

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: P573447

Luminaire Tested: **FLD4C-45-D010 FEU4C-X-90-27 F4X-M-X-LI-BL86**

Issue Date: 3/1/2023



**Test Information**

Test Method: LM-79-08  
Report Number: P573447  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P205108)  
Test Lab: INNOVATION CENTER-P3  
Issue Date: 3/1/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: FAIL-SAFE  
Catalog Number: FLD4C-45-D010 FEU4C-X-90-27 F4X-M-X-LI-BL86  
Description: 4 INCH FAIL-SAFE LED DOWNLIGHT WITH 2700K, 90 CRI LEDS, 4LBMLI TRIM  
AND BOTTOM LENS, 0.250" CLEAR POLYCARBONATE  
  
Light Source: -  
Ballast/Driver: -

**Summary**

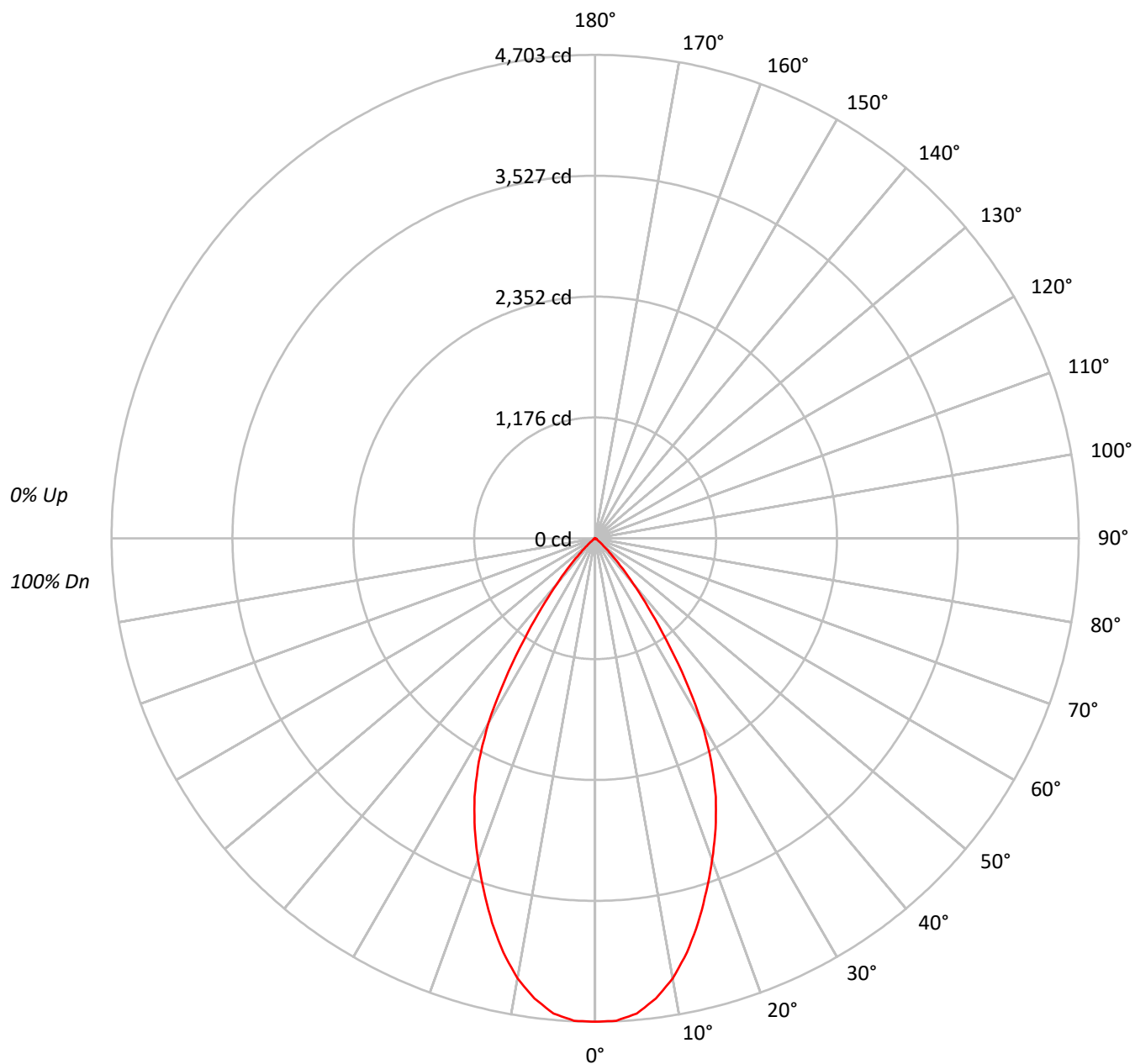
Lumens per Lamp: N/A  
Luminaire Lumens: 3758.0 lumens  
Efficiency: N/A  
Efficacy: 75.8 lumens/watt  
Spacing Criteria (0/90/45): 0.85 / 0.85 / 0.85  
Luminous Opening: Circular (Dia: 0.33' x H: 0')  
CIE Type: Direct

Input Watts (W): 49.6  
Input Voltage (V): NR  
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: 25 FT

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### Luminous Intensity Polar Plot





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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  |
| RCR |     |     |     |     |  |     |     |     |     |  |     |     |     |  |     |     |     |  |     |     |     |
| 0   | 119 | 119 | 119 | 119 |  | 116 | 116 | 116 | 116 |  | 111 | 111 | 111 |  | 106 | 106 | 106 |  | 102 | 102 | 102 |
| 1   | 114 | 111 | 109 | 106 |  | 111 | 109 | 107 | 105 |  | 105 | 103 | 101 |  | 101 | 100 | 98  |  | 98  | 97  | 96  |
| 2   | 108 | 103 | 100 | 96  |  | 106 | 102 | 98  | 95  |  | 99  | 96  | 93  |  | 96  | 93  | 91  |  | 93  | 91  | 89  |
| 3   | 103 | 97  | 92  | 88  |  | 101 | 95  | 91  | 87  |  | 93  | 89  | 86  |  | 90  | 87  | 85  |  | 88  | 85  | 83  |
| 4   | 98  | 91  | 85  | 81  |  | 96  | 89  | 84  | 81  |  | 87  | 83  | 80  |  | 85  | 82  | 79  |  | 83  | 80  | 78  |
| 5   | 93  | 85  | 79  | 75  |  | 91  | 84  | 79  | 75  |  | 82  | 78  | 74  |  | 81  | 77  | 73  |  | 79  | 76  | 73  |
| 6   | 89  | 80  | 74  | 70  |  | 87  | 79  | 74  | 70  |  | 78  | 73  | 69  |  | 76  | 72  | 69  |  | 75  | 71  | 68  |
| 7   | 84  | 75  | 69  | 65  |  | 83  | 75  | 69  | 65  |  | 73  | 68  | 65  |  | 72  | 68  | 64  |  | 71  | 67  | 64  |
| 8   | 80  | 71  | 65  | 61  |  | 79  | 70  | 65  | 61  |  | 69  | 64  | 61  |  | 68  | 64  | 60  |  | 67  | 63  | 60  |
| 9   | 77  | 67  | 61  | 57  |  | 75  | 67  | 61  | 57  |  | 66  | 61  | 57  |  | 65  | 60  | 57  |  | 64  | 60  | 57  |
| 10  | 73  | 64  | 58  | 54  |  | 72  | 63  | 58  | 54  |  | 62  | 57  | 54  |  | 62  | 57  | 54  |  | 61  | 57  | 54  |

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

|     |        |
|-----|--------|
|     | 0°     |
| 0°  | 577780 |
| 5°  | 572279 |
| 10° | 542283 |
| 15° | 492342 |
| 20° | 435057 |
| 25° | 376121 |
| 30° | 294017 |
| 35° | 180302 |
| 40° | 92552  |
| 45° | 36764  |
| 50° | 11945  |
| 55° | 4112   |
| 60° | 3538   |
| 65° | 2820   |
| 70° | 1724   |
| 75° | 2278   |
| 80° | 0      |
| 85° | 0      |



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 433.2  | 11.5      |
| 10°-20°   | 1078.6 | 28.7      |
| 20°-30°   | 1253.9 | 33.4      |
| 30°-40°   | 767.8  | 20.4      |
| 40°-50°   | 190.7  | 5.1       |
| 50°-60°   | 22.3   | 0.6       |
| 60°-70°   | 8.3    | 0.2       |
| 70°-80°   | 3.1    | 0.1       |
| 80°-90°   | 0.0    | 0.0       |
| 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°    | 2765.7 | 73.6      |
| 0°-40°    | 3533.6 | 94.0      |
| 0°-60°    | 3746.5 | 99.7      |
| 0°-90°    | 3758.0 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 3758.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | Flux |
|-----|------|------|
| 0°  | 4703 |      |
| 5°  | 4640 | 433  |
| 15° | 3871 | 1079 |
| 25° | 2775 | 1254 |
| 35° | 1202 | 768  |
| 45° | 212  | 191  |
| 55° | 19   | 22   |
| 65° | 10   | 8    |
| 75° | 5    | 3    |
| 85° | 0    | 0    |
| 90° | 0    |      |



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     |
|-------|--------|
| 0°    | 4703.0 |
| 2.5°  | 4698.1 |
| 5°    | 4640.5 |
| 7.5°  | 4515.4 |
| 10°   | 4347.0 |
| 12.5° | 4125.9 |
| 15°   | 3871.0 |
| 17.5° | 3596.9 |
| 20°   | 3327.7 |
| 22.5° | 3058.3 |
| 25°   | 2774.7 |
| 27.5° | 2447.7 |
| 30°   | 2072.6 |
| 32.5° | 1635.0 |
| 35°   | 1202.2 |
| 37.5° | 846.3  |
| 40°   | 577.1  |
| 42.5° | 360.6  |
| 45°   | 211.6  |
| 47.5° | 120.3  |
| 50°   | 62.5   |
| 52.5° | 28.9   |
| 55°   | 19.2   |
| 57.5° | 14.4   |
| 60°   | 14.4   |
| 62.5° | 9.7    |
| 65°   | 9.7    |
| 67.5° | 4.8    |
| 70°   | 4.8    |
| 72.5° | 4.8    |
| 75°   | 4.8    |
| 77.5° | 0.0    |
| 80°   | 0.0    |
| 82.5° | 0.0    |
| 85°   | 0.0    |
| 87.5° | 0.0    |
| 90°   | 0.0    |



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— 0°-180°







(END OF REPORT)