

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: P184338

Luminaire Tested: **ENW/ENC-12-2-LD1-13-40-CP187-UNV-EDC1**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P184338
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-LD1-13-40-CP187-UNV-EDC1
Description: FAIL-SAFE ENCOUNTER W/ 0.187" THICK CLEAR POLY LENS
Light Source: 4000K LEDS
Ballast/Driver: -

Summary

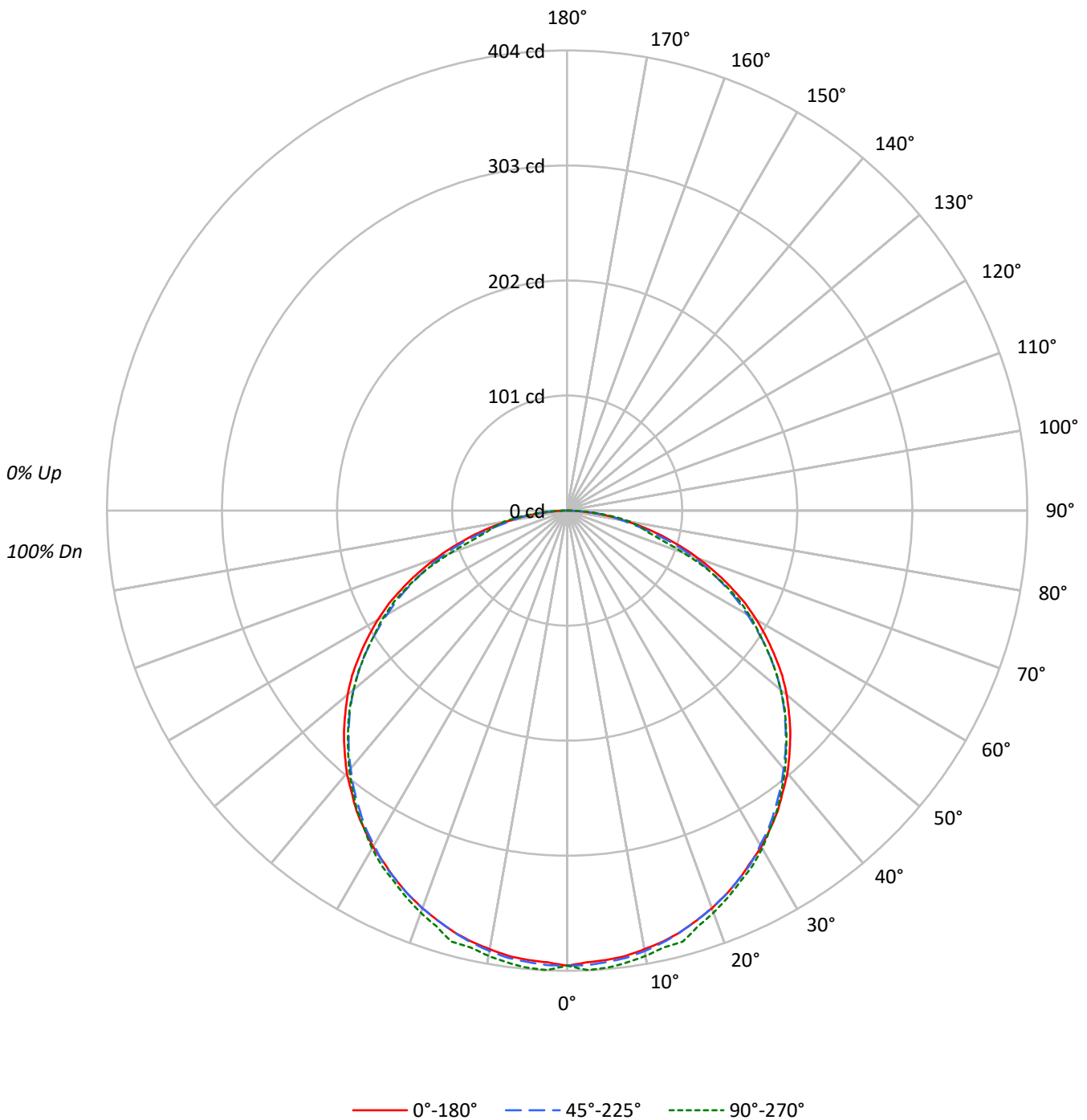
Lumens per Lamp: N/A
Luminaire Lumens: 1179.7 lumens
Efficiency: N/A
Efficacy: 75.1 lumens/watt
Spacing Criteria (0/90/45): 1.27 / 1.27 / 1.39
Luminous Opening: Rectangular w/ Sides (W: 1' x L: 2' x H: 0.1')
CIE Type: Direct

Input Watts (W): 15.7
Input Voltage (V): NR
Input Current (A_{in}): 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 | 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 | 67 | 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 | 44 | 39 | 50 | 44 | 39 | 37 |
| 7 | 64 | 51 | 42 | 35 | 63 | 50 | 41 | 35 | 48 | 41 | 35 | 47 | 40 | 35 | 45 | 39 | 34 | 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 | 36 | 30 | 25 | 36 | 30 | 25 | 23 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|------|------|------|
| 0° | 2150 | 2150 | 2150 |
| 5° | 2131 | 2129 | 2158 |
| 10° | 2118 | 2107 | 2132 |
| 15° | 2107 | 2077 | 2126 |
| 20° | 2090 | 2049 | 2076 |
| 25° | 2072 | 2020 | 2040 |
| 30° | 2058 | 1986 | 2012 |
| 35° | 2045 | 1949 | 1973 |
| 40° | 2029 | 1908 | 1928 |
| 45° | 2009 | 1866 | 1882 |
| 50° | 1988 | 1820 | 1831 |
| 55° | 1950 | 1752 | 1765 |
| 60° | 1903 | 1661 | 1700 |
| 65° | 1818 | 1552 | 1587 |
| 70° | 1693 | 1420 | 1343 |
| 75° | 1519 | 1190 | 1107 |
| 80° | 1251 | 939 | 1110 |
| 85° | 833 | 689 | 735 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 37.9 | 3.2 |
| 10°-20° | 108.6 | 9.2 |
| 20°-30° | 164.9 | 14.0 |
| 30°-40° | 200.3 | 17.0 |
| 40°-50° | 210.6 | 17.8 |
| 50°-60° | 193.9 | 16.4 |
| 60°-70° | 150.7 | 12.8 |
| 70°-80° | 85.9 | 7.3 |
| 80°-90° | 27.0 | 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° | 311.3 | 26.4 |
| 0°-40° | 511.6 | 43.4 |
| 0°-60° | 916.1 | 77.7 |
| 0°-90° | 1179.7 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 1179.7 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0° | 400 | 400 | 400 | 400 | 400 | |
| 5° | 396 | 397 | 398 | 400 | 403 | 38 |
| 15° | 383 | 384 | 383 | 385 | 392 | 108 |
| 25° | 357 | 358 | 357 | 358 | 360 | 165 |
| 35° | 322 | 321 | 319 | 319 | 321 | 201 |
| 45° | 277 | 275 | 271 | 270 | 272 | 214 |
| 55° | 223 | 221 | 215 | 213 | 215 | 199 |
| 65° | 158 | 156 | 150 | 151 | 151 | 156 |
| 75° | 87 | 85 | 80 | 73 | 73 | 92 |
| 85° | 21 | 23 | 25 | 26 | 26 | 25 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



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CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|-------|-------|-------|-------|-------|
| 0° | 399.5 | 399.5 | 399.5 | 399.5 | 399.5 |
| 2.5° | 397.0 | 398.7 | 399.5 | 400.3 | 403.7 |
| 5° | 396.1 | 397.0 | 397.8 | 399.5 | 402.9 |
| 7.5° | 394.4 | 395.2 | 396.1 | 398.7 | 400.3 |
| 10° | 391.0 | 391.8 | 392.7 | 393.5 | 397.0 |
| 12.5° | 387.6 | 388.5 | 388.5 | 390.2 | 392.7 |
| 15° | 383.3 | 384.2 | 383.3 | 385.0 | 391.8 |
| 17.5° | 377.4 | 380.0 | 377.4 | 379.1 | 382.5 |
| 20° | 371.5 | 372.3 | 371.5 | 372.3 | 375.7 |
| 22.5° | 364.7 | 364.7 | 364.7 | 363.8 | 368.0 |
| 25° | 357.0 | 357.8 | 357.0 | 357.8 | 359.5 |
| 27.5° | 348.5 | 350.2 | 349.3 | 348.5 | 351.9 |
| 30° | 340.8 | 340.8 | 339.2 | 339.2 | 342.5 |
| 32.5° | 331.5 | 333.2 | 329.8 | 329.8 | 331.5 |
| 35° | 322.2 | 321.3 | 318.7 | 318.7 | 321.3 |
| 37.5° | 311.1 | 310.2 | 307.7 | 306.8 | 309.4 |
| 40° | 300.9 | 299.2 | 295.8 | 295.8 | 297.5 |
| 42.5° | 289.0 | 287.3 | 283.9 | 283.0 | 284.7 |
| 45° | 277.1 | 275.4 | 271.2 | 270.3 | 272.0 |
| 47.5° | 264.3 | 263.5 | 258.4 | 257.5 | 259.2 |
| 50° | 251.6 | 249.9 | 244.8 | 243.1 | 244.8 |
| 52.5° | 238.0 | 235.5 | 230.3 | 228.7 | 230.3 |
| 55° | 222.7 | 221.0 | 215.0 | 213.3 | 215.0 |
| 57.5° | 207.4 | 205.7 | 198.9 | 198.0 | 199.7 |
| 60° | 192.1 | 189.5 | 182.7 | 182.7 | 185.3 |
| 62.5° | 176.0 | 172.5 | 166.6 | 167.5 | 170.0 |
| 65° | 158.1 | 155.5 | 149.6 | 151.3 | 151.3 |
| 67.5° | 140.2 | 138.5 | 133.5 | 132.6 | 131.7 |
| 70° | 122.4 | 120.7 | 116.5 | 112.2 | 108.8 |
| 72.5° | 104.5 | 102.0 | 99.5 | 90.1 | 88.4 |
| 75° | 86.7 | 85.0 | 79.9 | 73.1 | 73.1 |
| 77.5° | 69.7 | 68.8 | 62.0 | 62.0 | 65.5 |
| 80° | 51.8 | 52.7 | 48.5 | 53.5 | 56.1 |
| 82.5° | 36.5 | 35.7 | 39.1 | 41.7 | 41.7 |
| 85° | 21.2 | 23.0 | 24.7 | 25.5 | 25.5 |
| 87.5° | 9.3 | 10.2 | 10.2 | 11.0 | 10.2 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)