

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: P573346

Luminaire Tested: **FLD4C-40-D010 FEU4C-X-90-35 F4X-N-X-H-BL89AM**

Issue Date: 3/1/2023



**Test Information**

Test Method: LM-79-08  
Report Number: P573346  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P207666)  
Test Lab: INNOVATION CENTER-P3  
Issue Date: 3/1/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: FAIL-SAFE  
Catalog Number: FLD4C-40-D010 FEU4C-X-90-35 F4X-N-X-H-BL89AM  
Description: 4 INCH FAIL-SAFE LED DOWNLIGHT WITH 3500K, 90 CRI LEDS, 4LBNH TRIM  
AND BOTTOM LENS, 0.125" OPAL POLYCARBONATE  
  
Light Source: -  
Ballast/Driver: -

**Summary**

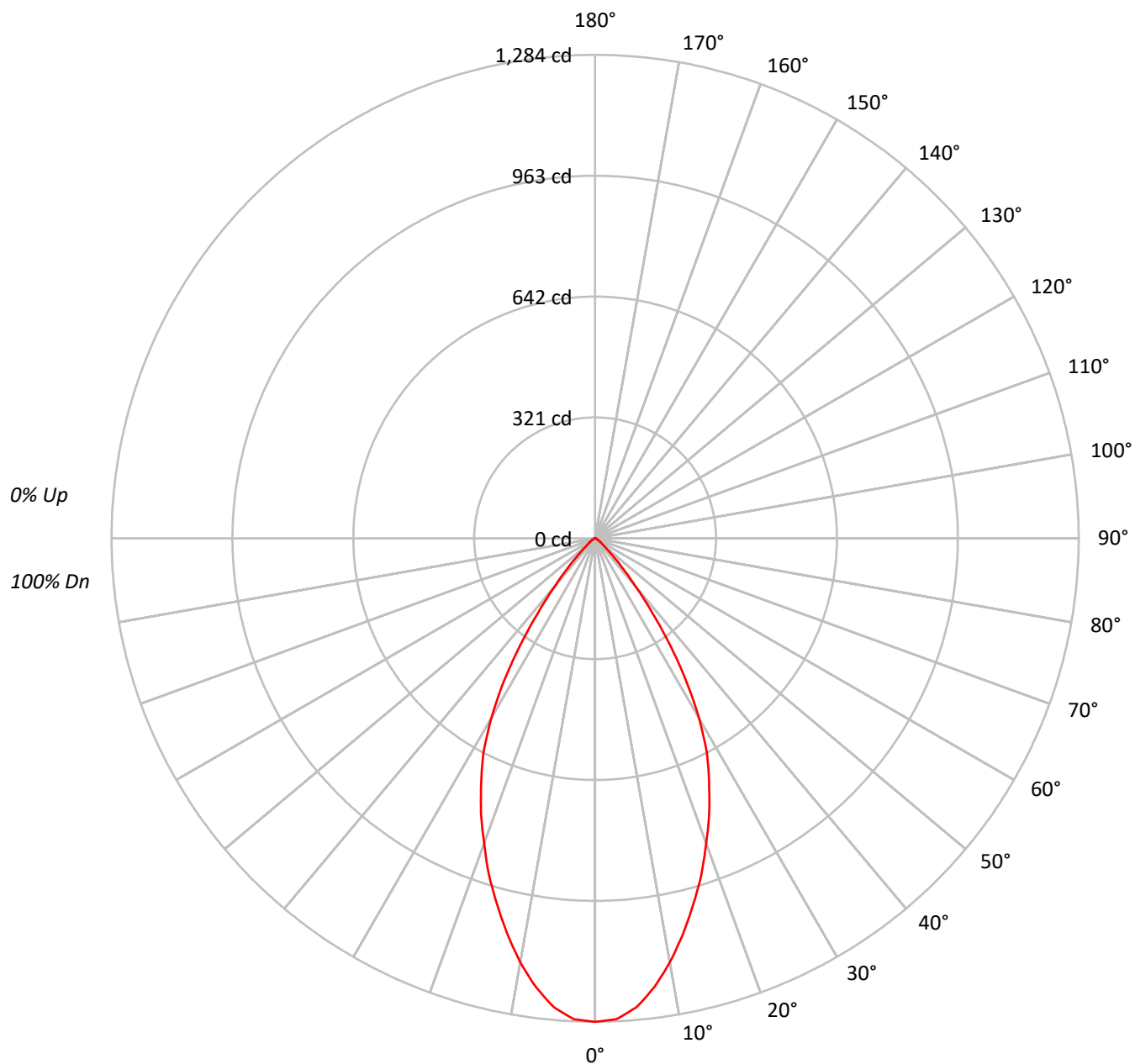
Lumens per Lamp: N/A  
Luminaire Lumens: 1023.0 lumens  
Efficiency: N/A  
Efficacy: 21.8 lumens/watt  
Spacing Criteria (0/90/45): 0.81 / 0.81 / 0.85  
Luminous Opening: Circular (Dia: 0.33' x H: 0')  
CIE Type: Direct

Input Watts (W): 47  
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   | 113 | 111 | 108 | 106 |  | 111 | 109 | 106 | 104 |  | 105 | 103 | 101 |  | 101 | 99  | 98  |  | 97  | 96  | 95  |
| 2   | 108 | 103 | 99  | 96  |  | 106 | 101 | 98  | 94  |  | 98  | 95  | 92  |  | 95  | 93  | 90  |  | 92  | 90  | 89  |
| 3   | 102 | 96  | 91  | 87  |  | 100 | 95  | 90  | 86  |  | 92  | 88  | 85  |  | 90  | 86  | 84  |  | 87  | 85  | 82  |
| 4   | 97  | 90  | 84  | 80  |  | 95  | 89  | 83  | 79  |  | 86  | 82  | 78  |  | 84  | 81  | 78  |  | 83  | 79  | 77  |
| 5   | 92  | 84  | 78  | 74  |  | 91  | 83  | 78  | 73  |  | 81  | 76  | 73  |  | 80  | 75  | 72  |  | 78  | 74  | 72  |
| 6   | 88  | 79  | 73  | 69  |  | 86  | 78  | 72  | 68  |  | 76  | 72  | 68  |  | 75  | 71  | 67  |  | 74  | 70  | 67  |
| 7   | 83  | 74  | 68  | 64  |  | 82  | 73  | 68  | 64  |  | 72  | 67  | 63  |  | 71  | 66  | 63  |  | 70  | 66  | 63  |
| 8   | 79  | 70  | 64  | 60  |  | 78  | 69  | 64  | 60  |  | 68  | 63  | 59  |  | 67  | 63  | 59  |  | 66  | 62  | 59  |
| 9   | 76  | 66  | 60  | 56  |  | 74  | 65  | 60  | 56  |  | 65  | 59  | 56  |  | 64  | 59  | 56  |  | 63  | 59  | 55  |
| 10  | 72  | 62  | 57  | 53  |  | 71  | 62  | 56  | 53  |  | 61  | 56  | 53  |  | 60  | 56  | 52  |  | 60  | 55  | 52  |

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

|     |        |
|-----|--------|
|     | 0°     |
| 0°  | 157793 |
| 5°  | 154289 |
| 10° | 142650 |
| 15° | 128001 |
| 20° | 112683 |
| 25° | 96975  |
| 30° | 78093  |
| 35° | 51982  |
| 40° | 27039  |
| 45° | 12249  |
| 50° | 5313   |
| 55° | 3556   |
| 60° | 2285   |
| 65° | 1628   |
| 70° | 1329   |
| 75° | 902    |
| 80° | 0      |
| 85° | 0      |



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 115.9  | 11.3      |
| 10°-20°   | 281.1  | 27.5      |
| 20°-30°   | 326.4  | 31.9      |
| 30°-40°   | 216.1  | 21.1      |
| 40°-50°   | 60.6   | 5.9       |
| 50°-60°   | 15.2   | 1.5       |
| 60°-70°   | 5.7    | 0.6       |
| 70°-80°   | 2.0    | 0.2       |
| 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°    | 723.3  | 70.7      |
| 0°-40°    | 939.5  | 91.8      |
| 0°-60°    | 1015.3 | 99.2      |
| 0°-90°    | 1023.0 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 1023.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | Flux |
|-----|------|------|
| 0°  | 1284 |      |
| 5°  | 1251 | 116  |
| 15° | 1006 | 281  |
| 25° | 715  | 326  |
| 35° | 347  | 216  |
| 45° | 70   | 61   |
| 55° | 17   | 15   |
| 65° | 6    | 6    |
| 75° | 2    | 2    |
| 85° | 0    | 0    |
| 90° | 0    |      |



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     |
|-------|--------|
| 0°    | 1284.4 |
| 2.5°  | 1278.8 |
| 5°    | 1251.1 |
| 7.5°  | 1202.8 |
| 10°   | 1143.5 |
| 12.5° | 1076.8 |
| 15°   | 1006.4 |
| 17.5° | 937.8  |
| 20°   | 861.9  |
| 22.5° | 791.4  |
| 25°   | 715.4  |
| 27.5° | 643.1  |
| 30°   | 550.5  |
| 32.5° | 452.2  |
| 35°   | 346.6  |
| 37.5° | 248.4  |
| 40°   | 168.6  |
| 42.5° | 109.3  |
| 45°   | 70.5   |
| 47.5° | 42.7   |
| 50°   | 27.8   |
| 52.5° | 20.4   |
| 55°   | 16.6   |
| 57.5° | 13.0   |
| 60°   | 9.3    |
| 62.5° | 7.4    |
| 65°   | 5.6    |
| 67.5° | 3.7    |
| 70°   | 3.7    |
| 72.5° | 1.9    |
| 75°   | 1.9    |
| 77.5° | 1.9    |
| 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)