

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: P854149

Luminaire Tested: SQ2-PP3-150U-050D-935-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P854149
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-050D-935-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 500 LUMENS PER FOOT
UPLIGHT 1500 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

Summary

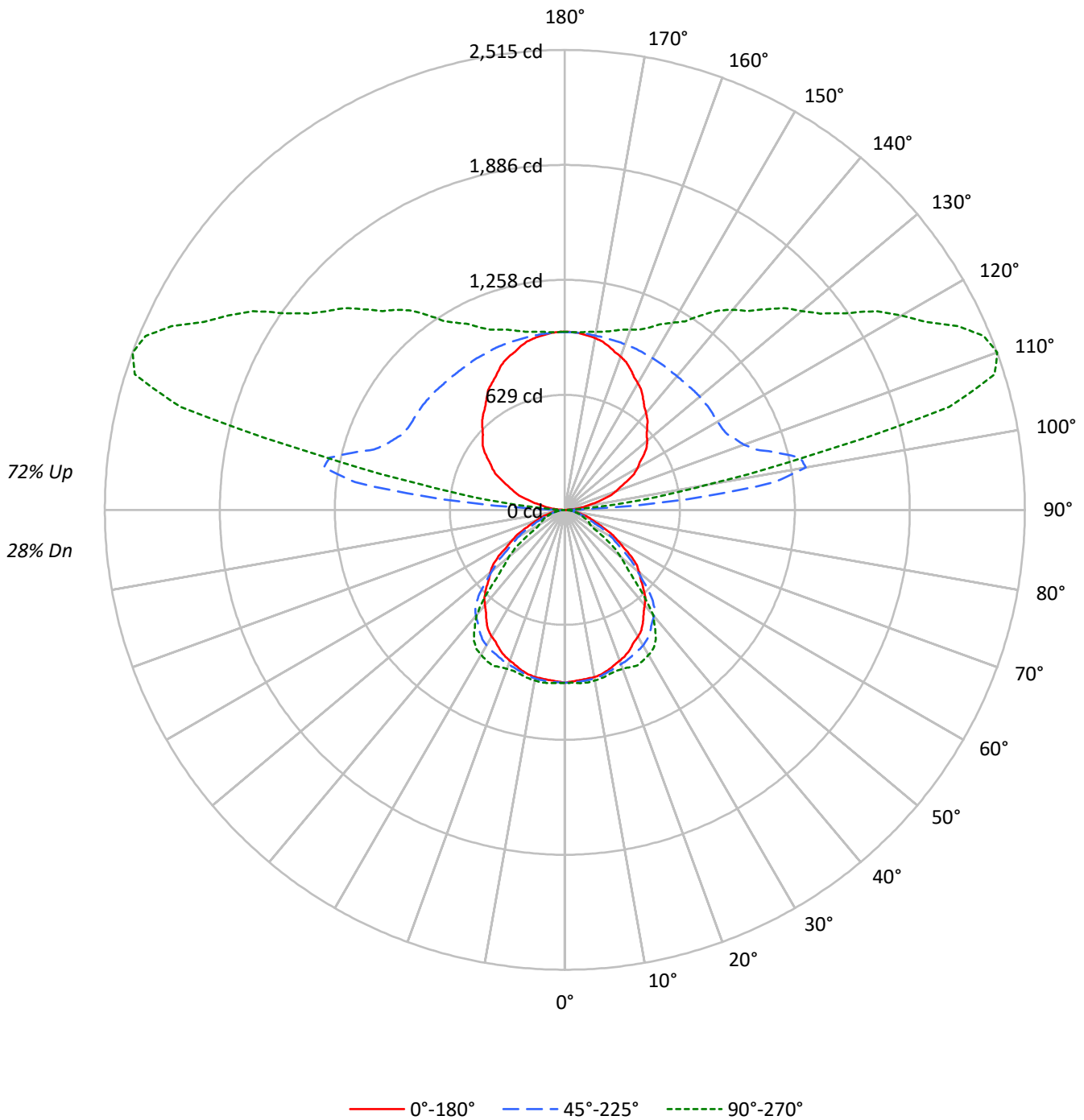
Lumens per Lamp: N/A
Luminaire Lumens: 8388.5 lumens
Efficiency: N/A
Efficacy: 112.7 lumens/watt
Spacing Criteria (0/90/45): 1.26 / 1.41 / 1.4
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Indirect

Input Watts (W): 74.4
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 | 102 | 102 | 102 | 102 | 91 | 91 | 91 | 91 | 71 | 71 | 71 | 53 | 53 | 53 | 36 | 36 | 36 | 28 |
| 1 | 93 | 89 | 86 | 82 | 83 | 80 | 77 | 74 | 63 | 61 | 59 | 47 | 46 | 45 | 33 | 32 | 31 | 25 |
| 2 | 85 | 78 | 72 | 68 | 76 | 70 | 65 | 61 | 55 | 52 | 49 | 42 | 40 | 38 | 29 | 28 | 27 | 21 |
| 3 | 78 | 69 | 62 | 57 | 69 | 62 | 56 | 51 | 49 | 45 | 42 | 37 | 34 | 32 | 26 | 24 | 23 | 18 |
| 4 | 71 | 61 | 54 | 48 | 63 | 55 | 49 | 44 | 44 | 39 | 36 | 33 | 30 | 28 | 23 | 21 | 20 | 16 |
| 5 | 65 | 54 | 47 | 41 | 58 | 49 | 42 | 37 | 39 | 34 | 31 | 30 | 26 | 24 | 21 | 19 | 17 | 14 |
| 6 | 60 | 49 | 41 | 35 | 54 | 44 | 37 | 32 | 35 | 30 | 27 | 27 | 23 | 21 | 19 | 17 | 15 | 12 |
| 7 | 55 | 44 | 36 | 31 | 50 | 40 | 33 | 28 | 32 | 27 | 23 | 24 | 21 | 19 | 17 | 15 | 14 | 11 |
| 8 | 51 | 40 | 32 | 27 | 46 | 36 | 29 | 25 | 29 | 24 | 21 | 22 | 19 | 16 | 16 | 14 | 12 | 10 |
| 9 | 48 | 36 | 29 | 24 | 43 | 33 | 26 | 22 | 26 | 22 | 18 | 20 | 17 | 15 | 15 | 13 | 11 | 9 |
| 10 | 44 | 33 | 26 | 21 | 40 | 30 | 24 | 20 | 24 | 20 | 16 | 19 | 15 | 13 | 14 | 11 | 10 | 8 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|-------|-------|-------|
| 0° | 15274 | 15274 | 15274 |
| 5° | 15154 | 15284 | 15430 |
| 10° | 15231 | 15346 | 15542 |
| 15° | 15194 | 15345 | 15579 |
| 20° | 15086 | 15447 | 15893 |
| 25° | 15000 | 15642 | 16728 |
| 30° | 14915 | 15959 | 17078 |
| 35° | 14704 | 16005 | 17109 |
| 40° | 14311 | 15976 | 15808 |
| 45° | 13883 | 15253 | 12033 |
| 50° | 13338 | 13011 | 10022 |
| 55° | 12414 | 10950 | 7206 |
| 60° | 10689 | 9397 | 5167 |
| 65° | 9016 | 7259 | 5081 |
| 70° | 7506 | 5712 | 4862 |
| 75° | 6363 | 4928 | 4554 |
| 80° | 5393 | 4277 | 4091 |
| 85° | 4261 | 3520 | 2223 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 15253 cd/sqm



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 90.1 | 1.1 |
| 10°-20° | 260.7 | 3.1 |
| 20°-30° | 408.4 | 4.9 |
| 30°-40° | 503.8 | 6.0 |
| 40°-50° | 474.4 | 5.7 |
| 50°-60° | 335.9 | 4.0 |
| 60°-70° | 191.4 | 2.3 |
| 70°-80° | 94.7 | 1.1 |
| 80°-90° | 24.2 | 0.3 |
| 90°-100° | 370.7 | 4.4 |
| 100°-110° | 1213.9 | 14.5 |
| 110°-120° | 1200.1 | 14.3 |
| 120°-130° | 981.0 | 11.7 |
| 130°-140° | 800.6 | 9.5 |
| 140°-150° | 623.0 | 7.4 |
| 150°-160° | 448.6 | 5.3 |
| 160°-170° | 274.4 | 3.3 |
| 170°-180° | 92.7 | 1.1 |
| 0°-30° | 759.2 | 9.1 |
| 0°-40° | 1263.0 | 15.1 |
| 0°-60° | 2073.2 | 24.7 |
| 0°-90° | 2383.5 | 28.4 |
| 90°-120° | 2784.7 | 33.2 |
| 90°-150° | 5189.3 | 61.9 |
| 90°-180° | 6005.0 | 71.6 |
| 0°-180° | 8388.5 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|------|-----|-------|------|-------|------|------|
| 0° | 946 | 946 | 946 | 946 | 946 | |
| 5° | 935 | 952 | 943 | 945 | 952 | 89 |
| 15° | 909 | 922 | 918 | 927 | 932 | 256 |
| 25° | 842 | 864 | 878 | 914 | 939 | 388 |
| 35° | 746 | 766 | 812 | 858 | 868 | 465 |
| 45° | 608 | 654 | 668 | 566 | 527 | 468 |
| 55° | 441 | 467 | 389 | 293 | 256 | 389 |
| 65° | 236 | 249 | 190 | 134 | 133 | 237 |
| 75° | 102 | 113 | 79 | 74 | 73 | 111 |
| 85° | 23 | 21 | 19 | 15 | 12 | 27 |
| 90° | 1 | 3 | 8 | 7 | 8 | 4 |
| 95° | 52 | 151 | 674 | 240 | 156 | 59 |
| 105° | 211 | 301 | 1205 | 2289 | 2175 | 222 |
| 115° | 380 | 454 | 979 | 2023 | 2375 | 375 |
| 125° | 529 | 590 | 965 | 1595 | 1874 | 471 |
| 135° | 637 | 704 | 957 | 1376 | 1551 | 493 |
| 145° | 745 | 800 | 955 | 1184 | 1297 | 467 |
| 155° | 849 | 877 | 961 | 1059 | 1100 | 391 |
| 165° | 927 | 936 | 965 | 1002 | 1013 | 261 |
| 175° | 969 | 969 | 970 | 977 | 975 | 92 |
| 180° | 973 | 973 | 973 | 973 | 973 | |



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CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|-------|-------|--------|--------|--------|
| 0° | 946.0 | 946.0 | 946.0 | 946.0 | 946.0 |
| 2.5° | 938.8 | 952.1 | 943.6 | 945.2 | 946.8 |
| 5° | 935.0 | 951.6 | 943.0 | 945.2 | 952.0 |
| 7.5° | 931.4 | 948.4 | 940.0 | 943.6 | 952.0 |
| 10° | 929.0 | 943.7 | 936.0 | 941.2 | 948.0 |
| 12.5° | 921.8 | 935.7 | 928.8 | 935.5 | 941.6 |
| 15° | 909.0 | 921.7 | 918.0 | 927.1 | 932.0 |
| 17.5° | 891.6 | 907.1 | 907.0 | 919.9 | 925.0 |
| 20° | 878.0 | 896.6 | 899.0 | 915.2 | 925.0 |
| 22.5° | 863.6 | 885.3 | 889.4 | 913.8 | 930.6 |
| 25° | 842.0 | 863.5 | 878.0 | 913.6 | 939.0 |
| 27.5° | 816.8 | 838.1 | 868.0 | 907.9 | 928.0 |
| 30° | 800.0 | 820.5 | 856.0 | 897.4 | 916.0 |
| 32.5° | 779.2 | 800.5 | 838.4 | 883.0 | 900.0 |
| 35° | 746.0 | 766.5 | 812.0 | 858.2 | 868.0 |
| 37.5° | 707.8 | 731.1 | 782.0 | 807.8 | 808.4 |
| 40° | 679.0 | 709.3 | 758.0 | 762.7 | 750.0 |
| 42.5° | 651.0 | 689.9 | 724.4 | 703.3 | 646.8 |
| 45° | 608.0 | 654.0 | 668.0 | 566.1 | 527.0 |
| 47.5° | 562.2 | 607.6 | 585.2 | 474.8 | 447.8 |
| 50° | 531.0 | 574.0 | 518.0 | 424.4 | 399.0 |
| 52.5° | 495.8 | 534.1 | 458.0 | 376.1 | 337.4 |
| 55° | 441.0 | 467.4 | 389.0 | 293.2 | 256.0 |
| 57.5° | 375.0 | 393.6 | 332.6 | 220.1 | 178.4 |
| 60° | 331.0 | 345.7 | 291.0 | 180.5 | 160.0 |
| 62.5° | 291.0 | 304.1 | 247.8 | 156.8 | 149.6 |
| 65° | 236.0 | 248.7 | 190.0 | 134.0 | 133.0 |
| 67.5° | 187.8 | 201.7 | 145.8 | 117.0 | 115.8 |
| 70° | 159.0 | 173.7 | 121.0 | 105.0 | 103.0 |
| 72.5° | 135.0 | 148.9 | 102.6 | 92.2 | 91.0 |
| 75° | 102.0 | 112.8 | 79.0 | 74.0 | 73.0 |
| 77.5° | 74.0 | 80.8 | 58.8 | 56.2 | 55.2 |
| 80° | 58.0 | 60.9 | 46.0 | 45.0 | 44.0 |
| 82.5° | 43.6 | 42.6 | 34.8 | 33.8 | 32.0 |
| 85° | 23.0 | 21.0 | 19.0 | 14.9 | 12.0 |
| 87.5° | 7.4 | 7.8 | 4.8 | 3.8 | 4.0 |
| 90° | 1.0 | 3.0 | 8.0 | 7.0 | 8.0 |
| 92.5° | 17.0 | 62.0 | 190.4 | 61.9 | 49.6 |
| 95° | 52.0 | 150.7 | 674.0 | 240.1 | 156.0 |
| 97.5° | 94.4 | 198.8 | 1156.3 | 699.5 | 433.6 |
| 100° | 124.0 | 223.7 | 1337.9 | 1194.8 | 791.9 |
| 102.5° | 157.6 | 255.0 | 1317.9 | 1760.5 | 1364.7 |
| 105° | 211.0 | 300.9 | 1204.9 | 2289.2 | 2174.8 |
| 107.5° | 263.6 | 346.1 | 1094.7 | 2338.7 | 2464.4 |
| 110° | 298.0 | 378.2 | 1041.9 | 2281.1 | 2514.8 |



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CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|-------|-------|--------|--------|--------|
| 112.5° | 330.8 | 408.6 | 1009.9 | 2181.0 | 2480.4 |
| 115° | 380.0 | 454.3 | 978.9 | 2022.9 | 2374.8 |
| 117.5° | 427.8 | 497.2 | 967.1 | 1867.4 | 2224.8 |
| 120° | 459.0 | 524.5 | 963.9 | 1776.8 | 2124.8 |
| 122.5° | 487.0 | 550.9 | 963.9 | 1698.6 | 2021.7 |
| 125° | 529.0 | 589.6 | 964.9 | 1595.2 | 1873.9 |
| 127.5° | 564.6 | 626.3 | 963.7 | 1519.0 | 1761.5 |
| 130° | 587.0 | 649.5 | 962.9 | 1472.9 | 1691.9 |
| 132.5° | 607.0 | 671.1 | 960.5 | 1433.2 | 1631.9 |
| 135° | 637.0 | 704.4 | 956.9 | 1375.9 | 1550.9 |
| 137.5° | 668.6 | 735.4 | 954.7 | 1316.1 | 1474.3 |
| 140° | 690.9 | 755.5 | 953.9 | 1278.3 | 1427.9 |
| 142.5° | 713.3 | 774.0 | 953.9 | 1238.0 | 1373.5 |
| 145° | 744.9 | 799.7 | 954.9 | 1183.5 | 1296.9 |
| 147.5° | 778.1 | 823.7 | 956.3 | 1136.1 | 1221.7 |
| 150° | 798.9 | 839.0 | 957.9 | 1108.6 | 1180.9 |
| 152.5° | 819.7 | 855.1 | 958.7 | 1085.9 | 1145.7 |
| 155° | 848.9 | 877.3 | 960.9 | 1058.9 | 1099.9 |
| 157.5° | 875.1 | 895.7 | 963.1 | 1037.6 | 1067.3 |
| 160° | 891.9 | 908.6 | 963.9 | 1025.5 | 1048.9 |
| 162.5° | 906.3 | 919.8 | 963.9 | 1015.7 | 1032.9 |
| 165° | 926.9 | 935.7 | 964.9 | 1002.2 | 1012.9 |
| 167.5° | 944.3 | 948.6 | 966.1 | 991.7 | 997.5 |
| 170° | 953.9 | 955.9 | 966.9 | 986.0 | 987.9 |
| 172.5° | 961.1 | 962.3 | 969.3 | 981.9 | 982.3 |
| 175° | 968.9 | 968.9 | 969.9 | 976.9 | 974.9 |
| 177.5° | 972.9 | 972.1 | 971.3 | 976.1 | 972.9 |
| 180° | 972.9 | 972.9 | 972.9 | 972.9 | 972.9 |



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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 | 14.56 | 15.24 | 15.69 | 16.36 | 17.91 | 10.96 | 11.64 | 12.09 | 12.75 | 14.31 |
| | 3H | 15.64 | 16.25 | 16.78 | 17.38 | 18.94 | 12.05 | 12.66 | 13.18 | 13.78 | 15.35 |
| | 4H | 15.98 | 16.55 | 17.12 | 17.68 | 19.25 | 12.50 | 13.08 | 13.65 | 14.20 | 15.78 |
| | 6H | 16.18 | 16.71 | 17.33 | 17.84 | 19.42 | 12.84 | 13.37 | 13.99 | 14.50 | 16.08 |
| | 8H | 16.23 | 16.73 | 17.38 | 17.87 | 19.45 | 12.92 | 13.42 | 14.07 | 14.57 | 16.14 |
| | 12H | 16.23 | 16.71 | 17.39 | 17.85 | 19.45 | 12.93 | 13.41 | 14.09 | 14.54 | 16.14 |
| 4H | 2H | 14.65 | 15.22 | 15.80 | 16.35 | 17.92 | 11.65 | 12.22 | 12.80 | 13.35 | 14.92 |
| | 3H | 15.94 | 16.42 | 17.10 | 17.57 | 19.15 | 12.88 | 13.36 | 14.04 | 14.51 | 16.10 |
| | 4H | 16.40 | 16.84 | 17.56 | 17.99 | 19.59 | 13.43 | 13.87 | 14.59 | 15.01 | 16.61 |
| | 6H | 16.73 | 17.11 | 17.90 | 18.27 | 19.87 | 13.86 | 14.24 | 15.03 | 15.40 | 16.99 |
| | 8H | 16.82 | 17.17 | 17.99 | 18.33 | 19.94 | 13.98 | 14.33 | 15.14 | 15.48 | 17.09 |
| | 12H | 16.85 | 17.17 | 18.03 | 18.33 | 19.95 | 14.00 | 14.32 | 15.18 | 15.48 | 17.10 |
| 8H | 4H | 16.41 | 16.76 | 17.57 | 17.92 | 19.53 | 13.69 | 14.04 | 14.85 | 15.19 | 16.81 |
| | 6H | 16.84 | 17.12 | 18.02 | 18.32 | 19.93 | 14.23 | 14.52 | 15.41 | 15.72 | 17.32 |
| | 8H | 16.99 | 17.24 | 18.18 | 18.42 | 20.05 | 14.41 | 14.67 | 15.60 | 15.84 | 17.47 |
| | 12H | 17.07 | 17.29 | 18.26 | 18.46 | 20.13 | 14.48 | 14.70 | 15.67 | 15.87 | 17.54 |
| 12H | 4H | 16.36 | 16.68 | 17.54 | 17.84 | 19.46 | 13.69 | 14.01 | 14.87 | 15.17 | 16.79 |
| | 6H | 16.82 | 17.08 | 18.01 | 18.25 | 19.88 | 14.28 | 14.53 | 15.47 | 15.71 | 17.34 |
| | 8H | 16.99 | 17.21 | 18.18 | 18.38 | 20.04 | 14.48 | 14.70 | 15.67 | 15.88 | 17.54 |