

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: P432987

Luminaire Tested: **LAM4B308R709027DE01021MW**

Issue Date: 11/23/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P432987  
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: LAM4B308R709027DE01021MW  
Description: PORTFOLIO 4INCH ADJUSTABLE MULTIPLE, 70 DEG TIR OPTIC  
Light Source: HIGH LUMEN LED 90CRI / 2700K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2265.1 lumens  
Efficiency: N/A  
Efficacy: 71.0 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

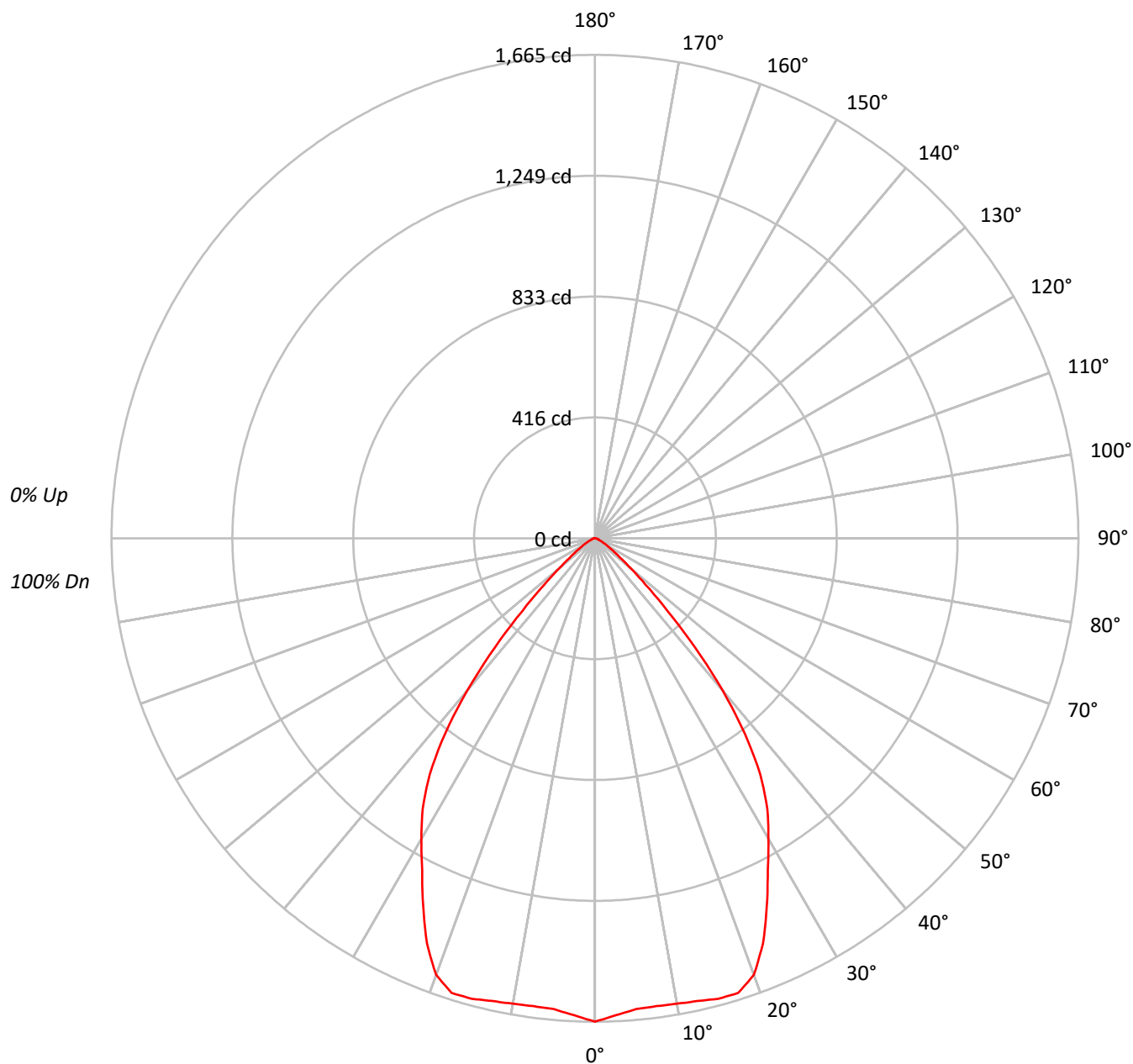
Input Watts (W): 31.9  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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  | 52  | 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°  | 821428 |
| 5°  | 806142 |
| 10° | 815463 |
| 15° | 838554 |
| 20° | 839965 |
| 25° | 762083 |
| 30° | 680912 |
| 35° | 598029 |
| 40° | 440280 |
| 45° | 246653 |
| 50° | 121352 |
| 55° | 68040  |
| 60° | 41345  |
| 65° | 27201  |
| 70° | 20196  |
| 75° | 17728  |
| 80° | 13354  |
| 85° | 13020  |



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 155.6  | 6.9       |
| 10°-20°   | 462.6  | 20.4      |
| 20°-30°   | 642.0  | 28.3      |
| 30°-40°   | 604.0  | 26.7      |
| 40°-50°   | 288.3  | 12.7      |
| 50°-60°   | 76.2   | 3.4       |
| 60°-70°   | 24.1   | 1.1       |
| 70°-80°   | 9.8    | 0.4       |
| 80°-90°   | 2.5    | 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°    | 1260.2 | 55.6      |
| 0°-40°    | 1864.1 | 82.3      |
| 0°-60°    | 2228.7 | 98.4      |
| 0°-90°    | 2265.1 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 2265.1 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | Flux |
|-----|------|------|
| 0°  | 1665 |      |
| 5°  | 1628 | 156  |
| 15° | 1642 | 463  |
| 25° | 1400 | 642  |
| 35° | 993  | 604  |
| 45° | 354  | 288  |
| 55° | 79   | 76   |
| 65° | 23   | 24   |
| 75° | 9    | 10   |
| 85° | 2    | 3    |
| 90° | 0    |      |



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     |
|-------|--------|
| 0°    | 1664.9 |
| 2.5°  | 1644.0 |
| 5°    | 1627.7 |
| 7.5°  | 1625.4 |
| 10°   | 1627.7 |
| 12.5° | 1632.4 |
| 15°   | 1641.7 |
| 17.5° | 1641.7 |
| 20°   | 1599.8 |
| 22.5° | 1511.5 |
| 25°   | 1399.9 |
| 27.5° | 1288.2 |
| 30°   | 1195.2 |
| 32.5° | 1104.5 |
| 35°   | 992.9  |
| 37.5° | 848.7  |
| 40°   | 683.6  |
| 42.5° | 509.2  |
| 45°   | 353.5  |
| 47.5° | 234.9  |
| 50°   | 158.1  |
| 52.5° | 109.3  |
| 55°   | 79.1   |
| 57.5° | 55.8   |
| 60°   | 41.9   |
| 62.5° | 30.2   |
| 65°   | 23.3   |
| 67.5° | 16.3   |
| 70°   | 14.0   |
| 72.5° | 11.6   |
| 75°   | 9.3    |
| 77.5° | 7.0    |
| 80°   | 4.7    |
| 82.5° | 4.7    |
| 85°   | 2.3    |
| 87.5° | 0.0    |
| 90°   | 0.0    |



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— 0°-180°







(END OF REPORT)