 175° | 1091.9 | 1091.9 | 1093.0 | 1100.8 | 1098.5 |
| 177.5° | 1096.3 | 1095.5 | 1094.5 | 1099.9 | 1096.3 |
| 180° | 1096.3 | 1096.3 | 1096.3 | 1096.3 | 1096.3 |



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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 | 17.31 | 18.04 | 18.38 | 19.11 | 20.56 | 13.70 | 14.43 | 14.77 | 15.50 | 16.95 |
| | 3H | 18.39 | 19.04 | 19.47 | 20.12 | 21.59 | 14.79 | 15.45 | 15.87 | 16.52 | 18.00 |
| | 4H | 18.73 | 19.34 | 19.82 | 20.42 | 21.90 | 15.25 | 15.87 | 16.34 | 16.95 | 18.43 |
| | 6H | 18.93 | 19.50 | 20.03 | 20.59 | 22.08 | 15.59 | 16.16 | 16.69 | 17.24 | 18.73 |
| | 8H | 18.98 | 19.52 | 20.08 | 20.62 | 22.10 | 15.67 | 16.21 | 16.78 | 17.31 | 18.80 |
| | 12H | 18.99 | 19.50 | 20.10 | 20.59 | 22.10 | 15.68 | 16.20 | 16.79 | 17.29 | 18.80 |
| 4H | 2H | 17.40 | 18.02 | 18.50 | 19.09 | 20.57 | 14.40 | 15.02 | 15.50 | 16.09 | 17.57 |
| | 3H | 18.69 | 19.21 | 19.80 | 20.31 | 21.80 | 15.64 | 16.15 | 16.74 | 17.26 | 18.75 |
| | 4H | 19.16 | 19.63 | 20.27 | 20.73 | 22.24 | 16.19 | 16.66 | 17.30 | 17.75 | 19.26 |
| | 6H | 19.49 | 19.90 | 20.61 | 21.01 | 22.52 | 16.62 | 17.02 | 17.74 | 18.14 | 19.65 |
| | 8H | 19.58 | 19.96 | 20.70 | 21.07 | 22.59 | 16.74 | 17.11 | 17.85 | 18.22 | 19.75 |
| | 12H | 19.61 | 19.95 | 20.75 | 21.08 | 22.60 | 16.76 | 17.10 | 17.89 | 18.22 | 19.75 |
| 8H | 4H | 19.17 | 19.55 | 20.29 | 20.66 | 22.18 | 16.45 | 16.83 | 17.57 | 17.94 | 19.46 |
| | 6H | 19.60 | 19.91 | 20.74 | 21.06 | 22.58 | 16.99 | 17.30 | 18.13 | 18.45 | 19.97 |
| | 8H | 19.75 | 20.03 | 20.90 | 21.16 | 22.70 | 17.18 | 17.45 | 18.32 | 18.58 | 20.12 |
| | 12H | 19.84 | 20.07 | 20.98 | 21.20 | 22.78 | 17.25 | 17.48 | 18.39 | 18.61 | 20.19 |
| 12H | 4H | 19.12 | 19.46 | 20.26 | 20.59 | 22.11 | 16.45 | 16.79 | 17.59 | 17.92 | 19.44 |
| | 6H | 19.59 | 19.86 | 20.73 | 20.99 | 22.53 | 17.04 | 17.32 | 18.19 | 18.45 | 19.99 |
| | 8H | 19.75 | 19.99 | 20.90 | 21.12 | 22.69 | 17.25 | 17.49 | 18.39 | 18.62 | 20.19 |