

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State
Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: METALUX

Report Number: P830050

Luminaire Tested: **OHBL-24HE-MFL-UNV-L850-CD**

Issue Date: 5/3/2024



Test Information

Test Method: LM-79-08
Report Number: P830050
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2106-285-1)
Test Lab: INNOVATION CENTER
Issue Date: 5/3/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: OHBL-24HE-MFL-UNV-L850-CD
Description: 24000 LUMEN OHBL HE LED LUMINAIRE WITH 80CRI, 5000K LEDS AND MEDIUM FROSTED LENS
Light Source: -
Ballast/Driver: -

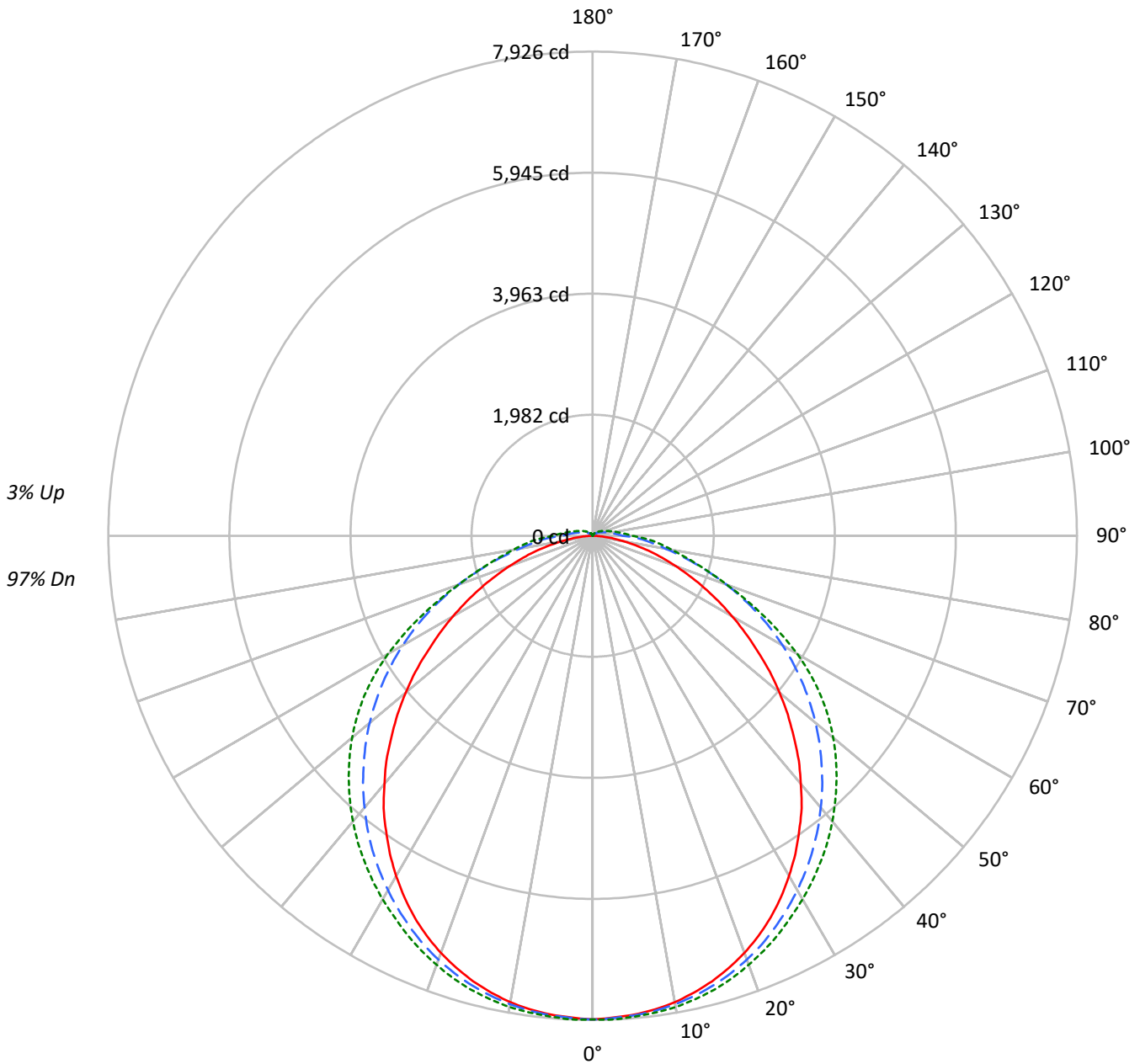
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 23699.0 lumens
Efficiency: N/A
Efficacy: 178.2 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.29 / 1.38
Luminous Opening: Rectangular w/ Sides (W: 1.8' x L: 3.78' x H: 0.17')
CIE Type: Direct

Input Watts (W): 133
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT

TEST NUMBER: P830050
CATALOG NUMBER: OHBL-24HE-MFL-UNV-L850-CD

Luminous Intensity Polar Plot





TEST NUMBER: P830050

CATALOG NUMBER: OHBL-24HE-MFL-UNV-L850-CD

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|----|----|----|----|----|---|--|--|--|--|--|--|----|--|--|--|--|--|--|--|--|---|
| RF | 20 | | | | | | | | | 20 | | | | | | | | | 20 | | | | | | | | | 20 | | | | | | | | | |
| RC | 80 | | | | | | | | | 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 | 118 | 118 | 118 | 118 | 115 | 115 | 115 | 115 | 109 | 109 | 109 | 104 | 104 | 104 | 99 | 99 | 99 | 99 | 99 | 97 | | | | | | | | | | | | | | | | | |
| 1 | 107 | 102 | 98 | 94 | 104 | 100 | 96 | 92 | 95 | 91 | 88 | 90 | 88 | 85 | 86 | 84 | 82 | 82 | 82 | 80 | | | | | | | | | | | | | | | | | |
| 2 | 98 | 89 | 82 | 76 | 95 | 87 | 80 | 75 | 83 | 77 | 73 | 79 | 74 | 71 | 75 | 72 | 68 | 68 | 68 | 66 | | | | | | | | | | | | | | | | | |
| 3 | 89 | 78 | 70 | 63 | 86 | 76 | 69 | 62 | 73 | 66 | 61 | 70 | 64 | 59 | 67 | 62 | 58 | 58 | 58 | 56 | | | | | | | | | | | | | | | | | |
| 4 | 81 | 69 | 60 | 53 | 79 | 68 | 59 | 53 | 65 | 57 | 52 | 62 | 56 | 51 | 59 | 54 | 50 | 50 | 50 | 47 | | | | | | | | | | | | | | | | | |
| 5 | 75 | 62 | 53 | 46 | 72 | 60 | 52 | 46 | 58 | 50 | 45 | 56 | 49 | 44 | 53 | 48 | 43 | 43 | 43 | 41 | | | | | | | | | | | | | | | | | |
| 6 | 69 | 56 | 47 | 40 | 67 | 54 | 46 | 40 | 52 | 45 | 39 | 50 | 44 | 39 | 48 | 43 | 38 | 38 | 38 | 36 | | | | | | | | | | | | | | | | | |
| 7 | 64 | 50 | 42 | 35 | 62 | 49 | 41 | 35 | 48 | 40 | 35 | 46 | 39 | 34 | 44 | 38 | 34 | 34 | 34 | 32 | | | | | | | | | | | | | | | | | |
| 8 | 60 | 46 | 37 | 31 | 58 | 45 | 37 | 31 | 43 | 36 | 31 | 42 | 35 | 31 | 41 | 35 | 30 | 30 | 30 | 28 | | | | | | | | | | | | | | | | | |
| 9 | 56 | 42 | 34 | 28 | 54 | 41 | 34 | 28 | 40 | 33 | 28 | 39 | 32 | 28 | 37 | 32 | 27 | 27 | 27 | 25 | | | | | | | | | | | | | | | | | |
| 10 | 52 | 39 | 31 | 26 | 51 | 38 | 31 | 26 | 37 | 30 | 25 | 36 | 29 | 25 | 35 | 29 | 25 | 25 | 25 | 23 | | | | | | | | | | | | | | | | | |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|-------|-------|-------|
| 0° | 12523 | 12523 | 12523 |
| 5° | 12443 | 12404 | 12442 |
| 10° | 12356 | 12295 | 12377 |
| 15° | 12218 | 12164 | 12292 |
| 20° | 12035 | 12004 | 12167 |
| 25° | 11790 | 11804 | 12040 |
| 30° | 11451 | 11588 | 11912 |
| 35° | 11041 | 11358 | 11802 |
| 40° | 10548 | 11091 | 11694 |
| 45° | 9967 | 10802 | 11556 |
| 50° | 9332 | 10509 | 11388 |
| 55° | 8551 | 10151 | 11104 |
| 60° | 7751 | 9730 | 10538 |
| 65° | 6877 | 9191 | 9608 |
| 70° | 5931 | 8504 | 8601 |
| 75° | 4973 | 7711 | 7920 |
| 80° | 3770 | 7137 | 7857 |
| 85° | 2385 | 7418 | 8780 |



TEST NUMBER: P830050

CATALOG NUMBER: OHBL-24HE-MFL-UNV-L850-CD

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 750.3 | 3.2 |
| 10°-20° | 2152.6 | 9.1 |
| 20°-30° | 3255.4 | 13.7 |
| 30°-40° | 3908.1 | 16.5 |
| 40°-50° | 4036.5 | 17.0 |
| 50°-60° | 3631.6 | 15.3 |
| 60°-70° | 2735.6 | 11.5 |
| 70°-80° | 1651.9 | 7.0 |
| 80°-90° | 807.9 | 3.4 |
| 90°-100° | 340.1 | 1.4 |
| 100°-110° | 194.1 | 0.8 |
| 110°-120° | 113.9 | 0.5 |
| 120°-130° | 64.4 | 0.3 |
| 130°-140° | 33.9 | 0.1 |
| 140°-150° | 16.5 | 0.1 |
| 150°-160° | 6.1 | 0.0 |
| 160°-170° | 0.0 | 0.0 |
| 170°-180° | 0.0 | 0.0 |
| 0°-30° | 6158.3 | 26.0 |
| 0°-40° | 10066.5 | 42.5 |
| 0°-60° | 17734.5 | 74.8 |
| 0°-90° | 22929.9 | 96.8 |
| 90°-120° | 648.1 | 2.7 |
| 90°-150° | 763.0 | 3.2 |
| 90°-180° | 769.0 | 3.2 |
| 0°-180° | 23699.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|------|------|-------|------|-------|------|------|
| 0° | 7919 | 7919 | 7919 | 7919 | 7919 | |
| 5° | 7868 | 7890 | 7880 | 7911 | 7901 | 747 |
| 15° | 7550 | 7587 | 7622 | 7686 | 7694 | 2129 |
| 25° | 6895 | 6971 | 7070 | 7180 | 7198 | 3172 |
| 35° | 5895 | 6033 | 6281 | 6471 | 6510 | 3685 |
| 45° | 4653 | 4888 | 5296 | 5585 | 5645 | 3592 |
| 55° | 3296 | 3638 | 4190 | 4506 | 4560 | 2956 |
| 65° | 2012 | 2422 | 2965 | 3112 | 3078 | 1999 |
| 75° | 948 | 1360 | 1717 | 1762 | 1744 | 1011 |
| 85° | 198 | 521 | 860 | 979 | 996 | 228 |
| 90° | 0 | 204 | 492 | 620 | 645 | 12 |
| 95° | 10 | 138 | 368 | 469 | 486 | 8 |
| 105° | 14 | 80 | 213 | 279 | 291 | 14 |
| 115° | 16 | 45 | 132 | 176 | 184 | 16 |
| 125° | 16 | 21 | 80 | 114 | 120 | 14 |
| 135° | 14 | 17 | 41 | 70 | 78 | 11 |
| 145° | 19 | 17 | 19 | 35 | 41 | 12 |
| 155° | 19 | 21 | 19 | 17 | 19 | 6 |
| 165° | 0 | 0 | 0 | 0 | 0 | 0 |
| 175° | 0 | 0 | 0 | 0 | 0 | 0 |
| 180° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P830050

CATALOG NUMBER: OHBL-24HE-MFL-UNV-L850-CD

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|--------|--------|--------|--------|--------|
| 0° | 7918.6 | 7918.6 | 7918.6 | 7918.6 | 7918.6 |
| 2.5° | 7895.3 | 7914.7 | 7903.1 | 7928.3 | 7926.3 |
| 5° | 7868.2 | 7889.5 | 7879.8 | 7910.8 | 7901.1 |
| 7.5° | 7821.7 | 7844.9 | 7843.0 | 7877.9 | 7874.0 |
| 10° | 7753.9 | 7779.1 | 7786.8 | 7833.3 | 7833.3 |
| 12.5° | 7660.8 | 7693.8 | 7713.2 | 7769.4 | 7771.3 |
| 15° | 7550.4 | 7587.2 | 7622.1 | 7686.0 | 7693.8 |
| 17.5° | 7416.7 | 7463.2 | 7511.6 | 7585.3 | 7594.9 |
| 20° | 7265.5 | 7317.8 | 7383.7 | 7461.2 | 7472.9 |
| 22.5° | 7091.1 | 7153.1 | 7238.4 | 7329.4 | 7343.0 |
| 25° | 6895.3 | 6970.9 | 7069.8 | 7180.2 | 7197.7 |
| 27.5° | 6672.5 | 6759.7 | 6893.4 | 7017.4 | 7032.9 |
| 30° | 6430.2 | 6532.9 | 6699.6 | 6846.9 | 6872.1 |
| 32.5° | 6174.4 | 6292.6 | 6498.1 | 6662.8 | 6697.7 |
| 35° | 5895.3 | 6032.9 | 6281.0 | 6470.9 | 6509.7 |
| 37.5° | 5620.1 | 5771.3 | 6052.3 | 6269.4 | 6315.9 |
| 40° | 5298.4 | 5486.4 | 5808.1 | 6048.4 | 6104.6 |
| 42.5° | 4996.1 | 5199.6 | 5563.9 | 5825.6 | 5879.8 |
| 45° | 4653.1 | 4887.6 | 5296.5 | 5585.3 | 5645.3 |
| 47.5° | 4331.4 | 4585.3 | 5038.8 | 5337.2 | 5399.2 |
| 50° | 3992.2 | 4271.3 | 4763.6 | 5075.6 | 5139.5 |
| 52.5° | 3653.1 | 3953.5 | 4478.7 | 4802.3 | 4862.4 |
| 55° | 3296.5 | 3637.6 | 4189.9 | 4505.8 | 4560.1 |
| 57.5° | 2965.1 | 3325.6 | 3893.4 | 4193.8 | 4226.7 |
| 60° | 2637.6 | 3011.6 | 3591.1 | 3854.6 | 3866.3 |
| 62.5° | 2317.8 | 2711.2 | 3281.0 | 3490.3 | 3474.8 |
| 65° | 2011.6 | 2422.5 | 2965.1 | 3112.4 | 3077.5 |
| 67.5° | 1717.1 | 2141.5 | 2641.5 | 2736.4 | 2689.9 |
| 70° | 1438.0 | 1868.2 | 2327.5 | 2376.0 | 2333.3 |
| 72.5° | 1191.9 | 1608.5 | 2009.7 | 2050.4 | 2019.4 |
| 75° | 947.7 | 1360.5 | 1717.1 | 1761.6 | 1744.2 |
| 77.5° | 719.0 | 1120.2 | 1447.7 | 1505.8 | 1509.7 |
| 80° | 517.4 | 901.2 | 1213.2 | 1304.3 | 1315.9 |
| 82.5° | 341.1 | 699.6 | 1017.4 | 1133.7 | 1151.2 |
| 85° | 197.7 | 521.3 | 860.5 | 978.7 | 996.1 |
| 87.5° | 85.3 | 376.0 | 691.9 | 798.4 | 819.8 |
| 90° | 0.0 | 203.5 | 492.2 | 620.2 | 645.3 |
| 92.5° | 5.8 | 168.6 | 422.5 | 538.8 | 560.1 |
| 95° | 9.7 | 137.6 | 368.2 | 469.0 | 486.4 |
| 97.5° | 11.6 | 116.3 | 319.8 | 408.9 | 426.4 |
| 100° | 11.6 | 100.8 | 277.1 | 358.5 | 374.0 |
| 102.5° | 11.6 | 89.1 | 242.2 | 314.0 | 327.5 |
| 105° | 13.6 | 79.5 | 213.2 | 279.1 | 290.7 |



TEST NUMBER: P830050

CATALOG NUMBER: OHBL-24HE-MFL-UNV-L850-CD

CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|------|-------|-------|-------|-------|
| 112.5° | 15.5 | 52.3 | 147.3 | 197.7 | 205.4 |
| 115° | 15.5 | 44.6 | 131.8 | 176.4 | 184.1 |
| 117.5° | 17.4 | 38.8 | 116.3 | 158.9 | 164.7 |
| 120° | 17.4 | 32.9 | 102.7 | 141.5 | 149.2 |
| 122.5° | 17.4 | 27.1 | 91.1 | 127.9 | 133.7 |
| 125° | 15.5 | 21.3 | 79.5 | 114.3 | 120.2 |
| 127.5° | 13.6 | 17.4 | 67.8 | 102.7 | 108.5 |
| 130° | 13.6 | 15.5 | 58.1 | 91.1 | 96.9 |
| 132.5° | 13.6 | 17.4 | 48.4 | 79.5 | 87.2 |
| 135° | 13.6 | 17.4 | 40.7 | 69.8 | 77.5 |
| 137.5° | 13.6 | 17.4 | 32.9 | 60.1 | 67.8 |
| 140° | 15.5 | 17.4 | 27.1 | 50.4 | 58.1 |
| 142.5° | 17.4 | 17.4 | 21.3 | 42.6 | 48.4 |
| 145° | 19.4 | 17.4 | 19.4 | 34.9 | 40.7 |
| 147.5° | 19.4 | 19.4 | 19.4 | 27.1 | 32.9 |
| 150° | 19.4 | 21.3 | 19.4 | 21.3 | 27.1 |
| 152.5° | 19.4 | 21.3 | 19.4 | 17.4 | 21.3 |
| 155° | 19.4 | 21.3 | 19.4 | 17.4 | 19.4 |
| 157.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 160° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 162.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 165° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 167.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 170° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 172.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 175° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 177.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 180° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |



Report Generated By 670246072 / DESKTOP-50001EG





— 0°-180° - - 45°-225° - - - - 90°-270°







| | | | | | |
|--------|------|------|-------|-------|-------|
| 107.5° | 13.6 | 69.8 | 188.0 | 248.1 | 257.8 |
| 110° | 13.6 | 62.0 | 166.7 | 220.9 | 230.6 |



(END OF REPORT)