

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: P432567

Luminaire Tested: **LAM4B208R459050DE010x1MW**

Issue Date: 11/23/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P432567  
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: LAM4B208R459050DE010x1MW  
Description: PORTFOLIO 4INCH ADJUSTABLE MULTIPLE, 45 DEG TIR OPTIC  
Light Source: HIGH LUMEN LED 90CRI / 5000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1843.0 lumens  
Efficiency: N/A  
Efficacy: 89.5 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

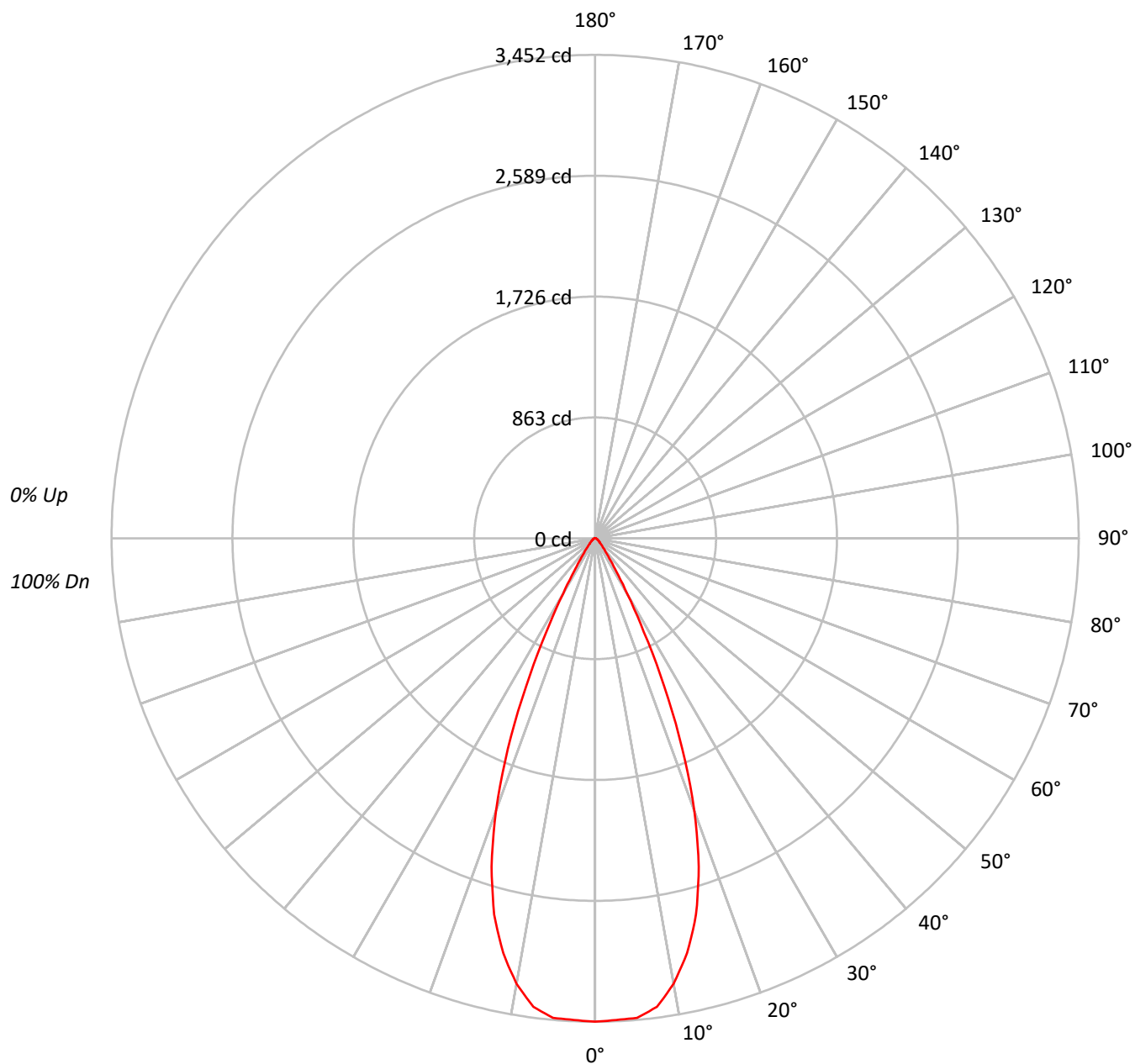
Input Watts (W): 20.6  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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  |
| 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°  | 1703048 |
| 5°  | 1702471 |
| 10° | 1618250 |
| 15° | 1421461 |
| 20° | 1087418 |
| 25° | 634806  |
| 30° | 259843  |
| 35° | 109860  |
| 40° | 59898   |
| 45° | 38655   |
| 50° | 30165   |
| 55° | 26150   |
| 60° | 21215   |
| 65° | 16694   |
| 70° | 15435   |
| 75° | 13725   |
| 80° | 15343   |
| 85° | 10190   |



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 321.7  | 17.5      |
| 10°-20°   | 757.6  | 41.1      |
| 20°-30°   | 533.8  | 29.0      |
| 30°-40°   | 131.4  | 7.1       |
| 40°-50°   | 45.8   | 2.5       |
| 50°-60°   | 27.1   | 1.5       |
| 60°-70°   | 15.0   | 0.8       |
| 70°-80°   | 8.3    | 0.4       |
| 80°-90°   | 2.2    | 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°    | 1613.1 | 87.5      |
| 0°-40°    | 1744.5 | 94.7      |
| 0°-60°    | 1817.5 | 98.6      |
| 0°-90°    | 1843.0 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 1843.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | Flux |
|-----|------|------|
| 0°  | 3452 |      |
| 5°  | 3438 | 322  |
| 15° | 2783 | 758  |
| 25° | 1166 | 534  |
| 35° | 182  | 131  |
| 45° | 55   | 46   |
| 55° | 30   | 27   |
| 65° | 14   | 15   |
| 75° | 7    | 8    |
| 85° | 2    | 2    |
| 90° | 0    |      |



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     |
|-------|--------|
| 0°    | 3451.8 |
| 2.5°  | 3442.9 |
| 5°    | 3437.5 |
| 7.5°  | 3374.9 |
| 10°   | 3230.1 |
| 12.5° | 3033.3 |
| 15°   | 2782.9 |
| 17.5° | 2459.2 |
| 20°   | 2071.1 |
| 22.5° | 1625.8 |
| 25°   | 1166.1 |
| 27.5° | 753.0  |
| 30°   | 456.1  |
| 32.5° | 277.2  |
| 35°   | 182.4  |
| 37.5° | 128.8  |
| 40°   | 93.0   |
| 42.5° | 71.5   |
| 45°   | 55.4   |
| 47.5° | 46.5   |
| 50°   | 39.3   |
| 52.5° | 34.0   |
| 55°   | 30.4   |
| 57.5° | 26.8   |
| 60°   | 21.5   |
| 62.5° | 17.9   |
| 65°   | 14.3   |
| 67.5° | 12.5   |
| 70°   | 10.7   |
| 72.5° | 8.9    |
| 75°   | 7.2    |
| 77.5° | 7.2    |
| 80°   | 5.4    |
| 82.5° | 3.6    |
| 85°   | 1.8    |
| 87.5° | 0.0    |
| 90°   | 0.0    |



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— 0°-180°







(END OF REPORT)