

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: P830097

Luminaire Tested: **OHBL-24SE-A-UNV-L840-CD**

Issue Date: 5/3/2024



**Test Information**

Test Method: LM-79-08  
Report Number: P830097  
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-24SE-A-UNV-L840-CD  
Description: 24000 LUMEN OHBL SE LED LUMINAIRE WITH 80CRI, 4000K LEDS AND AISLE LENS  
Light Source: -  
Ballast/Driver: -

**Summary**

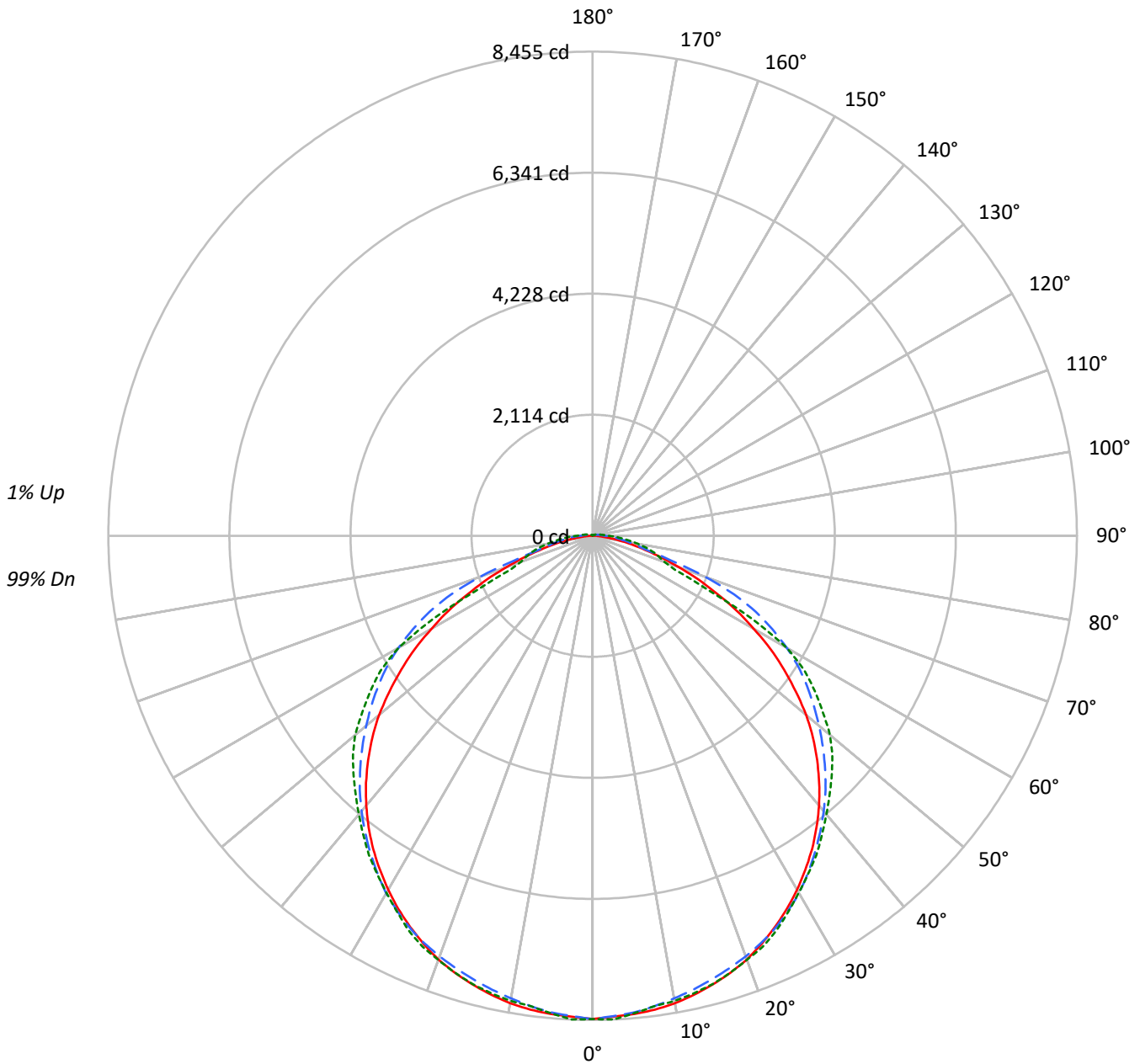
Lumens per Lamp: N/A  
Luminaire Lumens: 23850.0 lumens  
Efficiency: N/A  
Efficacy: 172.8 lumens/watt  
Spacing Criteria (0/90/45): 1.26 / 1.27 / 1.39  
Luminous Opening: Rectangular w/ Sides (W: 1.67' x L: 3.78' x H: 0.17')  
CIE Type: Direct

Input Watts (W): 138  
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

TEST NUMBER: P830097

CATALOG NUMBER: OHBL-24SE-A-UNV-L840-CD

### Luminous Intensity Polar Plot





TEST NUMBER: P830097

CATALOG NUMBER: OHBL-24SE-A-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°  | 14412 | 14412 | 14412 |
| 5°  | 14318 | 14196 | 14224 |
| 10° | 14266 | 13975 | 14057 |
| 15° | 14175 | 13808 | 13953 |
| 20° | 14084 | 13700 | 13821 |
| 25° | 13915 | 13592 | 13689 |
| 30° | 13730 | 13424 | 13420 |
| 35° | 13509 | 13162 | 13266 |
| 40° | 13222 | 12891 | 13061 |
| 45° | 12823 | 12578 | 12962 |
| 50° | 12284 | 12223 | 12844 |
| 55° | 11426 | 11871 | 12347 |
| 60° | 10304 | 11361 | 11396 |
| 65° | 8839  | 10424 | 7207  |
| 70° | 7119  | 8121  | 5210  |
| 75° | 5338  | 4807  | 5265  |
| 80° | 3716  | 3978  | 4993  |
| 85° | 2115  | 3612  | 4618  |



TEST NUMBER: P830097

CATALOG NUMBER: OHBL-24SE-A-UNV-L840-CD

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 795.6   | 3.3       |
| 10°-20°   | 2281.5  | 9.6       |
| 20°-30°   | 3484.6  | 14.6      |
| 30°-40°   | 4228.0  | 17.7      |
| 40°-50°   | 4431.4  | 18.6      |
| 50°-60°   | 4015.5  | 16.8      |
| 60°-70°   | 2692.2  | 11.3      |
| 70°-80°   | 1208.9  | 5.1       |
| 80°-90°   | 438.7   | 1.8       |
| 90°-100°  | 132.0   | 0.6       |
| 100°-110° | 62.3    | 0.3       |
| 110°-120° | 31.2    | 0.1       |
| 120°-130° | 17.2    | 0.1       |
| 130°-140° | 11.8    | 0.0       |
| 140°-150° | 8.0     | 0.0       |
| 150°-160° | 5.9     | 0.0       |
| 160°-170° | 3.8     | 0.0       |
| 170°-180° | 1.2     | 0.0       |
| 0°-30°    | 6561.8  | 27.5      |
| 0°-40°    | 10789.8 | 45.2      |
| 0°-60°    | 19236.6 | 80.7      |
| 0°-90°    | 23576.4 | 98.9      |
| 90°-120°  | 225.6   | 0.9       |
| 90°-150°  | 262.6   | 1.1       |
| 90°-180°  | 274.0   | 1.1       |
| 0°-180°   | 23850.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|      | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|------|------|-------|------|-------|------|------|
| 0°   | 8438 | 8438  | 8438 | 8438  | 8438 |      |
| 5°   | 8383 | 8412  | 8354 | 8380  | 8369 | 797  |
| 15°  | 8111 | 8079  | 8022 | 8093  | 8103 | 2290 |
| 25°  | 7535 | 7502  | 7555 | 7624  | 7602 | 3473 |
| 35°  | 6679 | 6695  | 6763 | 6835  | 6808 | 4174 |
| 45°  | 5543 | 5633  | 5738 | 5884  | 5903 | 4270 |
| 55°  | 4079 | 4275  | 4567 | 4750  | 4739 | 3641 |
| 65°  | 2394 | 2768  | 3143 | 2652  | 2166 | 2385 |
| 75°  | 942  | 1366  | 1005 | 1028  | 1096 | 1029 |
| 85°  | 162  | 311   | 399  | 482   | 505  | 198  |
| 90°  | 1    | 104   | 206  | 259   | 271  | 10   |
| 95°  | 1    | 65    | 142  | 172   | 177  | 2    |
| 105° | 5    | 28    | 70   | 84    | 88   | 6    |
| 115° | 10   | 15    | 35   | 45    | 48   | 9    |
| 125° | 8    | 10    | 22   | 26    | 27   | 9    |
| 135° | 11   | 12    | 13   | 20    | 21   | 9    |
| 145° | 11   | 12    | 12   | 13    | 15   | 7    |
| 155° | 12   | 13    | 13   | 13    | 12   | 6    |
| 165° | 13   | 13    | 13   | 13    | 13   | 4    |
| 175° | 13   | 13    | 12   | 11    | 11   | 1    |
| 180° | 12   | 12    | 12   | 12    | 12   |      |



TEST NUMBER: P830097

CATALOG NUMBER: OHBL-24SE-A-UNV-L840-CD

**CANDELA DISTRIBUTION (FULL):**

|        | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|--------|--------|--------|--------|--------|--------|
| 0°     | 8438.2 | 8438.2 | 8438.2 | 8438.2 | 8438.2 |
| 2.5°   | 8404.0 | 8439.4 | 8395.4 | 8443.0 | 8455.2 |
| 5°     | 8383.2 | 8412.5 | 8354.0 | 8379.6 | 8368.6 |
| 7.5°   | 8345.4 | 8355.2 | 8285.6 | 8306.4 | 8284.4 |
| 10°    | 8289.3 | 8284.4 | 8202.7 | 8242.9 | 8247.8 |
| 12.5°  | 8206.3 | 8191.7 | 8118.5 | 8179.5 | 8180.7 |
| 15°    | 8111.2 | 8079.4 | 8022.1 | 8092.9 | 8102.6 |
| 17.5°  | 8001.4 | 7959.9 | 7922.1 | 8013.6 | 7998.9 |
| 20°    | 7873.2 | 7824.4 | 7817.1 | 7917.2 | 7880.6 |
| 22.5°  | 7714.6 | 7676.8 | 7693.9 | 7789.1 | 7765.9 |
| 25°    | 7535.3 | 7502.3 | 7554.8 | 7624.3 | 7602.4 |
| 27.5°  | 7346.2 | 7326.6 | 7386.4 | 7440.1 | 7397.4 |
| 30°    | 7138.8 | 7127.8 | 7207.1 | 7251.0 | 7197.3 |
| 32.5°  | 6913.0 | 6916.7 | 6992.3 | 7052.1 | 7002.1 |
| 35°    | 6678.8 | 6694.6 | 6763.0 | 6835.0 | 6808.1 |
| 37.5°  | 6421.3 | 6456.7 | 6525.0 | 6606.8 | 6578.7 |
| 40°    | 6149.3 | 6200.5 | 6276.1 | 6375.0 | 6349.4 |
| 42.5°  | 5855.2 | 5919.9 | 6017.5 | 6127.3 | 6124.9 |
| 45°    | 5542.9 | 5633.2 | 5738.1 | 5884.5 | 5902.8 |
| 47.5°  | 5218.3 | 5319.6 | 5452.6 | 5647.8 | 5675.9 |
| 50°    | 4865.7 | 4992.6 | 5158.5 | 5392.8 | 5409.9 |
| 52.5°  | 4472.9 | 4646.1 | 4865.7 | 5090.2 | 5069.5 |
| 55°    | 4078.8 | 4275.2 | 4566.8 | 4749.8 | 4738.8 |
| 57.5°  | 3685.9 | 3906.7 | 4260.6 | 4391.1 | 4389.9 |
| 60°    | 3246.7 | 3526.1 | 3912.8 | 4011.7 | 3914.1 |
| 62.5°  | 2840.4 | 3140.5 | 3541.9 | 3469.9 | 3135.6 |
| 65°    | 2393.8 | 2768.4 | 3143.0 | 2652.5 | 2165.7 |
| 67.5°  | 1997.3 | 2387.7 | 2669.6 | 1816.7 | 1555.6 |
| 70°    | 1598.3 | 2029.0 | 2081.5 | 1348.2 | 1329.9 |
| 72.5°  | 1244.5 | 1703.2 | 1436.0 | 1154.2 | 1212.8 |
| 75°    | 941.9  | 1366.5 | 1005.4 | 1028.5 | 1095.6 |
| 77.5°  | 686.9  | 1049.3 | 782.1  | 901.6  | 956.6  |
| 80°    | 472.2  | 743.0  | 638.1  | 757.7  | 795.5  |
| 82.5°  | 296.5  | 490.5  | 511.2  | 610.0  | 649.1  |
| 85°    | 162.3  | 311.1  | 399.0  | 481.9  | 505.1  |
| 87.5°  | 67.1   | 187.9  | 305.0  | 372.1  | 391.6  |
| 90°    | 1.2    | 103.7  | 206.2  | 258.7  | 270.9  |
| 92.5°  | 1.2    | 79.3   | 168.4  | 208.6  | 217.2  |
| 95°    | 1.2    | 64.7   | 141.5  | 172.0  | 176.9  |
| 97.5°  | 2.4    | 51.2   | 118.3  | 142.8  | 147.6  |
| 100°   | 3.7    | 42.7   | 98.8   | 119.6  | 123.2  |
| 102.5° | 4.9    | 34.2   | 83.0   | 100.0  | 103.7  |
| 105°   | 4.9    | 28.1   | 69.5   | 84.2   | 87.8   |



TEST NUMBER: P830097

CATALOG NUMBER: OHBL-24SE-A-UNV-L840-CD

**CANDELA DISTRIBUTION (continued):**

|        | 0°   | 22.5° | 45°  | 67.5° | 90°  |
|--------|------|-------|------|-------|------|
| 112.5° | 8.5  | 17.1  | 41.5 | 52.5  | 54.9 |
| 115°   | 9.8  | 14.6  | 35.4 | 45.1  | 47.6 |
| 117.5° | 9.8  | 12.2  | 30.5 | 37.8  | 40.3 |
| 120°   | 9.8  | 11.0  | 26.8 | 32.9  | 34.2 |
| 122.5° | 9.8  | 9.8   | 23.2 | 29.3  | 30.5 |
| 125°   | 8.5  | 9.8   | 22.0 | 25.6  | 26.8 |
| 127.5° | 9.8  | 9.8   | 19.5 | 23.2  | 24.4 |
| 130°   | 9.8  | 11.0  | 17.1 | 22.0  | 22.0 |
| 132.5° | 11.0 | 12.2  | 15.9 | 20.7  | 20.7 |
| 135°   | 11.0 | 12.2  | 13.4 | 19.5  | 20.7 |
| 137.5° | 12.2 | 12.2  | 12.2 | 18.3  | 19.5 |
| 140°   | 12.2 | 12.2  | 11.0 | 15.9  | 17.1 |
| 142.5° | 11.0 | 12.2  | 11.0 | 14.6  | 15.9 |
| 145°   | 11.0 | 12.2  | 12.2 | 13.4  | 14.6 |
| 147.5° | 12.2 | 12.2  | 12.2 | 12.2  | 13.4 |
| 150°   | 12.2 | 12.2  | 12.2 | 12.2  | 12.2 |
| 152.5° | 12.2 | 12.2  | 12.2 | 12.2  | 12.2 |
| 155°   | 12.2 | 13.4  | 13.4 | 13.4  | 12.2 |
| 157.5° | 12.2 | 13.4  | 13.4 | 13.4  | 13.4 |
| 160°   | 12.2 | 13.4  | 13.4 | 13.4  | 13.4 |
| 162.5° | 13.4 | 13.4  | 13.4 | 13.4  | 13.4 |
| 165°   | 13.4 | 13.4  | 13.4 | 13.4  | 13.4 |
| 167.5° | 13.4 | 14.6  | 13.4 | 13.4  | 13.4 |
| 170°   | 13.4 | 13.4  | 13.4 | 12.2  | 12.2 |
| 172.5° | 13.4 | 13.4  | 13.4 | 12.2  | 12.2 |
| 175°   | 13.4 | 13.4  | 12.2 | 11.0  | 11.0 |
| 177.5° | 14.6 | 13.4  | 12.2 | 11.0  | 9.8  |
| 180°   | 12.2 | 12.2  | 12.2 | 12.2  | 12.2 |



Report Generated By 670246072 / DESKTOP-50001EG







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







|        |     |      |      |      |      |
|--------|-----|------|------|------|------|
| 107.5° | 6.1 | 23.2 | 59.8 | 72.0 | 74.4 |
| 110°   | 7.3 | 19.5 | 50.0 | 61.0 | 63.4 |



(END OF REPORT)