

Scaled data based on original data using

LM-41-14 Approved Method for Photometric Testing Of Indoor Fluorescent Luminaires

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: PORTFOLIO

Report Number: P434287

Luminaire Tested: **LAMR4B408R159035DE01021MB**

Issue Date: 11/23/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P434287  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-1911-585-6)  
Test Lab: INNOVATION CENTER (G1)  
Issue Date: 11/23/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: PORTFOLIO  
Catalog Number: LAMR4B408R159035DE01021MB  
Description: PORTFOLIO 4INCH ADJUSTABLE MULTIPLE, 15 DEG TIR OPTIC  
Light Source: HIGH LUMEN LED 90CRI / 3500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3317.5 lumens  
Efficiency: N/A  
Efficacy: 80.5 lumens/watt  
Spacing Criteria (0/90/45): 0.3 / 0.3 / 0.29  
Luminous Opening: Circular (Dia: 0.29' x H: 0')  
CIE Type: Direct

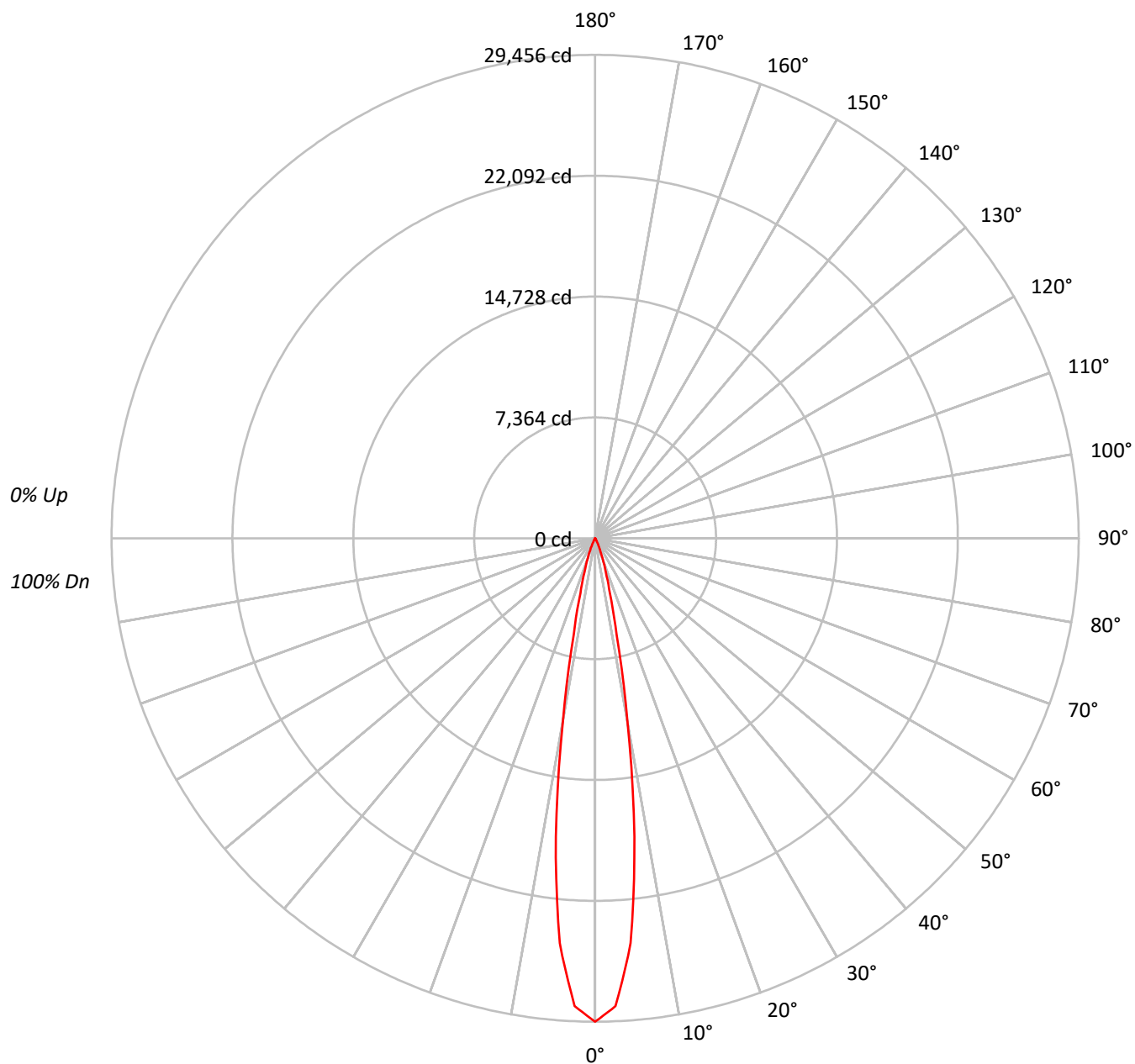
Input Watts (W): 41.2  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P434287

CATALOG NUMBER: LAMR4B408R159035DE01021MB

### Luminous Intensity Polar Plot





TEST NUMBER: P434287

CATALOG NUMBER: LAMR4B408R159035DE01021MB

**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

|     |     |     |     |     |     |     |     |     |     |     |     |  |     |     |     |  |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|-----|-----|-----|--|-----|
| RF  | 20  |     |     |     | 20  |     |     |     | 20  |     |     |  | 20  |     |     |  | 20  |
| RC  | 80  |     |     |     | 70  |     |     |     | 50  |     |     |  | 30  |     |     |  | 10  |
| RW  | 70  | 50  | 30  | 10  | 70  | 50  | 30  | 10  | 50  | 30  | 10  |  | 50  | 30  | 10  |  | 50  |
| RCR |     |     |     |     |     |     |     |     |     |     |     |  |     |     |     |  |     |
| 0   | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 |  | 106 | 106 | 106 |  | 102 |
| 1   | 116 | 114 | 112 | 111 | 113 | 112 | 110 | 109 | 108 | 107 | 106 |  | 104 | 103 | 103 |  | 101 |
| 2   | 113 | 110 | 107 | 105 | 111 | 108 | 106 | 104 | 105 | 103 | 102 |  | 102 | 101 | 100 |  | 100 |
| 3   | 110 | 106 | 103 | 101 | 108 | 105 | 102 | 100 | 103 | 100 | 98  |  | 100 | 99  | 97  |  | 98  |
| 4   | 108 | 103 | 100 | 97  | 106 | 102 | 99  | 97  | 100 | 98  | 96  |  | 98  | 96  | 95  |  | 97  |
| 5   | 105 | 101 | 97  | 95  | 104 | 100 | 97  | 94  | 98  | 96  | 94  |  | 97  | 95  | 93  |  | 95  |
| 6   | 103 | 98  | 95  | 92  | 102 | 98  | 94  | 92  | 96  | 94  | 92  |  | 95  | 93  | 91  |  | 94  |
| 7   | 101 | 96  | 93  | 90  | 100 | 96  | 92  | 90  | 95  | 92  | 90  |  | 94  | 91  | 89  |  | 93  |
| 8   | 99  | 94  | 91  | 89  | 99  | 94  | 91  | 89  | 93  | 90  | 88  |  | 92  | 90  | 88  |  | 91  |
| 9   | 98  | 92  | 89  | 87  | 97  | 92  | 89  | 87  | 91  | 89  | 87  |  | 91  | 88  | 87  |  | 90  |
| 10  | 96  | 91  | 88  | 86  | 95  | 91  | 88  | 86  | 90  | 87  | 85  |  | 89  | 87  | 85  |  | 89  |

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

|     |         |
|-----|---------|
|     | 0°      |
| 0°  | 4745506 |
| 5°  | 4005024 |
| 10° | 1839968 |
| 15° | 573747  |
| 20° | 233797  |
| 25° | 76703   |
| 30° | 23774   |
| 35° | 5035    |
| 40° | 1262    |
| 45° | 0       |
| 50° | 0       |
| 55° | 0       |
| 60° | 0       |
| 65° | 0       |
| 70° | 0       |
| 75° | 0       |
| 80° | 0       |
| 85° | 0       |



TEST NUMBER: P434287

CATALOG NUMBER: LAMR4B408R159035DE01021MB

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 1911.0 | 57.6      |
| 10°-20°   | 1138.9 | 34.3      |
| 20°-30°   | 241.3  | 7.3       |
| 30°-40°   | 25.4   | 0.8       |
| 40°-50°   | 0.8    | 0.0       |
| 50°-60°   | 0.0    | 0.0       |
| 60°-70°   | 0.0    | 0.0       |
| 70°-80°   | 0.0    | 0.0       |
| 80°-90°   | 0.0    | 0.0       |
| 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°    | 3291.3 | 99.2      |
| 0°-40°    | 3316.7 | 100.0     |
| 0°-60°    | 3317.5 | 100.0     |
| 0°-90°    | 3317.5 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 3317.5 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°    | Flux |
|-----|-------|------|
| 0°  | 29456 |      |
| 5°  | 24765 | ###  |
| 15° | 3440  | 1139 |
| 25° | 432   | 241  |
| 35° | 26    | 25   |
| 45° | 0     | 1    |
| 55° | 0     | 0    |
| 65° | 0     | 0    |
| 75° | 0     | 0    |
| 85° | 0     | 0    |
| 90° | 0     |      |



TEST NUMBER: P434287

CATALOG NUMBER: LAMR4B408R159035DE01021MB

**CANDELA DISTRIBUTION (FULL):**

| 0°    |         |
|-------|---------|
| 0°    | 29456.2 |
| 2.5°  | 28525.6 |
| 5°    | 24765.3 |
| 7.5°  | 18333.5 |
| 10°   | 11247.5 |
| 12.5° | 6001.9  |
| 15°   | 3440.0  |
| 17.5° | 2160.5  |
| 20°   | 1363.7  |
| 22.5° | 804.4   |
| 25°   | 431.5   |
| 27.5° | 243.6   |
| 30°   | 127.8   |
| 32.5° | 64.6    |
| 35°   | 25.6    |
| 37.5° | 13.5    |
| 40°   | 6.0     |
| 42.5° | 1.5     |
| 45°   | 0.0     |
| 47.5° | 0.0     |
| 50°   | 0.0     |
| 52.5° | 0.0     |
| 55°   | 0.0     |
| 57.5° | 0.0     |
| 60°   | 0.0     |
| 62.5° | 0.0     |
| 65°   | 0.0     |
| 67.5° | 0.0     |
| 70°   | 0.0     |
| 72.5° | 0.0     |
| 75°   | 0.0     |
| 77.5° | 0.0     |
| 80°   | 0.0     |
| 82.5° | 0.0     |
| 85°   | 0.0     |
| 87.5° | 0.0     |
| 90°   | 0.0     |



Report Generated By E9808895 / USPTCWHP6082093





— 0°-180°







(END OF REPORT)