

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: P855201

Luminaire Tested: SQ2-F-150U-100D-835-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P855201
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-14, G2-2308-131-13)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-F-150U-100D-835-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 1000 LUMENS PER FOOT
UPLIGHT 1500 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

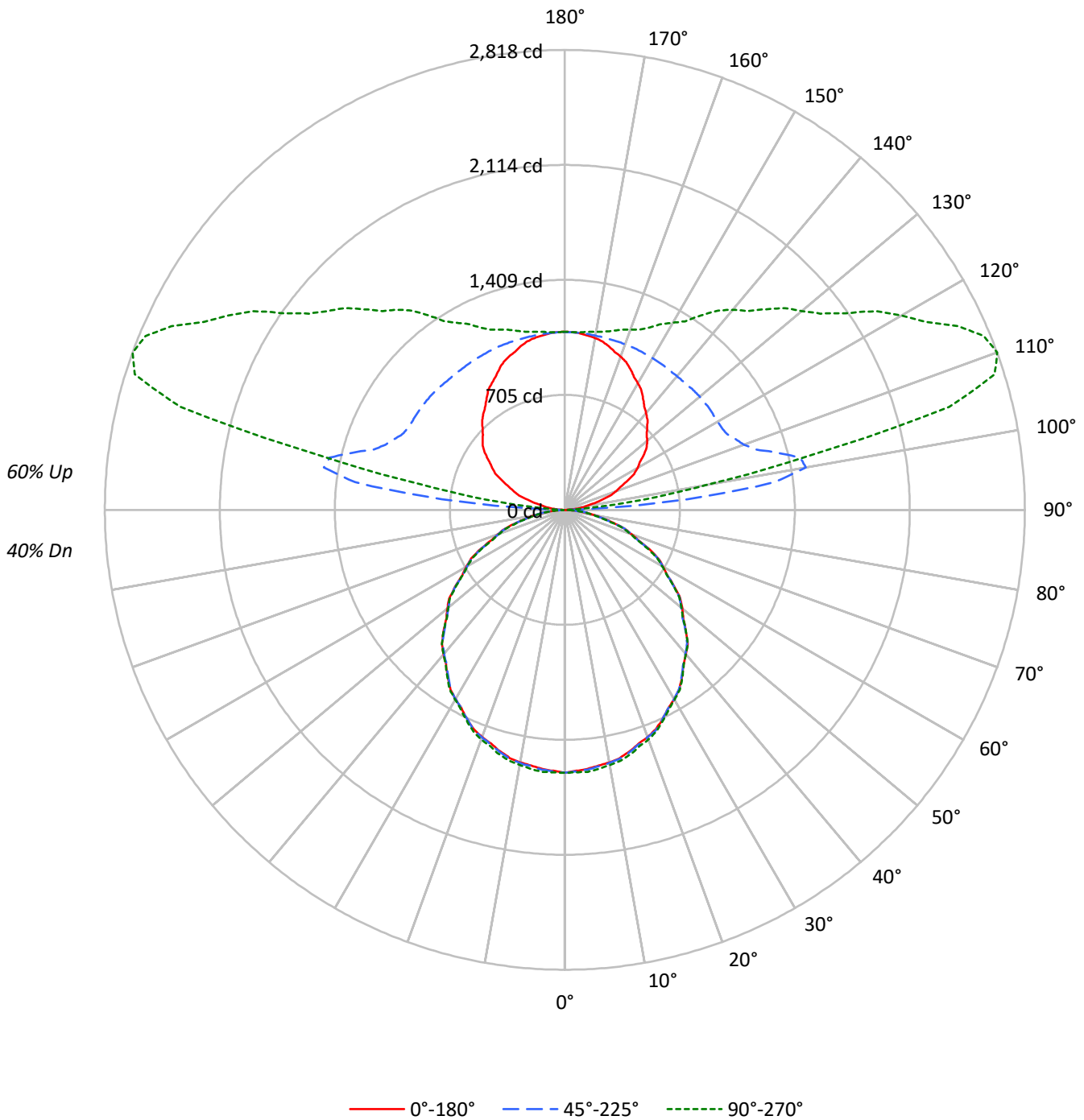
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 11252.6 lumens
Efficiency: N/A
Efficacy: 119.5 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.25 / 1.36
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: General Diffuse

Input Watts (W): 94.2
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: P855201
CATALOG NUMBER: SQ2-F-150U-100D-835-UNV-STD-W-4

Luminous Intensity Polar Plot





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CATALOG NUMBER: SQ2-F-150U-100D-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 | 95 | 95 | 95 | 95 | 78 | 78 | 78 | 62 | 62 | 62 | 47 | 47 | 47 | 47 | 47 | 47 | 40 |
| 1 | 95 | 91 | 87 | 84 | 87 | 83 | 80 | 77 | 68 | 66 | 64 | 54 | 53 | 51 | 41 | 40 | 40 | 40 | 40 | 40 | 34 |
| 2 | 87 | 79 | 73 | 68 | 79 | 72 | 67 | 63 | 59 | 56 | 52 | 47 | 45 | 43 | 36 | 35 | 33 | 33 | 33 | 33 | 28 |
| 3 | 79 | 70 | 62 | 57 | 72 | 64 | 57 | 52 | 52 | 48 | 44 | 42 | 39 | 36 | 32 | 30 | 28 | 28 | 28 | 28 | 24 |
| 4 | 72 | 62 | 54 | 48 | 65 | 56 | 49 | 44 | 46 | 41 | 37 | 37 | 33 | 31 | 29 | 26 | 24 | 24 | 24 | 24 | 20 |
| 5 | 66 | 55 | 47 | 41 | 60 | 50 | 43 | 38 | 41 | 36 | 32 | 33 | 29 | 26 | 26 | 23 | 21 | 21 | 21 | 21 | 17 |
| 6 | 61 | 49 | 41 | 35 | 55 | 45 | 38 | 33 | 37 | 32 | 28 | 30 | 26 | 23 | 23 | 20 | 18 | 18 | 18 | 18 | 15 |
| 7 | 56 | 44 | 36 | 31 | 51 | 40 | 33 | 29 | 34 | 28 | 24 | 27 | 23 | 20 | 21 | 18 | 16 | 16 | 16 | 16 | 13 |
| 8 | 52 | 40 | 32 | 27 | 47 | 37 | 30 | 25 | 31 | 25 | 22 | 25 | 21 | 18 | 19 | 17 | 14 | 14 | 14 | 14 | 12 |
| 9 | 48 | 36 | 29 | 24 | 44 | 33 | 27 | 22 | 28 | 23 | 19 | 23 | 19 | 16 | 18 | 15 | 13 | 13 | 13 | 13 | 11 |
| 10 | 45 | 33 | 26 | 21 | 41 | 31 | 24 | 20 | 26 | 21 | 17 | 21 | 17 | 14 | 17 | 14 | 12 | 12 | 12 | 12 | 10 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|-------|-------|-------|
| 0° | 26011 | 26011 | 26011 |
| 5° | 25827 | 25898 | 26110 |
| 10° | 25765 | 25838 | 26017 |
| 15° | 25608 | 25683 | 25941 |
| 20° | 25457 | 25493 | 25722 |
| 25° | 25221 | 25221 | 25377 |
| 30° | 24962 | 24962 | 25044 |
| 35° | 24660 | 24575 | 24746 |
| 40° | 24333 | 24241 | 24333 |
| 45° | 23957 | 23857 | 23957 |
| 50° | 23596 | 23378 | 23431 |
| 55° | 23049 | 22984 | 22860 |
| 60° | 22465 | 22326 | 22184 |
| 65° | 21803 | 21551 | 21299 |
| 70° | 20516 | 20412 | 19997 |
| 75° | 19307 | 18896 | 18347 |
| 80° | 17136 | 16727 | 16123 |
| 85° | 13820 | 12597 | 11782 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
 Vertical Angle: 45°
 Luminance: 24103 cd/sqm



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 152.3 | 1.4 |
| 10°-20° | 435.1 | 3.9 |
| 20°-30° | 654.7 | 5.8 |
| 30°-40° | 783.4 | 7.0 |
| 40°-50° | 808.2 | 7.2 |
| 50°-60° | 729.1 | 6.5 |
| 60°-70° | 556.4 | 4.9 |
| 70°-80° | 319.9 | 2.8 |
| 80°-90° | 84.6 | 0.8 |
| 90°-100° | 415.4 | 3.7 |
| 100°-110° | 1360.2 | 12.1 |
| 110°-120° | 1344.7 | 12.0 |
| 120°-130° | 1099.2 | 9.8 |
| 130°-140° | 897.0 | 8.0 |
| 140°-150° | 698.1 | 6.2 |
| 150°-160° | 502.7 | 4.5 |
| 160°-170° | 307.5 | 2.7 |
| 170°-180° | 103.9 | 0.9 |
| 0°-30° | 1242.1 | 11.0 |
| 0°-40° | 2025.5 | 18.0 |
| 0°-60° | 3562.9 | 31.7 |
| 0°-90° | 4523.8 | 40.2 |
| 90°-120° | 3120.3 | 27.7 |
| 90°-150° | 5814.7 | 51.7 |
| 90°-180° | 6729.0 | 59.8 |
| 0°-180° | 11252.6 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|------|------|-------|------|-------|------|------|
| 0° | 1611 | 1611 | 1611 | 1611 | 1611 | |
| 5° | 1594 | 1615 | 1598 | 1600 | 1611 | 151 |
| 15° | 1532 | 1551 | 1536 | 1543 | 1552 | 432 |
| 25° | 1416 | 1431 | 1416 | 1418 | 1424 | 652 |
| 35° | 1251 | 1260 | 1247 | 1251 | 1256 | 782 |
| 45° | 1049 | 1056 | 1045 | 1047 | 1049 | 809 |
| 55° | 819 | 823 | 816 | 812 | 812 | 732 |
| 65° | 571 | 568 | 564 | 560 | 558 | 561 |
| 75° | 310 | 307 | 303 | 296 | 294 | 326 |
| 85° | 75 | 70 | 68 | 62 | 64 | 86 |
| 90° | 1 | 3 | 9 | 8 | 9 | 6 |
| 95° | 58 | 169 | 755 | 269 | 175 | 66 |
| 105° | 236 | 337 | 1350 | 2565 | 2437 | 249 |
| 115° | 426 | 509 | 1097 | 2267 | 2661 | 421 |
| 125° | 593 | 661 | 1081 | 1788 | 2100 | 527 |
| 135° | 714 | 789 | 1072 | 1542 | 1738 | 552 |
| 145° | 835 | 896 | 1070 | 1326 | 1453 | 523 |
| 155° | 951 | 983 | 1077 | 1186 | 1232 | 438 |
| 165° | 1039 | 1048 | 1081 | 1123 | 1135 | 293 |
| 175° | 1086 | 1086 | 1087 | 1095 | 1092 | 103 |
| 180° | 1090 | 1090 | 1090 | 1090 | 1090 | |



TEST NUMBER: P855201

CATALOG NUMBER: SQ2-F-150U-100D-835-UNV-STD-W-4

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|--------|--------|--------|--------|--------|
| 0° | 1611.0 | 1611.0 | 1611.0 | 1611.0 | 1611.0 |
| 2.5° | 1600.5 | 1619.4 | 1604.0 | 1607.6 | 1609.3 |
| 5° | 1593.5 | 1615.0 | 1597.9 | 1600.3 | 1611.0 |
| 7.5° | 1580.4 | 1603.6 | 1584.8 | 1589.0 | 1601.0 |
| 10° | 1571.5 | 1593.0 | 1576.0 | 1578.3 | 1586.9 |
| 12.5° | 1557.5 | 1579.0 | 1561.9 | 1566.0 | 1574.6 |
| 15° | 1532.0 | 1551.4 | 1536.5 | 1543.2 | 1551.9 |
| 17.5° | 1502.6 | 1523.2 | 1506.6 | 1512.5 | 1519.7 |
| 20° | 1481.6 | 1498.8 | 1483.7 | 1486.2 | 1497.0 |
| 22.5° | 1455.2 | 1472.4 | 1459.2 | 1459.8 | 1468.8 |
| 25° | 1415.7 | 1430.8 | 1415.7 | 1418.1 | 1424.5 |
| 27.5° | 1370.6 | 1383.3 | 1370.6 | 1372.8 | 1378.4 |
| 30° | 1338.9 | 1351.8 | 1338.9 | 1341.1 | 1343.3 |
| 32.5° | 1303.8 | 1315.0 | 1302.0 | 1304.4 | 1309.9 |
| 35° | 1251.1 | 1259.7 | 1246.8 | 1251.2 | 1255.5 |
| 37.5° | 1194.9 | 1201.4 | 1190.5 | 1192.8 | 1196.6 |
| 40° | 1154.5 | 1161.0 | 1150.1 | 1152.4 | 1154.5 |
| 42.5° | 1114.1 | 1118.9 | 1108.0 | 1110.3 | 1114.1 |
| 45° | 1049.2 | 1055.6 | 1044.8 | 1047.0 | 1049.2 |
| 47.5° | 983.3 | 987.2 | 978.1 | 976.4 | 980.2 |
| 50° | 939.4 | 941.5 | 930.7 | 930.7 | 932.8 |
| 52.5° | 892.0 | 894.1 | 886.8 | 883.3 | 885.4 |
| 55° | 818.8 | 822.9 | 816.5 | 812.1 | 812.1 |
| 57.5° | 745.0 | 748.8 | 740.6 | 738.4 | 738.0 |
| 60° | 695.7 | 697.9 | 691.4 | 689.2 | 687.0 |
| 62.5° | 646.6 | 647.1 | 640.5 | 638.3 | 636.1 |
| 65° | 570.7 | 568.5 | 564.1 | 559.6 | 557.5 |
| 67.5° | 485.5 | 487.6 | 483.3 | 476.3 | 476.3 |
| 70° | 434.6 | 436.7 | 432.4 | 423.6 | 423.6 |
| 72.5° | 385.4 | 384.1 | 381.5 | 374.4 | 371.0 |
| 75° | 309.5 | 307.4 | 302.9 | 296.3 | 294.1 |
| 77.5° | 233.6 | 231.4 | 229.2 | 220.9 | 222.6 |
| 80° | 184.3 | 182.2 | 179.9 | 173.4 | 173.4 |
| 82.5° | 140.4 | 136.6 | 134.3 | 127.8 | 127.8 |
| 85° | 74.6 | 70.4 | 68.0 | 61.6 | 63.6 |
| 87.5° | 21.3 | 20.0 | 19.4 | 15.6 | 15.8 |
| 90° | 1.1 | 3.3 | 8.9 | 7.9 | 8.9 |
| 92.5° | 19.0 | 69.5 | 213.3 | 69.4 | 55.6 |
| 95° | 58.3 | 169.0 | 755.2 | 269.0 | 174.8 |
| 97.5° | 105.8 | 222.8 | 1295.6 | 783.8 | 485.8 |
| 100° | 139.0 | 250.7 | 1499.1 | 1338.8 | 887.3 |
| 102.5° | 176.5 | 285.7 | 1476.7 | 1972.6 | 1529.2 |
| 105° | 236.4 | 337.2 | 1350.1 | 2565.1 | 2436.9 |
| 107.5° | 295.4 | 387.8 | 1226.6 | 2620.5 | 2761.4 |
| 110° | 333.8 | 423.7 | 1167.5 | 2556.1 | 2817.8 |



TEST NUMBER: P855201

CATALOG NUMBER: SQ2-F-150U-100D-835-UNV-STD-W-4

CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|--------|--------|--------|--------|--------|
| 112.5° | 370.6 | 457.9 | 1131.7 | 2443.8 | 2779.4 |
| 115° | 425.7 | 509.0 | 1096.9 | 2266.6 | 2661.0 |
| 117.5° | 479.4 | 557.1 | 1083.7 | 2092.4 | 2492.9 |
| 120° | 514.2 | 587.7 | 1080.1 | 1990.9 | 2380.9 |
| 122.5° | 545.7 | 617.3 | 1080.1 | 1903.3 | 2265.3 |
| 125° | 592.7 | 660.7 | 1081.2 | 1787.5 | 2099.7 |
| 127.5° | 632.6 | 701.9 | 1079.8 | 1702.0 | 1973.7 |
| 130° | 657.7 | 727.8 | 1078.9 | 1650.4 | 1895.8 |
| 132.5° | 680.1 | 752.0 | 1076.3 | 1605.9 | 1828.5 |
| 135° | 713.7 | 789.3 | 1072.3 | 1541.7 | 1737.8 |
| 137.5° | 749.2 | 824.1 | 1069.8 | 1474.7 | 1652.0 |
| 140° | 774.2 | 846.5 | 1068.9 | 1432.3 | 1599.9 |
| 142.5° | 799.3 | 867.2 | 1068.9 | 1387.2 | 1539.1 |
| 145° | 834.7 | 896.1 | 1070.0 | 1326.1 | 1453.2 |
| 147.5° | 871.9 | 923.0 | 1071.6 | 1273.0 | 1369.0 |
| 150° | 895.3 | 940.2 | 1073.4 | 1242.1 | 1323.3 |
| 152.5° | 918.6 | 958.2 | 1074.3 | 1216.8 | 1283.8 |
| 155° | 951.3 | 983.0 | 1076.8 | 1186.4 | 1232.5 |
| 157.5° | 980.6 | 1003.6 | 1079.2 | 1162.7 | 1195.9 |
| 160° | 999.4 | 1018.0 | 1080.1 | 1149.1 | 1175.3 |
| 162.5° | 1015.6 | 1030.7 | 1080.1 | 1138.1 | 1157.4 |
| 165° | 1038.6 | 1048.5 | 1081.2 | 1122.9 | 1134.9 |
| 167.5° | 1058.1 | 1063.0 | 1082.5 | 1111.2 | 1117.7 |
| 170° | 1068.9 | 1071.1 | 1083.5 | 1104.8 | 1107.0 |
| 172.5° | 1077.0 | 1078.2 | 1086.2 | 1100.3 | 1100.7 |
| 175° | 1085.7 | 1085.7 | 1086.8 | 1094.7 | 1092.4 |
| 177.5° | 1090.1 | 1089.3 | 1088.4 | 1093.6 | 1090.1 |
| 180° | 1090.1 | 1090.1 | 1090.1 | 1090.1 | 1090.1 |



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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 | 18.31 | 19.10 | 19.35 | 20.14 | 21.55 | 18.24 | 19.02 | 19.27 | 20.07 | 21.47 |
| | 3H | 20.09 | 20.80 | 21.13 | 21.85 | 23.27 | 19.97 | 20.68 | 21.01 | 21.73 | 23.15 |
| | 4H | 20.74 | 21.41 | 21.80 | 22.47 | 23.90 | 20.59 | 21.26 | 21.65 | 22.32 | 23.75 |
| | 6H | 21.21 | 21.83 | 22.28 | 22.88 | 24.33 | 21.02 | 21.64 | 22.09 | 22.70 | 24.14 |
| | 8H | 21.35 | 21.93 | 22.42 | 23.01 | 24.44 | 21.14 | 21.73 | 22.21 | 22.81 | 24.24 |
| | 12H | 21.42 | 21.98 | 22.49 | 23.04 | 24.50 | 21.19 | 21.75 | 22.27 | 22.82 | 24.28 |
| 4H | 2H | 18.86 | 19.53 | 19.92 | 20.58 | 22.01 | 18.79 | 19.46 | 19.86 | 20.52 | 21.95 |
| | 3H | 20.84 | 21.40 | 21.91 | 22.48 | 23.92 | 20.73 | 21.29 | 21.80 | 22.37 | 23.81 |
| | 4H | 21.62 | 22.14 | 22.70 | 23.21 | 24.67 | 21.48 | 21.99 | 22.56 | 23.07 | 24.53 |
| | 6H | 22.21 | 22.65 | 23.29 | 23.75 | 25.20 | 22.03 | 22.47 | 23.11 | 23.57 | 25.02 |
| | 8H | 22.39 | 22.81 | 23.48 | 23.89 | 25.37 | 22.19 | 22.61 | 23.28 | 23.69 | 25.17 |
| | 12H | 22.49 | 22.87 | 23.60 | 23.97 | 25.45 | 22.27 | 22.64 | 23.37 | 23.74 | 25.22 |
| 8H | 4H | 21.86 | 22.28 | 22.95 | 23.36 | 24.84 | 21.74 | 22.15 | 22.82 | 23.24 | 24.71 |
| | 6H | 22.58 | 22.92 | 23.69 | 24.05 | 25.52 | 22.41 | 22.75 | 23.52 | 23.88 | 25.35 |
| | 8H | 22.85 | 23.14 | 23.96 | 24.26 | 25.75 | 22.65 | 22.95 | 23.77 | 24.06 | 25.55 |
| | 12H | 23.01 | 23.27 | 24.13 | 24.38 | 25.91 | 22.78 | 23.05 | 23.90 | 24.15 | 25.68 |
| 12H | 4H | 21.85 | 22.23 | 22.96 | 23.33 | 24.81 | 21.73 | 22.11 | 22.84 | 23.21 | 24.69 |
| | 6H | 22.62 | 22.92 | 23.74 | 24.03 | 25.52 | 22.46 | 22.76 | 23.58 | 23.87 | 25.36 |
| | 8H | 22.91 | 23.17 | 24.03 | 24.28 | 25.81 | 22.72 | 22.99 | 23.84 | 24.09 | 25.62 |