

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: P894608

Luminaire Tested: 8TMB-14HL-LVR-UNV-L850

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P894608
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2407-175-6)
Test Lab: INNOVATION CENTER
Issue Date: 11/11/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: METALUX
Catalog Number: 8TMB-14HL-LVR-UNV-L850
Description: 14000 Lumen 8FT MICROBAY LINEAR BAY with LOUVER, 80CRI, 5000K CCT
Light Source: -
Ballast/Driver: -

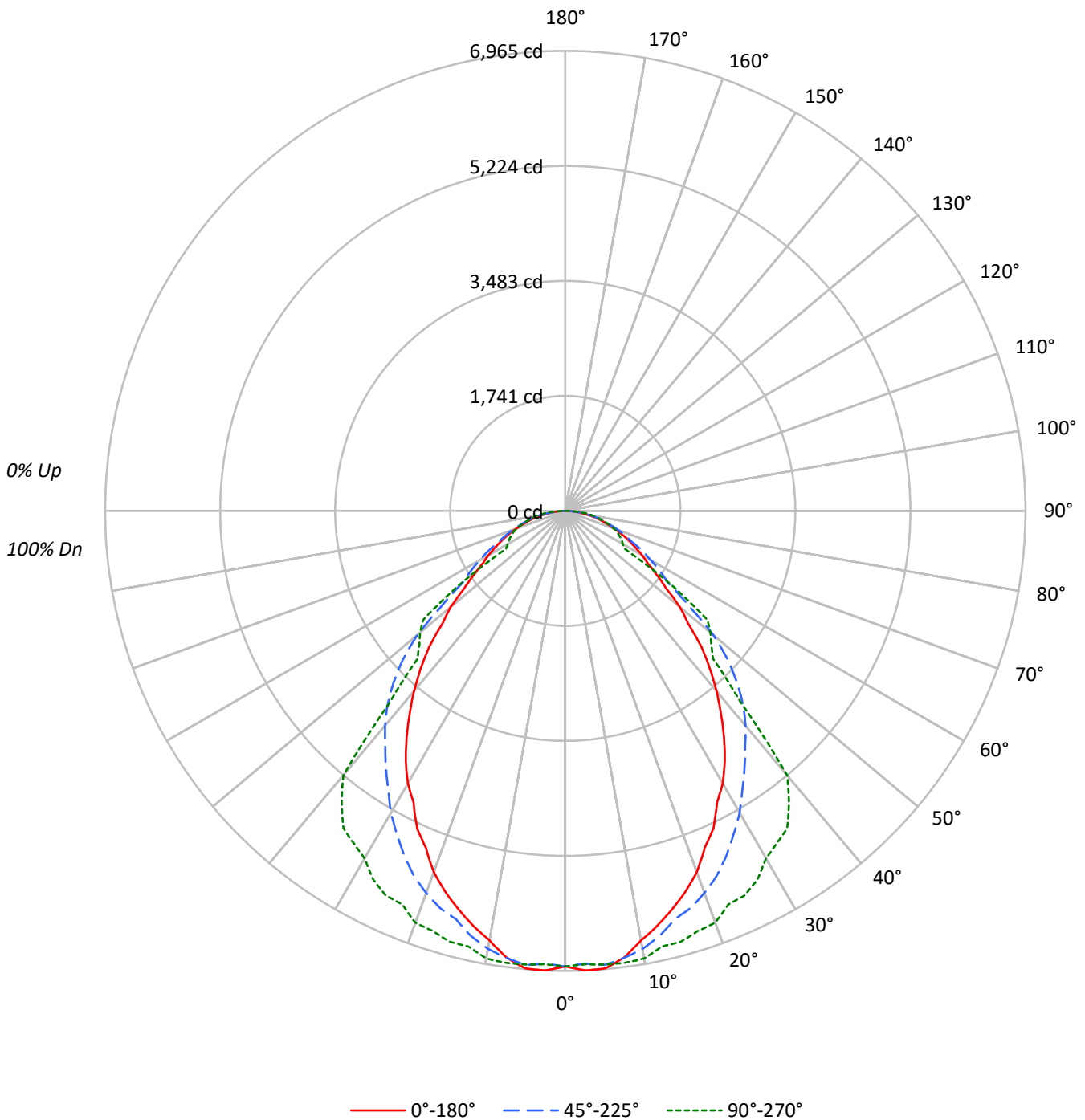
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 14439.0 lumens
Efficiency: N/A
Efficacy: 139.4 lumens/watt
Spacing Criteria (0/90/45): 1.05 / 1.32 / 1.26
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 (A_{in}): 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-LVR-UNV-L850

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 | 102 | 102 | 100 |
| 1 | 110 | 106 | 102 | 99 | 108 | 104 | 100 | 97 | 100 | 97 | 94 | 96 | 93 | 91 | 92 | 90 | 89 | 89 | 89 | 87 |
| 2 | 101 | 94 | 88 | 83 | 99 | 92 | 87 | 82 | 89 | 84 | 80 | 86 | 82 | 78 | 83 | 80 | 77 | 77 | 77 | 75 |
| 3 | 94 | 84 | 77 | 71 | 91 | 83 | 76 | 70 | 80 | 74 | 69 | 77 | 72 | 68 | 75 | 70 | 67 | 67 | 67 | 65 |
| 4 | 86 | 76 | 68 | 62 | 84 | 74 | 67 | 61 | 72 | 66 | 60 | 70 | 64 | 60 | 68 | 63 | 59 | 59 | 59 | 57 |
| 5 | 80 | 68 | 60 | 54 | 78 | 67 | 60 | 54 | 65 | 59 | 53 | 63 | 57 | 53 | 62 | 56 | 52 | 52 | 52 | 50 |
| 6 | 74 | 62 | 54 | 48 | 73 | 61 | 54 | 48 | 60 | 53 | 48 | 58 | 52 | 47 | 56 | 51 | 47 | 47 | 47 | 45 |
| 7 | 69 | 57 | 49 | 43 | 68 | 56 | 48 | 43 | 55 | 48 | 43 | 53 | 47 | 42 | 52 | 46 | 42 | 42 | 42 | 40 |
| 8 | 65 | 52 | 44 | 39 | 63 | 52 | 44 | 39 | 50 | 43 | 39 | 49 | 43 | 38 | 48 | 42 | 38 | 38 | 38 | 36 |
| 9 | 61 | 48 | 41 | 35 | 59 | 48 | 40 | 35 | 47 | 40 | 35 | 46 | 39 | 35 | 45 | 39 | 35 | 35 | 35 | 33 |
| 10 | 57 | 45 | 37 | 32 | 56 | 44 | 37 | 32 | 43 | 37 | 32 | 42 | 36 | 32 | 42 | 36 | 32 | 32 | 32 | 30 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|-------|-------|-------|
| 0° | 24475 | 24475 | 24475 |
| 5° | 24770 | 24576 | 24561 |
| 10° | 23794 | 24261 | 24794 |
| 15° | 22942 | 23508 | 24810 |
| 20° | 21976 | 23246 | 25059 |
| 25° | 20763 | 22564 | 25149 |
| 30° | 19513 | 21621 | 24892 |
| 35° | 18146 | 20507 | 25377 |
| 40° | 16486 | 19658 | 24199 |
| 45° | 14607 | 18450 | 15868 |
| 50° | 12502 | 16125 | 15834 |
| 55° | 10477 | 11768 | 12319 |
| 60° | 9531 | 10624 | 7130 |
| 65° | 8930 | 9406 | 7620 |
| 70° | 8217 | 8911 | 8154 |
| 75° | 7721 | 8360 | 8304 |
| 80° | 7203 | 7905 | 8901 |
| 85° | 6184 | 6599 | 9485 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 18450 cd/sqm



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 655.5 | 4.5 |
| 10°-20° | 1834.0 | 12.7 |
| 20°-30° | 2672.9 | 18.5 |
| 30°-40° | 3057.8 | 21.2 |
| 40°-50° | 2615.8 | 18.1 |
| 50°-60° | 1725.0 | 11.9 |
| 60°-70° | 1042.9 | 7.2 |
| 70°-80° | 638.0 | 4.4 |
| 80°-90° | 197.1 | 1.4 |
| 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° | 5162.4 | 35.8 |
| 0°-40° | 8220.3 | 56.9 |
| 0°-60° | 12561.1 | 87.0 |
| 0°-90° | 14439.0 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 14439.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|------|-------|------|-------|------|------|
| 0° | 6898 | 6898 | 6898 | 6898 | 6898 | |
| 5° | 6955 | 6949 | 6900 | 6886 | 6896 | 652 |
| 15° | 6246 | 6319 | 6400 | 6809 | 6754 | 1756 |
| 25° | 5304 | 5385 | 5764 | 6256 | 6424 | 2426 |
| 35° | 4189 | 4400 | 4734 | 5478 | 5859 | 2610 |
| 45° | 2911 | 3136 | 3677 | 3436 | 3162 | 2229 |
| 55° | 1694 | 1789 | 1902 | 2255 | 1991 | 1540 |
| 65° | 1064 | 1090 | 1120 | 1001 | 908 | 1051 |
| 75° | 563 | 577 | 610 | 638 | 606 | 594 |
| 85° | 152 | 150 | 162 | 192 | 233 | 172 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P894608
 CATALOG NUMBER: 8TMB-14HL-LVR-UNV-L850

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|--------|--------|--------|--------|--------|
| 0° | 6898.0 | 6898.0 | 6898.0 | 6898.0 | 6898.0 |
| 2.5° | 6964.8 | 6944.6 | 6861.5 | 6940.5 | 6869.6 |
| 5° | 6954.7 | 6948.6 | 6900.0 | 6885.8 | 6896.0 |
| 7.5° | 6821.0 | 6835.2 | 6827.1 | 6979.0 | 6902.0 |
| 10° | 6604.2 | 6632.6 | 6733.9 | 6946.6 | 6881.8 |
| 12.5° | 6434.1 | 6456.3 | 6592.1 | 6908.1 | 6756.2 |
| 15° | 6245.7 | 6318.6 | 6399.6 | 6808.8 | 6754.1 |
| 17.5° | 6043.1 | 6112.0 | 6304.4 | 6675.1 | 6669.1 |
| 20° | 5820.2 | 5947.9 | 6156.5 | 6500.9 | 6636.6 |
| 22.5° | 5518.4 | 5690.6 | 5984.3 | 6421.9 | 6448.2 |
| 25° | 5303.6 | 5384.7 | 5763.5 | 6255.8 | 6423.9 |
| 27.5° | 4977.5 | 5131.4 | 5518.4 | 6016.7 | 6294.3 |
| 30° | 4762.7 | 4890.4 | 5277.3 | 5877.0 | 6075.5 |
| 32.5° | 4493.3 | 4645.2 | 4991.7 | 5725.0 | 5964.1 |
| 35° | 4189.4 | 4400.1 | 4734.4 | 5477.9 | 5858.7 |
| 37.5° | 3869.3 | 4078.0 | 4473.0 | 5273.3 | 5560.9 |
| 40° | 3559.4 | 3737.7 | 4244.1 | 5028.1 | 5224.6 |
| 42.5° | 3241.3 | 3433.8 | 3982.8 | 4544.0 | 3930.1 |
| 45° | 2911.1 | 3136.0 | 3676.9 | 3435.8 | 3162.3 |
| 47.5° | 2520.1 | 2795.7 | 3338.6 | 2761.2 | 2996.2 |
| 50° | 2264.9 | 2414.8 | 2921.3 | 2603.2 | 2868.6 |
| 52.5° | 1926.6 | 2129.2 | 2345.9 | 2431.0 | 2710.6 |
| 55° | 1693.6 | 1788.8 | 1902.3 | 2254.8 | 1991.4 |
| 57.5° | 1478.9 | 1563.9 | 1695.6 | 1590.3 | 1061.5 |
| 60° | 1343.1 | 1381.6 | 1497.1 | 1136.5 | 1004.8 |
| 62.5° | 1189.2 | 1227.7 | 1312.7 | 1061.5 | 964.3 |
| 65° | 1063.6 | 1089.9 | 1120.3 | 1000.8 | 907.6 |
| 67.5° | 929.9 | 944.0 | 976.5 | 923.8 | 852.9 |
| 70° | 792.1 | 812.4 | 859.0 | 844.8 | 786.0 |
| 72.5° | 670.6 | 688.8 | 729.3 | 749.6 | 694.9 |
| 75° | 563.2 | 577.4 | 609.8 | 638.1 | 605.7 |
| 77.5° | 447.7 | 461.9 | 504.4 | 534.8 | 520.6 |
| 80° | 352.5 | 354.5 | 386.9 | 417.3 | 435.6 |
| 82.5° | 247.2 | 251.2 | 275.5 | 307.9 | 344.4 |
| 85° | 151.9 | 149.9 | 162.1 | 192.5 | 233.0 |
| 87.5° | 58.7 | 56.7 | 66.9 | 81.0 | 119.5 |
| 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 | 18.94 | 20.42 | 19.30 | 20.73 | 21.04 | 18.61 | 20.09 | 18.98 | 20.41 | 20.72 |
| | 3H | 20.50 | 21.82 | 20.87 | 22.15 | 22.51 | 20.23 | 21.56 | 20.61 | 21.88 | 22.25 |
| | 4H | 21.10 | 22.34 | 21.50 | 22.69 | 23.06 | 20.98 | 22.22 | 21.38 | 22.57 | 22.95 |
| | 6H | 21.55 | 22.70 | 21.96 | 23.06 | 23.46 | 21.65 | 22.79 | 22.06 | 23.16 | 23.55 |
| | 8H | 21.71 | 22.80 | 22.13 | 23.19 | 23.59 | 21.92 | 23.02 | 22.35 | 23.40 | 23.81 |
| | 12H | 21.80 | 22.85 | 22.23 | 23.23 | 23.66 | 22.15 | 23.19 | 22.58 | 23.57 | 24.00 |
| 4H | 2H | 19.53 | 20.77 | 19.93 | 21.12 | 21.50 | 19.27 | 20.52 | 19.67 | 20.86 | 21.24 |
| | 3H | 21.32 | 22.35 | 21.73 | 22.75 | 23.15 | 21.16 | 22.19 | 21.57 | 22.59 | 22.99 |
| | 4H | 22.05 | 22.97 | 22.48 | 23.39 | 23.83 | 22.05 | 22.98 | 22.49 | 23.40 | 23.84 |
| | 6H | 22.63 | 23.43 | 23.09 | 23.88 | 24.34 | 22.86 | 23.67 | 23.32 | 24.11 | 24.57 |
| | 8H | 22.82 | 23.58 | 23.29 | 24.02 | 24.49 | 23.19 | 23.94 | 23.65 | 24.39 | 24.86 |
| | 12H | 22.96 | 23.64 | 23.45 | 24.12 | 24.59 | 23.46 | 24.14 | 23.95 | 24.61 | 25.09 |
| 8H | 4H | 22.37 | 23.12 | 22.83 | 23.56 | 24.03 | 22.38 | 23.13 | 22.84 | 23.57 | 24.04 |
| | 6H | 23.08 | 23.70 | 23.57 | 24.19 | 24.67 | 23.33 | 23.95 | 23.82 | 24.44 | 24.92 |
| | 8H | 23.35 | 23.91 | 23.86 | 24.42 | 24.91 | 23.74 | 24.30 | 24.26 | 24.81 | 25.30 |
| | 12H | 23.55 | 24.05 | 24.06 | 24.54 | 25.11 | 24.11 | 24.61 | 24.62 | 25.10 | 25.67 |
| 12H | 4H | 22.41 | 23.08 | 22.89 | 23.56 | 24.03 | 22.40 | 23.07 | 22.88 | 23.55 | 24.02 |
| | 6H | 23.15 | 23.71 | 23.66 | 24.22 | 24.71 | 23.38 | 23.94 | 23.89 | 24.45 | 24.94 |
| | 8H | 23.47 | 23.97 | 23.99 | 24.46 | 25.03 | 23.86 | 24.35 | 24.37 | 24.85 | 25.41 |