

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: P835593

Luminaire Tested: **ORLG-24-2-INS-OPL-LD4-3HI-20-120-EDD**

Issue Date: 5/16/2024



**Test Information**

Test Method: LM-79-08  
Report Number: P835593  
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-LD4-3HI-20-120-EDD  
Description: 2FT x 2FT ORL LED LUMINAIRE WITH opal acrylic lens  
Light Source: 2000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

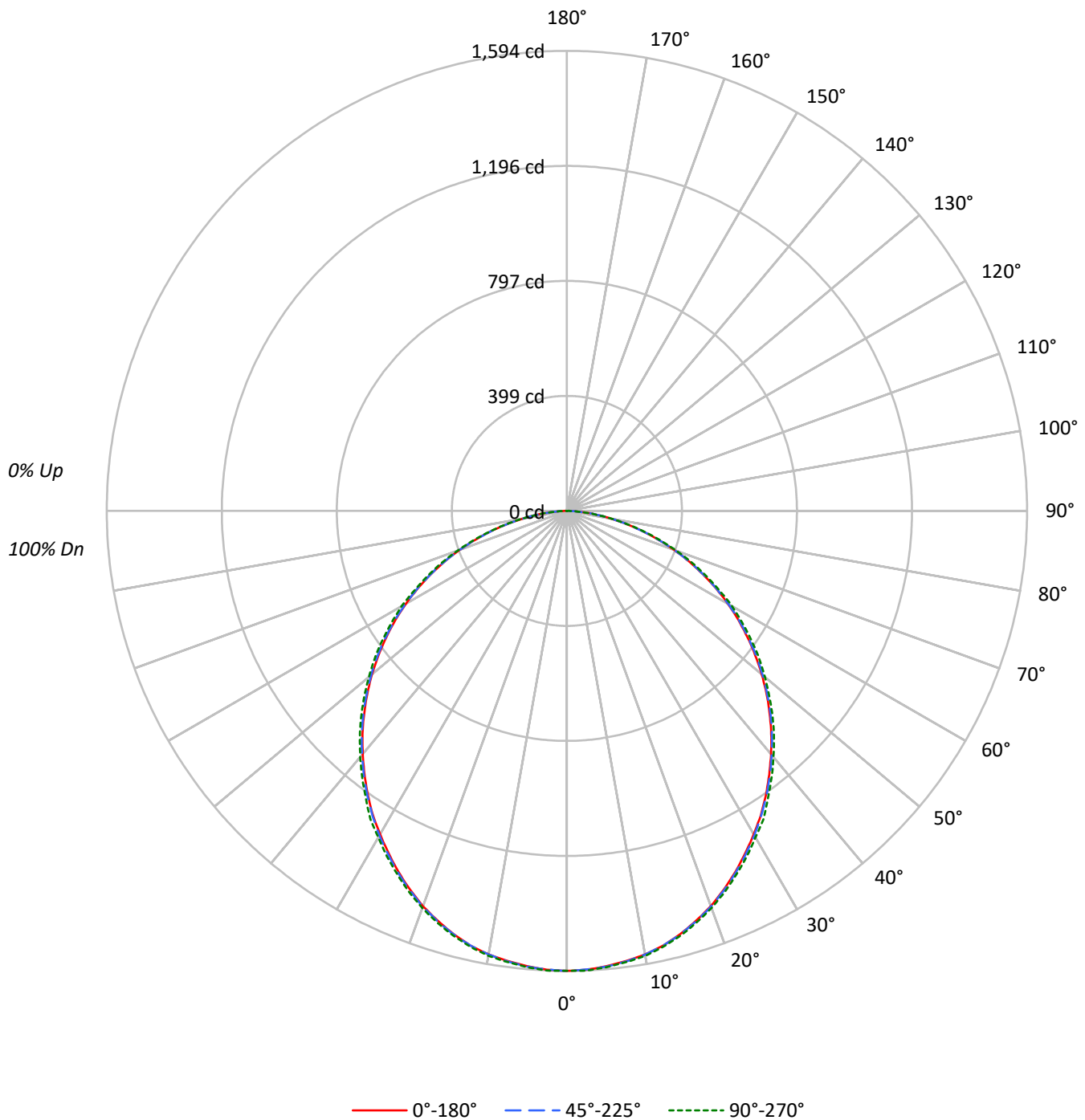
Lumens per Lamp: N/A  
Luminaire Lumens: 4306.3 lumens  
Efficiency: N/A  
Efficacy: 65.2 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.22 / 1.33  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct

Input Watts (W): 66  
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°  | 4289 | 4289 | 4289 |
| 5°  | 4277 | 4281 | 4286 |
| 10° | 4264 | 4265 | 4277 |
| 15° | 4228 | 4231 | 4243 |
| 20° | 4174 | 4178 | 4193 |
| 25° | 4098 | 4108 | 4127 |
| 30° | 4021 | 4034 | 4059 |
| 35° | 3948 | 3958 | 3989 |
| 40° | 3864 | 3877 | 3912 |
| 45° | 3780 | 3796 | 3835 |
| 50° | 3688 | 3705 | 3748 |
| 55° | 3583 | 3601 | 3659 |
| 60° | 3464 | 3479 | 3557 |
| 65° | 3313 | 3324 | 3387 |
| 70° | 3110 | 3113 | 3180 |
| 75° | 2827 | 2817 | 2882 |
| 80° | 2428 | 2419 | 2459 |
| 85° | 1883 | 1856 | 1865 |



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 150.6  | 3.5       |
| 10°-20°   | 428.4  | 9.9       |
| 20°-30°   | 637.7  | 14.8      |
| 30°-40°   | 754.2  | 17.5      |
| 40°-50°   | 769.9  | 17.9      |
| 50°-60°   | 687.1  | 16.0      |
| 60°-70°   | 517.5  | 12.0      |
| 70°-80°   | 288.6  | 6.7       |
| 80°-90°   | 72.3   | 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°    | 1216.7 | 28.3      |
| 0°-40°    | 1970.9 | 45.8      |
| 0°-60°    | 3427.8 | 79.6      |
| 0°-90°    | 4306.3 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 4306.3 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|-----|------|-------|------|-------|------|------|
| 0°  | 1594 | 1594  | 1594 | 1594  | 1594 |      |
| 5°  | 1583 | 1586  | 1585 | 1585  | 1587 | 150  |
| 15° | 1518 | 1519  | 1519 | 1520  | 1523 | 428  |
| 25° | 1380 | 1382  | 1384 | 1387  | 1390 | 636  |
| 35° | 1202 | 1200  | 1205 | 1209  | 1214 | 751  |
| 45° | 993  | 993   | 997  | 1002  | 1008 | 766  |
| 55° | 764  | 763   | 768  | 773   | 780  | 683  |
| 65° | 520  | 518   | 522  | 527   | 532  | 515  |
| 75° | 272  | 270   | 271  | 272   | 277  | 288  |
| 85° | 61   | 59    | 60   | 59    | 60   | 73   |
| 90° | 0    | 0     | 0    | 0     | 0    |      |

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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|-------|--------|--------|--------|--------|--------|
| 0°    | 1593.7 | 1593.7 | 1593.7 | 1593.7 | 1593.7 |
| 2.5°  | 1591.0 | 1593.7 | 1590.4 | 1591.0 | 1594.0 |
| 5°    | 1583.4 | 1586.4 | 1584.8 | 1585.1 | 1586.7 |
| 7.5°  | 1572.9 | 1576.8 | 1574.5 | 1575.2 | 1576.8 |
| 10°   | 1560.3 | 1563.3 | 1560.7 | 1562.3 | 1565.3 |
| 12.5° | 1542.5 | 1543.8 | 1542.5 | 1543.2 | 1546.5 |
| 15°   | 1517.8 | 1519.4 | 1518.8 | 1520.1 | 1523.1 |
| 17.5° | 1488.7 | 1490.7 | 1490.4 | 1493.0 | 1495.3 |
| 20°   | 1457.4 | 1457.7 | 1459.0 | 1461.7 | 1464.3 |
| 22.5° | 1420.4 | 1421.4 | 1422.7 | 1426.4 | 1429.0 |
| 25°   | 1380.2 | 1381.8 | 1383.5 | 1387.1 | 1389.8 |
| 27.5° | 1337.6 | 1339.3 | 1341.6 | 1345.5 | 1349.8 |
| 30°   | 1294.1 | 1294.1 | 1298.4 | 1302.3 | 1306.3 |
| 32.5° | 1250.2 | 1248.5 | 1252.5 | 1257.4 | 1267.0 |
| 35°   | 1201.7 | 1200.4 | 1204.7 | 1209.3 | 1214.2 |
| 37.5° | 1151.2 | 1150.2 | 1155.2 | 1160.1 | 1164.7 |
| 40°   | 1100.1 | 1098.7 | 1103.7 | 1108.6 | 1113.6 |
| 42.5° | 1047.6 | 1046.9 | 1051.6 | 1056.5 | 1061.8 |
| 45°   | 993.2  | 992.8  | 997.4  | 1002.4 | 1007.7 |
| 47.5° | 937.7  | 937.1  | 941.7  | 947.0  | 951.6  |
| 50°   | 881.0  | 880.3  | 884.9  | 890.2  | 895.2  |
| 52.5° | 822.6  | 822.6  | 826.9  | 831.5  | 839.1  |
| 55°   | 763.8  | 762.8  | 767.5  | 772.7  | 780.0  |
| 57.5° | 704.4  | 703.1  | 707.4  | 712.7  | 719.3  |
| 60°   | 643.7  | 642.4  | 646.4  | 651.7  | 660.9  |
| 62.5° | 582.4  | 580.4  | 584.3  | 589.3  | 594.9  |
| 65°   | 520.3  | 518.4  | 522.0  | 526.6  | 531.9  |
| 67.5° | 458.0  | 455.7  | 459.3  | 463.3  | 468.2  |
| 70°   | 395.3  | 393.0  | 395.6  | 399.6  | 404.2  |
| 72.5° | 332.9  | 330.6  | 332.9  | 334.6  | 340.2  |
| 75°   | 271.9  | 269.6  | 270.9  | 272.2  | 277.2  |
| 77.5° | 212.5  | 210.2  | 212.8  | 213.5  | 216.4  |
| 80°   | 156.7  | 154.4  | 156.1  | 156.4  | 158.7  |
| 82.5° | 105.9  | 103.9  | 106.2  | 104.6  | 106.6  |
| 85°   | 61.0   | 59.4   | 60.1   | 59.4   | 60.4   |
| 87.5° | 24.1   | 22.8   | 23.1   | 21.8   | 21.8   |
| 90°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |

(END OF REPORT)