

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: P184347

Luminaire Tested: **ENW/ENC-12-2-LD1-27-40-CP250-UNV-EDC1**

Issue Date: 3/3/2020



**Test Information**

Test Method: LM-79-08  
Report Number: P184347  
Test Lab: INNOVATION CENTER-P3  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: FAIL-SAFE  
Catalog Number: ENW/ENC-12-2-LD1-27-40-CP250-UNV-EDC1  
Description: FAIL-SAFE 1X2 ENCOUNTER W/ 0.250" THICK POLY LENS  
Light Source: 4000K LEDS  
Ballast/Driver: -

**Summary**

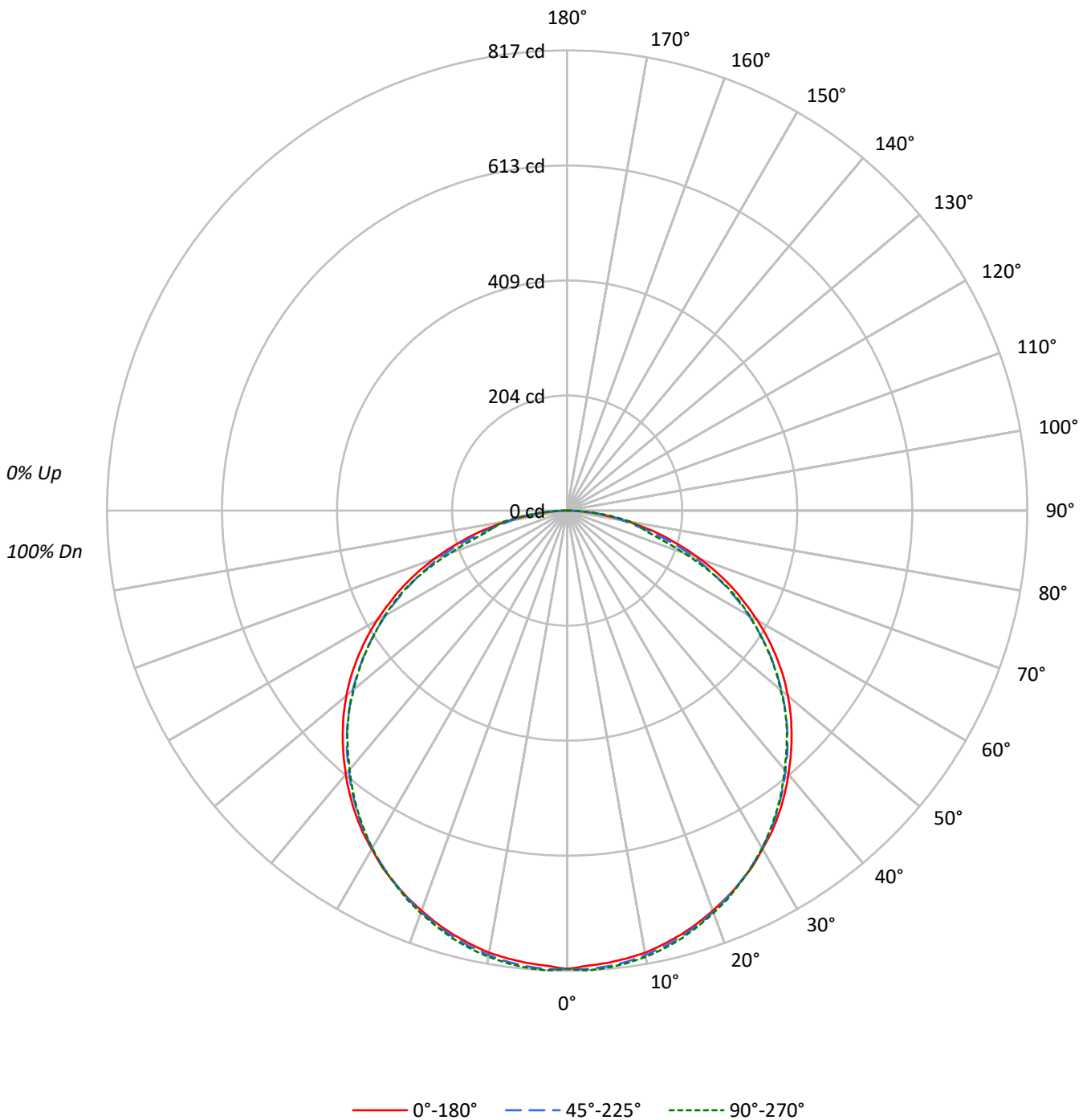
Lumens per Lamp: N/A  
Luminaire Lumens: 2397.7 lumens  
Efficiency: N/A  
Efficacy: 81.6 lumens/watt  
Spacing Criteria (0/90/45): 1.27 / 1.26 / 1.39  
Luminous Opening: Rectangular w/ Sides (W: 1' x L: 2' x H: 0.1')  
CIE Type: Direct

Input Watts (W): 29.4  
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 | 104 | 99  | 95  | 106 | 101 | 97  | 94  | 97  | 94  | 91  | 93  | 90  | 88  | 89  | 87  | 85  | 83  |
| 2   | 98  | 90  | 83  | 77  | 96  | 88  | 82  | 76  | 84  | 79  | 74  | 81  | 77  | 73  | 78  | 74  | 71  | 69  |
| 3   | 90  | 79  | 70  | 64  | 87  | 77  | 69  | 63  | 74  | 68  | 62  | 71  | 66  | 61  | 69  | 64  | 60  | 58  |
| 4   | 82  | 70  | 61  | 54  | 80  | 68  | 60  | 53  | 66  | 58  | 53  | 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  | 40  | 51  | 45  | 39  | 50  | 44  | 39  | 37  |
| 7   | 64  | 51  | 42  | 35  | 63  | 50  | 41  | 35  | 48  | 41  | 35  | 47  | 40  | 35  | 45  | 39  | 35  | 32  |
| 8   | 60  | 46  | 37  | 32  | 58  | 45  | 37  | 31  | 44  | 37  | 31  | 43  | 36  | 31  | 42  | 35  | 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  | 25  | 37  | 30  | 25  | 36  | 30  | 25  | 23  |

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

|     | 0°   | 45°  | 90°  |
|-----|------|------|------|
| 0°  | 4381 | 4381 | 4381 |
| 5°  | 4338 | 4348 | 4364 |
| 10° | 4319 | 4299 | 4321 |
| 15° | 4286 | 4242 | 4266 |
| 20° | 4252 | 4183 | 4201 |
| 25° | 4226 | 4116 | 4132 |
| 30° | 4191 | 4053 | 4067 |
| 35° | 4164 | 3981 | 3987 |
| 40° | 4123 | 3891 | 3893 |
| 45° | 4085 | 3803 | 3819 |
| 50° | 4043 | 3697 | 3702 |
| 55° | 3973 | 3559 | 3580 |
| 60° | 3861 | 3384 | 3437 |
| 65° | 3720 | 3155 | 3223 |
| 70° | 3475 | 2896 | 2727 |
| 75° | 3135 | 2415 | 2238 |
| 80° | 2576 | 1902 | 2259 |
| 85° | 1717 | 1407 | 1475 |



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 77.1   | 3.2       |
| 10°-20°   | 220.9  | 9.2       |
| 20°-30°   | 335.7  | 14.0      |
| 30°-40°   | 407.5  | 17.0      |
| 40°-50°   | 427.8  | 17.8      |
| 50°-60°   | 393.7  | 16.4      |
| 60°-70°   | 305.8  | 12.8      |
| 70°-80°   | 174.6  | 7.3       |
| 80°-90°   | 54.5   | 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°    | 633.8  | 26.4      |
| 0°-40°    | 1041.3 | 43.4      |
| 0°-60°    | 1862.7 | 77.7      |
| 0°-90°    | 2397.7 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 2397.7 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°  | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0°  | 814 | 814   | 814 | 814   | 814 |      |
| 5°  | 806 | 809   | 812 | 815   | 815 | 77   |
| 15° | 780 | 780   | 783 | 785   | 786 | 220  |
| 25° | 728 | 728   | 727 | 729   | 728 | 336  |
| 35° | 656 | 654   | 651 | 649   | 649 | 410  |
| 45° | 564 | 559   | 553 | 548   | 552 | 435  |
| 55° | 454 | 448   | 437 | 434   | 436 | 405  |
| 65° | 323 | 316   | 304 | 307   | 307 | 319  |
| 75° | 179 | 172   | 162 | 150   | 148 | 189  |
| 85° | 44  | 45    | 50  | 50    | 51  | 51   |
| 90° | 0   | 0     | 0   | 0     | 0   |      |



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°    | 22.5° | 45°   | 67.5° | 90°   |
|-------|-------|-------|-------|-------|-------|
| 0°    | 814.0 | 814.0 | 814.0 | 814.0 | 814.0 |
| 2.5°  | 808.9 | 811.4 | 814.8 | 817.3 | 817.3 |
| 5°    | 806.4 | 808.9 | 812.3 | 814.8 | 814.8 |
| 7.5°  | 802.2 | 804.7 | 808.1 | 809.8 | 810.6 |
| 10°   | 797.2 | 798.0 | 801.4 | 803.9 | 804.7 |
| 12.5° | 788.8 | 789.6 | 793.0 | 794.6 | 796.3 |
| 15°   | 779.5 | 780.4 | 782.9 | 784.6 | 786.2 |
| 17.5° | 768.6 | 769.4 | 771.1 | 772.8 | 773.6 |
| 20°   | 756.0 | 756.8 | 758.5 | 759.4 | 760.2 |
| 22.5° | 742.6 | 743.4 | 743.4 | 745.1 | 745.9 |
| 25°   | 728.3 | 728.3 | 727.4 | 729.1 | 728.3 |
| 27.5° | 712.3 | 711.5 | 710.6 | 710.6 | 711.5 |
| 30°   | 693.8 | 693.0 | 692.2 | 692.2 | 692.2 |
| 32.5° | 676.2 | 673.7 | 672.8 | 671.2 | 671.2 |
| 35°   | 656.0 | 653.5 | 651.0 | 649.3 | 649.3 |
| 37.5° | 634.2 | 631.7 | 627.5 | 625.0 | 625.8 |
| 40°   | 611.5 | 609.0 | 603.1 | 600.6 | 600.6 |
| 42.5° | 588.0 | 584.6 | 578.8 | 575.4 | 576.2 |
| 45°   | 563.6 | 559.4 | 552.7 | 548.5 | 551.9 |
| 47.5° | 538.4 | 533.4 | 525.0 | 521.6 | 525.0 |
| 50°   | 511.6 | 506.5 | 497.3 | 493.1 | 494.8 |
| 52.5° | 483.8 | 478.0 | 467.0 | 464.5 | 466.2 |
| 55°   | 453.6 | 447.7 | 436.8 | 434.3 | 436.0 |
| 57.5° | 422.5 | 417.5 | 404.9 | 401.5 | 404.0 |
| 60°   | 389.8 | 383.9 | 372.1 | 370.4 | 374.6 |
| 62.5° | 356.2 | 350.3 | 338.5 | 339.4 | 342.7 |
| 65°   | 323.4 | 315.8 | 304.1 | 307.4 | 307.4 |
| 67.5° | 288.1 | 280.6 | 270.5 | 268.8 | 265.4 |
| 70°   | 251.2 | 245.3 | 237.7 | 226.8 | 220.9 |
| 72.5° | 214.2 | 208.3 | 201.6 | 183.1 | 179.8 |
| 75°   | 178.9 | 172.2 | 162.1 | 149.5 | 147.8 |
| 77.5° | 142.8 | 138.6 | 126.0 | 126.0 | 131.0 |
| 80°   | 106.7 | 105.0 | 98.3  | 109.2 | 114.2 |
| 82.5° | 72.2  | 71.4  | 79.0  | 83.2  | 83.2  |
| 85°   | 43.7  | 45.4  | 50.4  | 49.6  | 51.2  |
| 87.5° | 18.5  | 21.0  | 21.8  | 22.7  | 22.7  |
| 90°   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |

(END OF REPORT)