

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: P893757

Luminaire Tested: 4MB-6SL-LVRA-UNV-L930

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P893757
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2404-077-26)
Test Lab: INNOVATION CENTER
Issue Date: 11/11/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: METALUX
Catalog Number: 4MB-6SL-LVRA-UNV-L930
Description: 6000 Lumen 4FT MICROBAY LINEAR BAY with LOUVER WITH AISLE OPTIC, 90CRI, 3000K CCT
Light Source: -
Ballast/Driver: -

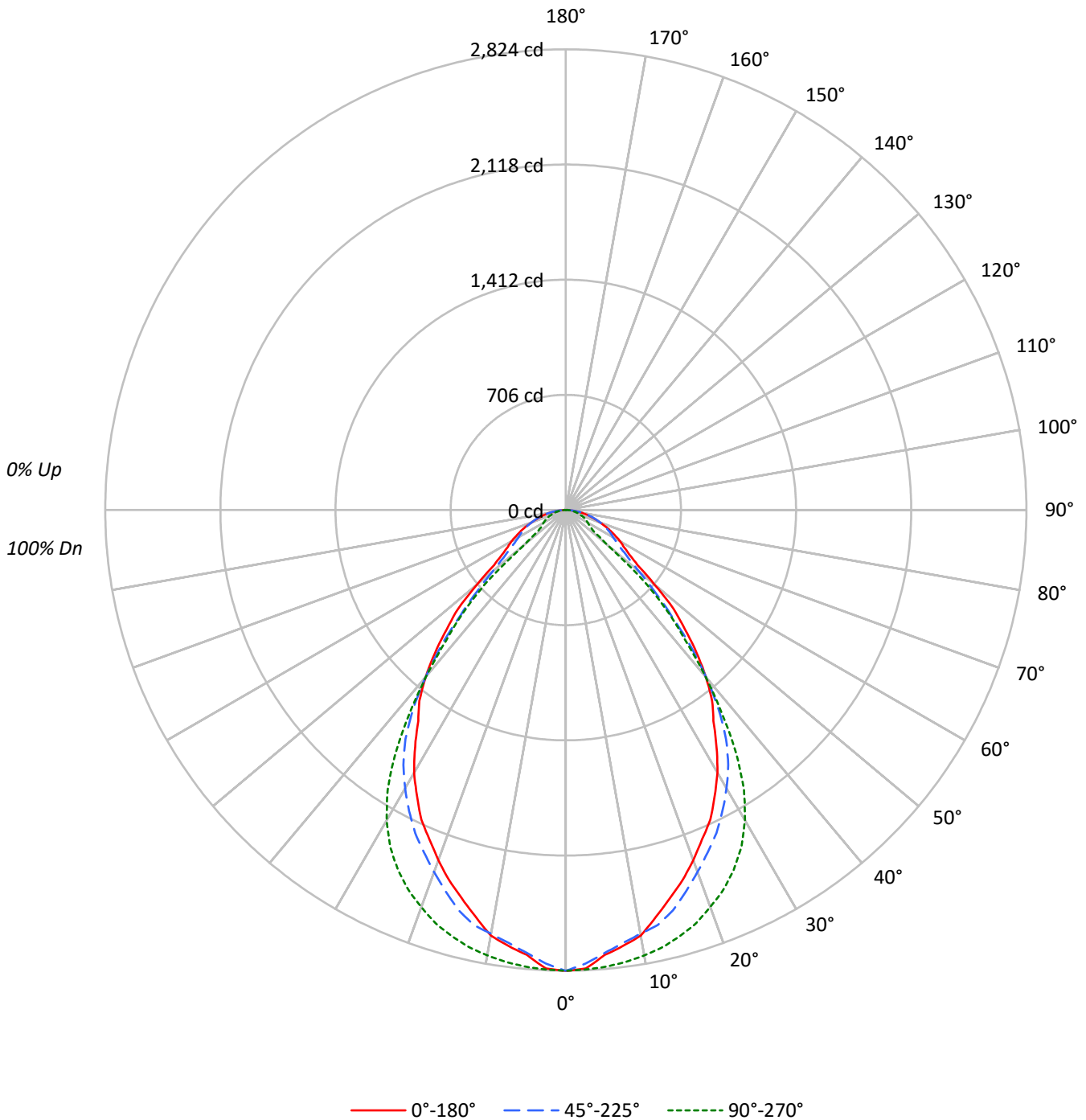
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4584.0 lumens
Efficiency: N/A
Efficacy: 103.2 lumens/watt
Spacing Criteria (0/90/45): 1.02 / 1.16 / 1.12
Luminous Opening: Rectangular (W 0.38' x L: 3.98' x H: 0')
CIE Type: Direct

Input Watts (W): 44.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: 0.99
Total Harmonic Distortion (THDi): 4
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 | 50 | 30 | 10 |
| RCR | | | | | | | | | | | | | | | | | | | | |
| 0 | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 | 106 | 106 | 106 | 102 | 102 | 102 | 100 | | |
| 1 | 111 | 107 | 104 | 101 | 108 | 105 | 102 | 99 | 101 | 98 | 96 | 97 | 95 | 93 | 93 | 92 | 90 | 88 | | |
| 2 | 103 | 96 | 91 | 86 | 101 | 95 | 90 | 85 | 91 | 87 | 83 | 88 | 85 | 82 | 85 | 82 | 80 | 78 | | |
| 3 | 96 | 87 | 80 | 75 | 94 | 86 | 80 | 75 | 83 | 78 | 73 | 80 | 76 | 72 | 78 | 74 | 71 | 69 | | |
| 4 | 89 | 79 | 72 | 66 | 87 | 78 | 71 | 66 | 76 | 70 | 65 | 73 | 68 | 64 | 71 | 67 | 63 | 62 | | |
| 5 | 83 | 72 | 65 | 59 | 81 | 71 | 64 | 59 | 69 | 63 | 58 | 67 | 62 | 58 | 66 | 61 | 57 | 55 | | |
| 6 | 78 | 66 | 59 | 53 | 76 | 65 | 58 | 53 | 64 | 57 | 53 | 62 | 57 | 52 | 61 | 56 | 52 | 50 | | |
| 7 | 73 | 61 | 54 | 48 | 71 | 60 | 53 | 48 | 59 | 52 | 48 | 58 | 52 | 47 | 56 | 51 | 47 | 45 | | |
| 8 | 68 | 57 | 49 | 44 | 67 | 56 | 49 | 44 | 55 | 48 | 44 | 53 | 48 | 43 | 52 | 47 | 43 | 41 | | |
| 9 | 64 | 52 | 45 | 40 | 63 | 52 | 45 | 40 | 51 | 44 | 40 | 50 | 44 | 40 | 49 | 44 | 40 | 38 | | |
| 10 | 61 | 49 | 42 | 37 | 60 | 48 | 42 | 37 | 47 | 41 | 37 | 47 | 41 | 37 | 46 | 40 | 37 | 35 | | |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|-------|-------|-------|
| 0° | 20096 | 20096 | 20096 |
| 5° | 19554 | 19466 | 20074 |
| 10° | 19138 | 19055 | 20028 |
| 15° | 18151 | 18708 | 19915 |
| 20° | 17291 | 17875 | 19611 |
| 25° | 16448 | 17150 | 19111 |
| 30° | 15280 | 16190 | 18043 |
| 35° | 13702 | 14878 | 15826 |
| 40° | 12413 | 12440 | 12373 |
| 45° | 10379 | 9193 | 8965 |
| 50° | 7840 | 6470 | 3666 |
| 55° | 5897 | 5174 | 2312 |
| 60° | 5480 | 4766 | 2227 |
| 65° | 5098 | 4754 | 2231 |
| 70° | 4664 | 4664 | 2197 |
| 75° | 4423 | 4541 | 2122 |
| 80° | 4085 | 4294 | 2176 |
| 85° | 3567 | 3747 | 2376 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
 Vertical Angle: 45°
 Luminance: 10621 cd/sqm



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 260.9 | 5.7 |
| 10°-20° | 718.9 | 15.7 |
| 20°-30° | 1019.4 | 22.2 |
| 30°-40° | 1050.2 | 22.9 |
| 40°-50° | 733.5 | 16.0 |
| 50°-60° | 352.0 | 7.7 |
| 60°-70° | 246.9 | 5.4 |
| 70°-80° | 154.4 | 3.4 |
| 80°-90° | 47.8 | 1.0 |
| 90°-100° | 0.0 | 0.0 |
| 100°-110° | 0.0 | 0.0 |
| 110°-120° | 0.0 | 0.0 |
| 120°-130° | 0.0 | 0.0 |
| 130°-140° | 0.0 | 0.0 |
| 140°-150° | 0.0 | 0.0 |
| 150°-160° | 0.0 | 0.0 |
| 160°-170° | 0.0 | 0.0 |
| 170°-180° | 0.0 | 0.0 |
| 0°-30° | 1999.2 | 43.6 |
| 0°-40° | 3049.4 | 66.5 |
| 0°-60° | 4134.9 | 90.2 |
| 0°-90° | 4584.0 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 4584.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|------|-------|------|-------|------|------|
| 0° | 2824 | 2824 | 2824 | 2824 | 2824 | |
| 5° | 2738 | 2734 | 2726 | 2797 | 2811 | 259 |
| 15° | 2464 | 2482 | 2540 | 2613 | 2704 | 694 |
| 25° | 2095 | 2116 | 2185 | 2332 | 2434 | 958 |
| 35° | 1578 | 1620 | 1713 | 1748 | 1822 | 994 |
| 45° | 1032 | 1056 | 914 | 867 | 891 | 795 |
| 55° | 475 | 452 | 417 | 267 | 186 | 445 |
| 65° | 303 | 283 | 282 | 215 | 132 | 300 |
| 75° | 161 | 159 | 165 | 143 | 77 | 169 |
| 85° | 44 | 44 | 46 | 45 | 29 | 49 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P893757

CATALOG NUMBER: 4MB-6SL-LVRA-UNV-L930

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|--------|--------|--------|--------|--------|
| 0° | 2824.5 | 2824.5 | 2824.5 | 2824.5 | 2824.5 |
| 2.5° | 2813.5 | 2804.8 | 2783.7 | 2822.3 | 2819.4 |
| 5° | 2737.8 | 2734.2 | 2725.5 | 2796.8 | 2810.6 |
| 7.5° | 2694.9 | 2687.6 | 2677.4 | 2756.0 | 2794.6 |
| 10° | 2649.0 | 2657.8 | 2637.4 | 2709.4 | 2772.1 |
| 12.5° | 2554.4 | 2577.7 | 2605.4 | 2661.4 | 2744.4 |
| 15° | 2464.1 | 2482.3 | 2539.8 | 2612.6 | 2703.6 |
| 17.5° | 2379.7 | 2400.8 | 2450.3 | 2559.5 | 2656.3 |
| 20° | 2283.6 | 2312.7 | 2360.8 | 2500.5 | 2590.1 |
| 22.5° | 2184.6 | 2211.5 | 2271.9 | 2421.9 | 2521.6 |
| 25° | 2095.1 | 2116.2 | 2184.6 | 2332.4 | 2434.3 |
| 27.5° | 1976.4 | 2015.7 | 2080.5 | 2223.2 | 2330.2 |
| 30° | 1859.9 | 1893.4 | 1970.6 | 2090.7 | 2196.2 |
| 32.5° | 1719.4 | 1768.2 | 1853.4 | 1945.1 | 2033.2 |
| 35° | 1577.5 | 1620.4 | 1712.9 | 1748.5 | 1822.1 |
| 37.5° | 1474.1 | 1485.8 | 1538.2 | 1533.8 | 1575.3 |
| 40° | 1336.5 | 1359.8 | 1339.4 | 1284.8 | 1332.2 |
| 42.5° | 1188.0 | 1215.7 | 1133.4 | 1070.1 | 1086.8 |
| 45° | 1031.5 | 1055.5 | 913.6 | 867.0 | 891.0 |
| 47.5° | 896.1 | 893.9 | 736.7 | 705.4 | 671.9 |
| 50° | 708.3 | 731.6 | 584.5 | 526.3 | 331.2 |
| 52.5° | 553.2 | 562.0 | 481.9 | 336.3 | 217.7 |
| 55° | 475.4 | 452.1 | 417.1 | 267.2 | 186.4 |
| 57.5° | 422.2 | 393.1 | 369.8 | 248.2 | 170.3 |
| 60° | 385.1 | 352.3 | 334.9 | 235.9 | 156.5 |
| 62.5° | 342.9 | 317.4 | 310.8 | 224.9 | 144.1 |
| 65° | 302.8 | 283.2 | 282.4 | 214.7 | 132.5 |
| 67.5° | 262.8 | 251.9 | 254.8 | 202.4 | 119.4 |
| 70° | 224.2 | 222.0 | 224.2 | 186.4 | 105.6 |
| 72.5° | 191.5 | 189.3 | 195.1 | 166.0 | 90.3 |
| 75° | 160.9 | 158.7 | 165.2 | 142.7 | 77.2 |
| 77.5° | 128.1 | 129.6 | 133.9 | 118.7 | 64.8 |
| 80° | 99.7 | 99.7 | 104.8 | 93.2 | 53.1 |
| 82.5° | 71.3 | 72.1 | 75.0 | 68.4 | 41.5 |
| 85° | 43.7 | 43.7 | 45.9 | 45.1 | 29.1 |
| 87.5° | 14.6 | 16.7 | 19.7 | 21.1 | 14.6 |
| 90° | 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 | 16.07 | 17.43 | 16.44 | 17.74 | 18.05 | 12.40 | 13.76 | 12.77 | 14.07 | 14.38 |
| | 3H | 17.81 | 19.02 | 18.19 | 19.35 | 19.71 | 14.38 | 15.59 | 14.76 | 15.92 | 16.28 |
| | 4H | 18.48 | 19.61 | 18.88 | 19.96 | 20.34 | 15.08 | 16.21 | 15.49 | 16.56 | 16.95 |
| | 6H | 18.99 | 20.03 | 19.40 | 20.40 | 20.79 | 15.61 | 16.65 | 16.02 | 17.02 | 17.41 |
| | 8H | 19.16 | 20.14 | 19.59 | 20.54 | 20.94 | 15.79 | 16.78 | 16.22 | 17.17 | 17.57 |
| | 12H | 19.27 | 20.21 | 19.70 | 20.59 | 21.02 | 15.93 | 16.87 | 16.36 | 17.26 | 17.69 |
| 4H | 2H | 16.60 | 17.73 | 17.00 | 18.08 | 18.46 | 14.02 | 15.15 | 14.43 | 15.50 | 15.89 |
| | 3H | 18.58 | 19.51 | 18.99 | 19.91 | 20.32 | 16.20 | 17.13 | 16.62 | 17.54 | 17.94 |
| | 4H | 19.38 | 20.22 | 19.82 | 20.64 | 21.08 | 17.08 | 17.92 | 17.52 | 18.34 | 18.78 |
| | 6H | 20.02 | 20.75 | 20.49 | 21.19 | 21.66 | 17.73 | 18.45 | 18.19 | 18.90 | 19.36 |
| | 8H | 20.24 | 20.92 | 20.71 | 21.37 | 21.84 | 17.94 | 18.61 | 18.40 | 19.06 | 19.53 |
| | 12H | 20.40 | 21.00 | 20.88 | 21.48 | 21.95 | 18.09 | 18.69 | 18.58 | 19.18 | 19.65 |
| 8H | 4H | 19.67 | 20.34 | 20.13 | 20.79 | 21.26 | 17.73 | 18.41 | 18.20 | 18.86 | 19.33 |
| | 6H | 20.45 | 21.00 | 20.95 | 21.50 | 21.98 | 18.59 | 19.15 | 19.09 | 19.64 | 20.13 |
| | 8H | 20.75 | 21.25 | 21.27 | 21.76 | 22.25 | 18.92 | 19.42 | 19.44 | 19.93 | 20.43 |
| | 12H | 20.99 | 21.43 | 21.50 | 21.92 | 22.49 | 19.19 | 19.63 | 19.70 | 20.12 | 20.69 |
| 12H | 4H | 19.68 | 20.28 | 20.17 | 20.76 | 21.24 | 17.81 | 18.41 | 18.29 | 18.89 | 19.36 |
| | 6H | 20.50 | 21.00 | 21.02 | 21.51 | 22.01 | 18.73 | 19.23 | 19.25 | 19.74 | 20.24 |
| | 8H | 20.87 | 21.31 | 21.38 | 21.80 | 22.37 | 19.14 | 19.59 | 19.66 | 20.08 | 20.65 |