

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: P412071

Luminaire Tested: **MRI-2ASR-2-250-L840-OPL**

Issue Date: 10/5/2020

Test Information

Test Method: LM-79-08
Report Number: P412071
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2006-829-4)
Test Lab: INNOVATION CENTER
Issue Date: 10/5/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: MRI-2ASR-2-250-L840-OPL
Description: 2 FT, 2 INCH CHANNEL, OPAL LENS
Light Source: (98) 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

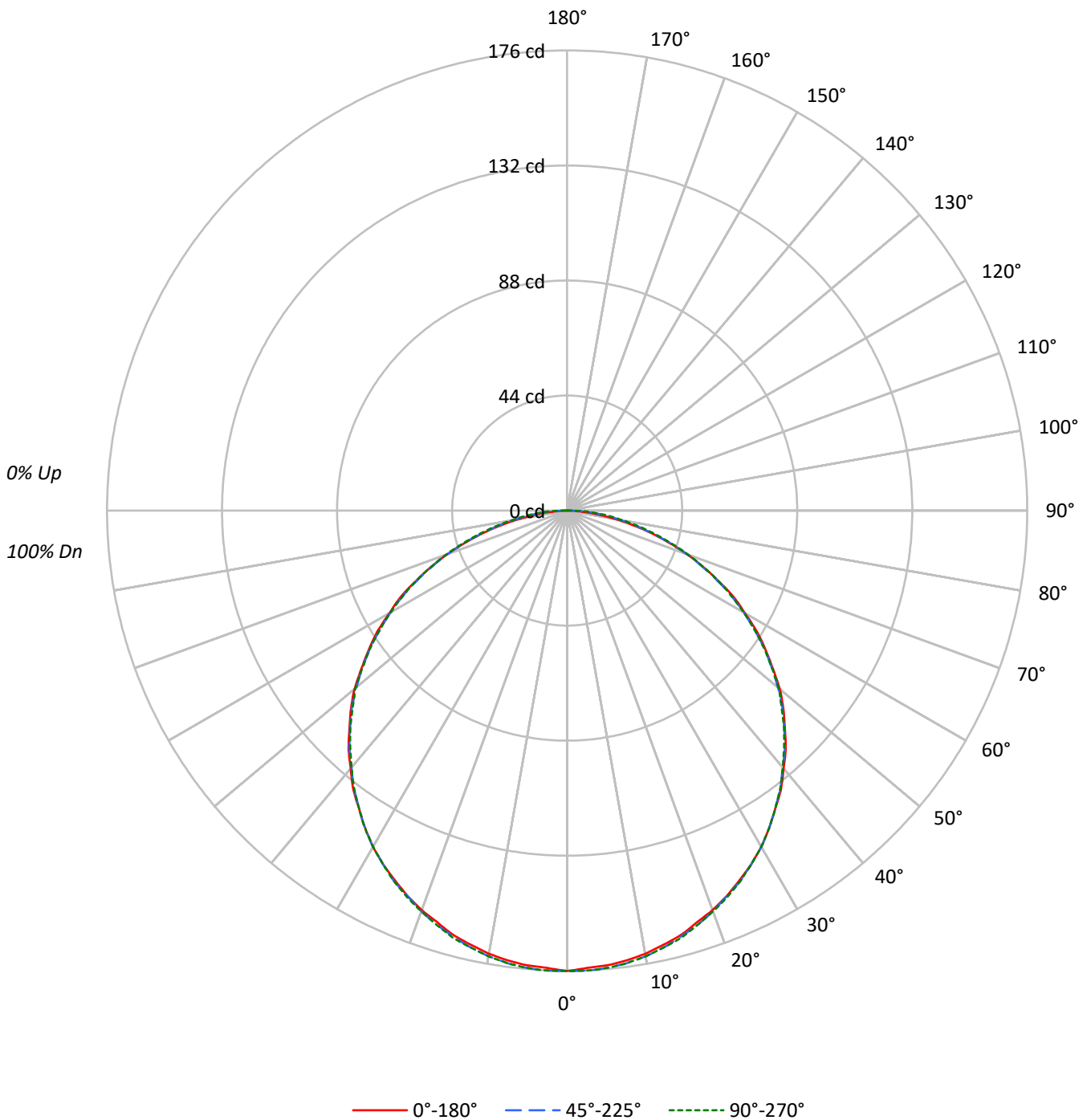
Lumens per Lamp: N/A
Luminaire Lumens: 506.0 lumens
Efficiency: N/A
Efficacy: 45.6 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.25 / 1.37
Luminous Opening: Rectangular (W 0.17' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 11.1
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 | 77 | 85 | 79 | 75 | 81 | 77 | 73 | 78 | 75 | 71 | 69 |
| 3 | 90 | 79 | 71 | 64 | 87 | 78 | 70 | 64 | 74 | 68 | 62 | 72 | 66 | 61 | 69 | 64 | 60 | 58 |
| 4 | 82 | 70 | 61 | 54 | 80 | 69 | 60 | 54 | 66 | 59 | 53 | 64 | 57 | 52 | 62 | 56 | 52 | 50 |
| 5 | 75 | 62 | 53 | 47 | 73 | 61 | 53 | 46 | 59 | 52 | 46 | 57 | 51 | 45 | 55 | 50 | 45 | 43 |
| 6 | 70 | 56 | 47 | 41 | 68 | 55 | 47 | 40 | 53 | 46 | 40 | 52 | 45 | 40 | 50 | 44 | 39 | 37 |
| 7 | 65 | 51 | 42 | 36 | 63 | 50 | 42 | 36 | 49 | 41 | 35 | 47 | 40 | 35 | 46 | 40 | 35 | 33 |
| 8 | 60 | 46 | 38 | 32 | 59 | 46 | 38 | 32 | 44 | 37 | 32 | 43 | 36 | 31 | 42 | 36 | 31 | 29 |
| 9 | 56 | 43 | 34 | 29 | 55 | 42 | 34 | 29 | 41 | 34 | 29 | 40 | 33 | 28 | 39 | 33 | 28 | 26 |
| 10 | 53 | 39 | 31 | 26 | 51 | 39 | 31 | 26 | 38 | 31 | 26 | 37 | 30 | 26 | 36 | 30 | 26 | 24 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|------|------|------|
| 0° | 5687 | 5687 | 5687 |
| 5° | 5660 | 5692 | 5692 |
| 10° | 5643 | 5676 | 5676 |
| 15° | 5620 | 5636 | 5653 |
| 20° | 5588 | 5605 | 5605 |
| 25° | 5558 | 5576 | 5576 |
| 30° | 5537 | 5537 | 5537 |
| 35° | 5476 | 5476 | 5476 |
| 40° | 5429 | 5408 | 5408 |
| 45° | 5380 | 5357 | 5357 |
| 50° | 5335 | 5285 | 5310 |
| 55° | 5213 | 5185 | 5185 |
| 60° | 5070 | 5038 | 5038 |
| 65° | 4883 | 4844 | 4883 |
| 70° | 4607 | 4607 | 4655 |
| 75° | 4142 | 4205 | 4329 |
| 80° | 3459 | 3831 | 4017 |
| 85° | 2408 | 3742 | 3927 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 16.7 | 3.3 |
| 10°-20° | 47.6 | 9.4 |
| 20°-30° | 72.1 | 14.2 |
| 30°-40° | 87.0 | 17.2 |
| 40°-50° | 90.6 | 17.9 |
| 50°-60° | 82.3 | 16.3 |
| 60°-70° | 63.0 | 12.4 |
| 70°-80° | 36.0 | 7.1 |
| 80°-90° | 10.8 | 2.1 |
| 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° | 136.3 | 26.9 |
| 0°-40° | 223.3 | 44.1 |
| 0°-60° | 396.3 | 78.3 |
| 0°-90° | 506.0 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 506.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0° | 176 | 176 | 176 | 176 | 176 | |
| 5° | 175 | 175 | 176 | 176 | 176 | 17 |
| 15° | 168 | 169 | 169 | 169 | 169 | 47 |
| 25° | 156 | 156 | 156 | 156 | 156 | 72 |
| 35° | 139 | 139 | 139 | 139 | 139 | 87 |
| 45° | 118 | 118 | 117 | 117 | 117 | 91 |
| 55° | 93 | 92 | 92 | 92 | 92 | 83 |
| 65° | 64 | 64 | 63 | 63 | 64 | 63 |
| 75° | 33 | 33 | 34 | 34 | 35 | 35 |
| 85° | 6 | 8 | 10 | 10 | 11 | 8 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



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CATALOG NUMBER: MRI-2ASR-2-250-L840-OPL

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|-------|-------|-------|-------|-------|
| 0° | 176.1 | 176.1 | 176.1 | 176.1 | 176.1 |
| 2.5° | 175.1 | 175.6 | 176.1 | 176.6 | 176.1 |
| 5° | 174.6 | 175.1 | 175.6 | 175.6 | 175.6 |
| 7.5° | 173.6 | 174.1 | 174.6 | 174.6 | 174.6 |
| 10° | 172.1 | 172.6 | 173.1 | 173.1 | 173.1 |
| 12.5° | 170.1 | 170.6 | 171.1 | 171.1 | 171.1 |
| 15° | 168.1 | 168.6 | 168.6 | 169.1 | 169.1 |
| 17.5° | 165.1 | 166.1 | 166.1 | 166.6 | 166.1 |
| 20° | 162.6 | 163.1 | 163.1 | 163.1 | 163.1 |
| 22.5° | 159.5 | 160.0 | 159.5 | 160.0 | 160.0 |
| 25° | 156.0 | 156.0 | 156.5 | 156.5 | 156.5 |
| 27.5° | 152.5 | 152.5 | 152.5 | 152.5 | 152.5 |
| 30° | 148.5 | 148.5 | 148.5 | 148.5 | 148.5 |
| 32.5° | 143.9 | 143.9 | 143.9 | 143.9 | 143.9 |
| 35° | 138.9 | 139.4 | 138.9 | 138.9 | 138.9 |
| 37.5° | 134.4 | 134.4 | 133.9 | 133.9 | 133.9 |
| 40° | 128.8 | 128.8 | 128.3 | 128.3 | 128.3 |
| 42.5° | 123.8 | 123.3 | 123.3 | 122.8 | 122.8 |
| 45° | 117.8 | 117.8 | 117.3 | 117.3 | 117.3 |
| 47.5° | 112.2 | 111.7 | 111.7 | 111.7 | 111.2 |
| 50° | 106.2 | 105.7 | 105.2 | 105.2 | 105.7 |
| 52.5° | 99.1 | 99.1 | 98.6 | 98.6 | 98.6 |
| 55° | 92.6 | 92.1 | 92.1 | 92.1 | 92.1 |
| 57.5° | 86.1 | 85.0 | 85.0 | 85.6 | 85.0 |
| 60° | 78.5 | 78.0 | 78.0 | 78.0 | 78.0 |
| 62.5° | 72.0 | 71.0 | 71.0 | 71.0 | 71.0 |
| 65° | 63.9 | 63.9 | 63.4 | 63.4 | 63.9 |
| 67.5° | 56.4 | 56.4 | 55.9 | 56.4 | 56.4 |
| 70° | 48.8 | 48.3 | 48.8 | 48.8 | 49.3 |
| 72.5° | 40.8 | 41.3 | 41.3 | 41.3 | 41.8 |
| 75° | 33.2 | 33.2 | 33.7 | 34.2 | 34.7 |
| 77.5° | 25.7 | 26.2 | 27.2 | 27.7 | 28.2 |
| 80° | 18.6 | 19.6 | 20.6 | 21.6 | 21.6 |
| 82.5° | 12.1 | 13.1 | 15.1 | 16.6 | 16.6 |
| 85° | 6.5 | 8.1 | 10.1 | 10.1 | 10.6 |
| 87.5° | 2.5 | 4.0 | 5.5 | 7.0 | 7.0 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)