

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: P855139

Luminaire Tested: SQ2-PP3-050U-125D-835-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P855139
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-10, G2-2308-131-7)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-PP3-050U-125D-835-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 1250 LUMENS PER FOOT
UPLIGHT 500 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

Summary

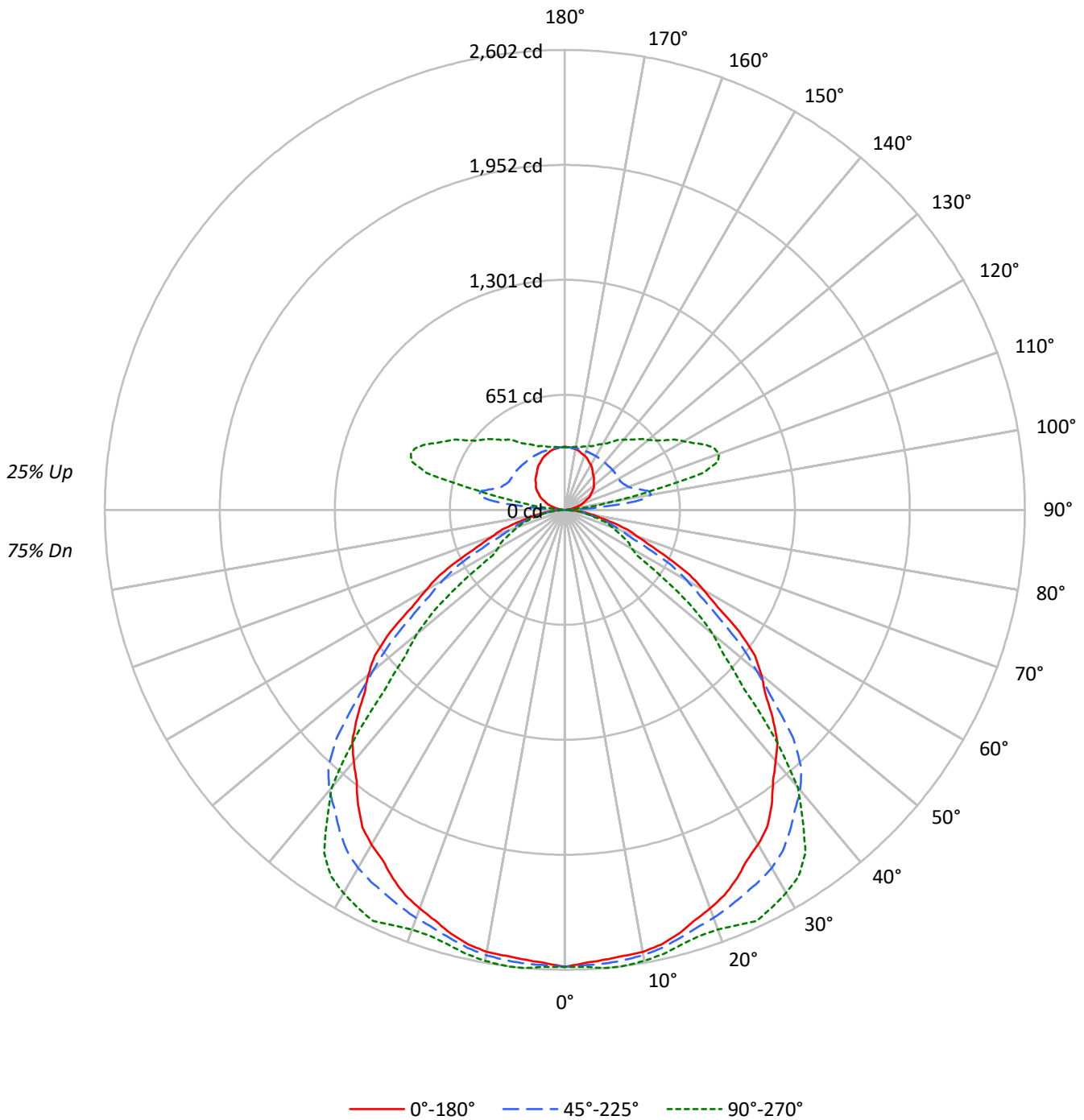
Lumens per Lamp: N/A
Luminaire Lumens: 8718.3 lumens
Efficiency: N/A
Efficacy: 136.2 lumens/watt
Spacing Criteria (0/90/45): 1.26 / 1.41 / 1.4
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Direct

Input Watts (W): 64
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 | 50 | 30 | 10 | 0 | |
| RCR | | | | | | | | | | | | | | | | | | | | | | |
| 0 | 113 | 113 | 113 | 113 | 107 | 107 | 107 | 107 | 97 | 97 | 97 | 88 | 88 | 88 | 79 | 79 | 79 | 75 | | | | |
| 1 | 104 | 100 | 96 | 93 | 99 | 95 | 92 | 89 | 87 | 84 | 82 | 78 | 77 | 75 | 71 | 70 | 68 | 65 | | | | |
| 2 | 95 | 88 | 82 | 77 | 91 | 84 | 79 | 74 | 77 | 73 | 69 | 70 | 67 | 64 | 63 | 61 | 59 | 55 | | | | |
| 3 | 88 | 78 | 71 | 65 | 83 | 75 | 68 | 63 | 68 | 63 | 59 | 62 | 58 | 55 | 57 | 53 | 51 | 48 | | | | |
| 4 | 80 | 70 | 62 | 56 | 76 | 67 | 60 | 54 | 61 | 55 | 51 | 56 | 51 | 47 | 51 | 47 | 44 | 41 | | | | |
| 5 | 74 | 62 | 54 | 48 | 70 | 60 | 52 | 47 | 55 | 49 | 44 | 51 | 45 | 41 | 46 | 42 | 39 | 36 | | | | |
| 6 | 69 | 56 | 48 | 42 | 65 | 54 | 47 | 41 | 50 | 44 | 39 | 46 | 41 | 37 | 42 | 38 | 34 | 32 | | | | |
| 7 | 64 | 51 | 43 | 37 | 60 | 49 | 42 | 36 | 45 | 39 | 34 | 42 | 37 | 33 | 39 | 34 | 31 | 28 | | | | |
| 8 | 59 | 47 | 39 | 33 | 56 | 45 | 38 | 32 | 42 | 35 | 31 | 38 | 33 | 29 | 35 | 31 | 28 | 25 | | | | |
| 9 | 55 | 43 | 35 | 30 | 53 | 41 | 34 | 29 | 38 | 32 | 28 | 35 | 30 | 26 | 33 | 28 | 25 | 23 | | | | |
| 10 | 52 | 39 | 32 | 27 | 49 | 38 | 31 | 26 | 35 | 29 | 25 | 33 | 28 | 24 | 30 | 26 | 23 | 21 | | | | |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|-------|-------|-------|
| 0° | 41743 | 41743 | 41743 |
| 5° | 41417 | 41772 | 42169 |
| 10° | 41627 | 41940 | 42478 |
| 15° | 41526 | 41937 | 42576 |
| 20° | 41230 | 42216 | 43436 |
| 25° | 40996 | 42749 | 45719 |
| 30° | 40762 | 43617 | 46674 |
| 35° | 40186 | 43741 | 46759 |
| 40° | 39112 | 43663 | 43203 |
| 45° | 37943 | 41687 | 32887 |
| 50° | 36452 | 35560 | 27392 |
| 55° | 33926 | 29928 | 19696 |
| 60° | 29214 | 25682 | 14121 |
| 65° | 24642 | 19839 | 13887 |
| 70° | 20516 | 15611 | 13294 |
| 75° | 17386 | 13468 | 12445 |
| 80° | 14737 | 11688 | 11186 |
| 85° | 11634 | 9615 | 6076 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 41687 cd/sqm



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 246.2 | 2.8 |
| 10°-20° | 712.5 | 8.2 |
| 20°-30° | 1116.2 | 12.8 |
| 30°-40° | 1377.0 | 15.8 |
| 40°-50° | 1296.4 | 14.9 |
| 50°-60° | 917.9 | 10.5 |
| 60°-70° | 523.0 | 6.0 |
| 70°-80° | 258.8 | 3.0 |
| 80°-90° | 63.7 | 0.7 |
| 90°-100° | 141.5 | 1.6 |
| 100°-110° | 448.9 | 5.1 |
| 110°-120° | 440.2 | 5.0 |
| 120°-130° | 358.2 | 4.1 |
| 130°-140° | 292.1 | 3.4 |
| 140°-150° | 227.7 | 2.6 |
| 150°-160° | 164.1 | 1.9 |
| 160°-170° | 100.2 | 1.1 |
| 170°-180° | 33.8 | 0.4 |
| 0°-30° | 2074.9 | 23.8 |
| 0°-40° | 3451.8 | 39.6 |
| 0°-60° | 5666.1 | 65.0 |
| 0°-90° | 6511.6 | 74.7 |
| 90°-120° | 1030.6 | 11.8 |
| 90°-150° | 1908.6 | 21.9 |
| 90°-180° | 2207.0 | 25.3 |
| 0°-180° | 8718.3 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|------|------|-------|------|-------|------|------|
| 0° | 2585 | 2585 | 2585 | 2585 | 2585 | |
| 5° | 2555 | 2601 | 2577 | 2583 | 2602 | 243 |
| 15° | 2484 | 2519 | 2509 | 2534 | 2547 | 700 |
| 25° | 2301 | 2360 | 2400 | 2497 | 2566 | 1060 |
| 35° | 2039 | 2095 | 2219 | 2346 | 2372 | 1272 |
| 45° | 1662 | 1787 | 1826 | 1547 | 1440 | 1279 |
| 55° | 1205 | 1277 | 1063 | 801 | 700 | 1063 |
| 65° | 645 | 680 | 519 | 366 | 364 | 648 |
| 75° | 279 | 308 | 216 | 202 | 200 | 302 |
| 85° | 63 | 58 | 52 | 41 | 33 | 74 |
| 90° | 0 | 1 | 3 | 3 | 3 | 4 |
| 95° | 19 | 57 | 257 | 95 | 61 | 22 |
| 105° | 78 | 110 | 442 | 843 | 808 | 82 |
| 115° | 140 | 166 | 358 | 743 | 874 | 138 |
| 125° | 193 | 216 | 352 | 582 | 686 | 172 |
| 135° | 234 | 256 | 350 | 501 | 564 | 180 |
| 145° | 273 | 293 | 350 | 432 | 470 | 171 |
| 155° | 311 | 322 | 351 | 386 | 401 | 143 |
| 165° | 339 | 342 | 352 | 366 | 369 | 96 |
| 175° | 354 | 353 | 354 | 356 | 355 | 34 |
| 180° | 355 | 355 | 355 | 355 | 355 | |



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CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|--------|--------|--------|--------|--------|
| 0° | 2585.4 | 2585.4 | 2585.4 | 2585.4 | 2585.4 |
| 2.5° | 2565.8 | 2602.1 | 2578.8 | 2583.4 | 2587.7 |
| 5° | 2555.4 | 2600.8 | 2577.3 | 2583.1 | 2601.8 |
| 7.5° | 2545.6 | 2592.1 | 2569.1 | 2578.8 | 2601.8 |
| 10° | 2539.0 | 2579.1 | 2558.1 | 2572.2 | 2590.9 |
| 12.5° | 2519.3 | 2557.2 | 2538.4 | 2556.9 | 2573.4 |
| 15° | 2484.3 | 2519.1 | 2508.9 | 2533.8 | 2547.1 |
| 17.5° | 2436.8 | 2479.0 | 2478.9 | 2514.1 | 2528.0 |
| 20° | 2399.6 | 2450.4 | 2457.0 | 2501.3 | 2528.0 |
| 22.5° | 2360.2 | 2419.6 | 2430.7 | 2497.4 | 2543.4 |
| 25° | 2301.2 | 2360.0 | 2399.6 | 2496.8 | 2566.3 |
| 27.5° | 2232.3 | 2290.6 | 2372.3 | 2481.2 | 2536.3 |
| 30° | 2186.4 | 2242.5 | 2339.5 | 2452.7 | 2503.5 |
| 32.5° | 2129.6 | 2187.8 | 2291.4 | 2413.3 | 2459.7 |
| 35° | 2038.8 | 2094.9 | 2219.2 | 2345.6 | 2372.3 |
| 37.5° | 1934.5 | 1998.1 | 2137.3 | 2207.8 | 2209.3 |
| 40° | 1855.7 | 1938.5 | 2071.6 | 2084.5 | 2049.8 |
| 42.5° | 1779.2 | 1885.6 | 1979.8 | 1922.1 | 1767.8 |
| 45° | 1661.7 | 1787.2 | 1825.7 | 1547.2 | 1440.3 |
| 47.5° | 1536.5 | 1660.5 | 1599.4 | 1297.6 | 1223.9 |
| 50° | 1451.2 | 1568.8 | 1415.7 | 1160.0 | 1090.5 |
| 52.5° | 1355.1 | 1459.8 | 1251.7 | 1028.0 | 922.1 |
| 55° | 1205.2 | 1277.4 | 1063.2 | 801.2 | 699.7 |
| 57.5° | 1024.8 | 1075.6 | 909.0 | 601.4 | 487.5 |
| 60° | 904.7 | 944.7 | 795.3 | 493.4 | 437.3 |
| 62.5° | 795.3 | 831.1 | 677.3 | 428.7 | 408.9 |
| 65° | 645.0 | 679.8 | 519.3 | 366.2 | 363.5 |
| 67.5° | 513.2 | 551.2 | 398.5 | 319.7 | 316.5 |
| 70° | 434.6 | 474.6 | 330.7 | 286.9 | 281.6 |
| 72.5° | 368.9 | 406.9 | 280.4 | 251.9 | 248.7 |
| 75° | 278.7 | 308.2 | 215.9 | 202.2 | 199.5 |
| 77.5° | 202.2 | 220.9 | 160.7 | 153.6 | 150.9 |
| 80° | 158.5 | 166.6 | 125.7 | 122.9 | 120.3 |
| 82.5° | 119.2 | 116.4 | 95.1 | 92.2 | 87.5 |
| 85° | 62.8 | 57.5 | 51.9 | 40.9 | 32.8 |
| 87.5° | 19.7 | 19.9 | 9.4 | 7.2 | 7.2 |
| 90° | 0.0 | 1.1 | 3.4 | 3.4 | 3.4 |
| 92.5° | 6.2 | 24.8 | 79.3 | 26.4 | 18.6 |
| 95° | 19.0 | 57.3 | 257.0 | 95.3 | 61.4 |
| 97.5° | 35.3 | 74.2 | 435.4 | 272.1 | 166.9 |
| 100° | 47.0 | 84.1 | 496.1 | 452.3 | 293.9 |
| 102.5° | 59.4 | 94.8 | 485.4 | 664.3 | 508.5 |
| 105° | 78.2 | 109.9 | 442.5 | 842.9 | 807.9 |
| 107.5° | 97.0 | 126.3 | 401.6 | 861.5 | 908.7 |
| 110° | 109.5 | 137.9 | 381.0 | 840.0 | 927.5 |



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CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|-------|-------|-------|-------|-------|
| 112.5° | 122.0 | 148.7 | 369.4 | 803.0 | 914.0 |
| 115° | 139.6 | 165.9 | 357.6 | 742.7 | 873.9 |
| 117.5° | 156.8 | 181.7 | 352.9 | 684.7 | 816.8 |
| 120° | 167.6 | 191.7 | 351.9 | 648.8 | 776.7 |
| 122.5° | 178.4 | 201.5 | 351.9 | 619.9 | 739.1 |
| 125° | 193.3 | 216.3 | 351.9 | 582.4 | 686.1 |
| 127.5° | 206.5 | 228.6 | 351.9 | 553.2 | 641.7 |
| 130° | 214.6 | 237.5 | 351.9 | 536.0 | 615.7 |
| 132.5° | 222.6 | 245.6 | 351.2 | 522.4 | 594.2 |
| 135° | 233.6 | 256.4 | 349.8 | 501.0 | 564.4 |
| 137.5° | 244.3 | 268.3 | 349.6 | 480.4 | 537.1 |
| 140° | 251.5 | 275.4 | 348.7 | 466.0 | 517.4 |
| 142.5° | 260.4 | 283.5 | 349.6 | 451.6 | 499.5 |
| 145° | 272.6 | 293.4 | 349.8 | 432.2 | 470.4 |
| 147.5° | 285.0 | 302.6 | 350.0 | 415.1 | 446.3 |
| 150° | 293.9 | 308.0 | 350.9 | 405.1 | 430.3 |
| 152.5° | 301.0 | 313.5 | 350.9 | 397.0 | 417.7 |
| 155° | 310.6 | 321.6 | 350.9 | 385.9 | 401.2 |
| 157.5° | 320.9 | 328.4 | 351.9 | 379.1 | 389.5 |
| 160° | 326.3 | 332.8 | 351.9 | 374.6 | 383.3 |
| 162.5° | 331.7 | 336.4 | 351.9 | 371.0 | 377.1 |
| 165° | 338.6 | 341.9 | 351.9 | 365.5 | 368.8 |
| 167.5° | 345.0 | 345.9 | 353.1 | 361.7 | 364.5 |
| 170° | 348.7 | 348.7 | 353.1 | 359.9 | 360.9 |
| 172.5° | 350.5 | 351.3 | 353.1 | 358.1 | 358.3 |
| 175° | 354.2 | 353.2 | 354.2 | 356.5 | 355.3 |
| 177.5° | 355.3 | 354.4 | 354.4 | 356.2 | 354.4 |
| 180° | 355.3 | 355.3 | 355.3 | 355.3 | 355.3 |



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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 | 22.56 | 23.64 | 23.28 | 24.38 | 25.25 | 18.95 | 20.04 | 19.67 | 20.77 | 21.64 |
| | 3H | 23.67 | 24.64 | 24.40 | 25.38 | 26.29 | 20.08 | 21.04 | 20.81 | 21.79 | 22.69 |
| | 4H | 24.02 | 24.93 | 24.78 | 25.69 | 26.60 | 20.55 | 21.46 | 21.30 | 22.21 | 23.13 |
| | 6H | 24.25 | 25.09 | 25.02 | 25.85 | 26.78 | 20.91 | 21.75 | 21.67 | 22.51 | 23.44 |
| | 8H | 24.31 | 25.10 | 25.08 | 25.88 | 26.82 | 21.00 | 21.80 | 21.77 | 22.58 | 23.51 |
| | 12H | 24.33 | 25.09 | 25.11 | 25.86 | 26.82 | 21.02 | 21.78 | 21.80 | 22.56 | 23.51 |
| 4H | 2H | 22.70 | 23.60 | 23.45 | 24.36 | 25.27 | 19.70 | 20.61 | 20.45 | 21.36 | 22.28 |
| | 3H | 24.03 | 24.78 | 24.79 | 25.57 | 26.50 | 20.97 | 21.72 | 21.74 | 22.51 | 23.44 |
| | 4H | 24.51 | 25.19 | 25.29 | 25.98 | 26.94 | 21.53 | 22.21 | 22.32 | 23.00 | 23.97 |
| | 6H | 24.86 | 25.44 | 25.66 | 26.26 | 27.23 | 21.98 | 22.57 | 22.79 | 23.39 | 24.36 |
| | 8H | 24.95 | 25.50 | 25.76 | 26.31 | 27.30 | 22.11 | 22.66 | 22.91 | 23.47 | 24.45 |
| | 12H | 25.00 | 25.49 | 25.82 | 26.33 | 27.31 | 22.15 | 22.64 | 22.97 | 23.47 | 24.46 |
| 8H | 4H | 24.54 | 25.09 | 25.35 | 25.90 | 26.88 | 21.82 | 22.37 | 22.63 | 23.18 | 24.16 |
| | 6H | 24.98 | 25.43 | 25.81 | 26.29 | 27.27 | 22.37 | 22.83 | 23.21 | 23.68 | 24.66 |
| | 8H | 25.14 | 25.54 | 25.98 | 26.39 | 27.39 | 22.56 | 22.96 | 23.40 | 23.82 | 24.81 |
| | 12H | 25.23 | 25.59 | 26.08 | 26.43 | 27.49 | 22.64 | 23.00 | 23.49 | 23.84 | 24.90 |
| 12H | 4H | 24.51 | 25.00 | 25.33 | 25.84 | 26.82 | 21.84 | 22.33 | 22.66 | 23.16 | 24.15 |
| | 6H | 24.97 | 25.37 | 25.81 | 26.22 | 27.22 | 22.43 | 22.83 | 23.27 | 23.68 | 24.68 |
| | 8H | 25.15 | 25.51 | 25.99 | 26.35 | 27.40 | 22.64 | 23.00 | 23.49 | 23.84 | 24.90 |