

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: P892587

Luminaire Tested: 2MB-3SL-A-UNV-L940

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P892587
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2404-077-4)
Test Lab: INNOVATION CENTER
Issue Date: 11/11/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: METALUX
Catalog Number: 2MB-3SL-A-UNV-L940
Description: 3000 Lumen 2FT MICROBAY LINEAR BAY with AISLE OPTIC, 90CRI, 4000K CCT
Light Source: -
Ballast/Driver: -

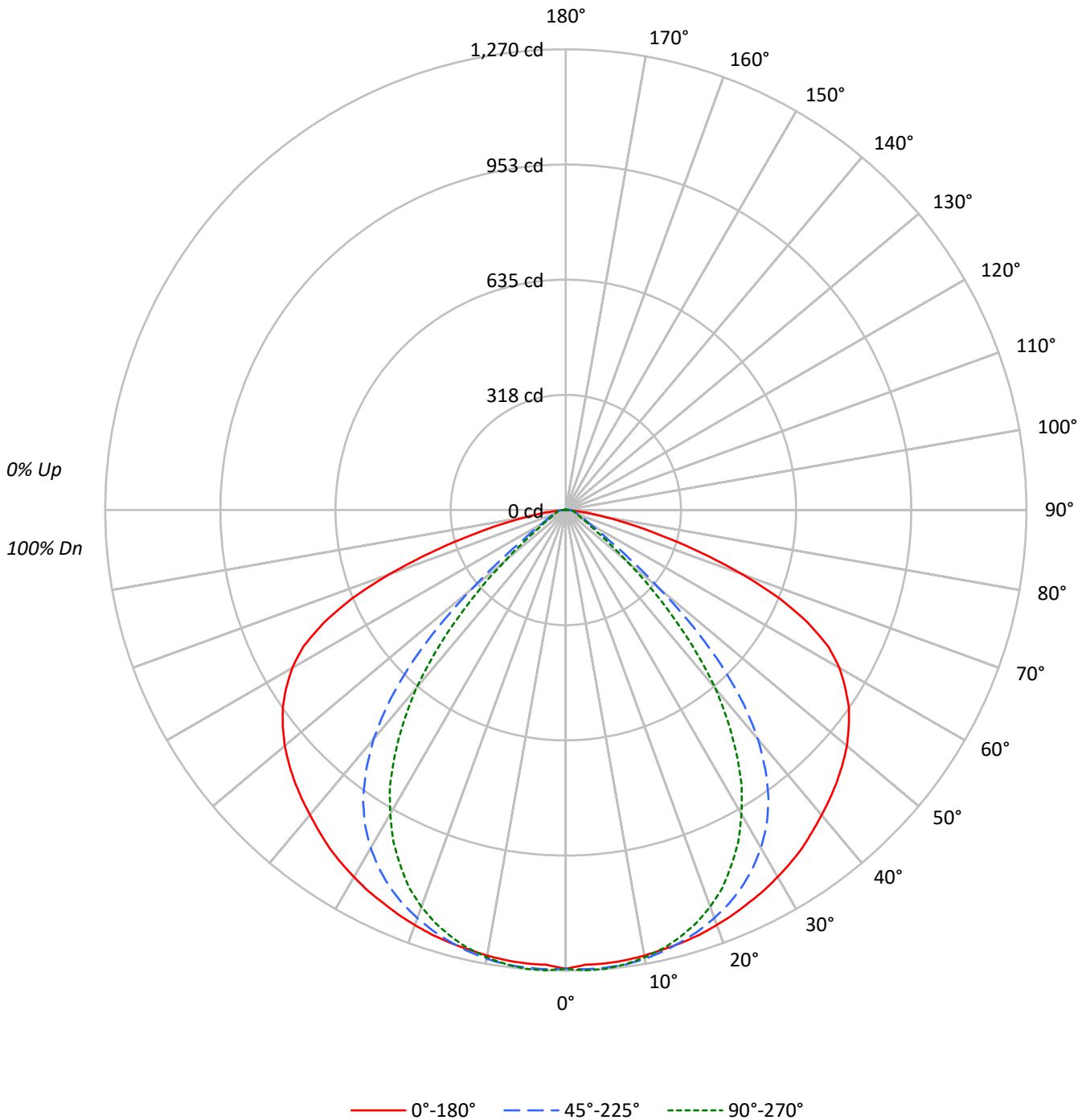
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2651.9 lumens
Efficiency: N/A
Efficacy: 126.3 lumens/watt
Spacing Criteria (0/90/45): 1.39 / 1.15 / 1.25
Luminous Opening: Rectangular (W 0.27' x L: 1.98' x H: 0')
CIE Type: Direct

Input Watts (W): 21
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: 0.998
Total Harmonic Distortion (THDi): 8
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT

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CATALOG NUMBER: 2MB-3SL-A-UNV-L940

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 | 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 | 105 | 101 | 99 | 100 | 98 | 95 | 97 | 94 | 93 | 93 | 91 | 90 | 93 | 91 | 90 | 88 |
| 2 | 103 | 96 | 90 | 85 | 100 | 94 | 89 | 84 | 90 | 86 | 82 | 87 | 84 | 80 | 84 | 81 | 79 | 84 | 81 | 79 | 77 |
| 3 | 95 | 86 | 79 | 74 | 93 | 84 | 78 | 73 | 82 | 76 | 72 | 79 | 74 | 70 | 76 | 73 | 69 | 76 | 73 | 69 | 67 |
| 4 | 88 | 78 | 70 | 64 | 86 | 76 | 69 | 64 | 74 | 68 | 63 | 72 | 66 | 62 | 70 | 65 | 61 | 70 | 65 | 61 | 59 |
| 5 | 82 | 70 | 62 | 57 | 80 | 69 | 62 | 56 | 67 | 61 | 56 | 65 | 60 | 55 | 63 | 59 | 55 | 63 | 59 | 55 | 53 |
| 6 | 76 | 64 | 56 | 50 | 74 | 63 | 56 | 50 | 61 | 55 | 50 | 60 | 54 | 49 | 58 | 53 | 49 | 58 | 53 | 49 | 47 |
| 7 | 71 | 59 | 51 | 45 | 69 | 58 | 50 | 45 | 56 | 50 | 45 | 55 | 49 | 44 | 54 | 48 | 44 | 54 | 48 | 44 | 42 |
| 8 | 66 | 54 | 46 | 41 | 65 | 53 | 46 | 41 | 52 | 45 | 40 | 51 | 45 | 40 | 50 | 44 | 40 | 50 | 44 | 40 | 38 |
| 9 | 62 | 50 | 42 | 37 | 61 | 49 | 42 | 37 | 48 | 41 | 37 | 47 | 41 | 37 | 46 | 40 | 36 | 46 | 40 | 36 | 35 |
| 10 | 58 | 46 | 39 | 34 | 57 | 46 | 39 | 34 | 45 | 38 | 34 | 44 | 38 | 33 | 43 | 37 | 33 | 43 | 37 | 33 | 32 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|-------|-------|-------|
| 0° | 25893 | 25893 | 25893 |
| 5° | 25788 | 26026 | 26094 |
| 10° | 25932 | 26121 | 26034 |
| 15° | 26176 | 26125 | 25829 |
| 20° | 26530 | 26081 | 25362 |
| 25° | 26985 | 25926 | 24399 |
| 30° | 27619 | 25434 | 22883 |
| 35° | 28414 | 24357 | 20503 |
| 40° | 29328 | 22034 | 17142 |
| 45° | 30626 | 17664 | 12223 |
| 50° | 32219 | 10739 | 7011 |
| 55° | 34018 | 5180 | 3766 |
| 60° | 35682 | 3174 | 2564 |
| 65° | 35748 | 2558 | 2117 |
| 70° | 30946 | 2317 | 1976 |
| 75° | 21780 | 2350 | 2152 |
| 80° | 12830 | 2818 | 2724 |
| 85° | 6014 | 4252 | 4064 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 62.5°
 Luminance: 36190 cd/sqm



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 120.5 | 4.5 |
| 10°-20° | 347.7 | 13.1 |
| 20°-30° | 526.2 | 19.8 |
| 30°-40° | 607.7 | 22.9 |
| 40°-50° | 519.7 | 19.6 |
| 50°-60° | 283.9 | 10.7 |
| 60°-70° | 143.4 | 5.4 |
| 70°-80° | 69.6 | 2.6 |
| 80°-90° | 23.9 | 0.9 |
| 90°-100° | 5.8 | 0.2 |
| 100°-110° | 0.9 | 0.0 |
| 110°-120° | 0.3 | 0.0 |
| 120°-130° | 0.3 | 0.0 |
| 130°-140° | 0.5 | 0.0 |
| 140°-150° | 0.5 | 0.0 |
| 150°-160° | 0.4 | 0.0 |
| 160°-170° | 0.4 | 0.0 |
| 170°-180° | 0.1 | 0.0 |
| 0°-30° | 994.4 | 37.5 |
| 0°-40° | 1602.1 | 60.4 |
| 0°-60° | 2405.6 | 90.7 |
| 0°-90° | 2642.6 | 99.6 |
| 90°-120° | 7.0 | 0.3 |
| 90°-150° | 8.4 | 0.3 |
| 90°-180° | 9.0 | 0.3 |
| 0°-180° | 2651.9 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|------|------|-------|------|-------|------|------|
| 0° | 1264 | 1264 | 1264 | 1264 | 1264 | |
| 5° | 1255 | 1264 | 1266 | 1271 | 1270 | 120 |
| 15° | 1235 | 1242 | 1232 | 1227 | 1218 | 349 |
| 25° | 1194 | 1188 | 1148 | 1103 | 1080 | 552 |
| 35° | 1137 | 1098 | 974 | 861 | 820 | 712 |
| 45° | 1058 | 923 | 610 | 453 | 422 | 817 |
| 55° | 953 | 438 | 145 | 113 | 106 | 849 |
| 65° | 738 | 82 | 53 | 47 | 44 | 714 |
| 75° | 275 | 45 | 30 | 29 | 27 | 305 |
| 85° | 26 | 26 | 18 | 18 | 17 | 39 |
| 90° | 0 | 15 | 12 | 12 | 11 | 1 |
| 95° | 0 | 2 | 5 | 7 | 7 | 0 |
| 105° | 0 | 0 | 1 | 2 | 1 | 0 |
| 115° | 0 | 0 | 0 | 1 | 1 | 0 |
| 125° | 0 | 0 | 1 | 1 | 0 | 0 |
| 135° | 1 | 1 | 1 | 1 | 1 | 1 |
| 145° | 1 | 1 | 1 | 1 | 1 | 1 |
| 155° | 1 | 1 | 1 | 2 | 1 | 0 |
| 165° | 1 | 1 | 2 | 2 | 2 | 0 |
| 175° | 1 | 1 | 2 | 2 | 2 | 0 |
| 180° | 2 | 2 | 2 | 2 | 2 | |



TEST NUMBER: P892587

CATALOG NUMBER: 2MB-3SL-A-UNV-L940

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|--------|--------|--------|--------|--------|
| 0° | 1264.5 | 1264.5 | 1264.5 | 1264.5 | 1264.5 |
| 2.5° | 1254.6 | 1263.7 | 1267.0 | 1272.8 | 1270.3 |
| 5° | 1254.6 | 1264.5 | 1266.2 | 1271.1 | 1269.5 |
| 7.5° | 1252.1 | 1261.2 | 1263.7 | 1266.2 | 1262.9 |
| 10° | 1247.2 | 1256.3 | 1256.3 | 1256.3 | 1252.1 |
| 12.5° | 1240.6 | 1250.5 | 1245.6 | 1242.3 | 1238.1 |
| 15° | 1234.8 | 1242.3 | 1232.4 | 1226.6 | 1218.4 |
| 17.5° | 1227.4 | 1233.2 | 1216.7 | 1205.2 | 1194.4 |
| 20° | 1217.5 | 1220.0 | 1196.9 | 1175.5 | 1163.9 |
| 22.5° | 1206.8 | 1204.3 | 1174.7 | 1143.3 | 1127.7 |
| 25° | 1194.4 | 1187.9 | 1147.5 | 1102.9 | 1079.9 |
| 27.5° | 1182.9 | 1168.9 | 1114.5 | 1054.3 | 1030.4 |
| 30° | 1168.1 | 1149.1 | 1075.7 | 999.9 | 967.8 |
| 32.5° | 1153.2 | 1125.2 | 1030.4 | 938.1 | 902.6 |
| 35° | 1136.7 | 1098.0 | 974.4 | 860.6 | 820.2 |
| 37.5° | 1117.0 | 1064.2 | 904.3 | 776.5 | 733.6 |
| 40° | 1097.2 | 1024.6 | 824.3 | 679.2 | 641.3 |
| 42.5° | 1078.2 | 980.1 | 726.2 | 570.4 | 533.3 |
| 45° | 1057.6 | 923.2 | 610.0 | 453.4 | 422.1 |
| 47.5° | 1035.4 | 844.9 | 475.6 | 343.7 | 317.4 |
| 50° | 1011.4 | 743.5 | 337.1 | 240.7 | 220.1 |
| 52.5° | 983.4 | 603.4 | 222.6 | 162.4 | 149.2 |
| 55° | 952.9 | 437.7 | 145.1 | 112.9 | 105.5 |
| 57.5° | 914.2 | 285.2 | 102.2 | 84.1 | 78.3 |
| 60° | 871.3 | 170.6 | 77.5 | 66.8 | 62.6 |
| 62.5° | 816.1 | 110.5 | 62.6 | 56.1 | 51.1 |
| 65° | 737.8 | 81.6 | 52.8 | 47.0 | 43.7 |
| 67.5° | 638.9 | 67.6 | 44.5 | 40.4 | 37.1 |
| 70° | 516.9 | 59.4 | 38.7 | 35.4 | 33.0 |
| 72.5° | 390.7 | 51.9 | 33.8 | 31.3 | 29.7 |
| 75° | 275.3 | 45.3 | 29.7 | 28.9 | 27.2 |
| 77.5° | 180.5 | 39.6 | 27.2 | 26.4 | 25.6 |
| 80° | 108.8 | 33.8 | 23.9 | 23.9 | 23.1 |
| 82.5° | 61.0 | 29.7 | 21.4 | 21.4 | 19.8 |
| 85° | 25.6 | 25.6 | 18.1 | 18.1 | 17.3 |
| 87.5° | 7.4 | 19.8 | 14.8 | 14.8 | 13.2 |
| 90° | 0.0 | 14.8 | 11.5 | 11.5 | 10.7 |
| 92.5° | 0.0 | 8.2 | 8.2 | 9.1 | 8.2 |
| 95° | 0.0 | 1.6 | 4.9 | 7.4 | 6.6 |
| 97.5° | 0.0 | 0.8 | 3.3 | 5.8 | 4.9 |
| 100° | 0.0 | 0.0 | 1.6 | 4.1 | 3.3 |
| 102.5° | 0.0 | 0.0 | 0.8 | 2.5 | 2.5 |
| 105° | 0.0 | 0.0 | 0.8 | 1.6 | 0.8 |
| 107.5° | 0.0 | 0.0 | 0.8 | 0.8 | 0.8 |
| 110° | 0.0 | 0.0 | 0.8 | 0.8 | 0.8 |



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CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|-----|-------|-----|-------|-----|
| 112.5° | 0.0 | 0.0 | 0.8 | 0.8 | 0.8 |
| 115° | 0.0 | 0.0 | 0.0 | 0.8 | 0.8 |
| 117.5° | 0.0 | 0.0 | 0.0 | 0.8 | 0.0 |
| 120° | 0.0 | 0.0 | 0.0 | 0.8 | 0.0 |
| 122.5° | 0.0 | 0.0 | 0.0 | 0.8 | 0.0 |
| 125° | 0.0 | 0.0 | 0.8 | 0.8 | 0.0 |
| 127.5° | 0.0 | 0.0 | 0.8 | 0.8 | 0.8 |
| 130° | 0.0 | 0.0 | 0.8 | 0.8 | 0.8 |
| 132.5° | 0.8 | 0.0 | 0.8 | 0.8 | 0.8 |
| 135° | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 |
| 137.5° | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 |
| 140° | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 |
| 142.5° | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 |
| 145° | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 |
| 147.5° | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 |
| 150° | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 |
| 152.5° | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 |
| 155° | 0.8 | 0.8 | 0.8 | 1.6 | 0.8 |
| 157.5° | 0.8 | 0.8 | 0.8 | 1.6 | 0.8 |
| 160° | 0.8 | 0.8 | 0.8 | 1.6 | 0.8 |
| 162.5° | 0.8 | 0.8 | 1.6 | 1.6 | 1.6 |
| 165° | 0.8 | 0.8 | 1.6 | 1.6 | 1.6 |
| 167.5° | 0.8 | 0.8 | 1.6 | 1.6 | 1.6 |
| 170° | 0.8 | 0.8 | 1.6 | 1.6 | 1.6 |
| 172.5° | 0.8 | 0.8 | 1.6 | 1.6 | 1.6 |
| 175° | 0.8 | 0.8 | 1.6 | 1.6 | 1.6 |
| 177.5° | 0.8 | 0.8 | 1.6 | 1.6 | 1.6 |
| 180° | 1.6 | 1.6 | 1.6 | 1.6 | 1.6 |



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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 | 21.47 | 22.89 | 21.85 | 23.21 | 23.53 | 10.60 | 12.01 | 10.97 | 12.33 | 12.65 |
| | 3H | 24.26 | 25.51 | 24.64 | 25.85 | 26.22 | 11.60 | 12.86 | 11.99 | 13.19 | 13.57 |
| | 4H | 25.09 | 26.26 | 25.49 | 26.62 | 27.01 | 12.16 | 13.33 | 12.56 | 13.69 | 14.08 |
| | 6H | 25.48 | 26.56 | 25.90 | 26.94 | 27.34 | 12.86 | 13.94 | 13.28 | 14.31 | 14.72 |
| | 8H | 25.56 | 26.58 | 25.99 | 26.98 | 27.39 | 13.23 | 14.26 | 13.67 | 14.65 | 15.07 |
| | 12H | 25.57 | 26.55 | 26.01 | 26.94 | 27.38 | 13.65 | 14.63 | 14.09 | 15.02 | 15.46 |
| 4H | 2H | 21.30 | 22.47 | 21.70 | 22.83 | 23.22 | 11.03 | 12.20 | 11.44 | 12.56 | 12.95 |
| | 3H | 24.09 | 25.05 | 24.51 | 25.46 | 25.87 | 12.30 | 13.27 | 12.72 | 13.68 | 14.09 |
| | 4H | 24.92 | 25.78 | 25.36 | 26.21 | 26.66 | 13.04 | 13.90 | 13.48 | 14.33 | 14.78 |
| | 6H | 25.39 | 26.14 | 25.86 | 26.59 | 27.06 | 13.95 | 14.70 | 14.42 | 15.15 | 15.62 |
| | 8H | 25.51 | 26.20 | 25.98 | 26.66 | 27.13 | 14.44 | 15.14 | 14.91 | 15.59 | 16.07 |
| | 12H | 25.56 | 26.18 | 26.05 | 26.67 | 27.15 | 14.98 | 15.60 | 15.47 | 16.09 | 16.57 |
| 8H | 4H | 24.82 | 25.51 | 25.29 | 25.97 | 26.44 | 13.48 | 14.18 | 13.95 | 14.63 | 15.11 |
| | 6H | 25.29 | 25.86 | 25.79 | 26.36 | 26.85 | 14.60 | 15.17 | 15.10 | 15.67 | 16.16 |
| | 8H | 25.42 | 25.94 | 25.94 | 26.46 | 26.96 | 15.24 | 15.76 | 15.76 | 16.28 | 16.78 |
| | 12H | 25.52 | 25.98 | 26.03 | 26.48 | 27.05 | 15.98 | 16.44 | 16.50 | 16.94 | 17.51 |
| 12H | 4H | 24.78 | 25.40 | 25.27 | 25.89 | 26.37 | 13.64 | 14.27 | 14.14 | 14.75 | 15.23 |
| | 6H | 25.24 | 25.76 | 25.76 | 26.28 | 26.78 | 14.81 | 15.33 | 15.33 | 15.85 | 16.35 |
| | 8H | 25.40 | 25.86 | 25.92 | 26.36 | 26.93 | 15.55 | 16.01 | 16.06 | 16.51 | 17.08 |