

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: P895005

Luminaire Tested: 8TMB-4SL-LVR-UNV-L830

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P895005
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2407-175-8)
Test Lab: INNOVATION CENTER
Issue Date: 11/11/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: METALUX
Catalog Number: 8TMB-4SL-LVR-UNV-L830
Description: 4000 Lumen 8FT MICROBAY LINEAR BAY with LOUVER, 80CRI, 3000K CCT
Light Source: -
Ballast/Driver: -

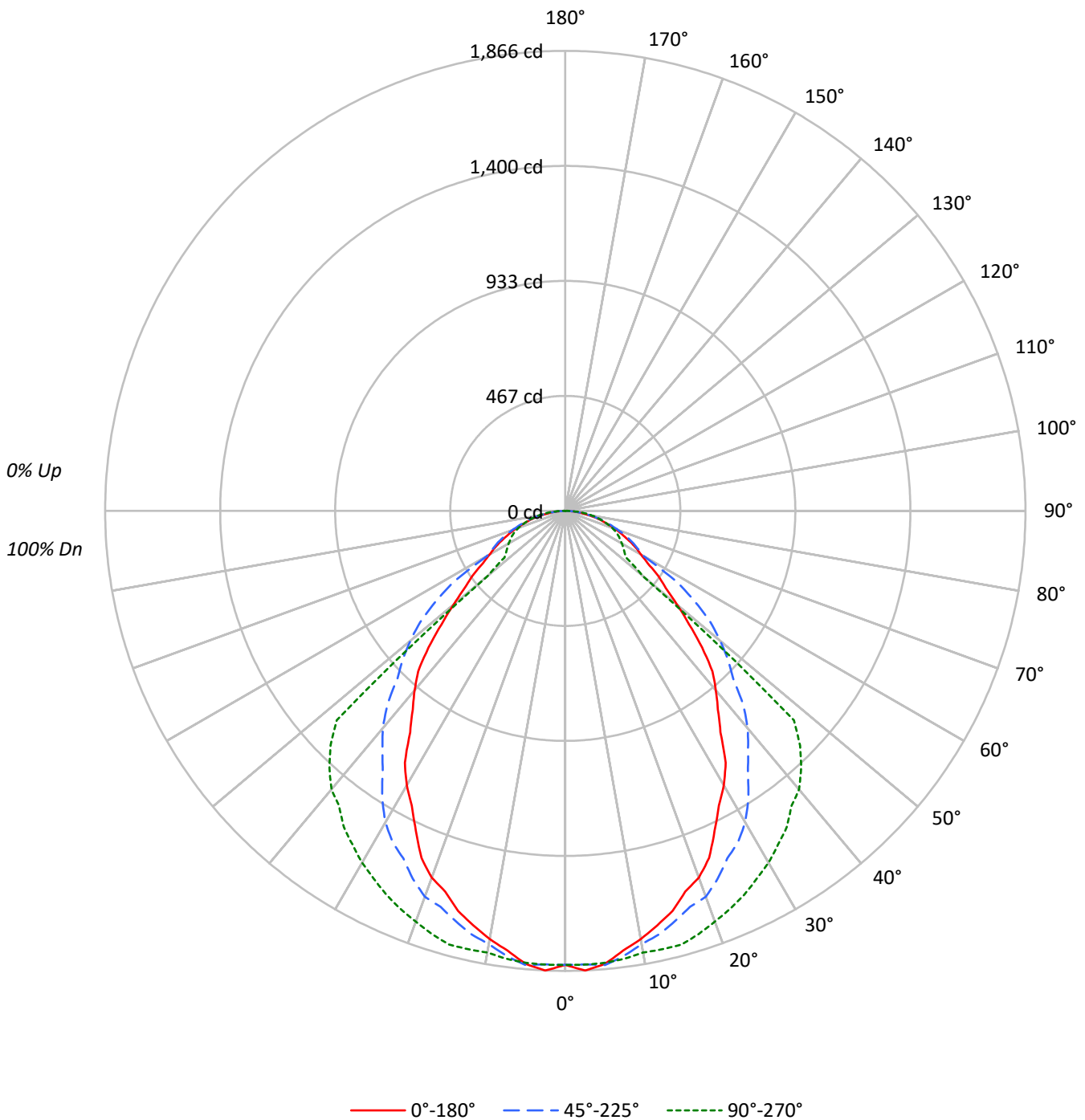
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3930.0 lumens
Efficiency: N/A
Efficacy: 142.4 lumens/watt
Spacing Criteria (0/90/45): 1.06 / 1.32 / 1.27
Luminous Opening: Rectangular (W 0.38' x L: 7.98' x H: 0')
CIE Type: Direct

Input Watts (W): 27.6
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: 0.99
Total Harmonic Distortion (THDi): 4.5
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





TEST NUMBER: P895005

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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 | 110 | 106 | 102 | 99 | 108 | 104 | 100 | 97 | 100 | 97 | 94 | 96 | 93 | 91 | 92 | 90 | 89 | 89 | 89 | 89 | 87 |
| 2 | 102 | 94 | 88 | 83 | 99 | 92 | 87 | 82 | 89 | 84 | 80 | 86 | 82 | 79 | 83 | 80 | 77 | 77 | 77 | 77 | 75 |
| 3 | 94 | 84 | 77 | 71 | 91 | 83 | 76 | 71 | 80 | 74 | 69 | 77 | 72 | 68 | 75 | 71 | 67 | 67 | 67 | 67 | 65 |
| 4 | 87 | 76 | 68 | 62 | 84 | 74 | 67 | 61 | 72 | 66 | 61 | 70 | 64 | 60 | 68 | 63 | 59 | 59 | 59 | 59 | 57 |
| 5 | 80 | 68 | 60 | 54 | 78 | 67 | 60 | 54 | 65 | 59 | 53 | 63 | 58 | 53 | 62 | 57 | 52 | 52 | 52 | 52 | 50 |
| 6 | 75 | 62 | 54 | 48 | 73 | 61 | 54 | 48 | 60 | 53 | 48 | 58 | 52 | 47 | 56 | 51 | 47 | 47 | 47 | 47 | 45 |
| 7 | 69 | 57 | 49 | 43 | 68 | 56 | 48 | 43 | 55 | 48 | 43 | 53 | 47 | 42 | 52 | 46 | 42 | 42 | 42 | 42 | 40 |
| 8 | 65 | 52 | 44 | 39 | 63 | 52 | 44 | 39 | 50 | 43 | 39 | 49 | 43 | 38 | 48 | 42 | 38 | 38 | 38 | 38 | 36 |
| 9 | 61 | 48 | 40 | 35 | 59 | 48 | 40 | 35 | 47 | 40 | 35 | 45 | 39 | 35 | 44 | 39 | 35 | 35 | 35 | 35 | 33 |
| 10 | 57 | 45 | 37 | 32 | 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° | 6534 | 6534 | 6534 |
| 5° | 6569 | 6586 | 6552 |
| 10° | 6354 | 6428 | 6554 |
| 15° | 6170 | 6326 | 6689 |
| 20° | 5977 | 6289 | 6694 |
| 25° | 5608 | 6087 | 6724 |
| 30° | 5268 | 5977 | 6752 |
| 35° | 4750 | 5589 | 6783 |
| 40° | 4400 | 5332 | 6831 |
| 45° | 3936 | 4833 | 6753 |
| 50° | 3266 | 4527 | 2269 |
| 55° | 2845 | 3974 | 1816 |
| 60° | 2516 | 2589 | 1882 |
| 65° | 2393 | 2519 | 1998 |
| 70° | 2244 | 2381 | 2108 |
| 75° | 2089 | 2244 | 2166 |
| 80° | 1902 | 2115 | 2268 |
| 85° | 1685 | 1799 | 2451 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 6753 cd/sqm



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 174.7 | 4.4 |
| 10°-20° | 491.4 | 12.5 |
| 20°-30° | 722.9 | 18.4 |
| 30°-40° | 826.7 | 21.0 |
| 40°-50° | 782.8 | 19.9 |
| 50°-60° | 431.3 | 11.0 |
| 60°-70° | 276.9 | 7.0 |
| 70°-80° | 170.9 | 4.3 |
| 80°-90° | 52.6 | 1.3 |
| 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° | 1388.9 | 35.3 |
| 0°-40° | 2215.6 | 56.4 |
| 0°-60° | 3429.6 | 87.3 |
| 0°-90° | 3930.0 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 3930.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|------|-------|------|-------|------|------|
| 0° | 1842 | 1842 | 1842 | 1842 | 1842 | |
| 5° | 1844 | 1860 | 1849 | 1849 | 1840 | 173 |
| 15° | 1680 | 1700 | 1722 | 1812 | 1821 | 472 |
| 25° | 1432 | 1496 | 1555 | 1656 | 1718 | 660 |
| 35° | 1097 | 1191 | 1290 | 1478 | 1566 | 693 |
| 45° | 784 | 859 | 963 | 1236 | 1346 | 600 |
| 55° | 460 | 482 | 642 | 331 | 294 | 411 |
| 65° | 285 | 294 | 300 | 267 | 238 | 282 |
| 75° | 152 | 155 | 164 | 172 | 158 | 162 |
| 85° | 41 | 41 | 44 | 51 | 60 | 46 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P895005
 CATALOG NUMBER: 8TMB-4SL-LVR-UNV-L830

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|--------|--------|--------|--------|--------|
| 0° | 1841.6 | 1841.6 | 1841.6 | 1841.6 | 1841.6 |
| 2.5° | 1866.1 | 1870.8 | 1840.7 | 1839.7 | 1842.5 |
| 5° | 1844.4 | 1859.5 | 1849.1 | 1849.1 | 1839.7 |
| 7.5° | 1798.3 | 1823.7 | 1820.9 | 1842.5 | 1832.2 |
| 10° | 1763.5 | 1784.2 | 1784.2 | 1840.7 | 1819.0 |
| 12.5° | 1722.2 | 1745.7 | 1758.8 | 1818.1 | 1820.9 |
| 15° | 1679.8 | 1700.5 | 1722.2 | 1812.4 | 1820.9 |
| 17.5° | 1618.7 | 1656.3 | 1683.6 | 1772.0 | 1799.3 |
| 20° | 1583.0 | 1605.5 | 1665.7 | 1737.2 | 1772.9 |
| 22.5° | 1523.7 | 1556.6 | 1614.9 | 1694.9 | 1747.5 |
| 25° | 1432.5 | 1496.4 | 1554.7 | 1656.3 | 1717.5 |
| 27.5° | 1347.8 | 1395.8 | 1516.2 | 1623.4 | 1681.7 |
| 30° | 1285.7 | 1323.4 | 1458.8 | 1575.4 | 1647.9 |
| 32.5° | 1210.5 | 1271.6 | 1381.7 | 1528.4 | 1605.5 |
| 35° | 1096.7 | 1190.7 | 1290.4 | 1477.6 | 1566.0 |
| 37.5° | 1016.7 | 1081.6 | 1217.1 | 1424.9 | 1506.8 |
| 40° | 950.0 | 1009.2 | 1151.2 | 1359.1 | 1474.8 |
| 42.5° | 883.2 | 931.1 | 1068.5 | 1310.2 | 1415.5 |
| 45° | 784.4 | 858.7 | 963.1 | 1235.9 | 1345.9 |
| 47.5° | 681.0 | 760.0 | 894.5 | 1172.9 | 1257.5 |
| 50° | 591.6 | 654.6 | 820.2 | 1047.8 | 411.0 |
| 52.5° | 513.5 | 571.9 | 741.2 | 379.0 | 310.4 |
| 55° | 459.9 | 482.5 | 642.4 | 331.1 | 293.5 |
| 57.5° | 396.0 | 432.7 | 538.9 | 315.1 | 278.4 |
| 60° | 354.6 | 370.6 | 364.9 | 299.1 | 265.2 |
| 62.5° | 321.7 | 333.0 | 331.1 | 283.1 | 250.2 |
| 65° | 285.0 | 294.4 | 300.0 | 267.1 | 238.0 |
| 67.5° | 248.3 | 256.8 | 265.2 | 247.4 | 221.0 |
| 70° | 216.3 | 222.0 | 229.5 | 223.9 | 203.2 |
| 72.5° | 183.4 | 190.0 | 194.7 | 199.4 | 179.6 |
| 75° | 152.4 | 155.2 | 163.7 | 172.1 | 158.0 |
| 77.5° | 124.2 | 127.0 | 132.6 | 142.0 | 134.5 |
| 80° | 93.1 | 95.9 | 103.5 | 111.0 | 111.0 |
| 82.5° | 65.8 | 67.7 | 72.4 | 82.8 | 87.5 |
| 85° | 41.4 | 41.4 | 44.2 | 50.8 | 60.2 |
| 87.5° | 16.0 | 16.0 | 18.8 | 22.6 | 30.1 |
| 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 | 14.47 | 15.95 | 14.84 | 16.27 | 16.58 | 12.27 | 13.76 | 12.64 | 14.07 | 14.38 |
| | 3H | 16.00 | 17.32 | 16.38 | 17.65 | 18.02 | 14.61 | 15.93 | 14.98 | 16.26 | 16.62 |
| | 4H | 16.59 | 17.83 | 16.99 | 18.18 | 18.56 | 15.55 | 16.80 | 15.95 | 17.15 | 17.53 |
| | 6H | 17.05 | 18.19 | 17.46 | 18.56 | 18.95 | 16.34 | 17.49 | 16.75 | 17.85 | 18.25 |
| | 8H | 17.19 | 18.28 | 17.62 | 18.67 | 19.08 | 16.65 | 17.74 | 17.08 | 18.13 | 18.53 |
| | 12H | 17.29 | 18.33 | 17.72 | 18.72 | 19.14 | 16.90 | 17.94 | 17.33 | 18.33 | 18.76 |
| 4H | 2H | 15.02 | 16.27 | 15.42 | 16.61 | 16.99 | 13.38 | 14.62 | 13.78 | 14.97 | 15.35 |
| | 3H | 16.79 | 17.82 | 17.21 | 18.22 | 18.63 | 15.82 | 16.85 | 16.24 | 17.25 | 17.66 |
| | 4H | 17.51 | 18.44 | 17.95 | 18.86 | 19.30 | 16.89 | 17.82 | 17.32 | 18.23 | 18.67 |
| | 6H | 18.10 | 18.91 | 18.56 | 19.35 | 19.81 | 17.78 | 18.58 | 18.24 | 19.03 | 19.49 |
| | 8H | 18.29 | 19.04 | 18.75 | 19.49 | 19.95 | 18.13 | 18.88 | 18.59 | 19.33 | 19.80 |
| | 12H | 18.43 | 19.10 | 18.91 | 19.58 | 20.05 | 18.42 | 19.09 | 18.90 | 19.57 | 20.04 |
| 8H | 4H | 17.82 | 18.57 | 18.29 | 19.02 | 19.49 | 17.28 | 18.03 | 17.74 | 18.47 | 18.94 |
| | 6H | 18.53 | 19.16 | 19.03 | 19.65 | 20.13 | 18.31 | 18.94 | 18.81 | 19.43 | 19.91 |
| | 8H | 18.79 | 19.36 | 19.31 | 19.87 | 20.36 | 18.76 | 19.32 | 19.27 | 19.83 | 20.32 |
| | 12H | 19.00 | 19.50 | 19.51 | 19.99 | 20.56 | 19.14 | 19.64 | 19.65 | 20.13 | 20.70 |
| 12H | 4H | 17.86 | 18.53 | 18.34 | 19.01 | 19.48 | 17.31 | 17.98 | 17.79 | 18.46 | 18.94 |
| | 6H | 18.60 | 19.16 | 19.11 | 19.67 | 20.16 | 18.38 | 18.94 | 18.89 | 19.45 | 19.94 |
| | 8H | 18.92 | 19.42 | 19.43 | 19.91 | 20.47 | 18.88 | 19.38 | 19.39 | 19.88 | 20.44 |