

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: P429974

Luminaire Tested: **LAM4B112R559050DE010x1MMS**

Issue Date: 11/23/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P429974  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2007-898-142)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 11/23/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: PORTFOLIO  
Catalog Number: LAM4B112R559050DE010x1MMS  
Description: PORTFOLIO 4INCH ADJUSTABLE MULTIPLE, 55 DEG TIR OPTIC  
Light Source: HIGH LUMEN LED 90CRI / 5000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1262.7 lumens  
Efficiency: N/A  
Efficacy: 88.3 lumens/watt  
Spacing Criteria (0/90/45): 0.92 / 0.92 / 0.81  
Luminous Opening: Circular (Dia: 0.17' x H: 0')  
CIE Type: Direct

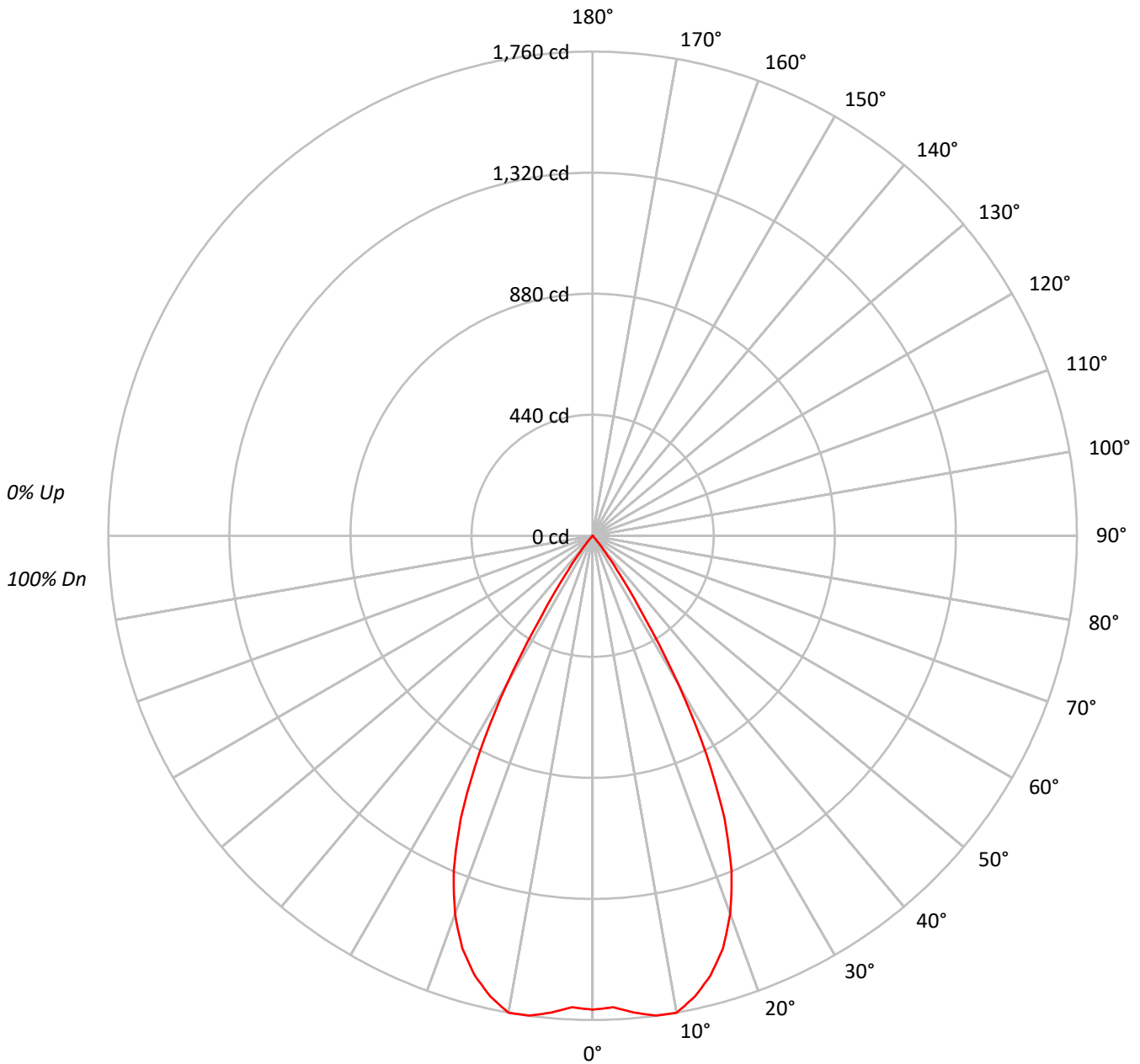
Input Watts (W): 14.3  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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  |     | 0  |    |
| RW  | 70  | 50  | 30  | 10  | 70  | 50  | 30  | 10  | 50  | 30  | 10  | 50  | 30  | 10  | 50  | 30  | 10  | 50  | 30 | 10 |
| RCR |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |    |    |
| 0   | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 | 106 | 106 | 106 | 102 | 102 | 102 | 100 |    |    |
| 1   | 114 | 112 | 109 | 107 | 112 | 110 | 108 | 106 | 105 | 104 | 102 | 102 | 101 | 99  | 98  | 97  | 97  | 95  |    |    |
| 2   | 109 | 105 | 101 | 98  | 107 | 103 | 100 | 97  | 100 | 97  | 95  | 97  | 95  | 93  | 94  | 93  | 91  | 90  |    |    |
| 3   | 105 | 99  | 95  | 91  | 103 | 98  | 94  | 90  | 95  | 92  | 89  | 93  | 90  | 88  | 91  | 88  | 86  | 85  |    |    |
| 4   | 100 | 94  | 89  | 85  | 99  | 92  | 88  | 85  | 90  | 87  | 84  | 88  | 85  | 83  | 87  | 84  | 82  | 80  |    |    |
| 5   | 96  | 89  | 83  | 80  | 94  | 88  | 83  | 79  | 86  | 82  | 79  | 84  | 81  | 78  | 83  | 80  | 77  | 76  |    |    |
| 6   | 92  | 84  | 79  | 75  | 91  | 83  | 78  | 75  | 82  | 78  | 74  | 81  | 77  | 74  | 79  | 76  | 73  | 72  |    |    |
| 7   | 88  | 80  | 75  | 71  | 87  | 79  | 74  | 71  | 78  | 74  | 70  | 77  | 73  | 70  | 76  | 72  | 70  | 68  |    |    |
| 8   | 84  | 76  | 71  | 67  | 83  | 75  | 70  | 67  | 74  | 70  | 67  | 73  | 69  | 66  | 73  | 69  | 66  | 65  |    |    |
| 9   | 81  | 72  | 67  | 64  | 80  | 72  | 67  | 63  | 71  | 66  | 63  | 70  | 66  | 63  | 69  | 66  | 63  | 62  |    |    |
| 10  | 78  | 69  | 64  | 60  | 77  | 69  | 64  | 60  | 68  | 63  | 60  | 67  | 63  | 60  | 66  | 63  | 60  | 59  |    |    |

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

|     |        |
|-----|--------|
|     | 0°     |
| 0°  | 849846 |
| 5°  | 861760 |
| 10° | 881944 |
| 15° | 845041 |
| 20° | 767771 |
| 25° | 617005 |
| 30° | 355211 |
| 35° | 103054 |
| 40° | 15715  |
| 45° | 0      |
| 50° | 0      |
| 55° | 0      |
| 60° | 0      |
| 65° | 0      |
| 70° | 0      |
| 75° | 0      |
| 80° | 0      |
| 85° | 0      |



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 166.9  | 13.2      |
| 10°-20°   | 460.3  | 36.5      |
| 20°-30°   | 496.8  | 39.3      |
| 30°-40°   | 135.9  | 10.8      |
| 40°-50°   | 2.9    | 0.2       |
| 50°-60°   | 0.0    | 0.0       |
| 60°-70°   | 0.0    | 0.0       |
| 70°-80°   | 0.0    | 0.0       |
| 80°-90°   | 0.0    | 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°    | 1124.0 | 89.0      |
| 0°-40°    | 1259.9 | 99.8      |
| 0°-60°    | 1262.7 | 100.0     |
| 0°-90°    | 1262.7 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 1262.7 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | Flux |
|-----|------|------|
| 0°  | 1722 |      |
| 5°  | 1740 | 167  |
| 15° | 1654 | 460  |
| 25° | 1133 | 497  |
| 35° | 171  | 136  |
| 45° | 0    | 3    |
| 55° | 0    | 0    |
| 65° | 0    | 0    |
| 75° | 0    | 0    |
| 85° | 0    | 0    |
| 90° | 0    |      |



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     |
|-------|--------|
| 0°    | 1722.5 |
| 2.5°  | 1715.5 |
| 5°    | 1740.0 |
| 7.5°  | 1759.2 |
| 10°   | 1760.4 |
| 12.5° | 1715.5 |
| 15°   | 1654.4 |
| 17.5° | 1573.5 |
| 20°   | 1462.3 |
| 22.5° | 1319.1 |
| 25°   | 1133.4 |
| 27.5° | 896.5  |
| 30°   | 623.5  |
| 32.5° | 341.7  |
| 35°   | 171.1  |
| 37.5° | 73.3   |
| 40°   | 24.4   |
| 42.5° | 3.5    |
| 45°   | 0.0    |
| 47.5° | 0.0    |
| 50°   | 0.0    |
| 52.5° | 0.0    |
| 55°   | 0.0    |
| 57.5° | 0.0    |
| 60°   | 0.0    |
| 62.5° | 0.0    |
| 65°   | 0.0    |
| 67.5° | 0.0    |
| 70°   | 0.0    |
| 72.5° | 0.0    |
| 75°   | 0.0    |
| 77.5° | 0.0    |
| 80°   | 0.0    |
| 82.5° | 0.0    |
| 85°   | 0.0    |
| 87.5° | 0.0    |
| 90°   | 0.0    |



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— 0°-180°







(END OF REPORT)