

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: P184377

Luminaire Tested: **ENW/ENC-24-2-LD1-39-40-CP125-UNV-EDC1**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P184377
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: ENW/ENC-24-2-LD1-39-40-CP125-UNV-EDC1
Description: FAIL-SAFE 2X2 ENCOUNTER W/ 0.125" THICK CLEAR POLY LENS
Light Source: 4000K LEDS
Ballast/Driver: -

Summary

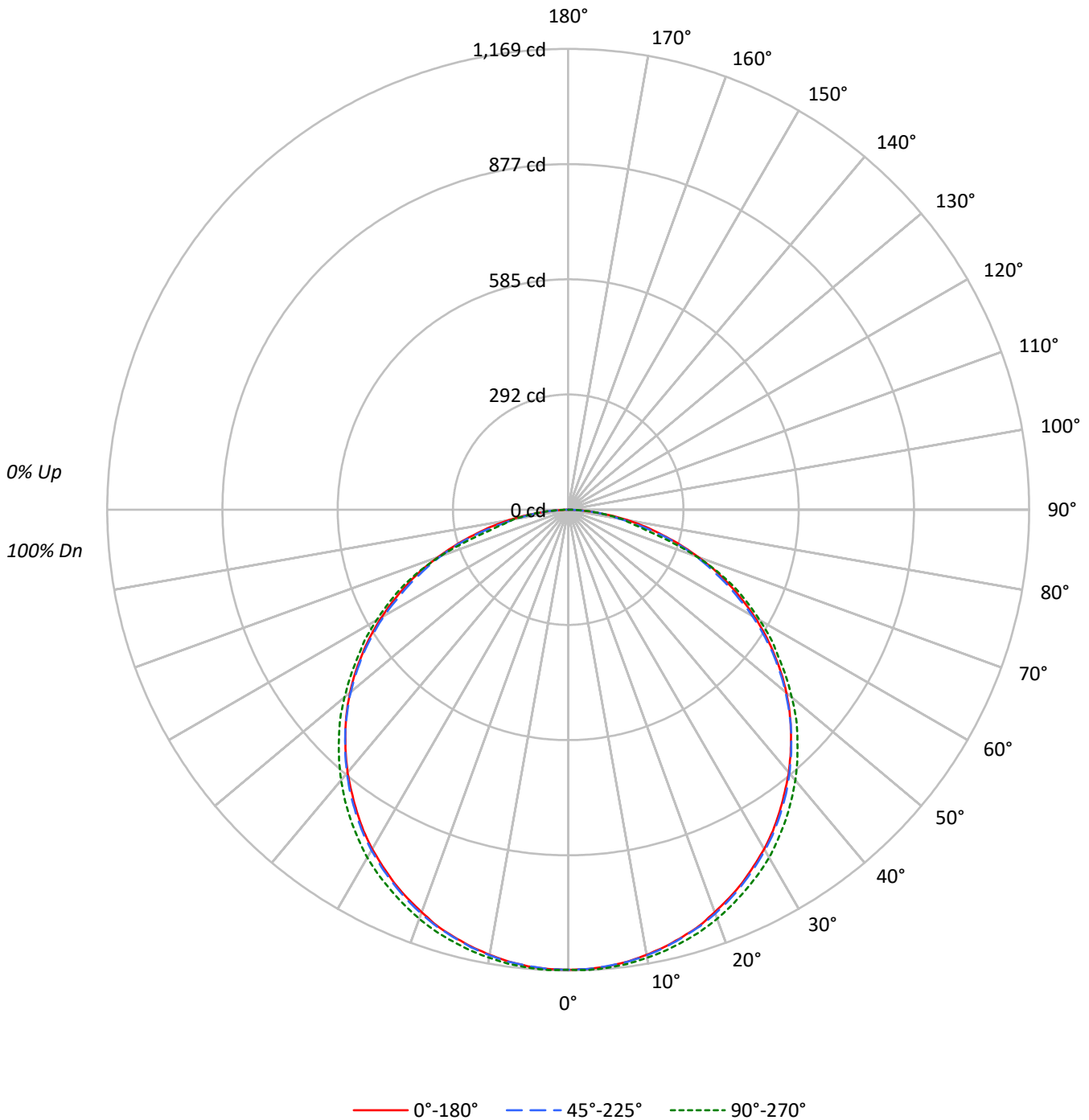
Lumens per Lamp: N/A
Luminaire Lumens: 3455.1 lumens
Efficiency: N/A
Efficacy: 83.1 lumens/watt
Spacing Criteria (0/90/45): 1.27 / 1.29 / 1.39
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 2' x H: 0.1')
CIE Type: Direct

Input Watts (W): 41.6
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 | 109 | 104 | 99 | 95 | 106 | 101 | 97 | 94 | 97 | 94 | 91 | 93 | 91 | 88 | 90 | 87 | 85 | 83 |
| 2 | 99 | 90 | 83 | 77 | 96 | 88 | 82 | 76 | 85 | 79 | 75 | 81 | 77 | 73 | 78 | 75 | 71 | 69 |
| 3 | 90 | 79 | 71 | 64 | 87 | 77 | 70 | 63 | 74 | 68 | 62 | 72 | 66 | 61 | 69 | 64 | 60 | 58 |
| 4 | 82 | 70 | 61 | 54 | 80 | 68 | 60 | 54 | 66 | 59 | 53 | 64 | 57 | 52 | 61 | 56 | 51 | 49 |
| 5 | 75 | 62 | 53 | 46 | 73 | 61 | 52 | 46 | 59 | 51 | 46 | 57 | 50 | 45 | 55 | 49 | 45 | 42 |
| 6 | 69 | 56 | 47 | 40 | 68 | 55 | 46 | 40 | 53 | 45 | 40 | 51 | 45 | 39 | 50 | 44 | 39 | 37 |
| 7 | 64 | 51 | 42 | 36 | 63 | 50 | 41 | 35 | 48 | 41 | 35 | 47 | 40 | 35 | 45 | 39 | 35 | 33 |
| 8 | 60 | 46 | 38 | 32 | 58 | 45 | 37 | 32 | 44 | 37 | 31 | 43 | 36 | 31 | 42 | 36 | 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 | 26 | 37 | 30 | 25 | 36 | 30 | 25 | 24 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|------|------|------|
| 0° | 3140 | 3140 | 3140 |
| 5° | 3127 | 3119 | 3136 |
| 10° | 3105 | 3099 | 3126 |
| 15° | 3083 | 3071 | 3116 |
| 20° | 3055 | 3044 | 3106 |
| 25° | 3029 | 3011 | 3089 |
| 30° | 3002 | 2978 | 3078 |
| 35° | 2967 | 2939 | 3052 |
| 40° | 2934 | 2895 | 3021 |
| 45° | 2896 | 2843 | 2980 |
| 50° | 2854 | 2779 | 2925 |
| 55° | 2790 | 2697 | 2851 |
| 60° | 2709 | 2585 | 2777 |
| 65° | 2596 | 2429 | 2675 |
| 70° | 2427 | 2261 | 2398 |
| 75° | 2178 | 1967 | 1831 |
| 80° | 1838 | 1446 | 1693 |
| 85° | 1098 | 1014 | 1183 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 110.6 | 3.2 |
| 10°-20° | 317.8 | 9.2 |
| 20°-30° | 484.5 | 14.0 |
| 30°-40° | 590.3 | 17.1 |
| 40°-50° | 620.9 | 18.0 |
| 50°-60° | 570.5 | 16.5 |
| 60°-70° | 442.7 | 12.8 |
| 70°-80° | 249.1 | 7.2 |
| 80°-90° | 68.8 | 2.0 |
| 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° | 912.9 | 26.4 |
| 0°-40° | 1503.2 | 43.5 |
| 0°-60° | 2694.5 | 78.0 |
| 0°-90° | 3455.1 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 3455.1 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|------|-------|------|-------|------|------|
| 0° | 1167 | 1167 | 1167 | 1167 | 1167 | |
| 5° | 1163 | 1162 | 1162 | 1165 | 1166 | 110 |
| 15° | 1122 | 1122 | 1123 | 1130 | 1134 | 317 |
| 25° | 1044 | 1044 | 1048 | 1057 | 1065 | 481 |
| 35° | 935 | 935 | 939 | 951 | 962 | 585 |
| 45° | 799 | 798 | 800 | 812 | 822 | 617 |
| 55° | 637 | 636 | 633 | 641 | 651 | 570 |
| 65° | 452 | 446 | 439 | 451 | 465 | 446 |
| 75° | 249 | 247 | 239 | 213 | 209 | 264 |
| 85° | 56 | 56 | 59 | 59 | 60 | 71 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P184377

CATALOG NUMBER: ENW/ENC-24-2-LD1-39-40-CP125-UNV-EDC1

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|--------|--------|--------|--------|--------|
| 0° | 1167.0 | 1167.0 | 1167.0 | 1167.0 | 1167.0 |
| 2.5° | 1166.1 | 1165.3 | 1166.1 | 1167.9 | 1168.8 |
| 5° | 1162.7 | 1161.8 | 1161.8 | 1165.3 | 1166.1 |
| 7.5° | 1155.9 | 1155.0 | 1156.7 | 1159.3 | 1161.8 |
| 10° | 1146.4 | 1146.4 | 1148.1 | 1151.6 | 1154.1 |
| 12.5° | 1135.2 | 1135.2 | 1136.9 | 1142.1 | 1145.5 |
| 15° | 1121.5 | 1121.5 | 1123.1 | 1130.1 | 1133.5 |
| 17.5° | 1106.8 | 1105.1 | 1108.6 | 1114.5 | 1120.6 |
| 20° | 1086.2 | 1087.1 | 1090.5 | 1097.3 | 1104.3 |
| 22.5° | 1066.4 | 1066.4 | 1069.9 | 1078.5 | 1085.3 |
| 25° | 1044.1 | 1044.1 | 1047.5 | 1057.0 | 1064.7 |
| 27.5° | 1019.1 | 1019.9 | 1023.4 | 1033.7 | 1043.2 |
| 30° | 994.1 | 995.0 | 997.6 | 1009.7 | 1019.1 |
| 32.5° | 965.8 | 965.8 | 970.1 | 981.2 | 990.7 |
| 35° | 934.8 | 934.8 | 939.1 | 951.1 | 961.5 |
| 37.5° | 902.2 | 903.0 | 907.3 | 918.5 | 929.6 |
| 40° | 870.3 | 869.4 | 872.9 | 885.0 | 896.1 |
| 42.5° | 835.0 | 834.2 | 836.8 | 849.7 | 860.0 |
| 45° | 799.0 | 798.1 | 799.8 | 811.9 | 822.1 |
| 47.5° | 761.9 | 759.4 | 760.3 | 772.3 | 784.3 |
| 50° | 722.4 | 720.7 | 719.8 | 730.2 | 740.4 |
| 52.5° | 681.1 | 679.4 | 676.8 | 687.2 | 696.6 |
| 55° | 637.2 | 636.4 | 632.9 | 640.7 | 651.0 |
| 57.5° | 593.4 | 590.8 | 586.5 | 593.4 | 609.8 |
| 60° | 546.9 | 543.5 | 539.2 | 546.1 | 560.7 |
| 62.5° | 499.6 | 494.5 | 488.5 | 498.0 | 513.4 |
| 65° | 451.5 | 446.4 | 439.4 | 450.7 | 465.2 |
| 67.5° | 403.4 | 396.4 | 391.3 | 399.1 | 409.3 |
| 70° | 350.9 | 345.7 | 343.2 | 341.4 | 346.6 |
| 72.5° | 299.3 | 296.7 | 294.1 | 278.7 | 276.9 |
| 75° | 248.6 | 246.8 | 239.1 | 213.3 | 209.0 |
| 77.5° | 200.4 | 197.8 | 181.4 | 161.7 | 166.0 |
| 80° | 152.2 | 149.7 | 130.7 | 134.1 | 140.2 |
| 82.5° | 104.9 | 100.6 | 97.2 | 98.1 | 98.9 |
| 85° | 55.9 | 55.9 | 59.4 | 59.4 | 60.2 |
| 87.5° | 23.2 | 23.2 | 25.8 | 26.6 | 27.5 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)