

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: P433810

Luminaire Tested: **LAMR4B208R459040DE010x1MB**

Issue Date: 11/23/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P433810  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2008-908-8)  
Test Lab: INNOVATION CENTER (G2)  
Issue Date: 11/23/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: PORTFOLIO  
Catalog Number: LAMR4B208R459040DE010x1MB  
Description: PORTFOLIO 4INCH ADJUSTABLE MULTIPLE, 45 DEG TIR OPTIC  
Light Source: HIGH LUMEN LED 90CRI / 4000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1757.3 lumens  
Efficiency: N/A  
Efficacy: 85.3 lumens/watt  
Spacing Criteria (0/90/45): 0.73 / 0.73 / 0.66  
Luminous Opening: Circular (Dia: 0.17' x H: 0')  
CIE Type: Direct

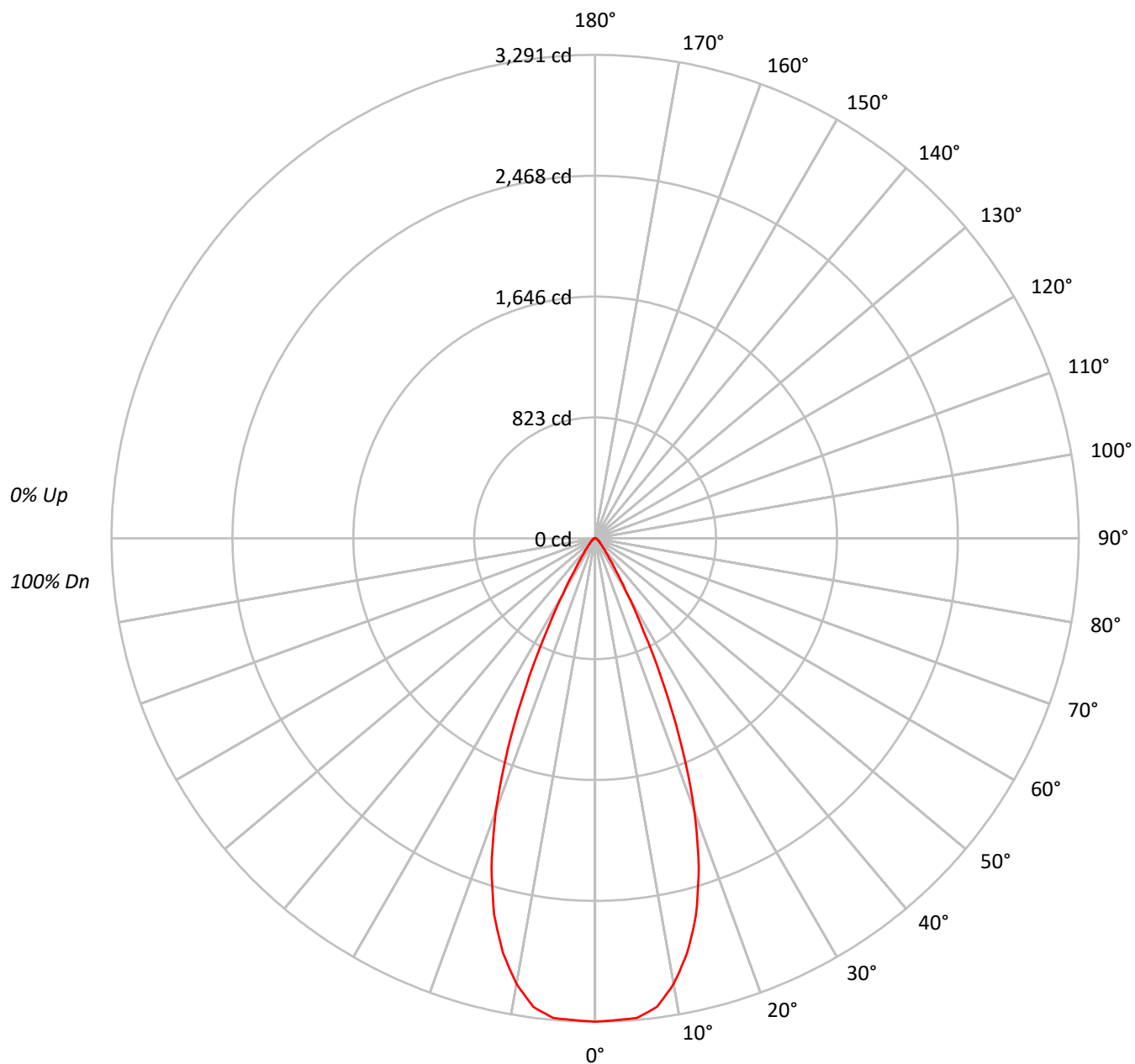
Input Watts (W): 20.6  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P433810

CATALOG NUMBER: LAMR4B208R459040DE010x1MB

### Luminous Intensity Polar Plot





TEST NUMBER: P433810

CATALOG NUMBER: LAMR4B208R459040DE010x1MB

**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   | 114 | 112 | 109 | 107 | 112 | 109 | 107 | 105 | 105 | 104 | 102 |  | 102 | 100 | 99  |  | 98  |
| 2   | 109 | 105 | 101 | 98  | 107 | 103 | 100 | 97  | 100 | 97  | 95  |  | 97  | 95  | 93  |  | 94  |
| 3   | 105 | 99  | 94  | 91  | 103 | 98  | 93  | 90  | 95  | 92  | 89  |  | 93  | 90  | 87  |  | 90  |
| 4   | 100 | 94  | 89  | 85  | 99  | 93  | 88  | 85  | 90  | 87  | 84  |  | 89  | 85  | 83  |  | 87  |
| 5   | 96  | 89  | 84  | 80  | 95  | 88  | 83  | 80  | 86  | 82  | 79  |  | 85  | 81  | 78  |  | 83  |
| 6   | 92  | 85  | 79  | 76  | 91  | 84  | 79  | 75  | 82  | 78  | 75  |  | 81  | 77  | 74  |  | 80  |
| 7   | 89  | 81  | 75  | 72  | 87  | 80  | 75  | 72  | 79  | 74  | 71  |  | 78  | 74  | 71  |  | 77  |
| 8   | 85  | 77  | 72  | 68  | 84  | 77  | 72  | 68  | 76  | 71  | 68  |  | 75  | 71  | 68  |  | 74  |
| 9   | 82  | 74  | 69  | 65  | 81  | 73  | 68  | 65  | 72  | 68  | 65  |  | 72  | 68  | 65  |  | 71  |
| 10  | 79  | 71  | 66  | 62  | 78  | 70  | 66  | 62  | 70  | 65  | 62  |  | 69  | 65  | 62  |  | 68  |

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

|     |         |
|-----|---------|
|     | 0°      |
| 0°  | 1623909 |
| 5°  | 1623377 |
| 10° | 1543051 |
| 15° | 1355417 |
| 20° | 1036909 |
| 25° | 605301  |
| 30° | 247765  |
| 35° | 104801  |
| 40° | 57128   |
| 45° | 36911   |
| 50° | 28784   |
| 55° | 24945   |
| 60° | 20229   |
| 65° | 15877   |
| 70° | 14714   |
| 75° | 12963   |
| 80° | 14490   |
| 85° | 9624    |



TEST NUMBER: P433810

CATALOG NUMBER: LAMR4B208R459040DE010x1MB

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 306.7  | 17.5      |
| 10°-20°   | 722.4  | 41.1      |
| 20°-30°   | 509.0  | 29.0      |
| 30°-40°   | 125.3  | 7.1       |
| 40°-50°   | 43.7   | 2.5       |
| 50°-60°   | 25.9   | 1.5       |
| 60°-70°   | 14.3   | 0.8       |
| 70°-80°   | 7.9    | 0.4       |
| 80°-90°   | 2.1    | 0.1       |
| 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°    | 1538.2 | 87.5      |
| 0°-40°    | 1663.5 | 94.7      |
| 0°-60°    | 1733.1 | 98.6      |
| 0°-90°    | 1757.3 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 1757.3 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | Flux |
|-----|------|------|
| 0°  | 3291 |      |
| 5°  | 3278 | 307  |
| 15° | 2654 | 722  |
| 25° | 1112 | 509  |
| 35° | 174  | 125  |
| 45° | 53   | 44   |
| 55° | 29   | 26   |
| 65° | 14   | 14   |
| 75° | 7    | 8    |
| 85° | 2    | 2    |
| 90° | 0    |      |



TEST NUMBER: P433810

CATALOG NUMBER: LAMR4B208R459040DE010x1MB

**CANDELA DISTRIBUTION (FULL):**

|       | 0°     |
|-------|--------|
| 0°    | 3291.4 |
| 2.5°  | 3282.9 |
| 5°    | 3277.8 |
| 7.5°  | 3218.1 |
| 10°   | 3080.0 |
| 12.5° | 2892.4 |
| 15°   | 2653.6 |
| 17.5° | 2344.9 |
| 20°   | 1974.9 |
| 22.5° | 1550.2 |
| 25°   | 1111.9 |
| 27.5° | 718.0  |
| 30°   | 434.9  |
| 32.5° | 264.3  |
| 35°   | 174.0  |
| 37.5° | 122.8  |
| 40°   | 88.7   |
| 42.5° | 68.2   |
| 45°   | 52.9   |
| 47.5° | 44.3   |
| 50°   | 37.5   |
| 52.5° | 32.4   |
| 55°   | 29.0   |
| 57.5° | 25.6   |
| 60°   | 20.5   |
| 62.5° | 17.1   |
| 65°   | 13.6   |
| 67.5° | 11.9   |
| 70°   | 10.2   |
| 72.5° | 8.5    |
| 75°   | 6.8    |
| 77.5° | 6.8    |
| 80°   | 5.1    |
| 82.5° | 3.4    |
| 85°   | 1.7    |
| 87.5° | 0.0    |
| 90°   | 0.0    |



Report Generated By E9808895 / USPTCWHP6082093







— 0°-180°







(END OF REPORT)