

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: P184388

Luminaire Tested: **ENW/ENC-24-4-LD1-54-40-CA125-UNV-EDC1**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P184388
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: ENW/ENC-24-4-LD1-54-40-CA125-UNV-EDC1
Description: FAIL-SAFE 2X4 ENCOUNTER W/ 0.125" THICK CLEAR ACRYLIC LENS
Light Source: 4000K LEDS
Ballast/Driver: -

Summary

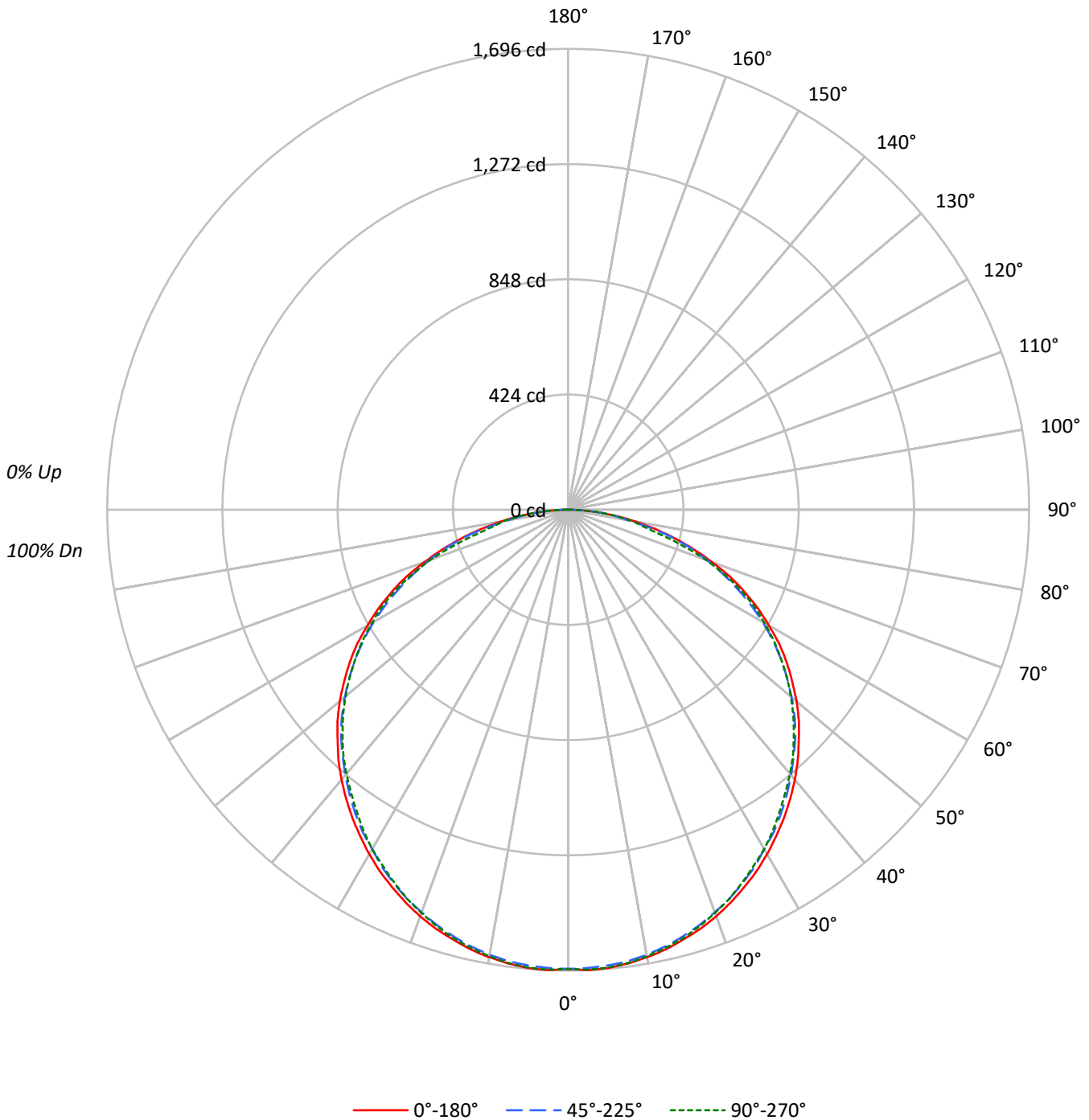
Lumens per Lamp: N/A
Luminaire Lumens: 5164.6 lumens
Efficiency: N/A
Efficacy: 94.6 lumens/watt
Spacing Criteria (0/90/45): 1.29 / 1.27 / 1.41
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 4' x H: 0.1')
CIE Type: Direct

Input Watts (W): 54.6
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 | 105 | 101 | 97 | 93 | 97 | 93 | 90 | 93 | 90 | 87 | 89 | 87 | 85 | 83 |
| 2 | 98 | 89 | 82 | 76 | 95 | 87 | 81 | 75 | 84 | 78 | 74 | 81 | 76 | 72 | 78 | 74 | 70 | 68 |
| 3 | 89 | 78 | 70 | 63 | 87 | 77 | 69 | 62 | 73 | 67 | 61 | 71 | 65 | 60 | 68 | 63 | 59 | 57 |
| 4 | 81 | 69 | 60 | 53 | 79 | 68 | 59 | 53 | 65 | 58 | 52 | 63 | 56 | 51 | 60 | 55 | 50 | 48 |
| 5 | 75 | 61 | 52 | 45 | 73 | 60 | 52 | 45 | 58 | 50 | 45 | 56 | 49 | 44 | 54 | 48 | 44 | 41 |
| 6 | 69 | 55 | 46 | 39 | 67 | 54 | 46 | 39 | 52 | 45 | 39 | 51 | 44 | 38 | 49 | 43 | 38 | 36 |
| 7 | 64 | 50 | 41 | 35 | 62 | 49 | 41 | 35 | 48 | 40 | 34 | 46 | 39 | 34 | 45 | 38 | 34 | 32 |
| 8 | 59 | 45 | 37 | 31 | 58 | 45 | 36 | 31 | 43 | 36 | 31 | 42 | 35 | 30 | 41 | 35 | 30 | 28 |
| 9 | 55 | 42 | 33 | 28 | 54 | 41 | 33 | 28 | 40 | 33 | 27 | 39 | 32 | 27 | 38 | 32 | 27 | 25 |
| 10 | 52 | 38 | 30 | 25 | 51 | 38 | 30 | 25 | 37 | 30 | 25 | 36 | 29 | 25 | 35 | 29 | 25 | 23 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|------|------|------|
| 0° | 2274 | 2274 | 2274 |
| 5° | 2281 | 2263 | 2274 |
| 10° | 2275 | 2251 | 2260 |
| 15° | 2266 | 2234 | 2243 |
| 20° | 2260 | 2215 | 2221 |
| 25° | 2249 | 2198 | 2197 |
| 30° | 2242 | 2175 | 2178 |
| 35° | 2235 | 2162 | 2152 |
| 40° | 2232 | 2144 | 2139 |
| 45° | 2227 | 2136 | 2127 |
| 50° | 2229 | 2112 | 2112 |
| 55° | 2223 | 2082 | 2093 |
| 60° | 2197 | 2036 | 2064 |
| 65° | 2163 | 1959 | 2013 |
| 70° | 2069 | 1870 | 1868 |
| 75° | 1929 | 1725 | 1523 |
| 80° | 1699 | 1327 | 1455 |
| 85° | 1315 | 1061 | 1103 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 160.3 | 3.1 |
| 10°-20° | 459.8 | 8.9 |
| 20°-30° | 699.9 | 13.6 |
| 30°-40° | 855.2 | 16.6 |
| 40°-50° | 912.6 | 17.7 |
| 50°-60° | 857.9 | 16.6 |
| 60°-70° | 687.6 | 13.3 |
| 70°-80° | 407.5 | 7.9 |
| 80°-90° | 123.9 | 2.4 |
| 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° | 1320.0 | 25.6 |
| 0°-40° | 2175.1 | 42.1 |
| 0°-60° | 3945.7 | 76.4 |
| 0°-90° | 5164.6 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 5164.6 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|------|-------|------|-------|------|------|
| 0° | 1690 | 1690 | 1690 | 1690 | 1690 | |
| 5° | 1693 | 1688 | 1684 | 1682 | 1691 | 161 |
| 15° | 1638 | 1630 | 1626 | 1623 | 1632 | 463 |
| 25° | 1533 | 1523 | 1517 | 1508 | 1514 | 707 |
| 35° | 1385 | 1376 | 1365 | 1352 | 1356 | 867 |
| 45° | 1200 | 1194 | 1182 | 1168 | 1174 | 927 |
| 55° | 982 | 970 | 955 | 948 | 956 | 876 |
| 65° | 716 | 700 | 685 | 692 | 700 | 707 |
| 75° | 406 | 398 | 398 | 360 | 348 | 428 |
| 85° | 110 | 105 | 110 | 110 | 112 | 124 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P184388

CATALOG NUMBER: ENW/ENC-24-4-LD1-54-40-CA125-UNV-EDC1

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|--------|--------|--------|--------|--------|
| 0° | 1690.0 | 1690.0 | 1690.0 | 1690.0 | 1690.0 |
| 2.5° | 1696.5 | 1689.0 | 1688.2 | 1685.4 | 1694.6 |
| 5° | 1692.8 | 1688.2 | 1683.6 | 1681.7 | 1690.9 |
| 7.5° | 1684.4 | 1679.8 | 1676.2 | 1673.5 | 1682.7 |
| 10° | 1672.5 | 1664.3 | 1663.3 | 1661.4 | 1668.9 |
| 12.5° | 1657.8 | 1649.5 | 1646.8 | 1644.0 | 1652.2 |
| 15° | 1637.6 | 1630.2 | 1626.5 | 1622.9 | 1632.1 |
| 17.5° | 1617.3 | 1607.2 | 1603.5 | 1599.9 | 1607.2 |
| 20° | 1592.4 | 1582.4 | 1576.9 | 1571.3 | 1579.6 |
| 22.5° | 1564.0 | 1553.9 | 1549.3 | 1540.1 | 1549.3 |
| 25° | 1532.6 | 1523.4 | 1517.1 | 1507.9 | 1514.2 |
| 27.5° | 1500.4 | 1489.5 | 1483.0 | 1471.1 | 1477.4 |
| 30° | 1463.6 | 1458.2 | 1442.5 | 1433.3 | 1442.5 |
| 32.5° | 1424.1 | 1414.9 | 1406.7 | 1395.6 | 1401.1 |
| 35° | 1384.6 | 1376.2 | 1365.3 | 1352.4 | 1356.1 |
| 37.5° | 1341.3 | 1334.0 | 1321.0 | 1309.1 | 1312.8 |
| 40° | 1297.2 | 1288.9 | 1275.1 | 1264.1 | 1268.7 |
| 42.5° | 1250.3 | 1242.0 | 1228.2 | 1219.0 | 1224.5 |
| 45° | 1199.7 | 1194.1 | 1182.2 | 1167.5 | 1173.9 |
| 47.5° | 1150.9 | 1145.4 | 1129.7 | 1117.8 | 1123.3 |
| 50° | 1096.6 | 1090.2 | 1072.7 | 1064.4 | 1069.0 |
| 52.5° | 1038.7 | 1028.5 | 1013.8 | 1008.3 | 1013.8 |
| 55° | 981.6 | 969.7 | 954.9 | 948.5 | 955.9 |
| 57.5° | 920.9 | 908.9 | 891.5 | 886.9 | 896.1 |
| 60° | 851.9 | 842.7 | 826.1 | 824.3 | 833.5 |
| 62.5° | 787.5 | 773.7 | 756.2 | 759.9 | 771.9 |
| 65° | 715.7 | 700.1 | 685.4 | 691.8 | 700.1 |
| 67.5° | 644.9 | 625.6 | 615.5 | 621.0 | 621.9 |
| 70° | 562.1 | 552.0 | 544.6 | 540.9 | 540.0 |
| 72.5° | 483.0 | 474.7 | 474.7 | 449.9 | 443.4 |
| 75° | 405.7 | 398.3 | 397.5 | 359.7 | 347.7 |
| 77.5° | 328.5 | 323.9 | 308.2 | 277.9 | 277.9 |
| 80° | 250.3 | 255.7 | 222.7 | 233.7 | 241.1 |
| 82.5° | 176.7 | 181.3 | 172.1 | 173.9 | 176.7 |
| 85° | 109.5 | 104.9 | 110.4 | 110.4 | 112.3 |
| 87.5° | 44.1 | 48.7 | 50.6 | 53.3 | 55.2 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)