

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: P184379

Luminaire Tested: **ENW/ENC-24-2-LD1-39-40-CP250-UNV-EDC1**

Issue Date: 3/3/2020



**Test Information**

Test Method: LM-79-08  
Report Number: P184379  
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-LD1-39-40-CP250-UNV-EDC1  
Description: FAIL-SAFE 2X2 ENCOUNTER W/ 0.250" THICK CLEAR POLY LENS  
Light Source: 4000K LEDS  
Ballast/Driver: -

**Summary**

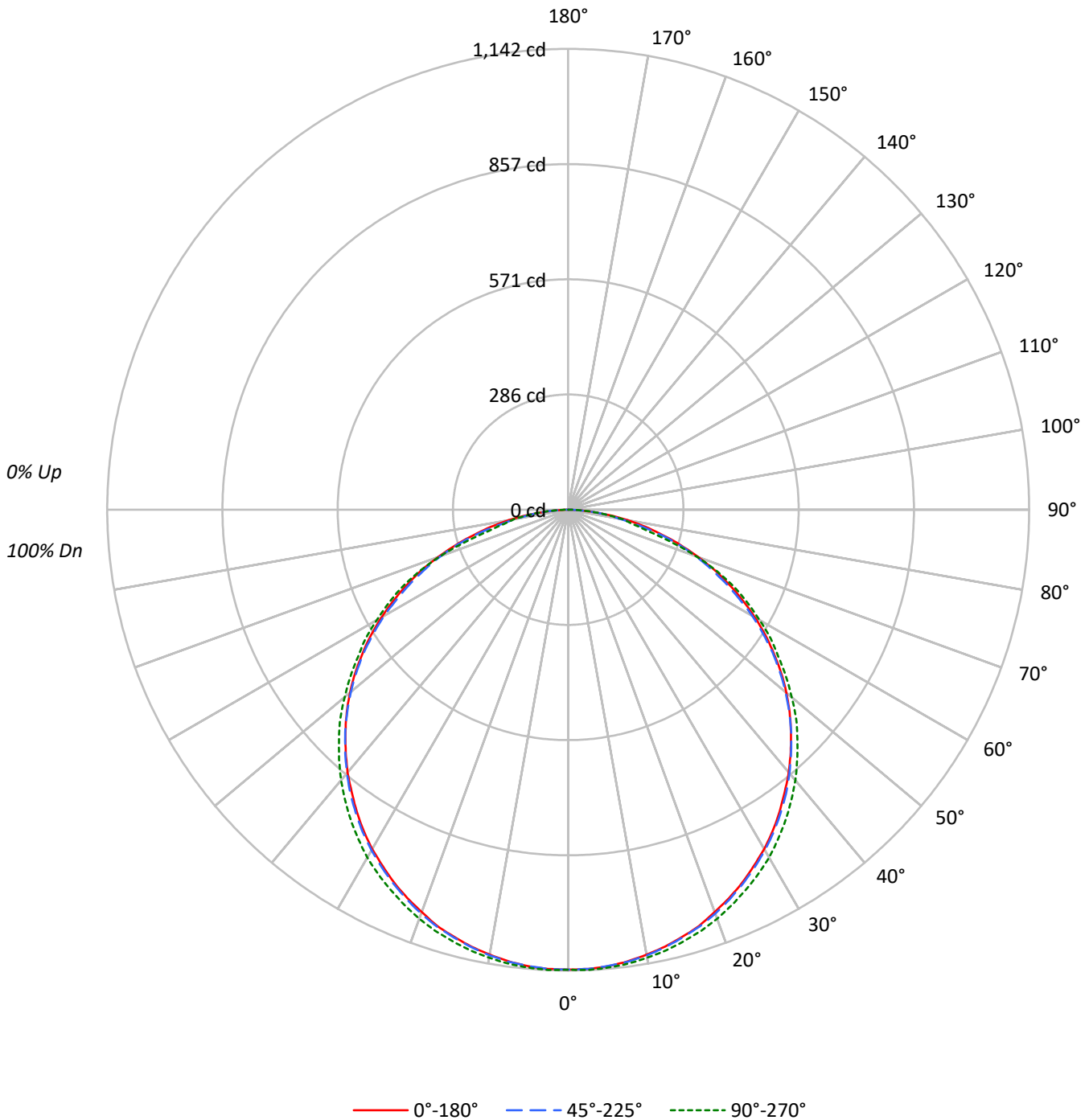
Lumens per Lamp: N/A  
Luminaire Lumens: 3374.7 lumens  
Efficiency: N/A  
Efficacy: 81.1 lumens/watt  
Spacing Criteria (0/90/45): 1.27 / 1.29 / 1.39  
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 2' x H: 0.1')  
CIE Type: Direct

Input Watts (W): 41.6  
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  |     |
| 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   | 109 | 104 | 99  | 95  | 106 | 101 | 97  | 94  | 97  | 94  | 91  | 93  | 91  | 88  | 90  | 87  | 85  | 83  |
| 2   | 99  | 90  | 83  | 77  | 96  | 88  | 82  | 76  | 85  | 79  | 75  | 81  | 77  | 73  | 78  | 75  | 71  | 69  |
| 3   | 90  | 79  | 71  | 64  | 87  | 77  | 70  | 63  | 74  | 68  | 62  | 72  | 66  | 61  | 69  | 64  | 60  | 58  |
| 4   | 82  | 70  | 61  | 54  | 80  | 68  | 60  | 54  | 66  | 59  | 53  | 64  | 57  | 52  | 61  | 56  | 51  | 49  |
| 5   | 75  | 62  | 53  | 46  | 73  | 61  | 52  | 46  | 59  | 51  | 46  | 57  | 50  | 45  | 55  | 49  | 45  | 42  |
| 6   | 69  | 56  | 47  | 40  | 68  | 55  | 46  | 40  | 53  | 45  | 40  | 51  | 45  | 39  | 50  | 44  | 39  | 37  |
| 7   | 64  | 51  | 42  | 36  | 63  | 50  | 41  | 35  | 48  | 41  | 35  | 47  | 40  | 35  | 45  | 39  | 35  | 33  |
| 8   | 60  | 46  | 38  | 32  | 58  | 45  | 37  | 32  | 44  | 37  | 31  | 43  | 36  | 31  | 42  | 36  | 31  | 29  |
| 9   | 56  | 42  | 34  | 28  | 54  | 42  | 34  | 28  | 41  | 33  | 28  | 39  | 33  | 28  | 38  | 32  | 28  | 26  |
| 10  | 52  | 39  | 31  | 26  | 51  | 38  | 31  | 26  | 37  | 30  | 26  | 37  | 30  | 25  | 36  | 30  | 25  | 24  |

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

|     | 0°   | 45°  | 90°  |
|-----|------|------|------|
| 0°  | 3067 | 3067 | 3067 |
| 5°  | 3054 | 3047 | 3063 |
| 10° | 3033 | 3026 | 3053 |
| 15° | 3011 | 2999 | 3044 |
| 20° | 2984 | 2974 | 3034 |
| 25° | 2959 | 2941 | 3017 |
| 30° | 2933 | 2909 | 3006 |
| 35° | 2898 | 2871 | 2981 |
| 40° | 2866 | 2827 | 2951 |
| 45° | 2828 | 2777 | 2910 |
| 50° | 2788 | 2715 | 2857 |
| 55° | 2725 | 2634 | 2785 |
| 60° | 2646 | 2525 | 2713 |
| 65° | 2536 | 2373 | 2613 |
| 70° | 2371 | 2208 | 2342 |
| 75° | 2127 | 1921 | 1788 |
| 80° | 1795 | 1412 | 1653 |
| 85° | 1073 | 990  | 1155 |



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 108.0  | 3.2       |
| 10°-20°   | 310.4  | 9.2       |
| 20°-30°   | 473.3  | 14.0      |
| 30°-40°   | 576.5  | 17.1      |
| 40°-50°   | 606.4  | 18.0      |
| 50°-60°   | 557.2  | 16.5      |
| 60°-70°   | 432.4  | 12.8      |
| 70°-80°   | 243.3  | 7.2       |
| 80°-90°   | 67.2   | 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°    | 891.6  | 26.4      |
| 0°-40°    | 1468.2 | 43.5      |
| 0°-60°    | 2631.8 | 78.0      |
| 0°-90°    | 3374.7 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 3374.7 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|-----|------|-------|------|-------|------|------|
| 0°  | 1140 | 1140  | 1140 | 1140  | 1140 |      |
| 5°  | 1136 | 1135  | 1135 | 1138  | 1139 | 108  |
| 15° | 1095 | 1095  | 1097 | 1104  | 1107 | 309  |
| 25° | 1020 | 1020  | 1023 | 1032  | 1040 | 470  |
| 35° | 913  | 913   | 917  | 929   | 939  | 571  |
| 45° | 780  | 780   | 781  | 793   | 803  | 602  |
| 55° | 622  | 622   | 618  | 626   | 636  | 556  |
| 65° | 441  | 436   | 429  | 440   | 454  | 436  |
| 75° | 243  | 241   | 234  | 208   | 204  | 258  |
| 85° | 55   | 55    | 58   | 58    | 59   | 69   |
| 90° | 0    | 0     | 0    | 0     | 0    |      |



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|-------|--------|--------|--------|--------|--------|
| 0°    | 1139.9 | 1139.9 | 1139.9 | 1139.9 | 1139.9 |
| 2.5°  | 1139.0 | 1138.2 | 1139.0 | 1140.7 | 1141.6 |
| 5°    | 1135.7 | 1134.8 | 1134.8 | 1138.2 | 1139.0 |
| 7.5°  | 1129.0 | 1128.1 | 1129.8 | 1132.3 | 1134.8 |
| 10°   | 1119.7 | 1119.7 | 1121.4 | 1124.8 | 1127.3 |
| 12.5° | 1108.8 | 1108.8 | 1110.5 | 1115.5 | 1118.9 |
| 15°   | 1095.4 | 1095.4 | 1097.0 | 1103.8 | 1107.1 |
| 17.5° | 1081.1 | 1079.4 | 1082.8 | 1088.6 | 1094.5 |
| 20°   | 1060.9 | 1061.8 | 1065.1 | 1071.8 | 1078.6 |
| 22.5° | 1041.6 | 1041.6 | 1045.0 | 1053.4 | 1060.1 |
| 25°   | 1019.8 | 1019.8 | 1023.1 | 1032.4 | 1039.9 |
| 27.5° | 995.4  | 996.2  | 999.6  | 1009.7 | 1018.9 |
| 30°   | 971.0  | 971.9  | 974.4  | 986.2  | 995.4  |
| 32.5° | 943.3  | 943.3  | 947.5  | 958.4  | 967.7  |
| 35°   | 913.1  | 913.1  | 917.3  | 929.0  | 939.1  |
| 37.5° | 881.2  | 882.0  | 886.2  | 897.1  | 908.0  |
| 40°   | 850.1  | 849.2  | 852.6  | 864.4  | 875.3  |
| 42.5° | 815.6  | 814.8  | 817.3  | 829.9  | 840.0  |
| 45°   | 780.4  | 779.5  | 781.2  | 793.0  | 803.0  |
| 47.5° | 744.2  | 741.7  | 742.6  | 754.3  | 766.1  |
| 50°   | 705.6  | 703.9  | 703.1  | 713.2  | 723.2  |
| 52.5° | 665.3  | 663.6  | 661.1  | 671.2  | 680.4  |
| 55°   | 622.4  | 621.6  | 618.2  | 625.8  | 635.9  |
| 57.5° | 579.6  | 577.1  | 572.9  | 579.6  | 595.6  |
| 60°   | 534.2  | 530.9  | 526.7  | 533.4  | 547.7  |
| 62.5° | 488.0  | 483.0  | 477.1  | 486.4  | 501.5  |
| 65°   | 441.0  | 436.0  | 429.2  | 440.2  | 454.4  |
| 67.5° | 394.0  | 387.2  | 382.2  | 389.8  | 399.8  |
| 70°   | 342.7  | 337.7  | 335.2  | 333.5  | 338.5  |
| 72.5° | 292.3  | 289.8  | 287.3  | 272.2  | 270.5  |
| 75°   | 242.8  | 241.1  | 233.5  | 208.3  | 204.1  |
| 77.5° | 195.7  | 193.2  | 177.2  | 157.9  | 162.1  |
| 80°   | 148.7  | 146.2  | 127.7  | 131.0  | 136.9  |
| 82.5° | 102.5  | 98.3   | 94.9   | 95.8   | 96.6   |
| 85°   | 54.6   | 54.6   | 58.0   | 58.0   | 58.8   |
| 87.5° | 22.7   | 22.7   | 25.2   | 26.0   | 26.9   |
| 90°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |

(END OF REPORT)