

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: P432332

Luminaire Tested: **LAM4B108R609730DE010x1MMS**

Issue Date: 11/23/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P432332  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2009-969-1)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 11/23/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: PORTFOLIO  
Catalog Number: LAM4B108R609730DE010x1MMS  
Description: PORTFOLIO 4INCH ADJUSTABLE MULTIPLE, 60 DEG TIR OPTIC  
Light Source: HIGH LUMEN LED 97CRI / 3000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 684.2 lumens  
Efficiency: N/A  
Efficacy: 60.0 lumens/watt  
Spacing Criteria (0/90/45): 0.96 / 0.96 / 0.89  
Luminous Opening: Circular (Dia: 0.17' x H: 0')  
CIE Type: Direct

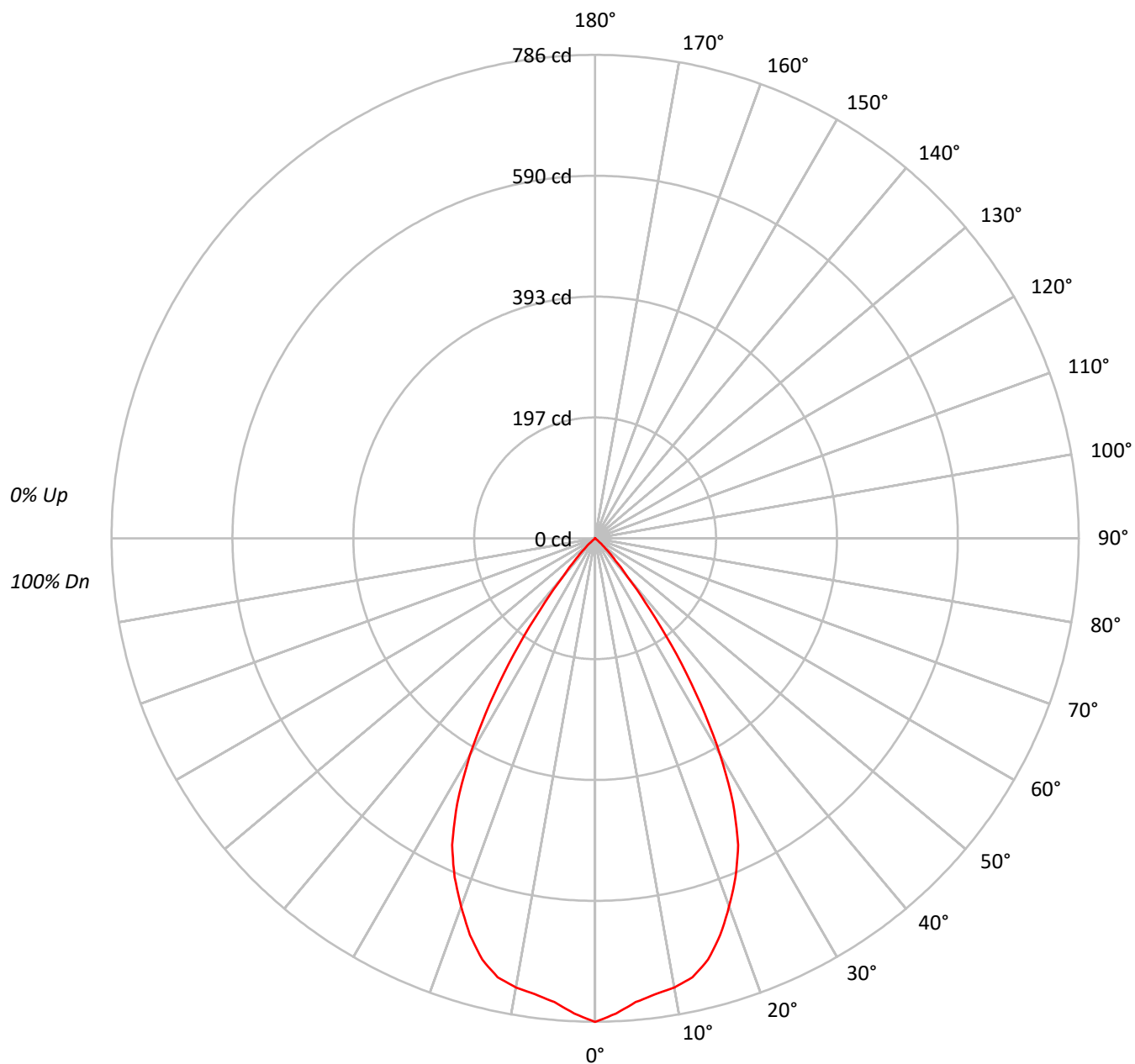
Input Watts (W): 11.4  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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 | 111 | 109 | 106 | 111 | 109 | 107 | 105 | 105 | 103 | 102 |  | 101 | 100 | 99  |  | 98  |
| 2   | 108 | 104 | 100 | 96  | 106 | 102 | 98  | 95  | 99  | 96  | 93  |  | 96  | 93  | 91  |  | 93  |
| 3   | 103 | 97  | 92  | 88  | 101 | 96  | 91  | 88  | 93  | 89  | 86  |  | 91  | 87  | 85  |  | 88  |
| 4   | 98  | 91  | 85  | 81  | 96  | 90  | 85  | 81  | 88  | 83  | 80  |  | 86  | 82  | 79  |  | 84  |
| 5   | 93  | 85  | 80  | 75  | 92  | 84  | 79  | 75  | 83  | 78  | 74  |  | 81  | 77  | 74  |  | 79  |
| 6   | 89  | 80  | 74  | 70  | 87  | 79  | 74  | 70  | 78  | 73  | 69  |  | 76  | 72  | 69  |  | 75  |
| 7   | 84  | 75  | 70  | 66  | 83  | 75  | 69  | 65  | 74  | 69  | 65  |  | 72  | 68  | 65  |  | 71  |
| 8   | 80  | 71  | 65  | 61  | 79  | 71  | 65  | 61  | 70  | 65  | 61  |  | 69  | 64  | 61  |  | 68  |
| 9   | 77  | 67  | 62  | 58  | 76  | 67  | 61  | 58  | 66  | 61  | 57  |  | 65  | 60  | 57  |  | 64  |
| 10  | 73  | 64  | 58  | 54  | 72  | 63  | 58  | 54  | 62  | 58  | 54  |  | 62  | 57  | 54  |  | 61  |

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

|     |        |
|-----|--------|
|     | 0°     |
| 0°  | 387994 |
| 5°  | 374965 |
| 10° | 371485 |
| 15° | 362299 |
| 20° | 334348 |
| 25° | 299411 |
| 30° | 231699 |
| 35° | 138771 |
| 40° | 53328  |
| 45° | 19467  |
| 50° | 768    |
| 55° | 602    |
| 60° | 691    |
| 65° | 350    |
| 70° | 433    |
| 75° | 572    |
| 80° | 852    |
| 85° | 0      |



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 71.9   | 10.5      |
| 10°-20°   | 197.3  | 28.8      |
| 20°-30°   | 246.2  | 36.0      |
| 30°-40°   | 143.4  | 21.0      |
| 40°-50°   | 23.9   | 3.5       |
| 50°-60°   | 0.7    | 0.1       |
| 60°-70°   | 0.4    | 0.1       |
| 70°-80°   | 0.3    | 0.0       |
| 80°-90°   | 0.1    | 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°    | 515.4  | 75.3      |
| 0°-40°    | 658.7  | 96.3      |
| 0°-60°    | 683.3  | 99.9      |
| 0°-90°    | 684.2  | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 684.2  | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°  | Flux |
|-----|-----|------|
| 0°  | 786 |      |
| 5°  | 757 | 72   |
| 15° | 709 | 197  |
| 25° | 550 | 246  |
| 35° | 230 | 143  |
| 45° | 28  | 24   |
| 55° | 1   | 1    |
| 65° | 0   | 0    |
| 75° | 0   | 0    |
| 85° | 0   | 0    |
| 90° | 0   |      |



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°    |
|-------|-------|
| 0°    | 786.4 |
| 2.5°  | 773.4 |
| 5°    | 757.1 |
| 7.5°  | 747.8 |
| 10°   | 741.5 |
| 12.5° | 731.2 |
| 15°   | 709.3 |
| 17.5° | 676.3 |
| 20°   | 636.8 |
| 22.5° | 596.5 |
| 25°   | 550.0 |
| 27.5° | 485.5 |
| 30°   | 406.7 |
| 32.5° | 318.5 |
| 35°   | 230.4 |
| 37.5° | 145.3 |
| 40°   | 82.8  |
| 42.5° | 48.5  |
| 45°   | 27.9  |
| 47.5° | 9.6   |
| 50°   | 1.0   |
| 52.5° | 0.7   |
| 55°   | 0.7   |
| 57.5° | 0.7   |
| 60°   | 0.7   |
| 62.5° | 0.7   |
| 65°   | 0.3   |
| 67.5° | 0.3   |
| 70°   | 0.3   |
| 72.5° | 0.3   |
| 75°   | 0.3   |
| 77.5° | 0.3   |
| 80°   | 0.3   |
| 82.5° | 0.3   |
| 85°   | 0.0   |
| 87.5° | 0.0   |
| 90°   | 0.0   |



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— 0°-180°







(END OF REPORT)