

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: P854320

Luminaire Tested: SQ2-PW1-150U-075D-935-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P854320
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-14, G2-2308-131-8)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-PW1-150U-075D-935-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

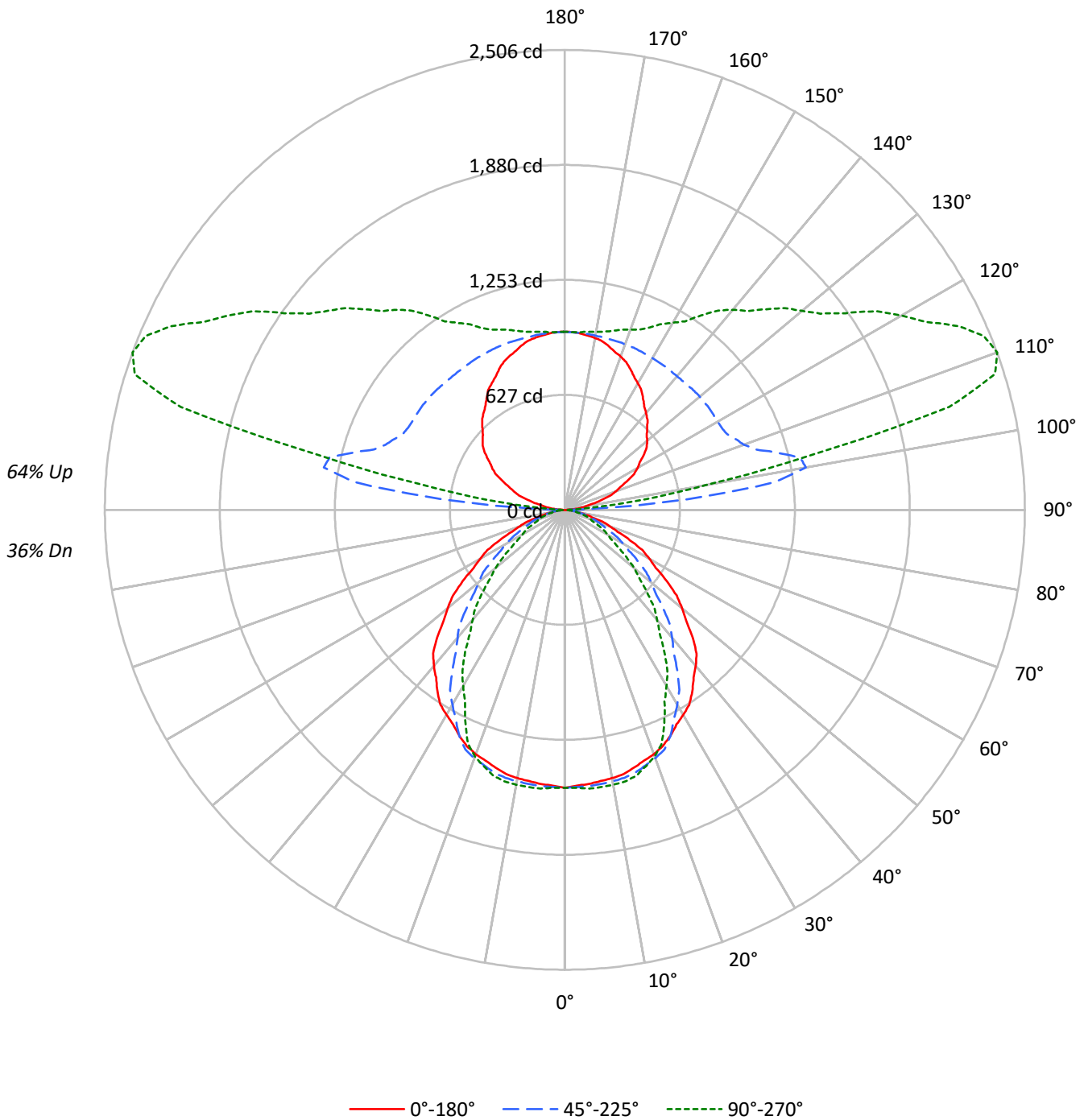
Lumens per Lamp: N/A
Luminaire Lumens: 9346.7 lumens
Efficiency: N/A
Efficacy: 112.2 lumens/watt
Spacing Criteria (0/90/45): 1.27 / 1.11 / 1.22
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Indirect

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 | 0 |
| RCR | | | | | | | | | | | | | | | | | | |
| 0 | 104 | 104 | 104 | 104 | 94 | 94 | 94 | 94 | 76 | 76 | 76 | 59 | 59 | 59 | 43 | 43 | 43 | 36 |
| 1 | 95 | 91 | 87 | 84 | 86 | 83 | 80 | 77 | 67 | 65 | 63 | 52 | 51 | 50 | 39 | 38 | 37 | 31 |
| 2 | 87 | 80 | 74 | 69 | 78 | 73 | 68 | 64 | 59 | 56 | 53 | 46 | 44 | 42 | 35 | 33 | 32 | 27 |
| 3 | 79 | 71 | 64 | 58 | 72 | 64 | 58 | 54 | 52 | 48 | 45 | 41 | 38 | 36 | 31 | 29 | 28 | 23 |
| 4 | 73 | 63 | 55 | 49 | 66 | 57 | 51 | 46 | 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 | 27 | 24 | 23 | 21 | 19 | 16 |
| 7 | 57 | 45 | 38 | 32 | 52 | 42 | 35 | 30 | 34 | 29 | 26 | 28 | 24 | 21 | 21 | 19 | 17 | 14 |
| 8 | 53 | 41 | 34 | 29 | 48 | 38 | 31 | 27 | 31 | 26 | 23 | 25 | 22 | 19 | 20 | 17 | 15 | 13 |
| 9 | 49 | 38 | 30 | 25 | 45 | 34 | 28 | 24 | 29 | 24 | 20 | 23 | 20 | 17 | 18 | 16 | 14 | 12 |
| 10 | 46 | 34 | 27 | 23 | 42 | 32 | 25 | 21 | 26 | 22 | 18 | 21 | 18 | 15 | 17 | 14 | 13 | 11 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|-------|-------|-------|
| 0° | 24456 | 24456 | 24456 |
| 5° | 24292 | 24480 | 24713 |
| 10° | 24337 | 24620 | 24928 |
| 15° | 24331 | 24789 | 25078 |
| 20° | 24340 | 24761 | 24588 |
| 25° | 24209 | 24235 | 22848 |
| 30° | 24045 | 22835 | 20655 |
| 35° | 23856 | 21013 | 18652 |
| 40° | 23381 | 19155 | 16480 |
| 45° | 22464 | 17228 | 14394 |
| 50° | 20909 | 15400 | 12321 |
| 55° | 19128 | 13605 | 9990 |
| 60° | 17144 | 11832 | 8619 |
| 65° | 14991 | 10197 | 7660 |
| 70° | 12260 | 9059 | 6944 |
| 75° | 9538 | 7829 | 6388 |
| 80° | 7113 | 6704 | 5635 |
| 85° | 4817 | 5076 | 3205 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 22464 cd/sqm



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 144.2 | 1.5 |
| 10°-20° | 417.9 | 4.5 |
| 20°-30° | 615.0 | 6.6 |
| 30°-40° | 672.4 | 7.2 |
| 40°-50° | 603.2 | 6.5 |
| 50°-60° | 450.0 | 4.8 |
| 60°-70° | 284.4 | 3.0 |
| 70°-80° | 140.9 | 1.5 |
| 80°-90° | 34.0 | 0.4 |
| 90°-100° | 369.5 | 4.0 |
| 100°-110° | 1209.8 | 12.9 |
| 110°-120° | 1196.0 | 12.8 |
| 120°-130° | 977.7 | 10.5 |
| 130°-140° | 797.9 | 8.5 |
| 140°-150° | 620.9 | 6.6 |
| 150°-160° | 447.1 | 4.8 |
| 160°-170° | 273.5 | 2.9 |
| 170°-180° | 92.4 | 1.0 |
| 0°-30° | 1177.1 | 12.6 |
| 0°-40° | 1849.5 | 19.8 |
| 0°-60° | 2902.7 | 31.1 |
| 0°-90° | 3361.9 | 36.0 |
| 90°-120° | 2775.3 | 29.7 |
| 90°-150° | 5171.8 | 55.3 |
| 90°-180° | 5985.0 | 64.0 |
| 0°-180° | 9346.7 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|------|------|-------|------|-------|------|------|
| 0° | 1515 | 1515 | 1515 | 1515 | 1515 | |
| 5° | 1499 | 1523 | 1510 | 1512 | 1525 | 143 |
| 15° | 1456 | 1484 | 1483 | 1493 | 1500 | 411 |
| 25° | 1359 | 1388 | 1360 | 1304 | 1282 | 626 |
| 35° | 1210 | 1198 | 1066 | 973 | 946 | 755 |
| 45° | 984 | 905 | 754 | 660 | 630 | 754 |
| 55° | 680 | 615 | 483 | 379 | 355 | 607 |
| 65° | 392 | 360 | 267 | 215 | 200 | 389 |
| 75° | 153 | 164 | 126 | 105 | 102 | 168 |
| 85° | 26 | 33 | 27 | 19 | 17 | 33 |
| 90° | 1 | 3 | 8 | 7 | 8 | 4 |
| 95° | 52 | 150 | 672 | 239 | 156 | 59 |
| 105° | 210 | 300 | 1201 | 2282 | 2168 | 222 |
| 115° | 379 | 453 | 976 | 2016 | 2367 | 374 |
| 125° | 527 | 588 | 962 | 1590 | 1868 | 469 |
| 135° | 635 | 702 | 954 | 1371 | 1546 | 491 |
| 145° | 742 | 797 | 952 | 1180 | 1292 | 465 |
| 155° | 846 | 874 | 958 | 1055 | 1096 | 390 |
| 165° | 924 | 933 | 962 | 999 | 1010 | 260 |
| 175° | 966 | 966 | 967 | 974 | 972 | 92 |
| 180° | 970 | 970 | 970 | 970 | 970 | |



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CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|--------|--------|--------|--------|--------|
| 0° | 1514.7 | 1514.7 | 1514.7 | 1514.7 | 1514.7 |
| 2.5° | 1504.3 | 1523.5 | 1511.3 | 1512.5 | 1515.9 |
| 5° | 1498.8 | 1522.8 | 1510.4 | 1512.1 | 1524.8 |
| 7.5° | 1491.3 | 1515.6 | 1506.3 | 1511.5 | 1523.9 |
| 10° | 1484.4 | 1509.8 | 1501.7 | 1509.2 | 1520.5 |
| 12.5° | 1475.2 | 1501.7 | 1496.0 | 1504.6 | 1515.9 |
| 15° | 1455.6 | 1483.8 | 1483.0 | 1493.2 | 1500.3 |
| 17.5° | 1432.8 | 1461.0 | 1459.6 | 1462.3 | 1465.7 |
| 20° | 1416.6 | 1444.8 | 1441.1 | 1431.0 | 1431.0 |
| 22.5° | 1393.5 | 1424.0 | 1414.6 | 1387.0 | 1378.0 |
| 25° | 1358.9 | 1388.5 | 1360.4 | 1303.6 | 1282.5 |
| 27.5° | 1318.5 | 1342.5 | 1285.9 | 1205.3 | 1176.0 |
| 30° | 1289.7 | 1308.0 | 1224.8 | 1136.1 | 1107.9 |
| 32.5° | 1259.7 | 1266.7 | 1162.4 | 1070.3 | 1039.8 |
| 35° | 1210.3 | 1197.6 | 1066.1 | 973.1 | 946.3 |
| 37.5° | 1152.0 | 1114.2 | 973.5 | 876.1 | 846.5 |
| 40° | 1109.3 | 1055.7 | 908.8 | 811.5 | 781.9 |
| 42.5° | 1062.0 | 994.9 | 847.7 | 750.3 | 719.6 |
| 45° | 983.8 | 904.9 | 754.5 | 660.0 | 630.4 |
| 47.5° | 895.8 | 817.4 | 667.3 | 575.9 | 550.5 |
| 50° | 832.4 | 756.2 | 613.1 | 521.5 | 490.5 |
| 52.5° | 767.7 | 699.5 | 560.0 | 465.9 | 423.5 |
| 55° | 679.5 | 614.6 | 483.3 | 378.9 | 354.9 |
| 57.5° | 588.6 | 532.4 | 413.7 | 318.9 | 299.2 |
| 60° | 530.9 | 481.5 | 366.4 | 286.6 | 266.9 |
| 62.5° | 475.5 | 431.7 | 320.3 | 256.7 | 240.3 |
| 65° | 392.4 | 359.9 | 266.9 | 214.6 | 200.5 |
| 67.5° | 311.6 | 293.5 | 221.9 | 176.1 | 166.8 |
| 70° | 259.7 | 254.0 | 191.9 | 154.2 | 147.1 |
| 72.5° | 214.7 | 216.9 | 163.0 | 133.5 | 128.7 |
| 75° | 152.9 | 164.2 | 125.5 | 105.2 | 102.4 |
| 77.5° | 104.2 | 121.1 | 92.9 | 77.8 | 75.6 |
| 80° | 76.5 | 93.4 | 72.1 | 60.6 | 60.6 |
| 82.5° | 53.4 | 66.9 | 51.4 | 45.6 | 45.6 |
| 85° | 26.0 | 33.0 | 27.4 | 18.7 | 17.3 |
| 87.5° | 7.1 | 10.9 | 6.2 | 4.9 | 5.1 |
| 90° | 1.0 | 2.9 | 8.0 | 7.0 | 8.0 |
| 92.5° | 16.9 | 61.8 | 189.7 | 61.7 | 49.4 |
| 95° | 51.8 | 150.2 | 671.7 | 239.3 | 155.5 |
| 97.5° | 94.1 | 198.1 | 1152.4 | 697.1 | 432.1 |
| 100° | 123.6 | 223.0 | 1333.4 | 1190.7 | 789.3 |
| 102.5° | 157.1 | 254.1 | 1313.5 | 1754.5 | 1360.1 |
| 105° | 210.3 | 299.9 | 1200.8 | 2281.5 | 2167.5 |
| 107.5° | 262.7 | 344.9 | 1091.0 | 2330.8 | 2456.1 |
| 110° | 297.0 | 376.9 | 1038.4 | 2273.4 | 2506.3 |



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CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|-------|-------|--------|--------|--------|
| 112.5° | 329.7 | 407.2 | 1006.5 | 2173.7 | 2472.0 |
| 115° | 378.7 | 452.7 | 975.6 | 2016.0 | 2366.8 |
| 117.5° | 426.3 | 495.5 | 963.9 | 1861.1 | 2217.3 |
| 120° | 457.4 | 522.7 | 960.7 | 1770.8 | 2117.7 |
| 122.5° | 485.3 | 549.0 | 960.7 | 1692.9 | 2014.8 |
| 125° | 527.2 | 587.6 | 961.7 | 1589.8 | 1867.5 |
| 127.5° | 562.7 | 624.2 | 960.5 | 1513.9 | 1755.5 |
| 130° | 585.0 | 647.3 | 959.7 | 1467.9 | 1686.2 |
| 132.5° | 604.9 | 668.8 | 957.3 | 1428.4 | 1626.4 |
| 135° | 634.8 | 702.0 | 953.7 | 1371.2 | 1545.6 |
| 137.5° | 666.3 | 732.9 | 951.5 | 1311.7 | 1469.3 |
| 140° | 688.6 | 752.9 | 950.7 | 1274.0 | 1423.1 |
| 142.5° | 710.9 | 771.4 | 950.7 | 1233.8 | 1368.9 |
| 145° | 742.4 | 797.0 | 951.7 | 1179.5 | 1292.5 |
| 147.5° | 775.5 | 820.9 | 953.1 | 1132.2 | 1217.6 |
| 150° | 796.2 | 836.2 | 954.7 | 1104.8 | 1176.9 |
| 152.5° | 817.0 | 852.2 | 955.5 | 1082.2 | 1141.8 |
| 155° | 846.1 | 874.3 | 957.7 | 1055.3 | 1096.2 |
| 157.5° | 872.2 | 892.6 | 959.9 | 1034.1 | 1063.7 |
| 160° | 888.9 | 905.5 | 960.7 | 1022.0 | 1045.4 |
| 162.5° | 903.3 | 916.7 | 960.7 | 1012.3 | 1029.4 |
| 165° | 923.8 | 932.6 | 961.7 | 998.8 | 1009.5 |
| 167.5° | 941.1 | 945.4 | 962.9 | 988.3 | 994.2 |
| 170° | 950.7 | 952.7 | 963.7 | 982.6 | 984.6 |
| 172.5° | 957.9 | 959.1 | 966.1 | 978.6 | 979.0 |
| 175° | 965.7 | 965.7 | 966.7 | 973.6 | 971.6 |
| 177.5° | 969.6 | 968.9 | 968.0 | 972.8 | 969.6 |
| 180° | 969.6 | 969.6 | 969.6 | 969.6 | 969.6 |

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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 | 16.69 | 17.41 | 17.77 | 18.48 | 19.95 | 13.18 | 13.90 | 14.25 | 14.97 | 16.43 |
| | 3H | 18.00 | 18.65 | 19.09 | 19.73 | 21.21 | 14.37 | 15.02 | 15.46 | 16.10 | 17.58 |
| | 4H | 18.37 | 18.98 | 19.46 | 20.06 | 21.55 | 14.81 | 15.42 | 15.91 | 16.50 | 17.99 |
| | 6H | 18.56 | 19.13 | 19.67 | 20.21 | 21.71 | 15.12 | 15.68 | 16.23 | 16.77 | 18.27 |
| | 8H | 18.59 | 19.13 | 19.70 | 20.23 | 21.72 | 15.19 | 15.73 | 16.30 | 16.83 | 18.32 |
| | 12H | 18.59 | 19.09 | 19.70 | 20.19 | 21.70 | 15.20 | 15.71 | 16.31 | 16.80 | 18.32 |
| 4H | 2H | 16.78 | 17.39 | 17.88 | 18.47 | 19.96 | 13.84 | 14.45 | 14.94 | 15.54 | 17.02 |
| | 3H | 18.31 | 18.82 | 19.42 | 19.93 | 21.42 | 15.22 | 15.73 | 16.33 | 16.83 | 18.33 |
| | 4H | 18.81 | 19.28 | 19.92 | 20.38 | 21.90 | 15.76 | 16.22 | 16.87 | 17.32 | 18.84 |
| | 6H | 19.14 | 19.54 | 20.26 | 20.66 | 22.17 | 16.15 | 16.55 | 17.27 | 17.68 | 19.19 |
| | 8H | 19.21 | 19.58 | 20.33 | 20.70 | 22.22 | 16.26 | 16.63 | 17.38 | 17.74 | 19.27 |
| | 12H | 19.22 | 19.56 | 20.36 | 20.68 | 22.22 | 16.27 | 16.61 | 17.41 | 17.74 | 19.27 |
| 8H | 4H | 18.84 | 19.21 | 19.96 | 20.33 | 21.85 | 16.07 | 16.45 | 17.19 | 17.56 | 19.09 |
| | 6H | 19.27 | 19.58 | 20.41 | 20.73 | 22.26 | 16.57 | 16.88 | 17.72 | 18.04 | 19.56 |
| | 8H | 19.42 | 19.68 | 20.56 | 20.82 | 22.36 | 16.74 | 17.01 | 17.89 | 18.14 | 19.69 |
| | 12H | 19.48 | 19.71 | 20.63 | 20.85 | 22.43 | 16.79 | 17.03 | 17.94 | 18.16 | 19.74 |
| 12H | 4H | 18.79 | 19.13 | 19.93 | 20.26 | 21.79 | 16.08 | 16.42 | 17.22 | 17.55 | 19.08 |
| | 6H | 19.26 | 19.53 | 20.41 | 20.67 | 22.21 | 16.64 | 16.91 | 17.79 | 18.05 | 19.59 |
| | 8H | 19.42 | 19.65 | 20.57 | 20.79 | 22.37 | 16.82 | 17.06 | 17.97 | 18.19 | 19.77 |