

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: P572848

Luminaire Tested: **FLD4C-25-D010 FEU4C-X-90-40 F4X-N-X-LI-BL89AM**

Issue Date: 3/1/2023



**Test Information**

Test Method: LM-79-08  
Report Number: P572848  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P208279)  
Test Lab: INNOVATION CENTER-P3  
Issue Date: 3/1/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: FAIL-SAFE  
Catalog Number: FLD4C-25-D010 FEU4C-X-90-40 F4X-N-X-LI-BL89AM  
Description: 4 INCH FAIL-SAFE LED DOWNLIGHT WITH 4000K, 90 CRI LEDS, 4LBNLI TRIM  
AND BOTTOM LENS, 0.125" OPAL POLYCARBONATE  
  
Light Source: -  
Ballast/Driver: -

**Summary**

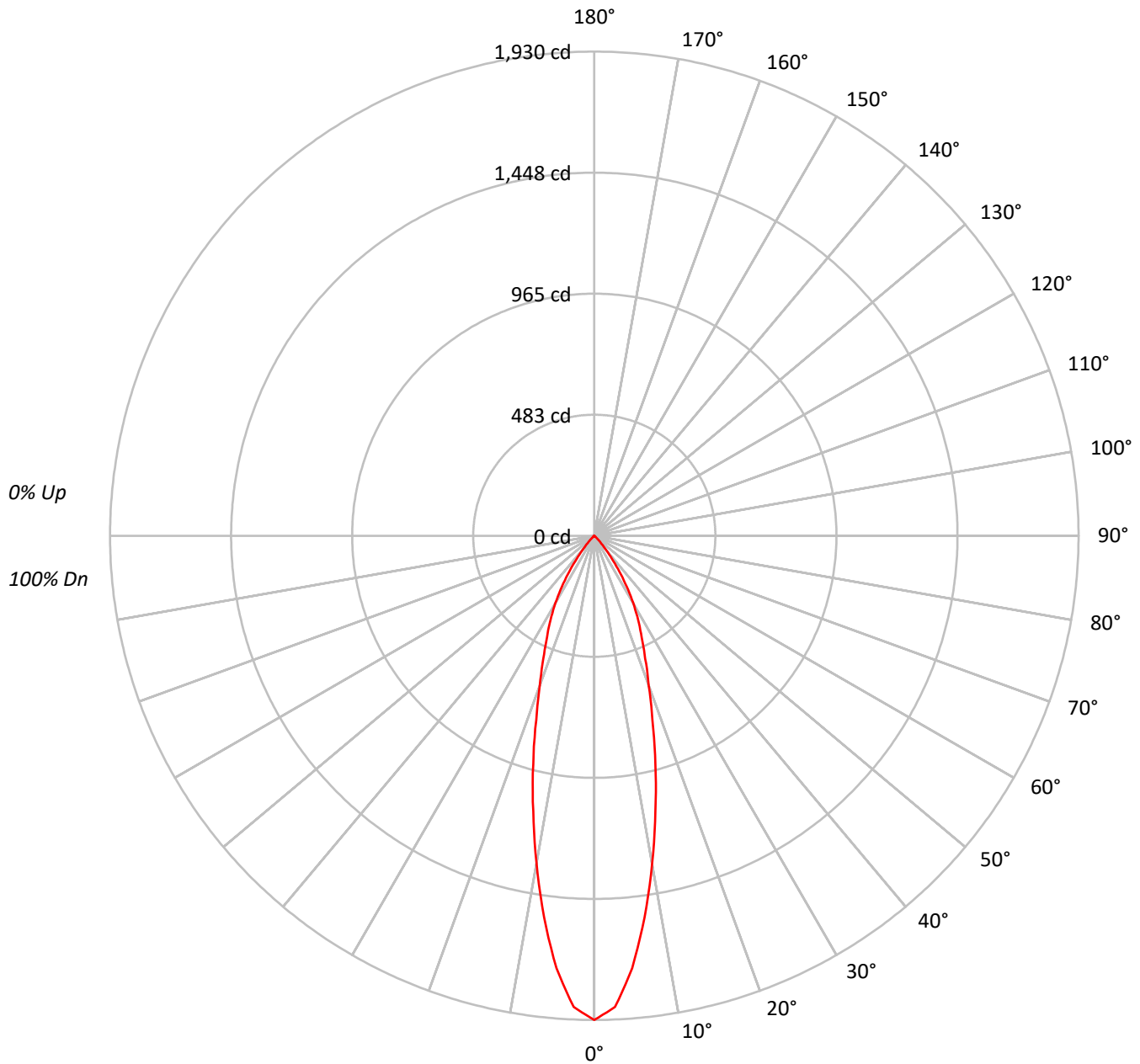
Lumens per Lamp: N/A  
Luminaire Lumens: 750.1 lumens  
Efficiency: N/A  
Efficacy: 23.8 lumens/watt  
Spacing Criteria (0/90/45): 0.48 / 0.48 / 0.54  
Luminous Opening: Circular (Dia: 0.33' x H: 0')  
CIE Type: Direct

Input Watts (W): 31.5  
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 | 112 | 110 | 108 |  | 112 | 110 | 108 | 106 |  | 106 | 104 | 103 |  | 102 | 101 | 100 |  | 99  | 98  | 97  |
| 2   | 109 | 105 | 102 | 99  |  | 107 | 103 | 100 | 98  |  | 100 | 98  | 95  |  | 97  | 95  | 93  |  | 95  | 93  | 92  |
| 3   | 105 | 99  | 95  | 92  |  | 103 | 98  | 94  | 91  |  | 95  | 92  | 89  |  | 93  | 90  | 88  |  | 91  | 89  | 87  |
| 4   | 101 | 94  | 89  | 86  |  | 99  | 93  | 88  | 85  |  | 91  | 87  | 84  |  | 89  | 86  | 83  |  | 87  | 84  | 82  |
| 5   | 96  | 89  | 84  | 80  |  | 95  | 88  | 84  | 80  |  | 87  | 82  | 79  |  | 85  | 81  | 79  |  | 83  | 80  | 78  |
| 6   | 92  | 85  | 80  | 76  |  | 91  | 84  | 79  | 76  |  | 83  | 78  | 75  |  | 81  | 78  | 75  |  | 80  | 77  | 74  |
| 7   | 89  | 81  | 76  | 72  |  | 88  | 80  | 75  | 72  |  | 79  | 75  | 71  |  | 78  | 74  | 71  |  | 77  | 73  | 71  |
| 8   | 85  | 77  | 72  | 68  |  | 84  | 77  | 72  | 68  |  | 76  | 71  | 68  |  | 75  | 71  | 68  |  | 74  | 70  | 67  |
| 9   | 82  | 74  | 69  | 65  |  | 81  | 73  | 68  | 65  |  | 72  | 68  | 65  |  | 72  | 68  | 65  |  | 71  | 67  | 64  |
| 10  | 79  | 71  | 66  | 62  |  | 78  | 70  | 65  | 62  |  | 69  | 65  | 62  |  | 69  | 65  | 62  |  | 68  | 64  | 62  |

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

|     |        |
|-----|--------|
|     | 0°     |
| 0°  | 237119 |
| 5°  | 213385 |
| 10° | 165417 |
| 15° | 119721 |
| 20° | 82901  |
| 25° | 60443  |
| 30° | 43920  |
| 35° | 25991  |
| 40° | 10921  |
| 45° | 3405   |
| 50° | 440    |
| 55° | 257    |
| 60° | 295    |
| 65° | 349    |
| 70° | 0      |
| 75° | 0      |
| 80° | 0      |
| 85° | 0      |



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 152.1  | 20.3      |
| 10°-20°   | 260.4  | 34.7      |
| 20°-30°   | 207.0  | 27.6      |
| 30°-40°   | 109.6  | 14.6      |
| 40°-50°   | 18.9   | 2.5       |
| 50°-60°   | 1.4    | 0.2       |
| 60°-70°   | 0.7    | 0.1       |
| 70°-80°   | 0.0    | 0.0       |
| 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°    | 619.4  | 82.6      |
| 0°-40°    | 729.0  | 97.2      |
| 0°-60°    | 749.3  | 99.9      |
| 0°-90°    | 750.1  | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 750.1  | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | Flux |
|-----|------|------|
| 0°  | 1930 |      |
| 5°  | 1730 | 152  |
| 15° | 941  | 260  |
| 25° | 446  | 207  |
| 35° | 173  | 110  |
| 45° | 20   | 19   |
| 55° | 1    | 1    |
| 65° | 1    | 1    |
| 75° | 0    | 0    |
| 85° | 0    | 0    |
| 90° | 0    |      |



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     |
|-------|--------|
| 0°    | 1930.1 |
| 2.5°  | 1880.4 |
| 5°    | 1730.3 |
| 7.5°  | 1533.9 |
| 10°   | 1326.0 |
| 12.5° | 1125.0 |
| 15°   | 941.3  |
| 17.5° | 770.4  |
| 20°   | 634.1  |
| 22.5° | 530.1  |
| 25°   | 445.9  |
| 27.5° | 377.7  |
| 30°   | 309.6  |
| 32.5° | 240.3  |
| 35°   | 173.3  |
| 37.5° | 114.4  |
| 40°   | 68.1   |
| 42.5° | 39.3   |
| 45°   | 19.6   |
| 47.5° | 6.9    |
| 50°   | 2.3    |
| 52.5° | 2.3    |
| 55°   | 1.2    |
| 57.5° | 1.2    |
| 60°   | 1.2    |
| 62.5° | 1.2    |
| 65°   | 1.2    |
| 67.5° | 0.0    |
| 70°   | 0.0    |
| 72.5° | 0.0    |
| 75°   | 0.0    |
| 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)