

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: P854040

Luminaire Tested: SQ2-PH1-100U-050D-930-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P854040
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-12, G2-2308-131-10)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-PH1-100U-050D-930-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 500 LUMENS PER FOOT
UPLIGHT 1000 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

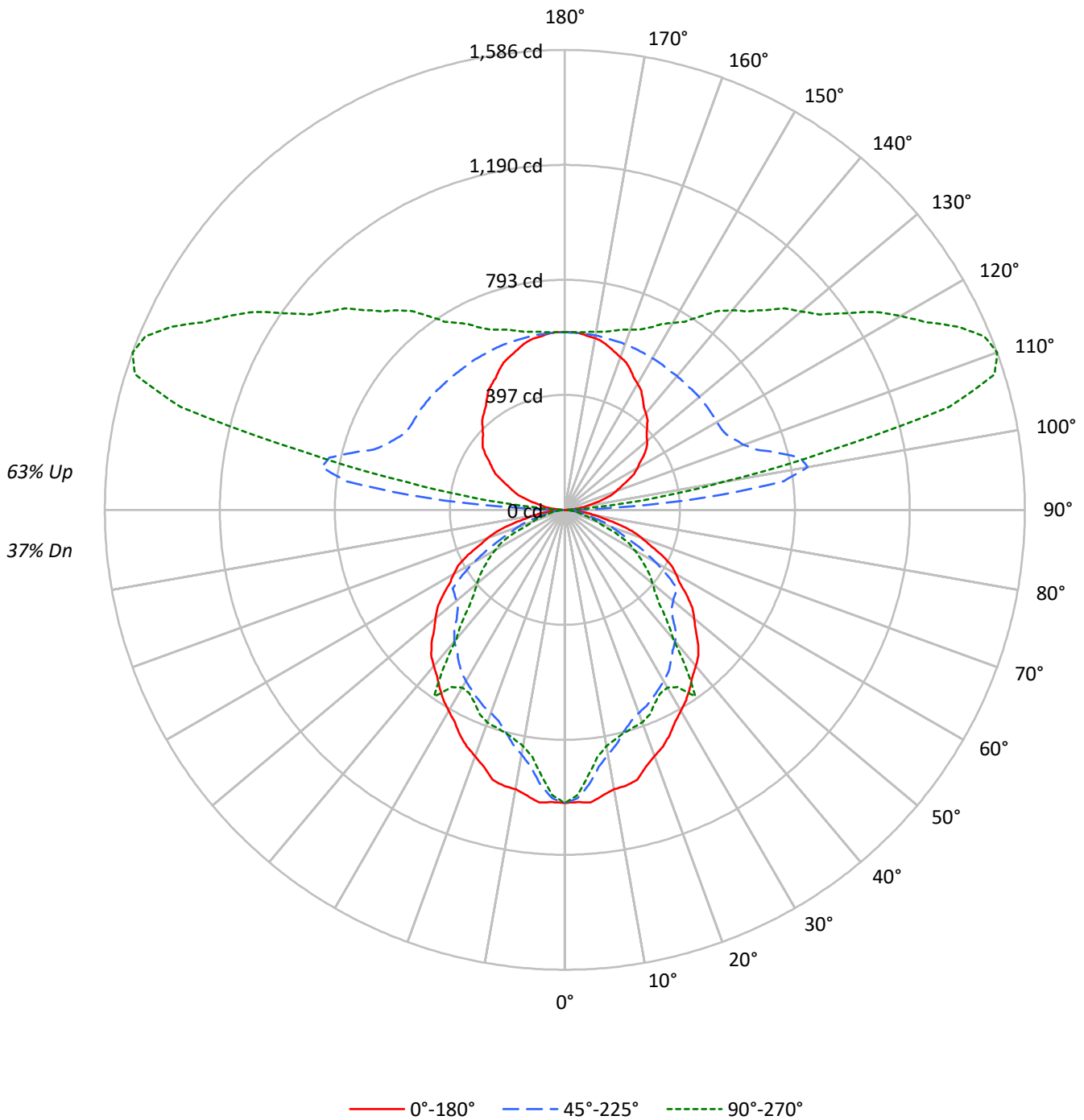
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6049.0 lumens
Efficiency: N/A
Efficacy: 120.0 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.02 / 1.23
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Indirect

Input Watts (W): 50.4
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





TEST NUMBER: P854040

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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 | 44 | 44 | 44 | 37 |
| 1 | 95 | 91 | 87 | 84 | 86 | 83 | 79 | 77 | 67 | 65 | 63 | 53 | 51 | 50 | 39 | 38 | 38 | 32 |
| 2 | 87 | 79 | 74 | 69 | 78 | 72 | 67 | 63 | 59 | 55 | 52 | 46 | 44 | 42 | 35 | 33 | 32 | 27 |
| 3 | 79 | 70 | 63 | 57 | 71 | 64 | 58 | 53 | 52 | 47 | 44 | 41 | 38 | 35 | 31 | 29 | 27 | 23 |
| 4 | 72 | 62 | 54 | 48 | 65 | 56 | 50 | 45 | 46 | 41 | 37 | 36 | 33 | 30 | 28 | 25 | 23 | 19 |
| 5 | 66 | 55 | 47 | 41 | 60 | 50 | 43 | 38 | 41 | 36 | 32 | 33 | 29 | 26 | 25 | 22 | 20 | 17 |
| 6 | 61 | 49 | 41 | 36 | 55 | 45 | 38 | 33 | 37 | 32 | 28 | 29 | 26 | 23 | 22 | 20 | 18 | 15 |
| 7 | 56 | 44 | 37 | 31 | 51 | 41 | 34 | 29 | 33 | 28 | 25 | 27 | 23 | 20 | 21 | 18 | 16 | 13 |
| 8 | 52 | 40 | 33 | 27 | 47 | 37 | 30 | 26 | 30 | 25 | 22 | 24 | 21 | 18 | 19 | 16 | 14 | 12 |
| 9 | 49 | 37 | 29 | 24 | 44 | 34 | 27 | 23 | 28 | 23 | 19 | 22 | 19 | 16 | 17 | 15 | 13 | 11 |
| 10 | 45 | 34 | 26 | 22 | 41 | 31 | 25 | 20 | 26 | 21 | 17 | 21 | 17 | 15 | 16 | 14 | 12 | 10 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|-------|-------|-------|
| 0° | 16322 | 16322 | 16322 |
| 5° | 16415 | 15433 | 14917 |
| 10° | 16038 | 14050 | 13562 |
| 15° | 16109 | 13215 | 13295 |
| 20° | 15534 | 12807 | 13402 |
| 25° | 15250 | 12748 | 13090 |
| 30° | 14919 | 12713 | 13198 |
| 35° | 14806 | 12569 | 15469 |
| 40° | 14819 | 12488 | 12265 |
| 45° | 14824 | 12013 | 10563 |
| 50° | 14616 | 12248 | 9904 |
| 55° | 14429 | 13292 | 9503 |
| 60° | 14286 | 11648 | 8913 |
| 65° | 14036 | 9444 | 7752 |
| 70° | 13256 | 8035 | 5537 |
| 75° | 11822 | 6057 | 4198 |
| 80° | 9661 | 3933 | 3933 |
| 85° | 6058 | 3557 | 2668 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 14824 cd/sqm



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 88.9 | 1.5 |
| 10°-20° | 234.0 | 3.9 |
| 20°-30° | 343.1 | 5.7 |
| 30°-40° | 415.5 | 6.9 |
| 40°-50° | 408.5 | 6.8 |
| 50°-60° | 355.6 | 5.9 |
| 60°-70° | 247.2 | 4.1 |
| 70°-80° | 117.2 | 1.9 |
| 80°-90° | 26.9 | 0.4 |
| 90°-100° | 255.8 | 4.2 |
| 100°-110° | 773.7 | 12.8 |
| 110°-120° | 755.2 | 12.5 |
| 120°-130° | 617.2 | 10.2 |
| 130°-140° | 503.8 | 8.3 |
| 140°-150° | 392.2 | 6.5 |
| 150°-160° | 282.7 | 4.7 |
| 160°-170° | 173.1 | 2.9 |
| 170°-180° | 58.4 | 1.0 |
| 0°-30° | 666.0 | 11.0 |
| 0°-40° | 1081.4 | 17.9 |
| 0°-60° | 1845.6 | 30.5 |
| 0°-90° | 2237.0 | 37.0 |
| 90°-120° | 1784.7 | 29.5 |
| 90°-150° | 3297.8 | 54.5 |
| 90°-180° | 3812.0 | 63.0 |
| 0°-180° | 6049.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|------|------|-------|------|-------|------|------|
| 0° | 1011 | 1011 | 1011 | 1011 | 1011 | |
| 5° | 1013 | 1012 | 952 | 922 | 920 | 95 |
| 15° | 964 | 858 | 791 | 785 | 795 | 269 |
| 25° | 856 | 728 | 716 | 738 | 735 | 394 |
| 35° | 751 | 607 | 638 | 693 | 785 | 471 |
| 45° | 649 | 481 | 526 | 544 | 463 | 499 |
| 55° | 513 | 374 | 472 | 340 | 338 | 458 |
| 65° | 367 | 257 | 247 | 203 | 203 | 361 |
| 75° | 190 | 131 | 97 | 69 | 67 | 201 |
| 85° | 33 | 21 | 19 | 15 | 14 | 44 |
| 90° | 0 | 2 | 12 | 7 | 6 | 2 |
| 95° | 32 | 100 | 483 | 178 | 112 | 38 |
| 105° | 135 | 189 | 760 | 1443 | 1371 | 141 |
| 115° | 239 | 286 | 614 | 1271 | 1493 | 237 |
| 125° | 335 | 371 | 606 | 1004 | 1182 | 297 |
| 135° | 401 | 443 | 602 | 866 | 974 | 310 |
| 145° | 468 | 503 | 602 | 745 | 814 | 293 |
| 155° | 534 | 552 | 606 | 668 | 693 | 246 |
| 165° | 584 | 590 | 609 | 632 | 639 | 164 |
| 175° | 611 | 611 | 612 | 616 | 614 | 58 |
| 180° | 612 | 612 | 612 | 612 | 612 | |

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CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|--------|--------|--------|--------|--------|
| 0° | 1010.9 | 1010.9 | 1010.9 | 1010.9 | 1010.9 |
| 2.5° | 1008.5 | 1019.1 | 995.5 | 986.2 | 984.7 |
| 5° | 1012.8 | 1011.8 | 952.2 | 922.3 | 920.4 |
| 7.5° | 994.3 | 965.2 | 893.9 | 861.0 | 859.5 |
| 10° | 978.2 | 934.0 | 857.0 | 827.2 | 827.2 |
| 12.5° | 974.3 | 904.5 | 827.0 | 804.9 | 809.5 |
| 15° | 963.7 | 858.4 | 790.6 | 785.1 | 795.4 |
| 17.5° | 928.7 | 815.3 | 762.3 | 774.9 | 786.9 |
| 20° | 904.1 | 792.2 | 745.4 | 768.7 | 780.0 |
| 22.5° | 883.3 | 769.9 | 733.1 | 758.6 | 764.6 |
| 25° | 856.0 | 728.1 | 715.6 | 737.6 | 734.8 |
| 27.5° | 823.3 | 689.8 | 698.1 | 711.6 | 713.3 |
| 30° | 800.2 | 666.7 | 681.9 | 695.7 | 707.9 |
| 32.5° | 777.9 | 639.9 | 664.2 | 696.8 | 724.8 |
| 35° | 751.2 | 607.3 | 637.7 | 692.7 | 784.8 |
| 37.5° | 723.1 | 568.9 | 610.9 | 657.2 | 686.5 |
| 40° | 703.1 | 541.3 | 592.5 | 649.6 | 581.9 |
| 42.5° | 681.5 | 519.8 | 564.8 | 638.5 | 524.2 |
| 45° | 649.2 | 480.9 | 526.1 | 544.4 | 462.6 |
| 47.5° | 611.1 | 450.7 | 499.9 | 454.0 | 422.0 |
| 50° | 581.9 | 430.5 | 487.6 | 415.0 | 394.3 |
| 52.5° | 553.4 | 409.5 | 479.2 | 382.9 | 368.9 |
| 55° | 512.6 | 374.4 | 472.2 | 340.4 | 337.6 |
| 57.5° | 469.4 | 338.6 | 417.6 | 303.5 | 308.4 |
| 60° | 442.4 | 315.5 | 360.7 | 281.7 | 276.0 |
| 62.5° | 414.0 | 293.0 | 307.6 | 254.0 | 248.3 |
| 65° | 367.4 | 257.4 | 247.2 | 202.9 | 202.9 |
| 67.5° | 316.2 | 220.3 | 200.2 | 166.1 | 143.5 |
| 70° | 280.8 | 196.2 | 170.2 | 132.4 | 117.3 |
| 72.5° | 243.1 | 170.5 | 139.5 | 108.5 | 91.2 |
| 75° | 189.5 | 131.2 | 97.1 | 69.2 | 67.3 |
| 77.5° | 137.0 | 94.5 | 65.4 | 51.4 | 51.6 |
| 80° | 103.9 | 71.9 | 42.3 | 41.4 | 42.3 |
| 82.5° | 73.1 | 49.4 | 31.5 | 32.9 | 33.1 |
| 85° | 32.7 | 21.4 | 19.2 | 15.4 | 14.4 |
| 87.5° | 6.9 | 6.5 | 6.2 | 5.2 | 5.0 |
| 90° | 0.0 | 1.9 | 11.5 | 6.7 | 5.8 |
| 92.5° | 10.8 | 43.5 | 156.2 | 51.8 | 37.3 |
| 95° | 31.7 | 100.4 | 482.7 | 178.3 | 112.5 |
| 97.5° | 61.3 | 127.7 | 760.8 | 503.4 | 306.5 |
| 100° | 79.8 | 144.7 | 850.0 | 821.8 | 551.9 |
| 102.5° | 100.6 | 163.2 | 831.5 | 1152.6 | 918.8 |
| 105° | 134.6 | 189.1 | 759.6 | 1442.6 | 1371.2 |
| 107.5° | 166.9 | 219.0 | 690.4 | 1471.3 | 1554.0 |
| 110° | 188.5 | 238.3 | 655.8 | 1435.2 | 1585.6 |



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CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|-------|-------|-------|--------|--------|
| 112.5° | 209.2 | 257.6 | 635.0 | 1374.5 | 1564.8 |
| 115° | 239.4 | 285.5 | 614.4 | 1271.4 | 1493.3 |
| 117.5° | 269.4 | 313.0 | 607.1 | 1174.8 | 1401.9 |
| 120° | 289.4 | 330.8 | 604.8 | 1118.4 | 1336.5 |
| 122.5° | 307.9 | 347.0 | 604.8 | 1068.8 | 1270.4 |
| 125° | 334.6 | 371.3 | 605.8 | 1004.0 | 1181.7 |
| 127.5° | 356.3 | 394.3 | 604.8 | 955.2 | 1106.7 |
| 130° | 370.2 | 409.7 | 604.8 | 927.2 | 1064.4 |
| 132.5° | 382.5 | 422.7 | 604.0 | 901.5 | 1028.3 |
| 135° | 401.0 | 443.3 | 601.9 | 865.9 | 974.0 |
| 137.5° | 421.5 | 461.8 | 601.9 | 827.9 | 928.1 |
| 140° | 434.6 | 474.1 | 601.9 | 803.1 | 898.1 |
| 142.5° | 447.7 | 485.7 | 601.2 | 780.5 | 863.5 |
| 145° | 468.3 | 503.1 | 601.9 | 744.9 | 814.4 |
| 147.5° | 488.8 | 518.4 | 603.1 | 715.4 | 768.8 |
| 150° | 501.9 | 529.2 | 603.8 | 699.1 | 744.2 |
| 152.5° | 514.2 | 538.5 | 604.6 | 685.1 | 721.9 |
| 155° | 533.7 | 551.5 | 605.8 | 667.9 | 693.3 |
| 157.5° | 550.6 | 565.1 | 606.9 | 655.2 | 672.9 |
| 160° | 560.6 | 572.8 | 607.7 | 647.4 | 660.6 |
| 162.5° | 570.6 | 579.8 | 608.5 | 640.4 | 651.3 |
| 165° | 583.7 | 590.2 | 608.7 | 631.9 | 639.4 |
| 167.5° | 594.8 | 598.2 | 609.8 | 625.3 | 628.5 |
| 170° | 601.0 | 602.8 | 610.6 | 622.1 | 623.1 |
| 172.5° | 604.8 | 605.9 | 610.6 | 619.0 | 619.2 |
| 175° | 610.6 | 610.6 | 611.5 | 616.3 | 614.4 |
| 177.5° | 613.3 | 612.5 | 611.7 | 614.0 | 612.5 |
| 180° | 612.5 | 612.5 | 612.5 | 612.5 | 612.5 |



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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 | 15.69 | 16.44 | 16.75 | 17.50 | 18.95 | 14.36 | 15.11 | 15.42 | 16.18 | 17.62 |
| | 3H | 17.70 | 18.38 | 18.78 | 19.45 | 20.91 | 15.39 | 16.06 | 16.46 | 17.13 | 18.60 |
| | 4H | 18.43 | 19.07 | 19.51 | 20.14 | 21.61 | 15.59 | 16.23 | 16.68 | 17.31 | 18.78 |
| | 6H | 18.91 | 19.50 | 20.00 | 20.57 | 22.06 | 15.73 | 16.32 | 16.83 | 17.40 | 18.88 |
| | 8H | 19.03 | 19.59 | 20.13 | 20.68 | 22.16 | 15.76 | 16.32 | 16.86 | 17.41 | 18.89 |
| | 12H | 19.07 | 19.60 | 20.17 | 20.69 | 22.19 | 15.76 | 16.28 | 16.86 | 17.37 | 18.87 |
| 4H | 2H | 16.05 | 16.69 | 17.14 | 17.76 | 19.23 | 14.99 | 15.63 | 16.08 | 16.70 | 18.17 |
| | 3H | 18.15 | 18.67 | 19.24 | 19.78 | 21.26 | 16.16 | 16.69 | 17.25 | 17.79 | 19.27 |
| | 4H | 18.96 | 19.44 | 20.06 | 20.53 | 22.04 | 16.43 | 16.91 | 17.53 | 18.01 | 19.51 |
| | 6H | 19.53 | 19.95 | 20.64 | 21.07 | 22.56 | 16.63 | 17.05 | 17.74 | 18.16 | 19.66 |
| | 8H | 19.70 | 20.09 | 20.81 | 21.20 | 22.71 | 16.68 | 17.07 | 17.79 | 18.18 | 19.69 |
| | 12H | 19.76 | 20.12 | 20.89 | 21.24 | 22.75 | 16.69 | 17.04 | 17.81 | 18.16 | 19.68 |
| 8H | 4H | 18.96 | 19.35 | 20.07 | 20.46 | 21.97 | 16.64 | 17.02 | 17.75 | 18.13 | 19.64 |
| | 6H | 19.61 | 19.93 | 20.74 | 21.08 | 22.59 | 16.90 | 17.22 | 18.03 | 18.37 | 19.88 |
| | 8H | 19.84 | 20.12 | 20.97 | 21.25 | 22.78 | 17.00 | 17.28 | 18.14 | 18.41 | 19.95 |
| | 12H | 19.94 | 20.19 | 21.09 | 21.32 | 22.88 | 17.04 | 17.29 | 18.19 | 18.42 | 19.98 |
| 12H | 4H | 18.91 | 19.26 | 20.04 | 20.38 | 21.90 | 16.63 | 16.98 | 17.75 | 18.10 | 19.62 |
| | 6H | 19.58 | 19.86 | 20.72 | 20.99 | 22.53 | 16.93 | 17.21 | 18.07 | 18.34 | 19.87 |
| | 8H | 19.81 | 20.06 | 20.95 | 21.18 | 22.75 | 17.04 | 17.29 | 18.18 | 18.41 | 19.98 |