

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: P432169

Luminaire Tested: **LAM4B108R309027DE010x1MB**

Issue Date: 11/23/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P432169  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2007-857-8)  
Test Lab: INNOVATION CENTER (G1)  
Issue Date: 11/23/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: PORTFOLIO  
Catalog Number: LAM4B108R309027DE010x1MB  
Description: PORTFOLIO 4INCH ADJUSTABLE MULTIPLE, 30 DEG TIR OPTIC  
Light Source: HIGH LUMEN LED 90CRI / 2700K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 771.1 lumens  
Efficiency: N/A  
Efficacy: 67.6 lumens/watt  
Spacing Criteria (0/90/45): 0.51 / 0.51 / 0.46  
Luminous Opening: Circular (Dia: 0.17' x H: 0')  
CIE Type: Direct

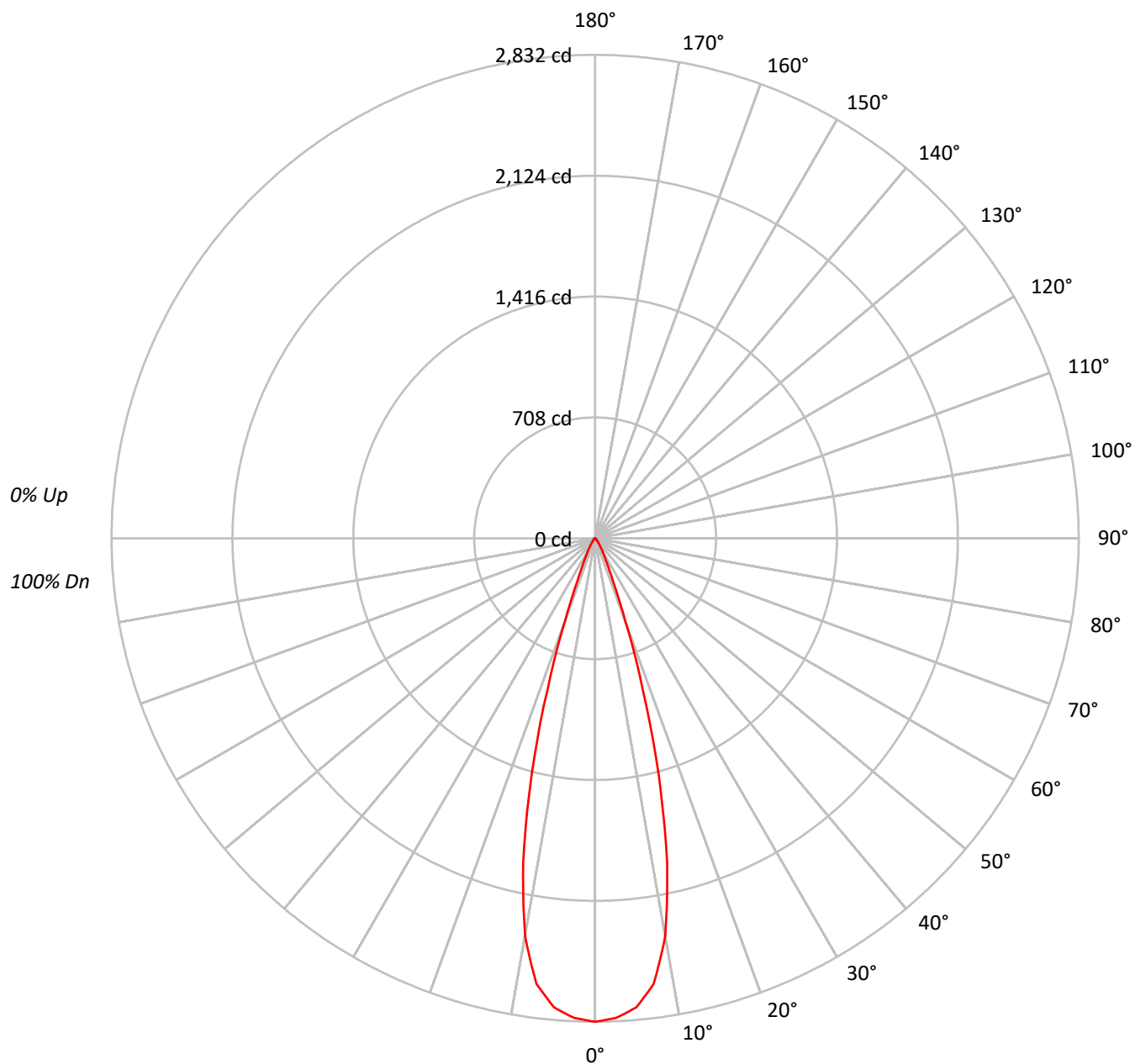
Input Watts (W): 11.4  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P432169

CATALOG NUMBER: LAM4B108R309027DE010x1MB

### Luminous Intensity Polar Plot





TEST NUMBER: P432169

CATALOG NUMBER: LAM4B108R309027DE010x1MB

**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   | 115 | 113 | 111 | 109 | 112 | 111 | 109 | 107 | 107 | 105 | 104 |  | 103 | 102 | 101 |  | 100 |
| 2   | 111 | 107 | 104 | 102 | 109 | 106 | 103 | 100 | 102 | 100 | 98  |  | 100 | 98  | 96  |  | 97  |
| 3   | 107 | 103 | 99  | 96  | 105 | 101 | 98  | 95  | 99  | 96  | 94  |  | 96  | 94  | 92  |  | 94  |
| 4   | 104 | 98  | 94  | 91  | 102 | 97  | 94  | 91  | 95  | 92  | 90  |  | 93  | 91  | 89  |  | 92  |
| 5   | 101 | 95  | 91  | 87  | 99  | 94  | 90  | 87  | 92  | 89  | 86  |  | 91  | 88  | 86  |  | 89  |
| 6   | 98  | 91  | 87  | 84  | 97  | 91  | 87  | 84  | 89  | 86  | 83  |  | 88  | 85  | 83  |  | 87  |
| 7   | 95  | 88  | 84  | 81  | 94  | 88  | 84  | 81  | 87  | 83  | 81  |  | 86  | 83  | 80  |  | 85  |
| 8   | 92  | 86  | 81  | 79  | 91  | 85  | 81  | 78  | 84  | 81  | 78  |  | 83  | 80  | 78  |  | 83  |
| 9   | 90  | 83  | 79  | 76  | 89  | 83  | 79  | 76  | 82  | 78  | 76  |  | 81  | 78  | 76  |  | 80  |
| 10  | 88  | 81  | 77  | 74  | 87  | 80  | 77  | 74  | 80  | 76  | 74  |  | 79  | 76  | 74  |  | 78  |

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

|     |         |
|-----|---------|
|     | 0°      |
| 0°  | 1397202 |
| 5°  | 1366682 |
| 10° | 1184993 |
| 15° | 734456  |
| 20° | 269190  |
| 25° | 89987   |
| 30° | 44152   |
| 35° | 22044   |
| 40° | 13654   |
| 45° | 8652    |
| 50° | 6140    |
| 55° | 5075    |
| 60° | 4342    |
| 65° | 3386    |
| 70° | 4183    |
| 75° | 4194    |
| 80° | 4262    |
| 85° | 3963    |



TEST NUMBER: P432169

CATALOG NUMBER: LAM4B108R309027DE010x1MB

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 251.5  | 32.6      |
| 10°-20°   | 379.7  | 49.2      |
| 20°-30°   | 92.6   | 12.0      |
| 30°-40°   | 25.4   | 3.3       |
| 40°-50°   | 10.2   | 1.3       |
| 50°-60°   | 5.5    | 0.7       |
| 60°-70°   | 3.3    | 0.4       |
| 70°-80°   | 2.5    | 0.3       |
| 80°-90°   | 0.6    | 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°    | 723.8  | 93.9      |
| 0°-40°    | 749.1  | 97.1      |
| 0°-60°    | 764.8  | 99.2      |
| 0°-90°    | 771.1  | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 771.1  | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | Flux |
|-----|------|------|
| 0°  | 2832 |      |
| 5°  | 2760 | 251  |
| 15° | 1438 | 380  |
| 25° | 165  | 93   |
| 35° | 37   | 25   |
| 45° | 12   | 10   |
| 55° | 6    | 5    |
| 65° | 3    | 3    |
| 75° | 2    | 3    |
| 85° | 1    | 1    |
| 90° | 0    |      |



TEST NUMBER: P432169

CATALOG NUMBER: LAM4B108R309027DE010x1MB

**CANDELA DISTRIBUTION (FULL):**

|       | 0°     |
|-------|--------|
| 0°    | 2831.9 |
| 2.5°  | 2812.9 |
| 5°    | 2759.5 |
| 7.5°  | 2632.2 |
| 10°   | 2365.3 |
| 12.5° | 1946.9 |
| 15°   | 1437.9 |
| 17.5° | 926.7  |
| 20°   | 512.7  |
| 22.5° | 273.5  |
| 25°   | 165.3  |
| 27.5° | 111.9  |
| 30°   | 77.5   |
| 32.5° | 52.7   |
| 35°   | 36.6   |
| 37.5° | 27.1   |
| 40°   | 21.2   |
| 42.5° | 16.1   |
| 45°   | 12.4   |
| 47.5° | 10.2   |
| 50°   | 8.0    |
| 52.5° | 7.3    |
| 55°   | 5.9    |
| 57.5° | 5.1    |
| 60°   | 4.4    |
| 62.5° | 3.7    |
| 65°   | 2.9    |
| 67.5° | 2.9    |
| 70°   | 2.9    |
| 72.5° | 2.9    |
| 75°   | 2.2    |
| 77.5° | 2.2    |
| 80°   | 1.5    |
| 82.5° | 0.7    |
| 85°   | 0.7    |
| 87.5° | 0.0    |
| 90°   | 0.0    |



Report Generated By E9808895 / USPTCWHP6082093







— 0°-180°







(END OF REPORT)