

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: P855325

Luminaire Tested: SQ2-PR1-025U-050D-840-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P855325
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-9, G2-2308-131-9)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-PR1-025U-050D-840-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 500 LUMENS PER FOOT
UPLIGHT 250 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

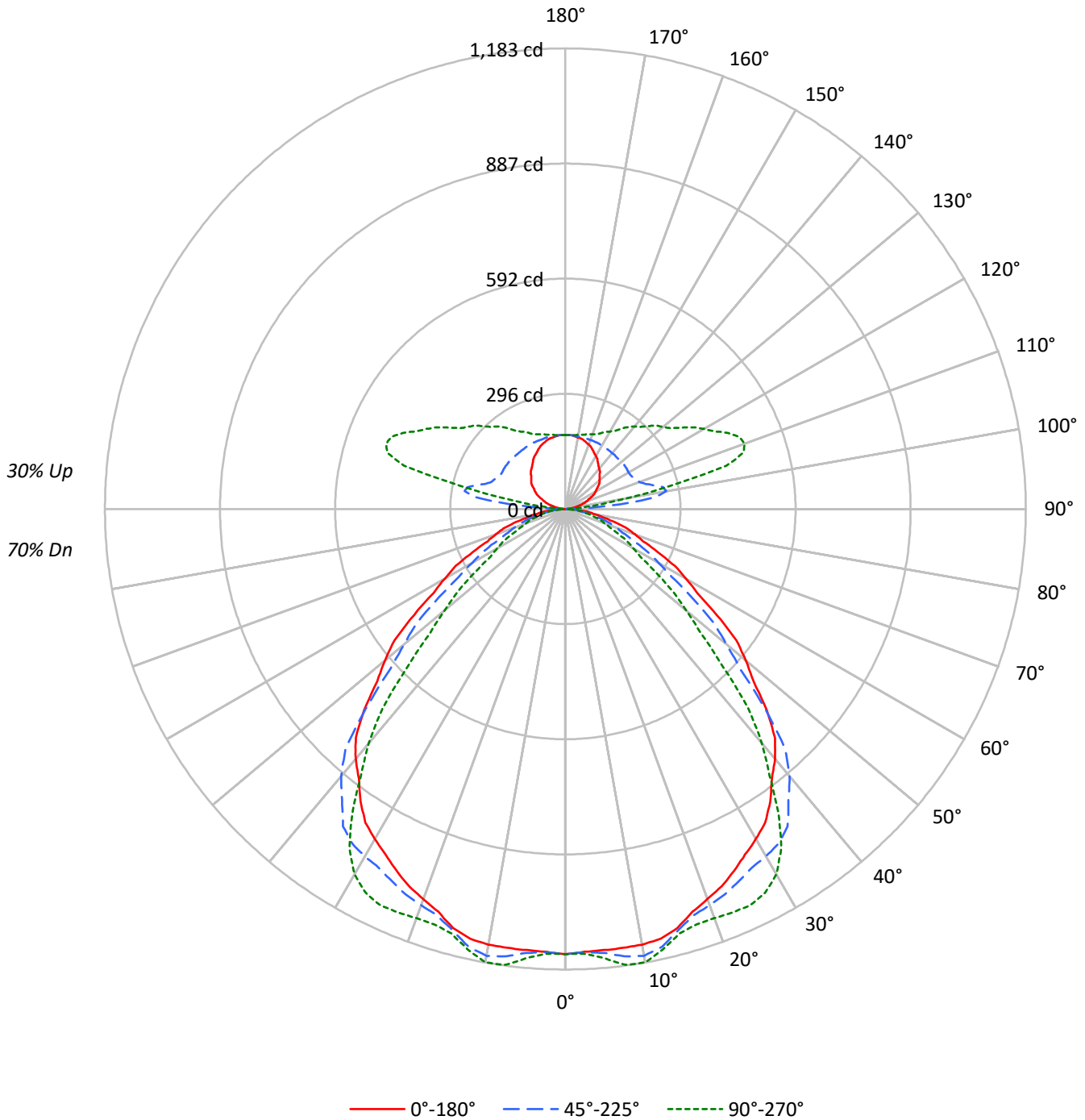
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3929.3 lumens
Efficiency: N/A
Efficacy: 155.9 lumens/watt
Spacing Criteria (0/90/45): 1.28 / 1.34 / 1.36
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





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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 | 112 | 112 | 112 | 112 | 106 | 106 | 106 | 106 | 94 | 94 | 94 | 84 | 84 | 84 | 74 | 74 | 74 | 70 |
| 1 | 103 | 99 | 95 | 92 | 97 | 94 | 91 | 88 | 84 | 82 | 80 | 75 | 74 | 72 | 67 | 66 | 65 | 61 |
| 2 | 95 | 88 | 82 | 77 | 89 | 83 | 78 | 73 | 75 | 71 | 67 | 67 | 64 | 61 | 60 | 58 | 56 | 52 |
| 3 | 87 | 78 | 71 | 65 | 82 | 74 | 68 | 62 | 67 | 62 | 58 | 60 | 56 | 53 | 54 | 51 | 48 | 45 |
| 4 | 80 | 69 | 62 | 56 | 75 | 66 | 59 | 54 | 60 | 54 | 50 | 54 | 50 | 46 | 49 | 45 | 42 | 39 |
| 5 | 74 | 62 | 54 | 48 | 70 | 59 | 52 | 47 | 54 | 48 | 44 | 49 | 44 | 40 | 44 | 40 | 37 | 35 |
| 6 | 68 | 56 | 48 | 42 | 64 | 54 | 46 | 41 | 49 | 43 | 38 | 45 | 40 | 36 | 40 | 36 | 33 | 31 |
| 7 | 63 | 51 | 43 | 38 | 60 | 49 | 42 | 36 | 45 | 39 | 34 | 41 | 36 | 32 | 37 | 33 | 30 | 27 |
| 8 | 59 | 47 | 39 | 33 | 56 | 45 | 37 | 32 | 41 | 35 | 31 | 37 | 32 | 29 | 34 | 30 | 27 | 25 |
| 9 | 55 | 43 | 35 | 30 | 52 | 41 | 34 | 29 | 38 | 32 | 28 | 35 | 30 | 26 | 32 | 27 | 24 | 22 |
| 10 | 51 | 39 | 32 | 27 | 49 | 38 | 31 | 26 | 35 | 29 | 25 | 32 | 27 | 24 | 29 | 25 | 22 | 20 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|-------|-------|-------|
| 0° | 18460 | 18460 | 18460 |
| 5° | 18434 | 18548 | 18775 |
| 10° | 18630 | 19107 | 19394 |
| 15° | 18623 | 18721 | 18877 |
| 20° | 18321 | 18603 | 19223 |
| 25° | 18271 | 18789 | 20013 |
| 30° | 18250 | 19207 | 20206 |
| 35° | 18078 | 19618 | 18814 |
| 40° | 17660 | 18889 | 16556 |
| 45° | 16712 | 16577 | 13093 |
| 50° | 15192 | 13554 | 10158 |
| 55° | 13351 | 11153 | 7907 |
| 60° | 11554 | 8919 | 6510 |
| 65° | 9971 | 7393 | 5700 |
| 70° | 8969 | 6548 | 5061 |
| 75° | 8216 | 5671 | 4654 |
| 80° | 7150 | 4547 | 4547 |
| 85° | 5187 | 4094 | 2167 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
 Vertical Angle: 45°
 Luminance: 18066 cd/sqm



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 110.4 | 2.8 |
| 10°-20° | 319.6 | 8.1 |
| 20°-30° | 494.0 | 12.6 |
| 30°-40° | 594.2 | 15.1 |
| 40°-50° | 533.5 | 13.6 |
| 50°-60° | 357.4 | 9.1 |
| 60°-70° | 207.9 | 5.3 |
| 70°-80° | 106.8 | 2.7 |
| 80°-90° | 26.8 | 0.7 |
| 90°-100° | 76.8 | 2.0 |
| 100°-110° | 239.0 | 6.1 |
| 110°-120° | 233.8 | 6.0 |
| 120°-130° | 190.9 | 4.9 |
| 130°-140° | 156.2 | 4.0 |
| 140°-150° | 121.9 | 3.1 |
| 150°-160° | 88.0 | 2.2 |
| 160°-170° | 53.8 | 1.4 |
| 170°-180° | 18.1 | 0.5 |
| 0°-30° | 924.0 | 23.5 |
| 0°-40° | 1518.3 | 38.6 |
| 0°-60° | 2409.2 | 61.3 |
| 0°-90° | 2750.7 | 70.0 |
| 90°-120° | 549.7 | 14.0 |
| 90°-150° | 1018.7 | 25.9 |
| 90°-180° | 1179.0 | 30.0 |
| 0°-180° | 3929.3 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|------|------|-------|------|-------|------|------|
| 0° | 1143 | 1143 | 1143 | 1143 | 1143 | |
| 5° | 1137 | 1157 | 1144 | 1147 | 1158 | 109 |
| 15° | 1114 | 1160 | 1120 | 1124 | 1129 | 313 |
| 25° | 1026 | 1067 | 1055 | 1094 | 1123 | 473 |
| 35° | 917 | 925 | 995 | 976 | 954 | 572 |
| 45° | 732 | 791 | 726 | 612 | 573 | 560 |
| 55° | 474 | 492 | 396 | 306 | 281 | 426 |
| 65° | 261 | 267 | 194 | 157 | 149 | 264 |
| 75° | 132 | 128 | 91 | 77 | 75 | 140 |
| 85° | 28 | 22 | 22 | 15 | 12 | 35 |
| 90° | 0 | 1 | 4 | 4 | 4 | 2 |
| 95° | 10 | 31 | 141 | 52 | 34 | 12 |
| 105° | 42 | 59 | 235 | 449 | 429 | 44 |
| 115° | 75 | 88 | 191 | 394 | 461 | 74 |
| 125° | 104 | 115 | 189 | 310 | 364 | 92 |
| 135° | 125 | 138 | 188 | 268 | 301 | 97 |
| 145° | 146 | 157 | 188 | 231 | 252 | 91 |
| 155° | 167 | 172 | 189 | 208 | 214 | 77 |
| 165° | 183 | 184 | 190 | 196 | 198 | 51 |
| 175° | 190 | 190 | 190 | 191 | 190 | 18 |
| 180° | 190 | 190 | 190 | 190 | 190 | |



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CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|--------|--------|--------|--------|--------|
| 0° | 1143.3 | 1143.3 | 1143.3 | 1143.3 | 1143.3 |
| 2.5° | 1138.6 | 1152.2 | 1139.5 | 1140.6 | 1143.3 |
| 5° | 1137.4 | 1156.8 | 1144.4 | 1147.0 | 1158.4 |
| 7.5° | 1137.2 | 1164.8 | 1158.9 | 1166.0 | 1181.0 |
| 10° | 1136.3 | 1169.4 | 1165.4 | 1166.9 | 1182.9 |
| 12.5° | 1130.7 | 1169.2 | 1151.4 | 1150.0 | 1158.6 |
| 15° | 1114.1 | 1159.7 | 1120.0 | 1123.6 | 1129.3 |
| 17.5° | 1085.0 | 1132.7 | 1094.8 | 1107.6 | 1118.8 |
| 20° | 1066.3 | 1113.1 | 1082.7 | 1099.4 | 1118.8 |
| 22.5° | 1049.6 | 1096.3 | 1071.5 | 1094.9 | 1121.6 |
| 25° | 1025.6 | 1066.6 | 1054.7 | 1093.8 | 1123.4 |
| 27.5° | 1000.4 | 1024.5 | 1038.6 | 1091.0 | 1111.8 |
| 30° | 978.9 | 994.9 | 1030.2 | 1075.9 | 1083.8 |
| 32.5° | 955.6 | 965.2 | 1019.0 | 1042.8 | 1032.5 |
| 35° | 917.2 | 925.2 | 995.3 | 976.1 | 954.5 |
| 37.5° | 871.5 | 887.9 | 941.9 | 886.8 | 861.9 |
| 40° | 837.9 | 865.3 | 896.2 | 814.0 | 785.5 |
| 42.5° | 796.9 | 840.7 | 835.6 | 730.8 | 696.0 |
| 45° | 731.9 | 791.2 | 726.0 | 612.1 | 573.4 |
| 47.5° | 655.2 | 716.0 | 609.5 | 507.8 | 471.5 |
| 50° | 604.8 | 653.8 | 539.6 | 444.3 | 404.4 |
| 52.5° | 553.6 | 588.9 | 479.9 | 384.7 | 348.5 |
| 55° | 474.3 | 492.5 | 396.2 | 305.9 | 280.9 |
| 57.5° | 401.6 | 413.3 | 323.7 | 247.1 | 228.7 |
| 60° | 357.8 | 365.7 | 276.2 | 216.4 | 201.6 |
| 62.5° | 317.7 | 323.9 | 238.0 | 190.4 | 179.2 |
| 65° | 261.0 | 266.8 | 193.5 | 157.1 | 149.2 |
| 67.5° | 216.1 | 219.0 | 159.2 | 130.6 | 123.1 |
| 70° | 190.0 | 191.1 | 138.7 | 112.9 | 107.2 |
| 72.5° | 166.7 | 165.0 | 119.1 | 98.0 | 94.2 |
| 75° | 131.7 | 128.3 | 90.9 | 76.9 | 74.6 |
| 77.5° | 98.4 | 94.7 | 63.9 | 59.2 | 59.2 |
| 80° | 76.9 | 72.4 | 48.9 | 48.9 | 48.9 |
| 82.5° | 57.3 | 50.9 | 37.8 | 37.8 | 36.8 |
| 85° | 28.0 | 22.3 | 22.1 | 15.0 | 11.7 |
| 87.5° | 7.5 | 7.7 | 3.5 | 3.5 | 3.5 |
| 90° | 0.0 | 1.2 | 3.5 | 3.5 | 3.5 |
| 92.5° | 3.7 | 13.1 | 44.5 | 14.6 | 11.9 |
| 95° | 10.5 | 31.0 | 141.0 | 52.0 | 33.8 |
| 97.5° | 19.1 | 40.3 | 233.4 | 145.3 | 91.6 |
| 100° | 25.6 | 45.0 | 263.3 | 246.2 | 164.3 |
| 102.5° | 32.2 | 50.6 | 257.7 | 351.7 | 276.1 |
| 105° | 42.0 | 59.1 | 235.3 | 449.3 | 428.8 |
| 107.5° | 51.7 | 67.7 | 213.9 | 456.7 | 479.3 |
| 110° | 58.3 | 74.2 | 202.7 | 446.0 | 490.5 |



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CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|-------|-------|-------|-------|-------|
| 112.5° | 64.8 | 79.8 | 197.1 | 426.8 | 483.1 |
| 115° | 74.6 | 88.2 | 191.0 | 394.1 | 461.4 |
| 117.5° | 84.1 | 96.6 | 188.4 | 362.9 | 431.8 |
| 120° | 89.7 | 102.2 | 187.5 | 345.2 | 411.3 |
| 122.5° | 95.3 | 107.8 | 188.4 | 330.2 | 390.8 |
| 125° | 103.7 | 115.0 | 188.7 | 310.0 | 363.5 |
| 127.5° | 110.5 | 122.0 | 188.7 | 294.8 | 340.4 |
| 130° | 114.2 | 126.7 | 188.7 | 286.3 | 327.4 |
| 132.5° | 118.9 | 131.3 | 187.7 | 278.9 | 317.1 |
| 135° | 124.7 | 138.3 | 187.5 | 267.6 | 300.6 |
| 137.5° | 131.5 | 143.9 | 187.5 | 256.3 | 286.3 |
| 140° | 135.2 | 147.7 | 187.5 | 248.8 | 276.1 |
| 142.5° | 139.8 | 151.4 | 187.5 | 241.2 | 265.8 |
| 145° | 145.7 | 157.0 | 187.5 | 231.1 | 251.6 |
| 147.5° | 152.7 | 162.5 | 188.7 | 221.8 | 237.9 |
| 150° | 157.3 | 165.3 | 188.7 | 217.0 | 229.5 |
| 152.5° | 161.1 | 168.1 | 188.7 | 212.2 | 222.9 |
| 155° | 166.7 | 172.2 | 188.7 | 207.6 | 214.3 |
| 157.5° | 172.2 | 176.6 | 188.7 | 203.2 | 207.6 |
| 160° | 176.0 | 179.4 | 188.7 | 200.4 | 203.8 |
| 162.5° | 178.7 | 181.2 | 188.7 | 198.6 | 201.0 |
| 165° | 182.9 | 184.0 | 189.8 | 195.8 | 198.0 |
| 167.5° | 185.4 | 185.6 | 188.7 | 194.2 | 195.2 |
| 170° | 186.3 | 187.5 | 188.7 | 192.3 | 193.3 |
| 172.5° | 188.2 | 188.4 | 189.6 | 191.4 | 191.5 |
| 175° | 189.8 | 189.8 | 189.8 | 191.0 | 189.8 |
| 177.5° | 189.8 | 189.8 | 189.8 | 189.8 | 189.8 |
| 180° | 189.8 | 189.8 | 189.8 | 189.8 | 189.8 |



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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 | 18.61 | 19.62 | 19.38 | 20.41 | 21.37 | 15.33 | 16.34 | 16.11 | 17.13 | 18.09 |
| | 3H | 19.85 | 20.76 | 20.64 | 21.55 | 22.54 | 16.41 | 17.31 | 17.20 | 18.11 | 19.10 |
| | 4H | 20.31 | 21.16 | 21.12 | 21.97 | 22.97 | 16.82 | 17.67 | 17.62 | 18.47 | 19.47 |
| | 6H | 20.64 | 21.42 | 21.45 | 22.23 | 23.25 | 17.16 | 17.94 | 17.97 | 18.75 | 19.77 |
| | 8H | 20.72 | 21.47 | 21.55 | 22.30 | 23.31 | 17.25 | 17.99 | 18.07 | 18.82 | 19.84 |
| | 12H | 20.76 | 21.47 | 21.59 | 22.29 | 23.33 | 17.26 | 17.97 | 18.09 | 18.79 | 19.83 |
| 4H | 2H | 18.71 | 19.55 | 19.51 | 20.36 | 21.36 | 15.92 | 16.77 | 16.73 | 17.58 | 18.58 |
| | 3H | 20.19 | 20.89 | 21.01 | 21.74 | 22.75 | 17.20 | 17.90 | 18.02 | 18.75 | 19.76 |
| | 4H | 20.79 | 21.43 | 21.63 | 22.27 | 23.31 | 17.71 | 18.35 | 18.55 | 19.19 | 20.23 |
| | 6H | 21.25 | 21.80 | 22.10 | 22.67 | 23.72 | 18.16 | 18.71 | 19.01 | 19.57 | 20.62 |
| | 8H | 21.39 | 21.90 | 22.24 | 22.76 | 23.82 | 18.28 | 18.79 | 19.14 | 19.65 | 20.71 |
| | 12H | 21.45 | 21.91 | 22.32 | 22.79 | 23.85 | 18.31 | 18.77 | 19.18 | 19.65 | 20.72 |
| 8H | 4H | 20.83 | 21.34 | 21.68 | 22.20 | 23.26 | 18.03 | 18.54 | 18.88 | 19.40 | 20.46 |
| | 6H | 21.38 | 21.81 | 22.26 | 22.71 | 23.77 | 18.57 | 18.99 | 19.45 | 19.89 | 20.96 |
| | 8H | 21.58 | 21.96 | 22.47 | 22.85 | 23.93 | 18.75 | 19.13 | 19.65 | 20.03 | 21.10 |
| | 12H | 21.69 | 22.02 | 22.58 | 22.91 | 24.04 | 18.82 | 19.15 | 19.72 | 20.04 | 21.17 |
| 12H | 4H | 20.79 | 21.25 | 21.67 | 22.13 | 23.20 | 18.05 | 18.51 | 18.93 | 19.39 | 20.46 |
| | 6H | 21.37 | 21.75 | 22.26 | 22.64 | 23.72 | 18.63 | 19.01 | 19.52 | 19.90 | 20.98 |
| | 8H | 21.59 | 21.92 | 22.48 | 22.81 | 23.94 | 18.84 | 19.17 | 19.74 | 20.06 | 21.19 |