

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: P854275

Luminaire Tested: SQ2-PW1-075U-100D-935-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P854275
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-11, G2-2308-131-8)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-PW1-075U-100D-935-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 1000 LUMENS PER FOOT
UPLIGHT 750 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

Summary

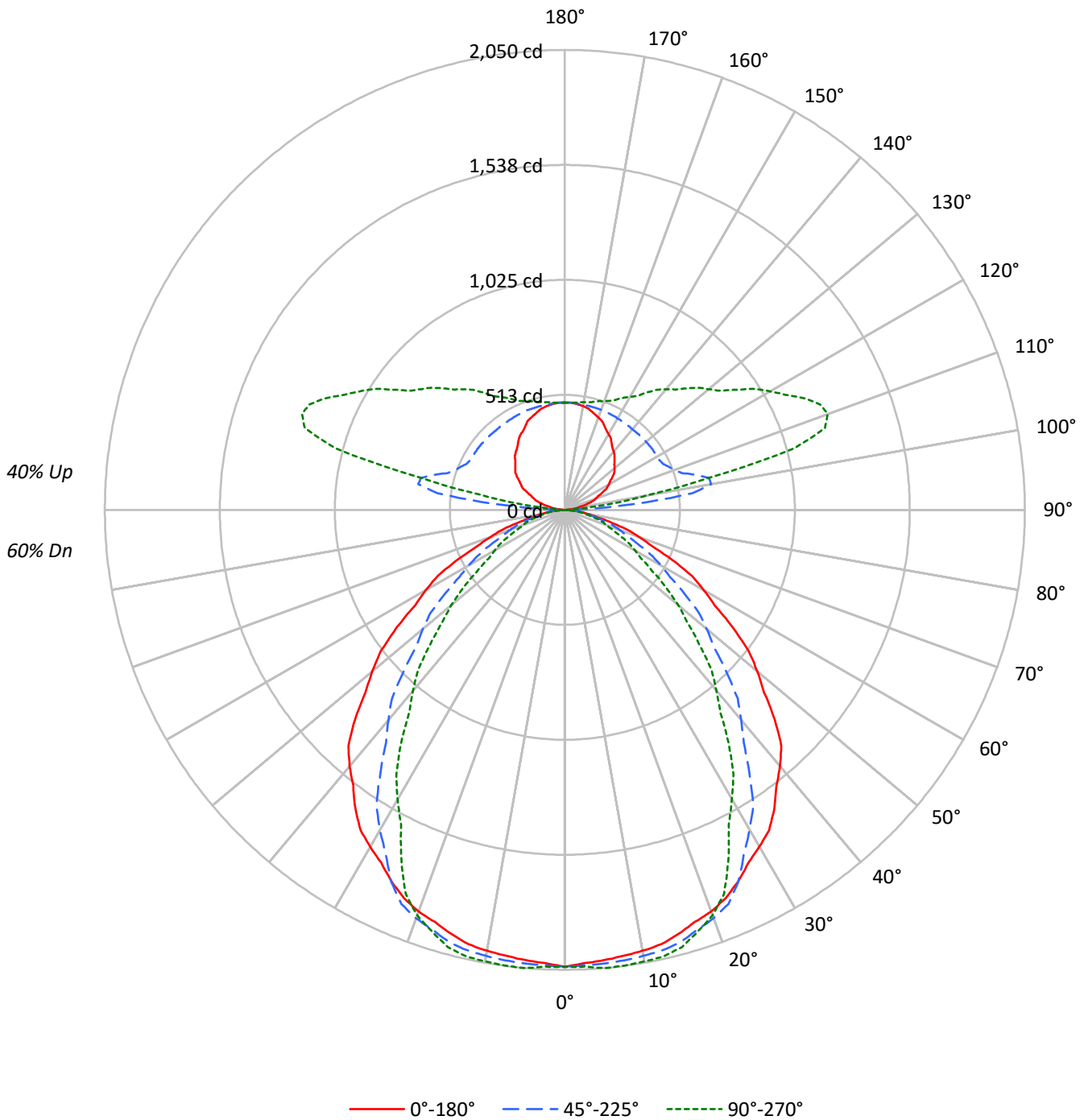
Lumens per Lamp: N/A
Luminaire Lumens: 7482.3 lumens
Efficiency: N/A
Efficacy: 122.9 lumens/watt
Spacing Criteria (0/90/45): 1.27 / 1.11 / 1.22
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Direct

Input Watts (W): 60.9
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 | 110 | 110 | 110 | 110 | 102 | 102 | 102 | 102 | 89 | 89 | 89 | 77 | 77 | 77 | 66 | 66 | 66 | 60 |
| 1 | 101 | 97 | 93 | 90 | 94 | 91 | 87 | 85 | 79 | 77 | 75 | 69 | 67 | 66 | 59 | 58 | 57 | 52 |
| 2 | 92 | 85 | 79 | 74 | 86 | 80 | 75 | 71 | 70 | 66 | 63 | 61 | 58 | 56 | 53 | 51 | 49 | 45 |
| 3 | 85 | 76 | 68 | 63 | 79 | 71 | 65 | 60 | 63 | 58 | 54 | 55 | 51 | 48 | 47 | 45 | 42 | 39 |
| 4 | 78 | 67 | 60 | 54 | 73 | 63 | 57 | 51 | 56 | 51 | 46 | 49 | 45 | 42 | 43 | 40 | 37 | 34 |
| 5 | 72 | 60 | 52 | 47 | 67 | 57 | 50 | 45 | 51 | 45 | 41 | 45 | 40 | 37 | 39 | 36 | 33 | 30 |
| 6 | 66 | 54 | 47 | 41 | 62 | 51 | 44 | 39 | 46 | 40 | 36 | 41 | 36 | 32 | 36 | 32 | 29 | 27 |
| 7 | 62 | 49 | 42 | 36 | 58 | 47 | 40 | 35 | 42 | 36 | 32 | 37 | 32 | 29 | 33 | 29 | 26 | 24 |
| 8 | 57 | 45 | 37 | 32 | 54 | 43 | 36 | 31 | 38 | 33 | 28 | 34 | 29 | 26 | 30 | 26 | 24 | 21 |
| 9 | 53 | 41 | 34 | 29 | 50 | 39 | 32 | 28 | 35 | 30 | 26 | 31 | 27 | 24 | 28 | 24 | 21 | 19 |
| 10 | 50 | 38 | 31 | 26 | 47 | 36 | 30 | 25 | 33 | 27 | 23 | 29 | 25 | 21 | 26 | 22 | 20 | 18 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|-------|-------|-------|
| 0° | 32881 | 32881 | 32881 |
| 5° | 32661 | 32913 | 33227 |
| 10° | 32721 | 33103 | 33516 |
| 15° | 32712 | 33329 | 33718 |
| 20° | 32727 | 33292 | 33060 |
| 25° | 32550 | 32584 | 30718 |
| 30° | 32328 | 30700 | 27772 |
| 35° | 32075 | 28251 | 25080 |
| 40° | 31436 | 25754 | 22156 |
| 45° | 30204 | 23162 | 19354 |
| 50° | 28110 | 20705 | 16566 |
| 55° | 25714 | 18291 | 13430 |
| 60° | 23050 | 15910 | 11586 |
| 65° | 20157 | 13708 | 10300 |
| 70° | 16480 | 12179 | 9338 |
| 75° | 12826 | 10524 | 8590 |
| 80° | 9558 | 9019 | 7578 |
| 85° | 6465 | 6836 | 4316 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 30204 cd/sqm



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 193.9 | 2.6 |
| 10°-20° | 561.9 | 7.5 |
| 20°-30° | 826.9 | 11.1 |
| 30°-40° | 904.0 | 12.1 |
| 40°-50° | 811.0 | 10.8 |
| 50°-60° | 605.0 | 8.1 |
| 60°-70° | 382.3 | 5.1 |
| 70°-80° | 189.4 | 2.5 |
| 80°-90° | 44.8 | 0.6 |
| 90°-100° | 181.0 | 2.4 |
| 100°-110° | 600.0 | 8.0 |
| 110°-120° | 595.5 | 8.0 |
| 120°-130° | 485.0 | 6.5 |
| 130°-140° | 394.2 | 5.3 |
| 140°-150° | 306.1 | 4.1 |
| 150°-160° | 220.6 | 2.9 |
| 160°-170° | 135.1 | 1.8 |
| 170°-180° | 45.6 | 0.6 |
| 0°-30° | 1582.7 | 21.2 |
| 0°-40° | 2486.7 | 33.2 |
| 0°-60° | 3902.7 | 52.2 |
| 0°-90° | 4519.2 | 60.4 |
| 90°-120° | 1376.5 | 18.4 |
| 90°-150° | 2561.8 | 34.2 |
| 90°-180° | 2963.0 | 39.6 |
| 0°-180° | 7482.3 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|------|------|-------|------|-------|------|------|
| 0° | 2036 | 2036 | 2036 | 2036 | 2036 | |
| 5° | 2015 | 2048 | 2031 | 2033 | 2050 | 192 |
| 15° | 1957 | 1995 | 1994 | 2008 | 2017 | 553 |
| 25° | 1827 | 1867 | 1829 | 1753 | 1724 | 841 |
| 35° | 1627 | 1610 | 1433 | 1308 | 1272 | 1015 |
| 45° | 1323 | 1217 | 1014 | 887 | 848 | 1014 |
| 55° | 914 | 826 | 650 | 509 | 477 | 816 |
| 65° | 528 | 484 | 359 | 289 | 270 | 523 |
| 75° | 206 | 221 | 169 | 142 | 138 | 226 |
| 85° | 35 | 44 | 37 | 25 | 23 | 44 |
| 90° | 0 | 1 | 3 | 4 | 4 | 2 |
| 95° | 26 | 76 | 328 | 117 | 78 | 29 |
| 105° | 105 | 150 | 600 | 1133 | 1059 | 111 |
| 115° | 187 | 224 | 484 | 1007 | 1177 | 185 |
| 125° | 262 | 291 | 475 | 791 | 932 | 232 |
| 135° | 313 | 345 | 471 | 679 | 766 | 242 |
| 145° | 364 | 391 | 470 | 584 | 639 | 228 |
| 155° | 415 | 430 | 473 | 522 | 541 | 191 |
| 165° | 456 | 461 | 475 | 494 | 498 | 129 |
| 175° | 477 | 477 | 478 | 480 | 480 | 45 |
| 180° | 479 | 479 | 479 | 479 | 479 | |



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CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|--------|--------|--------|--------|--------|
| 0° | 2036.5 | 2036.5 | 2036.5 | 2036.5 | 2036.5 |
| 2.5° | 2022.6 | 2048.4 | 2031.9 | 2033.6 | 2038.1 |
| 5° | 2015.2 | 2047.5 | 2030.7 | 2033.1 | 2050.1 |
| 7.5° | 2005.1 | 2037.7 | 2025.3 | 2032.3 | 2049.0 |
| 10° | 1995.8 | 2030.0 | 2019.1 | 2029.1 | 2044.3 |
| 12.5° | 1983.4 | 2019.1 | 2011.3 | 2022.9 | 2038.1 |
| 15° | 1957.0 | 1995.0 | 1993.9 | 2007.7 | 2017.2 |
| 17.5° | 1926.4 | 1964.3 | 1962.5 | 1966.1 | 1970.6 |
| 20° | 1904.7 | 1942.6 | 1937.6 | 1924.1 | 1924.1 |
| 22.5° | 1873.6 | 1914.6 | 1901.9 | 1864.8 | 1852.7 |
| 25° | 1827.1 | 1866.9 | 1829.0 | 1752.7 | 1724.3 |
| 27.5° | 1772.8 | 1805.0 | 1728.9 | 1620.6 | 1581.1 |
| 30° | 1734.0 | 1758.6 | 1646.7 | 1527.5 | 1489.6 |
| 32.5° | 1693.6 | 1703.1 | 1562.9 | 1439.0 | 1398.0 |
| 35° | 1627.3 | 1610.2 | 1433.3 | 1308.4 | 1272.4 |
| 37.5° | 1548.9 | 1498.1 | 1308.8 | 1178.0 | 1138.1 |
| 40° | 1491.5 | 1419.5 | 1221.9 | 1091.1 | 1051.2 |
| 42.5° | 1427.9 | 1337.6 | 1139.7 | 1008.8 | 967.5 |
| 45° | 1322.8 | 1216.6 | 1014.4 | 887.4 | 847.6 |
| 47.5° | 1204.5 | 1099.0 | 897.2 | 774.3 | 740.1 |
| 50° | 1119.1 | 1016.7 | 824.3 | 701.2 | 659.5 |
| 52.5° | 1032.2 | 940.5 | 752.9 | 626.4 | 569.5 |
| 55° | 913.5 | 826.3 | 649.8 | 509.4 | 477.1 |
| 57.5° | 791.3 | 715.9 | 556.3 | 428.8 | 402.3 |
| 60° | 713.8 | 647.4 | 492.7 | 385.4 | 358.8 |
| 62.5° | 639.3 | 580.5 | 430.6 | 345.1 | 323.1 |
| 65° | 527.6 | 483.9 | 358.8 | 288.6 | 269.6 |
| 67.5° | 418.9 | 394.7 | 298.3 | 236.7 | 224.2 |
| 70° | 349.1 | 341.5 | 258.0 | 207.3 | 197.8 |
| 72.5° | 288.6 | 291.6 | 219.2 | 179.5 | 173.0 |
| 75° | 205.6 | 220.8 | 168.7 | 141.5 | 137.7 |
| 77.5° | 140.0 | 162.8 | 124.9 | 104.7 | 101.6 |
| 80° | 102.8 | 125.6 | 97.0 | 81.5 | 81.5 |
| 82.5° | 71.8 | 90.0 | 69.0 | 61.3 | 61.3 |
| 85° | 34.9 | 44.4 | 36.9 | 25.2 | 23.3 |
| 87.5° | 9.3 | 14.1 | 6.8 | 5.4 | 5.4 |
| 90° | 0.0 | 1.0 | 3.0 | 4.0 | 4.0 |
| 92.5° | 7.9 | 30.6 | 90.2 | 29.2 | 24.6 |
| 95° | 25.8 | 76.1 | 328.0 | 117.0 | 78.3 |
| 97.5° | 47.4 | 100.1 | 572.5 | 333.9 | 211.0 |
| 100° | 62.4 | 112.8 | 662.9 | 569.3 | 377.5 |
| 102.5° | 79.1 | 127.9 | 657.3 | 870.1 | 657.3 |
| 105° | 105.0 | 149.6 | 600.4 | 1132.8 | 1059.2 |
| 107.5° | 131.6 | 171.3 | 546.0 | 1159.6 | 1215.6 |
| 110° | 146.6 | 186.4 | 518.2 | 1133.1 | 1246.5 |



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CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|-------|-------|-------|--------|--------|
| 112.5° | 162.5 | 201.4 | 501.6 | 1086.3 | 1230.6 |
| 115° | 187.3 | 224.1 | 483.5 | 1006.6 | 1177.1 |
| 117.5° | 211.8 | 244.6 | 477.0 | 930.5 | 1109.3 |
| 120° | 226.9 | 258.9 | 474.6 | 882.8 | 1056.2 |
| 122.5° | 240.4 | 271.6 | 474.6 | 843.7 | 1003.9 |
| 125° | 261.6 | 290.6 | 474.6 | 790.9 | 932.4 |
| 127.5° | 279.0 | 307.5 | 473.4 | 751.0 | 871.9 |
| 130° | 289.3 | 319.4 | 472.6 | 727.8 | 836.3 |
| 132.5° | 298.8 | 329.6 | 471.8 | 708.5 | 806.1 |
| 135° | 313.1 | 345.1 | 470.6 | 678.7 | 765.9 |
| 137.5° | 328.6 | 359.4 | 469.5 | 650.0 | 726.9 |
| 140° | 338.9 | 368.9 | 468.7 | 630.8 | 701.5 |
| 142.5° | 348.4 | 377.6 | 469.5 | 611.6 | 674.6 |
| 145° | 363.6 | 390.8 | 469.7 | 583.9 | 639.1 |
| 147.5° | 380.1 | 402.8 | 469.9 | 560.4 | 601.4 |
| 150° | 390.4 | 410.7 | 470.6 | 546.7 | 581.6 |
| 152.5° | 399.9 | 419.5 | 471.4 | 535.5 | 563.4 |
| 155° | 415.2 | 429.7 | 472.6 | 521.6 | 541.0 |
| 157.5° | 430.0 | 441.3 | 473.8 | 511.8 | 525.5 |
| 160° | 437.9 | 447.6 | 474.6 | 504.6 | 515.2 |
| 162.5° | 445.9 | 453.2 | 474.6 | 499.8 | 508.1 |
| 165° | 455.8 | 460.6 | 474.6 | 493.5 | 498.4 |
| 167.5° | 464.9 | 467.4 | 475.6 | 487.9 | 490.5 |
| 170° | 469.7 | 470.6 | 475.6 | 485.5 | 486.5 |
| 172.5° | 472.8 | 473.8 | 476.4 | 483.1 | 483.3 |
| 175° | 476.6 | 476.6 | 477.6 | 480.5 | 479.6 |
| 177.5° | 478.6 | 478.6 | 477.8 | 479.3 | 477.8 |
| 180° | 478.6 | 478.6 | 478.6 | 478.6 | 478.6 |



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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 | 20.11 | 21.03 | 20.98 | 21.91 | 23.03 | 16.60 | 17.51 | 17.47 | 18.40 | 19.52 |
| | 3H | 21.44 | 22.25 | 22.32 | 23.15 | 24.29 | 17.81 | 18.62 | 18.69 | 19.52 | 20.66 |
| | 4H | 21.81 | 22.58 | 22.71 | 23.49 | 24.64 | 18.26 | 19.03 | 19.16 | 19.93 | 21.08 |
| | 6H | 22.02 | 22.73 | 22.93 | 23.64 | 24.80 | 18.58 | 19.29 | 19.49 | 20.19 | 21.36 |
| | 8H | 22.05 | 22.73 | 22.97 | 23.65 | 24.82 | 18.65 | 19.33 | 19.57 | 20.25 | 21.42 |
| | 12H | 22.05 | 22.69 | 22.98 | 23.61 | 24.80 | 18.67 | 19.31 | 19.59 | 20.23 | 21.42 |
| 4H | 2H | 20.22 | 20.99 | 21.13 | 21.89 | 23.05 | 17.29 | 18.06 | 18.19 | 18.96 | 20.11 |
| | 3H | 21.77 | 22.41 | 22.69 | 23.34 | 24.51 | 18.68 | 19.32 | 19.59 | 20.25 | 21.42 |
| | 4H | 22.28 | 22.86 | 23.21 | 23.79 | 24.99 | 19.23 | 19.81 | 20.15 | 20.74 | 21.93 |
| | 6H | 22.62 | 23.12 | 23.56 | 24.07 | 25.27 | 19.63 | 20.14 | 20.57 | 21.09 | 22.28 |
| | 8H | 22.70 | 23.16 | 23.64 | 24.11 | 25.32 | 19.74 | 20.21 | 20.68 | 21.15 | 22.36 |
| | 12H | 22.71 | 23.13 | 23.67 | 24.10 | 25.31 | 19.77 | 20.19 | 20.73 | 21.15 | 22.36 |
| 8H | 4H | 22.32 | 22.79 | 23.27 | 23.74 | 24.95 | 19.56 | 20.03 | 20.50 | 20.97 | 22.18 |
| | 6H | 22.76 | 23.15 | 23.73 | 24.14 | 25.34 | 20.07 | 20.45 | 21.03 | 21.44 | 22.65 |
| | 8H | 22.91 | 23.25 | 23.88 | 24.23 | 25.45 | 20.23 | 20.57 | 21.21 | 21.55 | 22.77 |
| | 12H | 22.98 | 23.28 | 23.96 | 24.25 | 25.52 | 20.29 | 20.59 | 21.27 | 21.56 | 22.84 |
| 12H | 4H | 22.29 | 22.71 | 23.25 | 23.67 | 24.88 | 19.58 | 20.00 | 20.54 | 20.96 | 22.17 |
| | 6H | 22.75 | 23.09 | 23.73 | 24.07 | 25.30 | 20.13 | 20.47 | 21.11 | 21.45 | 22.68 |
| | 8H | 22.92 | 23.22 | 23.90 | 24.19 | 25.46 | 20.32 | 20.62 | 21.30 | 21.59 | 22.87 |