

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: P835753

Luminaire Tested: **ORLG-24-2-INS-OPL-LD4-3LO-35-120-EDD-90**

Issue Date: 5/16/2024



**Test Information**

Test Method: LM-79-08  
Report Number: P835753  
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-LD4-3LO-35-120-EDD-90  
Description: 2FT x 2FT ORL LED LUMINAIRE WITH opal acrylic lens  
Light Source: 3500K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

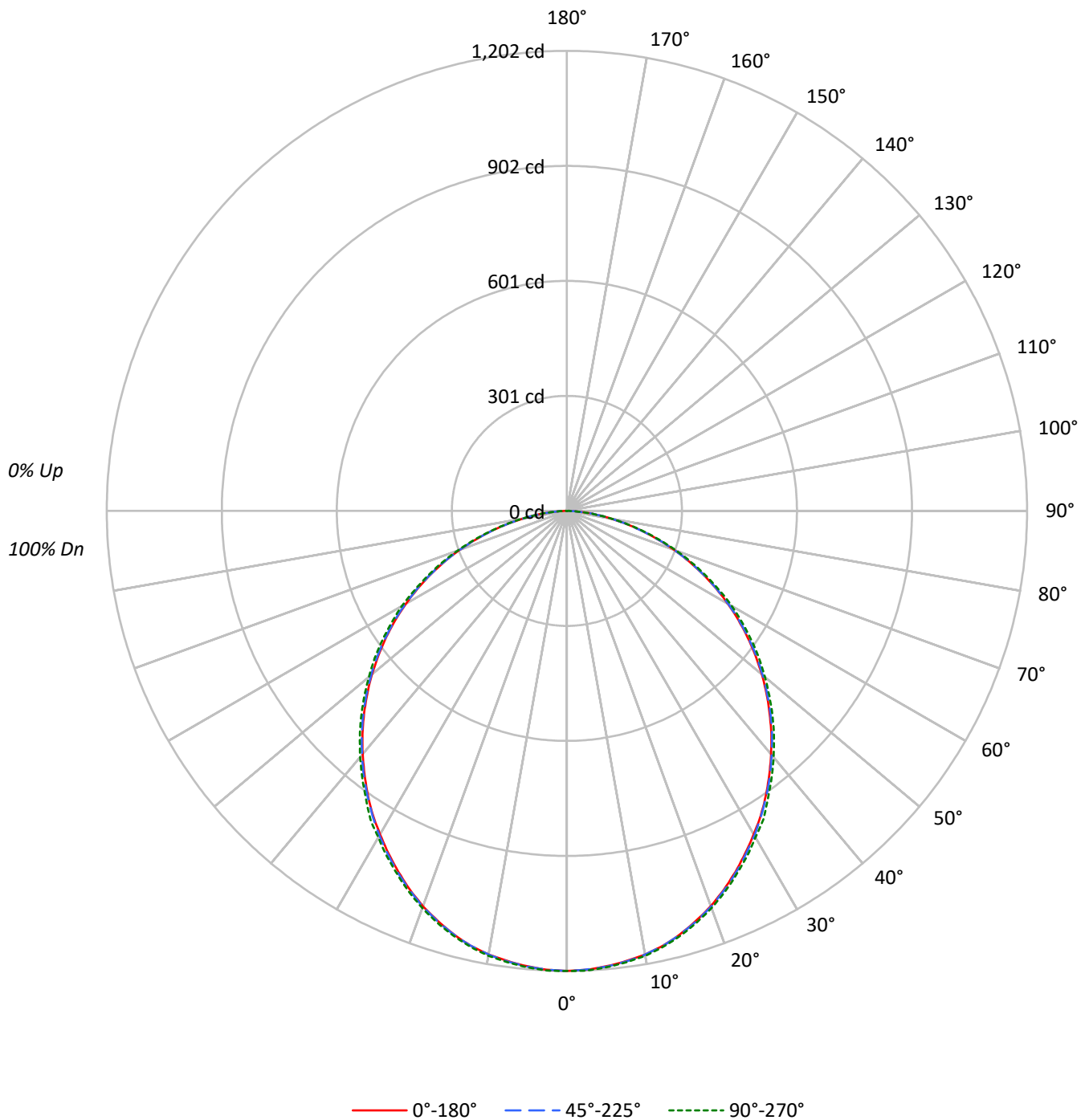
Lumens per Lamp: N/A  
Luminaire Lumens: 3247.9 lumens  
Efficiency: N/A  
Efficacy: 92.5 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.22 / 1.33  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct

Input Watts (W): 35.1  
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  | 27  | 27  | 27  | 25  |

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

|     | 0°   | 45°  | 90°  |
|-----|------|------|------|
| 0°  | 3235 | 3235 | 3235 |
| 5°  | 3226 | 3229 | 3233 |
| 10° | 3216 | 3216 | 3226 |
| 15° | 3189 | 3191 | 3200 |
| 20° | 3148 | 3151 | 3163 |
| 25° | 3091 | 3098 | 3112 |
| 30° | 3033 | 3043 | 3061 |
| 35° | 2978 | 2985 | 3008 |
| 40° | 2915 | 2924 | 2950 |
| 45° | 2851 | 2863 | 2892 |
| 50° | 2782 | 2794 | 2827 |
| 55° | 2703 | 2716 | 2760 |
| 60° | 2613 | 2624 | 2683 |
| 65° | 2499 | 2507 | 2555 |
| 70° | 2345 | 2348 | 2399 |
| 75° | 2132 | 2124 | 2173 |
| 80° | 1832 | 1824 | 1855 |
| 85° | 1420 | 1399 | 1405 |

Classified

Scaled Data Report

Cooper Lighting Solutions Photometric Lab

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 113.6  | 3.5       |
| 10°-20°   | 323.1  | 9.9       |
| 20°-30°   | 481.0  | 14.8      |
| 30°-40°   | 568.8  | 17.5      |
| 40°-50°   | 580.7  | 17.9      |
| 50°-60°   | 518.2  | 16.0      |
| 60°-70°   | 390.3  | 12.0      |
| 70°-80°   | 217.7  | 6.7       |
| 80°-90°   | 54.5   | 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°    | 917.7  | 28.3      |
| 0°-40°    | 1486.5 | 45.8      |
| 0°-60°    | 2585.4 | 79.6      |
| 0°-90°    | 3247.9 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 3247.9 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|-----|------|-------|------|-------|------|------|
| 0°  | 1202 | 1202  | 1202 | 1202  | 1202 |      |
| 5°  | 1194 | 1196  | 1195 | 1196  | 1197 | 113  |
| 15° | 1145 | 1146  | 1146 | 1146  | 1149 | 323  |
| 25° | 1041 | 1042  | 1044 | 1046  | 1048 | 480  |
| 35° | 906  | 905   | 909  | 912   | 916  | 567  |
| 45° | 749  | 749   | 752  | 756   | 760  | 578  |
| 55° | 576  | 575   | 579  | 583   | 588  | 515  |
| 65° | 392  | 391   | 394  | 397   | 401  | 388  |
| 75° | 205  | 203   | 204  | 205   | 209  | 217  |
| 85° | 46   | 45    | 45   | 45    | 46   | 55   |
| 90° | 0    | 0     | 0    | 0     | 0    |      |

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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|-------|--------|--------|--------|--------|--------|
| 0°    | 1202.0 | 1202.0 | 1202.0 | 1202.0 | 1202.0 |
| 2.5°  | 1200.0 | 1202.0 | 1199.5 | 1200.0 | 1202.2 |
| 5°    | 1194.3 | 1196.5 | 1195.3 | 1195.5 | 1196.8 |
| 7.5°  | 1186.3 | 1189.3 | 1187.6 | 1188.1 | 1189.3 |
| 10°   | 1176.9 | 1179.1 | 1177.1 | 1178.4 | 1180.6 |
| 12.5° | 1163.4 | 1164.4 | 1163.4 | 1163.9 | 1166.4 |
| 15°   | 1144.8 | 1146.0 | 1145.5 | 1146.5 | 1148.7 |
| 17.5° | 1122.9 | 1124.4 | 1124.1 | 1126.1 | 1127.8 |
| 20°   | 1099.2 | 1099.5 | 1100.5 | 1102.5 | 1104.4 |
| 22.5° | 1071.3 | 1072.1 | 1073.1 | 1075.8 | 1077.8 |
| 25°   | 1041.0 | 1042.2 | 1043.5 | 1046.2 | 1048.2 |
| 27.5° | 1008.9 | 1010.1 | 1011.9 | 1014.9 | 1018.1 |
| 30°   | 976.0  | 976.0  | 979.3  | 982.3  | 985.2  |
| 32.5° | 942.9  | 941.7  | 944.7  | 948.4  | 955.6  |
| 35°   | 906.4  | 905.4  | 908.6  | 912.1  | 915.8  |
| 37.5° | 868.3  | 867.5  | 871.3  | 875.0  | 878.5  |
| 40°   | 829.7  | 828.7  | 832.4  | 836.2  | 839.9  |
| 42.5° | 790.1  | 789.6  | 793.1  | 796.9  | 800.8  |
| 45°   | 749.1  | 748.8  | 752.3  | 756.0  | 760.0  |
| 47.5° | 707.3  | 706.8  | 710.2  | 714.2  | 717.7  |
| 50°   | 664.5  | 664.0  | 667.4  | 671.4  | 675.2  |
| 52.5° | 620.4  | 620.4  | 623.6  | 627.1  | 632.9  |
| 55°   | 576.1  | 575.4  | 578.9  | 582.8  | 588.3  |
| 57.5° | 531.3  | 530.3  | 533.6  | 537.5  | 542.5  |
| 60°   | 485.5  | 484.5  | 487.5  | 491.5  | 498.5  |
| 62.5° | 439.2  | 437.7  | 440.7  | 444.5  | 448.7  |
| 65°   | 392.5  | 391.0  | 393.7  | 397.2  | 401.2  |
| 67.5° | 345.4  | 343.7  | 346.4  | 349.4  | 353.1  |
| 70°   | 298.1  | 296.4  | 298.4  | 301.4  | 304.9  |
| 72.5° | 251.1  | 249.4  | 251.1  | 252.3  | 256.6  |
| 75°   | 205.1  | 203.3  | 204.3  | 205.3  | 209.0  |
| 77.5° | 160.3  | 158.5  | 160.5  | 161.0  | 163.3  |
| 80°   | 118.2  | 116.5  | 117.7  | 118.0  | 119.7  |
| 82.5° | 79.9   | 78.4   | 80.1   | 78.9   | 80.4   |
| 85°   | 46.0   | 44.8   | 45.3   | 44.8   | 45.5   |
| 87.5° | 18.2   | 17.2   | 17.4   | 16.4   | 16.4   |
| 90°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |

(END OF REPORT)