

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: P431766

Luminaire Tested: **LAMR4B312R709030DE01021MW**

Issue Date: 11/23/2020

Test Information

Test Method: LM-41-14
Report Number: P431766
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: LAMR4B312R709030DE01021MW
Description: PORTFOLIO 4INCH ADJUSTABLE MULTIPLE, 70 DEG TIR OPTIC
Light Source: HIGH LUMEN LED 90CRI / 3000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3439.0 lumens
Efficiency: N/A
Efficacy: 84.1 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

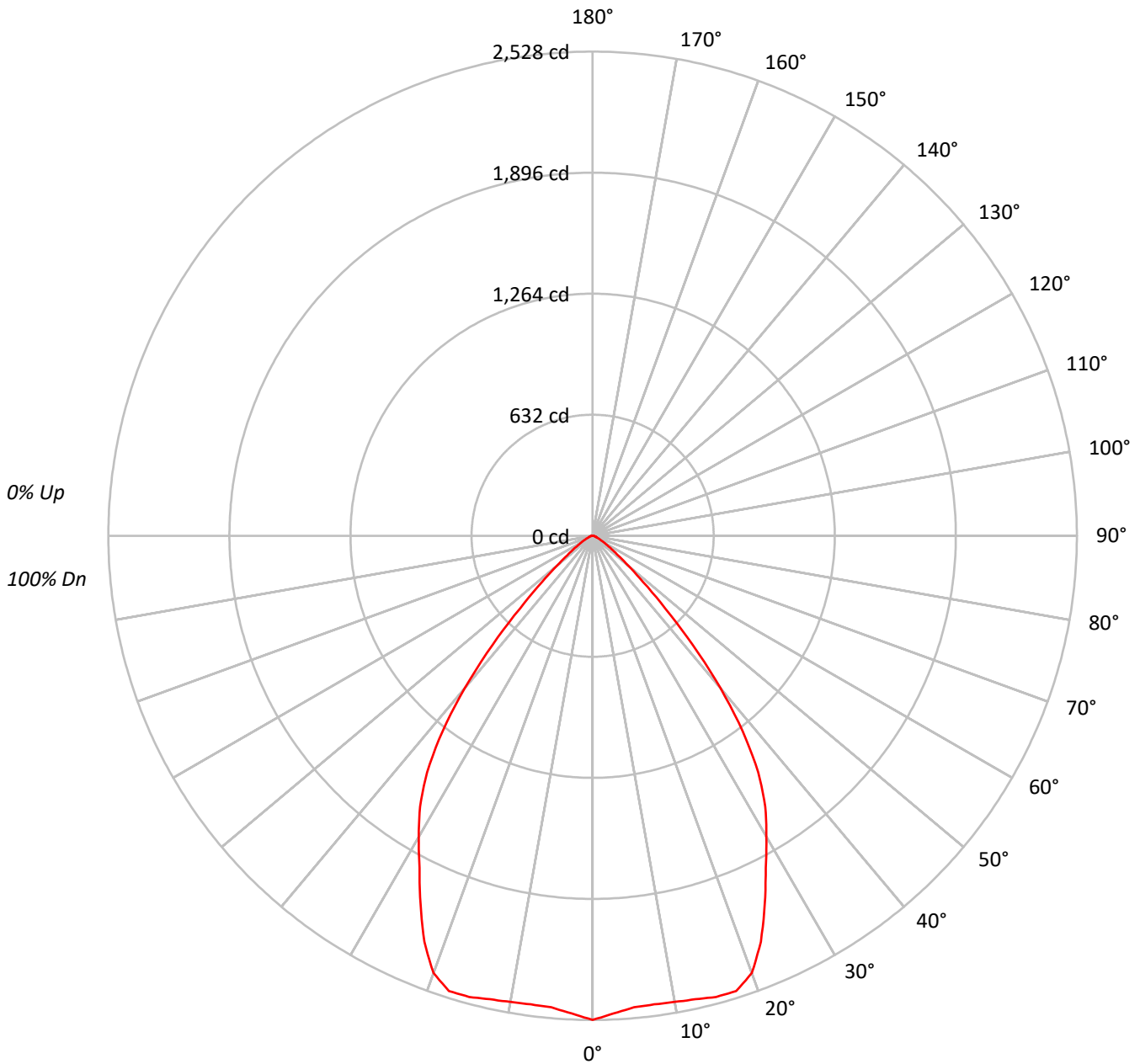
Input Watts (W): 40.9
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|----|---|-----|--|--|--|--|--|----|--|--|--|--|--|--|--|--|---|
| RF | 20 | | | | | | | | | 20 | | | | | | | | | 20 | | | | | | | | | 20 | | | | | | | | | |
| RC | 80 | | | | | | | | | 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 | 0 | | | | | | | | | | | | | | | | |
| RCR | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 0 | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 | 106 | 106 | 106 | 102 | 102 | 102 | 100 | | | | 100 | | | | | | | | | | | | | | | |
| 1 | 113 | 110 | 107 | 104 | 110 | 107 | 105 | 103 | 103 | 101 | 100 | 100 | 98 | 97 | 96 | 95 | 94 | 92 | | | | 92 | | | | | | | | | | | | | | | |
| 2 | 106 | 101 | 96 | 92 | 104 | 99 | 95 | 91 | 96 | 92 | 89 | 93 | 90 | 87 | 90 | 88 | 86 | 84 | | | | 84 | | | | | | | | | | | | | | | |
| 3 | 100 | 93 | 87 | 83 | 98 | 91 | 86 | 82 | 89 | 84 | 81 | 86 | 82 | 79 | 84 | 81 | 78 | 76 | | | | 76 | | | | | | | | | | | | | | | |
| 4 | 94 | 85 | 79 | 74 | 92 | 84 | 78 | 74 | 82 | 77 | 73 | 80 | 76 | 72 | 78 | 74 | 71 | 70 | | | | 70 | | | | | | | | | | | | | | | |
| 5 | 88 | 79 | 72 | 68 | 87 | 78 | 72 | 67 | 76 | 71 | 67 | 74 | 70 | 66 | 73 | 69 | 65 | 64 | | | | 64 | | | | | | | | | | | | | | | |
| 6 | 83 | 73 | 66 | 62 | 82 | 72 | 66 | 61 | 71 | 65 | 61 | 69 | 64 | 60 | 68 | 64 | 60 | 58 | | | | 58 | | | | | | | | | | | | | | | |
| 7 | 78 | 68 | 61 | 56 | 77 | 67 | 61 | 56 | 66 | 60 | 56 | 65 | 59 | 56 | 63 | 59 | 55 | 54 | | | | 54 | | | | | | | | | | | | | | | |
| 8 | 74 | 63 | 57 | 52 | 73 | 63 | 56 | 52 | 62 | 56 | 52 | 60 | 55 | 51 | 59 | 55 | 51 | 50 | | | | 50 | | | | | | | | | | | | | | | |
| 9 | 70 | 59 | 53 | 48 | 69 | 59 | 52 | 48 | 58 | 52 | 48 | 57 | 51 | 48 | 56 | 51 | 47 | 46 | | | | 46 | | | | | | | | | | | | | | | |
| 10 | 66 | 55 | 49 | 45 | 65 | 55 | 49 | 44 | 54 | 48 | 44 | 53 | 48 | 44 | 52 | 48 | 44 | 43 | | | | 43 | | | | | | | | | | | | | | | |

AVERAGE LUMINANCE (cd/sqm):

| | |
|-----|---------|
| | 0° |
| 0° | 1247165 |
| 5° | 1223946 |
| 10° | 1238098 |
| 15° | 1273129 |
| 20° | 1275331 |
| 25° | 1157034 |
| 30° | 1033845 |
| 35° | 907975 |
| 40° | 668536 |
| 45° | 374409 |
| 50° | 184292 |
| 55° | 103222 |
| 60° | 62659 |
| 65° | 41210 |
| 70° | 30582 |
| 75° | 26878 |
| 80° | 20173 |
| 85° | 19813 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 236.2 | 6.9 |
| 10°-20° | 702.3 | 20.4 |
| 20°-30° | 974.7 | 28.3 |
| 30°-40° | 917.0 | 26.7 |
| 40°-50° | 437.8 | 12.7 |
| 50°-60° | 115.7 | 3.4 |
| 60°-70° | 36.5 | 1.1 |
| 70°-80° | 14.9 | 0.4 |
| 80°-90° | 3.8 | 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° | 1913.3 | 55.6 |
| 0°-40° | 2830.3 | 82.3 |
| 0°-60° | 3383.7 | 98.4 |
| 0°-90° | 3439.0 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 3439.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | Flux |
|-----|------|------|
| 0° | 2528 | |
| 5° | 2471 | 236 |
| 15° | 2492 | 702 |
| 25° | 2125 | 975 |
| 35° | 1508 | 917 |
| 45° | 537 | 438 |
| 55° | 120 | 116 |
| 65° | 35 | 37 |
| 75° | 14 | 15 |
| 85° | 4 | 4 |
| 90° | 0 | |



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CANDELA DISTRIBUTION (FULL):

| | 0° |
|-------|--------|
| 0° | 2527.8 |
| 2.5° | 2496.1 |
| 5° | 2471.3 |
| 7.5° | 2467.8 |
| 10° | 2471.3 |
| 12.5° | 2478.4 |
| 15° | 2492.5 |
| 17.5° | 2492.5 |
| 20° | 2429.0 |
| 22.5° | 2294.8 |
| 25° | 2125.4 |
| 27.5° | 1955.9 |
| 30° | 1814.7 |
| 32.5° | 1677.0 |
| 35° | 1507.5 |
| 37.5° | 1288.6 |
| 40° | 1038.0 |
| 42.5° | 773.2 |
| 45° | 536.6 |
| 47.5° | 356.6 |
| 50° | 240.1 |
| 52.5° | 165.9 |
| 55° | 120.0 |
| 57.5° | 84.7 |
| 60° | 63.5 |
| 62.5° | 45.9 |
| 65° | 35.3 |
| 67.5° | 24.7 |
| 70° | 21.2 |
| 72.5° | 17.7 |
| 75° | 14.1 |
| 77.5° | 10.6 |
| 80° | 7.1 |
| 82.5° | 7.1 |
| 85° | 3.5 |
| 87.5° | 0.0 |
| 90° | 0.0 |



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— 0°-180°







(END OF REPORT)