

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: P894249

Luminaire Tested: 4MB-SC3-LVRA-UNV-CC83-MID-3500K

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P894249
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-SC3-LVRA-UNV-CC83-MID-3500K
Description: Selectable 4FT MICROBAY LINEAR BAY with LOUVER WITH AISLE OPTIC, 80CRI, 3500K CCT, MI lumen setting
Light Source: -
Ballast/Driver: -

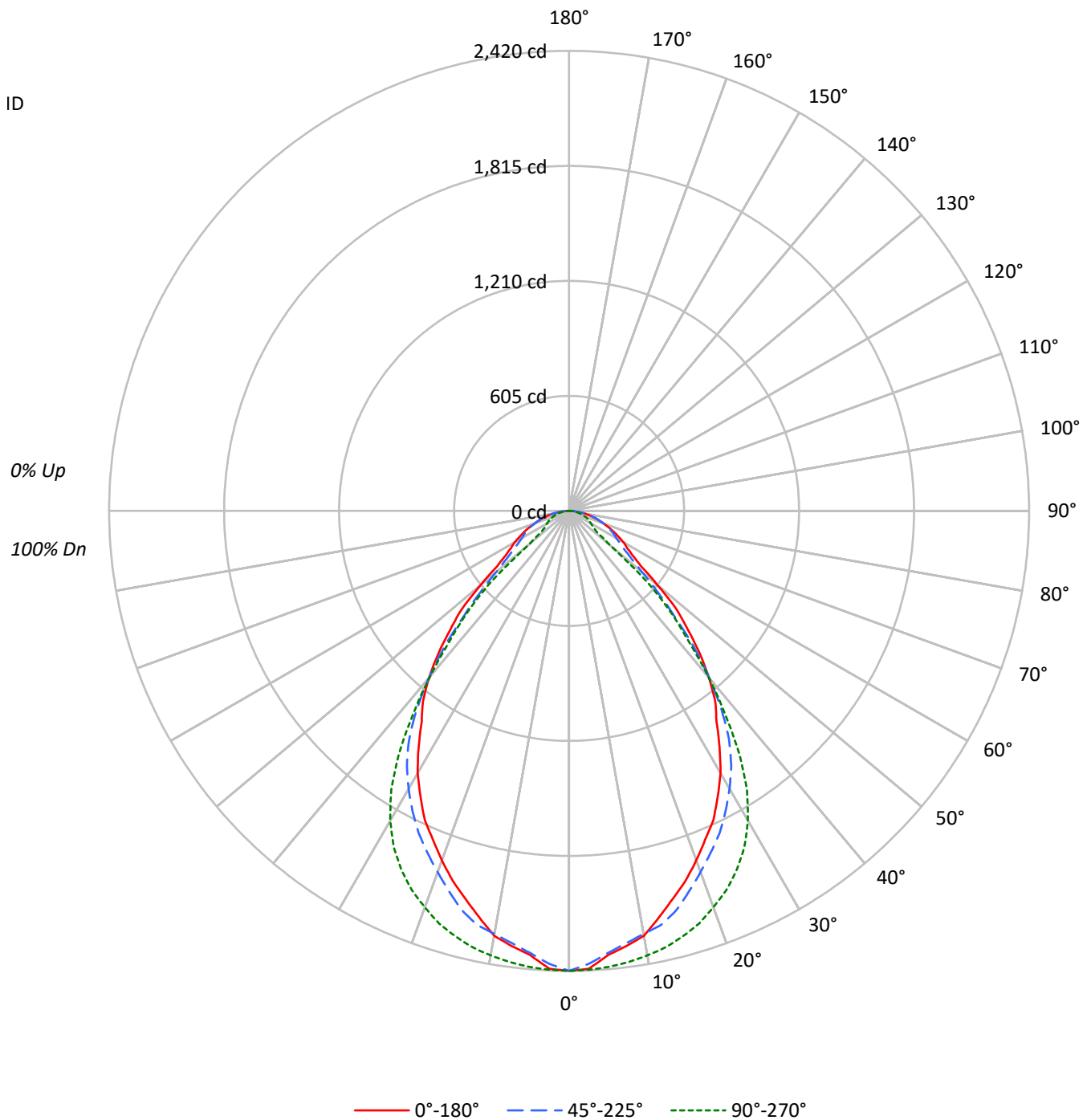
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3927.0 lumens
Efficiency: N/A
Efficacy: 117.2 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): 33.5
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: 0.9948
Total Harmonic Distortion (THDi): 5.65231997856897
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 | 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 | 104 | 101 | 108 | 105 | 102 | 99 | 101 | 98 | 96 | 97 | 95 | 93 | 93 | 92 | 90 | 90 | 90 | 90 | 88 |
| 2 | 103 | 96 | 91 | 86 | 101 | 95 | 90 | 85 | 91 | 87 | 83 | 88 | 85 | 82 | 85 | 82 | 80 | 80 | 80 | 80 | 78 |
| 3 | 96 | 87 | 80 | 75 | 94 | 86 | 80 | 75 | 83 | 78 | 73 | 80 | 76 | 72 | 78 | 74 | 71 | 71 | 71 | 71 | 69 |
| 4 | 89 | 79 | 72 | 66 | 87 | 78 | 71 | 66 | 76 | 70 | 65 | 73 | 68 | 64 | 71 | 67 | 63 | 63 | 63 | 63 | 62 |
| 5 | 83 | 72 | 65 | 59 | 81 | 71 | 64 | 59 | 69 | 63 | 58 | 67 | 62 | 58 | 66 | 61 | 57 | 57 | 57 | 57 | 55 |
| 6 | 78 | 66 | 59 | 53 | 76 | 65 | 58 | 53 | 64 | 57 | 53 | 62 | 57 | 52 | 61 | 56 | 52 | 52 | 52 | 52 | 50 |
| 7 | 73 | 61 | 54 | 48 | 71 | 60 | 53 | 48 | 59 | 52 | 48 | 58 | 52 | 47 | 56 | 51 | 47 | 47 | 47 | 47 | 45 |
| 8 | 68 | 57 | 49 | 44 | 67 | 56 | 49 | 44 | 55 | 48 | 44 | 53 | 48 | 43 | 52 | 47 | 43 | 43 | 43 | 43 | 41 |
| 9 | 64 | 52 | 45 | 40 | 63 | 52 | 45 | 40 | 51 | 44 | 40 | 50 | 44 | 40 | 49 | 44 | 40 | 40 | 40 | 40 | 38 |
| 10 | 61 | 49 | 42 | 37 | 60 | 48 | 42 | 37 | 47 | 41 | 37 | 47 | 41 | 37 | 46 | 40 | 37 | 37 | 37 | 37 | 35 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|-------|-------|-------|
| 0° | 17216 | 17216 | 17216 |
| 5° | 16751 | 16676 | 17197 |
| 10° | 16396 | 16324 | 17157 |
| 15° | 15550 | 16027 | 17060 |
| 20° | 14812 | 15313 | 16800 |
| 25° | 14090 | 14692 | 16371 |
| 30° | 13091 | 13869 | 15458 |
| 35° | 11738 | 12746 | 13558 |
| 40° | 10635 | 10658 | 10599 |
| 45° | 8892 | 7875 | 7680 |
| 50° | 6717 | 5543 | 3140 |
| 55° | 5051 | 4432 | 1980 |
| 60° | 4694 | 4083 | 1908 |
| 65° | 4367 | 4074 | 1911 |
| 70° | 3996 | 3996 | 1881 |
| 75° | 3788 | 3893 | 1817 |
| 80° | 3499 | 3679 | 1864 |
| 85° | 3053 | 3208 | 2033 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
 Vertical Angle: 45°
 Luminance: 9099 cd/sqm



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 223.5 | 5.7 |
| 10°-20° | 615.9 | 15.7 |
| 20°-30° | 873.3 | 22.2 |
| 30°-40° | 899.7 | 22.9 |
| 40°-50° | 628.4 | 16.0 |
| 50°-60° | 301.5 | 7.7 |
| 60°-70° | 211.6 | 5.4 |
| 70°-80° | 132.3 | 3.4 |
| 80°-90° | 40.9 | 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° | 1712.7 | 43.6 |
| 0°-40° | 2612.3 | 66.5 |
| 0°-60° | 3542.3 | 90.2 |
| 0°-90° | 3927.0 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 3927.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|------|-------|------|-------|------|------|
| 0° | 2420 | 2420 | 2420 | 2420 | 2420 | |
| 5° | 2345 | 2342 | 2335 | 2396 | 2408 | 222 |
| 15° | 2111 | 2126 | 2176 | 2238 | 2316 | 594 |
| 25° | 1795 | 1813 | 1872 | 1998 | 2085 | 821 |
| 35° | 1351 | 1388 | 1467 | 1498 | 1561 | 852 |
| 45° | 884 | 904 | 783 | 743 | 763 | 681 |
| 55° | 407 | 387 | 357 | 229 | 160 | 382 |
| 65° | 259 | 243 | 242 | 184 | 114 | 257 |
| 75° | 138 | 136 | 142 | 122 | 66 | 145 |
| 85° | 37 | 37 | 39 | 39 | 25 | 42 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P894249

CATALOG NUMBER: 4MB-SC3-LVRA-UNV-CC83-MID-3500K

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|--------|--------|--------|--------|--------|
| 0° | 2419.7 | 2419.7 | 2419.7 | 2419.7 | 2419.7 |
| 2.5° | 2410.3 | 2402.8 | 2384.7 | 2417.8 | 2415.3 |
| 5° | 2345.4 | 2342.3 | 2334.8 | 2396.0 | 2407.8 |
| 7.5° | 2308.6 | 2302.4 | 2293.7 | 2361.0 | 2394.1 |
| 10° | 2269.4 | 2276.8 | 2259.4 | 2321.1 | 2374.7 |
| 12.5° | 2188.3 | 2208.2 | 2231.9 | 2280.0 | 2351.1 |
| 15° | 2111.0 | 2126.5 | 2175.8 | 2238.2 | 2316.1 |
| 17.5° | 2038.6 | 2056.7 | 2099.1 | 2192.7 | 2275.6 |
| 20° | 1956.3 | 1981.2 | 2022.4 | 2142.1 | 2218.8 |
| 22.5° | 1871.5 | 1894.6 | 1946.3 | 2074.8 | 2160.2 |
| 25° | 1794.8 | 1812.9 | 1871.5 | 1998.1 | 2085.4 |
| 27.5° | 1693.1 | 1726.8 | 1782.3 | 1904.5 | 1996.2 |
| 30° | 1593.4 | 1622.0 | 1688.1 | 1791.0 | 1881.5 |
| 32.5° | 1473.0 | 1514.8 | 1587.7 | 1666.3 | 1741.8 |
| 35° | 1351.4 | 1388.2 | 1467.4 | 1497.9 | 1560.9 |
| 37.5° | 1262.8 | 1272.8 | 1317.7 | 1314.0 | 1349.5 |
| 40° | 1145.0 | 1164.9 | 1147.5 | 1100.7 | 1141.2 |
| 42.5° | 1017.7 | 1041.4 | 971.0 | 916.7 | 931.1 |
| 45° | 883.7 | 904.3 | 782.6 | 742.7 | 763.3 |
| 47.5° | 767.7 | 765.8 | 631.1 | 604.3 | 575.6 |
| 50° | 606.8 | 626.7 | 500.8 | 450.9 | 283.7 |
| 52.5° | 474.0 | 481.4 | 412.8 | 288.1 | 186.5 |
| 55° | 407.2 | 387.3 | 357.3 | 228.9 | 159.6 |
| 57.5° | 361.7 | 336.8 | 316.8 | 212.7 | 145.9 |
| 60° | 329.9 | 301.8 | 286.9 | 202.1 | 134.1 |
| 62.5° | 293.7 | 271.9 | 266.3 | 192.7 | 123.5 |
| 65° | 259.4 | 242.6 | 242.0 | 184.0 | 113.5 |
| 67.5° | 225.1 | 215.8 | 218.3 | 173.4 | 102.3 |
| 70° | 192.1 | 190.2 | 192.1 | 159.6 | 90.4 |
| 72.5° | 164.0 | 162.1 | 167.1 | 142.2 | 77.3 |
| 75° | 137.8 | 135.9 | 141.6 | 122.2 | 66.1 |
| 77.5° | 109.8 | 111.0 | 114.7 | 101.7 | 55.5 |
| 80° | 85.4 | 85.4 | 89.8 | 79.8 | 45.5 |
| 82.5° | 61.1 | 61.7 | 64.2 | 58.6 | 35.5 |
| 85° | 37.4 | 37.4 | 39.3 | 38.7 | 24.9 |
| 87.5° | 12.5 | 14.3 | 16.8 | 18.1 | 12.5 |
| 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 | 15.54 | 16.89 | 15.90 | 17.20 | 17.52 | 11.87 | 13.22 | 12.23 | 13.53 | 13.85 |
| | 3H | 17.27 | 18.48 | 17.65 | 18.81 | 19.17 | 13.84 | 15.05 | 14.22 | 15.38 | 15.74 |
| | 4H | 17.94 | 19.07 | 18.35 | 19.42 | 19.80 | 14.55 | 15.67 | 14.95 | 16.03 | 16.41 |
| | 6H | 18.45 | 19.49 | 18.87 | 19.86 | 20.25 | 15.07 | 16.11 | 15.48 | 16.48 | 16.87 |
| | 8H | 18.62 | 19.61 | 19.05 | 20.00 | 20.40 | 15.25 | 16.24 | 15.68 | 16.63 | 17.04 |
| | 12H | 18.73 | 19.67 | 19.16 | 20.06 | 20.49 | 15.39 | 16.34 | 15.83 | 16.72 | 17.15 |
| 4H | 2H | 16.07 | 17.19 | 16.47 | 17.54 | 17.93 | 13.49 | 14.62 | 13.89 | 14.97 | 15.35 |
| | 3H | 18.04 | 18.97 | 18.45 | 19.38 | 19.78 | 15.67 | 16.60 | 16.08 | 17.00 | 17.40 |
| | 4H | 18.84 | 19.68 | 19.28 | 20.10 | 20.54 | 16.55 | 17.38 | 16.98 | 17.80 | 18.24 |
| | 6H | 19.49 | 20.21 | 19.95 | 20.66 | 21.12 | 17.19 | 17.91 | 17.65 | 18.36 | 18.82 |
| | 8H | 19.71 | 20.38 | 20.17 | 20.83 | 21.30 | 17.40 | 18.07 | 17.87 | 18.52 | 18.99 |
| | 12H | 19.86 | 20.46 | 20.35 | 20.94 | 21.42 | 17.56 | 18.16 | 18.04 | 18.64 | 19.11 |
| 8H | 4H | 19.13 | 19.80 | 19.60 | 20.25 | 20.72 | 17.20 | 17.87 | 17.66 | 18.32 | 18.79 |
| | 6H | 19.91 | 20.47 | 20.41 | 20.96 | 21.44 | 18.06 | 18.61 | 18.56 | 19.11 | 19.59 |
| | 8H | 20.21 | 20.71 | 20.73 | 21.23 | 21.72 | 18.38 | 18.88 | 18.90 | 19.40 | 19.89 |
| | 12H | 20.45 | 20.89 | 20.96 | 21.38 | 21.95 | 18.65 | 19.09 | 19.16 | 19.58 | 20.15 |
| 12H | 4H | 19.14 | 19.74 | 19.63 | 20.23 | 20.70 | 17.27 | 17.87 | 17.75 | 18.35 | 18.82 |
| | 6H | 19.96 | 20.46 | 20.48 | 20.98 | 21.47 | 18.19 | 18.69 | 18.71 | 19.21 | 19.70 |
| | 8H | 20.33 | 20.77 | 20.84 | 21.26 | 21.83 | 18.61 | 19.05 | 19.12 | 19.54 | 20.11 |