

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: P573574

Luminaire Tested: **FLD4C-45-D010 FEU4C-X-90-40 F4X-W-X-H-BL89AM**

Issue Date: 3/1/2023



**Test Information**

Test Method: LM-79-08  
Report Number: P573574  
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-45-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**

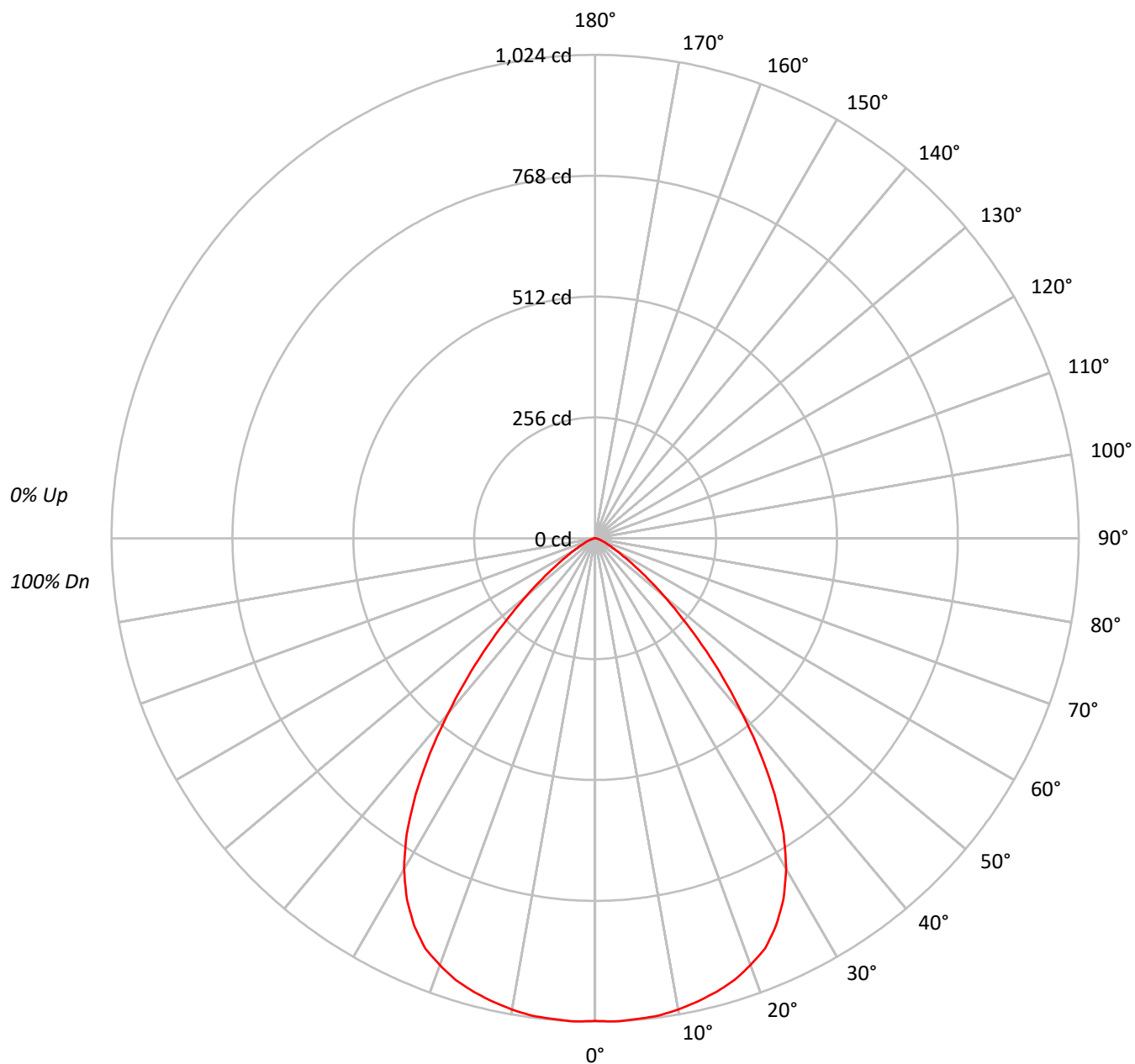
Lumens per Lamp: N/A  
Luminaire Lumens: 1586.0 lumens  
Efficiency: N/A  
Efficacy: 32.0 lumens/watt  
Spacing Criteria (0/90/45): 1.18 / 1.18 / 1.13  
Luminous Opening: Circular (Dia: 0.33' x H: 0')  
CIE Type: Direct

Input Watts (W): 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   | 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°  | 125593 |
| 5°  | 126073 |
| 10° | 126458 |
| 15° | 126462 |
| 20° | 125770 |
| 25° | 122812 |
| 30° | 114792 |
| 35° | 99404  |
| 40° | 77653  |
| 45° | 55719  |
| 50° | 36199  |
| 55° | 21676  |
| 60° | 12678  |
| 65° | 8139   |
| 70° | 5424   |
| 75° | 4082   |
| 80° | 3042   |
| 85° | 0      |



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 97.4   | 6.1       |
| 10°-20°   | 280.5  | 17.7      |
| 20°-30°   | 413.9  | 26.1      |
| 30°-40°   | 408.5  | 25.8      |
| 40°-50°   | 250.0  | 15.8      |
| 50°-60°   | 95.8   | 6.0       |
| 60°-70°   | 30.0   | 1.9       |
| 70°-80°   | 8.8    | 0.6       |
| 80°-90°   | 1.2    | 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°    | 791.8  | 49.9      |
| 0°-40°    | 1200.3 | 75.7      |
| 0°-60°    | 1546.1 | 97.5      |
| 0°-90°    | 1586.0 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 1586.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | Flux |
|-----|------|------|
| 0°  | 1022 |      |
| 5°  | 1022 | 97   |
| 15° | 994  | 281  |
| 25° | 906  | 414  |
| 35° | 663  | 408  |
| 45° | 321  | 250  |
| 55° | 101  | 96   |
| 65° | 28   | 30   |
| 75° | 9    | 9    |
| 85° | 0    | 1    |
| 90° | 0    |      |



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     |
|-------|--------|
| 0°    | 1022.3 |
| 2.5°  | 1024.4 |
| 5°    | 1022.3 |
| 7.5°  | 1020.1 |
| 10°   | 1013.7 |
| 12.5° | 1005.0 |
| 15°   | 994.3  |
| 17.5° | 981.3  |
| 20°   | 962.0  |
| 22.5° | 940.5  |
| 25°   | 906.0  |
| 27.5° | 863.0  |
| 30°   | 809.2  |
| 32.5° | 742.5  |
| 35°   | 662.8  |
| 37.5° | 574.6  |
| 40°   | 484.2  |
| 42.5° | 400.3  |
| 45°   | 320.7  |
| 47.5° | 249.6  |
| 50°   | 189.4  |
| 52.5° | 139.9  |
| 55°   | 101.2  |
| 57.5° | 71.0   |
| 60°   | 51.6   |
| 62.5° | 38.8   |
| 65°   | 28.0   |
| 67.5° | 21.5   |
| 70°   | 15.1   |
| 72.5° | 10.8   |
| 75°   | 8.6    |
| 77.5° | 4.3    |
| 80°   | 4.3    |
| 82.5° | 2.2    |
| 85°   | 0.0    |
| 87.5° | 0.0    |
| 90°   | 0.0    |



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— 0°-180°







(END OF REPORT)