

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: P571808

Luminaire Tested: **FLD4C-02-D010 FEU4C-X-90-50 F4X-W-X-H-BL85**

Issue Date: 3/1/2023



**Test Information**

Test Method: LM-79-08  
Report Number: P571808  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P206636)  
Test Lab: INNOVATION CENTER-P3  
Issue Date: 3/1/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: FAIL-SAFE  
Catalog Number: FLD4C-02-D010 FEU4C-X-90-50 F4X-W-X-H-BL85  
Description: 4 INCH FAIL-SAFE LED DOWNLIGHT WITH 5000K, 90 CRI LEDS, 4LBWH TRIM  
AND BOTTOM LENS, 0.187" CLEAR POLYCARBONATE  
  
Light Source: -  
Ballast/Driver: -

**Summary**

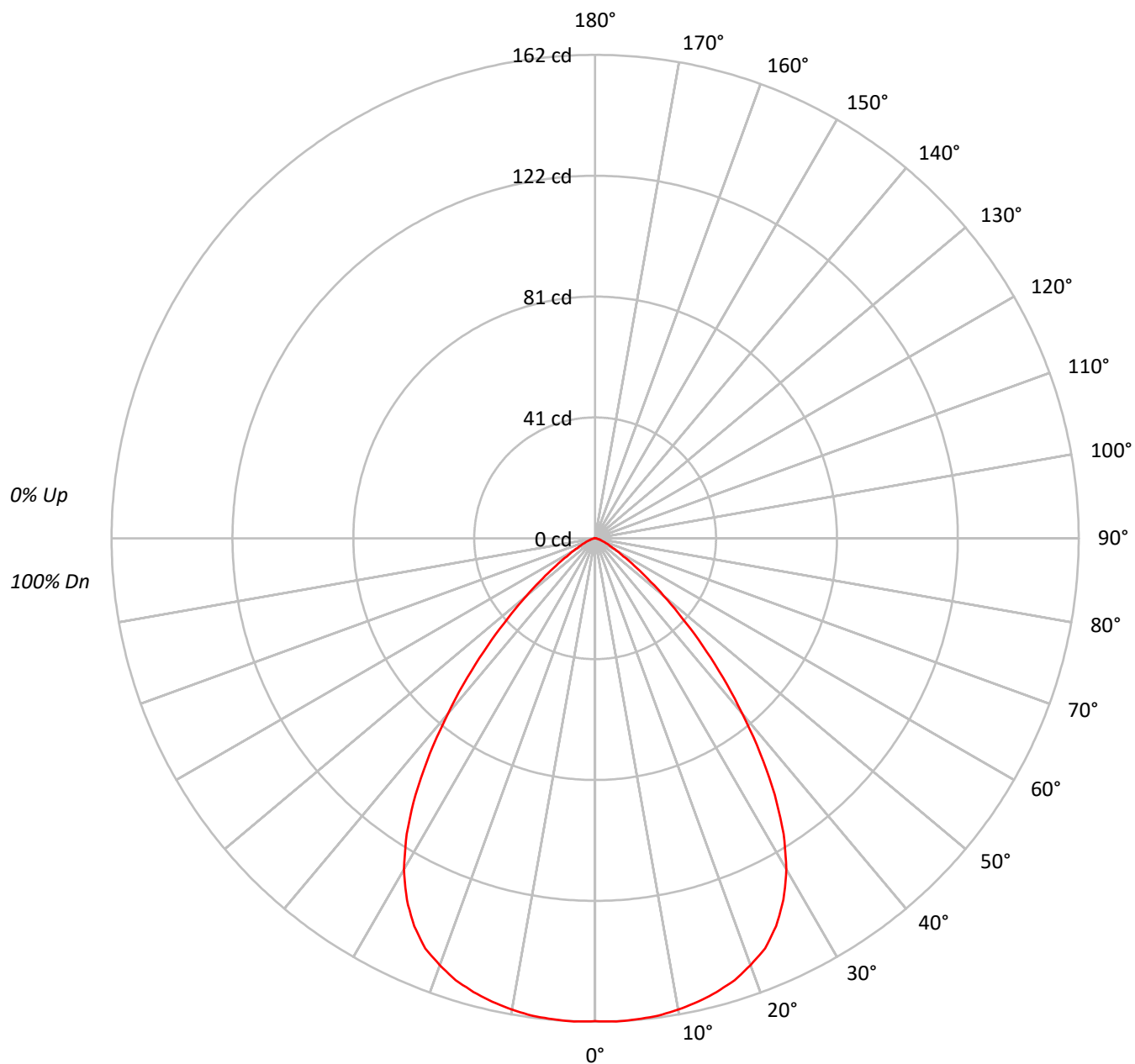
Lumens per Lamp: N/A  
Luminaire Lumens: 251.0 lumens  
Efficiency: N/A  
Efficacy: 71.7 lumens/watt  
Spacing Criteria (0/90/45): 1.18 / 1.18 / 1.13  
Luminous Opening: Circular (Dia: 0.33' x H: 0')  
CIE Type: Direct

Input Watts (W): 3.5  
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   | 112 | 109 | 106 | 104 |  | 110 | 107 | 104 | 102 |  | 103 | 101 | 99  |  | 99  | 97  | 96  |  | 96  | 94  | 93  |
| 2   | 105 | 100 | 95  | 91  |  | 103 | 98  | 93  | 90  |  | 95  | 91  | 88  |  | 91  | 88  | 86  |  | 89  | 86  | 84  |
| 3   | 99  | 91  | 85  | 80  |  | 97  | 90  | 84  | 80  |  | 87  | 82  | 78  |  | 84  | 80  | 77  |  | 82  | 79  | 76  |
| 4   | 92  | 83  | 77  | 72  |  | 90  | 82  | 76  | 71  |  | 80  | 75  | 70  |  | 78  | 73  | 70  |  | 76  | 72  | 69  |
| 5   | 87  | 77  | 70  | 65  |  | 85  | 76  | 69  | 64  |  | 74  | 68  | 64  |  | 72  | 67  | 63  |  | 70  | 66  | 62  |
| 6   | 81  | 71  | 64  | 58  |  | 80  | 70  | 63  | 58  |  | 68  | 62  | 58  |  | 67  | 61  | 57  |  | 65  | 61  | 57  |
| 7   | 76  | 65  | 58  | 53  |  | 75  | 65  | 58  | 53  |  | 63  | 57  | 53  |  | 62  | 56  | 52  |  | 61  | 56  | 52  |
| 8   | 72  | 60  | 53  | 49  |  | 70  | 60  | 53  | 49  |  | 59  | 53  | 48  |  | 58  | 52  | 48  |  | 57  | 52  | 48  |
| 9   | 68  | 56  | 49  | 45  |  | 66  | 56  | 49  | 45  |  | 55  | 49  | 44  |  | 54  | 48  | 44  |  | 53  | 48  | 44  |
| 10  | 64  | 52  | 46  | 41  |  | 63  | 52  | 46  | 41  |  | 51  | 45  | 41  |  | 50  | 45  | 41  |  | 49  | 44  | 41  |

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

|     |       |
|-----|-------|
|     | 0°    |
| 0°  | 19878 |
| 5°  | 19954 |
| 10° | 20010 |
| 15° | 20019 |
| 20° | 19898 |
| 25° | 19438 |
| 30° | 18172 |
| 35° | 15733 |
| 40° | 12285 |
| 45° | 8826  |
| 50° | 5734  |
| 55° | 3427  |
| 60° | 2015  |
| 65° | 1279  |
| 70° | 862   |
| 75° | 665   |
| 80° | 495   |
| 85° | 0     |



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 15.4   | 6.1       |
| 10°-20°   | 44.4   | 17.7      |
| 20°-30°   | 65.5   | 26.1      |
| 30°-40°   | 64.6   | 25.8      |
| 40°-50°   | 39.6   | 15.8      |
| 50°-60°   | 15.2   | 6.0       |
| 60°-70°   | 4.7    | 1.9       |
| 70°-80°   | 1.4    | 0.6       |
| 80°-90°   | 0.2    | 0.1       |
| 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°    | 125.3  | 49.9      |
| 0°-40°    | 189.9  | 75.7      |
| 0°-60°    | 244.7  | 97.5      |
| 0°-90°    | 251.0  | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 251.0  | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°  | Flux |
|-----|-----|------|
| 0°  | 162 |      |
| 5°  | 162 | 15   |
| 15° | 157 | 44   |
| 25° | 143 | 66   |
| 35° | 105 | 65   |
| 45° | 51  | 40   |
| 55° | 16  | 15   |
| 65° | 4   | 5    |
| 75° | 1   | 1    |
| 85° | 0   | 0    |
| 90° | 0   |      |



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°    |
|-------|-------|
| 0°    | 161.8 |
| 2.5°  | 162.1 |
| 5°    | 161.8 |
| 7.5°  | 161.4 |
| 10°   | 160.4 |
| 12.5° | 159.1 |
| 15°   | 157.4 |
| 17.5° | 155.3 |
| 20°   | 152.2 |
| 22.5° | 148.8 |
| 25°   | 143.4 |
| 27.5° | 136.6 |
| 30°   | 128.1 |
| 32.5° | 117.5 |
| 35°   | 104.9 |
| 37.5° | 90.9  |
| 40°   | 76.6  |
| 42.5° | 63.4  |
| 45°   | 50.8  |
| 47.5° | 39.5  |
| 50°   | 30.0  |
| 52.5° | 22.1  |
| 55°   | 16.0  |
| 57.5° | 11.2  |
| 60°   | 8.2   |
| 62.5° | 6.1   |
| 65°   | 4.4   |
| 67.5° | 3.4   |
| 70°   | 2.4   |
| 72.5° | 1.7   |
| 75°   | 1.4   |
| 77.5° | 0.7   |
| 80°   | 0.7   |
| 82.5° | 0.3   |
| 85°   | 0.0   |
| 87.5° | 0.0   |
| 90°   | 0.0   |



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— 0°-180°







(END OF REPORT)