

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: P434310

Luminaire Tested: **LAMR4B408R209030DE01021MW**

Issue Date: 11/23/2020

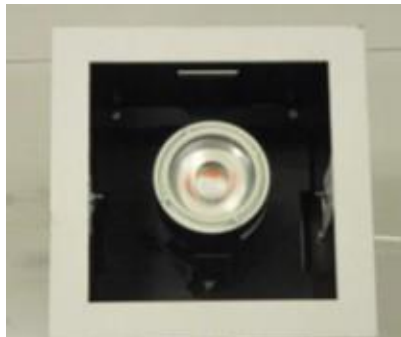
**Test Information**

Test Method: LM-41-14  
Report Number: P434310  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2007-857-3)  
Test Lab: INNOVATION CENTER (G1)  
Issue Date: 11/23/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: PORTFOLIO  
Catalog Number: LAMR4B408R209030DE01021MW  
Description: PORTFOLIO 4INCH ADJUSTABLE MULTIPLE, 20 DEG TIR OPTIC  
Light Source: HIGH LUMEN LED 90CRI / 3000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3193.9 lumens  
Efficiency: N/A  
Efficacy: 77.5 lumens/watt  
Spacing Criteria (0/90/45): 0.34 / 0.34 / 0.33  
Luminous Opening: Circular (Dia: 0.17' x H: 0')  
CIE Type: Direct

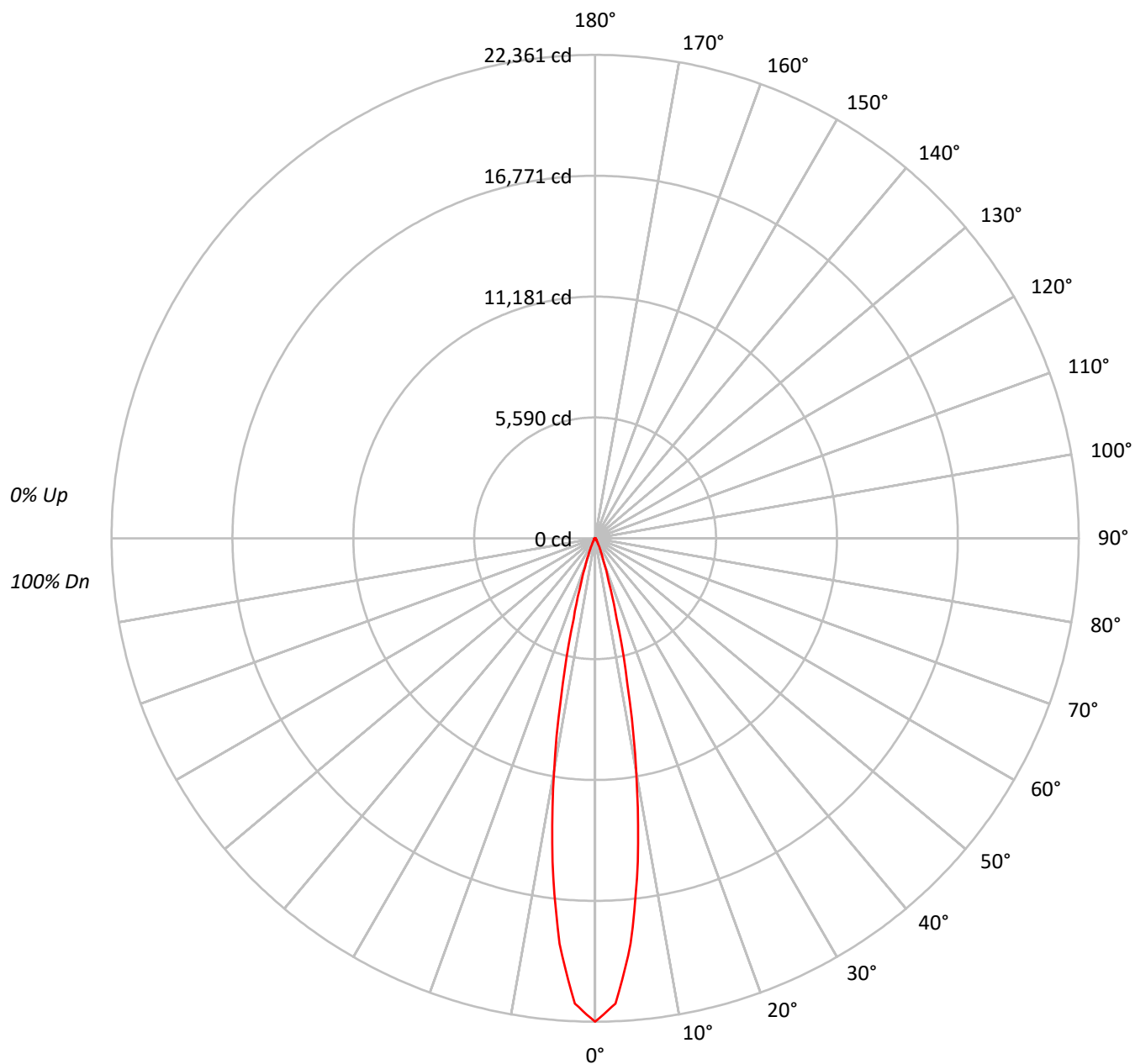
Input Watts (W): 41.2  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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  |  |  | 0   |
| RCR |     |     |     |     |  |     |     |     |     |  |     |     |     |  |  |     |     |     |  |  |     |
| 0   | 119 | 119 | 119 | 119 |  | 116 | 116 | 116 | 116 |  | 111 | 111 | 111 |  |  | 106 | 106 | 106 |  |  | 100 |
| 1   | 115 | 113 | 111 | 110 |  | 113 | 111 | 109 | 108 |  | 107 | 106 | 105 |  |  | 103 | 102 | 102 |  |  | 97  |
| 2   | 112 | 108 | 105 | 103 |  | 110 | 106 | 104 | 102 |  | 103 | 101 | 100 |  |  | 101 | 99  | 97  |  |  | 94  |
| 3   | 108 | 104 | 100 | 98  |  | 107 | 103 | 100 | 97  |  | 100 | 98  | 96  |  |  | 98  | 96  | 94  |  |  | 91  |
| 4   | 105 | 100 | 97  | 94  |  | 104 | 99  | 96  | 93  |  | 97  | 94  | 92  |  |  | 96  | 93  | 91  |  |  | 89  |
| 5   | 103 | 97  | 93  | 90  |  | 101 | 96  | 93  | 90  |  | 95  | 92  | 89  |  |  | 93  | 91  | 89  |  |  | 87  |
| 6   | 100 | 94  | 90  | 88  |  | 99  | 94  | 90  | 87  |  | 92  | 89  | 87  |  |  | 91  | 88  | 86  |  |  | 85  |
| 7   | 98  | 92  | 88  | 85  |  | 97  | 91  | 88  | 85  |  | 90  | 87  | 85  |  |  | 89  | 86  | 84  |  |  | 83  |
| 8   | 96  | 90  | 86  | 83  |  | 95  | 89  | 86  | 83  |  | 88  | 85  | 83  |  |  | 87  | 85  | 82  |  |  | 81  |
| 9   | 94  | 88  | 84  | 81  |  | 93  | 87  | 84  | 81  |  | 86  | 83  | 81  |  |  | 86  | 83  | 81  |  |  | 80  |
| 10  | 92  | 86  | 82  | 80  |  | 91  | 85  | 82  | 80  |  | 85  | 82  | 79  |  |  | 84  | 81  | 79  |  |  | 78  |

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

|     |          |
|-----|----------|
|     | 0°       |
| 0°  | 11032608 |
| 5°  | 9325379  |
| 10° | 5477382  |
| 15° | 1961207  |
| 20° | 648901   |
| 25° | 258310   |
| 30° | 123455   |
| 35° | 70590    |
| 40° | 50945    |
| 45° | 42911    |
| 50° | 49431    |
| 55° | 40342    |
| 60° | 20229    |
| 65° | 17045    |
| 70° | 21061    |
| 75° | 22303    |
| 80° | 16763    |
| 85° | 16417    |



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 1541.8 | 48.3      |
| 10°-20°   | 1202.3 | 37.6      |
| 20°-30°   | 249.6  | 7.8       |
| 30°-40°   | 78.7   | 2.5       |
| 40°-50°   | 50.6   | 1.6       |
| 50°-60°   | 40.6   | 1.3       |
| 60°-70°   | 15.9   | 0.5       |
| 70°-80°   | 12.0   | 0.4       |
| 80°-90°   | 2.4    | 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°    | 2993.7 | 93.7      |
| 0°-40°    | 3072.4 | 96.2      |
| 0°-60°    | 3163.6 | 99.1      |
| 0°-90°    | 3193.9 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 3193.9 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°    | Flux |
|-----|-------|------|
| 0°  | 22361 |      |
| 5°  | 18829 | ###  |
| 15° | 3840  | 1202 |
| 25° | 474   | 250  |
| 35° | 117   | 79   |
| 45° | 62    | 51   |
| 55° | 47    | 41   |
| 65° | 15    | 16   |
| 75° | 12    | 12   |
| 85° | 3     | 2    |
| 90° | 0     |      |



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**CANDELA DISTRIBUTION (FULL):**

| 0°    |         |
|-------|---------|
| 0°    | 22361.3 |
| 2.5°  | 21541.2 |
| 5°    | 18829.1 |
| 7.5°  | 15086.2 |
| 10°   | 10933.1 |
| 12.5° | 6897.3  |
| 15°   | 3839.6  |
| 17.5° | 2111.7  |
| 20°   | 1235.9  |
| 22.5° | 755.6   |
| 25°   | 474.5   |
| 27.5° | 313.4   |
| 30°   | 216.7   |
| 32.5° | 152.3   |
| 35°   | 117.2   |
| 37.5° | 93.7    |
| 40°   | 79.1    |
| 42.5° | 67.4    |
| 45°   | 61.5    |
| 47.5° | 61.5    |
| 50°   | 64.4    |
| 52.5° | 61.5    |
| 55°   | 46.9    |
| 57.5° | 32.2    |
| 60°   | 20.5    |
| 62.5° | 17.6    |
| 65°   | 14.6    |
| 67.5° | 14.6    |
| 70°   | 14.6    |
| 72.5° | 14.6    |
| 75°   | 11.7    |
| 77.5° | 8.8     |
| 80°   | 5.9     |
| 82.5° | 2.9     |
| 85°   | 2.9     |
| 87.5° | 0.0     |
| 90°   | 0.0     |



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— 0°-180°







(END OF REPORT)