

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: P412228

Luminaire Tested: **MRI-2ASR-8-500-L850-HEO**

Issue Date: 10/5/2020

Test Information

Test Method: LM-79-08
Report Number: P412228
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2006-829-1)
Test Lab: INNOVATION CENTER
Issue Date: 10/5/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: MRI-2ASR-8-500-L850-HEO
Description: 8 FT, 2 INCH CHANNEL, HIGH EFFICIENCY LENS
Light Source: (336) 5000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8608.0 lumens
Efficiency: N/A
Efficacy: 98.6 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 1.17 / 1.32
Luminous Opening: Rectangular (W 0.17' x L: 8' x H: 0')
CIE Type: Direct

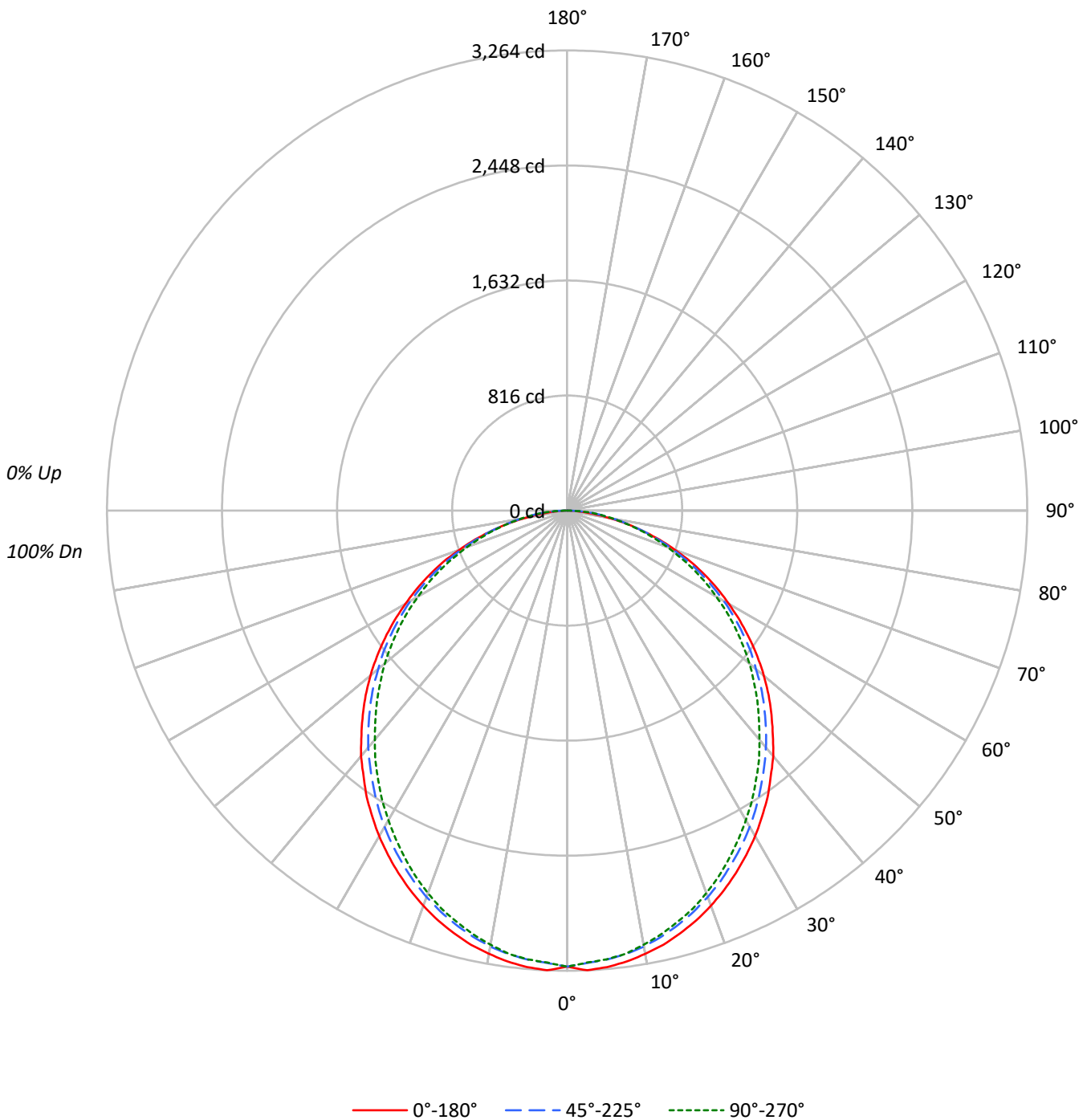
Input Watts (W): 87.3
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P412228

CATALOG NUMBER: MRI-2ASR-8-500-L850-HEO

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 | 100 | 96 | 106 | 102 | 98 | 94 | 98 | 94 | 91 | 94 | 91 | 89 | 90 | 88 | 86 | 84 |
| 2 | 99 | 91 | 84 | 78 | 96 | 89 | 83 | 77 | 85 | 80 | 76 | 82 | 78 | 74 | 79 | 75 | 72 | 70 |
| 3 | 90 | 80 | 72 | 65 | 88 | 78 | 71 | 65 | 75 | 69 | 63 | 72 | 67 | 62 | 70 | 65 | 61 | 59 |
| 4 | 83 | 71 | 62 | 55 | 80 | 69 | 61 | 55 | 67 | 60 | 54 | 65 | 58 | 53 | 62 | 57 | 53 | 51 |
| 5 | 76 | 63 | 54 | 48 | 74 | 62 | 54 | 47 | 60 | 53 | 47 | 58 | 52 | 46 | 56 | 51 | 46 | 44 |
| 6 | 70 | 57 | 48 | 42 | 68 | 56 | 48 | 42 | 54 | 47 | 41 | 53 | 46 | 41 | 51 | 45 | 40 | 38 |
| 7 | 65 | 52 | 43 | 37 | 64 | 51 | 43 | 37 | 49 | 42 | 37 | 48 | 41 | 36 | 47 | 41 | 36 | 34 |
| 8 | 61 | 47 | 39 | 33 | 59 | 47 | 39 | 33 | 45 | 38 | 33 | 44 | 37 | 32 | 43 | 37 | 32 | 30 |
| 9 | 57 | 43 | 35 | 30 | 55 | 43 | 35 | 30 | 42 | 35 | 30 | 41 | 34 | 29 | 40 | 34 | 29 | 27 |
| 10 | 53 | 40 | 32 | 27 | 52 | 40 | 32 | 27 | 39 | 32 | 27 | 38 | 31 | 27 | 37 | 31 | 27 | 25 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|-------|-------|-------|
| 0° | 26116 | 26116 | 26116 |
| 5° | 26340 | 25909 | 25893 |
| 10° | 26167 | 25741 | 25632 |
| 15° | 25937 | 25426 | 25246 |
| 20° | 25627 | 25057 | 24812 |
| 25° | 25254 | 24617 | 24235 |
| 30° | 24858 | 24155 | 23632 |
| 35° | 24431 | 23607 | 23014 |
| 40° | 23964 | 23126 | 22351 |
| 45° | 23399 | 22572 | 21780 |
| 50° | 22883 | 21961 | 21205 |
| 55° | 22199 | 21409 | 20532 |
| 60° | 21380 | 20722 | 19716 |
| 65° | 20560 | 19799 | 18923 |
| 70° | 19216 | 18637 | 17818 |
| 75° | 17183 | 17215 | 16609 |
| 80° | 14133 | 15463 | 15318 |
| 85° | 9541 | 14737 | 15209 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 305.2 | 3.5 |
| 10°-20° | 862.3 | 10.0 |
| 20°-30° | 1278.4 | 14.9 |
| 30°-40° | 1503.4 | 17.5 |
| 40°-50° | 1527.0 | 17.7 |
| 50°-60° | 1358.5 | 15.8 |
| 60°-70° | 1024.4 | 11.9 |
| 70°-80° | 582.1 | 6.8 |
| 80°-90° | 166.7 | 1.9 |
| 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° | 2445.9 | 28.4 |
| 0°-40° | 3949.3 | 45.9 |
| 0°-60° | 6834.8 | 79.4 |
| 0°-90° | 8608.0 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 8608.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|------|-------|------|-------|------|------|
| 0° | 3235 | 3235 | 3235 | 3235 | 3235 | |
| 5° | 3250 | 3228 | 3197 | 3221 | 3195 | 308 |
| 15° | 3103 | 3079 | 3042 | 3053 | 3021 | 875 |
| 25° | 2835 | 2806 | 2764 | 2753 | 2721 | 1306 |
| 35° | 2479 | 2445 | 2395 | 2365 | 2335 | 1549 |
| 45° | 2050 | 2024 | 1977 | 1937 | 1908 | 1582 |
| 55° | 1577 | 1561 | 1521 | 1478 | 1459 | 1410 |
| 65° | 1076 | 1069 | 1036 | 1004 | 991 | 1063 |
| 75° | 551 | 559 | 552 | 537 | 532 | 587 |
| 85° | 103 | 142 | 159 | 159 | 164 | 132 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P412228

CATALOG NUMBER: MRI-2ASR-8-500-L850-HEO

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|--------|--------|--------|--------|--------|
| 0° | 3235.0 | 3235.0 | 3235.0 | 3235.0 | 3235.0 |
| 2.5° | 3263.5 | 3241.1 | 3211.5 | 3236.0 | 3209.5 |
| 5° | 3250.3 | 3227.8 | 3197.2 | 3220.7 | 3195.2 |
| 7.5° | 3226.8 | 3204.4 | 3173.8 | 3195.2 | 3170.7 |
| 10° | 3192.1 | 3171.7 | 3140.1 | 3157.4 | 3126.8 |
| 12.5° | 3154.4 | 3127.8 | 3094.2 | 3109.5 | 3078.9 |
| 15° | 3103.4 | 3078.9 | 3042.2 | 3053.4 | 3020.7 |
| 17.5° | 3047.3 | 3018.7 | 2983.0 | 2989.1 | 2961.6 |
| 20° | 2983.0 | 2954.4 | 2916.7 | 2918.7 | 2888.1 |
| 22.5° | 2911.6 | 2885.0 | 2844.2 | 2837.1 | 2808.5 |
| 25° | 2835.1 | 2805.5 | 2763.6 | 2753.4 | 2720.8 |
| 27.5° | 2752.4 | 2724.9 | 2680.0 | 2663.7 | 2629.0 |
| 30° | 2666.7 | 2634.1 | 2591.2 | 2566.8 | 2535.1 |
| 32.5° | 2572.9 | 2543.3 | 2495.3 | 2464.7 | 2440.2 |
| 35° | 2479.0 | 2445.4 | 2395.4 | 2364.8 | 2335.2 |
| 37.5° | 2372.9 | 2341.3 | 2294.4 | 2263.8 | 2234.2 |
| 40° | 2274.0 | 2239.3 | 2194.4 | 2156.6 | 2120.9 |
| 42.5° | 2159.7 | 2135.2 | 2086.3 | 2048.5 | 2013.8 |
| 45° | 2049.5 | 2024.0 | 1977.1 | 1937.3 | 1907.7 |
| 47.5° | 1938.3 | 1912.8 | 1867.9 | 1825.1 | 1796.5 |
| 50° | 1822.0 | 1794.5 | 1748.6 | 1710.8 | 1688.4 |
| 52.5° | 1700.6 | 1681.2 | 1640.4 | 1597.6 | 1572.1 |
| 55° | 1577.2 | 1560.9 | 1521.1 | 1478.2 | 1458.8 |
| 57.5° | 1452.7 | 1439.5 | 1402.7 | 1361.9 | 1342.5 |
| 60° | 1324.2 | 1318.1 | 1283.4 | 1244.6 | 1221.1 |
| 62.5° | 1202.8 | 1193.6 | 1157.9 | 1129.3 | 1107.9 |
| 65° | 1076.3 | 1069.1 | 1036.5 | 1003.8 | 990.6 |
| 67.5° | 948.8 | 940.6 | 910.0 | 887.5 | 867.1 |
| 70° | 814.1 | 814.1 | 789.6 | 768.2 | 754.9 |
| 72.5° | 686.6 | 687.6 | 671.3 | 648.8 | 642.7 |
| 75° | 550.9 | 559.1 | 551.9 | 536.6 | 532.5 |
| 77.5° | 430.5 | 437.7 | 438.7 | 433.6 | 426.4 |
| 80° | 304.0 | 324.4 | 332.6 | 331.6 | 329.5 |
| 82.5° | 194.9 | 227.5 | 242.8 | 241.8 | 243.8 |
| 85° | 103.0 | 141.8 | 159.1 | 159.1 | 164.2 |
| 87.5° | 35.7 | 72.4 | 77.5 | 71.4 | 68.4 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)