

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: P830901

Luminaire Tested: **OHBL-9HE-MCL-UNV-L840-CD**

Issue Date: 5/3/2024



Test Information

Test Method: LM-79-08
Report Number: P830901
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2103-200-1)
Test Lab: INNOVATION CENTER
Issue Date: 5/3/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: OHBL-9HE-MCL-UNV-L840-CD
Description: 9000 LUMEN OHBL HE LED LUMINAIRE WITH 80CRI, 4000K LEDS AND MEDIUM CLEAR LENS
Light Source: -
Ballast/Driver: -

Summary

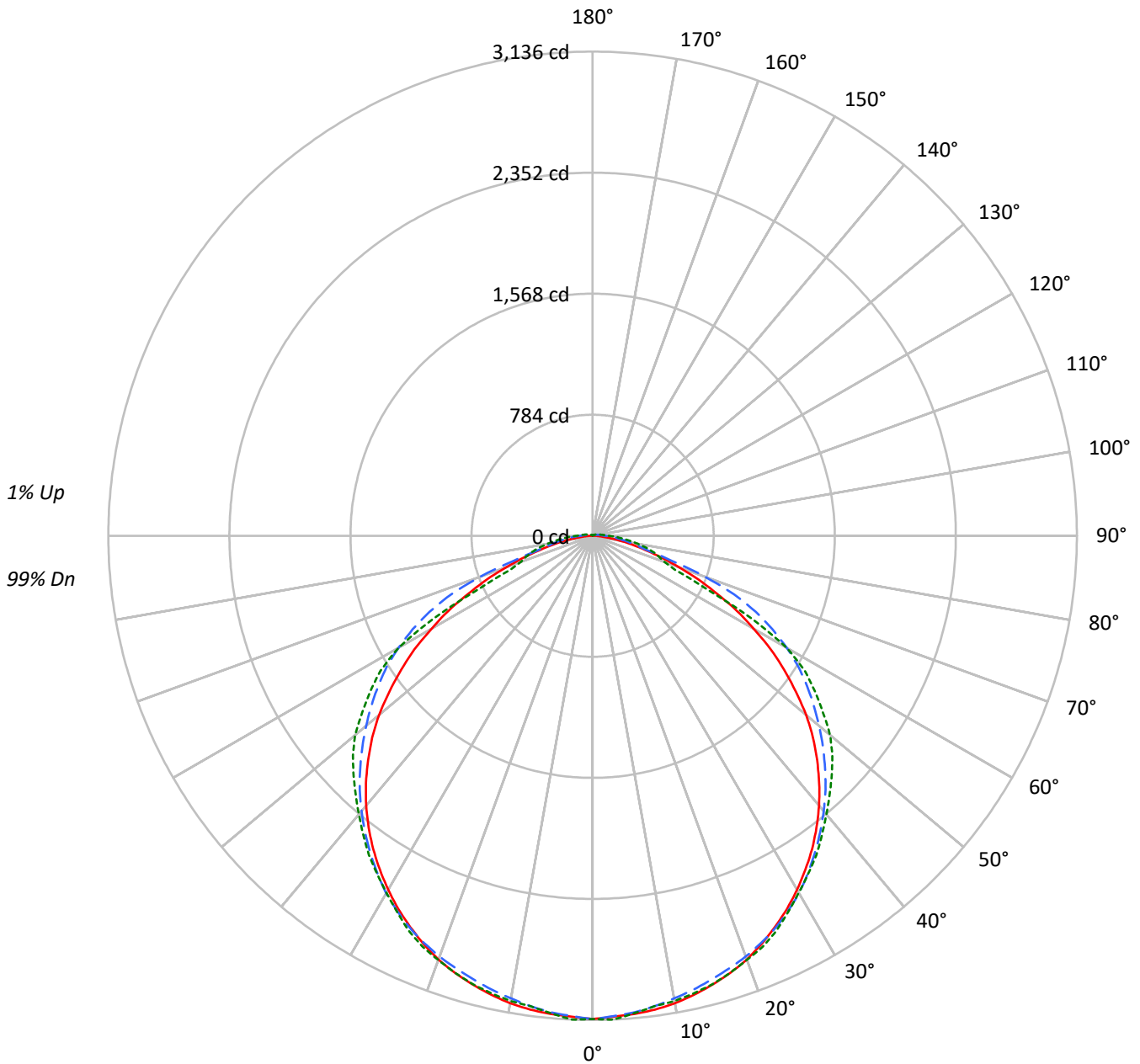
Lumens per Lamp: N/A
Luminaire Lumens: 8847.0 lumens
Efficiency: N/A
Efficacy: 170.1 lumens/watt
Spacing Criteria (0/90/45): 1.26 / 1.27 / 1.39
Luminous Opening: Rectangular w/ Sides (W: 1.67' x L: 3.78' x H: 0.17')
CIE Type: Direct

Input Watts (W): 52
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: P830901

CATALOG NUMBER: OHBL-9HE-MCL-UNV-L840-CD

Luminous Intensity Polar Plot





TEST NUMBER: P830901

CATALOG NUMBER: OHBL-9HE-MCL-UNV-L840-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 | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 110 | 110 | 110 | 106 | 106 | 106 | 101 | 101 | 101 | | | | 99 | | | | | | | | | | | | | | | | |
| 1 | 109 | 104 | 100 | 96 | 106 | 102 | 98 | 95 | 97 | 94 | 91 | 93 | 91 | 88 | 90 | 87 | 86 | | | | 83 | | | | | | | | | | | | | | | | |
| 2 | 99 | 91 | 84 | 79 | 96 | 89 | 83 | 78 | 85 | 80 | 76 | 82 | 78 | 74 | 79 | 75 | 72 | | | | 70 | | | | | | | | | | | | | | | | |
| 3 | 91 | 80 | 72 | 66 | 88 | 79 | 71 | 65 | 75 | 69 | 64 | 72 | 67 | 63 | 70 | 65 | 61 | | | | 59 | | | | | | | | | | | | | | | | |
| 4 | 83 | 71 | 62 | 56 | 81 | 70 | 62 | 55 | 67 | 60 | 54 | 65 | 59 | 54 | 62 | 57 | 53 | | | | 51 | | | | | | | | | | | | | | | | |
| 5 | 76 | 64 | 55 | 48 | 74 | 62 | 54 | 48 | 60 | 53 | 47 | 58 | 52 | 46 | 56 | 50 | 46 | | | | 44 | | | | | | | | | | | | | | | | |
| 6 | 70 | 57 | 48 | 42 | 68 | 56 | 48 | 42 | 54 | 47 | 41 | 52 | 46 | 41 | 51 | 45 | 40 | | | | 38 | | | | | | | | | | | | | | | | |
| 7 | 65 | 52 | 43 | 37 | 63 | 51 | 43 | 37 | 49 | 42 | 36 | 48 | 41 | 36 | 46 | 40 | 36 | | | | 34 | | | | | | | | | | | | | | | | |
| 8 | 61 | 47 | 39 | 33 | 59 | 46 | 38 | 33 | 45 | 38 | 33 | 44 | 37 | 32 | 42 | 36 | 32 | | | | 30 | | | | | | | | | | | | | | | | |
| 9 | 57 | 43 | 35 | 30 | 55 | 43 | 35 | 29 | 41 | 34 | 29 | 40 | 34 | 29 | 39 | 33 | 29 | | | | 27 | | | | | | | | | | | | | | | | |
| 10 | 53 | 40 | 32 | 27 | 52 | 39 | 32 | 27 | 38 | 31 | 27 | 37 | 31 | 26 | 36 | 30 | 26 | | | | 24 | | | | | | | | | | | | | | | | |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|------|------|------|
| 0° | 5346 | 5346 | 5346 |
| 5° | 5311 | 5266 | 5276 |
| 10° | 5292 | 5184 | 5214 |
| 15° | 5258 | 5122 | 5176 |
| 20° | 5224 | 5082 | 5127 |
| 25° | 5162 | 5042 | 5078 |
| 30° | 5093 | 4980 | 4978 |
| 35° | 5011 | 4882 | 4921 |
| 40° | 4904 | 4782 | 4845 |
| 45° | 4757 | 4666 | 4808 |
| 50° | 4557 | 4534 | 4764 |
| 55° | 4239 | 4404 | 4580 |
| 60° | 3822 | 4214 | 4227 |
| 65° | 3279 | 3867 | 2673 |
| 70° | 2641 | 3012 | 1932 |
| 75° | 1980 | 1783 | 1953 |
| 80° | 1379 | 1475 | 1852 |
| 85° | 784 | 1340 | 1714 |



TEST NUMBER: P830901

CATALOG NUMBER: OHBL-9HE-MCL-UNV-L840-CD

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 295.1 | 3.3 |
| 10°-20° | 846.3 | 9.6 |
| 20°-30° | 1292.6 | 14.6 |
| 30°-40° | 1568.3 | 17.7 |
| 40°-50° | 1643.8 | 18.6 |
| 50°-60° | 1489.5 | 16.8 |
| 60°-70° | 998.7 | 11.3 |
| 70°-80° | 448.4 | 5.1 |
| 80°-90° | 162.7 | 1.8 |
| 90°-100° | 49.0 | 0.6 |
| 100°-110° | 23.1 | 0.3 |
| 110°-120° | 11.6 | 0.1 |
| 120°-130° | 6.4 | 0.1 |
| 130°-140° | 4.4 | 0.0 |
| 140°-150° | 2.9 | 0.0 |
| 150°-160° | 2.2 | 0.0 |
| 160°-170° | 1.4 | 0.0 |
| 170°-180° | 0.4 | 0.0 |
| 0°-30° | 2434.0 | 27.5 |
| 0°-40° | 4002.4 | 45.2 |
| 0°-60° | 7135.7 | 80.7 |
| 0°-90° | 8745.5 | 98.9 |
| 90°-120° | 83.7 | 0.9 |
| 90°-150° | 97.4 | 1.1 |
| 90°-180° | 101.0 | 1.1 |
| 0°-180° | 8847.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|------|------|-------|------|-------|------|------|
| 0° | 3130 | 3130 | 3130 | 3130 | 3130 | |
| 5° | 3110 | 3121 | 3099 | 3108 | 3104 | 296 |
| 15° | 3009 | 2997 | 2976 | 3002 | 3006 | 850 |
| 25° | 2795 | 2783 | 2802 | 2828 | 2820 | 1288 |
| 35° | 2477 | 2483 | 2509 | 2535 | 2525 | 1548 |
| 45° | 2056 | 2090 | 2128 | 2183 | 2190 | 1584 |
| 55° | 1513 | 1586 | 1694 | 1762 | 1758 | 1351 |
| 65° | 888 | 1027 | 1166 | 984 | 803 | 885 |
| 75° | 349 | 507 | 373 | 382 | 406 | 382 |
| 85° | 60 | 115 | 148 | 179 | 187 | 73 |
| 90° | 0 | 38 | 76 | 96 | 100 | 4 |
| 95° | 0 | 24 | 52 | 64 | 66 | 1 |
| 105° | 2 | 10 | 26 | 31 | 33 | 2 |
| 115° | 4 | 5 | 13 | 17 | 18 | 3 |
| 125° | 3 | 4 | 8 | 10 | 10 | 3 |
| 135° | 4 | 4 | 5 | 7 | 8 | 3 |
| 145° | 4 | 4 | 4 | 5 | 5 | 3 |
| 155° | 4 | 5 | 5 | 5 | 4 | 2 |
| 165° | 5 | 5 | 5 | 5 | 5 | 1 |
| 175° | 5 | 5 | 4 | 4 | 4 | 0 |
| 180° | 4 | 4 | 4 | 4 | 4 | |



TEST NUMBER: P830901

CATALOG NUMBER: OHBL-9HE-MCL-UNV-L840-CD

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|---------------|---------------|---------------|---------------|---------------|
| 0° | 3130.1 | 3130.1 | 3130.1 | 3130.1 | <i>3130.1</i> |
| 2.5° | <i>3117.4</i> | <i>3130.5</i> | <i>3114.2</i> | <i>3131.9</i> | <i>3136.4</i> |
| 5° | 3109.7 | 3120.6 | 3098.8 | 3108.4 | <i>3104.3</i> |
| 7.5° | 3095.7 | 3099.3 | 3073.5 | 3081.2 | <i>3073.1</i> |
| 10° | 3074.9 | 3073.1 | 3042.7 | 3057.7 | <i>3059.5</i> |
| 12.5° | 3044.1 | 3038.7 | 3011.5 | 3034.1 | <i>3034.6</i> |
| 15° | 3008.8 | 2997.0 | 2975.7 | 3002.0 | <i>3005.6</i> |
| 17.5° | 2968.1 | 2952.7 | 2938.6 | 2972.6 | <i>2967.1</i> |
| 20° | 2920.5 | 2902.4 | 2899.7 | 2936.8 | <i>2923.2</i> |
| 22.5° | 2861.7 | 2847.7 | 2854.0 | 2889.3 | <i>2880.7</i> |
| 25° | 2795.2 | 2782.9 | 2802.4 | 2828.2 | <i>2820.1</i> |
| 27.5° | 2725.0 | 2717.8 | 2739.9 | 2759.9 | <i>2744.0</i> |
| 30° | 2648.1 | 2644.0 | 2673.4 | 2689.7 | <i>2669.8</i> |
| 32.5° | 2564.3 | 2565.7 | 2593.8 | 2615.9 | <i>2597.4</i> |
| 35° | 2477.4 | 2483.3 | 2508.7 | 2535.4 | <i>2525.4</i> |
| 37.5° | 2382.0 | 2395.1 | 2420.4 | 2450.7 | <i>2440.3</i> |
| 40° | 2281.0 | 2300.0 | 2328.1 | 2364.8 | <i>2355.3</i> |
| 42.5° | 2172.0 | 2195.9 | 2232.1 | 2272.9 | <i>2272.0</i> |
| 45° | 2056.1 | 2089.6 | 2128.5 | 2182.8 | <i>2189.6</i> |
| 47.5° | 1935.7 | 1973.3 | 2022.6 | 2095.0 | <i>2105.4</i> |
| 50° | 1804.9 | 1852.0 | 1913.5 | 2000.4 | <i>2006.8</i> |
| 52.5° | 1659.2 | 1723.4 | 1804.9 | 1888.2 | <i>1880.5</i> |
| 55° | 1513.0 | 1585.9 | 1694.0 | 1761.9 | <i>1757.8</i> |
| 57.5° | 1367.3 | 1449.2 | 1580.4 | 1628.9 | <i>1628.4</i> |
| 60° | 1204.3 | 1308.0 | 1451.4 | 1488.1 | <i>1451.9</i> |
| 62.5° | 1053.6 | 1165.0 | 1313.9 | 1287.2 | <i>1163.1</i> |
| 65° | 888.0 | 1026.9 | 1165.9 | 983.9 | <i>803.3</i> |
| 67.5° | 740.9 | 885.7 | 990.3 | 673.9 | <i>577.0</i> |
| 70° | 592.9 | 752.6 | 772.1 | 500.1 | <i>493.3</i> |
| 72.5° | 461.6 | 631.8 | 532.7 | 428.1 | <i>449.9</i> |
| 75° | 349.4 | 506.9 | 372.9 | 381.5 | <i>406.4</i> |
| 77.5° | 254.8 | 389.2 | 290.1 | 334.5 | <i>354.8</i> |
| 80° | 175.2 | 275.6 | 236.7 | 281.1 | <i>295.1</i> |
| 82.5° | 110.0 | 181.9 | 189.6 | 226.3 | <i>240.8</i> |
| 85° | 60.2 | 115.4 | 148.0 | 178.8 | <i>187.4</i> |
| 87.5° | 24.9 | 69.7 | 113.1 | 138.0 | <i>145.3</i> |
| 90° | 0.5 | 38.5 | 76.5 | 95.9 | <i>100.5</i> |
| 92.5° | 0.5 | 29.4 | 62.5 | 77.4 | <i>80.6</i> |
| 95° | 0.5 | 24.0 | 52.5 | 63.8 | <i>65.6</i> |
| 97.5° | 0.9 | 19.0 | 43.9 | 53.0 | <i>54.8</i> |
| 100° | 1.4 | 15.8 | 36.7 | 44.4 | <i>45.7</i> |
| 102.5° | 1.8 | 12.7 | 30.8 | 37.1 | <i>38.5</i> |
| 105° | 1.8 | 10.4 | 25.8 | 31.2 | <i>32.6</i> |



TEST NUMBER: P830901

CATALOG NUMBER: OHBL-9HE-MCL-UNV-L840-CD

CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|-----|-------|------|-------|------|
| 112.5° | 3.2 | 6.3 | 15.4 | 19.5 | 20.4 |
| 115° | 3.6 | 5.4 | 13.1 | 16.7 | 17.7 |
| 117.5° | 3.6 | 4.5 | 11.3 | 14.0 | 14.9 |
| 120° | 3.6 | 4.1 | 10.0 | 12.2 | 12.7 |
| 122.5° | 3.6 | 3.6 | 8.6 | 10.9 | 11.3 |
| 125° | 3.2 | 3.6 | 8.1 | 9.5 | 10.0 |
| 127.5° | 3.6 | 3.6 | 7.2 | 8.6 | 9.1 |
| 130° | 3.6 | 4.1 | 6.3 | 8.1 | 8.1 |
| 132.5° | 4.1 | 4.5 | 5.9 | 7.7 | 7.7 |
| 135° | 4.1 | 4.5 | 5.0 | 7.2 | 7.7 |
| 137.5° | 4.5 | 4.5 | 4.5 | 6.8 | 7.2 |
| 140° | 4.5 | 4.5 | 4.1 | 5.9 | 6.3 |
| 142.5° | 4.1 | 4.5 | 4.1 | 5.4 | 5.9 |
| 145° | 4.1 | 4.5 | 4.5 | 5.0 | 5.4 |
| 147.5° | 4.5 | 4.5 | 4.5 | 4.5 | 5.0 |
| 150° | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 |
| 152.5° | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 |
| 155° | 4.5 | 5.0 | 5.0 | 5.0 | 4.5 |
| 157.5° | 4.5 | 5.0 | 5.0 | 5.0 | 5.0 |
| 160° | 4.5 | 5.0 | 5.0 | 5.0 | 5.0 |
| 162.5° | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 |
| 165° | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 |
| 167.5° | 5.0 | 5.4 | 5.0 | 5.0 | 5.0 |
| 170° | 5.0 | 5.0 | 5.0 | 4.5 | 4.5 |
| 172.5° | 5.0 | 5.0 | 5.0 | 4.5 | 4.5 |
| 175° | 5.0 | 5.0 | 4.5 | 4.1 | 4.1 |
| 177.5° | 5.4 | 5.0 | 4.5 | 4.1 | 3.6 |
| 180° | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 |



Report Generated By 670246072 / DESKTOP-50001EG





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







| | | | | | |
|--------|-----|-----|------|------|------|
| 107.5° | 2.3 | 8.6 | 22.2 | 26.7 | 27.6 |
| 110° | 2.7 | 7.2 | 18.6 | 22.6 | 23.5 |



(END OF REPORT)