

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: P826620

Luminaire Tested: **OHBL-48SE-N-UNV-L830-CD-UPL24**

Issue Date: 5/3/2024



**Test Information**

Test Method: LM-79-08  
Report Number: P826620  
REPORT IS A COMBINATION OF REPORTS P826260 AND G3-2310-221-6  
Test Lab: INNOVATION CENTER  
Issue Date: 5/3/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: OHBL-48SE-N-UNV-L830-CD-UPL24  
Description:  
Light Source: -  
Ballast/Driver: -

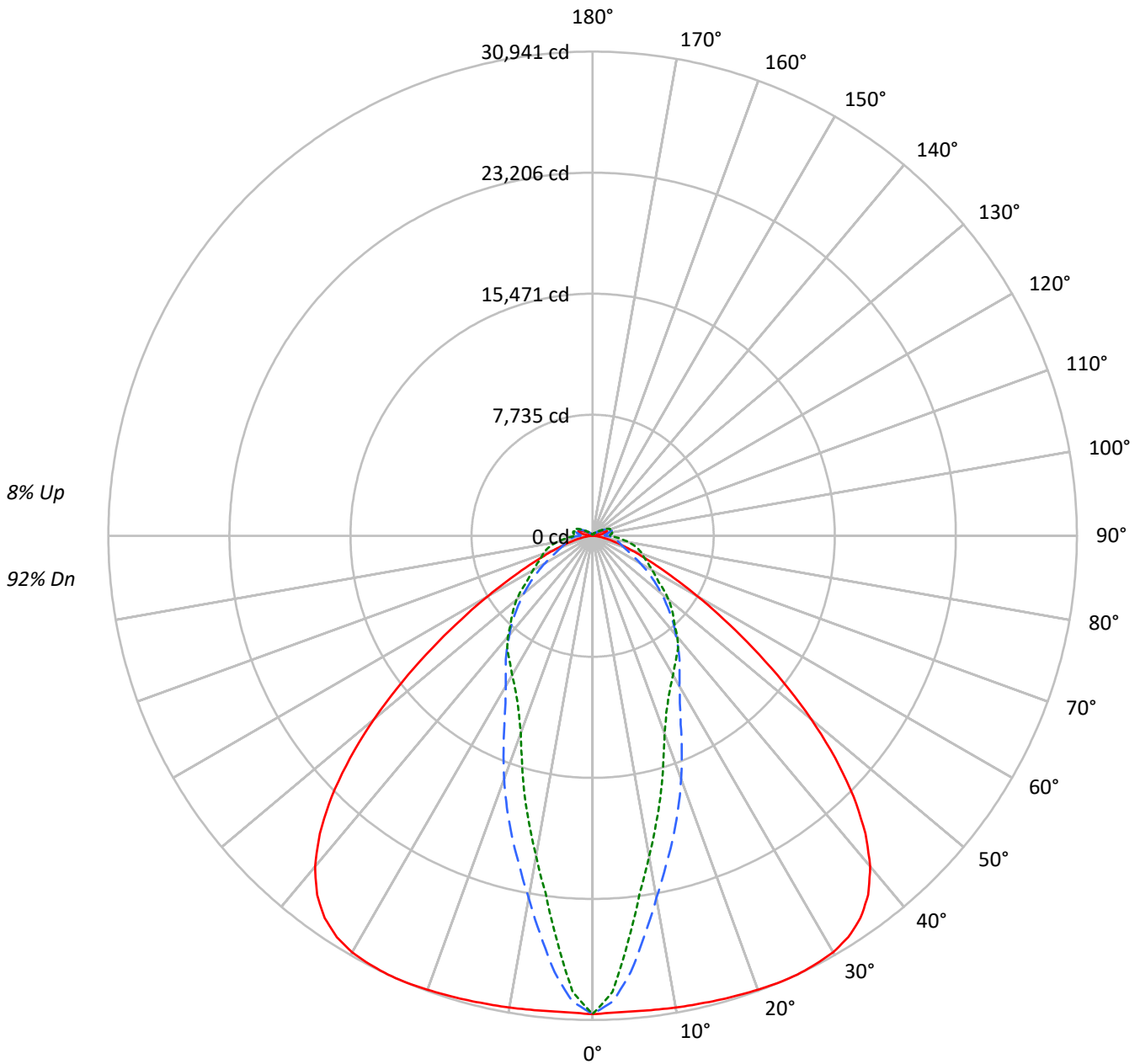
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 47363.7 lumens  
Efficiency: N/A  
Efficacy: 154.7 lumens/watt  
Spacing Criteria (0/90/45): 1.47 / 0.53 / 0.78  
Luminous Opening: Rectangular w/ Sides (W: 3.78' x L: 1.67' x H: 0.17')  
CIE Type: Direct  
  
Input Watts (W): 306.2  
Input Voltage (V): NR  
Input Current (Ain): 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: P826620

CATALOG NUMBER: OHBL-48SE-N-UNV-L830-CD-UPL24

### Luminous Intensity Polar Plot





TEST NUMBER: P826620

CATALOG NUMBER: OHBL-48SE-N-UNV-L830-CD-UPL24

**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   | 117 | 117 | 117 | 117 | 114 | 114 | 114 | 114 | 107 | 107 | 107 | 100 | 100 | 100 | 95 | 95 | 95 | 92 |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 1   | 108 | 103 | 99  | 96  | 104 | 100 | 97  | 93  | 95  | 92  | 89  | 89  | 87  | 85  | 85 | 83 | 81 | 79 |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 2   | 99  | 92  | 85  | 80  | 96  | 89  | 83  | 79  | 84  | 80  | 76  | 80  | 76  | 73  | 76 | 73 | 70 | 68 |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 3   | 91  | 82  | 74  | 69  | 88  | 80  | 73  | 67  | 76  | 70  | 65  | 72  | 67  | 63  | 68 | 65 | 61 | 59 |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 4   | 84  | 74  | 66  | 60  | 82  | 72  | 64  | 59  | 68  | 62  | 57  | 65  | 60  | 55  | 62 | 58 | 54 | 52 |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 5   | 78  | 67  | 58  | 52  | 76  | 65  | 57  | 52  | 62  | 56  | 51  | 59  | 54  | 49  | 57 | 52 | 48 | 46 |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 6   | 73  | 61  | 53  | 47  | 71  | 59  | 52  | 46  | 57  | 50  | 45  | 54  | 49  | 44  | 52 | 47 | 43 | 41 |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 7   | 68  | 56  | 48  | 42  | 66  | 54  | 47  | 42  | 52  | 46  | 41  | 50  | 44  | 40  | 48 | 43 | 39 | 37 |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 8   | 64  | 51  | 43  | 38  | 62  | 50  | 43  | 38  | 48  | 42  | 37  | 46  | 41  | 36  | 45 | 40 | 36 | 34 |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 9   | 60  | 47  | 40  | 35  | 58  | 47  | 39  | 34  | 45  | 38  | 34  | 43  | 37  | 33  | 42 | 37 | 33 | 31 |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 10  | 56  | 44  | 37  | 32  | 55  | 43  | 36  | 32  | 42  | 35  | 31  | 40  | 35  | 31  | 39 | 34 | 30 | 28 |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |

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

|     | 0°    | 45°   | 90°   |
|-----|-------|-------|-------|
| 0°  | 52205 | 52205 | 52205 |
| 5°  | 51847 | 47542 | 44418 |
| 10° | 52176 | 40046 | 35790 |
| 15° | 52932 | 34249 | 29522 |
| 20° | 54140 | 28959 | 24001 |
| 25° | 55711 | 23970 | 21144 |
| 30° | 57305 | 20650 | 19755 |
| 35° | 58131 | 18819 | 18941 |
| 40° | 56739 | 17000 | 18095 |
| 45° | 51786 | 15362 | 16886 |
| 50° | 43290 | 13572 | 15995 |
| 55° | 32532 | 11887 | 14392 |
| 60° | 22488 | 10195 | 13968 |
| 65° | 14859 | 8780  | 13921 |
| 70° | 9903  | 8240  | 14966 |
| 75° | 6626  | 8498  | 16584 |
| 80° | 4290  | 9411  | 18151 |
| 85° | 2208  | 11772 | 21644 |



TEST NUMBER: P826620

CATALOG NUMBER: OHBL-48SE-N-UNV-L830-CD-UPL24

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 2573.0  | 5.4       |
| 10°-20°   | 6052.8  | 12.8      |
| 20°-30°   | 7587.1  | 16.0      |
| 30°-40°   | 8050.7  | 17.0      |
| 40°-50°   | 7279.1  | 15.4      |
| 50°-60°   | 5277.8  | 11.1      |
| 60°-70°   | 3312.1  | 7.0       |
| 70°-80°   | 2191.8  | 4.6       |
| 80°-90°   | 1268.5  | 2.7       |
| 90°-100°  | 827.5   | 1.7       |
| 100°-110° | 1171.3  | 2.5       |
| 110°-120° | 903.1   | 1.9       |
| 120°-130° | 434.4   | 0.9       |
| 130°-140° | 212.3   | 0.4       |
| 140°-150° | 121.1   | 0.3       |
| 150°-160° | 65.9    | 0.1       |
| 160°-170° | 27.0    | 0.1       |
| 170°-180° | 8.2     | 0.0       |
| 0°-30°    | 16212.8 | 34.2      |
| 0°-40°    | 24263.5 | 51.2      |
| 0°-60°    | 36820.5 | 77.7      |
| 0°-90°    | 43592.9 | 92.0      |
| 90°-120°  | 2901.8  | 6.1       |
| 90°-150°  | 3669.6  | 7.7       |
| 90°-180°  | 3771.0  | 8.0       |
| 0°-180°   | 47363.7 | 100.0     |

**CANDELA DISTRIBUTION:**

|      | 0°    | 22.5° | 45°   | 67.5° | 90°   | Flux  |
|------|-------|-------|-------|-------|-------|-------|
| 0°   | 30565 | 30565 | 30565 | 30565 | 30565 |       |
| 5°   | 30504 | 29722 | 27976 | 26679 | 26007 | ###   |
| 15°  | 30737 | 25053 | 19898 | 17696 | 16893 | 8717  |
| 25°  | 30941 | 19371 | 13324 | 11825 | 11450 | 14294 |
| 35°  | 29832 | 12878 | 9670  | 9367  | 9364  | 18545 |
| 45°  | 23584 | 8157  | 7008  | 7177  | 7299  | 17966 |
| 55°  | 12486 | 5056  | 4573  | 4960  | 5137  | 11281 |
| 65°  | 4465  | 2932  | 2647  | 3392  | 3770  | 4647  |
| 75°  | 1379  | 1580  | 1778  | 2761  | 2926  | 1537  |
| 85°  | 242   | 655   | 1300  | 1810  | 1661  | 289   |
| 90°  | 5     | 305   | 797   | 1120  | 1135  | 19    |
| 95°  | 61    | 295   | 823   | 1114  | 1183  | 164   |
| 105° | 957   | 1051  | 1268  | 1199  | 1171  | 909   |
| 115° | 676   | 741   | 976   | 1056  | 1059  | 681   |
| 125° | 349   | 378   | 504   | 546   | 541   | 325   |
| 135° | 215   | 225   | 269   | 312   | 314   | 170   |
| 145° | 170   | 176   | 185   | 209   | 207   | 107   |
| 155° | 143   | 153   | 158   | 162   | 156   | 61    |
| 165° | 93    | 94    | 95    | 95    | 95    | 27    |
| 175° | 84    | 85    | 85    | 86    | 86    | 8     |
| 180° | 84    | 84    | 84    | 84    | 84    |       |



TEST NUMBER: P826620

CATALOG NUMBER: OHBL-48SE-N-UNV-L830-CD-UPL24

**CANDELA DISTRIBUTION (FULL):**

|        | 0°      | 22.5°   | 45°     | 67.5°   | 90°     |
|--------|---------|---------|---------|---------|---------|
| 0°     | 30565.4 | 30565.4 | 30565.4 | 30565.4 | 30565.4 |
| 2.5°   | 30501.5 | 30326.9 | 29782.9 | 29451.2 | 29172.0 |
| 5°     | 30504.4 | 29721.8 | 27976.4 | 26678.9 | 26007.0 |
| 7.5°   | 30548.0 | 28808.3 | 25663.7 | 23769.9 | 23031.0 |
| 10°    | 30614.9 | 27676.8 | 23505.2 | 21486.2 | 20796.8 |
| 12.5°  | 30664.3 | 26402.6 | 21605.5 | 19531.4 | 18775.1 |
| 15°    | 30737.1 | 25052.8 | 19897.9 | 17695.8 | 16892.8 |
| 17.5°  | 30804.0 | 23781.6 | 18210.7 | 15909.6 | 15016.6 |
| 20°    | 30870.9 | 22411.3 | 16523.4 | 14152.5 | 13416.6 |
| 22.5°  | 30934.9 | 20965.5 | 14876.9 | 12788.2 | 12284.9 |
| 25°    | 30940.7 | 19371.4 | 13323.5 | 11825.3 | 11450.0 |
| 27.5°  | 30865.0 | 17719.1 | 12063.8 | 11019.5 | 10786.8 |
| 30°    | 30734.1 | 16116.2 | 11086.4 | 10437.7 | 10271.8 |
| 32.5°  | 30408.3 | 14481.3 | 10330.0 | 9876.3  | 9780.2  |
| 35°    | 29832.3 | 12878.4 | 9669.7  | 9367.2  | 9364.3  |
| 37.5°  | 28924.7 | 11455.9 | 8954.1  | 8901.7  | 8965.7  |
| 40°    | 27583.6 | 10210.8 | 8276.3  | 8415.9  | 8415.9  |
| 42.5°  | 25794.5 | 9128.7  | 7662.5  | 7805.0  | 7767.2  |
| 45°    | 23583.7 | 8157.0  | 7007.9  | 7176.6  | 7298.8  |
| 47.5°  | 21020.8 | 7301.7  | 6338.9  | 6664.6  | 6833.3  |
| 50°    | 18234.0 | 6487.2  | 5727.9  | 6143.9  | 6335.9  |
| 52.5°  | 15313.2 | 5733.7  | 5131.5  | 5608.6  | 5762.8  |
| 55°    | 12485.6 | 5055.9  | 4573.0  | 4960.0  | 5137.4  |
| 57.5°  | 9925.7  | 4410.1  | 4026.1  | 4392.7  | 4759.2  |
| 60°    | 7723.5  | 3854.5  | 3511.3  | 4034.9  | 4401.4  |
| 62.5°  | 5899.5  | 3360.0  | 3028.3  | 3700.4  | 4066.9  |
| 65°    | 4465.4  | 2932.4  | 2647.2  | 3392.0  | 3770.1  |
| 67.5°  | 3365.8  | 2562.8  | 2350.5  | 3168.0  | 3537.4  |
| 70°    | 2527.9  | 2205.0  | 2112.0  | 3028.3  | 3360.0  |
| 72.5°  | 1867.6  | 1876.4  | 1922.9  | 2906.1  | 3159.2  |
| 75°    | 1378.9  | 1579.6  | 1777.5  | 2760.7  | 2926.5  |
| 77.5°  | 986.2   | 1309.1  | 1646.5  | 2586.1  | 2644.4  |
| 80°    | 683.6   | 1067.6  | 1509.8  | 2356.4  | 2306.8  |
| 82.5°  | 427.6   | 855.3   | 1387.6  | 2103.2  | 1966.5  |
| 85°    | 241.5   | 654.6   | 1300.4  | 1809.5  | 1661.0  |
| 87.5°  | 107.7   | 488.7   | 1137.4  | 1410.9  | 1317.8  |
| 90°    | 4.7     | 305.1   | 797.2   | 1119.5  | 1134.7  |
| 92.5°  | 21.7    | 268.7   | 762.2   | 1066.5  | 1107.7  |
| 95°    | 61.0    | 295.3   | 823.4   | 1114.0  | 1182.6  |
| 97.5°  | 264.8   | 439.5   | 913.8   | 1190.5  | 1256.1  |
| 100°   | 531.2   | 696.6   | 1013.3  | 1236.2  | 1273.7  |
| 102.5° | 814.1   | 928.8   | 1101.6  | 1216.6  | 1232.4  |
| 105°   | 956.6   | 1051.2  | 1268.3  | 1199.3  | 1171.1  |



TEST NUMBER: P826620

CATALOG NUMBER: OHBL-48SE-N-UNV-L830-CD-UPL24

**CANDELA DISTRIBUTION (continued):**

|        | 0°    | 22.5° | 45°    | 67.5°  | 90°    |
|--------|-------|-------|--------|--------|--------|
| 112.5° | 781.0 | 862.0 | 1111.8 | 1186.4 | 1171.2 |
| 115°   | 676.0 | 740.6 | 976.2  | 1055.9 | 1059.0 |
| 117.5° | 585.8 | 630.4 | 840.7  | 912.4  | 916.2  |
| 120°   | 490.9 | 536.0 | 718.9  | 775.3  | 769.8  |
| 122.5° | 417.4 | 451.8 | 602.8  | 650.5  | 641.9  |
| 125°   | 349.4 | 377.8 | 503.6  | 546.3  | 540.7  |
| 127.5° | 298.2 | 316.0 | 421.4  | 463.0  | 459.1  |
| 130°   | 263.7 | 276.9 | 356.1  | 397.7  | 398.6  |
| 132.5° | 234.8 | 247.1 | 306.0  | 350.4  | 349.5  |
| 135°   | 215.2 | 224.7 | 269.1  | 311.6  | 313.5  |
| 137.5° | 199.4 | 210.9 | 239.7  | 280.4  | 280.4  |
| 140°   | 185.5 | 195.0 | 217.1  | 253.9  | 254.8  |
| 142.5° | 176.2 | 182.9 | 198.2  | 229.2  | 229.2  |
| 145°   | 169.8 | 176.4 | 185.1  | 209.3  | 207.3  |
| 147.5° | 161.5 | 171.0 | 175.8  | 192.2  | 189.3  |
| 150°   | 154.9 | 165.5 | 168.3  | 178.0  | 176.0  |
| 152.5° | 148.4 | 159.0 | 161.8  | 168.5  | 165.6  |
| 155°   | 142.8 | 153.4 | 158.2  | 162.0  | 156.2  |
| 157.5° | 103.3 | 105.2 | 107.0  | 107.9  | 107.9  |
| 160°   | 99.6  | 100.5 | 102.4  | 103.3  | 103.3  |
| 162.5° | 95.8  | 96.8  | 97.7   | 98.6   | 98.6   |
| 165°   | 93.1  | 94.0  | 94.9   | 94.9   | 94.9   |
| 167.5° | 90.3  | 90.3  | 91.2   | 92.1   | 92.1   |
| 170°   | 87.5  | 88.4  | 88.4   | 89.3   | 89.3   |
| 172.5° | 85.6  | 86.5  | 86.5   | 86.5   | 87.5   |
| 175°   | 83.8  | 84.7  | 84.7   | 85.6   | 85.6   |
| 177.5° | 83.8  | 83.8  | 83.8   | 83.8   | 83.8   |
| 180°   | 83.8  | 83.8  | 83.8   | 83.8   | 83.8   |



Report Generated By 670246072 / DESKTOP-50001EG







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







|        |       |        |        |        |        |
|--------|-------|--------|--------|--------|--------|
| 107.5° | 960.3 | 1060.1 | 1310.4 | 1251.5 | 1158.3 |
| 110°   | 890.6 | 980.5  | 1235.3 | 1271.3 | 1200.5 |



(END OF REPORT)