

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: P433572

Luminaire Tested: **LAMR4B108R609040DE010x1MW**

Issue Date: 11/23/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P433572  
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: LAMR4B108R609040DE010x1MW  
Description: PORTFOLIO 4INCH ADJUSTABLE MULTIPLE, 60 DEG TIR OPTIC  
Light Source: HIGH LUMEN LED 90CRI / 4000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 824.7 lumens  
Efficiency: N/A  
Efficacy: 72.3 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

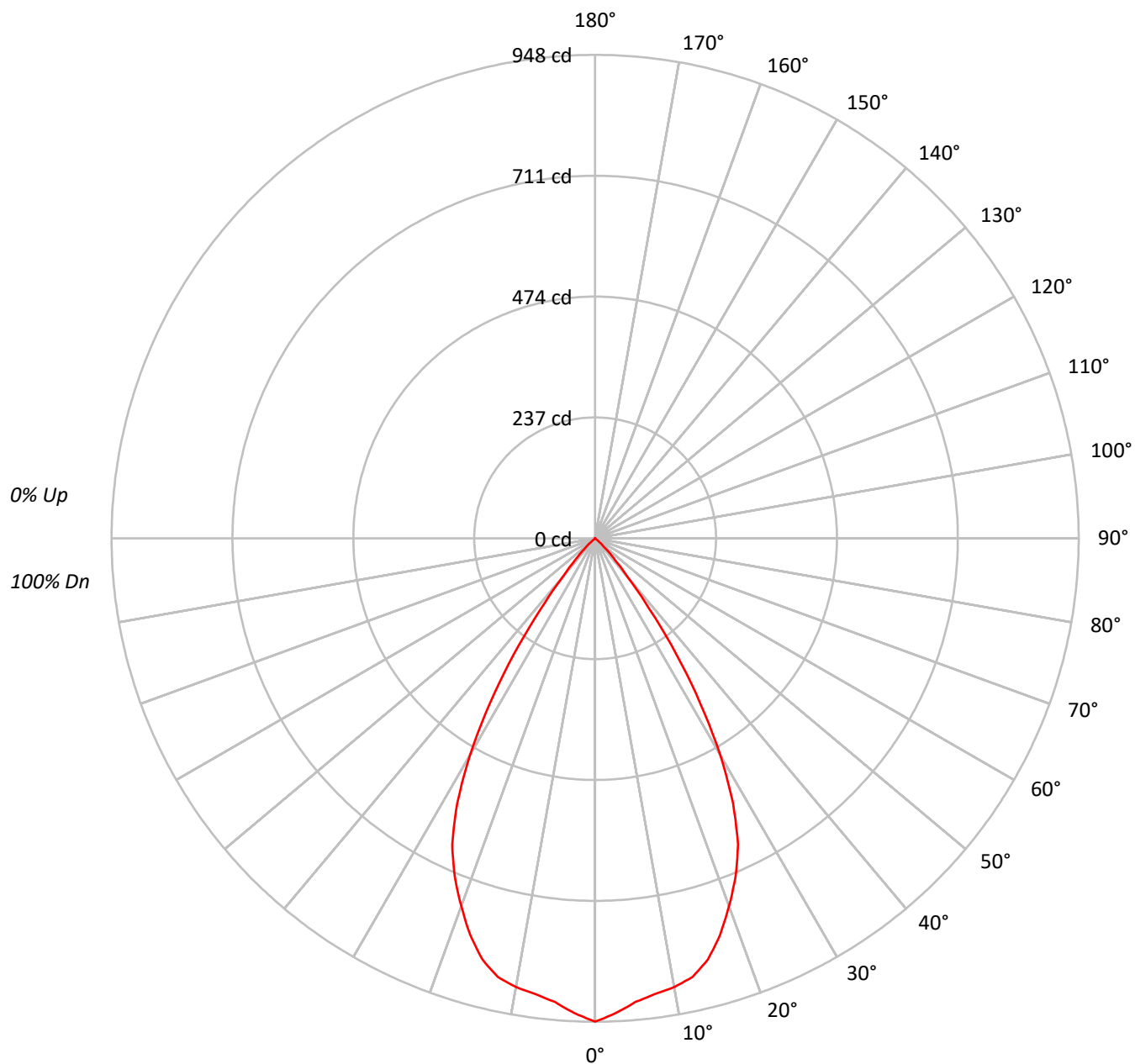
Input Watts (W): 11.4  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°  | 467625 |
| 5°  | 451929 |
| 10° | 447735 |
| 15° | 436618 |
| 20° | 402971 |
| 25° | 360872 |
| 30° | 279213 |
| 35° | 167260 |
| 40° | 64277  |
| 45° | 23514  |
| 50° | 921    |
| 55° | 688    |
| 60° | 789    |
| 65° | 467    |
| 70° | 577    |
| 75° | 763    |
| 80° | 1137   |
| 85° | 0      |



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 86.7   | 10.5      |
| 10°-20°   | 237.8  | 28.8      |
| 20°-30°   | 296.7  | 36.0      |
| 30°-40°   | 172.8  | 21.0      |
| 40°-50°   | 28.8   | 3.5       |
| 50°-60°   | 0.8    | 0.1       |
| 60°-70°   | 0.5    | 0.1       |
| 70°-80°   | 0.4    | 0.1       |
| 80°-90°   | 0.2    | 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°    | 621.1  | 75.3      |
| 0°-40°    | 793.9  | 96.3      |
| 0°-60°    | 823.6  | 99.9      |
| 0°-90°    | 824.7  | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 824.7  | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°  | Flux |
|-----|-----|------|
| 0°  | 948 |      |
| 5°  | 912 | 87   |
| 15° | 855 | 238  |
| 25° | 663 | 297  |
| 35° | 278 | 173  |
| 45° | 34  | 29   |
| 55° | 1   | 1    |
| 65° | 0   | 1    |
| 75° | 0   | 0    |
| 85° | 0   | 0    |
| 90° | 0   |      |



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°    |
|-------|-------|
| 0°    | 947.8 |
| 2.5°  | 932.2 |
| 5°    | 912.5 |
| 7.5°  | 901.3 |
| 10°   | 893.7 |
| 12.5° | 881.3 |
| 15°   | 854.8 |
| 17.5° | 815.1 |
| 20°   | 767.5 |
| 22.5° | 719.0 |
| 25°   | 662.9 |
| 27.5° | 585.1 |
| 30°   | 490.1 |
| 32.5° | 383.9 |
| 35°   | 277.7 |
| 37.5° | 175.1 |
| 40°   | 99.8  |
| 42.5° | 58.5  |
| 45°   | 33.7  |
| 47.5° | 11.6  |
| 50°   | 1.2   |
| 52.5° | 0.8   |
| 55°   | 0.8   |
| 57.5° | 0.8   |
| 60°   | 0.8   |
| 62.5° | 0.8   |
| 65°   | 0.4   |
| 67.5° | 0.4   |
| 70°   | 0.4   |
| 72.5° | 0.4   |
| 75°   | 0.4   |
| 77.5° | 0.4   |
| 80°   | 0.4   |
| 82.5° | 0.4   |
| 85°   | 0.0   |
| 87.5° | 0.0   |
| 90°   | 0.0   |



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— 0°-180°







(END OF REPORT)