

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: P696674

Luminaire Tested: **MRI-FEU4C-20-L927 F4X-W-X-H**

Issue Date: 08/03/2023



**Test Information**

Test Method: LM-79-08  
Report Number: P696674  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P206636)  
Test Lab: INNOVATION CENTER-P3  
Issue Date: 08/03/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: FAIL-SAFE  
Catalog Number: MRI-FEU4C-20-L927 F4X-W-X-H  
Description: 4 INCH FAIL-SAFE MRI LED DOWNLIGHT WITH 2700K, 90 CRI LEDS, 4LBWH TRIM  
Light Source: -  
Ballast/Driver: -

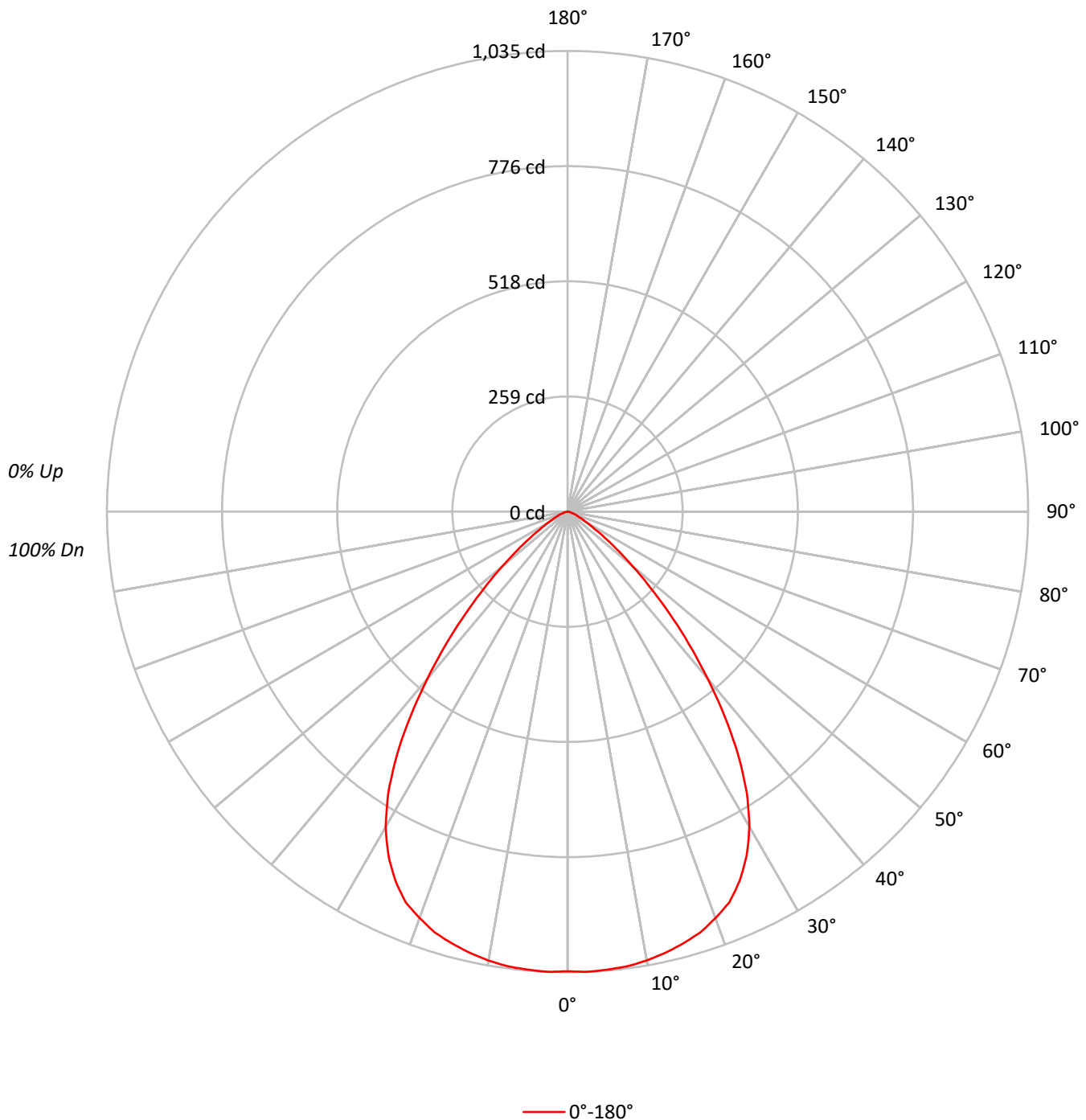
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1602.1 lumens  
Efficiency: N/A  
Efficacy: 73.5 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): 21.8  
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 |
| RC  | 80  |     |     |     | 70  |     |     |     |     | 50  |     |     |     |     | 30  |     |     |     |    | 10 |
| RW  | 70  | 50  | 30  | 10  | 70  | 50  | 30  | 10  | 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 | 100 |    |    |
| 1   | 112 | 109 | 106 | 104 | 110 | 107 | 104 | 102 | 103 | 101 | 99  | 99  | 97  | 96  | 96  | 94  | 93  | 91  |    |    |
| 2   | 105 | 100 | 95  | 91  | 103 | 98  | 93  | 90  | 95  | 91  | 88  | 91  | 88  | 86  | 89  | 86  | 84  | 82  |    |    |
| 3   | 99  | 91  | 85  | 80  | 97  | 90  | 84  | 80  | 87  | 82  | 78  | 84  | 80  | 77  | 82  | 79  | 76  | 74  |    |    |
| 4   | 92  | 83  | 77  | 72  | 90  | 82  | 76  | 71  | 80  | 75  | 70  | 78  | 73  | 70  | 76  | 72  | 69  | 67  |    |    |
| 5   | 87  | 77  | 70  | 65  | 85  | 76  | 69  | 64  | 74  | 68  | 64  | 72  | 67  | 63  | 70  | 66  | 62  | 61  |    |    |
| 6   | 81  | 71  | 64  | 58  | 80  | 70  | 63  | 58  | 68  | 62  | 58  | 67  | 61  | 57  | 65  | 61  | 57  | 55  |    |    |
| 7   | 76  | 65  | 58  | 53  | 75  | 65  | 58  | 53  | 63  | 57  | 53  | 62  | 56  | 52  | 61  | 56  | 52  | 50  |    |    |
| 8   | 72  | 60  | 53  | 49  | 70  | 60  | 53  | 49  | 59  | 53  | 48  | 58  | 52  | 48  | 57  | 52  | 48  | 46  |    |    |
| 9   | 68  | 56  | 49  | 45  | 66  | 56  | 49  | 45  | 55  | 49  | 44  | 54  | 48  | 44  | 53  | 48  | 44  | 43  |    |    |
| 10  | 64  | 52  | 46  | 41  | 63  | 52  | 46  | 41  | 51  | 45  | 41  | 50  | 45  | 41  | 49  | 44  | 41  | 39  |    |    |

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

|     |        |
|-----|--------|
|     | 0°     |
| 0°  | 126858 |
| 5°  | 127343 |
| 10° | 127730 |
| 15° | 127734 |
| 20° | 127038 |
| 25° | 124059 |
| 30° | 115956 |
| 35° | 100409 |
| 40° | 78439  |
| 45° | 56275  |
| 50° | 36562  |
| 55° | 21890  |
| 60° | 12801  |
| 65° | 8227   |
| 70° | 5460   |
| 75° | 4130   |
| 80° | 3113   |
| 85° | 0      |



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 98.3   | 6.1       |
| 10°-20°   | 283.3  | 17.7      |
| 20°-30°   | 418.1  | 26.1      |
| 30°-40°   | 412.6  | 25.8      |
| 40°-50°   | 252.5  | 15.8      |
| 50°-60°   | 96.8   | 6.0       |
| 60°-70°   | 30.3   | 1.9       |
| 70°-80°   | 8.9    | 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°    | 799.8  | 49.9      |
| 0°-40°    | 1212.4 | 75.7      |
| 0°-60°    | 1561.7 | 97.5      |
| 0°-90°    | 1602.1 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 1602.1 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | Flux |
|-----|------|------|
| 0°  | 1033 |      |
| 5°  | 1033 | 98   |
| 15° | 1004 | 283  |
| 25° | 915  | 418  |
| 35° | 670  | 413  |
| 45° | 324  | 252  |
| 55° | 102  | 97   |
| 65° | 28   | 30   |
| 75° | 9    | 9    |
| 85° | 0    | 1    |
| 90° | 0    |      |



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**CANDELA DISTRIBUTION (FULL):**

| 0°    |        |
|-------|--------|
| 0°    | 1032.6 |
| 2.5°  | 1034.8 |
| 5°    | 1032.6 |
| 7.5°  | 1030.4 |
| 10°   | 1023.9 |
| 12.5° | 1015.2 |
| 15°   | 1004.3 |
| 17.5° | 991.2  |
| 20°   | 971.7  |
| 22.5° | 950.0  |
| 25°   | 915.2  |
| 27.5° | 871.7  |
| 30°   | 817.4  |
| 32.5° | 750.0  |
| 35°   | 669.5  |
| 37.5° | 580.4  |
| 40°   | 489.1  |
| 42.5° | 404.3  |
| 45°   | 323.9  |
| 47.5° | 252.1  |
| 50°   | 191.3  |
| 52.5° | 141.3  |
| 55°   | 102.2  |
| 57.5° | 71.7   |
| 60°   | 52.1   |
| 62.5° | 39.2   |
| 65°   | 28.3   |
| 67.5° | 21.8   |
| 70°   | 15.2   |
| 72.5° | 10.9   |
| 75°   | 8.7    |
| 77.5° | 4.4    |
| 80°   | 4.4    |
| 82.5° | 2.2    |
| 85°   | 0.0    |
| 87.5° | 0.0    |
| 90°   | 0.0    |

(END OF REPORT)