

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: P412267

Luminaire Tested: **MRI-4ASR-8-500-L935-OPL**

Issue Date: 10/5/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P412267  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2006-829-8)  
Test Lab: INNOVATION CENTER  
Issue Date: 10/5/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: FAIL-SAFE  
Catalog Number: MRI-4ASR-8-500-L935-OPL  
Description: 8 FT, 4 INCH CHANNEL, OPAL LENS  
Light Source: (672) 3500K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3392.0 lumens  
Efficiency: N/A  
Efficacy: 55.2 lumens/watt  
Spacing Criteria (0/90/45): 1.25 / 1.25 / 1.37  
Luminous Opening: Rectangular (W 0.33' x L: 8' x H: 0')  
CIE Type: Direct

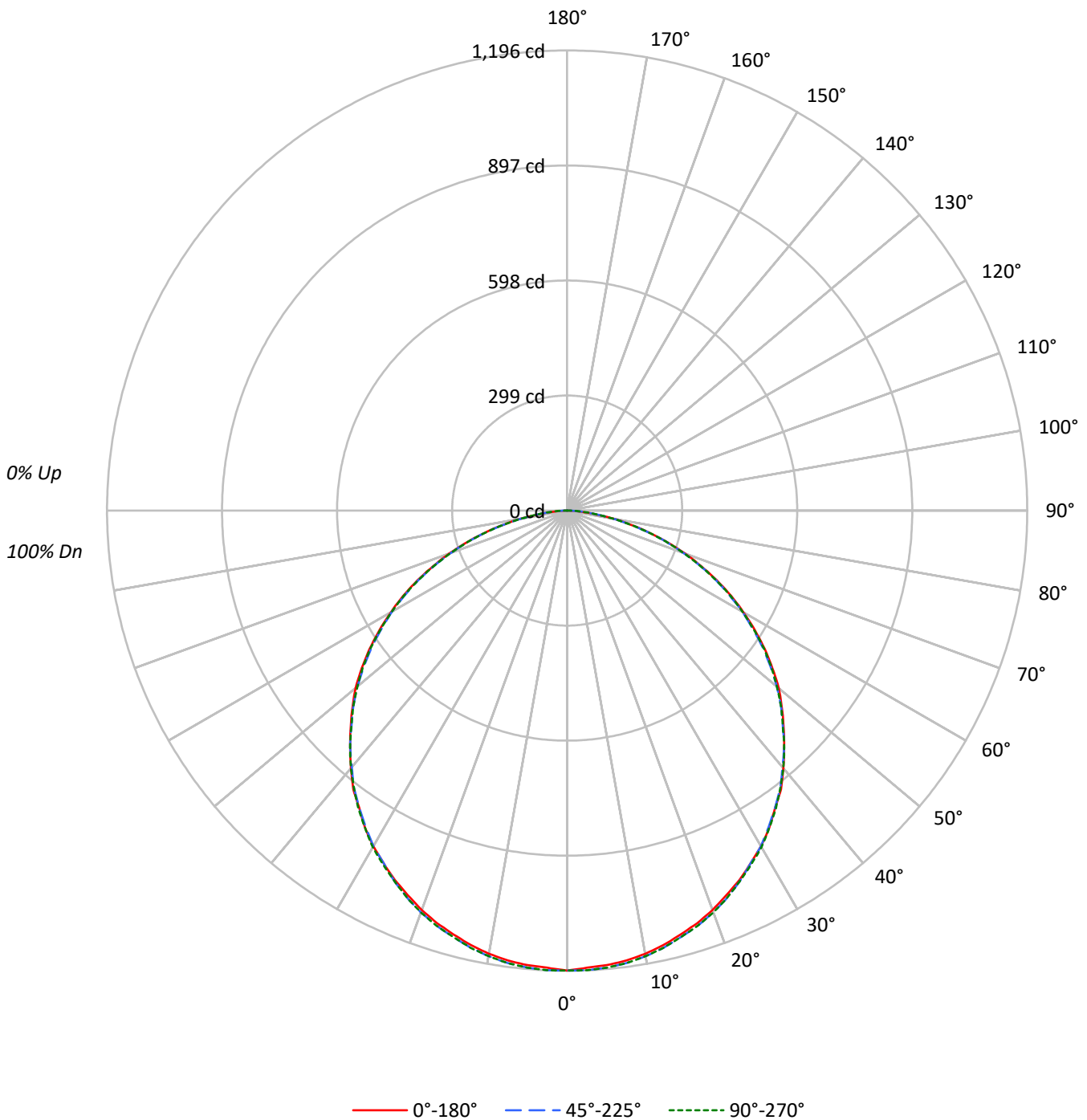
Input Watts (W): 61.5  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P412267

CATALOG NUMBER: MRI-4ASR-8-500-L935-OPL

### Luminous Intensity Polar Plot





TEST NUMBER: P412267

CATALOG NUMBER: MRI-4ASR-8-500-L935-OPL

**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  | 82  | 77  | 85  | 80  | 75  | 82  | 77  | 74  | 79  | 75  | 72  | 70  |
| 3   | 90  | 80  | 71  | 65  | 88  | 78  | 70  | 64  | 75  | 68  | 63  | 72  | 67  | 62  | 70  | 65  | 61  | 59  |
| 4   | 82  | 70  | 62  | 55  | 80  | 69  | 61  | 54  | 67  | 59  | 54  | 64  | 58  | 53  | 62  | 57  | 52  | 50  |
| 5   | 76  | 63  | 54  | 47  | 74  | 62  | 53  | 47  | 60  | 52  | 46  | 58  | 51  | 46  | 56  | 50  | 45  | 43  |
| 6   | 70  | 57  | 48  | 41  | 68  | 56  | 47  | 41  | 54  | 46  | 41  | 52  | 45  | 40  | 51  | 45  | 40  | 38  |
| 7   | 65  | 51  | 42  | 36  | 63  | 50  | 42  | 36  | 49  | 41  | 36  | 47  | 41  | 36  | 46  | 40  | 35  | 33  |
| 8   | 60  | 47  | 38  | 32  | 59  | 46  | 38  | 32  | 45  | 37  | 32  | 43  | 37  | 32  | 42  | 36  | 32  | 30  |
| 9   | 56  | 43  | 35  | 29  | 55  | 42  | 34  | 29  | 41  | 34  | 29  | 40  | 33  | 29  | 39  | 33  | 29  | 27  |
| 10  | 53  | 40  | 32  | 26  | 52  | 39  | 31  | 26  | 38  | 31  | 26  | 37  | 31  | 26  | 36  | 30  | 26  | 24  |

**AVERAGE LUMINANCE (cd/sqm):**

|     | 0°   | 45°  | 90°  |
|-----|------|------|------|
| 0°  | 4826 | 4826 | 4826 |
| 5°  | 4805 | 4831 | 4831 |
| 10° | 4794 | 4821 | 4821 |
| 15° | 4766 | 4793 | 4793 |
| 20° | 4745 | 4773 | 4773 |
| 25° | 4717 | 4732 | 4732 |
| 30° | 4694 | 4694 | 4709 |
| 35° | 4643 | 4643 | 4659 |
| 40° | 4605 | 4588 | 4605 |
| 45° | 4544 | 4526 | 4526 |
| 50° | 4509 | 4468 | 4468 |
| 55° | 4413 | 4367 | 4390 |
| 60° | 4275 | 4249 | 4249 |
| 65° | 4096 | 4065 | 4065 |
| 70° | 3834 | 3797 | 3797 |
| 75° | 3445 | 3395 | 3395 |
| 80° | 2871 | 2794 | 2794 |
| 85° | 1806 | 1954 | 2107 |



TEST NUMBER: P412267

CATALOG NUMBER: MRI-4ASR-8-500-L935-OPL

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 113.2  | 3.3       |
| 10°-20°   | 323.6  | 9.5       |
| 20°-30°   | 489.4  | 14.4      |
| 30°-40°   | 590.3  | 17.4      |
| 40°-50°   | 613.2  | 18.1      |
| 50°-60°   | 555.4  | 16.4      |
| 60°-70°   | 420.9  | 12.4      |
| 70°-80°   | 231.9  | 6.8       |
| 80°-90°   | 54.2   | 1.6       |
| 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°    | 926.1  | 27.3      |
| 0°-40°    | 1516.5 | 44.7      |
| 0°-60°    | 2685.1 | 79.2      |
| 0°-90°    | 3392.0 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 3392.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|-----|------|-------|------|-------|------|------|
| 0°  | 1196 | 1196  | 1196 | 1196  | 1196 |      |
| 5°  | 1186 | 1189  | 1192 | 1196  | 1192 | 113  |
| 15° | 1140 | 1144  | 1147 | 1150  | 1147 | 322  |
| 25° | 1059 | 1059  | 1062 | 1062  | 1062 | 488  |
| 35° | 942  | 942   | 942  | 942   | 946  | 591  |
| 45° | 796  | 793   | 793  | 796   | 793  | 615  |
| 55° | 627  | 621   | 621  | 621   | 624  | 559  |
| 65° | 429  | 426   | 426  | 426   | 426  | 424  |
| 75° | 221  | 221   | 218  | 218   | 218  | 234  |
| 85° | 39   | 42    | 42   | 46    | 46   | 51   |
| 90° | 0    | 0     | 0    | 0     | 0    |      |



TEST NUMBER: P412267

CATALOG NUMBER: MRI-4ASR-8-500-L935-OPL

**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|-------|--------|--------|--------|--------|--------|
| 0°    | 1195.6 | 1195.6 | 1195.6 | 1195.6 | 1195.6 |
| 2.5°  | 1189.1 | 1192.4 | 1195.6 | 1198.9 | 1195.6 |
| 5°    | 1185.9 | 1189.1 | 1192.4 | 1195.6 | 1192.4 |
| 7.5°  | 1179.4 | 1182.6 | 1185.9 | 1189.1 | 1185.9 |
| 10°   | 1169.6 | 1172.9 | 1176.1 | 1179.4 | 1176.1 |
| 12.5° | 1156.7 | 1159.9 | 1163.2 | 1163.2 | 1163.2 |
| 15°   | 1140.4 | 1143.7 | 1146.9 | 1150.2 | 1146.9 |
| 17.5° | 1124.2 | 1127.4 | 1130.7 | 1130.7 | 1130.7 |
| 20°   | 1104.7 | 1107.9 | 1111.2 | 1111.2 | 1111.2 |
| 22.5° | 1081.9 | 1085.2 | 1088.4 | 1088.4 | 1088.4 |
| 25°   | 1059.2 | 1059.2 | 1062.4 | 1062.4 | 1062.4 |
| 27.5° | 1033.2 | 1033.2 | 1033.2 | 1036.4 | 1036.4 |
| 30°   | 1007.2 | 1007.2 | 1007.2 | 1007.2 | 1010.4 |
| 32.5° | 978.0  | 978.0  | 974.7  | 978.0  | 978.0  |
| 35°   | 942.2  | 942.2  | 942.2  | 942.2  | 945.5  |
| 37.5° | 913.0  | 906.5  | 909.7  | 909.7  | 909.7  |
| 40°   | 874.0  | 874.0  | 870.7  | 874.0  | 874.0  |
| 42.5° | 835.0  | 835.0  | 835.0  | 835.0  | 835.0  |
| 45°   | 796.0  | 792.8  | 792.8  | 796.0  | 792.8  |
| 47.5° | 757.0  | 753.8  | 753.8  | 753.8  | 753.8  |
| 50°   | 718.0  | 711.5  | 711.5  | 711.5  | 711.5  |
| 52.5° | 672.5  | 666.1  | 666.1  | 666.1  | 669.3  |
| 55°   | 627.1  | 620.6  | 620.6  | 620.6  | 623.8  |
| 57.5° | 578.3  | 575.1  | 571.8  | 575.1  | 575.1  |
| 60°   | 529.6  | 526.3  | 526.3  | 526.3  | 526.3  |
| 62.5° | 480.9  | 477.6  | 474.4  | 474.4  | 477.6  |
| 65°   | 428.9  | 425.6  | 425.6  | 425.6  | 425.6  |
| 67.5° | 376.9  | 373.6  | 373.6  | 373.6  | 373.6  |
| 70°   | 324.9  | 321.7  | 321.7  | 324.9  | 321.7  |
| 72.5° | 272.9  | 269.7  | 269.7  | 269.7  | 269.7  |
| 75°   | 220.9  | 220.9  | 217.7  | 217.7  | 217.7  |
| 77.5° | 168.9  | 168.9  | 168.9  | 168.9  | 168.9  |
| 80°   | 123.5  | 120.2  | 120.2  | 120.2  | 120.2  |
| 82.5° | 74.7   | 74.7   | 78.0   | 78.0   | 78.0   |
| 85°   | 39.0   | 42.2   | 42.2   | 45.5   | 45.5   |
| 87.5° | 13.0   | 16.2   | 19.5   | 22.7   | 22.7   |
| 90°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |

(END OF REPORT)