

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: METALUX

Report Number: P892490

Luminaire Tested: 2MB-2SL-AOL-UNV-L935

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P892490
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2404-077-2)
Test Lab: INNOVATION CENTER
Issue Date: 11/11/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: METALUX
Catalog Number: 2MB-2SL-AOL-UNV-L935
Description: 2000 Lumen 2FT MICROBAY LINEAR BAY with AISLE OPTICS WITH CLEAR LENS NO UPLIGHT, 9
3500K CCT
Light Source: -
Ballast/Driver: -

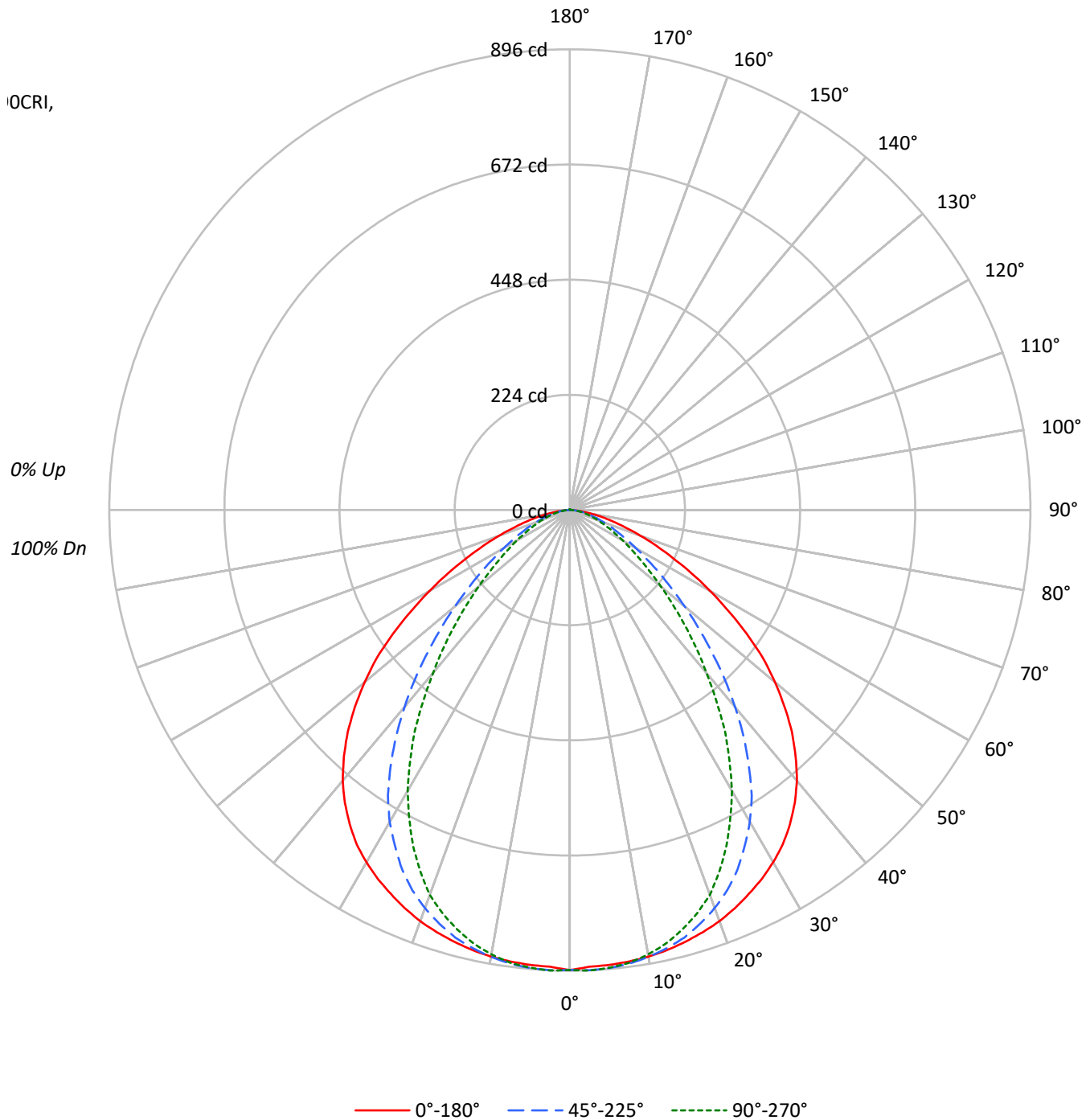
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1824.0 lumens
Efficiency: N/A
Efficacy: 122.4 lumens/watt
Spacing Criteria (0/90/45): 1.31 / 1.08 / 1.18
Luminous Opening: Rectangular (W 0.27' x L: 1.98' x H: 0')
CIE Type: Direct

Input Watts (W): 14.9
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: 0.996
Total Harmonic Distortion (THDi): 5.92
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT

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CATALOG NUMBER: 2MB-2SL-AOL-UNV-L935

Luminous Intensity Polar Plot





TEST NUMBER: P892490

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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 | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 | 106 | 106 | 106 | 102 | 102 | 102 | 102 | 102 | 102 | 100 |
| 1 | 111 | 107 | 103 | 100 | 108 | 104 | 101 | 98 | 100 | 97 | 95 | 96 | 94 | 92 | 93 | 91 | 89 | 89 | 89 | 89 | 87 |
| 2 | 102 | 95 | 89 | 84 | 100 | 93 | 88 | 83 | 90 | 85 | 81 | 87 | 83 | 80 | 84 | 81 | 78 | 78 | 78 | 78 | 76 |
| 3 | 94 | 85 | 78 | 72 | 92 | 84 | 77 | 72 | 81 | 75 | 71 | 78 | 73 | 69 | 76 | 72 | 68 | 68 | 68 | 68 | 66 |
| 4 | 87 | 77 | 69 | 63 | 85 | 75 | 68 | 63 | 73 | 67 | 62 | 71 | 65 | 61 | 69 | 64 | 60 | 60 | 60 | 60 | 58 |
| 5 | 81 | 69 | 61 | 55 | 79 | 68 | 61 | 55 | 66 | 60 | 55 | 64 | 59 | 54 | 63 | 58 | 53 | 53 | 53 | 53 | 52 |
| 6 | 75 | 63 | 55 | 49 | 73 | 62 | 55 | 49 | 61 | 54 | 49 | 59 | 53 | 48 | 57 | 52 | 48 | 48 | 48 | 48 | 46 |
| 7 | 70 | 58 | 50 | 44 | 69 | 57 | 49 | 44 | 56 | 49 | 44 | 54 | 48 | 43 | 53 | 47 | 43 | 43 | 43 | 43 | 41 |
| 8 | 66 | 53 | 45 | 40 | 64 | 52 | 45 | 40 | 51 | 44 | 40 | 50 | 44 | 39 | 49 | 43 | 39 | 39 | 39 | 39 | 37 |
| 9 | 62 | 49 | 42 | 36 | 60 | 49 | 41 | 36 | 47 | 41 | 36 | 46 | 40 | 36 | 45 | 40 | 36 | 36 | 36 | 36 | 34 |
| 10 | 58 | 46 | 38 | 33 | 57 | 45 | 38 | 33 | 44 | 38 | 33 | 43 | 37 | 33 | 42 | 37 | 33 | 33 | 33 | 33 | 31 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|-------|-------|-------|
| 0° | 18318 | 18318 | 18318 |
| 5° | 18253 | 18376 | 18364 |
| 10° | 18337 | 18349 | 18249 |
| 15° | 18426 | 18248 | 17913 |
| 20° | 18546 | 17953 | 17358 |
| 25° | 18615 | 17438 | 16290 |
| 30° | 18707 | 16563 | 14917 |
| 35° | 18658 | 15181 | 13156 |
| 40° | 18369 | 13370 | 11058 |
| 45° | 17691 | 11299 | 9128 |
| 50° | 16590 | 9289 | 7362 |
| 55° | 14987 | 7536 | 5915 |
| 60° | 12908 | 6069 | 4906 |
| 65° | 10727 | 5010 | 4075 |
| 70° | 8801 | 4203 | 3478 |
| 75° | 6986 | 3592 | 3014 |
| 80° | 5283 | 3066 | 2712 |
| 85° | 3548 | 2843 | 2561 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 17691 cd/sqm



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------------|---------------|--------------|
| 0°-10° | 84.9 | 4.7 |
| 10°-20° | 242.1 | 13.3 |
| 20°-30° | 354.6 | 19.4 |
| 30°-40° | 387.0 | 21.2 |
| 40°-50° | 328.1 | 18.0 |
| 50°-60° | 223.0 | 12.2 |
| 60°-70° | 126.0 | 6.9 |
| 70°-80° | 57.5 | 3.2 |
| 80°-90° | 15.0 | 0.8 |
| 90°-100° | 1.9 | 0.1 |
| 100°-110° | 1.1 | 0.1 |
| 110°-120° | 0.6 | 0.0 |
| 120°-130° | 0.5 | 0.0 |
| 130°-140° | 0.5 | 0.0 |
| 140°-150° | 0.4 | 0.0 |
| 150°-160° | 0.3 | 0.0 |
| 160°-170° | 0.2 | 0.0 |
| 170°-180° | 0.1 | 0.0 |
| 0°-30° | 681.7 | 37.4 |
| 0°-40° | 1068.7 | 58.6 |
| 0°-60° | 1619.8 | 88.8 |
| 0°-90° | 1818.3 | 99.7 |
| 90°-120° | 3.7 | 0.2 |
| 90°-150° | 5.1 | 0.3 |
| 90°-180° | 6.0 | 0.3 |
| 0°-180° | 1824.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|------|-----|-------|-----|-------|-----|------|
| 0° | 895 | 895 | 895 | 895 | 895 | |
| 5° | 888 | 893 | 894 | 896 | 893 | 85 |
| 15° | 869 | 869 | 861 | 851 | 845 | 246 |
| 25° | 824 | 810 | 772 | 737 | 721 | 380 |
| 35° | 746 | 699 | 607 | 544 | 526 | 466 |
| 45° | 611 | 516 | 390 | 332 | 315 | 469 |
| 55° | 420 | 310 | 211 | 175 | 166 | 375 |
| 65° | 221 | 157 | 103 | 88 | 84 | 223 |
| 75° | 88 | 65 | 45 | 40 | 38 | 96 |
| 85° | 15 | 14 | 12 | 12 | 11 | 19 |
| 90° | 0 | 2 | 2 | 3 | 3 | 1 |
| 95° | 0 | 1 | 2 | 3 | 3 | 0 |
| 105° | 0 | 1 | 1 | 2 | 2 | 0 |
| 115° | 0 | 0 | 1 | 1 | 1 | 0 |
| 125° | 0 | 0 | 1 | 1 | 1 | 0 |
| 135° | 1 | 1 | 1 | 1 | 1 | 0 |
| 145° | 1 | 1 | 1 | 1 | 1 | 0 |
| 155° | 1 | 1 | 1 | 1 | 1 | 0 |
| 165° | 1 | 1 | 1 | 1 | 1 | 0 |
| 175° | 1 | 1 | 1 | 1 | 1 | 0 |
| 180° | 1 | 1 | 1 | 1 | 1 | |



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CATALOG NUMBER: 2MB-2SL-AOL-UNV-L935

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|-------|-------|-------|-------|-------|
| 0° | 894.6 | 894.6 | 894.6 | 894.6 | 894.6 |
| 2.5° | 889.2 | 894.0 | 895.9 | 898.3 | 896.5 |
| 5° | 888.0 | 892.8 | 894.0 | 895.9 | 893.4 |
| 7.5° | 885.6 | 889.8 | 889.8 | 889.8 | 888.0 |
| 10° | 881.9 | 885.0 | 882.5 | 880.1 | 877.7 |
| 12.5° | 876.5 | 877.7 | 872.9 | 868.6 | 863.8 |
| 15° | 869.2 | 868.6 | 860.8 | 851.1 | 845.0 |
| 17.5° | 860.8 | 858.3 | 843.8 | 831.1 | 822.7 |
| 20° | 851.1 | 845.0 | 823.9 | 803.9 | 796.6 |
| 22.5° | 838.4 | 829.9 | 800.3 | 772.5 | 760.4 |
| 25° | 823.9 | 810.0 | 771.8 | 736.8 | 721.0 |
| 27.5° | 808.7 | 788.2 | 736.8 | 693.2 | 676.3 |
| 30° | 791.2 | 762.8 | 700.5 | 650.3 | 630.9 |
| 32.5° | 771.2 | 734.9 | 658.7 | 598.2 | 577.7 |
| 35° | 746.4 | 698.7 | 607.3 | 543.8 | 526.3 |
| 37.5° | 718.6 | 659.9 | 555.3 | 489.4 | 468.2 |
| 40° | 687.2 | 615.8 | 500.2 | 434.3 | 413.7 |
| 42.5° | 650.3 | 568.6 | 445.8 | 381.7 | 364.1 |
| 45° | 610.9 | 516.0 | 390.2 | 331.5 | 315.2 |
| 47.5° | 566.8 | 464.0 | 339.3 | 283.7 | 271.0 |
| 50° | 520.8 | 411.9 | 291.6 | 243.8 | 231.1 |
| 52.5° | 474.2 | 359.9 | 247.4 | 206.9 | 196.0 |
| 55° | 419.8 | 310.3 | 211.1 | 175.4 | 165.7 |
| 57.5° | 366.6 | 266.2 | 176.6 | 147.0 | 140.9 |
| 60° | 315.2 | 223.8 | 148.2 | 124.0 | 119.8 |
| 62.5° | 267.4 | 187.5 | 124.6 | 104.6 | 99.2 |
| 65° | 221.4 | 157.3 | 103.4 | 88.3 | 84.1 |
| 67.5° | 182.1 | 128.2 | 86.5 | 73.2 | 69.6 |
| 70° | 147.0 | 103.4 | 70.2 | 59.9 | 58.1 |
| 72.5° | 114.3 | 82.9 | 57.5 | 49.6 | 47.8 |
| 75° | 88.3 | 64.7 | 45.4 | 39.9 | 38.1 |
| 77.5° | 64.7 | 48.4 | 35.1 | 30.8 | 29.6 |
| 80° | 44.8 | 34.5 | 26.0 | 23.6 | 23.0 |
| 82.5° | 28.4 | 22.4 | 18.8 | 16.9 | 16.9 |
| 85° | 15.1 | 13.9 | 12.1 | 11.5 | 10.9 |
| 87.5° | 6.0 | 6.7 | 6.7 | 6.7 | 6.0 |
| 90° | 0.0 | 1.8 | 2.4 | 3.0 | 3.0 |
| 92.5° | 0.0 | 1.2 | 2.4 | 3.0 | 3.0 |
| 95° | 0.0 | 0.6 | 1.8 | 3.0 | 3.0 |
| 97.5° | 0.0 | 0.6 | 1.8 | 2.4 | 2.4 |
| 100° | 0.0 | 0.6 | 1.2 | 2.4 | 2.4 |
| 102.5° | 0.0 | 0.6 | 1.2 | 1.8 | 2.4 |
| 105° | 0.0 | 0.6 | 1.2 | 1.8 | 1.8 |
| 107.5° | 0.0 | 0.0 | 1.2 | 1.8 | 1.8 |
| 110° | 0.0 | 0.0 | 0.6 | 1.2 | 1.8 |



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CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|-----|-------|-----|-------|-----|
| 112.5° | 0.0 | 0.0 | 0.6 | 1.2 | 1.8 |
| 115° | 0.0 | 0.0 | 0.6 | 1.2 | 1.2 |
| 117.5° | 0.0 | 0.0 | 0.6 | 1.2 | 1.2 |
| 120° | 0.0 | 0.0 | 0.6 | 1.2 | 1.2 |
| 122.5° | 0.0 | 0.0 | 0.6 | 1.2 | 1.2 |
| 125° | 0.0 | 0.0 | 0.6 | 1.2 | 1.2 |
| 127.5° | 0.0 | 0.6 | 0.6 | 0.6 | 1.2 |
| 130° | 0.0 | 0.6 | 0.6 | 0.6 | 1.2 |
| 132.5° | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 |
| 135° | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 |
| 137.5° | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 |
| 140° | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 |
| 142.5° | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 |
| 145° | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 |
| 147.5° | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 |
| 150° | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 |
| 152.5° | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 |
| 155° | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 |
| 157.5° | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 |
| 160° | 0.6 | 0.6 | 0.6 | 0.6 | 1.2 |
| 162.5° | 0.6 | 0.6 | 0.6 | 1.2 | 1.2 |
| 165° | 0.6 | 0.6 | 0.6 | 1.2 | 1.2 |
| 167.5° | 0.6 | 0.6 | 0.6 | 1.2 | 1.2 |
| 170° | 0.6 | 0.6 | 0.6 | 1.2 | 1.2 |
| 172.5° | 0.6 | 0.6 | 0.6 | 1.2 | 1.2 |
| 175° | 0.6 | 0.6 | 1.2 | 1.2 | 1.2 |
| 177.5° | 0.6 | 0.6 | 1.2 | 1.2 | 1.2 |
| 180° | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 |



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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 | 20.44 | 21.88 | 20.81 | 22.20 | 22.53 | 15.80 | 17.25 | 16.17 | 17.57 | 17.89 |
| | 3H | 21.69 | 22.98 | 22.08 | 23.31 | 23.69 | 16.84 | 18.13 | 17.23 | 18.47 | 18.84 |
| | 4H | 22.09 | 23.29 | 22.50 | 23.65 | 24.04 | 17.21 | 18.42 | 17.62 | 18.77 | 19.16 |
| | 6H | 22.33 | 23.44 | 22.75 | 23.81 | 24.21 | 17.47 | 18.58 | 17.89 | 18.96 | 19.36 |
| | 8H | 22.38 | 23.44 | 22.82 | 23.83 | 24.25 | 17.56 | 18.62 | 18.00 | 19.01 | 19.42 |
| | 12H | 22.40 | 23.41 | 22.84 | 23.80 | 24.24 | 17.63 | 18.63 | 18.06 | 19.02 | 19.46 |
| 4H | 2H | 20.45 | 21.66 | 20.86 | 22.01 | 22.40 | 16.37 | 17.58 | 16.78 | 17.93 | 18.32 |
| | 3H | 21.86 | 22.85 | 22.28 | 23.26 | 23.67 | 17.60 | 18.59 | 18.02 | 19.00 | 19.41 |
| | 4H | 22.35 | 23.24 | 22.79 | 23.67 | 24.11 | 18.06 | 18.95 | 18.50 | 19.37 | 19.82 |
| | 6H | 22.70 | 23.47 | 23.16 | 23.92 | 24.39 | 18.42 | 19.19 | 18.88 | 19.64 | 20.11 |
| | 8H | 22.78 | 23.50 | 23.25 | 23.95 | 24.43 | 18.54 | 19.26 | 19.01 | 19.71 | 20.19 |
| | 12H | 22.83 | 23.47 | 23.32 | 23.96 | 24.44 | 18.64 | 19.28 | 19.13 | 19.77 | 20.25 |
| 8H | 4H | 22.35 | 23.07 | 22.82 | 23.52 | 23.99 | 18.35 | 19.07 | 18.82 | 19.52 | 20.00 |
| | 6H | 22.74 | 23.33 | 23.24 | 23.83 | 24.32 | 18.80 | 19.39 | 19.30 | 19.89 | 20.37 |
| | 8H | 22.86 | 23.39 | 23.38 | 23.91 | 24.41 | 18.98 | 19.51 | 19.50 | 20.03 | 20.52 |
| | 12H | 22.95 | 23.42 | 23.47 | 23.92 | 24.50 | 19.14 | 19.61 | 19.66 | 20.11 | 20.68 |
| 12H | 4H | 22.32 | 22.96 | 22.81 | 23.45 | 23.93 | 18.38 | 19.02 | 18.87 | 19.51 | 19.99 |
| | 6H | 22.71 | 23.24 | 23.23 | 23.76 | 24.26 | 18.85 | 19.38 | 19.37 | 19.90 | 20.39 |
| | 8H | 22.86 | 23.34 | 23.38 | 23.83 | 24.41 | 19.08 | 19.55 | 19.59 | 20.05 | 20.62 |