

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: P853825

Luminaire Tested: SQ2-FB-025U-050D-935-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P853825
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-9, G2-2308-131-12)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-FB-025U-050D-935-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 500 LUMENS PER FOOT
UPLIGHT 250 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

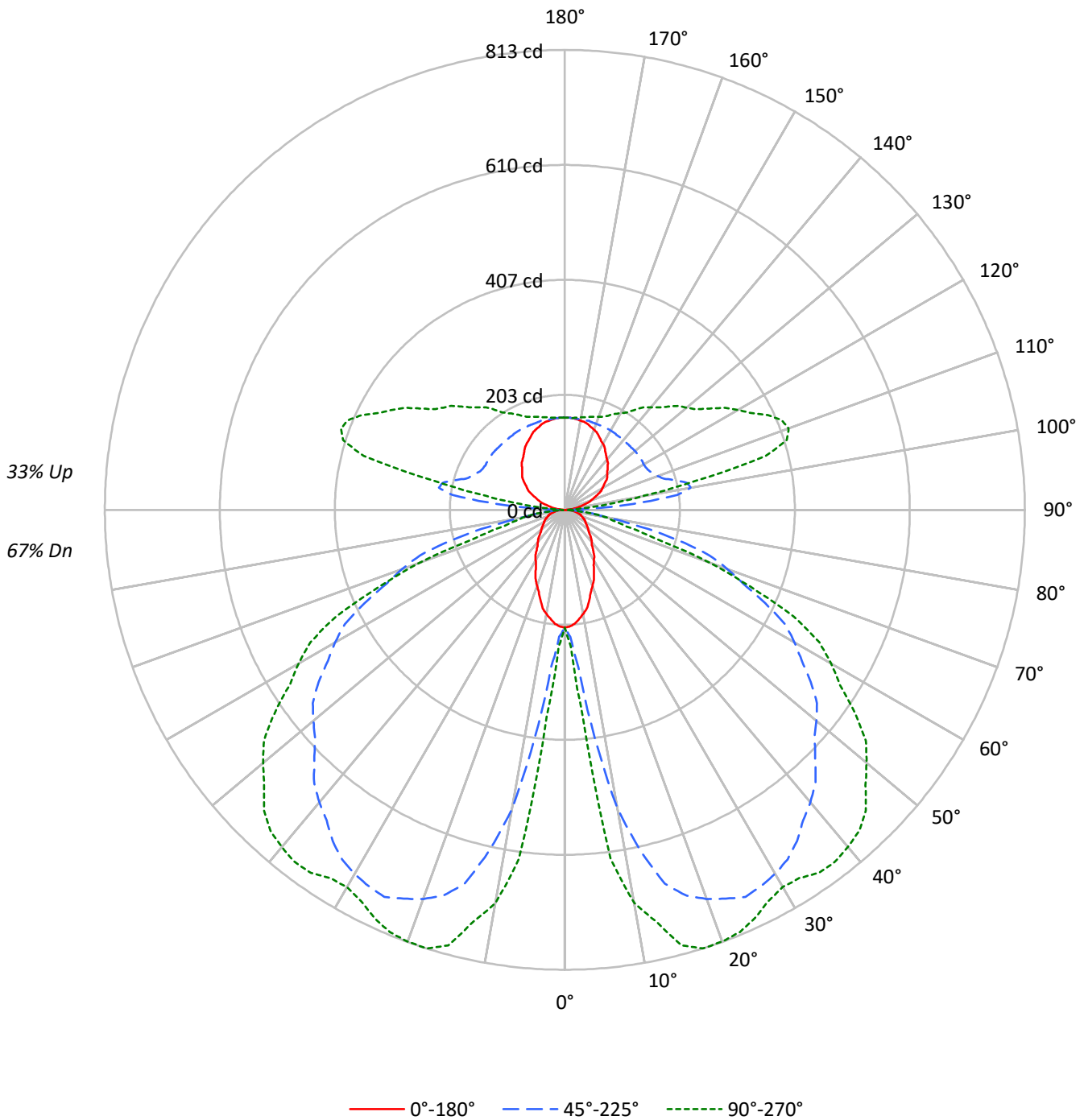
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3067.0 lumens
Efficiency: N/A
Efficacy: 121.7 lumens/watt
Spacing Criteria (0/90/45): 0.84 / 2.98 / 2.56
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Direct

Input Watts (W): 25.2
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: P853825

CATALOG NUMBER: SQ2-FB-025U-050D-935-UNV-STD-W-4

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 | 50 | 30 | 10 | 50 | 30 | 10 | 0 | | |
| RCR | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 0 | 111 | 111 | 111 | 111 | 105 | 105 | 105 | 105 | 93 | 93 | 93 | 82 | 82 | 82 | 72 | 72 | 72 | 67 | | | | | 67 | | | |
| 1 | 101 | 97 | 93 | 89 | 95 | 91 | 88 | 85 | 81 | 78 | 76 | 72 | 70 | 68 | 63 | 62 | 60 | 56 | | | | | 56 | | | |
| 2 | 92 | 84 | 77 | 72 | 86 | 79 | 74 | 69 | 71 | 66 | 62 | 62 | 59 | 56 | 55 | 52 | 50 | 46 | | | | | 46 | | | |
| 3 | 83 | 73 | 65 | 59 | 78 | 69 | 62 | 57 | 62 | 56 | 51 | 55 | 50 | 47 | 48 | 45 | 42 | 38 | | | | | 38 | | | |
| 4 | 76 | 64 | 56 | 50 | 71 | 61 | 53 | 47 | 54 | 48 | 43 | 48 | 43 | 39 | 42 | 39 | 35 | 32 | | | | | 32 | | | |
| 5 | 70 | 57 | 48 | 42 | 65 | 54 | 46 | 40 | 48 | 42 | 37 | 43 | 38 | 34 | 38 | 34 | 30 | 27 | | | | | 27 | | | |
| 6 | 64 | 51 | 42 | 36 | 60 | 48 | 40 | 35 | 43 | 37 | 32 | 38 | 33 | 29 | 34 | 30 | 26 | 24 | | | | | 24 | | | |
| 7 | 59 | 46 | 37 | 31 | 55 | 43 | 36 | 30 | 39 | 32 | 28 | 35 | 29 | 25 | 31 | 26 | 23 | 20 | | | | | 20 | | | |
| 8 | 54 | 41 | 33 | 27 | 51 | 39 | 32 | 26 | 35 | 29 | 24 | 32 | 26 | 22 | 28 | 24 | 20 | 18 | | | | | 18 | | | |
| 9 | 51 | 38 | 30 | 24 | 48 | 36 | 28 | 23 | 32 | 26 | 22 | 29 | 24 | 20 | 26 | 21 | 18 | 16 | | | | | 16 | | | |
| 10 | 47 | 34 | 27 | 22 | 44 | 33 | 26 | 21 | 30 | 23 | 19 | 27 | 21 | 18 | 24 | 19 | 16 | 14 | | | | | 14 | | | |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|------|-------|-------|
| 0° | 3358 | 3358 | 3358 |
| 5° | 3274 | 4538 | 5948 |
| 10° | 3066 | 8788 | 11575 |
| 15° | 2775 | 11433 | 13322 |
| 20° | 2457 | 12577 | 13952 |
| 25° | 2173 | 13450 | 14181 |
| 30° | 1920 | 13852 | 14356 |
| 35° | 1715 | 14093 | 15433 |
| 40° | 1560 | 14227 | 16398 |
| 45° | 1439 | 14294 | 17171 |
| 50° | 1356 | 14569 | 17482 |
| 55° | 1323 | 14947 | 17622 |
| 60° | 1356 | 15145 | 17534 |
| 65° | 1414 | 14938 | 17039 |
| 70° | 1463 | 14445 | 12888 |
| 75° | 1622 | 12976 | 7112 |
| 80° | 1674 | 6695 | 6602 |
| 85° | 1667 | 4631 | 2779 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 52.5°
 Luminance: 17781 cd/sqm



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 34.8 | 1.1 |
| 10°-20° | 159.1 | 5.2 |
| 20°-30° | 279.9 | 9.1 |
| 30°-40° | 362.3 | 11.8 |
| 40°-50° | 399.5 | 13.0 |
| 50°-60° | 373.0 | 12.2 |
| 60°-70° | 288.3 | 9.4 |
| 70°-80° | 133.0 | 4.3 |
| 80°-90° | 25.8 | 0.8 |
| 90°-100° | 65.9 | 2.1 |
| 100°-110° | 205.1 | 6.7 |
| 110°-120° | 200.7 | 6.5 |
| 120°-130° | 163.8 | 5.3 |
| 130°-140° | 134.0 | 4.4 |
| 140°-150° | 104.6 | 3.4 |
| 150°-160° | 75.5 | 2.5 |
| 160°-170° | 46.1 | 1.5 |
| 170°-180° | 15.6 | 0.5 |
| 0°-30° | 473.8 | 15.4 |
| 0°-40° | 836.1 | 27.3 |
| 0°-60° | 1608.6 | 52.4 |
| 0°-90° | 2055.8 | 67.0 |
| 90°-120° | 471.7 | 15.4 |
| 90°-150° | 874.1 | 28.5 |
| 90°-180° | 1011.0 | 33.0 |
| 0°-180° | 3067.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|------|-----|-------|-----|-------|-----|------|
| 0° | 208 | 208 | 208 | 208 | 208 | |
| 5° | 202 | 231 | 280 | 342 | 367 | 19 |
| 15° | 166 | 327 | 684 | 766 | 797 | 46 |
| 25° | 122 | 440 | 755 | 788 | 796 | 56 |
| 35° | 87 | 424 | 715 | 740 | 783 | 55 |
| 45° | 63 | 325 | 626 | 719 | 752 | 49 |
| 55° | 47 | 194 | 531 | 610 | 626 | 42 |
| 65° | 37 | 109 | 391 | 438 | 446 | 36 |
| 75° | 26 | 67 | 208 | 112 | 114 | 27 |
| 85° | 9 | 20 | 25 | 17 | 15 | 9 |
| 90° | 0 | 1 | 3 | 3 | 3 | 1 |
| 95° | 9 | 27 | 121 | 45 | 29 | 10 |
| 105° | 36 | 51 | 202 | 386 | 368 | 38 |
| 115° | 64 | 76 | 164 | 338 | 396 | 63 |
| 125° | 89 | 99 | 162 | 266 | 312 | 79 |
| 135° | 107 | 119 | 161 | 230 | 258 | 83 |
| 145° | 125 | 135 | 161 | 198 | 216 | 79 |
| 155° | 143 | 148 | 162 | 178 | 184 | 66 |
| 165° | 157 | 158 | 163 | 168 | 170 | 44 |
| 175° | 163 | 163 | 163 | 164 | 163 | 15 |
| 180° | 163 | 163 | 163 | 163 | 163 | |



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CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|-------|-------|-------|-------|-------|
| 0° | 208.0 | 208.0 | 208.0 | 208.0 | 208.0 |
| 2.5° | 206.4 | 215.0 | 224.8 | 236.1 | 240.8 |
| 5° | 202.0 | 231.3 | 280.0 | 341.6 | 367.0 |
| 7.5° | 194.2 | 253.8 | 407.2 | 572.0 | 622.8 |
| 10° | 187.0 | 270.1 | 536.0 | 678.6 | 706.0 |
| 12.5° | 179.0 | 291.8 | 616.8 | 717.0 | 745.2 |
| 15° | 166.0 | 327.3 | 684.0 | 765.7 | 797.0 |
| 17.5° | 152.6 | 367.3 | 715.2 | 795.8 | 812.8 |
| 20° | 143.0 | 395.3 | 732.0 | 801.3 | 812.0 |
| 22.5° | 134.2 | 416.2 | 744.0 | 796.5 | 808.0 |
| 25° | 122.0 | 439.8 | 755.0 | 788.2 | 796.0 |
| 27.5° | 110.2 | 446.0 | 750.2 | 772.0 | 779.6 |
| 30° | 103.0 | 444.2 | 743.0 | 759.3 | 770.0 |
| 32.5° | 96.6 | 439.4 | 732.6 | 748.3 | 771.6 |
| 35° | 87.0 | 424.3 | 715.0 | 740.0 | 783.0 |
| 37.5° | 78.8 | 400.1 | 691.8 | 742.9 | 784.4 |
| 40° | 74.0 | 382.0 | 675.0 | 742.8 | 778.0 |
| 42.5° | 69.2 | 360.8 | 655.8 | 734.8 | 770.0 |
| 45° | 63.0 | 325.0 | 626.0 | 718.8 | 752.0 |
| 47.5° | 57.2 | 284.8 | 598.4 | 696.6 | 720.8 |
| 50° | 54.0 | 257.4 | 580.0 | 676.4 | 696.0 |
| 52.5° | 50.8 | 230.7 | 561.6 | 652.4 | 670.4 |
| 55° | 47.0 | 193.7 | 531.0 | 610.4 | 626.0 |
| 57.5° | 43.6 | 161.9 | 496.2 | 563.9 | 576.6 |
| 60° | 42.0 | 144.7 | 469.0 | 530.3 | 543.0 |
| 62.5° | 39.6 | 129.0 | 438.6 | 495.1 | 507.0 |
| 65° | 37.0 | 109.4 | 391.0 | 438.2 | 446.0 |
| 67.5° | 33.4 | 94.8 | 340.4 | 369.3 | 354.6 |
| 70° | 31.0 | 87.7 | 306.0 | 315.0 | 273.0 |
| 72.5° | 29.4 | 79.9 | 268.4 | 244.6 | 165.0 |
| 75° | 26.0 | 67.1 | 208.0 | 112.0 | 114.0 |
| 77.5° | 21.2 | 51.9 | 136.8 | 86.0 | 87.8 |
| 80° | 18.0 | 42.4 | 72.0 | 70.0 | 71.0 |
| 82.5° | 14.8 | 33.0 | 49.6 | 51.6 | 50.2 |
| 85° | 9.0 | 19.8 | 25.0 | 17.0 | 15.0 |
| 87.5° | 3.2 | 7.3 | 4.6 | 4.6 | 4.6 |
| 90° | 0.0 | 1.0 | 3.0 | 3.0 | 3.0 |
| 92.5° | 3.2 | 11.2 | 38.2 | 12.5 | 10.2 |
| 95° | 9.0 | 26.6 | 121.0 | 44.6 | 29.0 |
| 97.5° | 16.4 | 34.6 | 200.3 | 124.7 | 78.6 |
| 100° | 22.0 | 38.6 | 225.9 | 211.3 | 141.0 |
| 102.5° | 27.6 | 43.4 | 221.1 | 301.8 | 236.9 |
| 105° | 36.0 | 50.7 | 201.9 | 385.5 | 367.9 |
| 107.5° | 44.4 | 58.1 | 183.5 | 391.9 | 411.3 |
| 110° | 50.0 | 63.7 | 173.9 | 382.7 | 420.9 |



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CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|-------|-------|-------|-------|-------|
| 112.5° | 55.6 | 68.5 | 169.1 | 366.2 | 414.5 |
| 115° | 64.0 | 75.7 | 163.9 | 338.2 | 395.9 |
| 117.5° | 72.2 | 82.9 | 161.7 | 311.4 | 370.5 |
| 120° | 77.0 | 87.7 | 160.9 | 296.2 | 352.9 |
| 122.5° | 81.8 | 92.5 | 161.7 | 283.3 | 335.3 |
| 125° | 89.0 | 98.7 | 161.9 | 266.0 | 311.9 |
| 127.5° | 94.8 | 104.7 | 161.9 | 253.0 | 292.1 |
| 130° | 98.0 | 108.7 | 161.9 | 245.7 | 280.9 |
| 132.5° | 102.0 | 112.7 | 161.1 | 239.3 | 272.1 |
| 135° | 107.0 | 118.7 | 160.9 | 229.6 | 257.9 |
| 137.5° | 112.8 | 123.5 | 160.9 | 219.9 | 245.7 |
| 140° | 116.0 | 126.7 | 160.9 | 213.5 | 236.9 |
| 142.5° | 120.0 | 129.9 | 160.9 | 207.0 | 228.1 |
| 145° | 125.0 | 134.7 | 160.9 | 198.3 | 215.9 |
| 147.5° | 131.0 | 139.4 | 161.9 | 190.3 | 204.1 |
| 150° | 135.0 | 141.8 | 161.9 | 186.2 | 196.9 |
| 152.5° | 138.2 | 144.2 | 161.9 | 182.1 | 191.3 |
| 155° | 143.0 | 147.8 | 161.9 | 178.1 | 183.9 |
| 157.5° | 147.8 | 151.5 | 161.9 | 174.4 | 178.1 |
| 160° | 151.0 | 153.9 | 161.9 | 172.0 | 174.9 |
| 162.5° | 153.3 | 155.5 | 161.9 | 170.4 | 172.5 |
| 165° | 156.9 | 157.9 | 162.9 | 168.0 | 169.9 |
| 167.5° | 159.1 | 159.3 | 161.9 | 166.6 | 167.5 |
| 170° | 159.9 | 160.9 | 161.9 | 165.0 | 165.9 |
| 172.5° | 161.5 | 161.7 | 162.7 | 164.2 | 164.3 |
| 175° | 162.9 | 162.9 | 162.9 | 163.9 | 162.9 |
| 177.5° | 162.9 | 162.9 | 162.9 | 162.9 | 162.9 |
| 180° | 162.9 | 162.9 | 162.9 | 162.9 | 162.9 |

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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 | 12.69 | 13.77 | 13.48 | 14.59 | 15.59 | 21.43 | 22.51 | 22.22 | 23.33 | 24.33 |
| | 3H | 13.44 | 14.41 | 14.25 | 15.24 | 16.27 | 23.07 | 24.04 | 23.87 | 24.87 | 25.90 |
| | 4H | 13.75 | 14.67 | 14.57 | 15.50 | 16.54 | 23.26 | 24.18 | 24.08 | 25.01 | 26.05 |
| | 6H | 13.98 | 14.83 | 14.81 | 15.67 | 16.72 | 23.36 | 24.20 | 24.19 | 25.04 | 26.10 |
| | 8H | 14.05 | 14.85 | 14.89 | 15.71 | 16.77 | 23.37 | 24.17 | 24.21 | 25.03 | 26.09 |
| | 12H | 14.08 | 14.85 | 14.93 | 15.70 | 16.79 | 23.35 | 24.11 | 24.20 | 24.97 | 26.05 |
| 4H | 2H | 17.12 | 18.04 | 17.94 | 18.87 | 19.91 | 21.90 | 22.82 | 22.73 | 23.65 | 24.69 |
| | 3H | 18.07 | 18.84 | 18.91 | 19.71 | 20.76 | 23.75 | 24.51 | 24.58 | 25.38 | 26.44 |
| | 4H | 18.37 | 19.06 | 19.22 | 19.93 | 21.01 | 23.99 | 24.69 | 24.85 | 25.55 | 26.64 |
| | 6H | 18.51 | 19.11 | 19.38 | 20.00 | 21.09 | 24.15 | 24.75 | 25.02 | 25.64 | 26.73 |
| | 8H | 18.54 | 19.10 | 19.41 | 19.98 | 21.09 | 24.18 | 24.74 | 25.06 | 25.63 | 26.73 |
| | 12H | 18.54 | 19.05 | 19.43 | 19.95 | 21.06 | 24.17 | 24.67 | 25.06 | 25.58 | 26.69 |
| 8H | 4H | 19.56 | 20.12 | 20.43 | 21.01 | 22.11 | 24.13 | 24.69 | 25.00 | 25.58 | 26.68 |
| | 6H | 19.81 | 20.27 | 20.71 | 21.20 | 22.30 | 24.35 | 24.81 | 25.25 | 25.74 | 26.84 |
| | 8H | 19.88 | 20.29 | 20.79 | 21.21 | 22.33 | 24.41 | 24.82 | 25.32 | 25.74 | 26.86 |
| | 12H | 19.92 | 20.28 | 20.83 | 21.19 | 22.36 | 24.42 | 24.78 | 25.33 | 25.69 | 26.86 |
| 12H | 4H | 19.59 | 20.09 | 20.48 | 21.00 | 22.11 | 24.09 | 24.60 | 24.99 | 25.50 | 26.61 |
| | 6H | 19.91 | 20.32 | 20.81 | 21.24 | 22.36 | 24.33 | 24.74 | 25.24 | 25.66 | 26.78 |
| | 8H | 20.02 | 20.38 | 20.93 | 21.29 | 22.47 | 24.41 | 24.77 | 25.32 | 25.68 | 26.86 |