

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: P573546

Luminaire Tested: **FLD4C-45-D010 FEU4C-X-90-35 F4X-W-X-LI**

Issue Date: 3/1/2023



**Test Information**

Test Method: LM-79-08  
Report Number: P573546  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P208077)  
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-90-35 F4X-W-X-LI  
Description: 4 INCH FAIL-SAFE LED DOWNLIGHT WITH 3500K, 90 CRI LEDS, 4LBWLI TRIM

Light Source: -  
Ballast/Driver: -

**Summary**

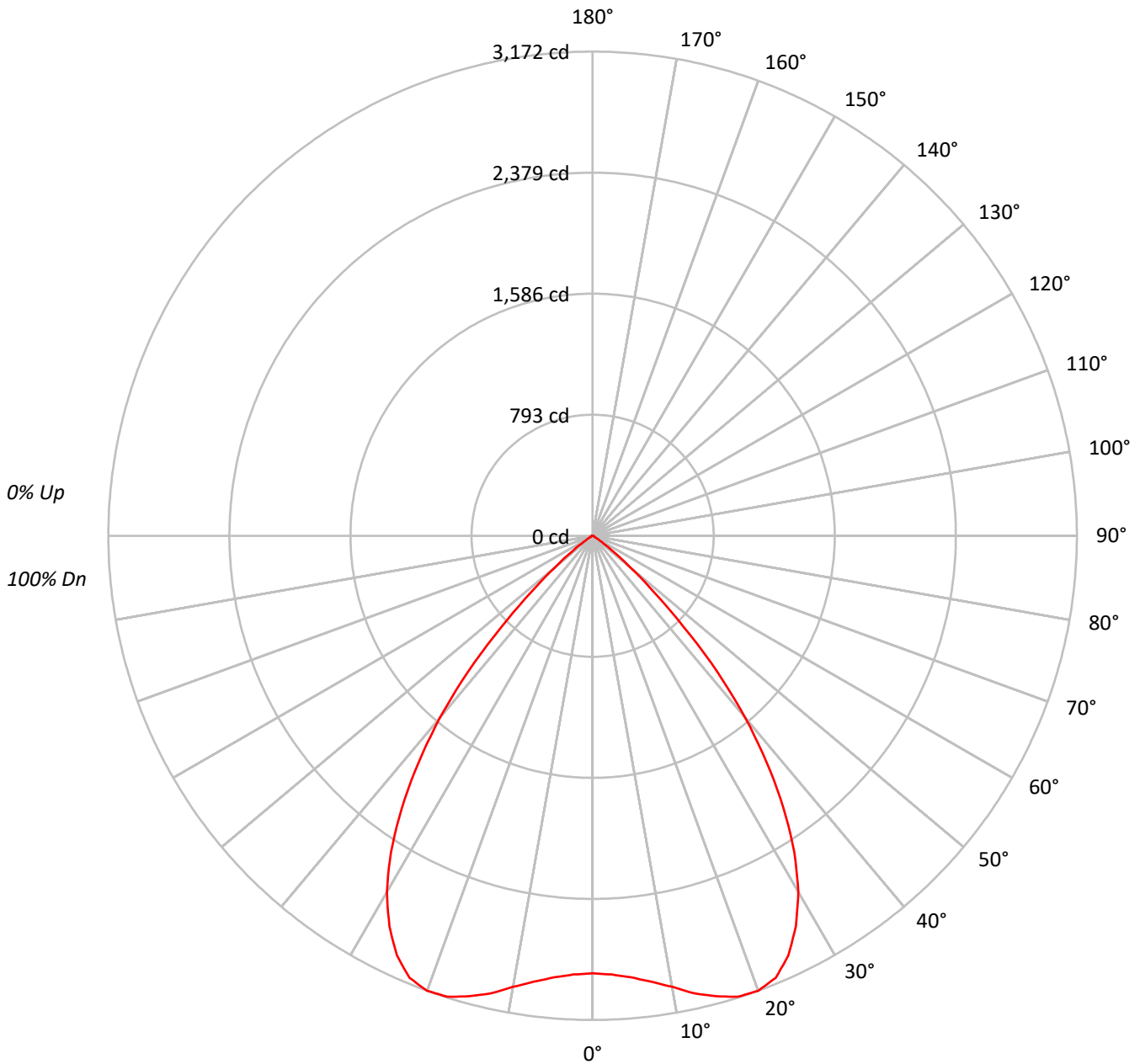
Lumens per Lamp: N/A  
Luminaire Lumens: 4678.0 lumens  
Efficiency: N/A  
Efficacy: 94.3 lumens/watt  
Spacing Criteria (0/90/45): 1.29 / 1.29 / 1.18  
Luminous Opening: Circular (Dia: 0.33' x H: 0')  
CIE Type: Direct

Input Watts (W): 49.6  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 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  |     |     |     | 20  |
| RC  | 80  |     |     |     | 70  |     |     |     | 50  |     |     |     | 30  |     |     |     | 10  |     |     |     | 0   |
| RW  | 70  | 50  | 30  | 10  | 70  | 50  | 30  | 10  | 50  | 30  | 10  | 50  | 30  | 10  | 50  | 30  | 10  | 50  | 30  | 10  | 0   |
| RCR |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| 0   | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 | 106 | 106 | 106 | 102 | 102 | 102 | 100 | 100 | 100 | 100 |
| 1   | 113 | 110 | 107 | 105 | 110 | 108 | 105 | 103 | 104 | 102 | 100 | 100 | 98  | 97  | 96  | 95  | 94  | 92  | 92  | 92  | 92  |
| 2   | 106 | 101 | 97  | 93  | 104 | 99  | 95  | 92  | 96  | 93  | 90  | 93  | 90  | 88  | 90  | 88  | 86  | 84  | 84  | 84  | 84  |
| 3   | 100 | 93  | 87  | 83  | 98  | 92  | 86  | 82  | 89  | 85  | 81  | 86  | 83  | 80  | 84  | 81  | 78  | 77  | 77  | 77  | 77  |
| 4   | 94  | 86  | 79  | 75  | 92  | 84  | 79  | 74  | 82  | 77  | 73  | 80  | 76  | 72  | 78  | 75  | 72  | 70  | 70  | 70  | 70  |
| 5   | 88  | 79  | 72  | 68  | 87  | 78  | 72  | 67  | 76  | 71  | 67  | 74  | 70  | 66  | 73  | 69  | 65  | 64  | 64  | 64  | 64  |
| 6   | 83  | 73  | 66  | 62  | 82  | 72  | 66  | 61  | 71  | 65  | 61  | 69  | 64  | 60  | 68  | 63  | 60  | 58  | 58  | 58  | 58  |
| 7   | 78  | 68  | 61  | 56  | 77  | 67  | 61  | 56  | 66  | 60  | 56  | 64  | 59  | 55  | 63  | 59  | 55  | 54  | 54  | 54  | 54  |
| 8   | 74  | 63  | 56  | 52  | 72  | 62  | 56  | 51  | 61  | 55  | 51  | 60  | 55  | 51  | 59  | 54  | 51  | 49  | 49  | 49  | 49  |
| 9   | 69  | 59  | 52  | 48  | 68  | 58  | 52  | 47  | 57  | 51  | 47  | 56  | 51  | 47  | 55  | 50  | 47  | 45  | 45  | 45  | 45  |
| 10  | 66  | 55  | 48  | 44  | 65  | 54  | 48  | 44  | 53  | 48  | 44  | 53  | 47  | 44  | 52  | 47  | 43  | 42  | 42  | 42  | 42  |

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

|     |        |
|-----|--------|
|     | 0°     |
| 0°  | 352123 |
| 5°  | 358092 |
| 10° | 374283 |
| 15° | 397257 |
| 20° | 414662 |
| 25° | 411067 |
| 30° | 382282 |
| 35° | 327024 |
| 40° | 249173 |
| 45° | 146151 |
| 50° | 62441  |
| 55° | 18377  |
| 60° | 5283   |
| 65° | 3110   |
| 70° | 1940   |
| 75° | 2563   |
| 80° | 0      |
| 85° | 0      |



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 280.3  | 6.0       |
| 10°-20°   | 884.6  | 18.9      |
| 20°-30°   | 1379.9 | 29.5      |
| 30°-40°   | 1342.7 | 28.7      |
| 40°-50°   | 670.6  | 14.3      |
| 50°-60°   | 103.8  | 2.2       |
| 60°-70°   | 12.6   | 0.3       |
| 70°-80°   | 3.5    | 0.1       |
| 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°    | 2544.8 | 54.4      |
| 0°-40°    | 3887.5 | 83.1      |
| 0°-60°    | 4661.9 | 99.7      |
| 0°-90°    | 4678.0 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 4678.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | Flux |
|-----|------|------|
| 0°  | 2866 |      |
| 5°  | 2904 | 280  |
| 15° | 3123 | 885  |
| 25° | 3032 | 1380 |
| 35° | 2180 | 1343 |
| 45° | 841  | 671  |
| 55° | 86   | 104  |
| 65° | 11   | 13   |
| 75° | 5    | 4    |
| 85° | 0    | 0    |
| 90° | 0    |      |



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     |
|-------|--------|
| 0°    | 2866.2 |
| 2.5°  | 2876.9 |
| 5°    | 2903.7 |
| 7.5°  | 2946.6 |
| 10°   | 3000.3 |
| 12.5° | 3069.8 |
| 15°   | 3123.4 |
| 17.5° | 3166.3 |
| 20°   | 3171.7 |
| 22.5° | 3134.2 |
| 25°   | 3032.5 |
| 27.5° | 2882.3 |
| 30°   | 2694.8 |
| 32.5° | 2459.2 |
| 35°   | 2180.5 |
| 37.5° | 1875.0 |
| 40°   | 1553.7 |
| 42.5° | 1210.8 |
| 45°   | 841.2  |
| 47.5° | 541.1  |
| 50°   | 326.7  |
| 52.5° | 176.8  |
| 55°   | 85.8   |
| 57.5° | 37.5   |
| 60°   | 21.5   |
| 62.5° | 16.1   |
| 65°   | 10.7   |
| 67.5° | 10.7   |
| 70°   | 5.4    |
| 72.5° | 5.4    |
| 75°   | 5.4    |
| 77.5° | 0.0    |
| 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)