

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: P835035

Luminaire Tested: **ORLG-24-4-INS-OPL-LD4-3HI-50-120-EDD**

Issue Date: 5/16/2024



**Test Information**

Test Method: LM-79-08  
Report Number: P835035  
Test Lab: INNOVATION CENTER(G2)  
Issue Date: 5/16/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: FAIL-SAFE  
Catalog Number: ORLG-24-4-INS-OPL-LD4-3HI-50-120-EDD  
Description: 2FT x 4FT ORL LED LUMINAIRE WITH opal acrylic lens  
Light Source: 5000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

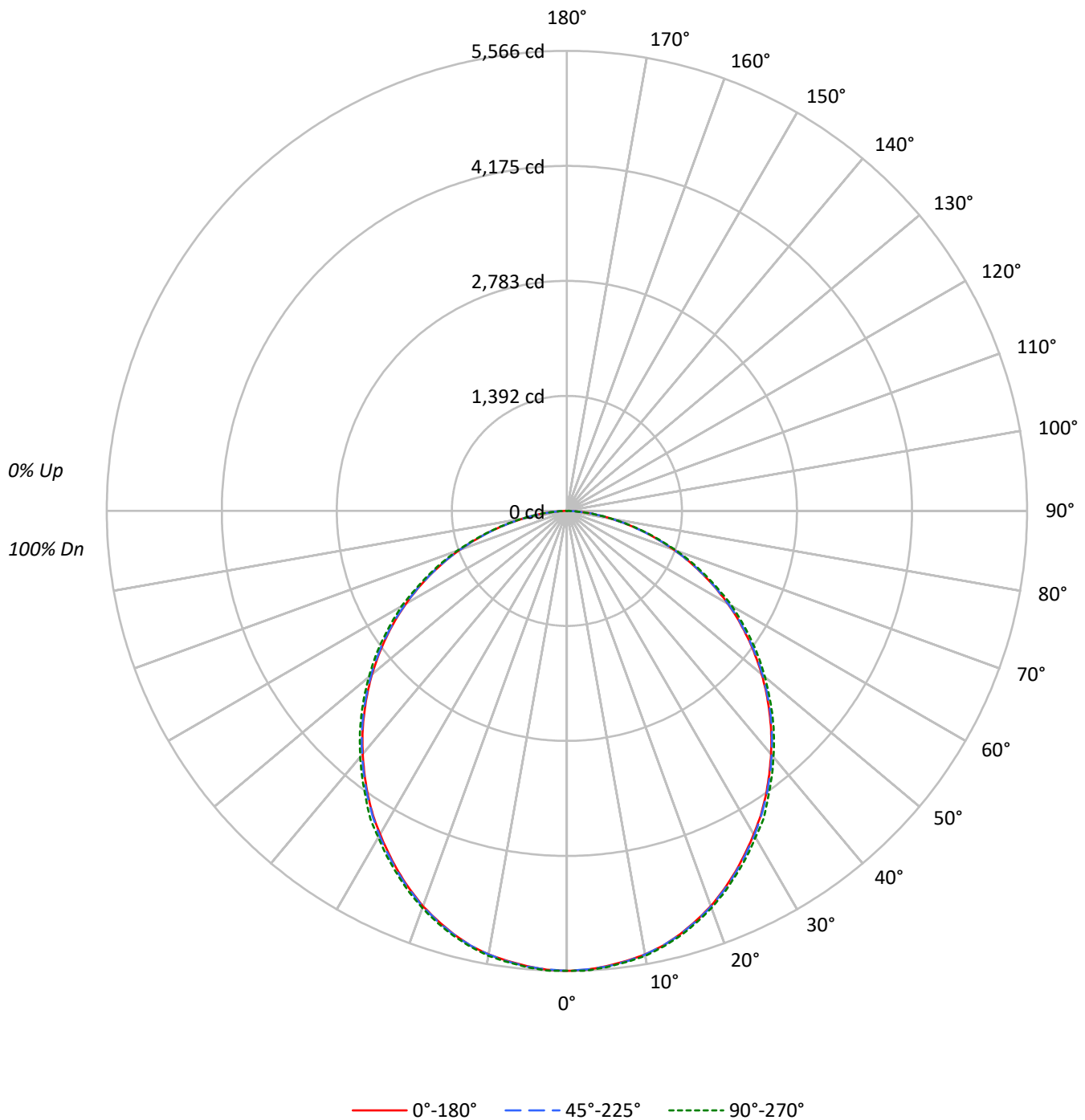
Lumens per Lamp: N/A  
Luminaire Lumens: 15036.4 lumens  
Efficiency: N/A  
Efficacy: 113.9 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.22 / 1.33  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 132  
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°  | 7487 | 7487 | 7487 |
| 5°  | 7468 | 7474 | 7483 |
| 10° | 7444 | 7445 | 7467 |
| 15° | 7382 | 7387 | 7408 |
| 20° | 7286 | 7295 | 7321 |
| 25° | 7155 | 7172 | 7204 |
| 30° | 7020 | 7044 | 7086 |
| 35° | 6892 | 6909 | 6964 |
| 40° | 6747 | 6769 | 6830 |
| 45° | 6599 | 6627 | 6695 |
| 50° | 6439 | 6468 | 6543 |
| 55° | 6256 | 6286 | 6389 |
| 60° | 6049 | 6074 | 6210 |
| 65° | 5784 | 5803 | 5913 |
| 70° | 5430 | 5434 | 5552 |
| 75° | 4935 | 4917 | 5031 |
| 80° | 4241 | 4222 | 4294 |
| 85° | 3290 | 3237 | 3254 |

Classified

Scaled Data Report

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**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 525.8   | 3.5       |
| 10°-20°   | 1495.8  | 9.9       |
| 20°-30°   | 2226.8  | 14.8      |
| 30°-40°   | 2633.4  | 17.5      |
| 40°-50°   | 2688.3  | 17.9      |
| 50°-60°   | 2399.1  | 16.0      |
| 60°-70°   | 1807.0  | 12.0      |
| 70°-80°   | 1007.7  | 6.7       |
| 80°-90°   | 252.5   | 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°    | 4248.4  | 28.3      |
| 0°-40°    | 6881.8  | 45.8      |
| 0°-60°    | 11969.2 | 79.6      |
| 0°-90°    | 15036.4 | 100.0     |
| 90°-120°  | 0.0     | 0.0       |
| 90°-150°  | 0.0     | 0.0       |
| 90°-180°  | 0.0     | 0.0       |
| 0°-180°   | 15036.4 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|-----|------|-------|------|-------|------|------|
| 0°  | 5565 | 5565  | 5565 | 5565  | 5565 |      |
| 5°  | 5529 | 5539  | 5534 | 5535  | 5540 | 525  |
| 15° | 5300 | 5306  | 5303 | 5308  | 5318 | 1494 |
| 25° | 4819 | 4825  | 4831 | 4844  | 4853 | 2220 |
| 35° | 4196 | 4191  | 4206 | 4222  | 4240 | 2624 |
| 45° | 3468 | 3467  | 3483 | 3500  | 3518 | 2675 |
| 55° | 2667 | 2664  | 2680 | 2698  | 2724 | 2384 |
| 65° | 1817 | 1810  | 1823 | 1839  | 1857 | 1797 |
| 75° | 949  | 941   | 946  | 950   | 968  | 1006 |
| 85° | 213  | 207   | 210  | 207   | 211  | 256  |
| 90° | 0    | 0     | 0    | 0     | 0    |      |

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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|-------|--------|--------|--------|--------|--------|
| 0°    | 5564.7 | 5564.7 | 5564.7 | 5564.7 | 5564.7 |
| 2.5°  | 5555.5 | 5564.7 | 5553.2 | 5555.5 | 5565.9 |
| 5°    | 5529.0 | 5539.4 | 5533.6 | 5534.7 | 5540.5 |
| 7.5°  | 5492.1 | 5505.9 | 5497.9 | 5500.2 | 5505.9 |
| 10°   | 5448.3 | 5458.7 | 5449.5 | 5455.2 | 5465.6 |
| 12.5° | 5386.1 | 5390.7 | 5386.1 | 5388.4 | 5399.9 |
| 15°   | 5299.7 | 5305.5 | 5303.2 | 5307.8 | 5318.1 |
| 17.5° | 5198.3 | 5205.2 | 5204.1 | 5213.3 | 5221.4 |
| 20°   | 5088.9 | 5090.0 | 5094.6 | 5103.9 | 5113.1 |
| 22.5° | 4959.8 | 4963.3 | 4967.9 | 4980.6 | 4989.8 |
| 25°   | 4819.3 | 4825.0 | 4830.8 | 4843.5 | 4852.7 |
| 27.5° | 4670.7 | 4676.4 | 4684.5 | 4698.3 | 4713.3 |
| 30°   | 4518.6 | 4518.6 | 4533.6 | 4547.4 | 4561.2 |
| 32.5° | 4365.4 | 4359.6 | 4373.4 | 4390.7 | 4424.1 |
| 35°   | 4196.0 | 4191.4 | 4206.4 | 4222.5 | 4239.8 |
| 37.5° | 4019.7 | 4016.3 | 4033.5 | 4050.8 | 4067.0 |
| 40°   | 3841.1 | 3836.5 | 3853.8 | 3871.1 | 3888.4 |
| 42.5° | 3658.0 | 3655.6 | 3671.8 | 3689.1 | 3707.5 |
| 45°   | 3467.9 | 3466.7 | 3482.8 | 3500.1 | 3518.5 |
| 47.5° | 3274.3 | 3272.0 | 3288.1 | 3306.6 | 3322.7 |
| 50°   | 3076.1 | 3073.8 | 3090.0 | 3108.4 | 3125.7 |
| 52.5° | 2872.2 | 2872.2 | 2887.2 | 2903.3 | 2929.8 |
| 55°   | 2667.1 | 2663.7 | 2679.8 | 2698.2 | 2723.6 |
| 57.5° | 2459.8 | 2455.1 | 2470.1 | 2488.6 | 2511.6 |
| 60°   | 2247.8 | 2243.2 | 2257.0 | 2275.4 | 2307.7 |
| 62.5° | 2033.5 | 2026.6 | 2040.4 | 2057.7 | 2077.3 |
| 65°   | 1816.9 | 1810.0 | 1822.6 | 1838.8 | 1857.2 |
| 67.5° | 1599.1 | 1591.1 | 1603.7 | 1617.6 | 1634.8 |
| 70°   | 1380.2 | 1372.2 | 1381.4 | 1395.2 | 1411.3 |
| 72.5° | 1162.5 | 1154.4 | 1162.5 | 1168.2 | 1187.8 |
| 75°   | 949.3  | 941.3  | 945.9  | 950.5  | 967.8  |
| 77.5° | 742.0  | 733.9  | 743.1  | 745.4  | 755.8  |
| 80°   | 547.3  | 539.2  | 544.9  | 546.1  | 554.2  |
| 82.5° | 369.8  | 362.9  | 371.0  | 365.2  | 372.1  |
| 85°   | 213.1  | 207.4  | 209.7  | 207.4  | 210.8  |
| 87.5° | 84.1   | 79.5   | 80.6   | 76.0   | 76.0   |
| 90°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |

(END OF REPORT)