

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: P854247

Luminaire Tested: SQ2-PW1-025U-075D-930-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P854247
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-9, G2-2308-131-8)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-PW1-025U-075D-930-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 750 LUMENS PER FOOT
UPLIGHT 250 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

Summary

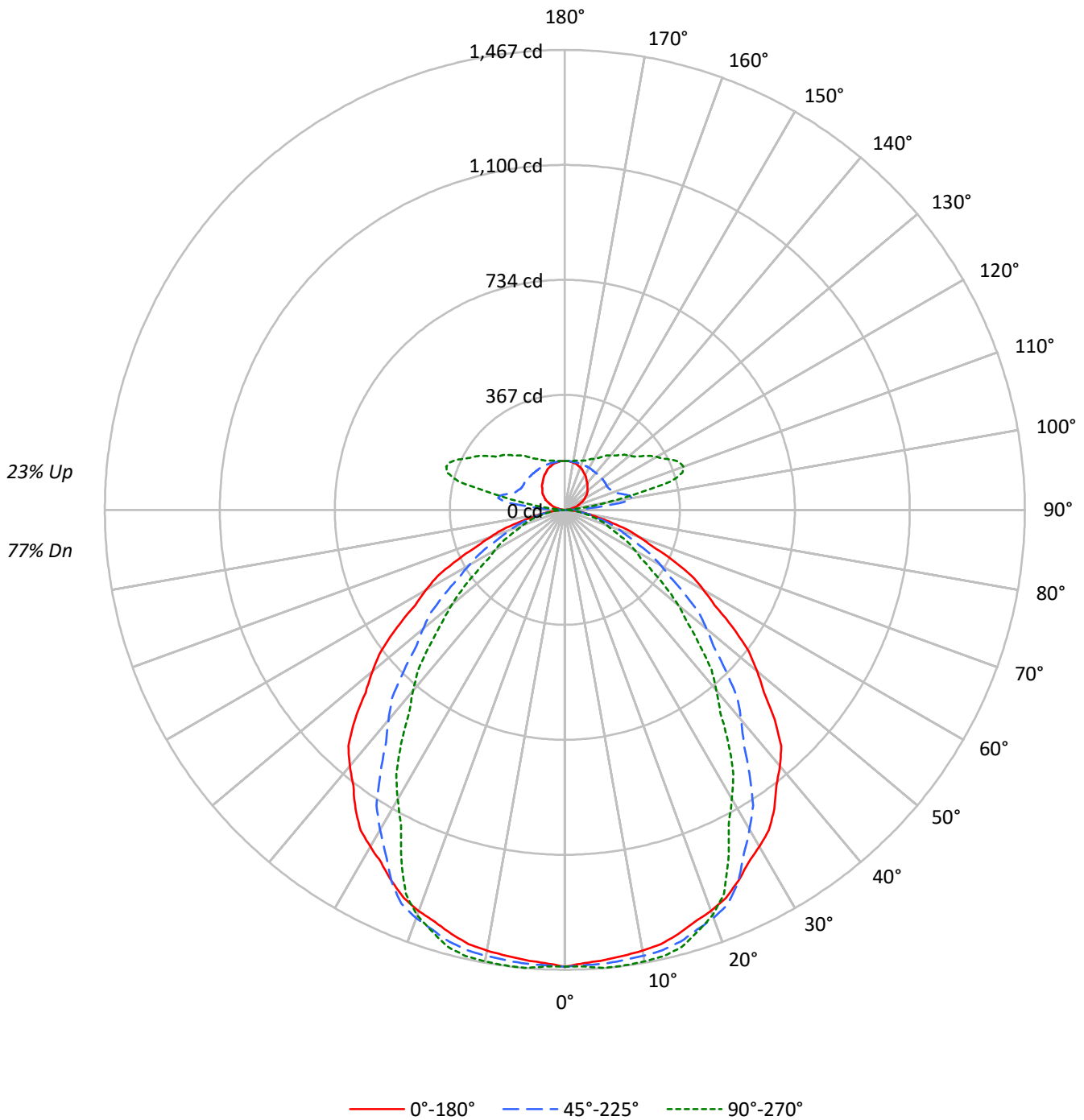
Lumens per Lamp: N/A
Luminaire Lumens: 4200.0 lumens
Efficiency: N/A
Efficacy: 123.2 lumens/watt
Spacing Criteria (0/90/45): 1.27 / 1.11 / 1.22
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Direct

Input Watts (W): 34.1
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 | 114 | 114 | 114 | 114 | 108 | 108 | 108 | 108 | 98 | 98 | 98 | 89 | 89 | 89 | 81 | 81 | 81 | 77 |
| 1 | 105 | 101 | 97 | 94 | 100 | 96 | 93 | 90 | 88 | 85 | 83 | 80 | 78 | 76 | 73 | 72 | 70 | 67 |
| 2 | 96 | 89 | 83 | 78 | 91 | 85 | 80 | 75 | 78 | 74 | 70 | 71 | 68 | 65 | 65 | 63 | 60 | 57 |
| 3 | 88 | 79 | 72 | 66 | 84 | 76 | 69 | 64 | 70 | 64 | 60 | 64 | 60 | 56 | 59 | 55 | 52 | 50 |
| 4 | 81 | 71 | 63 | 57 | 77 | 68 | 61 | 55 | 62 | 57 | 52 | 58 | 53 | 49 | 53 | 49 | 46 | 43 |
| 5 | 75 | 63 | 55 | 49 | 71 | 61 | 54 | 48 | 56 | 50 | 46 | 52 | 47 | 43 | 48 | 44 | 41 | 38 |
| 6 | 70 | 57 | 49 | 44 | 66 | 55 | 48 | 42 | 51 | 45 | 40 | 48 | 42 | 38 | 44 | 40 | 36 | 34 |
| 7 | 65 | 52 | 44 | 39 | 62 | 50 | 43 | 38 | 47 | 41 | 36 | 44 | 38 | 34 | 40 | 36 | 32 | 30 |
| 8 | 60 | 48 | 40 | 35 | 57 | 46 | 39 | 34 | 43 | 37 | 32 | 40 | 35 | 31 | 37 | 33 | 29 | 27 |
| 9 | 56 | 44 | 36 | 31 | 54 | 42 | 35 | 31 | 40 | 34 | 29 | 37 | 32 | 28 | 35 | 30 | 27 | 25 |
| 10 | 53 | 41 | 33 | 28 | 50 | 39 | 32 | 28 | 37 | 31 | 27 | 34 | 29 | 26 | 32 | 28 | 24 | 23 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|-------|-------|-------|
| 0° | 23521 | 23521 | 23521 |
| 5° | 23365 | 23545 | 23770 |
| 10° | 23407 | 23681 | 23976 |
| 15° | 23402 | 23841 | 24120 |
| 20° | 23411 | 23816 | 23649 |
| 25° | 23284 | 23309 | 21975 |
| 30° | 23126 | 21962 | 19867 |
| 35° | 22945 | 20209 | 17940 |
| 40° | 22489 | 18423 | 15850 |
| 45° | 21607 | 16568 | 13844 |
| 50° | 20110 | 14812 | 11848 |
| 55° | 18396 | 13084 | 9607 |
| 60° | 16488 | 11380 | 8289 |
| 65° | 14418 | 9807 | 7370 |
| 70° | 11788 | 8710 | 6680 |
| 75° | 9177 | 7530 | 6145 |
| 80° | 6834 | 6453 | 5421 |
| 85° | 4631 | 4891 | 3075 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 21607 cd/sqm



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 138.7 | 3.3 |
| 10°-20° | 401.9 | 9.6 |
| 20°-30° | 591.5 | 14.1 |
| 30°-40° | 646.7 | 15.4 |
| 40°-50° | 580.2 | 13.8 |
| 50°-60° | 432.8 | 10.3 |
| 60°-70° | 273.5 | 6.5 |
| 70°-80° | 135.5 | 3.2 |
| 80°-90° | 32.1 | 0.8 |
| 90°-100° | 63.1 | 1.5 |
| 100°-110° | 196.1 | 4.7 |
| 110°-120° | 191.9 | 4.6 |
| 120°-130° | 156.6 | 3.7 |
| 130°-140° | 128.2 | 3.1 |
| 140°-150° | 100.0 | 2.4 |
| 150°-160° | 72.2 | 1.7 |
| 160°-170° | 44.1 | 1.1 |
| 170°-180° | 14.9 | 0.4 |
| 0°-30° | 1132.2 | 27.0 |
| 0°-40° | 1778.9 | 42.4 |
| 0°-60° | 2791.8 | 66.5 |
| 0°-90° | 3232.9 | 77.0 |
| 90°-120° | 451.1 | 10.7 |
| 90°-150° | 835.9 | 19.9 |
| 90°-180° | 967.0 | 23.0 |
| 0°-180° | 4200.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|------|------|-------|------|-------|------|------|
| 0° | 1457 | 1457 | 1457 | 1457 | 1457 | |
| 5° | 1442 | 1465 | 1453 | 1454 | 1467 | 137 |
| 15° | 1400 | 1427 | 1426 | 1436 | 1443 | 395 |
| 25° | 1307 | 1336 | 1308 | 1254 | 1234 | 602 |
| 35° | 1164 | 1152 | 1025 | 936 | 910 | 726 |
| 45° | 946 | 870 | 726 | 635 | 606 | 726 |
| 55° | 654 | 591 | 465 | 364 | 341 | 584 |
| 65° | 377 | 346 | 257 | 206 | 193 | 374 |
| 75° | 147 | 158 | 121 | 101 | 98 | 162 |
| 85° | 25 | 32 | 26 | 18 | 17 | 32 |
| 90° | 0 | 1 | 3 | 3 | 3 | 1 |
| 95° | 9 | 25 | 116 | 43 | 28 | 10 |
| 105° | 34 | 48 | 193 | 369 | 352 | 36 |
| 115° | 61 | 72 | 157 | 323 | 379 | 60 |
| 125° | 85 | 94 | 155 | 254 | 298 | 76 |
| 135° | 102 | 114 | 154 | 220 | 247 | 79 |
| 145° | 120 | 129 | 154 | 190 | 206 | 75 |
| 155° | 137 | 141 | 155 | 170 | 176 | 63 |
| 165° | 150 | 151 | 156 | 161 | 162 | 42 |
| 175° | 156 | 156 | 156 | 157 | 156 | 15 |
| 180° | 156 | 156 | 156 | 156 | 156 | |



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CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|--------|--------|--------|--------|--------|
| 0° | 1456.8 | 1456.8 | 1456.8 | 1456.8 | 1456.8 |
| 2.5° | 1446.9 | 1465.3 | 1453.5 | 1454.7 | 1458.0 |
| 5° | 1441.6 | 1464.6 | 1452.7 | 1454.4 | 1466.6 |
| 7.5° | 1434.4 | 1457.7 | 1448.8 | 1453.8 | 1465.7 |
| 10° | 1427.7 | 1452.1 | 1444.4 | 1451.5 | 1462.4 |
| 12.5° | 1418.8 | 1444.3 | 1438.8 | 1447.1 | 1458.0 |
| 15° | 1400.0 | 1427.1 | 1426.3 | 1436.2 | 1443.0 |
| 17.5° | 1378.0 | 1405.2 | 1403.8 | 1406.4 | 1409.7 |
| 20° | 1362.5 | 1389.6 | 1386.1 | 1376.4 | 1376.4 |
| 22.5° | 1340.3 | 1369.6 | 1360.6 | 1334.0 | 1325.3 |
| 25° | 1307.0 | 1335.5 | 1308.4 | 1253.8 | 1233.5 |
| 27.5° | 1268.2 | 1291.2 | 1236.8 | 1159.3 | 1131.1 |
| 30° | 1240.4 | 1258.0 | 1178.0 | 1092.7 | 1065.6 |
| 32.5° | 1211.5 | 1218.3 | 1118.0 | 1029.4 | 1000.1 |
| 35° | 1164.1 | 1151.9 | 1025.3 | 936.0 | 910.2 |
| 37.5° | 1108.0 | 1071.7 | 936.3 | 842.7 | 814.2 |
| 40° | 1067.0 | 1015.4 | 874.1 | 780.5 | 752.0 |
| 42.5° | 1021.5 | 956.9 | 815.3 | 721.6 | 692.1 |
| 45° | 946.3 | 870.3 | 725.6 | 634.8 | 606.3 |
| 47.5° | 861.6 | 786.2 | 641.8 | 553.9 | 529.5 |
| 50° | 800.6 | 727.3 | 589.7 | 501.6 | 471.7 |
| 52.5° | 738.4 | 672.8 | 538.6 | 448.1 | 407.4 |
| 55° | 653.5 | 591.1 | 464.8 | 364.4 | 341.3 |
| 57.5° | 566.1 | 512.1 | 397.9 | 306.8 | 287.8 |
| 60° | 510.6 | 463.1 | 352.4 | 275.7 | 256.7 |
| 62.5° | 457.3 | 415.3 | 308.0 | 246.9 | 231.2 |
| 65° | 377.4 | 346.2 | 256.7 | 206.4 | 192.9 |
| 67.5° | 299.7 | 282.3 | 213.4 | 169.3 | 160.4 |
| 70° | 249.7 | 244.3 | 184.5 | 148.3 | 141.5 |
| 72.5° | 206.5 | 208.6 | 156.8 | 128.4 | 123.8 |
| 75° | 147.1 | 157.9 | 120.7 | 101.2 | 98.5 |
| 77.5° | 100.2 | 116.5 | 89.4 | 74.9 | 72.7 |
| 80° | 73.5 | 89.8 | 69.4 | 58.3 | 58.3 |
| 82.5° | 51.3 | 64.4 | 49.4 | 43.8 | 43.8 |
| 85° | 25.0 | 31.8 | 26.4 | 18.0 | 16.6 |
| 87.5° | 6.7 | 10.1 | 5.0 | 3.9 | 3.9 |
| 90° | 0.0 | 0.9 | 2.9 | 2.9 | 2.9 |
| 92.5° | 3.1 | 10.7 | 36.5 | 12.0 | 9.8 |
| 95° | 8.6 | 25.4 | 115.7 | 42.7 | 27.7 |
| 97.5° | 15.7 | 33.1 | 191.6 | 119.3 | 75.1 |
| 100° | 21.0 | 36.9 | 216.0 | 202.1 | 134.8 |
| 102.5° | 26.4 | 41.5 | 211.5 | 288.6 | 226.6 |
| 105° | 34.4 | 48.4 | 193.1 | 368.6 | 351.8 |
| 107.5° | 42.4 | 55.5 | 175.5 | 374.8 | 393.3 |
| 110° | 47.8 | 60.9 | 166.3 | 366.0 | 402.5 |



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CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|-------|-------|-------|-------|-------|
| 112.5° | 53.2 | 65.5 | 161.7 | 350.2 | 396.3 |
| 115° | 61.2 | 72.4 | 156.8 | 323.4 | 378.6 |
| 117.5° | 69.0 | 79.3 | 154.7 | 297.8 | 354.3 |
| 120° | 73.6 | 83.9 | 153.9 | 283.2 | 337.5 |
| 122.5° | 78.2 | 88.5 | 154.7 | 270.9 | 320.6 |
| 125° | 85.1 | 94.4 | 154.9 | 254.3 | 298.3 |
| 127.5° | 90.6 | 100.2 | 154.9 | 241.9 | 279.3 |
| 130° | 93.7 | 104.0 | 154.9 | 235.0 | 268.6 |
| 132.5° | 97.5 | 107.8 | 154.1 | 228.8 | 260.2 |
| 135° | 102.3 | 113.5 | 153.9 | 219.5 | 246.6 |
| 137.5° | 107.8 | 118.1 | 153.9 | 210.3 | 235.0 |
| 140° | 110.9 | 121.2 | 153.9 | 204.1 | 226.6 |
| 142.5° | 114.7 | 124.3 | 153.9 | 198.0 | 218.2 |
| 145° | 119.5 | 128.8 | 153.9 | 189.7 | 206.5 |
| 147.5° | 125.2 | 133.3 | 154.9 | 181.9 | 195.2 |
| 150° | 129.1 | 135.6 | 154.9 | 178.0 | 188.3 |
| 152.5° | 132.1 | 137.9 | 154.9 | 174.2 | 183.0 |
| 155° | 136.7 | 141.4 | 154.9 | 170.3 | 175.9 |
| 157.5° | 141.3 | 144.8 | 154.9 | 166.8 | 170.4 |
| 160° | 144.4 | 147.2 | 154.9 | 164.5 | 167.3 |
| 162.5° | 146.6 | 148.7 | 154.9 | 162.9 | 165.0 |
| 165° | 150.1 | 151.0 | 155.8 | 160.6 | 162.5 |
| 167.5° | 152.2 | 152.4 | 154.9 | 159.3 | 160.2 |
| 170° | 153.0 | 153.9 | 154.9 | 157.8 | 158.7 |
| 172.5° | 154.5 | 154.7 | 155.6 | 157.0 | 157.2 |
| 175° | 155.8 | 155.8 | 155.8 | 156.8 | 155.8 |
| 177.5° | 155.8 | 155.8 | 155.8 | 155.8 | 155.8 |
| 180° | 155.8 | 155.8 | 155.8 | 155.8 | 155.8 |



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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 | 20.26 | 21.36 | 20.95 | 22.06 | 22.89 | 16.74 | 17.84 | 17.44 | 18.55 | 19.38 |
| | 3H | 21.60 | 22.58 | 22.30 | 23.30 | 24.16 | 17.97 | 18.95 | 18.67 | 19.67 | 20.53 |
| | 4H | 21.98 | 22.91 | 22.71 | 23.63 | 24.51 | 18.42 | 19.35 | 19.15 | 20.08 | 20.95 |
| | 6H | 22.20 | 23.05 | 22.94 | 23.79 | 24.67 | 18.75 | 19.61 | 19.49 | 20.34 | 21.23 |
| | 8H | 22.24 | 23.05 | 22.99 | 23.80 | 24.69 | 18.84 | 19.65 | 19.59 | 20.40 | 21.29 |
| | 12H | 22.24 | 23.01 | 23.00 | 23.76 | 24.68 | 18.85 | 19.63 | 19.61 | 20.38 | 21.29 |
| 4H | 2H | 20.39 | 21.32 | 21.12 | 22.04 | 22.92 | 17.46 | 18.38 | 18.19 | 19.11 | 19.98 |
| | 3H | 21.96 | 22.72 | 22.70 | 23.49 | 24.38 | 18.86 | 19.63 | 19.61 | 20.39 | 21.29 |
| | 4H | 22.47 | 23.17 | 23.23 | 23.93 | 24.85 | 19.42 | 20.11 | 20.18 | 20.88 | 21.80 |
| | 6H | 22.82 | 23.42 | 23.59 | 24.21 | 25.14 | 19.84 | 20.44 | 20.61 | 21.22 | 22.16 |
| | 8H | 22.90 | 23.46 | 23.68 | 24.25 | 25.19 | 19.95 | 20.51 | 20.73 | 21.29 | 22.23 |
| | 12H | 22.93 | 23.43 | 23.73 | 24.24 | 25.18 | 19.98 | 20.48 | 20.78 | 21.29 | 22.24 |
| 8H | 4H | 22.53 | 23.09 | 23.31 | 23.87 | 24.82 | 19.76 | 20.32 | 20.54 | 21.11 | 22.05 |
| | 6H | 22.97 | 23.44 | 23.78 | 24.26 | 25.21 | 20.28 | 20.74 | 21.09 | 21.57 | 22.51 |
| | 8H | 23.12 | 23.53 | 23.94 | 24.36 | 25.32 | 20.44 | 20.85 | 21.26 | 21.68 | 22.64 |
| | 12H | 23.20 | 23.56 | 24.02 | 24.37 | 25.39 | 20.51 | 20.87 | 21.33 | 21.69 | 22.71 |
| 12H | 4H | 22.50 | 23.00 | 23.30 | 23.81 | 24.76 | 19.79 | 20.29 | 20.59 | 21.10 | 22.05 |
| | 6H | 22.96 | 23.38 | 23.79 | 24.20 | 25.16 | 20.34 | 20.75 | 21.16 | 21.58 | 22.54 |
| | 8H | 23.14 | 23.50 | 23.96 | 24.32 | 25.33 | 20.54 | 20.90 | 21.36 | 21.72 | 22.74 |