

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: P184396

Luminaire Tested: **ENW/ENC-24-4-LD1-70-40-CA125-UNV-EDC1**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P184396
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-LD1-70-40-CA125-UNV-EDC1
Description: FAIL-SAFE 2X4 ENCOUNTER W/ 0.125" THICK CLEAR ACRYLIC LENS
Light Source: 4000K LEDS
Ballast/Driver: -

Summary

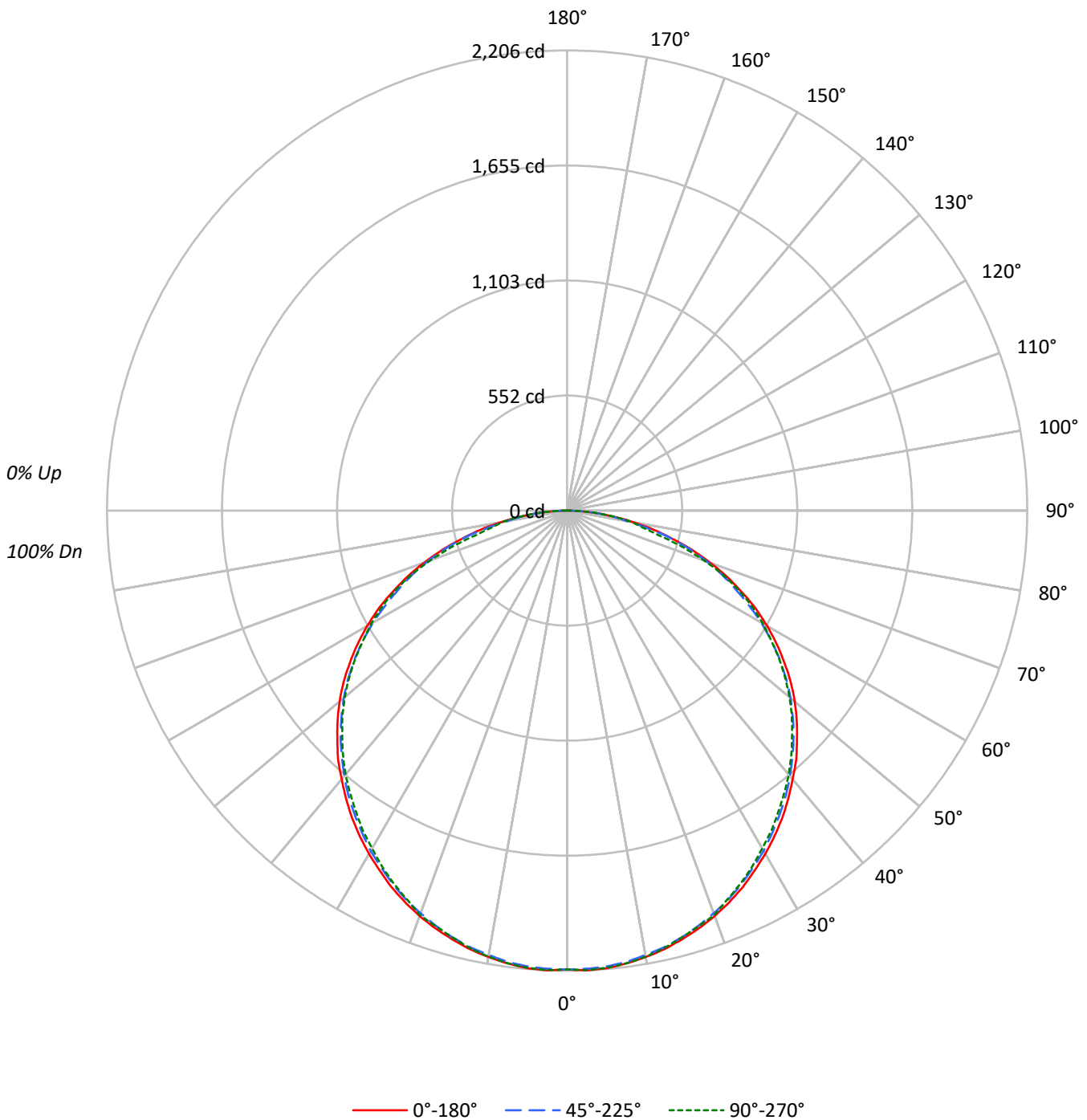
Lumens per Lamp: N/A
Luminaire Lumens: 6718.5 lumens
Efficiency: N/A
Efficacy: 89.7 lumens/watt
Spacing Criteria (0/90/45): 1.28 / 1.27 / 1.4
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 4' x H: 0.1')
CIE Type: Direct

Input Watts (W): 74.9
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

TEST NUMBER: P184396

CATALOG NUMBER: ENW/ENC-24-4-LD1-70-40-CA125-UNV-EDC1

Luminous Intensity Polar Plot





TEST NUMBER: P184396

CATALOG NUMBER: ENW/ENC-24-4-LD1-70-40-CA125-UNV-EDC1

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 | 74 | 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° | 2960 | 2960 | 2960 |
| 5° | 2967 | 2949 | 2958 |
| 10° | 2956 | 2928 | 2940 |
| 15° | 2944 | 2910 | 2912 |
| 20° | 2934 | 2886 | 2902 |
| 25° | 2923 | 2863 | 2859 |
| 30° | 2910 | 2840 | 2824 |
| 35° | 2903 | 2815 | 2800 |
| 40° | 2893 | 2795 | 2785 |
| 45° | 2893 | 2775 | 2763 |
| 50° | 2895 | 2753 | 2750 |
| 55° | 2880 | 2712 | 2717 |
| 60° | 2855 | 2648 | 2684 |
| 65° | 2791 | 2546 | 2619 |
| 70° | 2685 | 2445 | 2409 |
| 75° | 2484 | 2244 | 1975 |
| 80° | 2203 | 1732 | 1900 |
| 85° | 1701 | 1352 | 1420 |



TEST NUMBER: P184396

CATALOG NUMBER: ENW/ENC-24-4-LD1-70-40-CA125-UNV-EDC1

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 208.6 | 3.1 |
| 10°-20° | 598.4 | 8.9 |
| 20°-30° | 911.1 | 13.6 |
| 30°-40° | 1113.0 | 16.6 |
| 40°-50° | 1187.1 | 17.7 |
| 50°-60° | 1116.1 | 16.6 |
| 60°-70° | 893.8 | 13.3 |
| 70°-80° | 530.1 | 7.9 |
| 80°-90° | 160.4 | 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° | 1718.0 | 25.6 |
| 0°-40° | 2830.9 | 42.1 |
| 0°-60° | 5134.1 | 76.4 |
| 0°-90° | 6718.5 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 6718.5 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|------|-------|------|-------|------|------|
| 0° | 2200 | 2200 | 2200 | 2200 | 2200 | |
| 5° | 2202 | 2196 | 2193 | 2189 | 2200 | 209 |
| 15° | 2128 | 2123 | 2119 | 2112 | 2119 | 601 |
| 25° | 1992 | 1985 | 1976 | 1962 | 1971 | 918 |
| 35° | 1799 | 1795 | 1777 | 1761 | 1764 | 1125 |
| 45° | 1558 | 1553 | 1536 | 1522 | 1524 | 1203 |
| 55° | 1271 | 1266 | 1244 | 1231 | 1241 | 1137 |
| 65° | 924 | 913 | 890 | 899 | 911 | 914 |
| 75° | 522 | 517 | 517 | 467 | 451 | 555 |
| 85° | 142 | 136 | 141 | 144 | 144 | 160 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P184396

CATALOG NUMBER: ENW/ENC-24-4-LD1-70-40-CA125-UNV-EDC1

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|--------|--------|--------|--------|--------|
| 0° | 2199.6 | 2199.6 | 2199.6 | 2199.6 | 2199.6 |
| 2.5° | 2206.1 | 2201.5 | 2198.7 | 2193.3 | 2205.2 |
| 5° | 2201.5 | 2196.0 | 2193.3 | 2188.7 | 2199.6 |
| 7.5° | 2189.5 | 2184.9 | 2182.2 | 2174.9 | 2188.7 |
| 10° | 2173.0 | 2169.3 | 2162.8 | 2161.1 | 2171.1 |
| 12.5° | 2153.6 | 2146.3 | 2144.4 | 2138.9 | 2149.0 |
| 15° | 2127.9 | 2123.3 | 2118.7 | 2112.2 | 2118.7 |
| 17.5° | 2100.3 | 2094.8 | 2088.4 | 2081.0 | 2090.2 |
| 20° | 2068.1 | 2061.6 | 2054.3 | 2045.1 | 2063.5 |
| 22.5° | 2031.3 | 2024.8 | 2018.5 | 2005.6 | 2013.9 |
| 25° | 1991.8 | 1985.3 | 1976.1 | 1962.3 | 1970.6 |
| 27.5° | 1945.8 | 1943.0 | 1930.1 | 1912.7 | 1922.8 |
| 30° | 1899.8 | 1895.2 | 1884.1 | 1864.8 | 1870.3 |
| 32.5° | 1850.0 | 1845.4 | 1830.8 | 1814.2 | 1820.7 |
| 35° | 1798.6 | 1794.8 | 1777.4 | 1760.9 | 1764.5 |
| 37.5° | 1740.6 | 1735.0 | 1722.2 | 1702.8 | 1708.4 |
| 40° | 1681.7 | 1679.0 | 1662.4 | 1643.0 | 1652.2 |
| 42.5° | 1624.6 | 1619.2 | 1598.9 | 1585.1 | 1590.7 |
| 45° | 1558.5 | 1552.9 | 1535.5 | 1521.7 | 1524.4 |
| 47.5° | 1493.1 | 1489.5 | 1467.4 | 1454.4 | 1460.9 |
| 50° | 1424.1 | 1419.5 | 1398.4 | 1384.6 | 1391.9 |
| 52.5° | 1351.5 | 1343.2 | 1322.9 | 1310.1 | 1317.4 |
| 55° | 1271.4 | 1265.9 | 1243.8 | 1230.9 | 1241.1 |
| 57.5° | 1191.4 | 1183.1 | 1161.0 | 1153.7 | 1160.1 |
| 60° | 1106.7 | 1095.7 | 1074.5 | 1069.9 | 1083.7 |
| 62.5° | 1020.3 | 1006.5 | 980.7 | 989.9 | 1000.9 |
| 65° | 923.7 | 912.6 | 890.5 | 898.8 | 910.8 |
| 67.5° | 829.8 | 816.0 | 804.1 | 806.8 | 814.2 |
| 70° | 729.5 | 714.8 | 712.1 | 704.7 | 696.4 |
| 72.5° | 628.3 | 613.6 | 615.5 | 594.3 | 578.7 |
| 75° | 522.5 | 517.0 | 517.0 | 467.3 | 450.8 |
| 77.5° | 425.9 | 423.2 | 402.0 | 359.7 | 365.3 |
| 80° | 324.7 | 332.1 | 290.7 | 304.5 | 314.7 |
| 82.5° | 228.1 | 235.5 | 223.5 | 227.3 | 228.1 |
| 85° | 141.7 | 136.1 | 140.7 | 143.5 | 144.5 |
| 87.5° | 55.2 | 62.5 | 63.5 | 68.1 | 71.7 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)