

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: P895768

Luminaire Tested: 2MB-3SL-ACL-UNV-L850

Issue Date: 11/19/2024

Test Information

Test Method: LM-79-2019
Report Number: P895768
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2404-077-3)
Test Lab: INNOVATION CENTER
Issue Date: 11/19/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: METALUX
Catalog Number: 2MB-3SL-ACL-UNV-L850
Description: 3000 Lumen 2FT MICROBAY LINEAR BAY with AISLE OPTICS WITH CLEAR LENS, 80CRI, 5000K (C)
Light Source: -
Ballast/Driver: -

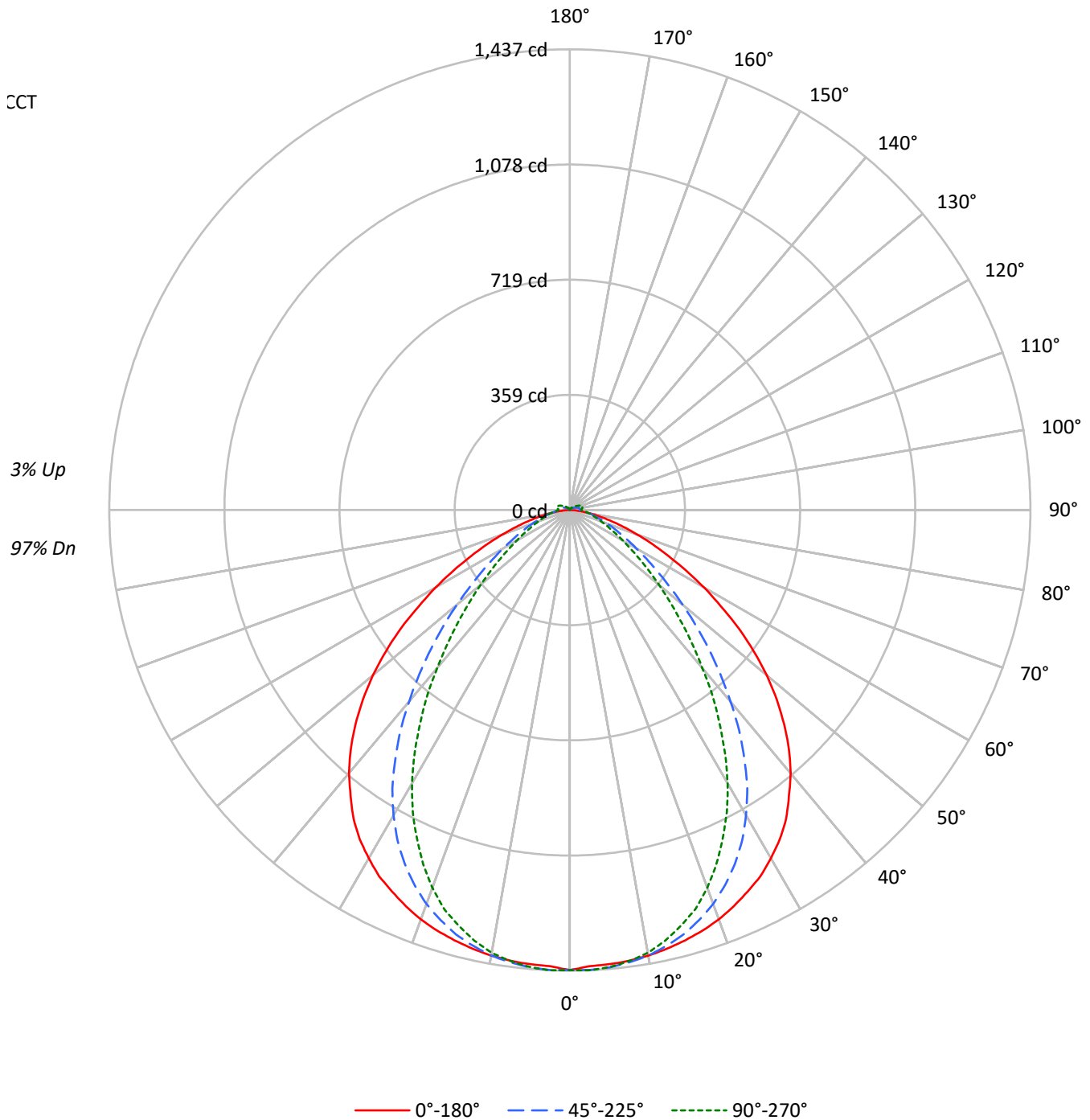
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2990.0 lumens
Efficiency: N/A
Efficacy: 142.4 lumens/watt
Spacing Criteria (0/90/45): 1.29 / 1.07 / 1.17
Luminous Opening: Rectangular w/ Sides (W: 0.27' x L: 1.98' x H: 0.08')
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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Luminous Intensity Polar Plot





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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 | 118 | 118 | 118 | 118 | 115 | 115 | 115 | 115 | 109 | 109 | 109 | 104 | 104 | 104 | 99 | 99 | 99 | 99 | 99 | 99 | 97 |
| 1 | 110 | 105 | 102 | 98 | 107 | 103 | 100 | 97 | 98 | 96 | 93 | 94 | 92 | 90 | 90 | 88 | 87 | 87 | 87 | 87 | 84 |
| 2 | 101 | 94 | 88 | 83 | 98 | 92 | 86 | 82 | 88 | 83 | 80 | 84 | 81 | 77 | 81 | 78 | 75 | 75 | 75 | 75 | 73 |
| 3 | 93 | 84 | 77 | 71 | 91 | 82 | 76 | 70 | 79 | 73 | 69 | 76 | 71 | 67 | 73 | 69 | 66 | 66 | 66 | 66 | 64 |
| 4 | 86 | 76 | 68 | 62 | 84 | 74 | 67 | 61 | 71 | 65 | 60 | 69 | 63 | 59 | 66 | 62 | 58 | 58 | 58 | 58 | 56 |
| 5 | 80 | 68 | 60 | 54 | 78 | 67 | 60 | 54 | 65 | 58 | 53 | 63 | 57 | 52 | 61 | 56 | 52 | 52 | 52 | 52 | 50 |
| 6 | 74 | 62 | 54 | 48 | 72 | 61 | 54 | 48 | 59 | 52 | 47 | 57 | 51 | 47 | 56 | 50 | 46 | 46 | 46 | 46 | 44 |
| 7 | 69 | 57 | 49 | 43 | 68 | 56 | 49 | 43 | 54 | 48 | 43 | 53 | 47 | 42 | 51 | 46 | 42 | 42 | 42 | 42 | 40 |
| 8 | 65 | 52 | 45 | 39 | 63 | 52 | 44 | 39 | 50 | 43 | 39 | 49 | 43 | 38 | 47 | 42 | 38 | 38 | 38 | 38 | 36 |
| 9 | 61 | 48 | 41 | 36 | 59 | 48 | 40 | 35 | 46 | 40 | 35 | 45 | 39 | 35 | 44 | 39 | 35 | 35 | 35 | 35 | 33 |
| 10 | 57 | 45 | 38 | 33 | 56 | 44 | 37 | 32 | 43 | 37 | 32 | 42 | 36 | 32 | 41 | 36 | 32 | 32 | 32 | 32 | 30 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|-------|-------|-------|
| 0° | 29384 | 29384 | 29384 |
| 5° | 29124 | 28801 | 28628 |
| 10° | 29128 | 28098 | 27631 |
| 15° | 29129 | 27227 | 26230 |
| 20° | 29167 | 26106 | 24516 |
| 25° | 29087 | 24630 | 22258 |
| 30° | 28958 | 22703 | 19705 |
| 35° | 28570 | 20185 | 16696 |
| 40° | 27677 | 17218 | 13607 |
| 45° | 26282 | 14170 | 10784 |
| 50° | 24322 | 11264 | 8415 |
| 55° | 21653 | 8754 | 6517 |
| 60° | 18448 | 6838 | 5103 |
| 65° | 15079 | 5433 | 4056 |
| 70° | 11962 | 4401 | 3332 |
| 75° | 9237 | 3583 | 2913 |
| 80° | 6568 | 3018 | 2636 |
| 85° | 3759 | 2631 | 2378 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 26282 cd/sqm



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 135.9 | 4.5 |
| 10°-20° | 385.7 | 12.9 |
| 20°-30° | 560.5 | 18.7 |
| 30°-40° | 605.8 | 20.3 |
| 40°-50° | 511.1 | 17.1 |
| 50°-60° | 350.2 | 11.7 |
| 60°-70° | 204.2 | 6.8 |
| 70°-80° | 104.3 | 3.5 |
| 80°-90° | 44.9 | 1.5 |
| 90°-100° | 27.3 | 0.9 |
| 100°-110° | 24.4 | 0.8 |
| 110°-120° | 16.6 | 0.6 |
| 120°-130° | 9.3 | 0.3 |
| 130°-140° | 5.1 | 0.2 |
| 140°-150° | 2.7 | 0.1 |
| 150°-160° | 1.4 | 0.0 |
| 160°-170° | 0.6 | 0.0 |
| 170°-180° | 0.1 | 0.0 |
| 0°-30° | 1082.0 | 36.2 |
| 0°-40° | 1687.9 | 56.5 |
| 0°-60° | 2549.2 | 85.3 |
| 0°-90° | 2902.6 | 97.1 |
| 90°-120° | 68.2 | 2.3 |
| 90°-150° | 85.3 | 2.9 |
| 90°-180° | 87.0 | 2.9 |
| 0°-180° | 2990.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|------|------|-------|------|-------|------|------|
| 0° | 1435 | 1435 | 1435 | 1435 | 1435 | |
| 5° | 1422 | 1431 | 1432 | 1435 | 1431 | 135 |
| 15° | 1390 | 1389 | 1371 | 1354 | 1341 | 393 |
| 25° | 1313 | 1287 | 1218 | 1158 | 1129 | 606 |
| 35° | 1177 | 1101 | 950 | 848 | 815 | 733 |
| 45° | 946 | 800 | 612 | 518 | 489 | 727 |
| 55° | 643 | 487 | 333 | 279 | 264 | 573 |
| 65° | 339 | 250 | 173 | 147 | 140 | 341 |
| 75° | 135 | 110 | 88 | 82 | 80 | 146 |
| 85° | 24 | 32 | 43 | 46 | 46 | 29 |
| 90° | 1 | 15 | 32 | 36 | 36 | 2 |
| 95° | 0 | 14 | 31 | 36 | 38 | 0 |
| 105° | 0 | 8 | 27 | 38 | 40 | 0 |
| 115° | 0 | 5 | 17 | 29 | 32 | 0 |
| 125° | 0 | 3 | 10 | 17 | 20 | 1 |
| 135° | 1 | 3 | 7 | 10 | 12 | 1 |
| 145° | 1 | 2 | 5 | 6 | 7 | 1 |
| 155° | 1 | 2 | 3 | 4 | 5 | 0 |
| 165° | 1 | 1 | 2 | 3 | 3 | 0 |
| 175° | 1 | 1 | 2 | 2 | 1 | 0 |
| 180° | 1 | 1 | 1 | 1 | 1 | |



TEST NUMBER: P895768

CATALOG NUMBER: 2MB-3SL-ACL-UNV-L850

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|--------|--------|--------|--------|--------|
| 0° | 1435.0 | 1435.0 | 1435.0 | 1435.0 | 1435.0 |
| 2.5° | 1424.1 | 1433.0 | 1435.9 | 1439.9 | 1436.9 |
| 5° | 1422.1 | 1431.0 | 1432.0 | 1435.0 | 1431.0 |
| 7.5° | 1418.2 | 1425.1 | 1423.1 | 1423.1 | 1419.2 |
| 10° | 1411.3 | 1415.2 | 1411.3 | 1406.4 | 1402.4 |
| 12.5° | 1401.4 | 1404.4 | 1392.6 | 1385.6 | 1375.8 |
| 15° | 1389.6 | 1388.6 | 1370.9 | 1354.1 | 1341.3 |
| 17.5° | 1375.8 | 1368.9 | 1341.3 | 1315.6 | 1304.8 |
| 20° | 1359.0 | 1346.2 | 1307.7 | 1270.3 | 1253.5 |
| 22.5° | 1337.3 | 1319.6 | 1266.3 | 1218.0 | 1195.3 |
| 25° | 1312.7 | 1287.0 | 1218.0 | 1157.8 | 1129.2 |
| 27.5° | 1288.0 | 1249.5 | 1163.7 | 1088.8 | 1061.2 |
| 30° | 1254.5 | 1206.2 | 1099.6 | 1014.8 | 984.3 |
| 32.5° | 1219.0 | 1157.8 | 1030.6 | 932.0 | 901.4 |
| 35° | 1176.6 | 1100.6 | 949.7 | 848.2 | 814.6 |
| 37.5° | 1123.3 | 1033.6 | 867.9 | 761.4 | 732.8 |
| 40° | 1072.0 | 960.6 | 780.1 | 674.6 | 643.0 |
| 42.5° | 1011.9 | 881.7 | 695.3 | 592.7 | 564.1 |
| 45° | 945.8 | 799.8 | 612.4 | 517.8 | 489.2 |
| 47.5° | 875.8 | 721.9 | 533.5 | 445.8 | 423.1 |
| 50° | 801.8 | 642.0 | 459.6 | 383.6 | 362.9 |
| 52.5° | 722.9 | 562.1 | 391.5 | 328.4 | 309.7 |
| 55° | 643.0 | 487.2 | 333.3 | 279.1 | 264.3 |
| 57.5° | 559.2 | 415.2 | 284.0 | 237.7 | 223.9 |
| 60° | 483.3 | 355.0 | 239.7 | 203.2 | 192.3 |
| 62.5° | 408.3 | 299.8 | 204.1 | 172.6 | 163.7 |
| 65° | 339.3 | 249.5 | 172.6 | 146.9 | 140.0 |
| 67.5° | 279.1 | 209.1 | 147.9 | 126.2 | 121.3 |
| 70° | 222.9 | 170.6 | 124.3 | 108.5 | 103.6 |
| 72.5° | 175.5 | 138.1 | 104.5 | 93.7 | 90.7 |
| 75° | 135.1 | 110.5 | 87.8 | 81.9 | 79.9 |
| 77.5° | 98.6 | 84.8 | 74.0 | 71.0 | 70.0 |
| 80° | 69.0 | 64.1 | 62.1 | 62.1 | 62.1 |
| 82.5° | 43.4 | 47.3 | 52.3 | 54.2 | 54.2 |
| 85° | 23.7 | 32.5 | 43.4 | 46.4 | 46.4 |
| 87.5° | 9.9 | 22.7 | 36.5 | 39.4 | 38.5 |
| 90° | 1.0 | 14.8 | 31.6 | 35.5 | 35.5 |
| 92.5° | 0.0 | 14.8 | 31.6 | 35.5 | 35.5 |
| 95° | 0.0 | 13.8 | 30.6 | 36.5 | 37.5 |
| 97.5° | 0.0 | 12.8 | 30.6 | 37.5 | 38.5 |
| 100° | 1.0 | 11.8 | 30.6 | 38.5 | 39.4 |
| 102.5° | 0.0 | 9.9 | 28.6 | 38.5 | 40.4 |
| 105° | 0.0 | 7.9 | 26.6 | 38.5 | 40.4 |
| 107.5° | 0.0 | 5.9 | 24.7 | 36.5 | 39.4 |
| 110° | 0.0 | 5.9 | 22.7 | 34.5 | 37.5 |



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CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|-----|-------|------|-------|------|
| 112.5° | 0.0 | 4.9 | 19.7 | 31.6 | 35.5 |
| 115° | 0.0 | 4.9 | 16.8 | 28.6 | 32.5 |
| 117.5° | 0.0 | 3.9 | 14.8 | 25.6 | 28.6 |
| 120° | 0.0 | 3.9 | 12.8 | 22.7 | 25.6 |
| 122.5° | 0.0 | 3.9 | 11.8 | 19.7 | 22.7 |
| 125° | 0.0 | 3.0 | 9.9 | 16.8 | 19.7 |
| 127.5° | 1.0 | 3.0 | 8.9 | 14.8 | 17.8 |
| 130° | 1.0 | 3.0 | 7.9 | 12.8 | 15.8 |
| 132.5° | 1.0 | 3.0 | 6.9 | 11.8 | 13.8 |
| 135° | 1.0 | 3.0 | 6.9 | 9.9 | 11.8 |
| 137.5° | 1.0 | 3.0 | 5.9 | 8.9 | 9.9 |
| 140° | 1.0 | 3.0 | 4.9 | 7.9 | 8.9 |
| 142.5° | 1.0 | 2.0 | 4.9 | 6.9 | 7.9 |
| 145° | 1.0 | 2.0 | 4.9 | 5.9 | 6.9 |
| 147.5° | 1.0 | 2.0 | 3.9 | 5.9 | 5.9 |
| 150° | 1.0 | 2.0 | 3.9 | 4.9 | 5.9 |
| 152.5° | 1.0 | 2.0 | 3.0 | 4.9 | 4.9 |
| 155° | 1.0 | 2.0 | 3.0 | 3.9 | 4.9 |
| 157.5° | 1.0 | 2.0 | 3.0 | 3.9 | 3.9 |
| 160° | 1.0 | 2.0 | 2.0 | 3.0 | 3.9 |
| 162.5° | 1.0 | 1.0 | 2.0 | 3.0 | 3.0 |
| 165° | 1.0 | 1.0 | 2.0 | 3.0 | 3.0 |
| 167.5° | 1.0 | 1.0 | 2.0 | 2.0 | 3.0 |
| 170° | 1.0 | 1.0 | 2.0 | 2.0 | 2.0 |
| 172.5° | 1.0 | 1.0 | 2.0 | 2.0 | 1.0 |
| 175° | 1.0 | 1.0 | 2.0 | 2.0 | 1.0 |
| 177.5° | 1.0 | 1.0 | 2.0 | 1.0 | 1.0 |
| 180° | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |



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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 | 20.28 | 21.68 | 20.69 | 22.05 | 22.44 | 16.60 | 18.00 | 17.02 | 18.38 | 18.77 |
| | 3H | 21.34 | 22.60 | 21.77 | 22.99 | 23.42 | 17.78 | 19.03 | 18.21 | 19.43 | 19.86 |
| | 4H | 21.64 | 22.81 | 22.09 | 23.22 | 23.67 | 18.31 | 19.48 | 18.76 | 19.89 | 20.34 |
| | 6H | 21.77 | 22.85 | 22.23 | 23.28 | 23.74 | 18.84 | 19.93 | 19.31 | 20.35 | 20.82 |
| | 8H | 21.78 | 22.81 | 22.26 | 23.26 | 23.73 | 19.12 | 20.15 | 19.60 | 20.60 | 21.07 |
| | 12H | 21.77 | 22.75 | 22.25 | 23.20 | 23.70 | 19.42 | 20.40 | 19.90 | 20.84 | 21.34 |
| 4H | 2H | 20.31 | 21.48 | 20.76 | 21.89 | 22.34 | 17.06 | 18.23 | 17.51 | 18.64 | 19.09 |
| | 3H | 21.53 | 22.50 | 21.99 | 22.96 | 23.43 | 18.42 | 19.39 | 18.88 | 19.85 | 20.32 |
| | 4H | 21.91 | 22.78 | 22.39 | 23.26 | 23.77 | 19.05 | 19.93 | 19.54 | 20.40 | 20.91 |
| | 6H | 22.13 | 22.89 | 22.64 | 23.39 | 23.92 | 19.72 | 20.48 | 20.23 | 20.98 | 21.51 |
| | 8H | 22.16 | 22.87 | 22.68 | 23.37 | 23.91 | 20.07 | 20.78 | 20.58 | 21.28 | 21.81 |
| | 12H | 22.17 | 22.80 | 22.70 | 23.33 | 23.87 | 20.45 | 21.08 | 20.98 | 21.61 | 22.15 |
| 8H | 4H | 21.93 | 22.64 | 22.44 | 23.14 | 23.68 | 19.27 | 19.98 | 19.78 | 20.48 | 21.02 |
| | 6H | 22.20 | 22.79 | 22.75 | 23.34 | 23.88 | 20.06 | 20.64 | 20.60 | 21.19 | 21.73 |
| | 8H | 22.27 | 22.80 | 22.83 | 23.36 | 23.92 | 20.49 | 21.02 | 21.05 | 21.58 | 22.14 |
| | 12H | 22.31 | 22.78 | 22.87 | 23.32 | 23.95 | 21.00 | 21.46 | 21.55 | 22.01 | 22.64 |
| 12H | 4H | 21.92 | 22.55 | 22.45 | 23.08 | 23.62 | 19.28 | 19.91 | 19.81 | 20.44 | 20.98 |
| | 6H | 22.20 | 22.73 | 22.76 | 23.29 | 23.85 | 20.09 | 20.62 | 20.65 | 21.18 | 21.73 |
| | 8H | 22.30 | 22.77 | 22.86 | 23.32 | 23.95 | 20.58 | 21.05 | 21.14 | 21.60 | 22.23 |