

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: P430030

Luminaire Tested: **LAM4B112R709024DE010x1MB**

Issue Date: 11/23/2020

Test Information

Test Method: LM-41-14
Report Number: P430030
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: LAM4B112R709024DE010x1MB
Description: PORTFOLIO 4INCH ADJUSTABLE MULTIPLE, 70 DEG TIR OPTIC
Light Source: HIGH LUMEN LED 90CRI / 2400K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1015.5 lumens
Efficiency: N/A
Efficacy: 71.0 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

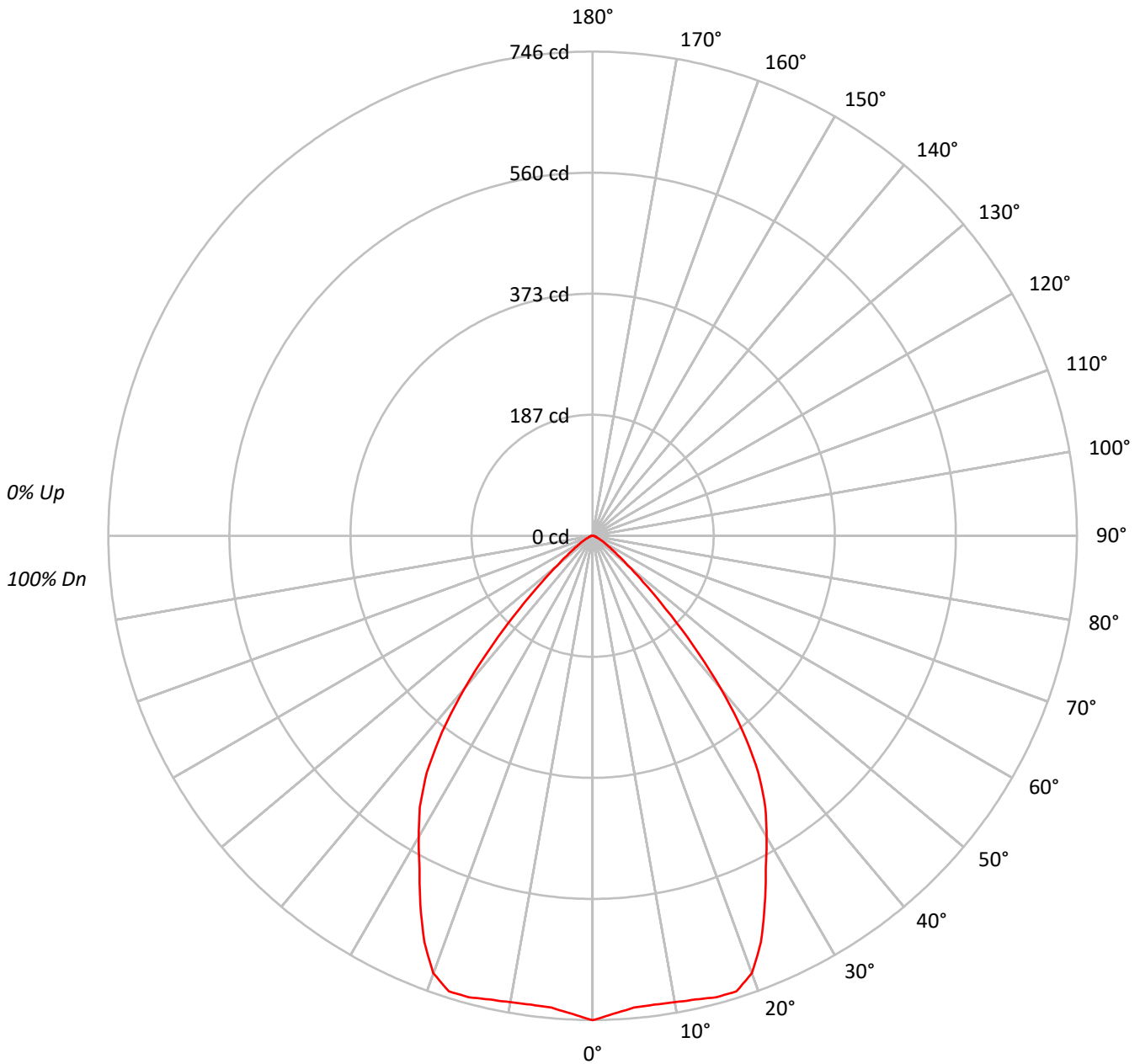
Input Watts (W): 14.3
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P430030

CATALOG NUMBER: LAM4B112R709024DE010x1MB

Luminous Intensity Polar Plot





TEST NUMBER: P430030

CATALOG NUMBER: LAM4B112R709024DE010x1MB

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

AVERAGE LUMINANCE (cd/sqm):

| | |
|-----|--------|
| | 0° |
| 0° | 368258 |
| 5° | 361394 |
| 10° | 365573 |
| 15° | 375937 |
| 20° | 376561 |
| 25° | 341655 |
| 30° | 305248 |
| 35° | 268086 |
| 40° | 197405 |
| 45° | 110592 |
| 50° | 54420 |
| 55° | 30450 |
| 60° | 18551 |
| 65° | 12141 |
| 70° | 9088 |
| 75° | 8006 |
| 80° | 5967 |
| 85° | 5661 |



TEST NUMBER: P430030

CATALOG NUMBER: LAM4B112R709024DE010x1MB

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 69.8 | 6.9 |
| 10°-20° | 207.4 | 20.4 |
| 20°-30° | 287.8 | 28.3 |
| 30°-40° | 270.8 | 26.7 |
| 40°-50° | 129.3 | 12.7 |
| 50°-60° | 34.2 | 3.4 |
| 60°-70° | 10.8 | 1.1 |
| 70°-80° | 4.4 | 0.4 |
| 80°-90° | 1.1 | 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° | 564.9 | 55.6 |
| 0°-40° | 835.7 | 82.3 |
| 0°-60° | 999.1 | 98.4 |
| 0°-90° | 1015.5 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 1015.5 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | Flux |
|-----|-----|------|
| 0° | 746 | |
| 5° | 730 | 70 |
| 15° | 736 | 207 |
| 25° | 628 | 288 |
| 35° | 445 | 271 |
| 45° | 158 | 129 |
| 55° | 35 | 34 |
| 65° | 10 | 11 |
| 75° | 4 | 4 |
| 85° | 1 | 1 |
| 90° | 0 | |



TEST NUMBER: P430030

CATALOG NUMBER: LAM4B112R709024DE010x1MB

CANDELA DISTRIBUTION (FULL):

| | 0° |
|-------|-------|
| 0° | 746.4 |
| 2.5° | 737.0 |
| 5° | 729.7 |
| 7.5° | 728.7 |
| 10° | 729.7 |
| 12.5° | 731.8 |
| 15° | 736.0 |
| 17.5° | 736.0 |
| 20° | 717.2 |
| 22.5° | 677.6 |
| 25° | 627.6 |
| 27.5° | 577.5 |
| 30° | 535.8 |
| 32.5° | 495.2 |
| 35° | 445.1 |
| 37.5° | 380.5 |
| 40° | 306.5 |
| 42.5° | 228.3 |
| 45° | 158.5 |
| 47.5° | 105.3 |
| 50° | 70.9 |
| 52.5° | 49.0 |
| 55° | 35.4 |
| 57.5° | 25.0 |
| 60° | 18.8 |
| 62.5° | 13.6 |
| 65° | 10.4 |
| 67.5° | 7.3 |
| 70° | 6.3 |
| 72.5° | 5.2 |
| 75° | 4.2 |
| 77.5° | 3.1 |
| 80° | 2.1 |
| 82.5° | 2.1 |
| 85° | 1.0 |
| 87.5° | 0.0 |
| 90° | 0.0 |



Report Generated By E9808895 / USPTCWHP6082093





— 0°-180°







(END OF REPORT)