

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: P572757

Luminaire Tested: **FLD4C-25-D010 FEU4C-X-90-30 F4X-M-X-H-BL86**

Issue Date: 3/1/2023



**Test Information**

Test Method: LM-79-08  
Report Number: P572757  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P207151)  
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-90-30 F4X-M-X-H-BL86  
Description: 4 INCH FAIL-SAFE LED DOWNLIGHT WITH 3000K, 90 CRI LEDS, 4LBMH TRIM  
AND BOTTOM LENS, 0.250" CLEAR POLYCARBONATE  
  
Light Source: -  
Ballast/Driver: -

**Summary**

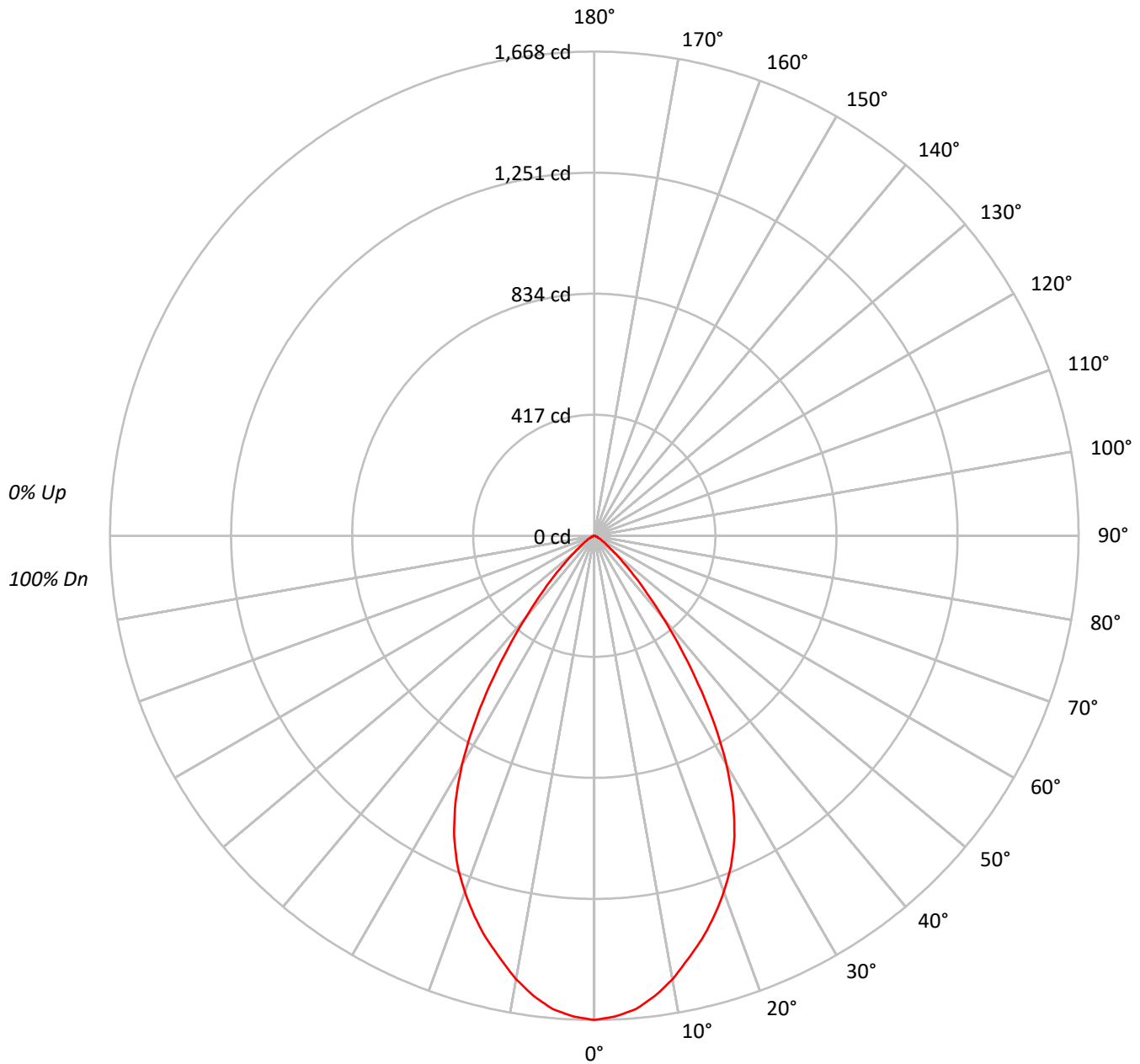
Lumens per Lamp: N/A  
Luminaire Lumens: 1682.0 lumens  
Efficiency: N/A  
Efficacy: 53.4 lumens/watt  
Spacing Criteria (0/90/45): 0.95 / 0.95 / 0.93  
Luminous Opening: Circular (Dia: 0.33' x H: 0')  
CIE Type: Direct

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   | 113 | 110 | 108 | 105 |  | 111 | 108 | 106 | 104 |  | 104 | 102 | 100 |  | 100 | 99  | 97  |  | 97  | 96  | 95  |
| 2   | 107 | 102 | 98  | 94  |  | 105 | 100 | 96  | 93  |  | 97  | 94  | 91  |  | 94  | 91  | 89  |  | 91  | 89  | 87  |
| 3   | 101 | 94  | 89  | 85  |  | 99  | 93  | 88  | 84  |  | 90  | 86  | 83  |  | 88  | 84  | 82  |  | 86  | 83  | 80  |
| 4   | 96  | 88  | 82  | 77  |  | 94  | 86  | 81  | 77  |  | 84  | 80  | 76  |  | 82  | 78  | 75  |  | 80  | 77  | 74  |
| 5   | 90  | 82  | 75  | 71  |  | 89  | 81  | 75  | 70  |  | 79  | 74  | 70  |  | 77  | 73  | 69  |  | 75  | 72  | 69  |
| 6   | 86  | 76  | 70  | 65  |  | 84  | 75  | 69  | 65  |  | 74  | 68  | 64  |  | 72  | 68  | 64  |  | 71  | 67  | 64  |
| 7   | 81  | 71  | 65  | 60  |  | 80  | 70  | 64  | 60  |  | 69  | 64  | 60  |  | 68  | 63  | 59  |  | 67  | 62  | 59  |
| 8   | 77  | 67  | 60  | 56  |  | 75  | 66  | 60  | 56  |  | 65  | 59  | 56  |  | 64  | 59  | 55  |  | 63  | 58  | 55  |
| 9   | 73  | 63  | 56  | 52  |  | 72  | 62  | 56  | 52  |  | 61  | 56  | 52  |  | 60  | 55  | 52  |  | 59  | 55  | 52  |
| 10  | 69  | 59  | 53  | 49  |  | 68  | 59  | 53  | 49  |  | 58  | 52  | 49  |  | 57  | 52  | 48  |  | 56  | 52  | 48  |

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

|     |        |
|-----|--------|
|     | 0°     |
| 0°  | 204895 |
| 5°  | 201916 |
| 10° | 193485 |
| 15° | 182743 |
| 20° | 170587 |
| 25° | 154843 |
| 30° | 129290 |
| 35° | 93660  |
| 40° | 58633  |
| 45° | 33515  |
| 50° | 17469  |
| 55° | 9788   |
| 60° | 6241   |
| 65° | 3692   |
| 70° | 2730   |
| 75° | 1187   |
| 80° | 1769   |
| 85° | 0      |



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 153.5  | 9.1       |
| 10°-20°   | 402.6  | 23.9      |
| 20°-30°   | 517.4  | 30.8      |
| 30°-40°   | 389.3  | 23.1      |
| 40°-50°   | 156.4  | 9.3       |
| 50°-60°   | 44.4   | 2.6       |
| 60°-70°   | 14.1   | 0.8       |
| 70°-80°   | 4.0    | 0.2       |
| 80°-90°   | 0.3    | 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°    | 1073.5 | 63.8      |
| 0°-40°    | 1462.8 | 87.0      |
| 0°-60°    | 1663.6 | 98.9      |
| 0°-90°    | 1682.0 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 1682.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | Flux |
|-----|------|------|
| 0°  | 1668 |      |
| 5°  | 1637 | 153  |
| 15° | 1437 | 403  |
| 25° | 1142 | 517  |
| 35° | 624  | 389  |
| 45° | 193  | 156  |
| 55° | 46   | 44   |
| 65° | 13   | 14   |
| 75° | 2    | 4    |
| 85° | 0    | 0    |
| 90° | 0    |      |



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**CANDELA DISTRIBUTION (FULL):**

| 0°    |        |
|-------|--------|
| 0°    | 1667.8 |
| 2.5°  | 1657.6 |
| 5°    | 1637.3 |
| 7.5°  | 1599.2 |
| 10°   | 1551.0 |
| 12.5° | 1492.7 |
| 15°   | 1436.8 |
| 17.5° | 1373.3 |
| 20°   | 1304.8 |
| 22.5° | 1231.2 |
| 25°   | 1142.3 |
| 27.5° | 1035.7 |
| 30°   | 911.4  |
| 32.5° | 771.7  |
| 35°   | 624.5  |
| 37.5° | 487.4  |
| 40°   | 365.6  |
| 42.5° | 269.1  |
| 45°   | 192.9  |
| 47.5° | 132.1  |
| 50°   | 91.4   |
| 52.5° | 63.5   |
| 55°   | 45.7   |
| 57.5° | 33.0   |
| 60°   | 25.4   |
| 62.5° | 17.8   |
| 65°   | 12.7   |
| 67.5° | 10.2   |
| 70°   | 7.6    |
| 72.5° | 5.1    |
| 75°   | 2.5    |
| 77.5° | 2.5    |
| 80°   | 2.5    |
| 82.5° | 0.0    |
| 85°   | 0.0    |
| 87.5° | 0.0    |
| 90°   | 0.0    |



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— 0°-180°







(END OF REPORT)