

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: P830481

Luminaire Tested: **OHBL-48HE-MFL-UNV-L840-CD**

Issue Date: 5/3/2024



**Test Information**

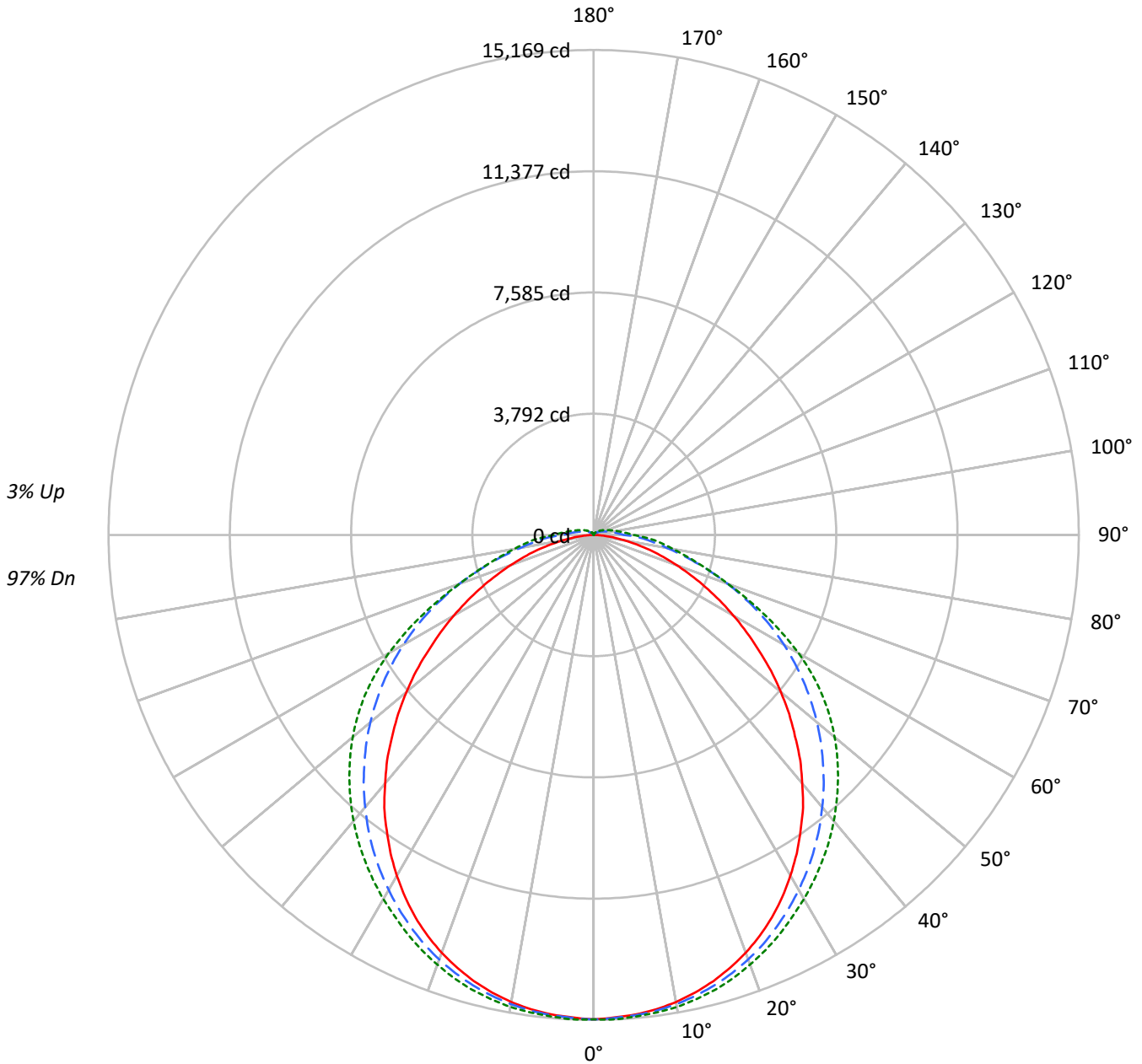
Test Method: LM-79-08  
Report Number: P830481  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2106-285-1)  
Test Lab: INNOVATION CENTER  
Issue Date: 5/3/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: OHBL-48HE-MFL-UNV-L840-CD  
Description: 48000 LUMEN OHBL HE LED LUMINAIRE WITH 80CRI, 4000K LEDS AND MEDIUM FROSTED LENS  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 45355.0 lumens  
Efficiency: N/A  
Efficacy: 170.5 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): 266  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 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

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

**AVERAGE LUMINANCE (cd/sqm):**

|     | 0°    | 45°   | 90°   |
|-----|-------|-------|-------|
| 0°  | 23966 | 23966 | 23966 |
| 5°  | 23813 | 23740 | 23812 |
| 10° | 23646 | 23530 | 23687 |
| 15° | 23382 | 23280 | 23524 |
| 20° | 23032 | 22974 | 23284 |
| 25° | 22563 | 22591 | 23041 |
| 30° | 21915 | 22177 | 22798 |
| 35° | 21130 | 21736 | 22587 |
| 40° | 20187 | 21226 | 22380 |
| 45° | 19076 | 20672 | 22115 |
| 50° | 17859 | 20113 | 21794 |
| 55° | 16364 | 19427 | 21251 |
| 60° | 14833 | 18620 | 20168 |
| 65° | 13162 | 17589 | 18388 |
| 70° | 11350 | 16275 | 16460 |
| 75° | 9517  | 14756 | 15157 |
| 80° | 7215  | 13658 | 15037 |
| 85° | 4564  | 14196 | 16804 |



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**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 1436.0  | 3.2       |
| 10°-20°   | 4119.6  | 9.1       |
| 20°-30°   | 6230.2  | 13.7      |
| 30°-40°   | 7479.4  | 16.5      |
| 40°-50°   | 7725.0  | 17.0      |
| 50°-60°   | 6950.1  | 15.3      |
| 60°-70°   | 5235.4  | 11.5      |
| 70°-80°   | 3161.3  | 7.0       |
| 80°-90°   | 1546.1  | 3.4       |
| 90°-100°  | 650.8   | 1.4       |
| 100°-110° | 371.5   | 0.8       |
| 110°-120° | 218.1   | 0.5       |
| 120°-130° | 123.3   | 0.3       |
| 130°-140° | 65.0    | 0.1       |
| 140°-150° | 31.6    | 0.1       |
| 150°-160° | 11.7    | 0.0       |
| 160°-170° | 0.0     | 0.0       |
| 170°-180° | 0.0     | 0.0       |
| 0°-30°    | 11785.8 | 26.0      |
| 0°-40°    | 19265.1 | 42.5      |
| 0°-60°    | 33940.2 | 74.8      |
| 0°-90°    | 43883.0 | 96.8      |
| 90°-120°  | 1240.4  | 2.7       |
| 90°-150°  | 1460.3  | 3.2       |
| 90°-180°  | 1472.0  | 3.2       |
| 0°-180°   | 45355.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|      | 0°    | 22.5° | 45°   | 67.5° | 90°   | Flux |
|------|-------|-------|-------|-------|-------|------|
| 0°   | 15154 | 15154 | 15154 | 15154 | 15154 |      |
| 5°   | 15058 | 15099 | 15080 | 15140 | 15121 | ###  |
| 15°  | 14450 | 14520 | 14587 | 14710 | 14724 | 4074 |
| 25°  | 13196 | 13341 | 13530 | 13742 | 13775 | 6070 |
| 35°  | 11282 | 11546 | 12020 | 12384 | 12458 | 7053 |
| 45°  | 8905  | 9354  | 10136 | 10689 | 10804 | 6875 |
| 55°  | 6309  | 6962  | 8019  | 8623  | 8727  | 5656 |
| 65°  | 3850  | 4636  | 5675  | 5956  | 5890  | 3825 |
| 75°  | 1814  | 2604  | 3286  | 3371  | 3338  | 1935 |
| 85°  | 378   | 998   | 1647  | 1873  | 1906  | 437  |
| 90°  | 0     | 389   | 942   | 1187  | 1235  | 24   |
| 95°  | 18    | 263   | 705   | 898   | 931   | 16   |
| 105° | 26    | 152   | 408   | 534   | 556   | 26   |
| 115° | 30    | 85    | 252   | 338   | 352   | 30   |
| 125° | 30    | 41    | 152   | 219   | 230   | 27   |
| 135° | 26    | 33    | 78    | 134   | 148   | 20   |
| 145° | 37    | 33    | 37    | 67    | 78    | 22   |
| 155° | 37    | 41    | 37    | 33    | 37    | 11   |
| 165° | 0     | 0     | 0     | 0     | 0     | 0    |
| 175° | 0     | 0     | 0     | 0     | 0     | 0    |
| 180° | 0     | 0     | 0     | 0     | 0     |      |



TEST NUMBER: P830481

CATALOG NUMBER: OHBL-48HE-MFL-UNV-L840-CD

**CANDELA DISTRIBUTION (FULL):**

|        | 0°      | 22.5°   | 45°     | 67.5°   | 90°     |
|--------|---------|---------|---------|---------|---------|
| 0°     | 15154.5 | 15154.5 | 15154.5 | 15154.5 | 15154.5 |
| 2.5°   | 15110.0 | 15147.1 | 15124.9 | 15173.1 | 15169.4 |
| 5°     | 15058.1 | 15098.9 | 15080.4 | 15139.7 | 15121.2 |
| 7.5°   | 14969.1 | 15013.6 | 15009.9 | 15076.7 | 15069.2 |
| 10°    | 14839.3 | 14887.5 | 14902.3 | 14991.4 | 14991.4 |
| 12.5°  | 14661.3 | 14724.3 | 14761.4 | 14869.0 | 14872.7 |
| 15°    | 14449.9 | 14520.3 | 14587.1 | 14709.5 | 14724.3 |
| 17.5°  | 14193.9 | 14283.0 | 14375.7 | 14516.6 | 14535.2 |
| 20°    | 13904.7 | 14004.8 | 14130.9 | 14279.2 | 14301.5 |
| 22.5°  | 13570.9 | 13689.5 | 13852.7 | 14027.0 | 14053.0 |
| 25°    | 13196.3 | 13340.9 | 13530.1 | 13741.5 | 13774.8 |
| 27.5°  | 12769.7 | 12936.6 | 13192.5 | 13429.9 | 13459.6 |
| 30°    | 12306.1 | 12502.7 | 12821.7 | 13103.5 | 13151.7 |
| 32.5°  | 11816.5 | 12042.8 | 12435.9 | 12751.2 | 12817.9 |
| 35°    | 11282.5 | 11545.8 | 12020.5 | 12384.0 | 12458.2 |
| 37.5°  | 10755.8 | 11045.1 | 11582.9 | 11998.3 | 12087.3 |
| 40°    | 10140.1 | 10499.9 | 11115.6 | 11575.5 | 11683.0 |
| 42.5°  | 9561.5  | 9951.0  | 10648.2 | 11148.9 | 11252.8 |
| 45°    | 8905.1  | 9353.8  | 10136.4 | 10689.0 | 10804.0 |
| 47.5°  | 8289.4  | 8775.2  | 9643.1  | 10214.3 | 10333.0 |
| 50°    | 7640.3  | 8174.4  | 9116.5  | 9713.6  | 9836.0  |
| 52.5°  | 6991.3  | 7566.1  | 8571.3  | 9190.6  | 9305.6  |
| 55°    | 6308.8  | 6961.6  | 8018.6  | 8623.2  | 8727.0  |
| 57.5°  | 5674.6  | 6364.5  | 7451.2  | 8026.1  | 8089.1  |
| 60°    | 5047.8  | 5763.6  | 6872.6  | 7377.0  | 7399.2  |
| 62.5°  | 4435.8  | 5188.7  | 6279.2  | 6679.7  | 6650.1  |
| 65°    | 3849.8  | 4636.1  | 5674.6  | 5956.5  | 5889.7  |
| 67.5°  | 3286.1  | 4098.3  | 5055.2  | 5237.0  | 5147.9  |
| 70°    | 2752.0  | 3575.4  | 4454.4  | 4547.1  | 4465.5  |
| 72.5°  | 2281.0  | 3078.4  | 3846.1  | 3924.0  | 3864.7  |
| 75°    | 1813.7  | 2603.6  | 3286.1  | 3371.4  | 3338.0  |
| 77.5°  | 1376.0  | 2143.7  | 2770.5  | 2881.8  | 2889.2  |
| 80°    | 990.3   | 1724.6  | 2321.8  | 2496.1  | 2518.3  |
| 82.5°  | 652.8   | 1338.9  | 1947.2  | 2169.7  | 2203.1  |
| 85°    | 378.3   | 997.7   | 1646.7  | 1873.0  | 1906.4  |
| 87.5°  | 163.2   | 719.5   | 1324.1  | 1528.1  | 1568.9  |
| 90°    | 0.0     | 389.4   | 942.1   | 1186.8  | 1235.1  |
| 92.5°  | 11.1    | 322.7   | 808.5   | 1031.1  | 1071.9  |
| 95°    | 18.5    | 263.3   | 704.7   | 897.6   | 930.9   |
| 97.5°  | 22.3    | 222.5   | 612.0   | 782.6   | 816.0   |
| 100°   | 22.3    | 192.9   | 530.4   | 686.1   | 715.8   |
| 102.5° | 22.3    | 170.6   | 463.6   | 600.8   | 626.8   |
| 105°   | 26.0    | 152.1   | 408.0   | 534.1   | 556.3   |



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**CANDELA DISTRIBUTION (continued):**

|        | 0°   | 22.5° | 45°   | 67.5° | 90°   |
|--------|------|-------|-------|-------|-------|
| 112.5° | 29.7 | 100.1 | 281.9 | 378.3 | 393.1 |
| 115°   | 29.7 | 85.3  | 252.2 | 337.5 | 352.3 |
| 117.5° | 33.4 | 74.2  | 222.5 | 304.1 | 315.3 |
| 120°   | 33.4 | 63.1  | 196.6 | 270.7 | 285.6 |
| 122.5° | 33.4 | 51.9  | 174.3 | 244.8 | 255.9 |
| 125°   | 29.7 | 40.8  | 152.1 | 218.8 | 230.0 |
| 127.5° | 26.0 | 33.4  | 129.8 | 196.6 | 207.7 |
| 130°   | 26.0 | 29.7  | 111.3 | 174.3 | 185.4 |
| 132.5° | 26.0 | 33.4  | 92.7  | 152.1 | 166.9 |
| 135°   | 26.0 | 33.4  | 77.9  | 133.5 | 148.4 |
| 137.5° | 26.0 | 33.4  | 63.1  | 115.0 | 129.8 |
| 140°   | 29.7 | 33.4  | 51.9  | 96.4  | 111.3 |
| 142.5° | 33.4 | 33.4  | 40.8  | 81.6  | 92.7  |
| 145°   | 37.1 | 33.4  | 37.1  | 66.8  | 77.9  |
| 147.5° | 37.1 | 37.1  | 37.1  | 51.9  | 63.1  |
| 150°   | 37.1 | 40.8  | 37.1  | 40.8  | 51.9  |
| 152.5° | 37.1 | 40.8  | 37.1  | 33.4  | 40.8  |
| 155°   | 37.1 | 40.8  | 37.1  | 33.4  | 37.1  |
| 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° | 26.0 | 133.5 | 359.8 | 474.7 | 493.3 |
| 110°   | 26.0 | 118.7 | 319.0 | 422.8 | 441.4 |



(END OF REPORT)