

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: P430338

Luminaire Tested: **LAM4B212R709727DE010x1MW**

Issue Date: 11/23/2020

Test Information

Test Method: LM-41-14
Report Number: P430338
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: LAM4B212R709727DE010x1MW
Description: PORTFOLIO 4INCH ADJUSTABLE MULTIPLE, 70 DEG TIR OPTIC
Light Source: HIGH LUMEN LED 97CRI / 2700K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2027.8 lumens
Efficiency: N/A
Efficacy: 71.4 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

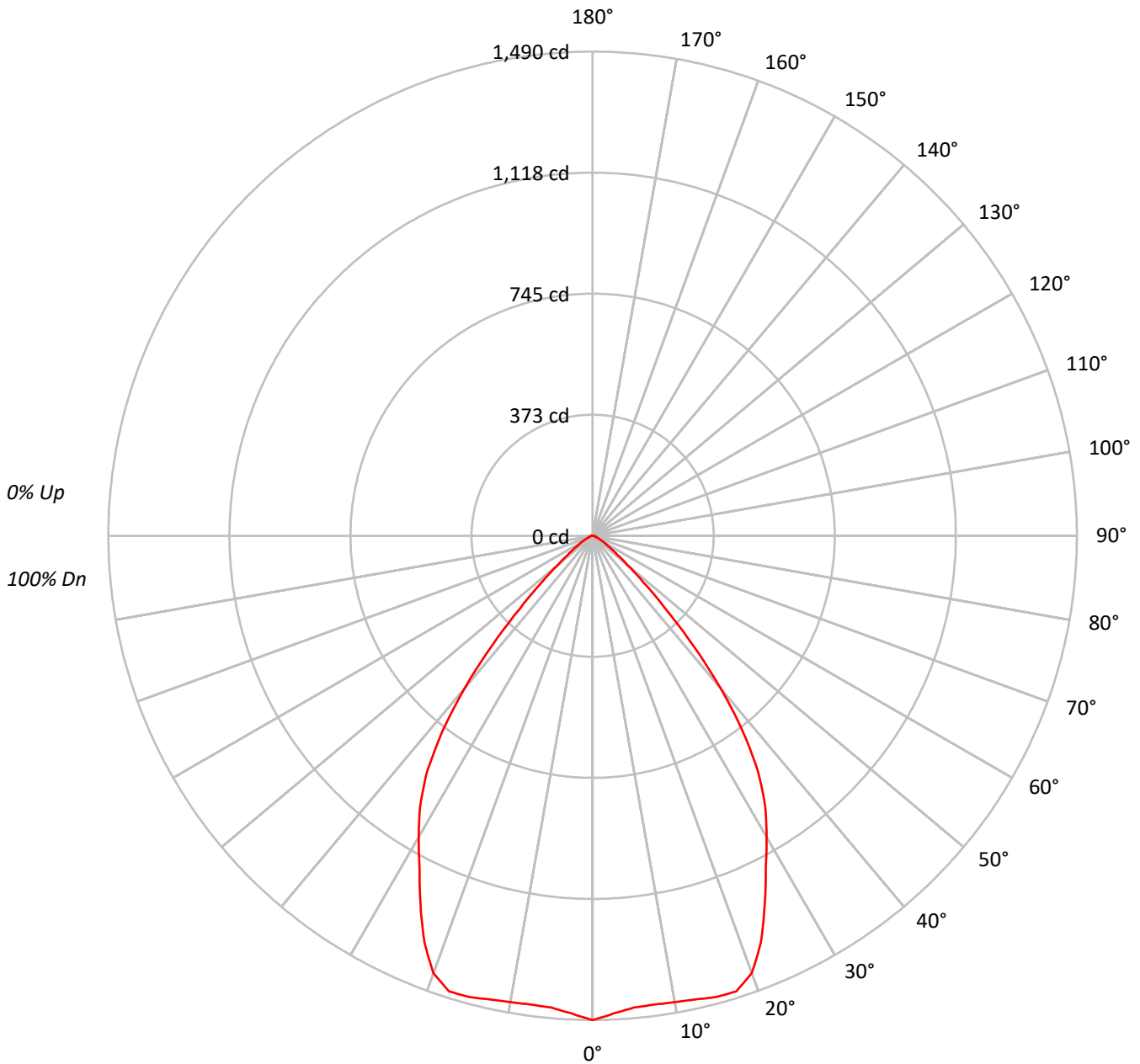
Input Watts (W): 28.4
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

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

AVERAGE LUMINANCE (cd/sqm):

| | |
|-----|--------|
| | 0° |
| 0° | 735382 |
| 5° | 721699 |
| 10° | 730044 |
| 15° | 750699 |
| 20° | 751967 |
| 25° | 682222 |
| 30° | 609585 |
| 35° | 535389 |
| 40° | 394165 |
| 45° | 220766 |
| 50° | 108687 |
| 55° | 60901 |
| 60° | 37003 |
| 65° | 24283 |
| 70° | 18032 |
| 75° | 15822 |
| 80° | 11933 |
| 85° | 11888 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 139.3 | 6.9 |
| 10°-20° | 414.1 | 20.4 |
| 20°-30° | 574.7 | 28.3 |
| 30°-40° | 540.7 | 26.7 |
| 40°-50° | 258.1 | 12.7 |
| 50°-60° | 68.2 | 3.4 |
| 60°-70° | 21.6 | 1.1 |
| 70°-80° | 8.8 | 0.4 |
| 80°-90° | 2.3 | 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° | 1128.1 | 55.6 |
| 0°-40° | 1668.8 | 82.3 |
| 0°-60° | 1995.2 | 98.4 |
| 0°-90° | 2027.8 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 2027.8 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | Flux |
|-----|------|------|
| 0° | 1490 | |
| 5° | 1457 | 139 |
| 15° | 1470 | 414 |
| 25° | 1253 | 575 |
| 35° | 889 | 541 |
| 45° | 316 | 258 |
| 55° | 71 | 68 |
| 65° | 21 | 22 |
| 75° | 8 | 9 |
| 85° | 2 | 2 |
| 90° | 0 | |



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CANDELA DISTRIBUTION (FULL):

| 0° | |
|-------|--------|
| 0° | 1490.5 |
| 2.5° | 1471.8 |
| 5° | 1457.2 |
| 7.5° | 1455.1 |
| 10° | 1457.2 |
| 12.5° | 1461.4 |
| 15° | 1469.7 |
| 17.5° | 1469.7 |
| 20° | 1432.2 |
| 22.5° | 1353.1 |
| 25° | 1253.2 |
| 27.5° | 1153.3 |
| 30° | 1070.0 |
| 32.5° | 988.8 |
| 35° | 888.9 |
| 37.5° | 759.8 |
| 40° | 612.0 |
| 42.5° | 455.9 |
| 45° | 316.4 |
| 47.5° | 210.3 |
| 50° | 141.6 |
| 52.5° | 97.8 |
| 55° | 70.8 |
| 57.5° | 50.0 |
| 60° | 37.5 |
| 62.5° | 27.1 |
| 65° | 20.8 |
| 67.5° | 14.6 |
| 70° | 12.5 |
| 72.5° | 10.4 |
| 75° | 8.3 |
| 77.5° | 6.2 |
| 80° | 4.2 |
| 82.5° | 4.2 |
| 85° | 2.1 |
| 87.5° | 0.0 |
| 90° | 0.0 |



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— 0°-180°







(END OF REPORT)