

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: P696806

Luminaire Tested: **MRI-FEU4C-20-L950 F4X-N-X-H**

Issue Date: 08/03/2023



**Test Information**

Test Method: LM-79-08  
Report Number: P696806  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P207666)  
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-L950 F4X-N-X-H  
Description: 4 INCH FAIL-SAFE MRI LED DOWNLIGHT WITH 5000K, 90 CRI LEDS, 4LBNH TRIM  
Light Source: -  
Ballast/Driver: -

**Summary**

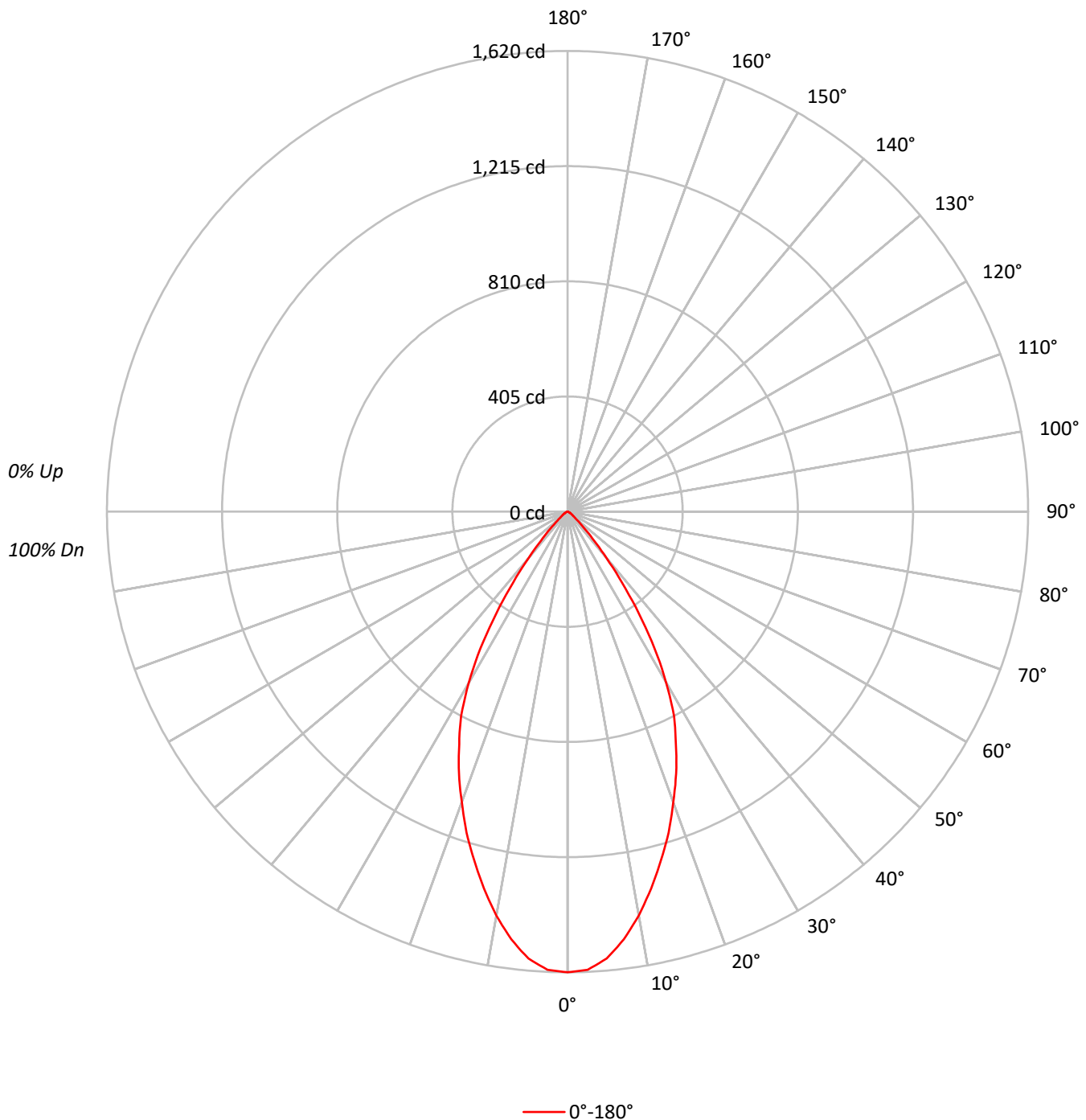
Lumens per Lamp: N/A  
Luminaire Lumens: 1289.9 lumens  
Efficiency: N/A  
Efficacy: 59.2 lumens/watt  
Spacing Criteria (0/90/45): 0.81 / 0.81 / 0.85  
Luminous Opening: Circular (Dia: 0.33' x H: 0')  
CIE Type: Direct

Input Watts (W): 21.8  
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  |
| RCR |     |     |     |     |     |     |     |     |     |     |     |  |     |     |     |  |     |
| 0   | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 |  | 106 | 106 | 106 |  | 102 |
| 1   | 113 | 111 | 108 | 106 | 111 | 109 | 106 | 104 | 105 | 103 | 101 |  | 101 | 99  | 98  |  | 97  |
| 2   | 108 | 103 | 99  | 96  | 106 | 101 | 98  | 94  | 98  | 95  | 92  |  | 95  | 93  | 90  |  | 92  |
| 3   | 102 | 96  | 91  | 87  | 100 | 95  | 90  | 86  | 92  | 88  | 85  |  | 90  | 86  | 84  |  | 87  |
| 4   | 97  | 90  | 84  | 80  | 95  | 89  | 83  | 79  | 86  | 82  | 78  |  | 84  | 81  | 78  |  | 83  |
| 5   | 92  | 84  | 78  | 74  | 91  | 83  | 78  | 73  | 81  | 76  | 73  |  | 80  | 75  | 72  |  | 78  |
| 6   | 88  | 79  | 73  | 69  | 86  | 78  | 72  | 68  | 77  | 72  | 68  |  | 75  | 71  | 67  |  | 74  |
| 7   | 83  | 74  | 68  | 64  | 82  | 73  | 68  | 64  | 72  | 67  | 63  |  | 71  | 66  | 63  |  | 70  |
| 8   | 79  | 70  | 64  | 60  | 78  | 69  | 64  | 60  | 68  | 63  | 59  |  | 67  | 63  | 59  |  | 66  |
| 9   | 76  | 66  | 60  | 56  | 74  | 65  | 60  | 56  | 65  | 59  | 56  |  | 64  | 59  | 56  |  | 63  |
| 10  | 72  | 62  | 57  | 53  | 71  | 62  | 56  | 53  | 61  | 56  | 53  |  | 60  | 56  | 52  |  | 60  |

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

|     |        |
|-----|--------|
|     | 0°     |
| 0°  | 198986 |
| 5°  | 194554 |
| 10° | 179888 |
| 15° | 161413 |
| 20° | 142086 |
| 25° | 122283 |
| 30° | 98464  |
| 35° | 65555  |
| 40° | 34095  |
| 45° | 15428  |
| 50° | 6689   |
| 55° | 4498   |
| 60° | 2875   |
| 65° | 2035   |
| 70° | 1688   |
| 75° | 1092   |
| 80° | 0      |
| 85° | 0      |



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 146.1  | 11.3      |
| 10°-20°   | 354.5  | 27.5      |
| 20°-30°   | 411.5  | 31.9      |
| 30°-40°   | 272.5  | 21.1      |
| 40°-50°   | 76.4   | 5.9       |
| 50°-60°   | 19.2   | 1.5       |
| 60°-70°   | 7.2    | 0.6       |
| 70°-80°   | 2.4    | 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°    | 912.1  | 70.7      |
| 0°-40°    | 1184.7 | 91.8      |
| 0°-60°    | 1280.3 | 99.3      |
| 0°-90°    | 1289.9 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 1289.9 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | Flux |
|-----|------|------|
| 0°  | 1620 |      |
| 5°  | 1578 | 146  |
| 15° | 1269 | 354  |
| 25° | 902  | 412  |
| 35° | 437  | 273  |
| 45° | 89   | 76   |
| 55° | 21   | 19   |
| 65° | 7    | 7    |
| 75° | 2    | 2    |
| 85° | 0    | 0    |
| 90° | 0    |      |



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**CANDELA DISTRIBUTION (FULL):**

| 0°    |        |
|-------|--------|
| 0°    | 1619.7 |
| 2.5°  | 1612.6 |
| 5°    | 1577.6 |
| 7.5°  | 1516.7 |
| 10°   | 1442.0 |
| 12.5° | 1357.8 |
| 15°   | 1269.1 |
| 17.5° | 1182.6 |
| 20°   | 1086.8 |
| 22.5° | 998.0  |
| 25°   | 902.1  |
| 27.5° | 811.0  |
| 30°   | 694.1  |
| 32.5° | 570.2  |
| 35°   | 437.1  |
| 37.5° | 313.2  |
| 40°   | 212.6  |
| 42.5° | 137.8  |
| 45°   | 88.8   |
| 47.5° | 53.8   |
| 50°   | 35.0   |
| 52.5° | 25.7   |
| 55°   | 21.0   |
| 57.5° | 16.4   |
| 60°   | 11.7   |
| 62.5° | 9.4    |
| 65°   | 7.0    |
| 67.5° | 4.7    |
| 70°   | 4.7    |
| 72.5° | 2.3    |
| 75°   | 2.3    |
| 77.5° | 2.3    |
| 80°   | 0.0    |
| 82.5° | 0.0    |
| 85°   | 0.0    |
| 87.5° | 0.0    |
| 90°   | 0.0    |

(END OF REPORT)