

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: P571774

Luminaire Tested: **FLD4C-02-D010 FEU4C-X-90-40 F4X-W-X-H-BL89AM**

Issue Date: 3/1/2023



**Test Information**

Test Method: LM-79-08  
Report Number: P571774  
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-90-40 F4X-W-X-H-BL89AM  
Description: 4 INCH FAIL-SAFE LED DOWNLIGHT WITH 4000K, 90 CRI LEDS, 4LBWH TRIM  
AND BOTTOM LENS, 0.125" OPAL POLYCARBONATE  
  
Light Source: -  
Ballast/Driver: -

**Summary**

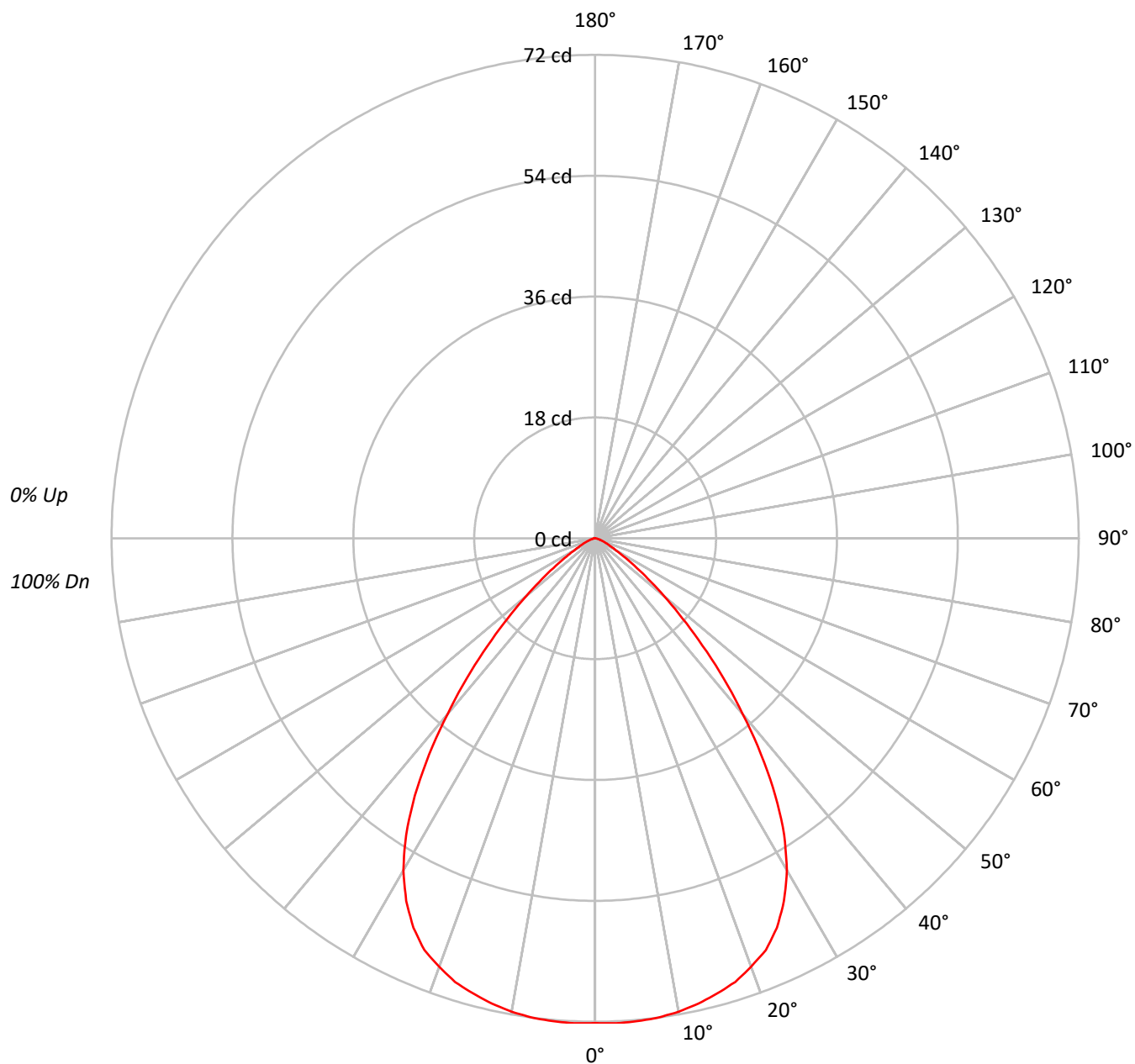
Lumens per Lamp: N/A  
Luminaire Lumens: 112.0 lumens  
Efficiency: N/A  
Efficacy: 32.0 lumens/watt  
Spacing Criteria (0/90/45): 1.17 / 1.17 / 1.13  
Luminous Opening: Circular (Dia: 0.33' x H: 0')  
CIE Type: Direct

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   | 67  | 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°  | 8870 |
| 5°  | 8904 |
| 10° | 8932 |
| 15° | 8929 |
| 20° | 8877 |
| 25° | 8675 |
| 30° | 8100 |
| 35° | 7019 |
| 40° | 5485 |
| 45° | 3927 |
| 50° | 2561 |
| 55° | 1521 |
| 60° | 885  |
| 65° | 581  |
| 70° | 395  |
| 75° | 285  |
| 80° | 212  |
| 85° | 0    |



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 6.9    | 6.1       |
| 10°-20°   | 19.8   | 17.7      |
| 20°-30°   | 29.2   | 26.1      |
| 30°-40°   | 28.8   | 25.8      |
| 40°-50°   | 17.6   | 15.8      |
| 50°-60°   | 6.8    | 6.0       |
| 60°-70°   | 2.1    | 1.9       |
| 70°-80°   | 0.6    | 0.6       |
| 80°-90°   | 0.1    | 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°    | 55.9   | 49.9      |
| 0°-40°    | 84.7   | 75.7      |
| 0°-60°    | 109.1  | 97.5      |
| 0°-90°    | 112.0  | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 112.0  | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0° | Flux |
|-----|----|------|
| 0°  | 72 |      |
| 5°  | 72 | 7    |
| 15° | 70 | 20   |
| 25° | 64 | 29   |
| 35° | 47 | 29   |
| 45° | 23 | 18   |
| 55° | 7  | 7    |
| 65° | 2  | 2    |
| 75° | 1  | 1    |
| 85° | 0  | 0    |
| 90° | 0  |      |



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°   |
|-------|------|
| 0°    | 72.2 |
| 2.5°  | 72.3 |
| 5°    | 72.2 |
| 7.5°  | 72.0 |
| 10°   | 71.6 |
| 12.5° | 71.0 |
| 15°   | 70.2 |
| 17.5° | 69.3 |
| 20°   | 67.9 |
| 22.5° | 66.4 |
| 25°   | 64.0 |
| 27.5° | 60.9 |
| 30°   | 57.1 |
| 32.5° | 52.4 |
| 35°   | 46.8 |
| 37.5° | 40.6 |
| 40°   | 34.2 |
| 42.5° | 28.3 |
| 45°   | 22.6 |
| 47.5° | 17.6 |
| 50°   | 13.4 |
| 52.5° | 9.9  |
| 55°   | 7.1  |
| 57.5° | 5.0  |
| 60°   | 3.6  |
| 62.5° | 2.7  |
| 65°   | 2.0  |
| 67.5° | 1.5  |
| 70°   | 1.1  |
| 72.5° | 0.8  |
| 75°   | 0.6  |
| 77.5° | 0.3  |
| 80°   | 0.3  |
| 82.5° | 0.2  |
| 85°   | 0.0  |
| 87.5° | 0.0  |
| 90°   | 0.0  |



Report Generated By 670246072 / DESKTOP-MV3F9LC





— 0°-180°







(END OF REPORT)