

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: P855135

Luminaire Tested: SQ2-PP3-075U-125D-835-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P855135
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-11, G2-2308-131-7)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-PP3-075U-125D-835-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 1250 LUMENS PER FOOT
UPLIGHT 750 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

Summary

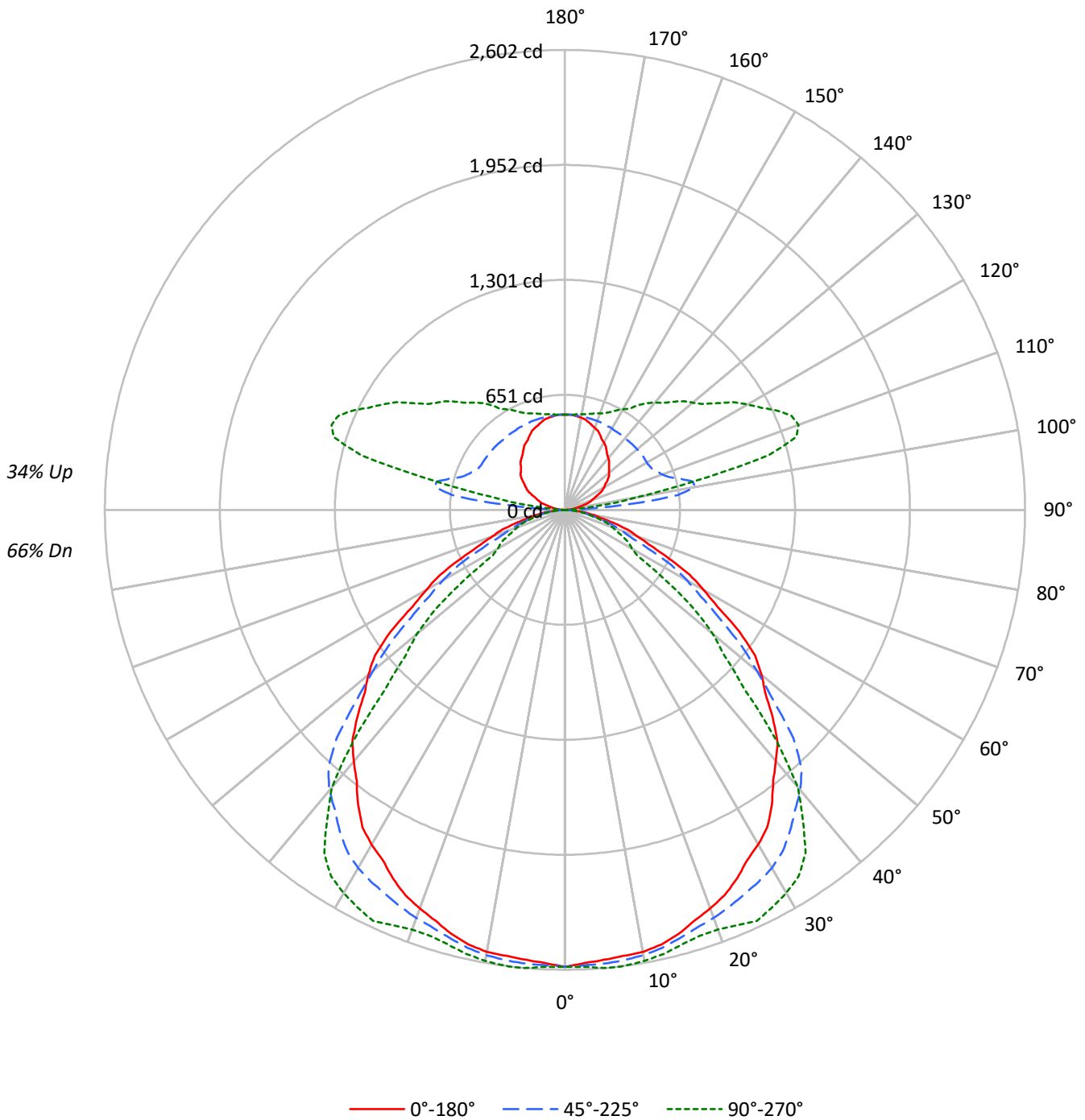
Lumens per Lamp: N/A
Luminaire Lumens: 9853.3 lumens
Efficiency: N/A
Efficacy: 135.9 lumens/watt
Spacing Criteria (0/90/45): 1.26 / 1.41 / 1.4
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Direct

Input Watts (W): 72.5
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 | 111 | 111 | 111 | 111 | 104 | 104 | 104 | 104 | 92 | 92 | 92 | 81 | 81 | 81 | 71 | 71 | 71 | 66 |
| 1 | 102 | 98 | 94 | 91 | 96 | 92 | 89 | 86 | 82 | 80 | 77 | 73 | 71 | 69 | 64 | 63 | 61 | 57 |
| 2 | 94 | 86 | 80 | 75 | 88 | 82 | 76 | 72 | 73 | 69 | 65 | 65 | 62 | 59 | 57 | 55 | 53 | 49 |
| 3 | 86 | 76 | 69 | 64 | 81 | 72 | 66 | 61 | 65 | 60 | 56 | 58 | 54 | 50 | 51 | 48 | 46 | 42 |
| 4 | 79 | 68 | 60 | 54 | 74 | 65 | 58 | 52 | 58 | 52 | 48 | 52 | 47 | 44 | 46 | 43 | 40 | 37 |
| 5 | 72 | 61 | 53 | 47 | 68 | 58 | 51 | 45 | 52 | 46 | 42 | 47 | 42 | 38 | 42 | 38 | 35 | 32 |
| 6 | 67 | 55 | 47 | 41 | 63 | 52 | 45 | 40 | 47 | 41 | 37 | 42 | 37 | 34 | 38 | 34 | 31 | 28 |
| 7 | 62 | 50 | 42 | 36 | 58 | 47 | 40 | 35 | 43 | 37 | 32 | 39 | 34 | 30 | 35 | 31 | 28 | 25 |
| 8 | 58 | 45 | 38 | 32 | 54 | 43 | 36 | 31 | 39 | 33 | 29 | 35 | 30 | 27 | 32 | 28 | 25 | 23 |
| 9 | 54 | 41 | 34 | 29 | 51 | 40 | 33 | 28 | 36 | 30 | 26 | 33 | 28 | 24 | 29 | 25 | 22 | 20 |
| 10 | 50 | 38 | 31 | 26 | 47 | 36 | 30 | 25 | 33 | 27 | 24 | 30 | 25 | 22 | 27 | 23 | 20 | 18 |

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 | 2.5 |
| 10°-20° | 712.5 | 7.2 |
| 20°-30° | 1116.2 | 11.3 |
| 30°-40° | 1377.0 | 14.0 |
| 40°-50° | 1296.4 | 13.2 |
| 50°-60° | 917.9 | 9.3 |
| 60°-70° | 523.0 | 5.3 |
| 70°-80° | 258.8 | 2.6 |
| 80°-90° | 63.8 | 0.6 |
| 90°-100° | 204.1 | 2.1 |
| 100°-110° | 676.6 | 6.9 |
| 110°-120° | 671.6 | 6.8 |
| 120°-130° | 547.0 | 5.6 |
| 130°-140° | 444.6 | 4.5 |
| 140°-150° | 345.2 | 3.5 |
| 150°-160° | 248.7 | 2.5 |
| 160°-170° | 152.3 | 1.5 |
| 170°-180° | 51.5 | 0.5 |
| 0°-30° | 2074.9 | 21.1 |
| 0°-40° | 3451.8 | 35.0 |
| 0°-60° | 5666.1 | 57.5 |
| 0°-90° | 6511.7 | 66.1 |
| 90°-120° | 1552.3 | 15.8 |
| 90°-150° | 2889.0 | 29.3 |
| 90°-180° | 3342.0 | 33.9 |
| 0°-180° | 9853.3 | 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 | 4 | 4 | 4 |
| 95° | 29 | 86 | 370 | 132 | 88 | 33 |
| 105° | 118 | 169 | 677 | 1278 | 1194 | 125 |
| 115° | 211 | 253 | 545 | 1135 | 1327 | 209 |
| 125° | 295 | 328 | 535 | 892 | 1051 | 262 |
| 135° | 353 | 389 | 531 | 766 | 864 | 273 |
| 145° | 410 | 441 | 530 | 658 | 721 | 257 |
| 155° | 468 | 485 | 533 | 588 | 610 | 216 |
| 165° | 514 | 519 | 535 | 557 | 562 | 145 |
| 175° | 537 | 537 | 539 | 542 | 541 | 51 |
| 180° | 540 | 540 | 540 | 540 | 540 | |



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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 | 7.5 | 7.5 |
| 90° | 0.0 | 1.1 | 3.4 | 4.4 | 4.4 |
| 92.5° | 8.9 | 34.5 | 101.7 | 32.9 | 27.7 |
| 95° | 29.1 | 85.9 | 369.8 | 132.0 | 88.3 |
| 97.5° | 53.4 | 112.8 | 645.6 | 376.5 | 238.0 |
| 100° | 70.4 | 127.2 | 747.6 | 642.1 | 425.7 |
| 102.5° | 89.2 | 144.3 | 741.2 | 981.3 | 741.2 |
| 105° | 118.5 | 168.7 | 677.2 | 1277.5 | 1194.5 |
| 107.5° | 148.4 | 193.2 | 615.7 | 1307.6 | 1370.8 |
| 110° | 165.3 | 210.1 | 584.4 | 1277.9 | 1405.6 |



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CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|-------|-------|-------|--------|--------|
| 112.5° | 183.2 | 227.1 | 565.6 | 1225.0 | 1387.9 |
| 115° | 211.2 | 252.7 | 545.3 | 1135.2 | 1327.4 |
| 117.5° | 238.9 | 275.8 | 537.9 | 1049.4 | 1251.1 |
| 120° | 255.9 | 292.0 | 535.3 | 995.6 | 1191.2 |
| 122.5° | 271.0 | 306.2 | 535.3 | 951.4 | 1132.1 |
| 125° | 295.0 | 327.7 | 535.3 | 892.0 | 1051.4 |
| 127.5° | 314.7 | 346.7 | 533.9 | 846.9 | 983.3 |
| 130° | 326.3 | 360.2 | 533.0 | 820.7 | 943.1 |
| 132.5° | 337.0 | 371.8 | 532.1 | 799.0 | 909.1 |
| 135° | 353.1 | 389.2 | 530.8 | 765.5 | 863.8 |
| 137.5° | 370.5 | 405.2 | 529.4 | 733.0 | 819.8 |
| 140° | 382.2 | 416.0 | 528.5 | 711.4 | 791.1 |
| 142.5° | 392.9 | 425.8 | 529.4 | 689.7 | 760.7 |
| 145° | 410.1 | 440.7 | 529.6 | 658.4 | 720.8 |
| 147.5° | 428.7 | 454.2 | 529.8 | 631.9 | 678.3 |
| 150° | 440.2 | 463.2 | 530.8 | 616.5 | 655.9 |
| 152.5° | 451.0 | 473.0 | 531.7 | 603.9 | 635.3 |
| 155° | 468.2 | 484.6 | 533.0 | 588.2 | 610.1 |
| 157.5° | 484.9 | 497.6 | 534.4 | 577.1 | 592.7 |
| 160° | 493.9 | 504.8 | 535.3 | 569.0 | 581.0 |
| 162.5° | 502.8 | 511.2 | 535.3 | 563.6 | 573.0 |
| 165° | 514.0 | 519.4 | 535.3 | 556.6 | 562.1 |
| 167.5° | 524.3 | 527.1 | 536.4 | 550.3 | 553.2 |
| 170° | 529.6 | 530.8 | 536.4 | 547.5 | 548.6 |
| 172.5° | 533.2 | 534.4 | 537.2 | 544.9 | 545.1 |
| 175° | 537.4 | 537.4 | 538.6 | 542.0 | 540.8 |
| 177.5° | 539.7 | 539.7 | 538.8 | 540.6 | 538.8 |
| 180° | 539.7 | 539.7 | 539.7 | 539.7 | 539.7 |



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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 | 21.89 | 22.87 | 22.70 | 23.70 | 24.73 | 18.29 | 19.27 | 19.10 | 20.10 | 21.12 |
| | 3H | 23.00 | 23.87 | 23.82 | 24.71 | 25.76 | 19.40 | 20.28 | 20.23 | 21.12 | 22.17 |
| | 4H | 23.34 | 24.17 | 24.19 | 25.02 | 26.08 | 19.87 | 20.69 | 20.71 | 21.54 | 22.61 |
| | 6H | 23.56 | 24.32 | 24.42 | 25.18 | 26.26 | 20.22 | 20.98 | 21.08 | 21.84 | 22.91 |
| | 8H | 23.62 | 24.34 | 24.48 | 25.21 | 26.29 | 20.31 | 21.03 | 21.18 | 21.91 | 22.98 |
| | 12H | 23.64 | 24.32 | 24.50 | 25.19 | 26.29 | 20.33 | 21.02 | 21.20 | 21.88 | 22.99 |
| 4H | 2H | 22.01 | 22.84 | 22.86 | 23.69 | 24.75 | 19.02 | 19.84 | 19.86 | 20.69 | 21.75 |
| | 3H | 23.33 | 24.02 | 24.19 | 24.90 | 25.98 | 20.28 | 20.96 | 21.14 | 21.84 | 22.92 |
| | 4H | 23.81 | 24.43 | 24.69 | 25.31 | 26.42 | 20.84 | 21.46 | 21.71 | 22.34 | 23.44 |
| | 6H | 24.16 | 24.69 | 25.05 | 25.59 | 26.70 | 21.28 | 21.82 | 22.17 | 22.72 | 23.83 |
| | 8H | 24.25 | 24.75 | 25.14 | 25.65 | 26.77 | 21.41 | 21.91 | 22.30 | 22.80 | 23.93 |
| | 12H | 24.29 | 24.74 | 25.20 | 25.66 | 26.79 | 21.44 | 21.89 | 22.35 | 22.81 | 23.93 |
| 8H | 4H | 23.84 | 24.34 | 24.73 | 25.23 | 26.36 | 21.12 | 21.62 | 22.01 | 22.51 | 23.64 |
| | 6H | 24.28 | 24.69 | 25.19 | 25.63 | 26.75 | 21.67 | 22.08 | 22.59 | 23.02 | 24.14 |
| | 8H | 24.43 | 24.80 | 25.36 | 25.73 | 26.87 | 21.86 | 22.22 | 22.78 | 23.15 | 24.29 |
| | 12H | 24.52 | 24.85 | 25.45 | 25.77 | 26.96 | 21.93 | 22.26 | 22.86 | 23.18 | 24.37 |
| 12H | 4H | 23.80 | 24.25 | 24.71 | 25.17 | 26.30 | 21.13 | 21.58 | 22.04 | 22.50 | 23.62 |
| | 6H | 24.26 | 24.63 | 25.19 | 25.56 | 26.70 | 21.72 | 22.09 | 22.65 | 23.02 | 24.16 |
| | 8H | 24.44 | 24.76 | 25.37 | 25.69 | 26.88 | 21.94 | 22.26 | 22.86 | 23.18 | 24.37 |