

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269



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: FAIL-SAFE

Report Number: P1357179

Luminaire Tested: 4ASL4-20HE-2-92765-UNV_3500K

Issue Date: 2/17/2026

Test Information

Test Method: LM-79-2019
Report Number: P1357179
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2511-597-7)
Test Lab: INNOVATION CENTER
Issue Date: 2/17/2026
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: FAIL-SAFE
Catalog Number: 4ASL4-20HE-2-92765-UNV_3500K
Description: 4FT 2000 LUMEN PER FOOT 4ASL LED LUMINAIRE WITH OPL LENS AND 3500K LEDS 2 ROW
Light Source: -
Ballast/Driver: -

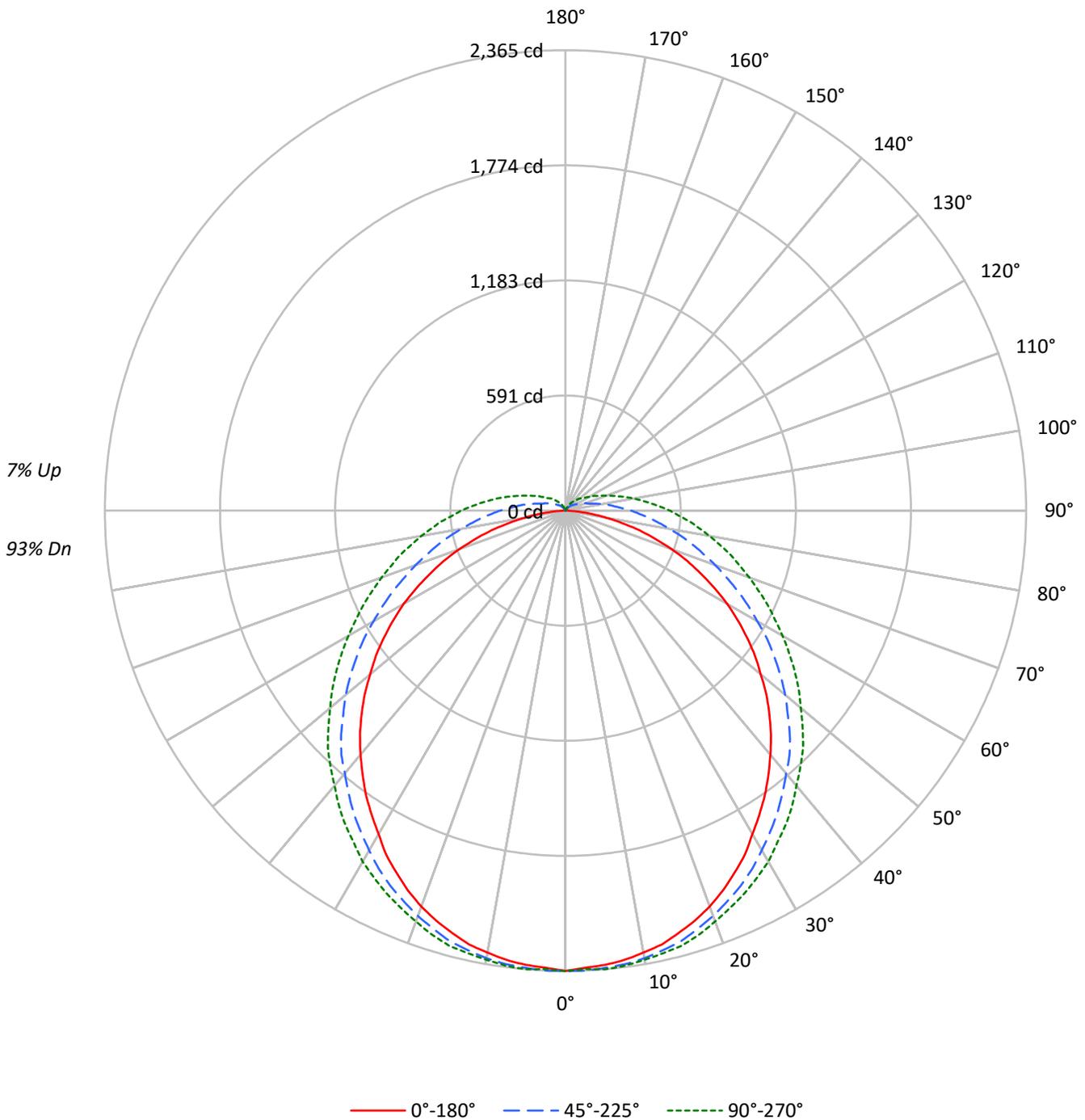
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8119.0 lumens
Efficiency: N/A
Efficacy: 108.4 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.3 / 1.4
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 3.98' x H: 0.1')
CIE Type: Direct

Input Watts (W): 74.9
Input Voltage (V): NR
Input Current (A_{in}): 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: P1357179

CATALOG NUMBER: 4ASL4-20HE-2-92765-UNV_3500K

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

| | | | | | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|----|----|----|----|----|----|
| RF | 20 | | | | 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 | 117 | 117 | 117 | 117 | 114 | 114 | 114 | 114 | 107 | 107 | 107 | 101 | 101 | 101 | 95 | 95 | 95 | 95 | 95 | 95 | 93 |
| 1 | 105 | 100 | 95 | 90 | 102 | 97 | 92 | 88 | 91 | 87 | 84 | 86 | 83 | 80 | 81 | 79 | 77 | 74 | 74 | 74 | 74 |
| 2 | 95 | 86 | 79 | 72 | 92 | 84 | 77 | 71 | 79 | 73 | 68 | 74 | 70 | 65 | 70 | 66 | 63 | 60 | 60 | 60 | 60 |
| 3 | 86 | 75 | 66 | 59 | 83 | 73 | 65 | 58 | 69 | 62 | 56 | 65 | 59 | 55 | 62 | 57 | 53 | 50 | 50 | 50 | 50 |
| 4 | 79 | 66 | 57 | 50 | 76 | 64 | 56 | 49 | 61 | 54 | 48 | 58 | 51 | 46 | 55 | 49 | 45 | 42 | 42 | 42 | 42 |
| 5 | 72 | 59 | 50 | 43 | 70 | 57 | 49 | 42 | 54 | 47 | 41 | 52 | 45 | 40 | 49 | 43 | 39 | 36 | 36 | 36 | 36 |
| 6 | 67 | 53 | 44 | 37 | 64 | 52 | 43 | 37 | 49 | 41 | 36 | 47 | 40 | 35 | 44 | 39 | 34 | 32 | 32 | 32 | 32 |
| 7 | 62 | 48 | 39 | 33 | 60 | 47 | 38 | 32 | 45 | 37 | 32 | 43 | 36 | 31 | 41 | 35 | 30 | 28 | 28 | 28 | 28 |
| 8 | 58 | 44 | 35 | 29 | 56 | 43 | 34 | 29 | 41 | 33 | 28 | 39 | 32 | 28 | 37 | 31 | 27 | 25 | 25 | 25 | 25 |
| 9 | 54 | 40 | 32 | 26 | 52 | 39 | 31 | 26 | 37 | 30 | 25 | 36 | 29 | 25 | 34 | 29 | 24 | 22 | 22 | 22 | 22 |
| 10 | 50 | 37 | 29 | 24 | 49 | 36 | 28 | 23 | 35 | 28 | 23 | 33 | 27 | 22 | 32 | 26 | 22 | 20 | 20 | 20 | 20 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|-------|-------|-------|
| 0° | 19193 | 19193 | 19193 |
| 5° | 19041 | 18811 | 18753 |
| 10° | 18911 | 18463 | 18297 |
| 15° | 18738 | 18084 | 17931 |
| 20° | 18514 | 17605 | 17416 |
| 25° | 18158 | 17132 | 16972 |
| 30° | 17713 | 16592 | 16531 |
| 35° | 17365 | 16089 | 16019 |
| 40° | 16961 | 15548 | 15480 |
| 45° | 16552 | 15081 | 15087 |
| 50° | 16025 | 14463 | 14504 |
| 55° | 15519 | 13799 | 14041 |
| 60° | 14896 | 13054 | 13549 |
| 65° | 13927 | 12361 | 13168 |
| 70° | 12841 | 11708 | 12817 |
| 75° | 11260 | 11206 | 12702 |
| 80° | 8777 | 10759 | 12662 |
| 85° | 5332 | 10745 | 13026 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 16552 cd/sqm



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 224.3 | 2.8 |
| 10°-20° | 644.7 | 7.9 |
| 20°-30° | 976.9 | 12.0 |
| 30°-40° | 1181.5 | 14.6 |
| 40°-50° | 1245.6 | 15.3 |
| 50°-60° | 1162.5 | 14.3 |
| 60°-70° | 959.8 | 11.8 |
| 70°-80° | 696.3 | 8.6 |
| 80°-90° | 439.9 | 5.4 |
| 90°-100° | 262.6 | 3.2 |
| 100°-110° | 150.5 | 1.9 |
| 110°-120° | 85.5 | 1.1 |
| 120°-130° | 48.8 | 0.6 |
| 130°-140° | 26.4 | 0.3 |
| 140°-150° | 11.6 | 0.1 |
| 150°-160° | 2.1 | 0.0 |
| 160°-170° | 0.0 | 0.0 |
| 170°-180° | 0.0 | 0.0 |
| 0°-30° | 1845.9 | 22.7 |
| 0°-40° | 3027.4 | 37.3 |
| 0°-60° | 5435.5 | 66.9 |
| 0°-90° | 7531.5 | 92.8 |
| 90°-120° | 498.6 | 6.1 |
| 90°-150° | 585.3 | 7.2 |
| 90°-180° | 587.0 | 7.2 |
| 0°-180° | 8119.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|------|------|-------|------|-------|------|------|
| 0° | 2365 | 2365 | 2365 | 2365 | 2365 | |
| 5° | 2343 | 2365 | 2358 | 2358 | 2365 | 222 |
| 15° | 2246 | 2276 | 2291 | 2298 | 2313 | 634 |
| 25° | 2053 | 2082 | 2127 | 2157 | 2172 | 946 |
| 35° | 1785 | 1830 | 1896 | 1948 | 1971 | 1115 |
| 45° | 1480 | 1540 | 1629 | 1696 | 1725 | 1141 |
| 55° | 1138 | 1205 | 1309 | 1398 | 1435 | 1017 |
| 65° | 766 | 848 | 974 | 1093 | 1145 | 761 |
| 75° | 394 | 498 | 677 | 818 | 878 | 415 |
| 85° | 74 | 230 | 431 | 580 | 640 | 91 |
| 90° | 0 | 141 | 335 | 476 | 536 | 3 |
| 95° | 0 | 89 | 253 | 387 | 439 | 0 |
| 105° | 0 | 30 | 141 | 245 | 283 | 0 |
| 115° | 0 | 15 | 82 | 149 | 178 | 0 |
| 125° | 0 | 7 | 52 | 97 | 112 | 0 |
| 135° | 0 | 0 | 30 | 60 | 74 | 0 |
| 145° | 0 | 0 | 15 | 37 | 45 | 0 |
| 155° | 0 | 0 | 0 | 7 | 15 | 0 |
| 165° | 0 | 0 | 0 | 0 | 0 | 0 |
| 175° | 0 | 0 | 0 | 0 | 0 | 0 |
| 180° | 0 | 0 | 0 | 0 | 0 | 0 |



TEST NUMBER: P1357179

CATALOG NUMBER: 4ASL4-20HE-2-92765-UNV_3500K

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|--------|--------|--------|--------|--------|
| 0° | 2365.0 | 2365.0 | 2365.0 | 2365.0 | 2365.0 |
| 2.5° | 2350.1 | 2372.4 | 2365.0 | 2357.5 | 2357.5 |
| 5° | 2342.7 | 2365.0 | 2357.5 | 2357.5 | 2365.0 |
| 7.5° | 2327.8 | 2350.1 | 2350.1 | 2350.1 | 2357.5 |
| 10° | 2305.5 | 2335.2 | 2335.2 | 2335.2 | 2342.7 |
| 12.5° | 2283.2 | 2305.5 | 2312.9 | 2320.4 | 2327.8 |
| 15° | 2246.0 | 2275.7 | 2290.6 | 2298.0 | 2312.9 |
| 17.5° | 2208.8 | 2231.1 | 2253.4 | 2275.7 | 2283.2 |
| 20° | 2164.2 | 2193.9 | 2216.2 | 2238.6 | 2246.0 |
| 22.5° | 2112.1 | 2141.9 | 2171.6 | 2193.9 | 2208.8 |
| 25° | 2052.6 | 2082.4 | 2127.0 | 2156.7 | 2171.6 |
| 27.5° | 1993.1 | 2022.9 | 2074.9 | 2112.1 | 2127.0 |
| 30° | 1918.8 | 1963.4 | 2015.4 | 2060.1 | 2082.4 |
| 32.5° | 1851.8 | 1896.4 | 1955.9 | 2008.0 | 2022.9 |
| 35° | 1784.9 | 1829.5 | 1896.4 | 1948.5 | 1970.8 |
| 37.5° | 1710.5 | 1762.6 | 1829.5 | 1889.0 | 1911.3 |
| 40° | 1636.2 | 1688.2 | 1762.6 | 1829.5 | 1844.4 |
| 42.5° | 1561.8 | 1613.8 | 1703.1 | 1762.6 | 1784.9 |
| 45° | 1480.0 | 1539.5 | 1628.7 | 1695.6 | 1725.4 |
| 47.5° | 1398.2 | 1457.7 | 1546.9 | 1621.3 | 1651.0 |
| 50° | 1308.9 | 1375.9 | 1472.5 | 1546.9 | 1576.7 |
| 52.5° | 1227.1 | 1294.0 | 1390.7 | 1472.5 | 1509.7 |
| 55° | 1137.9 | 1204.8 | 1308.9 | 1398.2 | 1435.3 |
| 57.5° | 1048.6 | 1115.6 | 1227.1 | 1323.8 | 1361.0 |
| 60° | 959.4 | 1026.3 | 1137.9 | 1249.4 | 1286.6 |
| 62.5° | 862.7 | 937.1 | 1056.1 | 1167.6 | 1212.2 |
| 65° | 766.0 | 847.8 | 974.3 | 1093.2 | 1145.3 |
| 67.5° | 676.8 | 758.6 | 892.4 | 1026.3 | 1070.9 |
| 70° | 580.1 | 669.3 | 818.1 | 951.9 | 1004.0 |
| 72.5° | 483.4 | 580.1 | 743.7 | 885.0 | 937.1 |
| 75° | 394.2 | 498.3 | 676.8 | 818.1 | 877.6 |
| 77.5° | 297.5 | 423.9 | 609.8 | 758.6 | 810.6 |
| 80° | 215.7 | 349.5 | 542.9 | 699.1 | 751.1 |
| 82.5° | 141.3 | 282.6 | 483.4 | 639.6 | 691.6 |
| 85° | 74.4 | 230.5 | 431.3 | 580.1 | 639.6 |
| 87.5° | 22.3 | 178.5 | 379.3 | 528.0 | 580.1 |
| 90° | 0.0 | 141.3 | 334.7 | 476.0 | 535.5 |
| 92.5° | 0.0 | 111.6 | 290.0 | 431.3 | 483.4 |
| 95° | 0.0 | 89.2 | 252.9 | 386.7 | 438.8 |
| 97.5° | 0.0 | 74.4 | 223.1 | 349.5 | 394.2 |
| 100° | 0.0 | 59.5 | 193.4 | 312.4 | 357.0 |
| 102.5° | 0.0 | 44.6 | 163.6 | 275.2 | 319.8 |
| 105° | 0.0 | 29.7 | 141.3 | 245.4 | 282.6 |
| 107.5° | 0.0 | 22.3 | 119.0 | 215.7 | 252.9 |
| 110° | 0.0 | 22.3 | 111.6 | 185.9 | 223.1 |



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CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|-----|-------|------|-------|-------|
| 112.5° | 0.0 | 14.9 | 96.7 | 171.1 | 200.8 |
| 115° | 0.0 | 14.9 | 81.8 | 148.7 | 178.5 |
| 117.5° | 0.0 | 14.9 | 74.4 | 133.9 | 163.6 |
| 120° | 0.0 | 14.9 | 66.9 | 119.0 | 141.3 |
| 122.5° | 0.0 | 7.4 | 59.5 | 104.1 | 126.4 |
| 125° | 0.0 | 7.4 | 52.1 | 96.7 | 111.6 |
| 127.5° | 0.0 | 7.4 | 44.6 | 89.2 | 104.1 |
| 130° | 0.0 | 7.4 | 44.6 | 81.8 | 96.7 |
| 132.5° | 0.0 | 0.0 | 37.2 | 74.4 | 89.2 |
| 135° | 0.0 | 0.0 | 29.7 | 59.5 | 74.4 |
| 137.5° | 0.0 | 0.0 | 29.7 | 52.1 | 66.9 |
| 140° | 0.0 | 0.0 | 22.3 | 52.1 | 59.5 |
| 142.5° | 0.0 | 0.0 | 14.9 | 44.6 | 52.1 |
| 145° | 0.0 | 0.0 | 14.9 | 37.2 | 44.6 |
| 147.5° | 0.0 | 0.0 | 7.4 | 29.7 | 37.2 |
| 150° | 0.0 | 0.0 | 7.4 | 22.3 | 29.7 |
| 152.5° | 0.0 | 0.0 | 0.0 | 14.9 | 22.3 |
| 155° | 0.0 | 0.0 | 0.0 | 7.4 | 14.9 |
| 157.5° | 0.0 | 0.0 | 0.0 | 0.0 | 7.4 |
| 160° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 162.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 165° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 167.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 170° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 172.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 175° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 177.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 180° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |



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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 | 19.58 | 21.11 | 20.05 | 21.57 | 22.06 | 21.64 | 23.17 | 22.11 | 23.63 | 24.12 |
| | 3H | 21.08 | 22.48 | 21.56 | 22.95 | 23.48 | 24.09 | 25.49 | 24.57 | 25.96 | 26.49 |
| | 4H | 21.56 | 22.89 | 22.07 | 23.38 | 23.92 | 25.30 | 26.63 | 25.80 | 27.11 | 27.66 |
| | 6H | 21.83 | 23.07 | 22.35 | 23.57 | 24.13 | 26.57 | 27.80 | 27.09 | 28.31 | 28.87 |
| | 8H | 21.89 | 23.07 | 22.42 | 23.60 | 24.16 | 27.23 | 28.41 | 27.76 | 28.94 | 29.50 |
| | 12H | 21.90 | 23.04 | 22.44 | 23.56 | 24.16 | 27.96 | 29.09 | 28.49 | 29.61 | 30.21 |
| 4H | 2H | 20.46 | 21.78 | 20.96 | 22.27 | 22.82 | 22.07 | 23.40 | 22.57 | 23.88 | 24.43 |
| | 3H | 22.20 | 23.33 | 22.72 | 23.86 | 24.43 | 24.75 | 25.88 | 25.27 | 26.41 | 26.98 |
| | 4H | 22.81 | 23.84 | 23.35 | 24.39 | 24.98 | 26.13 | 27.17 | 26.67 | 27.71 | 28.31 |
| | 6H | 23.21 | 24.13 | 23.77 | 24.69 | 25.30 | 27.60 | 28.52 | 28.16 | 29.08 | 29.70 |
| | 8H | 23.31 | 24.17 | 23.87 | 24.74 | 25.36 | 28.37 | 29.23 | 28.93 | 29.80 | 30.42 |
| | 12H | 23.35 | 24.14 | 23.94 | 24.73 | 25.36 | 29.22 | 30.01 | 29.81 | 30.60 | 31.23 |
| 8H | 4H | 23.50 | 24.36 | 24.07 | 24.93 | 25.56 | 26.35 | 27.21 | 26.92 | 27.78 | 28.41 |
| | 6H | 24.09 | 24.82 | 24.69 | 25.43 | 26.06 | 28.00 | 28.73 | 28.59 | 29.34 | 29.97 |
| | 8H | 24.28 | 24.94 | 24.89 | 25.56 | 26.20 | 28.91 | 29.57 | 29.52 | 30.19 | 30.83 |
| | 12H | 24.40 | 24.99 | 25.01 | 25.60 | 26.31 | 29.95 | 30.54 | 30.56 | 31.15 | 31.86 |
| 12H | 4H | 23.70 | 24.49 | 24.29 | 25.08 | 25.71 | 26.36 | 27.14 | 26.95 | 27.74 | 28.37 |
| | 6H | 24.39 | 25.05 | 25.00 | 25.67 | 26.32 | 28.04 | 28.70 | 28.64 | 29.32 | 29.96 |
| | 8H | 24.68 | 25.27 | 25.29 | 25.88 | 26.59 | 29.02 | 29.61 | 29.63 | 30.21 | 30.92 |