

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: P184356

Luminaire Tested: **ENW/ENC-12-4-LD1-28-40-CA125-UNV-EDC1**

Issue Date: 3/3/2020



**Test Information**

Test Method: LM-79-08  
Report Number: P184356  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P32841)  
Test Lab: INNOVATION CENTER-P3  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: FAIL-SAFE  
Catalog Number: ENW/ENC-12-4-LD1-28-40-CA125-UNV-EDC1  
Description: FAIL-SAFE 1X4 ENCOUNTER W/ 0.125" THICK ACRYLIC LENS  
Light Source: 4000K LEDS  
Ballast/Driver: -

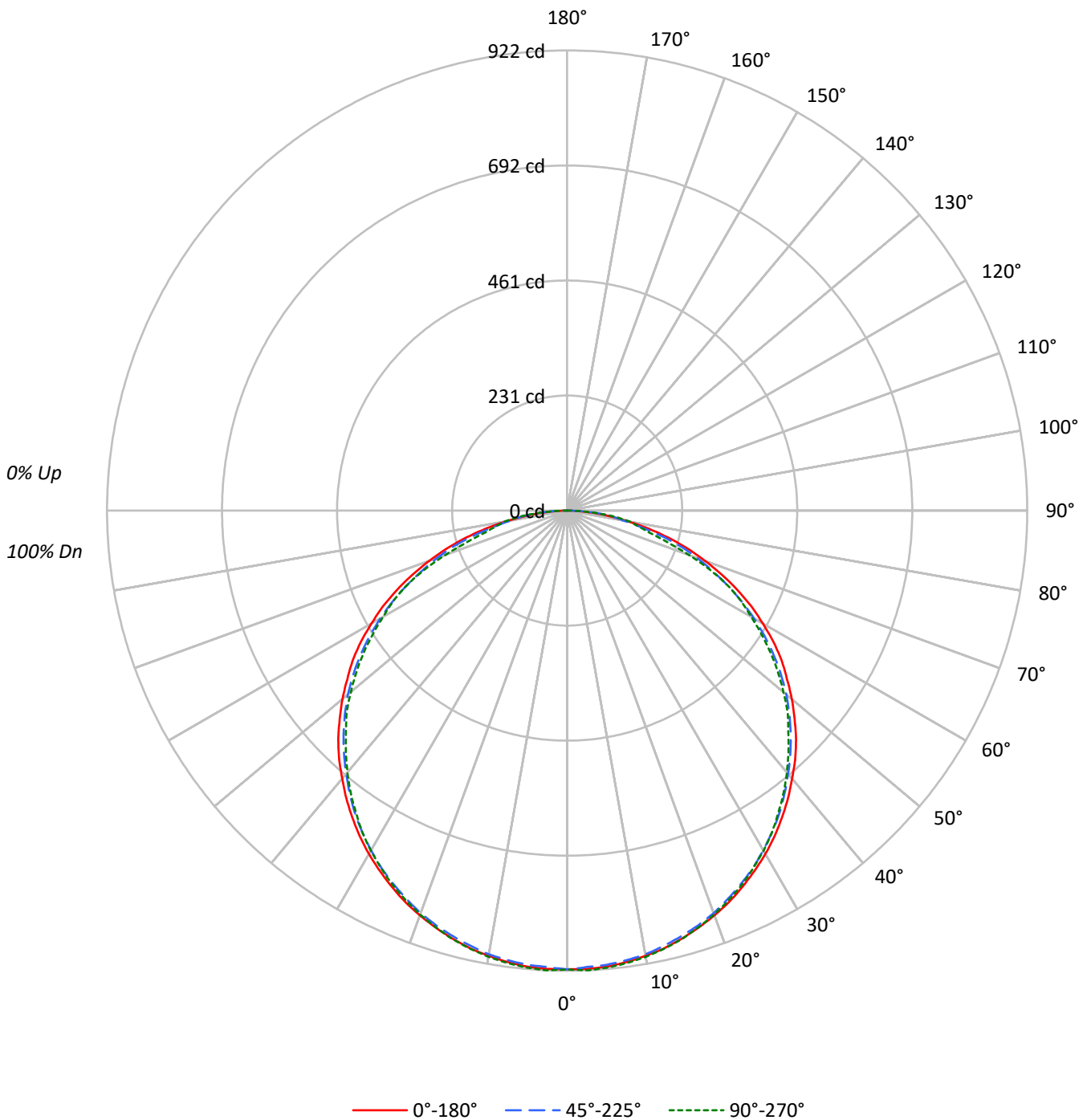
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2752.2 lumens  
Efficiency: N/A  
Efficacy: 96.2 lumens/watt  
Spacing Criteria (0/90/45): 1.28 / 1.27 / 1.4  
Luminous Opening: Rectangular w/ Sides (W: 1' x L: 4' x H: 0.1')  
CIE Type: Direct  
  
Input Watts (W): 28.6  
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  | 0   |
| RW  | 70  | 50  | 30  | 10  | 70  | 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 |
| 1   | 108 | 103 | 99  | 95  | 106 | 101 | 97  | 93  | 97  | 94  | 90  | 93  | 90  | 88  | 89  | 87  | 85  | 83  |
| 2   | 98  | 90  | 83  | 77  | 96  | 88  | 81  | 76  | 84  | 79  | 74  | 81  | 76  | 72  | 78  | 74  | 71  | 69  |
| 3   | 89  | 79  | 70  | 64  | 87  | 77  | 69  | 63  | 74  | 67  | 62  | 71  | 65  | 61  | 69  | 64  | 60  | 57  |
| 4   | 82  | 69  | 60  | 54  | 79  | 68  | 60  | 53  | 66  | 58  | 52  | 63  | 57  | 52  | 61  | 56  | 51  | 49  |
| 5   | 75  | 62  | 53  | 46  | 73  | 61  | 52  | 46  | 59  | 51  | 45  | 57  | 50  | 45  | 55  | 49  | 44  | 42  |
| 6   | 69  | 56  | 47  | 40  | 67  | 55  | 46  | 40  | 53  | 45  | 39  | 51  | 44  | 39  | 50  | 43  | 39  | 37  |
| 7   | 64  | 50  | 41  | 35  | 62  | 50  | 41  | 35  | 48  | 40  | 35  | 47  | 40  | 35  | 45  | 39  | 34  | 32  |
| 8   | 60  | 46  | 37  | 31  | 58  | 45  | 37  | 31  | 44  | 36  | 31  | 43  | 36  | 31  | 41  | 35  | 31  | 29  |
| 9   | 56  | 42  | 34  | 28  | 54  | 41  | 34  | 28  | 40  | 33  | 28  | 39  | 33  | 28  | 38  | 32  | 28  | 26  |
| 10  | 52  | 39  | 31  | 25  | 51  | 38  | 31  | 25  | 37  | 30  | 25  | 36  | 30  | 25  | 35  | 29  | 25  | 23  |

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

|     | 0°   | 45°  | 90°  |
|-----|------|------|------|
| 0°  | 2474 | 2474 | 2474 |
| 5°  | 2472 | 2449 | 2461 |
| 10° | 2465 | 2430 | 2438 |
| 15° | 2457 | 2403 | 2411 |
| 20° | 2449 | 2381 | 2379 |
| 25° | 2441 | 2352 | 2348 |
| 30° | 2433 | 2323 | 2312 |
| 35° | 2423 | 2293 | 2266 |
| 40° | 2412 | 2252 | 2220 |
| 45° | 2408 | 2215 | 2169 |
| 50° | 2390 | 2172 | 2116 |
| 55° | 2378 | 2107 | 2045 |
| 60° | 2334 | 2019 | 1953 |
| 65° | 2274 | 1897 | 1863 |
| 70° | 2160 | 1755 | 1605 |
| 75° | 1992 | 1519 | 1283 |
| 80° | 1680 | 1180 | 1262 |
| 85° | 1189 | 937  | 864  |



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 87.1   | 3.2       |
| 10°-20°   | 250.2  | 9.1       |
| 20°-30°   | 381.6  | 13.9      |
| 30°-40°   | 464.7  | 16.9      |
| 40°-50°   | 490.4  | 17.8      |
| 50°-60°   | 454.2  | 16.5      |
| 60°-70°   | 355.3  | 12.9      |
| 70°-80°   | 204.5  | 7.4       |
| 80°-90°   | 64.2   | 2.3       |
| 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°    | 718.9  | 26.1      |
| 0°-40°    | 1183.6 | 43.0      |
| 0°-60°    | 2128.3 | 77.3      |
| 0°-90°    | 2752.2 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 2752.2 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°  | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0°  | 919 | 919   | 919 | 919   | 919 |      |
| 5°  | 917 | 917   | 914 | 917   | 919 | 87   |
| 15° | 888 | 888   | 883 | 887   | 889 | 251  |
| 25° | 832 | 830   | 825 | 826   | 828 | 384  |
| 35° | 751 | 747   | 741 | 738   | 738 | 470  |
| 45° | 649 | 643   | 634 | 628   | 627 | 500  |
| 55° | 525 | 518   | 506 | 499   | 498 | 468  |
| 65° | 376 | 369   | 354 | 352   | 355 | 371  |
| 75° | 210 | 202   | 194 | 173   | 170 | 221  |
| 85° | 50  | 52    | 61  | 60    | 60  | 59   |
| 90° | 0   | 0     | 0   | 0     | 0   |      |



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°    | 22.5° | 45°   | 67.5° | 90°   |
|-------|-------|-------|-------|-------|-------|
| 0°    | 919.2 | 919.2 | 919.2 | 919.2 | 919.2 |
| 2.5°  | 919.2 | 919.2 | 915.4 | 920.2 | 922.1 |
| 5°    | 917.3 | 917.3 | 913.5 | 917.3 | 919.2 |
| 7.5°  | 912.5 | 912.5 | 908.7 | 912.5 | 914.5 |
| 10°   | 905.9 | 905.9 | 903.0 | 905.9 | 907.8 |
| 12.5° | 898.3 | 897.4 | 893.5 | 897.4 | 899.2 |
| 15°   | 887.8 | 887.8 | 883.0 | 886.9 | 888.8 |
| 17.5° | 876.3 | 875.4 | 871.6 | 873.5 | 875.4 |
| 20°   | 863.0 | 862.1 | 858.2 | 860.2 | 861.1 |
| 22.5° | 848.7 | 846.9 | 842.1 | 844.0 | 844.9 |
| 25°   | 831.6 | 829.7 | 824.9 | 825.8 | 827.8 |
| 27.5° | 813.5 | 811.6 | 806.8 | 806.8 | 807.7 |
| 30°   | 794.4 | 791.6 | 785.8 | 785.8 | 786.9 |
| 32.5° | 773.6 | 769.6 | 764.0 | 763.0 | 764.0 |
| 35°   | 750.6 | 746.8 | 741.2 | 738.2 | 738.2 |
| 37.5° | 726.8 | 723.0 | 715.3 | 712.5 | 712.5 |
| 40°   | 701.1 | 698.3 | 688.7 | 684.9 | 684.9 |
| 42.5° | 676.4 | 671.6 | 662.0 | 657.2 | 656.3 |
| 45°   | 648.7 | 643.0 | 633.5 | 627.7 | 626.8 |
| 47.5° | 618.2 | 614.4 | 604.0 | 598.2 | 599.2 |
| 50°   | 587.8 | 585.0 | 573.4 | 566.8 | 565.8 |
| 52.5° | 555.4 | 552.5 | 540.1 | 534.4 | 532.5 |
| 55°   | 524.9 | 518.2 | 505.8 | 499.1 | 498.2 |
| 57.5° | 490.5 | 483.0 | 469.7 | 463.9 | 462.0 |
| 60°   | 452.5 | 446.8 | 432.5 | 425.7 | 425.7 |
| 62.5° | 416.3 | 409.6 | 394.4 | 389.6 | 393.3 |
| 65°   | 376.3 | 368.7 | 354.4 | 352.4 | 355.3 |
| 67.5° | 335.3 | 327.7 | 314.4 | 313.5 | 309.6 |
| 70°   | 293.4 | 286.8 | 277.2 | 266.7 | 260.0 |
| 72.5° | 252.4 | 244.8 | 239.1 | 218.2 | 209.5 |
| 75°   | 209.5 | 201.9 | 194.3 | 173.3 | 169.5 |
| 77.5° | 166.7 | 163.0 | 148.6 | 142.9 | 145.7 |
| 80°   | 123.8 | 126.6 | 114.3 | 123.8 | 127.6 |
| 82.5° | 83.8  | 86.6  | 91.4  | 99.0  | 98.1  |
| 85°   | 49.5  | 52.4  | 61.0  | 60.0  | 60.0  |
| 87.5° | 21.9  | 26.7  | 25.7  | 25.7  | 25.7  |
| 90°   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |

(END OF REPORT)