

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: FAIL-SAFE

Report Number: P835669

Luminaire Tested: **ORLG-24-2-INS-OPL-LD4-5LO-40-120-EDD**

Issue Date: 5/16/2024



**Test Information**

Test Method: LM-79-08  
Report Number: P835669  
Test Lab: INNOVATION CENTER(G2)  
Issue Date: 5/16/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: FAIL-SAFE  
Catalog Number: ORLG-24-2-INS-OPL-LD4-SLO-40-120-EDD  
Description: 2FT x 2FT ORL LED LUMINAIRE WITH opal acrylic lens  
Light Source: 4000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

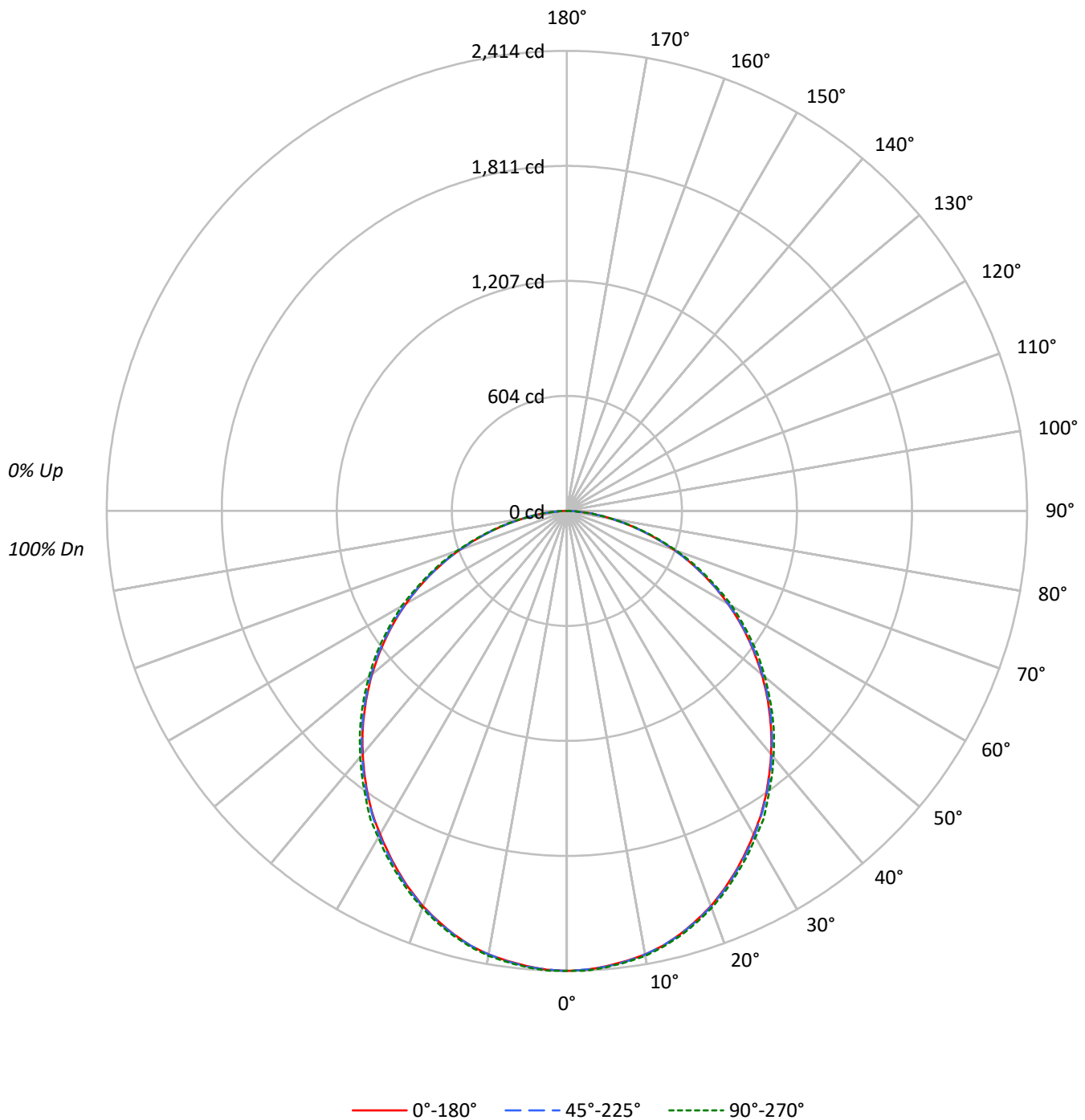
Lumens per Lamp: N/A  
Luminaire Lumens: 6521.7 lumens  
Efficiency: N/A  
Efficacy: 111.5 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.22 / 1.33  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct

Input Watts (W): 58.5  
Input Voltage (V): 120  
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: 28.75 FT

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### Luminous Intensity Polar Plot



Cooper Lighting Solutions Photometric Lab

1121 Highway 74 South

Peachtree City, GA 30269



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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| RF  | 20  |     |     |     | 20  |     |     |     |     | 20  |     |     |     |     | 20  |     |     |     |     | 20  |
| RC  | 80  |     |     |     | 70  |     |     |     |     | 50  |     |     |     |     | 30  |     |     |     |     | 10  |
| RW  | 70  | 50  | 30  | 10  | 70  | 50  | 30  | 10  | 50  | 30  | 10  | 50  | 30  | 10  | 50  | 30  | 10  | 50  | 30  | 10  |
| RCR |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| 0   | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 | 106 | 106 | 106 | 102 | 102 | 102 | 102 | 102 | 100 |
| 1   | 109 | 104 | 100 | 96  | 106 | 102 | 98  | 95  | 98  | 94  | 92  | 94  | 91  | 89  | 90  | 88  | 86  | 86  | 86  | 84  |
| 2   | 99  | 91  | 84  | 78  | 96  | 89  | 83  | 77  | 85  | 80  | 76  | 82  | 78  | 74  | 79  | 76  | 72  | 72  | 72  | 70  |
| 3   | 90  | 80  | 72  | 65  | 88  | 78  | 71  | 65  | 75  | 69  | 64  | 73  | 67  | 62  | 70  | 65  | 61  | 61  | 61  | 59  |
| 4   | 83  | 71  | 62  | 55  | 80  | 69  | 61  | 55  | 67  | 60  | 54  | 65  | 58  | 53  | 62  | 57  | 53  | 53  | 53  | 51  |
| 5   | 76  | 63  | 54  | 48  | 74  | 62  | 54  | 47  | 60  | 53  | 47  | 58  | 52  | 46  | 56  | 51  | 46  | 46  | 46  | 44  |
| 6   | 70  | 57  | 48  | 42  | 68  | 56  | 48  | 42  | 54  | 47  | 41  | 53  | 46  | 41  | 51  | 45  | 40  | 40  | 40  | 38  |
| 7   | 65  | 52  | 43  | 37  | 64  | 51  | 43  | 37  | 49  | 42  | 36  | 48  | 41  | 36  | 47  | 41  | 36  | 36  | 36  | 34  |
| 8   | 61  | 47  | 39  | 33  | 59  | 47  | 38  | 33  | 45  | 38  | 33  | 44  | 37  | 32  | 43  | 37  | 32  | 32  | 32  | 30  |
| 9   | 57  | 43  | 35  | 30  | 55  | 43  | 35  | 30  | 42  | 34  | 29  | 41  | 34  | 29  | 40  | 34  | 29  | 29  | 29  | 27  |
| 10  | 53  | 40  | 32  | 27  | 52  | 40  | 32  | 27  | 39  | 32  | 27  | 38  | 31  | 27  | 37  | 31  | 26  | 26  | 26  | 25  |

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

|     | 0°   | 45°  | 90°  |
|-----|------|------|------|
| 0°  | 6495 | 6495 | 6495 |
| 5°  | 6478 | 6483 | 6491 |
| 10° | 6457 | 6459 | 6478 |
| 15° | 6404 | 6408 | 6426 |
| 20° | 6321 | 6328 | 6351 |
| 25° | 6206 | 6221 | 6249 |
| 30° | 6090 | 6110 | 6147 |
| 35° | 5979 | 5993 | 6041 |
| 40° | 5852 | 5872 | 5924 |
| 45° | 5724 | 5749 | 5808 |
| 50° | 5586 | 5611 | 5676 |
| 55° | 5427 | 5453 | 5542 |
| 60° | 5247 | 5268 | 5387 |
| 65° | 5018 | 5033 | 5129 |
| 70° | 4710 | 4714 | 4816 |
| 75° | 4282 | 4266 | 4364 |
| 80° | 3679 | 3663 | 3725 |
| 85° | 2853 | 2807 | 2822 |

Classified

Scaled Data Report

Cooper Lighting Solutions Photometric Lab

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Peachtree City, GA 30269



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CATALOG NUMBER: ORLG-24-2-INS-OPL-LD4-5LO-40-120-EDD

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 228.1  | 3.5       |
| 10°-20°   | 648.8  | 9.9       |
| 20°-30°   | 965.8  | 14.8      |
| 30°-40°   | 1142.2 | 17.5      |
| 40°-50°   | 1166.0 | 17.9      |
| 50°-60°   | 1040.6 | 16.0      |
| 60°-70°   | 783.8  | 12.0      |
| 70°-80°   | 437.1  | 6.7       |
| 80°-90°   | 109.5  | 1.7       |
| 90°-100°  | 0.0    | 0.0       |
| 100°-110° | 0.0    | 0.0       |
| 110°-120° | 0.0    | 0.0       |
| 120°-130° | 0.0    | 0.0       |
| 130°-140° | 0.0    | 0.0       |
| 140°-150° | 0.0    | 0.0       |
| 150°-160° | 0.0    | 0.0       |
| 160°-170° | 0.0    | 0.0       |
| 170°-180° | 0.0    | 0.0       |
| 0°-30°    | 1842.6 | 28.3      |
| 0°-40°    | 2984.8 | 45.8      |
| 0°-60°    | 5191.4 | 79.6      |
| 0°-90°    | 6521.7 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 6521.7 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|-----|------|-------|------|-------|------|------|
| 0°  | 2414 | 2414  | 2414 | 2414  | 2414 |      |
| 5°  | 2398 | 2403  | 2400 | 2401  | 2403 | 228  |
| 15° | 2299 | 2301  | 2300 | 2302  | 2307 | 648  |
| 25° | 2090 | 2093  | 2095 | 2101  | 2105 | 963  |
| 35° | 1820 | 1818  | 1824 | 1831  | 1839 | 1138 |
| 45° | 1504 | 1504  | 1511 | 1518  | 1526 | 1160 |
| 55° | 1157 | 1155  | 1162 | 1170  | 1181 | 1034 |
| 65° | 788  | 785   | 790  | 798   | 806  | 779  |
| 75° | 412  | 408   | 410  | 412   | 420  | 437  |
| 85° | 92   | 90    | 91   | 90    | 91   | 111  |
| 90° | 0    | 0     | 0    | 0     | 0    |      |

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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|-------|--------|--------|--------|--------|--------|
| 0°    | 2413.6 | 2413.6 | 2413.6 | 2413.6 | 2413.6 |
| 2.5°  | 2409.6 | 2413.6 | 2408.6 | 2409.6 | 2414.1 |
| 5°    | 2398.1 | 2402.6 | 2400.1 | 2400.6 | 2403.1 |
| 7.5°  | 2382.1 | 2388.1 | 2384.6 | 2385.6 | 2388.1 |
| 10°   | 2363.1 | 2367.6 | 2363.6 | 2366.1 | 2370.6 |
| 12.5° | 2336.1 | 2338.1 | 2336.1 | 2337.1 | 2342.1 |
| 15°   | 2298.6 | 2301.1 | 2300.1 | 2302.1 | 2306.6 |
| 17.5° | 2254.7 | 2257.6 | 2257.2 | 2261.1 | 2264.6 |
| 20°   | 2207.2 | 2207.7 | 2209.7 | 2213.7 | 2217.7 |
| 22.5° | 2151.2 | 2152.7 | 2154.7 | 2160.2 | 2164.2 |
| 25°   | 2090.2 | 2092.7 | 2095.2 | 2100.7 | 2104.7 |
| 27.5° | 2025.8 | 2028.3 | 2031.8 | 2037.8 | 2044.3 |
| 30°   | 1959.8 | 1959.8 | 1966.3 | 1972.3 | 1978.3 |
| 32.5° | 1893.4 | 1890.9 | 1896.9 | 1904.4 | 1918.9 |
| 35°   | 1819.9 | 1817.9 | 1824.4 | 1831.4 | 1838.9 |
| 37.5° | 1743.5 | 1742.0 | 1749.5 | 1756.9 | 1763.9 |
| 40°   | 1666.0 | 1664.0 | 1671.5 | 1679.0 | 1686.5 |
| 42.5° | 1586.6 | 1585.6 | 1592.5 | 1600.0 | 1608.0 |
| 45°   | 1504.1 | 1503.6 | 1510.6 | 1518.1 | 1526.1 |
| 47.5° | 1420.2 | 1419.2 | 1426.1 | 1434.1 | 1441.1 |
| 50°   | 1334.2 | 1333.2 | 1340.2 | 1348.2 | 1355.7 |
| 52.5° | 1245.8 | 1245.8 | 1252.3 | 1259.2 | 1270.7 |
| 55°   | 1156.8 | 1155.3 | 1162.3 | 1170.3 | 1181.3 |
| 57.5° | 1066.9 | 1064.9 | 1071.4 | 1079.4 | 1089.3 |
| 60°   | 974.9  | 972.9  | 978.9  | 986.9  | 1000.9 |
| 62.5° | 882.0  | 879.0  | 885.0  | 892.5  | 901.0  |
| 65°   | 788.0  | 785.0  | 790.5  | 797.5  | 805.5  |
| 67.5° | 693.6  | 690.1  | 695.6  | 701.6  | 709.1  |
| 70°   | 598.6  | 595.1  | 599.1  | 605.1  | 612.1  |
| 72.5° | 504.2  | 500.7  | 504.2  | 506.7  | 515.2  |
| 75°   | 411.8  | 408.3  | 410.3  | 412.3  | 419.7  |
| 77.5° | 321.8  | 318.3  | 322.3  | 323.3  | 327.8  |
| 80°   | 237.4  | 233.9  | 236.4  | 236.9  | 240.4  |
| 82.5° | 160.4  | 157.4  | 160.9  | 158.4  | 161.4  |
| 85°   | 92.4   | 89.9   | 90.9   | 89.9   | 91.4   |
| 87.5° | 36.5   | 34.5   | 35.0   | 33.0   | 33.0   |
| 90°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |

(END OF REPORT)