

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: P184372

Luminaire Tested: **ENW/ENC-24-2-LD1-34-40-CA125-UNV-EDC1**

Issue Date: 3/3/2020



**Test Information**

Test Method: LM-79-08  
Report Number: P184372  
Test Lab: INNOVATION CENTER-P3  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: FAIL-SAFE  
Catalog Number: ENW/ENC-24-2-LD1-34-40-CA125-UNV-EDC1  
Description: FAIL-SAFE 2X2 ENCOUNTER W/ 0.125" THICK CLEAR ACRYLIC LENS  
Light Source: 4000K LEDS  
Ballast/Driver: -

**Summary**

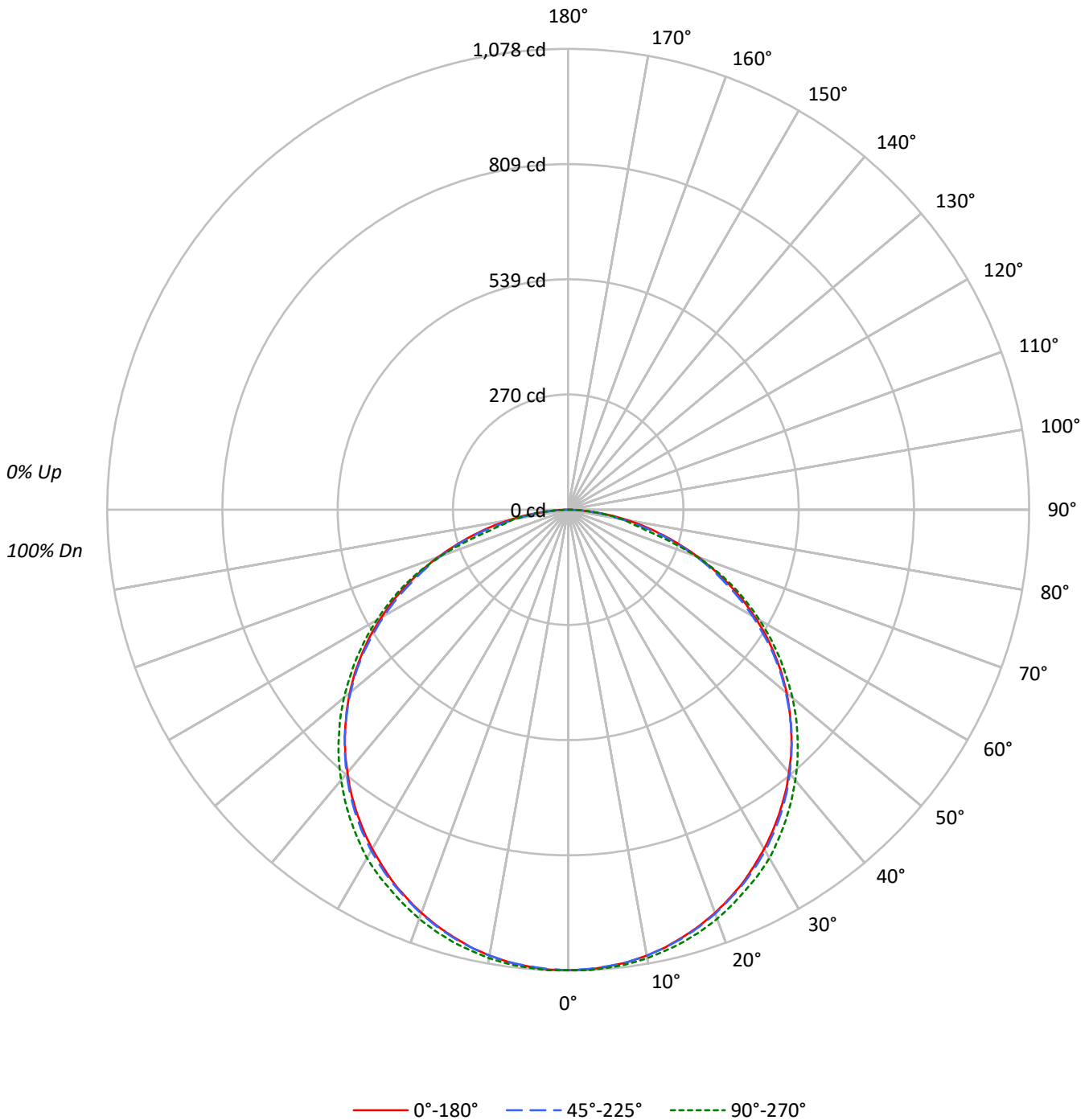
Lumens per Lamp: N/A  
Luminaire Lumens: 3188.6 lumens  
Efficiency: N/A  
Efficacy: 91.6 lumens/watt  
Spacing Criteria (0/90/45): 1.27 / 1.29 / 1.39  
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 2' x H: 0.1')  
CIE Type: Direct

Input Watts (W): 34.8  
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 |    |     |   |  | 0 |
| RW  | 70  | 50  | 30  | 10  | 70  | 50  | 30  | 10  | 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 |   |  |   |
| 1   | 109 | 104 | 99  | 95  | 106 | 101 | 97  | 94  | 97  | 94  | 91  | 93  | 91  | 88  | 90  | 87  | 85  | 83  |    |    |    |    | 83  |   |  |   |
| 2   | 99  | 90  | 83  | 77  | 96  | 88  | 82  | 76  | 85  | 79  | 75  | 81  | 77  | 73  | 78  | 75  | 71  | 69  |    |    |    |    | 69  |   |  |   |
| 3   | 90  | 79  | 71  | 64  | 87  | 77  | 70  | 63  | 74  | 68  | 62  | 72  | 66  | 61  | 69  | 64  | 60  | 58  |    |    |    |    | 58  |   |  |   |
| 4   | 82  | 70  | 61  | 54  | 80  | 68  | 60  | 54  | 66  | 59  | 53  | 64  | 57  | 52  | 61  | 56  | 51  | 49  |    |    |    |    | 49  |   |  |   |
| 5   | 75  | 62  | 53  | 46  | 73  | 61  | 52  | 46  | 59  | 51  | 46  | 57  | 50  | 45  | 55  | 49  | 45  | 42  |    |    |    |    | 42  |   |  |   |
| 6   | 69  | 56  | 47  | 40  | 68  | 55  | 46  | 40  | 53  | 45  | 40  | 51  | 45  | 39  | 50  | 44  | 39  | 37  |    |    |    |    | 37  |   |  |   |
| 7   | 64  | 51  | 42  | 36  | 63  | 50  | 41  | 35  | 48  | 41  | 35  | 47  | 40  | 35  | 45  | 39  | 35  | 33  |    |    |    |    | 33  |   |  |   |
| 8   | 60  | 46  | 38  | 32  | 58  | 45  | 37  | 32  | 44  | 37  | 31  | 43  | 36  | 31  | 42  | 36  | 31  | 29  |    |    |    |    | 29  |   |  |   |
| 9   | 56  | 42  | 34  | 28  | 54  | 42  | 34  | 28  | 41  | 33  | 28  | 39  | 33  | 28  | 38  | 32  | 28  | 26  |    |    |    |    | 26  |   |  |   |
| 10  | 52  | 39  | 31  | 26  | 51  | 39  | 31  | 26  | 37  | 30  | 26  | 37  | 30  | 25  | 36  | 30  | 25  | 24  |    |    |    |    | 24  |   |  |   |

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

|     | 0°   | 45°  | 90°  |
|-----|------|------|------|
| 0°  | 2899 | 2899 | 2899 |
| 5°  | 2885 | 2877 | 2893 |
| 10° | 2868 | 2858 | 2885 |
| 15° | 2845 | 2835 | 2876 |
| 20° | 2823 | 2807 | 2864 |
| 25° | 2797 | 2779 | 2848 |
| 30° | 2767 | 2749 | 2842 |
| 35° | 2739 | 2715 | 2815 |
| 40° | 2708 | 2672 | 2785 |
| 45° | 2674 | 2626 | 2751 |
| 50° | 2635 | 2565 | 2704 |
| 55° | 2578 | 2489 | 2643 |
| 60° | 2502 | 2386 | 2561 |
| 65° | 2391 | 2243 | 2455 |
| 70° | 2234 | 2091 | 2202 |
| 75° | 2007 | 1824 | 1669 |
| 80° | 1689 | 1333 | 1566 |
| 85° | 1031 | 910  | 1102 |



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 102.1  | 3.2       |
| 10°-20°   | 293.2  | 9.2       |
| 20°-30°   | 447.2  | 14.0      |
| 30°-40°   | 544.9  | 17.1      |
| 40°-50°   | 573.1  | 18.0      |
| 50°-60°   | 526.3  | 16.5      |
| 60°-70°   | 408.4  | 12.8      |
| 70°-80°   | 230.1  | 7.2       |
| 80°-90°   | 63.1   | 2.0       |
| 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°    | 842.5  | 26.4      |
| 0°-40°    | 1387.5 | 43.5      |
| 0°-60°    | 2486.9 | 78.0      |
| 0°-90°    | 3188.6 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 3188.6 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|-----|------|-------|------|-------|------|------|
| 0°  | 1077 | 1077  | 1077 | 1077  | 1077 |      |
| 5°  | 1073 | 1073  | 1072 | 1076  | 1076 | 102  |
| 15° | 1035 | 1036  | 1037 | 1042  | 1046 | 292  |
| 25° | 964  | 964   | 967  | 976   | 982  | 444  |
| 35° | 863  | 864   | 868  | 878   | 887  | 540  |
| 45° | 738  | 737   | 739  | 750   | 759  | 569  |
| 55° | 589  | 585   | 584  | 592   | 604  | 526  |
| 65° | 416  | 412   | 406  | 415   | 427  | 411  |
| 75° | 229  | 227   | 222  | 198   | 190  | 243  |
| 85° | 52   | 51    | 53   | 54    | 56   | 66   |
| 90° | 0    | 0     | 0    | 0     | 0    |      |



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|-------|--------|--------|--------|--------|--------|
| 0°    | 1077.3 | 1077.3 | 1077.3 | 1077.3 | 1077.3 |
| 2.5°  | 1076.4 | 1075.5 | 1075.5 | 1077.3 | 1078.2 |
| 5°    | 1072.7 | 1072.7 | 1071.8 | 1075.5 | 1075.5 |
| 7.5°  | 1067.2 | 1066.3 | 1067.2 | 1070.9 | 1071.8 |
| 10°   | 1058.9 | 1058.0 | 1058.9 | 1062.6 | 1065.3 |
| 12.5° | 1048.8 | 1048.8 | 1048.8 | 1053.4 | 1056.1 |
| 15°   | 1035.0 | 1035.9 | 1036.8 | 1042.3 | 1046.0 |
| 17.5° | 1020.3 | 1020.3 | 1022.1 | 1028.5 | 1033.1 |
| 20°   | 1003.7 | 1003.7 | 1005.5 | 1012.9 | 1018.4 |
| 22.5° | 984.4  | 985.3  | 986.2  | 995.4  | 1000.9 |
| 25°   | 964.1  | 964.1  | 966.9  | 976.1  | 981.6  |
| 27.5° | 940.2  | 942.1  | 944.8  | 954.9  | 963.2  |
| 30°   | 916.3  | 917.2  | 920.9  | 931.0  | 941.1  |
| 32.5° | 890.5  | 891.5  | 895.1  | 905.3  | 914.5  |
| 35°   | 862.9  | 863.9  | 867.5  | 877.7  | 886.9  |
| 37.5° | 834.4  | 834.4  | 838.1  | 849.1  | 857.4  |
| 40°   | 803.1  | 803.1  | 805.9  | 816.9  | 826.1  |
| 42.5° | 771.9  | 770.0  | 772.8  | 783.8  | 793.9  |
| 45°   | 737.8  | 736.9  | 738.7  | 749.8  | 759.0  |
| 47.5° | 702.9  | 701.9  | 701.9  | 712.1  | 723.1  |
| 50°   | 667.0  | 664.2  | 664.2  | 673.4  | 684.5  |
| 52.5° | 629.3  | 625.6  | 625.6  | 633.9  | 644.0  |
| 55°   | 588.8  | 585.1  | 584.2  | 591.5  | 603.5  |
| 57.5° | 548.3  | 543.7  | 540.9  | 548.3  | 561.2  |
| 60°   | 505.1  | 501.4  | 497.7  | 504.1  | 517.0  |
| 62.5° | 461.8  | 457.2  | 451.7  | 460.0  | 471.9  |
| 65°   | 415.8  | 412.1  | 405.7  | 414.9  | 426.9  |
| 67.5° | 369.9  | 366.1  | 361.5  | 368.0  | 375.3  |
| 70°   | 322.9  | 320.1  | 317.4  | 316.5  | 318.3  |
| 72.5° | 275.1  | 273.3  | 271.4  | 259.5  | 253.9  |
| 75°   | 229.1  | 227.3  | 221.7  | 197.8  | 190.5  |
| 77.5° | 184.0  | 183.1  | 168.3  | 150.9  | 152.7  |
| 80°   | 139.9  | 137.1  | 120.5  | 125.1  | 129.7  |
| 82.5° | 97.5   | 92.0   | 88.3   | 90.1   | 92.0   |
| 85°   | 52.5   | 50.6   | 53.3   | 54.3   | 56.1   |
| 87.5° | 21.1   | 21.1   | 23.0   | 24.9   | 24.9   |
| 90°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |

(END OF REPORT)