

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: P184358

Luminaire Tested: **ENW/ENC-12-4-LD1-28-40-CP187-UNV-EDC1**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P184358
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-CP187-UNV-EDC1
Description: FAIL-SAFE 1X4 ENCOUNTER W/ 0.187" THICK POLY LENS
Light Source: 4000K LEDS
Ballast/Driver: -

Summary

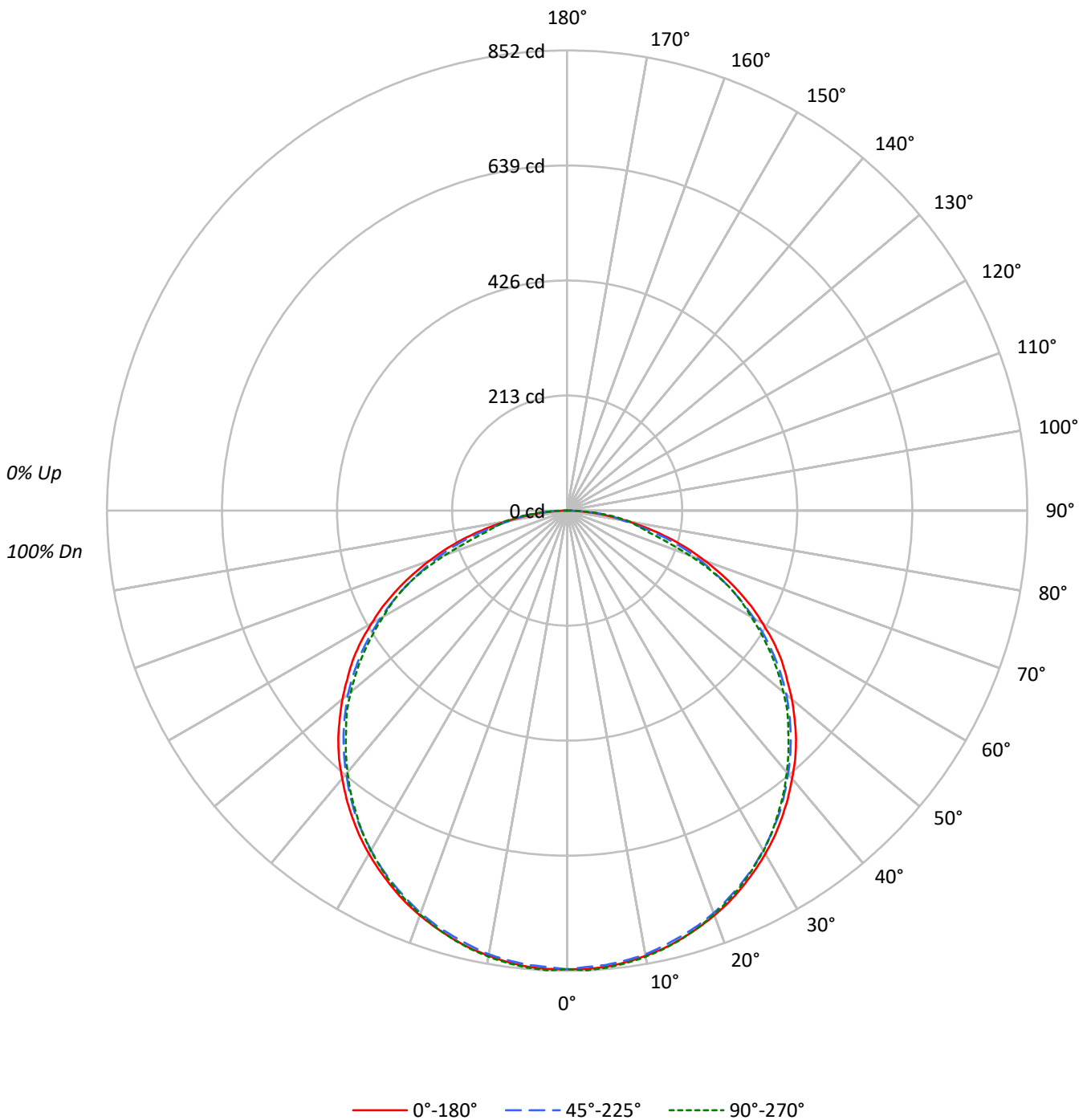
Lumens per Lamp: N/A
Luminaire Lumens: 2543.0 lumens
Efficiency: N/A
Efficacy: 88.9 lumens/watt
Spacing Criteria (0/90/45): 1.28 / 1.27 / 1.4
Luminous Opening: Rectangular w/ Sides (W: 1' x L: 4' x H: 0.1')
CIE Type: Direct

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° | 2285 | 2285 | 2285 |
| 5° | 2285 | 2263 | 2274 |
| 10° | 2277 | 2245 | 2252 |
| 15° | 2270 | 2220 | 2228 |
| 20° | 2263 | 2200 | 2198 |
| 25° | 2255 | 2174 | 2170 |
| 30° | 2248 | 2147 | 2136 |
| 35° | 2239 | 2119 | 2094 |
| 40° | 2229 | 2081 | 2051 |
| 45° | 2225 | 2047 | 2003 |
| 50° | 2208 | 2007 | 1956 |
| 55° | 2197 | 1947 | 1890 |
| 60° | 2157 | 1865 | 1805 |
| 65° | 2101 | 1753 | 1721 |
| 70° | 1996 | 1621 | 1483 |
| 75° | 1841 | 1403 | 1186 |
| 80° | 1553 | 1090 | 1166 |
| 85° | 1100 | 865 | 798 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 80.5 | 3.2 |
| 10°-20° | 231.2 | 9.1 |
| 20°-30° | 352.6 | 13.9 |
| 30°-40° | 429.4 | 16.9 |
| 40°-50° | 453.2 | 17.8 |
| 50°-60° | 419.7 | 16.5 |
| 60°-70° | 328.3 | 12.9 |
| 70°-80° | 188.9 | 7.4 |
| 80°-90° | 59.3 | 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° | 664.3 | 26.1 |
| 0°-40° | 1093.7 | 43.0 |
| 0°-60° | 1966.5 | 77.3 |
| 0°-90° | 2543.0 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 2543.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0° | 849 | 849 | 849 | 849 | 849 | |
| 5° | 848 | 848 | 844 | 848 | 849 | 81 |
| 15° | 820 | 820 | 816 | 820 | 821 | 232 |
| 25° | 768 | 767 | 762 | 763 | 765 | 354 |
| 35° | 694 | 690 | 685 | 682 | 682 | 434 |
| 45° | 599 | 594 | 585 | 580 | 579 | 462 |
| 55° | 485 | 479 | 467 | 461 | 460 | 432 |
| 65° | 348 | 341 | 327 | 326 | 328 | 343 |
| 75° | 194 | 187 | 180 | 160 | 157 | 204 |
| 85° | 46 | 48 | 56 | 55 | 55 | 55 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P184358

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CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|-------|-------|-------|-------|-------|
| 0° | 849.3 | 849.3 | 849.3 | 849.3 | 849.3 |
| 2.5° | 849.3 | 849.3 | 845.8 | 850.2 | 852.0 |
| 5° | 847.6 | 847.6 | 844.1 | 847.6 | 849.3 |
| 7.5° | 843.2 | 843.2 | 839.6 | 843.2 | 845.0 |
| 10° | 837.0 | 837.0 | 834.4 | 837.0 | 838.8 |
| 12.5° | 830.0 | 829.2 | 825.5 | 829.2 | 830.9 |
| 15° | 820.3 | 820.3 | 815.9 | 819.5 | 821.2 |
| 17.5° | 809.7 | 808.9 | 805.4 | 807.1 | 808.9 |
| 20° | 797.4 | 796.6 | 793.0 | 794.8 | 795.6 |
| 22.5° | 784.2 | 782.5 | 778.1 | 779.9 | 780.7 |
| 25° | 768.4 | 766.7 | 762.2 | 763.0 | 764.9 |
| 27.5° | 751.7 | 749.9 | 745.5 | 745.5 | 746.3 |
| 30° | 734.0 | 731.4 | 726.1 | 726.1 | 727.1 |
| 32.5° | 714.8 | 711.1 | 705.9 | 705.0 | 705.9 |
| 35° | 693.5 | 690.1 | 684.8 | 682.1 | 682.1 |
| 37.5° | 671.5 | 668.0 | 661.0 | 658.3 | 658.3 |
| 40° | 647.8 | 645.2 | 636.4 | 632.8 | 632.8 |
| 42.5° | 625.0 | 620.5 | 611.7 | 607.2 | 606.4 |
| 45° | 599.4 | 594.1 | 585.4 | 580.0 | 579.1 |
| 47.5° | 571.2 | 567.7 | 558.0 | 552.7 | 553.6 |
| 50° | 543.1 | 540.5 | 529.8 | 523.7 | 522.8 |
| 52.5° | 513.2 | 510.5 | 499.1 | 493.7 | 492.0 |
| 55° | 485.0 | 478.8 | 467.3 | 461.2 | 460.3 |
| 57.5° | 453.2 | 446.3 | 434.0 | 428.6 | 426.9 |
| 60° | 418.1 | 412.8 | 399.6 | 393.4 | 393.4 |
| 62.5° | 384.7 | 378.4 | 364.4 | 360.0 | 363.4 |
| 65° | 347.7 | 340.6 | 327.4 | 325.6 | 328.3 |
| 67.5° | 309.8 | 302.8 | 290.5 | 289.6 | 286.0 |
| 70° | 271.1 | 265.0 | 256.1 | 246.4 | 240.3 |
| 72.5° | 233.2 | 226.2 | 220.9 | 201.6 | 193.6 |
| 75° | 193.6 | 186.6 | 179.5 | 160.2 | 156.6 |
| 77.5° | 154.0 | 150.6 | 137.3 | 132.0 | 134.7 |
| 80° | 114.4 | 117.0 | 105.6 | 114.4 | 117.9 |
| 82.5° | 77.4 | 80.0 | 84.5 | 91.5 | 90.6 |
| 85° | 45.8 | 48.4 | 56.3 | 55.4 | 55.4 |
| 87.5° | 20.3 | 24.7 | 23.8 | 23.8 | 23.8 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)