

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: P854339

Luminaire Tested: SQ2-WBM-025U-125D-940-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P854339
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-9, G3-2104-222-8)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-WBM-025U-125D-940-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 1250 LUMENS PER FOOT
UPLIGHT 250 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

Summary

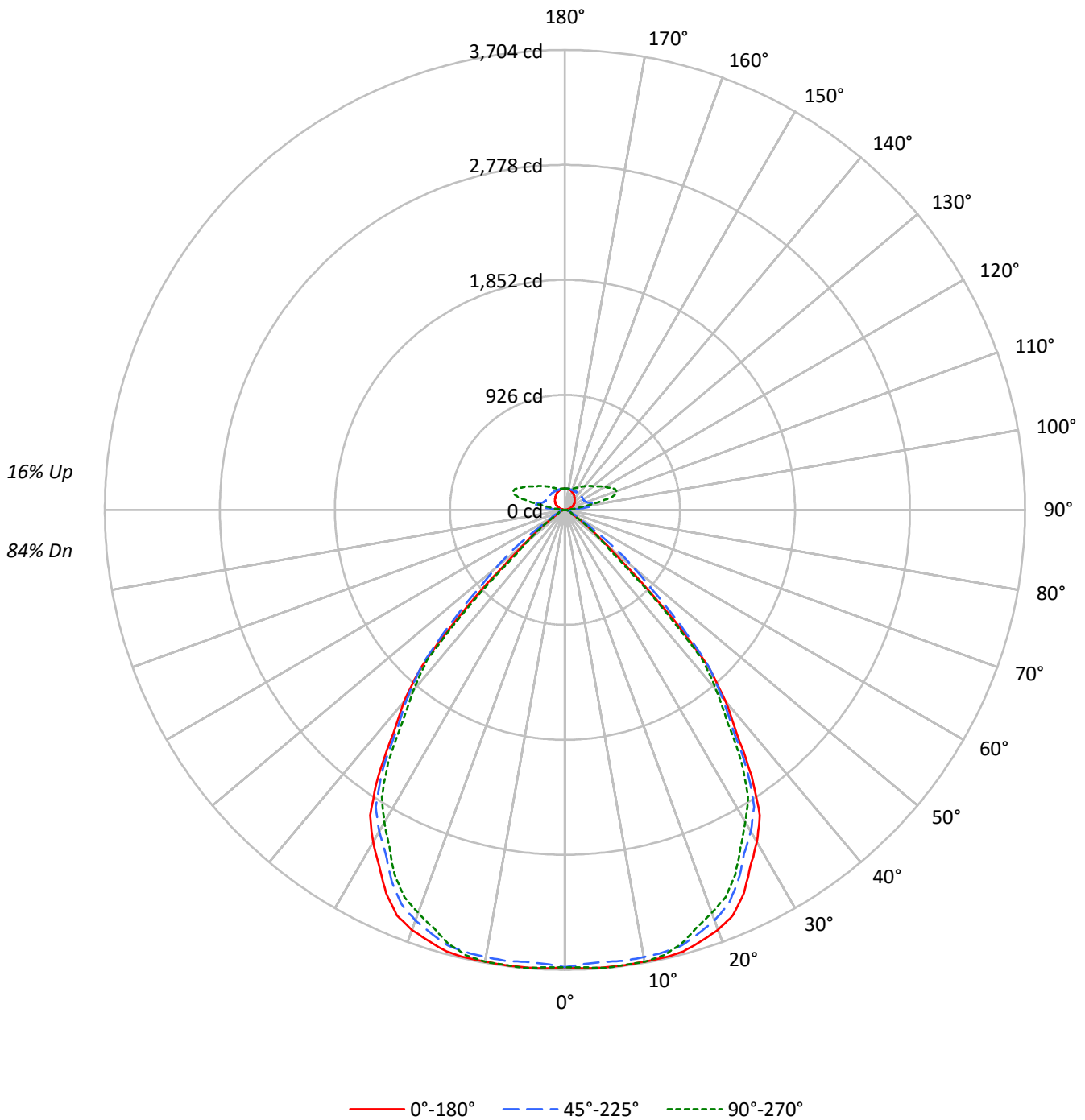
Lumens per Lamp: N/A
Luminaire Lumens: 6816.4 lumens
Efficiency: N/A
Efficacy: 119.4 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 1.18 / 1.17
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Direct

Input Watts (W): 57.1
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 | 115 | 115 | 115 | 115 | 111 | 111 | 111 | 111 | 102 | 102 | 102 | 95 | 95 | 95 | 88 | 88 | 88 | 84 |
| 1 | 108 | 105 | 102 | 99 | 104 | 101 | 99 | 96 | 94 | 92 | 91 | 88 | 87 | 85 | 82 | 81 | 80 | 77 |
| 2 | 101 | 96 | 91 | 87 | 98 | 93 | 88 | 85 | 87 | 83 | 80 | 81 | 79 | 76 | 76 | 74 | 72 | 70 |
| 3 | 95 | 87 | 81 | 76 | 91 | 85 | 79 | 75 | 80 | 75 | 72 | 75 | 72 | 69 | 71 | 68 | 66 | 63 |
| 4 | 89 | 80 | 73 | 68 | 85 | 77 | 71 | 67 | 73 | 68 | 64 | 69 | 65 | 62 | 66 | 62 | 60 | 57 |
| 5 | 83 | 73 | 66 | 61 | 80 | 71 | 65 | 60 | 67 | 62 | 58 | 64 | 60 | 56 | 61 | 57 | 54 | 52 |
| 6 | 78 | 67 | 60 | 55 | 75 | 65 | 59 | 54 | 62 | 57 | 53 | 59 | 55 | 51 | 56 | 52 | 49 | 47 |
| 7 | 73 | 62 | 55 | 50 | 70 | 60 | 54 | 49 | 58 | 52 | 48 | 55 | 50 | 46 | 52 | 48 | 45 | 43 |
| 8 | 68 | 57 | 50 | 45 | 66 | 56 | 49 | 45 | 53 | 48 | 44 | 51 | 46 | 43 | 49 | 45 | 42 | 40 |
| 9 | 64 | 53 | 46 | 42 | 62 | 52 | 45 | 41 | 50 | 44 | 40 | 48 | 43 | 39 | 46 | 41 | 38 | 37 |
| 10 | 60 | 49 | 43 | 38 | 59 | 48 | 42 | 38 | 46 | 41 | 37 | 45 | 40 | 36 | 43 | 38 | 35 | 34 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|-------|-------|-------|
| 0° | 59473 | 59473 | 59473 |
| 5° | 59940 | 59221 | 60026 |
| 10° | 60581 | 59940 | 60599 |
| 15° | 61553 | 60740 | 60495 |
| 20° | 61855 | 60458 | 59369 |
| 25° | 60690 | 58772 | 57774 |
| 30° | 57586 | 55754 | 54178 |
| 35° | 51637 | 50407 | 48846 |
| 40° | 42392 | 41456 | 39943 |
| 45° | 26508 | 30102 | 24048 |
| 50° | 10482 | 17804 | 9367 |
| 55° | 5084 | 8087 | 5025 |
| 60° | 2386 | 3956 | 2183 |
| 65° | 2139 | 2300 | 2059 |
| 70° | 2096 | 2143 | 1945 |
| 75° | 2040 | 2040 | 1847 |
| 80° | 1962 | 1962 | 1767 |
| 85° | 1760 | 1760 | 1760 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 30102 cd/sqm

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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 352.0 | 5.2 |
| 10°-20° | 1028.7 | 15.1 |
| 20°-30° | 1520.8 | 22.3 |
| 30°-40° | 1571.5 | 23.1 |
| 40°-50° | 945.6 | 13.9 |
| 50°-60° | 227.3 | 3.3 |
| 60°-70° | 62.1 | 0.9 |
| 70°-80° | 34.6 | 0.5 |
| 80°-90° | 11.3 | 0.2 |
| 90°-100° | 69.3 | 1.0 |
| 100°-110° | 215.5 | 3.2 |
| 110°-120° | 210.9 | 3.1 |
| 120°-130° | 172.1 | 2.5 |
| 130°-140° | 140.8 | 2.1 |
| 140°-150° | 109.9 | 1.6 |
| 150°-160° | 79.3 | 1.2 |
| 160°-170° | 48.5 | 0.7 |
| 170°-180° | 16.3 | 0.2 |
| 0°-30° | 2901.5 | 42.6 |
| 0°-40° | 4473.0 | 65.6 |
| 0°-60° | 5645.8 | 82.8 |
| 0°-90° | 5753.7 | 84.4 |
| 90°-120° | 495.7 | 7.3 |
| 90°-150° | 918.5 | 13.5 |
| 90°-180° | 1063.0 | 15.6 |
| 0°-180° | 6816.4 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|------|------|-------|------|-------|------|------|
| 0° | 3684 | 3684 | 3684 | 3684 | 3684 | |
| 5° | 3698 | 3687 | 3654 | 3706 | 3704 | 353 |
| 15° | 3682 | 3710 | 3634 | 3635 | 3619 | 1038 |
| 25° | 3407 | 3433 | 3299 | 3252 | 3243 | 1557 |
| 35° | 2620 | 2614 | 2557 | 2508 | 2478 | 1612 |
| 45° | 1161 | 1318 | 1318 | 1246 | 1053 | 899 |
| 55° | 181 | 203 | 287 | 194 | 178 | 184 |
| 65° | 56 | 59 | 60 | 56 | 54 | 57 |
| 75° | 33 | 35 | 33 | 32 | 30 | 34 |
| 85° | 10 | 10 | 10 | 10 | 10 | 11 |
| 90° | 0 | 1 | 3 | 3 | 3 | 1 |
| 95° | 10 | 28 | 127 | 47 | 30 | 11 |
| 105° | 38 | 53 | 212 | 405 | 387 | 40 |
| 115° | 67 | 80 | 172 | 355 | 416 | 66 |
| 125° | 94 | 104 | 170 | 280 | 328 | 83 |
| 135° | 112 | 125 | 169 | 241 | 271 | 87 |
| 145° | 131 | 142 | 169 | 208 | 227 | 82 |
| 155° | 150 | 155 | 170 | 187 | 193 | 69 |
| 165° | 165 | 166 | 171 | 176 | 179 | 46 |
| 175° | 171 | 171 | 171 | 172 | 171 | 16 |
| 180° | 171 | 171 | 171 | 171 | 171 | |



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CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|--------|--------|--------|--------|--------|
| 0° | 3683.5 | 3683.5 | 3683.5 | 3683.5 | 3683.5 |
| 2.5° | 3697.0 | 3687.9 | 3659.0 | 3692.7 | 3686.9 |
| 5° | 3698.3 | 3686.9 | 3653.9 | 3705.6 | 3703.6 |
| 7.5° | 3697.7 | 3691.7 | 3663.6 | 3703.4 | 3695.3 |
| 10° | 3695.1 | 3698.2 | 3656.0 | 3699.3 | 3696.2 |
| 12.5° | 3693.4 | 3707.3 | 3651.8 | 3682.3 | 3674.2 |
| 15° | 3682.4 | 3710.3 | 3633.8 | 3634.6 | 3619.1 |
| 17.5° | 3642.3 | 3676.2 | 3577.0 | 3547.6 | 3528.0 |
| 20° | 3600.0 | 3633.1 | 3518.7 | 3474.9 | 3455.3 |
| 22.5° | 3534.1 | 3564.7 | 3437.6 | 3393.1 | 3376.7 |
| 25° | 3406.7 | 3432.6 | 3299.0 | 3252.3 | 3243.0 |
| 27.5° | 3235.0 | 3245.9 | 3123.2 | 3077.4 | 3061.5 |
| 30° | 3088.8 | 3089.8 | 2990.5 | 2936.0 | 2906.0 |
| 32.5° | 2918.9 | 2911.7 | 2835.0 | 2780.3 | 2742.9 |
| 35° | 2619.8 | 2613.6 | 2557.4 | 2508.2 | 2478.2 |
| 37.5° | 2268.2 | 2267.2 | 2213.7 | 2171.2 | 2141.0 |
| 40° | 2011.3 | 2018.5 | 1966.9 | 1913.7 | 1895.1 |
| 42.5° | 1703.7 | 1757.2 | 1713.4 | 1655.2 | 1643.3 |
| 45° | 1160.9 | 1317.9 | 1318.3 | 1246.3 | 1053.2 |
| 47.5° | 664.0 | 833.4 | 948.8 | 734.5 | 545.3 |
| 50° | 417.3 | 545.3 | 708.8 | 447.3 | 372.9 |
| 52.5° | 296.4 | 359.2 | 524.6 | 314.6 | 278.2 |
| 55° | 180.6 | 203.4 | 287.3 | 194.0 | 178.5 |
| 57.5° | 109.4 | 130.7 | 166.5 | 130.1 | 109.9 |
| 60° | 73.9 | 93.6 | 122.5 | 86.2 | 67.6 |
| 62.5° | 65.5 | 72.7 | 96.3 | 67.9 | 60.8 |
| 65° | 56.0 | 59.1 | 60.2 | 55.9 | 53.9 |
| 67.5° | 49.4 | 51.5 | 50.5 | 49.4 | 46.3 |
| 70° | 44.4 | 46.4 | 45.4 | 44.3 | 41.2 |
| 72.5° | 39.3 | 41.4 | 40.4 | 39.2 | 37.0 |
| 75° | 32.7 | 34.8 | 32.7 | 31.6 | 29.6 |
| 77.5° | 25.4 | 27.2 | 26.2 | 25.3 | 23.2 |
| 80° | 21.1 | 22.2 | 21.1 | 21.1 | 19.0 |
| 82.5° | 16.9 | 17.1 | 16.1 | 16.0 | 14.8 |
| 85° | 9.5 | 10.5 | 9.5 | 9.5 | 9.5 |
| 87.5° | 3.4 | 3.6 | 4.0 | 4.0 | 3.2 |
| 90° | 0.0 | 1.0 | 3.2 | 3.2 | 3.2 |
| 92.5° | 3.4 | 11.8 | 40.1 | 13.2 | 10.7 |
| 95° | 9.5 | 27.9 | 127.1 | 46.9 | 30.5 |
| 97.5° | 17.2 | 36.3 | 210.5 | 131.0 | 82.6 |
| 100° | 23.1 | 40.6 | 237.4 | 222.1 | 148.1 |
| 102.5° | 29.0 | 45.6 | 232.4 | 317.2 | 249.0 |
| 105° | 37.8 | 53.2 | 212.2 | 405.1 | 386.6 |
| 107.5° | 46.6 | 61.0 | 192.9 | 411.8 | 432.2 |
| 110° | 52.5 | 66.9 | 182.8 | 402.2 | 442.2 |



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CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|-------|-------|-------|-------|-------|
| 112.5° | 58.4 | 72.0 | 177.7 | 384.8 | 435.5 |
| 115° | 67.2 | 79.6 | 172.3 | 355.4 | 416.0 |
| 117.5° | 75.8 | 87.1 | 170.0 | 327.3 | 389.3 |
| 120° | 80.9 | 92.2 | 169.1 | 311.2 | 370.8 |
| 122.5° | 85.9 | 97.2 | 170.0 | 297.7 | 352.3 |
| 125° | 93.5 | 103.8 | 170.2 | 279.5 | 327.7 |
| 127.5° | 99.6 | 110.1 | 170.2 | 265.9 | 306.9 |
| 130° | 102.9 | 114.2 | 170.2 | 258.2 | 295.2 |
| 132.5° | 107.1 | 118.4 | 169.3 | 251.4 | 285.9 |
| 135° | 112.4 | 124.7 | 169.1 | 241.2 | 271.0 |
| 137.5° | 118.5 | 129.8 | 169.1 | 231.1 | 258.2 |
| 140° | 121.9 | 133.2 | 169.1 | 224.3 | 249.0 |
| 142.5° | 126.1 | 136.5 | 169.1 | 217.5 | 239.7 |
| 145° | 131.3 | 141.6 | 169.1 | 208.4 | 226.9 |
| 147.5° | 137.6 | 146.4 | 170.2 | 199.9 | 214.5 |
| 150° | 141.8 | 149.0 | 170.2 | 195.6 | 206.9 |
| 152.5° | 145.2 | 151.5 | 170.2 | 191.4 | 201.1 |
| 155° | 150.2 | 155.4 | 170.2 | 187.1 | 193.3 |
| 157.5° | 155.3 | 159.2 | 170.2 | 183.3 | 187.2 |
| 160° | 158.6 | 161.7 | 170.2 | 180.8 | 183.8 |
| 162.5° | 161.1 | 163.4 | 170.2 | 179.1 | 181.3 |
| 165° | 164.9 | 166.0 | 171.2 | 176.5 | 178.6 |
| 167.5° | 167.2 | 167.4 | 170.2 | 175.0 | 176.1 |
| 170° | 168.1 | 169.1 | 170.2 | 173.4 | 174.4 |
| 172.5° | 169.8 | 170.0 | 171.0 | 172.5 | 172.7 |
| 175° | 171.2 | 171.2 | 171.2 | 172.3 | 171.2 |
| 177.5° | 171.2 | 171.2 | 171.2 | 171.2 | 171.2 |
| 180° | 171.2 | 171.2 | 171.2 | 171.2 | 171.2 |



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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 | 10.03 | 11.01 | 10.65 | 11.61 | 12.30 | 9.70 | 10.67 | 10.32 | 11.28 | 11.97 |
| | 3H | 10.56 | 11.42 | 11.20 | 12.04 | 12.76 | 10.22 | 11.08 | 10.85 | 11.69 | 12.42 |
| | 4H | 10.83 | 11.63 | 11.49 | 12.26 | 13.01 | 10.46 | 11.26 | 11.12 | 11.89 | 12.64 |
| | 6H | 11.07 | 11.80 | 11.73 | 12.44 | 13.20 | 10.67 | 11.40 | 11.34 | 12.05 | 12.80 |
| | 8H | 11.14 | 11.83 | 11.82 | 12.50 | 13.25 | 10.74 | 11.43 | 11.42 | 12.10 | 12.85 |
| | 12H | 11.18 | 11.84 | 11.87 | 12.50 | 13.28 | 10.79 | 11.45 | 11.47 | 12.10 | 12.88 |
| 4H | 2H | 10.07 | 10.87 | 10.73 | 11.50 | 12.24 | 9.76 | 10.56 | 10.42 | 11.20 | 11.94 |
| | 3H | 10.81 | 11.46 | 11.48 | 12.13 | 12.89 | 10.50 | 11.15 | 11.17 | 11.82 | 12.58 |
| | 4H | 11.22 | 11.80 | 11.90 | 12.48 | 13.27 | 10.87 | 11.45 | 11.55 | 12.13 | 12.92 |
| | 6H | 11.59 | 12.09 | 12.30 | 12.80 | 13.60 | 11.21 | 11.71 | 11.92 | 12.42 | 13.22 |
| | 8H | 11.72 | 12.19 | 12.43 | 12.89 | 13.70 | 11.34 | 11.80 | 12.05 | 12.50 | 13.31 |
| | 12H | 11.81 | 12.22 | 12.53 | 12.94 | 13.76 | 11.42 | 11.83 | 12.15 | 12.56 | 13.38 |
| 8H | 4H | 11.30 | 11.77 | 12.01 | 12.47 | 13.28 | 10.98 | 11.45 | 11.69 | 12.15 | 12.96 |
| | 6H | 11.80 | 12.18 | 12.54 | 12.92 | 13.74 | 11.45 | 11.83 | 12.19 | 12.57 | 13.39 |
| | 8H | 12.00 | 12.34 | 12.76 | 13.09 | 13.92 | 11.65 | 11.99 | 12.40 | 12.74 | 13.57 |
| | 12H | 12.17 | 12.47 | 12.92 | 13.20 | 14.10 | 11.81 | 12.11 | 12.56 | 12.84 | 13.74 |
| 12H | 4H | 11.28 | 11.69 | 12.01 | 12.42 | 13.23 | 10.97 | 11.38 | 11.69 | 12.10 | 12.92 |
| | 6H | 11.81 | 12.15 | 12.56 | 12.90 | 13.73 | 11.47 | 11.81 | 12.22 | 12.56 | 13.39 |
| | 8H | 12.06 | 12.36 | 12.81 | 13.09 | 13.99 | 11.71 | 12.01 | 12.46 | 12.74 | 13.64 |