

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: P835618

Luminaire Tested: **ORLG-24-2-INS-OPL-LD4-6LO-27-120-EDD**

Issue Date: 5/16/2024



**Test Information**

Test Method: LM-79-08  
Report Number: P835618  
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-LD4-6LO-27-120-EDD  
Description: 2FT x 2FT ORL LED LUMINAIRE WITH opal acrylic lens  
Light Source: 2700K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

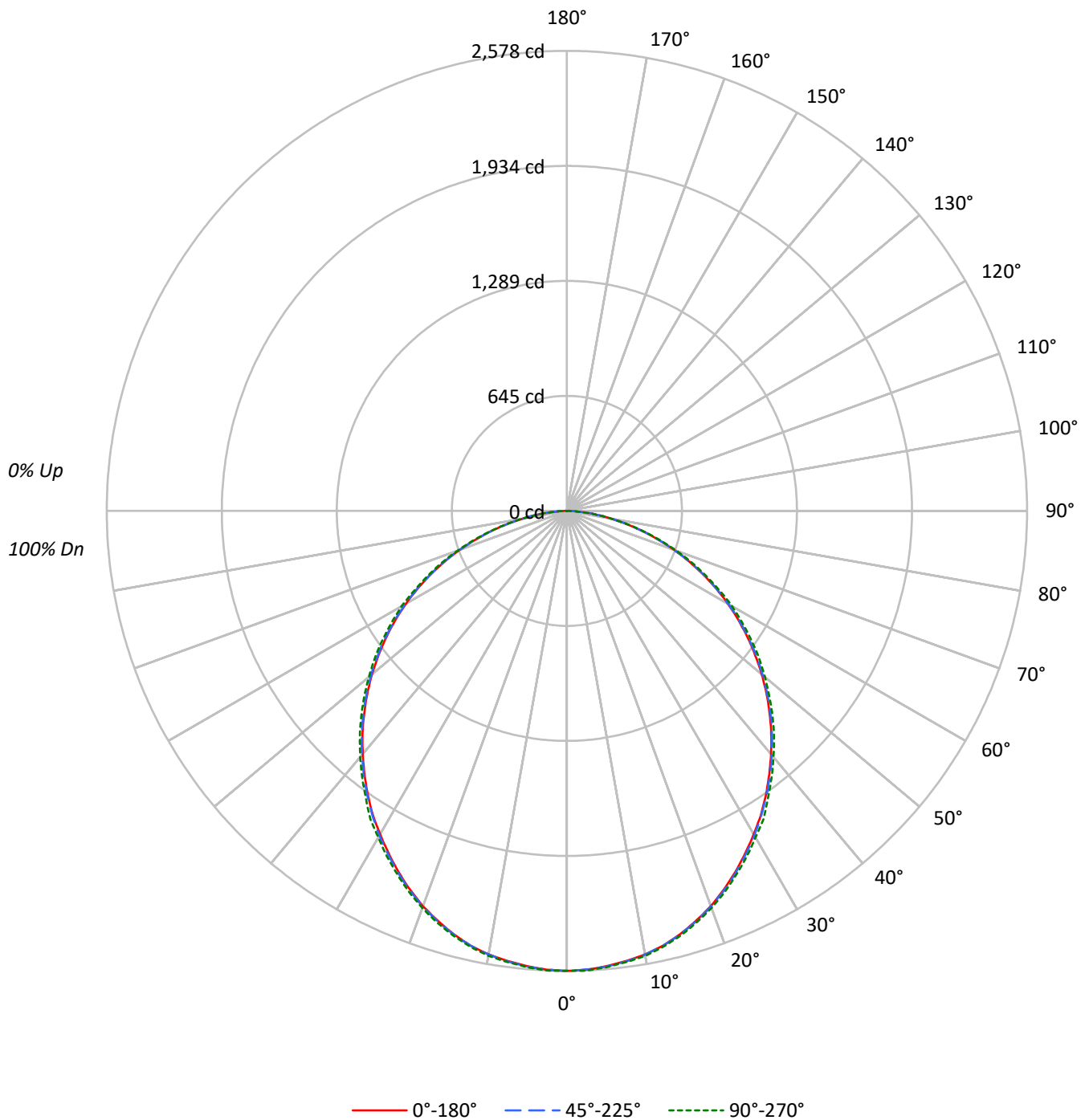
Lumens per Lamp: N/A  
Luminaire Lumens: 6964.7 lumens  
Efficiency: N/A  
Efficacy: 99.2 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.22 / 1.33  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct

Input Watts (W): 70.2  
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  |
| RCR |     |     |     |     |     |     |     |     |     |     |     |  |     |     |     |  |     |
| 0   | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 |  | 106 | 106 | 106 |  | 102 |
| 1   | 109 | 104 | 100 | 96  | 106 | 102 | 98  | 95  | 98  | 94  | 92  |  | 94  | 91  | 89  |  | 90  |
| 2   | 99  | 91  | 84  | 78  | 96  | 89  | 83  | 77  | 85  | 80  | 76  |  | 82  | 78  | 74  |  | 79  |
| 3   | 90  | 80  | 72  | 65  | 88  | 78  | 71  | 65  | 75  | 69  | 64  |  | 73  | 67  | 62  |  | 70  |
| 4   | 83  | 71  | 62  | 55  | 80  | 69  | 61  | 55  | 67  | 60  | 54  |  | 65  | 58  | 53  |  | 62  |
| 5   | 76  | 63  | 54  | 48  | 74  | 62  | 54  | 47  | 60  | 53  | 47  |  | 58  | 52  | 46  |  | 56  |
| 6   | 70  | 57  | 48  | 42  | 68  | 56  | 48  | 42  | 54  | 47  | 41  |  | 53  | 46  | 41  |  | 51  |
| 7   | 65  | 52  | 43  | 37  | 64  | 51  | 43  | 37  | 49  | 42  | 36  |  | 48  | 41  | 36  |  | 47  |
| 8   | 61  | 47  | 39  | 33  | 59  | 47  | 38  | 33  | 45  | 38  | 33  |  | 44  | 37  | 32  |  | 43  |
| 9   | 57  | 43  | 35  | 30  | 55  | 43  | 35  | 30  | 42  | 34  | 29  |  | 41  | 34  | 29  |  | 40  |
| 10  | 53  | 40  | 32  | 27  | 52  | 40  | 32  | 27  | 39  | 32  | 27  |  | 38  | 31  | 27  |  | 37  |

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

|     | 0°   | 45°  | 90°  |
|-----|------|------|------|
| 0°  | 6936 | 6936 | 6936 |
| 5°  | 6918 | 6924 | 6932 |
| 10° | 6896 | 6897 | 6918 |
| 15° | 6839 | 6843 | 6863 |
| 20° | 6750 | 6758 | 6782 |
| 25° | 6628 | 6644 | 6674 |
| 30° | 6503 | 6525 | 6565 |
| 35° | 6385 | 6400 | 6451 |
| 40° | 6250 | 6270 | 6327 |
| 45° | 6113 | 6139 | 6202 |
| 50° | 5965 | 5992 | 6061 |
| 55° | 5796 | 5824 | 5918 |
| 60° | 5603 | 5626 | 5753 |
| 65° | 5359 | 5375 | 5477 |
| 70° | 5030 | 5034 | 5143 |
| 75° | 4572 | 4555 | 4661 |
| 80° | 3928 | 3911 | 3978 |
| 85° | 3047 | 2998 | 3017 |

Classified

Scaled Data Report

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 243.6  | 3.5       |
| 10°-20°   | 692.8  | 9.9       |
| 20°-30°   | 1031.4 | 14.8      |
| 30°-40°   | 1219.7 | 17.5      |
| 40°-50°   | 1245.2 | 17.9      |
| 50°-60°   | 1111.3 | 16.0      |
| 60°-70°   | 837.0  | 12.0      |
| 70°-80°   | 466.8  | 6.7       |
| 80°-90°   | 116.9  | 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°    | 1967.8 | 28.3      |
| 0°-40°    | 3187.5 | 45.8      |
| 0°-60°    | 5544.0 | 79.6      |
| 0°-90°    | 6964.7 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 6964.7 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|-----|------|-------|------|-------|------|------|
| 0°  | 2578 | 2578  | 2578 | 2578  | 2578 |      |
| 5°  | 2561 | 2566  | 2563 | 2564  | 2566 | 243  |
| 15° | 2455 | 2457  | 2456 | 2458  | 2463 | 692  |
| 25° | 2232 | 2235  | 2238 | 2243  | 2248 | 1028 |
| 35° | 1944 | 1941  | 1948 | 1956  | 1964 | 1215 |
| 45° | 1606 | 1606  | 1613 | 1621  | 1630 | 1239 |
| 55° | 1235 | 1234  | 1241 | 1250  | 1262 | 1104 |
| 65° | 842  | 838   | 844  | 852   | 860  | 832  |
| 75° | 440  | 436   | 438  | 440   | 448  | 466  |
| 85° | 99   | 96    | 97   | 96    | 98   | 119  |
| 90° | 0    | 0     | 0    | 0     | 0    |      |

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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|-------|--------|--------|--------|--------|--------|
| 0°    | 2577.5 | 2577.5 | 2577.5 | 2577.5 | 2577.5 |
| 2.5°  | 2573.2 | 2577.5 | 2572.2 | 2573.2 | 2578.0 |
| 5°    | 2561.0 | 2565.8 | 2563.1 | 2563.6 | 2566.3 |
| 7.5°  | 2543.9 | 2550.3 | 2546.5 | 2547.6 | 2550.3 |
| 10°   | 2523.6 | 2528.4 | 2524.1 | 2526.8 | 2531.6 |
| 12.5° | 2494.8 | 2496.9 | 2494.8 | 2495.8 | 2501.2 |
| 15°   | 2454.8 | 2457.4 | 2456.4 | 2458.5 | 2463.3 |
| 17.5° | 2407.8 | 2411.0 | 2410.5 | 2414.7 | 2418.5 |
| 20°   | 2357.1 | 2357.6 | 2359.8 | 2364.0 | 2368.3 |
| 22.5° | 2297.3 | 2298.9 | 2301.1 | 2306.9 | 2311.2 |
| 25°   | 2232.2 | 2234.9 | 2237.6 | 2243.4 | 2247.7 |
| 27.5° | 2163.4 | 2166.1 | 2169.8 | 2176.2 | 2183.1 |
| 30°   | 2092.9 | 2092.9 | 2099.9 | 2106.3 | 2112.7 |
| 32.5° | 2022.0 | 2019.3 | 2025.7 | 2033.7 | 2049.2 |
| 35°   | 1943.5 | 1941.4 | 1948.3 | 1955.8 | 1963.8 |
| 37.5° | 1861.9 | 1860.3 | 1868.3 | 1876.3 | 1883.8 |
| 40°   | 1779.2 | 1777.0 | 1785.0 | 1793.0 | 1801.0 |
| 42.5° | 1694.3 | 1693.2 | 1700.7 | 1708.7 | 1717.3 |
| 45°   | 1606.3 | 1605.7 | 1613.2 | 1621.2 | 1629.7 |
| 47.5° | 1516.6 | 1515.5 | 1523.0 | 1531.6 | 1539.0 |
| 50°   | 1424.8 | 1423.8 | 1431.2 | 1439.8 | 1447.8 |
| 52.5° | 1330.4 | 1330.4 | 1337.3 | 1344.8 | 1357.1 |
| 55°   | 1235.4 | 1233.8 | 1241.3 | 1249.8 | 1261.5 |
| 57.5° | 1139.3 | 1137.2 | 1144.1 | 1152.7 | 1163.3 |
| 60°   | 1041.1 | 1039.0 | 1045.4 | 1053.9 | 1068.9 |
| 62.5° | 941.9  | 938.7  | 945.1  | 953.1  | 962.2  |
| 65°   | 841.6  | 838.4  | 844.2  | 851.7  | 860.2  |
| 67.5° | 740.7  | 737.0  | 742.8  | 749.2  | 757.2  |
| 70°   | 639.3  | 635.6  | 639.8  | 646.2  | 653.7  |
| 72.5° | 538.4  | 534.7  | 538.4  | 541.1  | 550.2  |
| 75°   | 439.7  | 436.0  | 438.1  | 440.3  | 448.3  |
| 77.5° | 343.7  | 339.9  | 344.2  | 345.3  | 350.1  |
| 80°   | 253.5  | 249.7  | 252.4  | 252.9  | 256.7  |
| 82.5° | 171.3  | 168.1  | 171.8  | 169.2  | 172.4  |
| 85°   | 98.7   | 96.1   | 97.1   | 96.1   | 97.7   |
| 87.5° | 39.0   | 36.8   | 37.4   | 35.2   | 35.2   |
| 90°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |

(END OF REPORT)