

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: P432374

Luminaire Tested: **LAM4B108R709050DE010x1MMS**

Issue Date: 11/23/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P432374  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2007-857-14)  
Test Lab: INNOVATION CENTER (G1)  
Issue Date: 11/23/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: PORTFOLIO  
Catalog Number: LAM4B108R709050DE010x1MMS  
Description: PORTFOLIO 4INCH ADJUSTABLE MULTIPLE, 70 DEG TIR OPTIC  
Light Source: HIGH LUMEN LED 90CRI / 5000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 889.9 lumens  
Efficiency: N/A  
Efficacy: 78.1 lumens/watt  
Spacing Criteria (0/90/45): 1.1 / 1.1 / 1.09  
Luminous Opening: Circular (Dia: 0.17' x H: 0')  
CIE Type: Direct

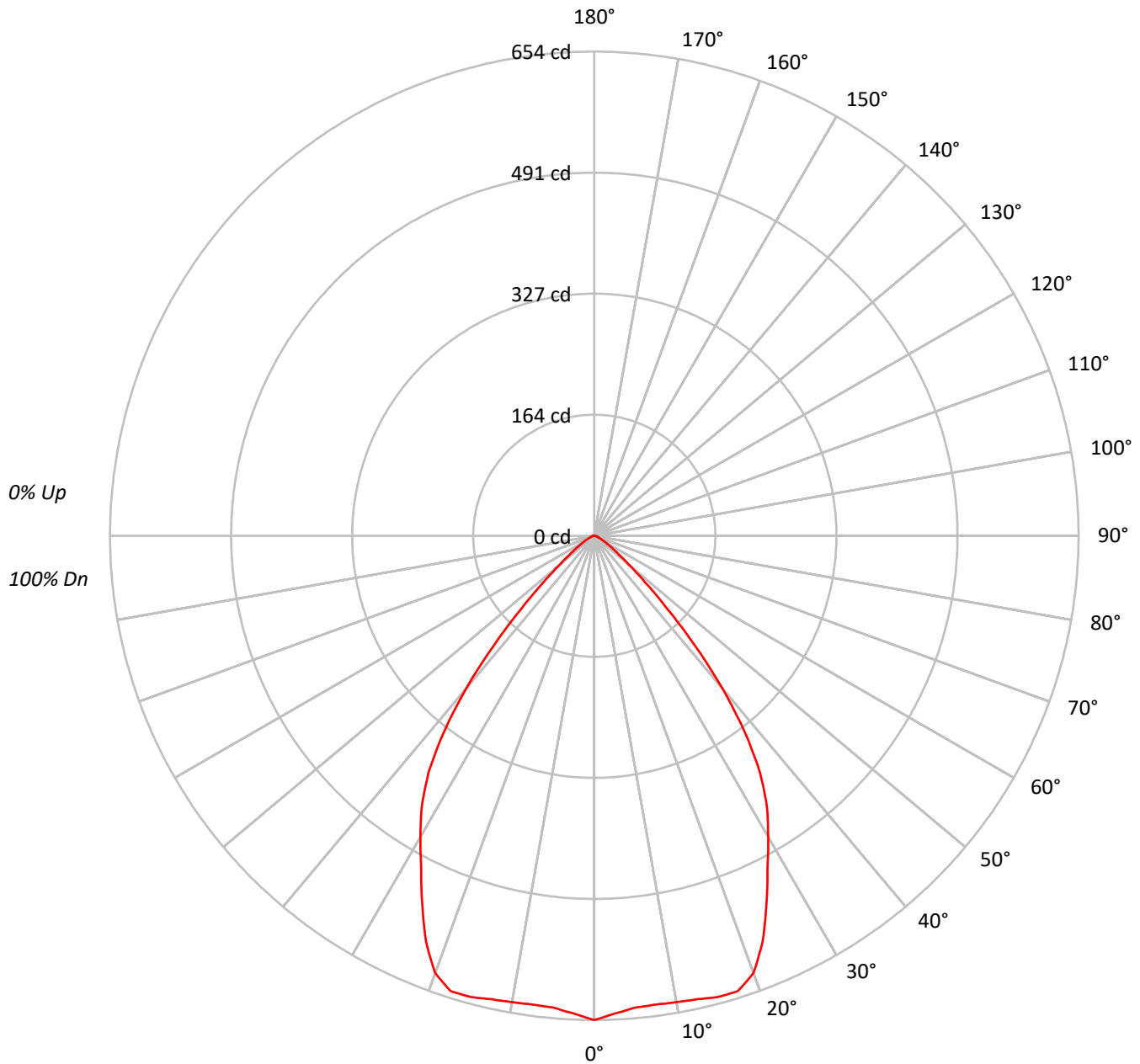
Input Watts (W): 11.4  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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   | 113 | 110 | 107 | 104 | 110 | 107 | 105 | 103 | 103 | 101 | 100 |  | 100 | 98  | 97  |  | 96  |
| 2   | 106 | 101 | 96  | 92  | 104 | 99  | 95  | 91  | 96  | 92  | 89  |  | 93  | 90  | 87  |  | 90  |
| 3   | 100 | 93  | 87  | 83  | 98  | 91  | 86  | 82  | 89  | 84  | 81  |  | 86  | 82  | 79  |  | 84  |
| 4   | 94  | 85  | 79  | 74  | 92  | 84  | 78  | 74  | 82  | 77  | 73  |  | 80  | 76  | 72  |  | 78  |
| 5   | 88  | 79  | 72  | 68  | 87  | 78  | 72  | 67  | 76  | 71  | 67  |  | 74  | 70  | 66  |  | 73  |
| 6   | 83  | 73  | 66  | 62  | 82  | 72  | 66  | 61  | 71  | 65  | 61  |  | 69  | 64  | 60  |  | 68  |
| 7   | 78  | 68  | 61  | 56  | 77  | 67  | 61  | 56  | 66  | 60  | 56  |  | 65  | 59  | 56  |  | 63  |
| 8   | 74  | 63  | 57  | 52  | 73  | 63  | 56  | 52  | 62  | 56  | 52  |  | 60  | 55  | 51  |  | 59  |
| 9   | 70  | 59  | 53  | 48  | 69  | 59  | 52  | 48  | 58  | 52  | 48  |  | 57  | 51  | 48  |  | 56  |
| 10  | 66  | 55  | 49  | 45  | 65  | 55  | 49  | 44  | 54  | 48  | 44  |  | 53  | 48  | 44  |  | 52  |

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

|     |        |
|-----|--------|
|     | 0°     |
| 0°  | 322720 |
| 5°  | 316721 |
| 10° | 320384 |
| 15° | 329456 |
| 20° | 329990 |
| 25° | 299411 |
| 30° | 267534 |
| 35° | 234959 |
| 40° | 172995 |
| 45° | 96917  |
| 50° | 47666  |
| 55° | 26752  |
| 60° | 16183  |
| 65° | 10624  |
| 70° | 7934   |
| 75° | 7053   |
| 80° | 5114   |
| 85° | 5095   |



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 61.1   | 6.9       |
| 10°-20°   | 181.7  | 20.4      |
| 20°-30°   | 252.2  | 28.3      |
| 30°-40°   | 237.3  | 26.7      |
| 40°-50°   | 113.3  | 12.7      |
| 50°-60°   | 29.9   | 3.4       |
| 60°-70°   | 9.4    | 1.1       |
| 70°-80°   | 3.9    | 0.4       |
| 80°-90°   | 1.0    | 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°    | 495.1  | 55.6      |
| 0°-40°    | 732.4  | 82.3      |
| 0°-60°    | 875.6  | 98.4      |
| 0°-90°    | 889.9  | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 889.9  | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°  | Flux |
|-----|-----|------|
| 0°  | 654 |      |
| 5°  | 640 | 61   |
| 15° | 645 | 182  |
| 25° | 550 | 252  |
| 35° | 390 | 237  |
| 45° | 139 | 113  |
| 55° | 31  | 30   |
| 65° | 9   | 9    |
| 75° | 4   | 4    |
| 85° | 1   | 1    |
| 90° | 0   |      |



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°    |
|-------|-------|
| 0°    | 654.1 |
| 2.5°  | 645.9 |
| 5°    | 639.5 |
| 7.5°  | 638.6 |
| 10°   | 639.5 |
| 12.5° | 641.3 |
| 15°   | 645.0 |
| 17.5° | 645.0 |
| 20°   | 628.5 |
| 22.5° | 593.8 |
| 25°   | 550.0 |
| 27.5° | 506.1 |
| 30°   | 469.6 |
| 32.5° | 433.9 |
| 35°   | 390.1 |
| 37.5° | 333.4 |
| 40°   | 268.6 |
| 42.5° | 200.1 |
| 45°   | 138.9 |
| 47.5° | 92.3  |
| 50°   | 62.1  |
| 52.5° | 42.9  |
| 55°   | 31.1  |
| 57.5° | 21.9  |
| 60°   | 16.4  |
| 62.5° | 11.9  |
| 65°   | 9.1   |
| 67.5° | 6.4   |
| 70°   | 5.5   |
| 72.5° | 4.6   |
| 75°   | 3.7   |
| 77.5° | 2.7   |
| 80°   | 1.8   |
| 82.5° | 1.8   |
| 85°   | 0.9   |
| 87.5° | 0.0   |
| 90°   | 0.0   |



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— 0°-180°







(END OF REPORT)