

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: P894620

Luminaire Tested: 8TMB-14HL-LVRA-UNV-L950

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P894620
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: 8TMB-14HL-LVRA-UNV-L950
Description: 14000 Lumen 8FT MICROBAY LINEAR BAY with LOUVER WITH AISLE OPTIC, 90CRI, 5000K CCT
Light Source: -
Ballast/Driver: -

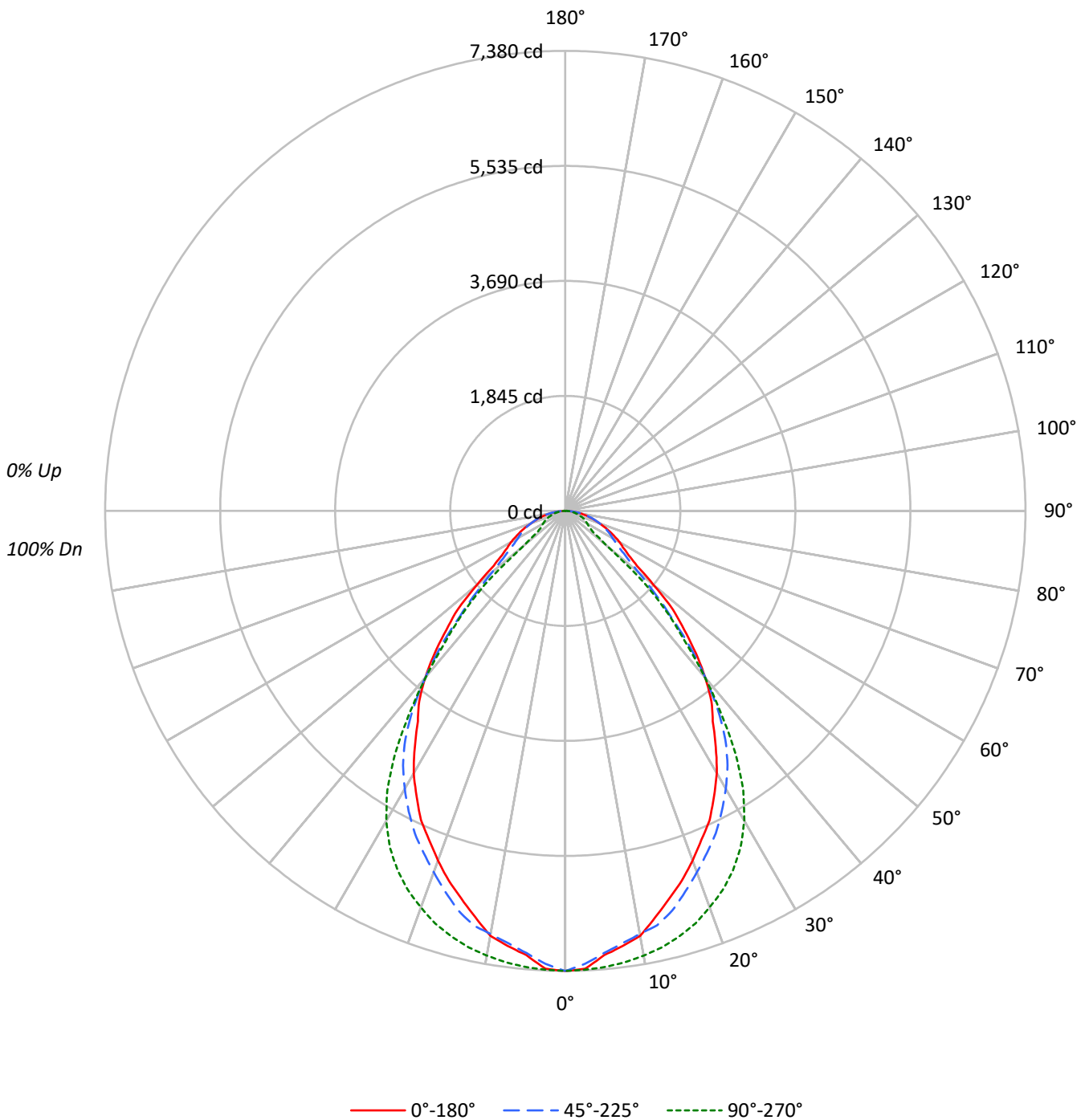
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 11978.0 lumens
Efficiency: N/A
Efficacy: 115.6 lumens/watt
Spacing Criteria (0/90/45): 1.02 / 1.16 / 1.12
Luminous Opening: Rectangular (W 0.38' x L: 7.98' x H: 0')
CIE Type: Direct

Input Watts (W): 103.6
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: 0.997
Total Harmonic Distortion (THDi): 5.03
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT

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CATALOG NUMBER: 8TMB-14HL-LVRA-UNV-L950

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 | 100 | 100 |
| 1 | 111 | 107 | 104 | 101 | 108 | 105 | 102 | 99 | 101 | 98 | 96 | 97 | 95 | 93 | 93 | 92 | 90 | 88 | 88 | 88 |
| 2 | 103 | 96 | 91 | 86 | 101 | 95 | 90 | 85 | 91 | 87 | 83 | 88 | 85 | 82 | 85 | 82 | 80 | 78 | 78 | 78 |
| 3 | 96 | 87 | 80 | 75 | 94 | 86 | 80 | 75 | 83 | 78 | 73 | 80 | 76 | 72 | 78 | 74 | 71 | 69 | 69 | 69 |
| 4 | 89 | 79 | 72 | 66 | 87 | 78 | 71 | 66 | 76 | 70 | 65 | 73 | 68 | 64 | 71 | 67 | 63 | 62 | 62 | 62 |
| 5 | 83 | 72 | 65 | 59 | 81 | 71 | 64 | 59 | 69 | 63 | 58 | 67 | 62 | 58 | 66 | 61 | 57 | 55 | 55 | 55 |
| 6 | 78 | 66 | 59 | 53 | 76 | 65 | 58 | 53 | 64 | 57 | 53 | 62 | 57 | 52 | 61 | 56 | 52 | 50 | 50 | 50 |
| 7 | 73 | 61 | 54 | 48 | 71 | 60 | 53 | 48 | 59 | 52 | 48 | 58 | 52 | 47 | 56 | 51 | 47 | 45 | 45 | 45 |
| 8 | 68 | 57 | 49 | 44 | 67 | 56 | 49 | 44 | 55 | 48 | 44 | 53 | 48 | 43 | 52 | 47 | 43 | 41 | 41 | 41 |
| 9 | 64 | 52 | 45 | 40 | 63 | 52 | 45 | 40 | 51 | 44 | 40 | 50 | 44 | 40 | 49 | 44 | 40 | 38 | 38 | 38 |
| 10 | 61 | 49 | 42 | 37 | 60 | 48 | 42 | 37 | 47 | 41 | 37 | 47 | 41 | 37 | 46 | 40 | 37 | 35 | 35 | 35 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|-------|-------|-------|
| 0° | 26186 | 26186 | 26186 |
| 5° | 25480 | 25365 | 26158 |
| 10° | 24939 | 24829 | 26097 |
| 15° | 23652 | 24378 | 25950 |
| 20° | 22530 | 23292 | 25554 |
| 25° | 21432 | 22348 | 24902 |
| 30° | 19912 | 21096 | 23512 |
| 35° | 17854 | 19387 | 20623 |
| 40° | 16176 | 16211 | 16123 |
| 45° | 13525 | 11979 | 11682 |
| 50° | 10216 | 8431 | 4777 |
| 55° | 7684 | 6742 | 3012 |
| 60° | 7140 | 6209 | 2902 |
| 65° | 6643 | 6196 | 2907 |
| 70° | 6078 | 6078 | 2861 |
| 75° | 5763 | 5920 | 2764 |
| 80° | 5325 | 5597 | 2838 |
| 85° | 4645 | 4877 | 3098 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
 Vertical Angle: 45°
 Luminance: 13840 cd/sqm



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 681.7 | 5.7 |
| 10°-20° | 1878.5 | 15.7 |
| 20°-30° | 2663.7 | 22.2 |
| 30°-40° | 2744.2 | 22.9 |
| 40°-50° | 1916.7 | 16.0 |
| 50°-60° | 919.7 | 7.7 |
| 60°-70° | 645.2 | 5.4 |
| 70°-80° | 403.5 | 3.4 |
| 80°-90° | 124.8 | 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° | 5223.9 | 43.6 |
| 0°-40° | 7968.1 | 66.5 |
| 0°-60° | 10804.5 | 90.2 |
| 0°-90° | 11978.0 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 11978.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|------|-------|------|-------|------|------|
| 0° | 7380 | 7380 | 7380 | 7380 | 7380 | |
| 5° | 7154 | 7144 | 7122 | 7308 | 7344 | 677 |
| 15° | 6439 | 6486 | 6637 | 6827 | 7065 | 1813 |
| 25° | 5474 | 5530 | 5708 | 6094 | 6361 | 2503 |
| 35° | 4122 | 4234 | 4476 | 4569 | 4761 | 2597 |
| 45° | 2695 | 2758 | 2387 | 2266 | 2328 | 2077 |
| 55° | 1242 | 1181 | 1090 | 698 | 487 | 1164 |
| 65° | 791 | 740 | 738 | 561 | 346 | 784 |
| 75° | 420 | 415 | 432 | 373 | 202 | 443 |
| 85° | 114 | 114 | 120 | 118 | 76 | 128 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



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 CATALOG NUMBER: 8TMB-14HL-LVRA-UNV-L950

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|--------|--------|--------|--------|--------|
| 0° | 7380.3 | 7380.3 | 7380.3 | 7380.3 | 7380.3 |
| 2.5° | 7351.8 | 7329.0 | 7273.8 | 7374.6 | 7367.0 |
| 5° | 7154.0 | 7144.5 | 7121.6 | 7308.1 | 7344.2 |
| 7.5° | 7041.8 | 7022.7 | 6996.1 | 7201.5 | 7302.3 |
| 10° | 6921.9 | 6944.7 | 6891.5 | 7079.8 | 7243.4 |
| 12.5° | 6674.6 | 6735.5 | 6807.8 | 6954.3 | 7171.1 |
| 15° | 6438.8 | 6486.3 | 6636.6 | 6826.8 | 7064.6 |
| 17.5° | 6218.1 | 6273.3 | 6402.6 | 6688.0 | 6940.9 |
| 20° | 5967.0 | 6043.1 | 6168.7 | 6533.9 | 6767.8 |
| 22.5° | 5708.3 | 5778.7 | 5936.6 | 6328.4 | 6589.0 |
| 25° | 5474.4 | 5529.5 | 5708.3 | 6094.5 | 6360.8 |
| 27.5° | 5164.3 | 5267.0 | 5436.3 | 5809.2 | 6088.8 |
| 30° | 4860.0 | 4947.5 | 5149.1 | 5463.0 | 5738.8 |
| 32.5° | 4492.9 | 4620.3 | 4842.9 | 5082.5 | 5312.7 |
| 35° | 4122.0 | 4234.2 | 4475.8 | 4569.0 | 4761.1 |
| 37.5° | 3851.8 | 3882.3 | 4019.2 | 4007.8 | 4116.2 |
| 40° | 3492.3 | 3553.2 | 3500.0 | 3357.3 | 3480.9 |
| 42.5° | 3104.3 | 3176.6 | 2961.6 | 2796.2 | 2839.9 |
| 45° | 2695.3 | 2758.1 | 2387.2 | 2265.5 | 2328.2 |
| 47.5° | 2341.5 | 2335.8 | 1925.0 | 1843.2 | 1755.7 |
| 50° | 1850.8 | 1911.7 | 1527.4 | 1375.3 | 865.5 |
| 52.5° | 1445.6 | 1468.5 | 1259.2 | 878.8 | 568.7 |
| 55° | 1242.1 | 1181.2 | 1089.9 | 698.1 | 486.9 |
| 57.5° | 1103.2 | 1027.2 | 966.3 | 648.6 | 445.1 |
| 60° | 1006.2 | 920.6 | 875.0 | 616.3 | 409.0 |
| 62.5° | 895.9 | 829.3 | 812.2 | 587.8 | 376.6 |
| 65° | 791.3 | 739.9 | 738.0 | 561.1 | 346.2 |
| 67.5° | 686.7 | 658.1 | 665.8 | 528.8 | 312.0 |
| 70° | 585.9 | 580.2 | 585.9 | 486.9 | 275.8 |
| 72.5° | 500.3 | 494.6 | 509.8 | 433.7 | 235.9 |
| 75° | 420.4 | 414.7 | 431.8 | 372.8 | 201.6 |
| 77.5° | 334.8 | 338.6 | 350.0 | 310.1 | 169.3 |
| 80° | 260.6 | 260.6 | 273.9 | 243.5 | 138.9 |
| 82.5° | 186.4 | 188.3 | 195.9 | 178.8 | 108.4 |
| 85° | 114.1 | 114.1 | 119.8 | 117.9 | 76.1 |
| 87.5° | 38.0 | 43.7 | 51.4 | 55.2 | 38.0 |
| 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 | 16.99 | 18.35 | 17.36 | 18.66 | 18.97 | 13.32 | 14.68 | 13.69 | 14.99 | 15.30 |
| | 3H | 18.73 | 19.94 | 19.11 | 20.27 | 20.63 | 15.30 | 16.51 | 15.68 | 16.84 | 17.20 |
| | 4H | 19.40 | 20.53 | 19.80 | 20.88 | 21.26 | 16.00 | 17.13 | 16.41 | 17.48 | 17.86 |
| | 6H | 19.91 | 20.95 | 20.32 | 21.32 | 21.71 | 16.53 | 17.57 | 16.94 | 17.94 | 18.33 |
| | 8H | 20.08 | 21.06 | 20.51 | 21.46 | 21.86 | 16.71 | 17.70 | 17.14 | 18.09 | 18.49 |
| | 12H | 20.19 | 21.13 | 20.62 | 21.51 | 21.94 | 16.85 | 17.79 | 17.28 | 18.18 | 18.61 |
| 4H | 2H | 17.52 | 18.65 | 17.92 | 19.00 | 19.38 | 14.95 | 16.07 | 15.35 | 16.42 | 16.81 |
| | 3H | 19.50 | 20.43 | 19.91 | 20.83 | 21.24 | 17.12 | 18.05 | 17.54 | 18.46 | 18.86 |
| | 4H | 20.30 | 21.14 | 20.74 | 21.56 | 22.00 | 18.00 | 18.84 | 18.44 | 19.26 | 19.70 |
| | 6H | 20.94 | 21.67 | 21.41 | 22.11 | 22.58 | 18.65 | 19.37 | 19.11 | 19.82 | 20.28 |
| | 8H | 21.16 | 21.84 | 21.63 | 22.29 | 22.76 | 18.86 | 19.53 | 19.32 | 19.98 | 20.45 |
| | 12H | 21.32 | 21.92 | 21.80 | 22.40 | 22.87 | 19.01 | 19.61 | 19.50 | 20.10 | 20.57 |
| 8H | 4H | 20.59 | 21.26 | 21.05 | 21.71 | 22.18 | 18.65 | 19.33 | 19.12 | 19.78 | 20.25 |
| | 6H | 21.37 | 21.92 | 21.87 | 22.42 | 22.90 | 19.51 | 20.07 | 20.01 | 20.56 | 21.04 |
| | 8H | 21.67 | 22.17 | 22.19 | 22.68 | 23.17 | 19.84 | 20.34 | 20.36 | 20.85 | 21.35 |
| | 12H | 21.91 | 22.35 | 22.42 | 22.84 | 23.41 | 20.11 | 20.55 | 20.62 | 21.04 | 21.61 |
| 12H | 4H | 20.60 | 21.20 | 21.09 | 21.68 | 22.16 | 18.72 | 19.32 | 19.21 | 19.81 | 20.28 |
| | 6H | 21.42 | 21.92 | 21.94 | 22.43 | 22.93 | 19.65 | 20.15 | 20.17 | 20.66 | 21.16 |
| | 8H | 21.79 | 22.23 | 22.30 | 22.72 | 23.29 | 20.06 | 20.50 | 20.58 | 21.00 | 21.57 |