

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: io LED

Report Number: P170549

Luminaire Tested: **LDA4A18827D010TE LAR35FL 4LAL1**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P170549
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P26146)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: io LED
Catalog Number: LDA4A18827D010TE LAR35FL 4LAL1
Description: PORTFOLIO 4" Lensed Adjustable, Self-flange Trim Ring, 35° Flood Optic, at 0° tilt
Light Source: (1) HIGH LUMEN LED 80CRI / 2700K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1716.1 lumens
Efficiency: N/A
Efficacy: 58.9 lumens/watt
Spacing Criteria (0/90/45): 0.58 / 0.58 / 0.55
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

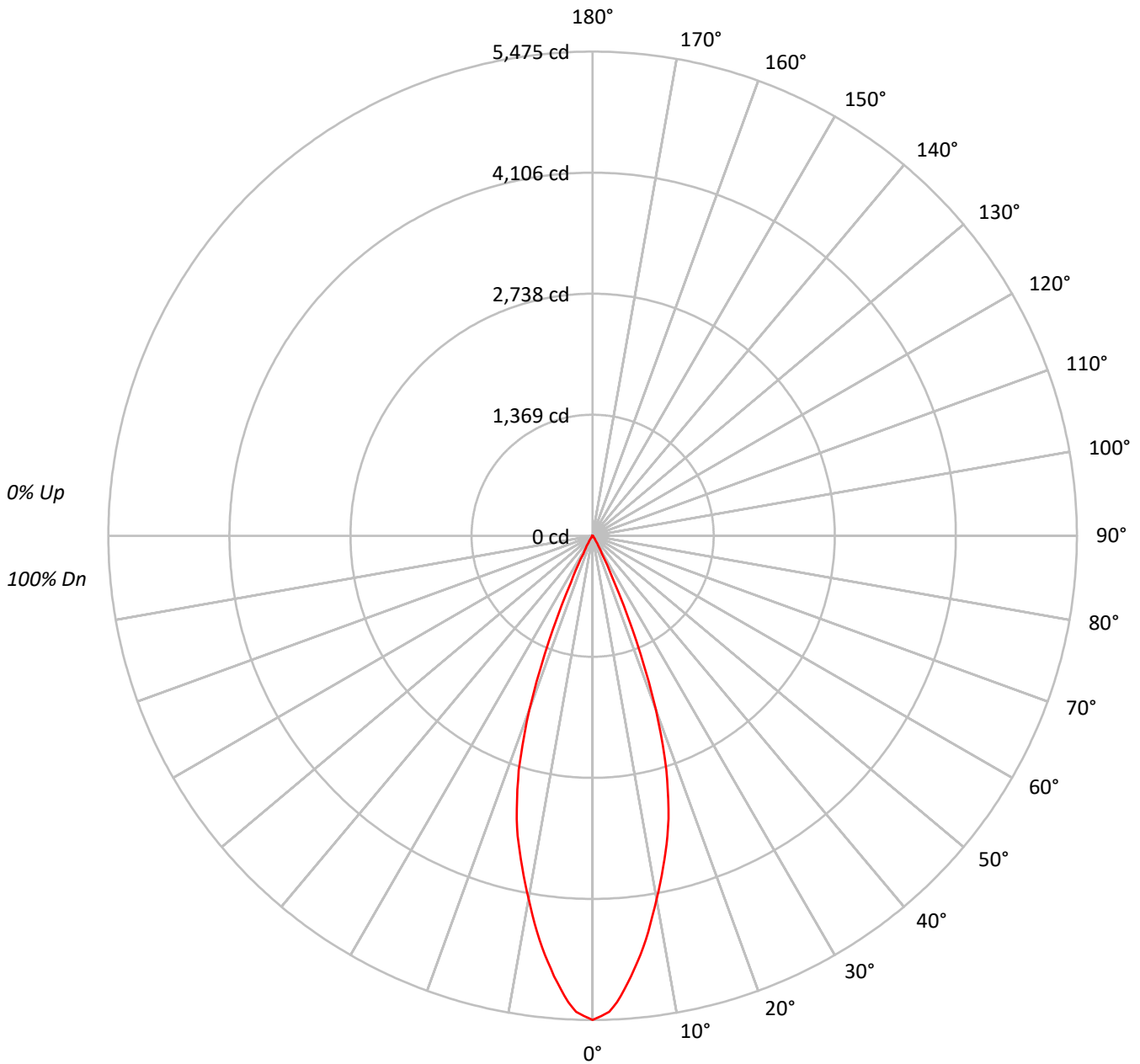
Input Watts (W): 29.12
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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 | 115 | 113 | 111 | 109 | 113 | 111 | 109 | 107 | 107 | 105 | 104 | 103 | 102 | 101 | 100 | 99 | 98 | 96 | | | 96 | | | | | | | | | | | | | | | | |
| 2 | 111 | 107 | 104 | 102 | 109 | 106 | 103 | 100 | 102 | 100 | 98 | 100 | 98 | 96 | 97 | 96 | 94 | | | 93 | | | | | | | | | | | | | | | | | |
| 3 | 107 | 103 | 99 | 96 | 105 | 101 | 98 | 95 | 99 | 96 | 94 | 96 | 94 | 92 | 94 | 92 | 91 | | | 90 | | | | | | | | | | | | | | | | | |
| 4 | 104 | 98 | 94 | 91 | 102 | 97 | 93 | 91 | 95 | 92 | 90 | 93 | 91 | 89 | 92 | 89 | 88 | | | 86 | | | | | | | | | | | | | | | | | |
| 5 | 101 | 94 | 90 | 87 | 99 | 94 | 90 | 87 | 92 | 89 | 86 | 90 | 88 | 85 | 89 | 87 | 85 | | | 83 | | | | | | | | | | | | | | | | | |
| 6 | 97 | 91 | 87 | 83 | 96 | 90 | 86 | 83 | 89 | 85 | 83 | 88 | 85 | 82 | 86 | 84 | 82 | | | 81 | | | | | | | | | | | | | | | | | |
| 7 | 94 | 88 | 83 | 80 | 93 | 87 | 83 | 80 | 86 | 82 | 80 | 85 | 82 | 79 | 84 | 81 | 79 | | | 78 | | | | | | | | | | | | | | | | | |
| 8 | 92 | 85 | 80 | 77 | 91 | 84 | 80 | 77 | 83 | 80 | 77 | 82 | 79 | 77 | 82 | 79 | 76 | | | 75 | | | | | | | | | | | | | | | | | |
| 9 | 89 | 82 | 78 | 75 | 88 | 82 | 77 | 75 | 81 | 77 | 74 | 80 | 77 | 74 | 79 | 76 | 74 | | | 73 | | | | | | | | | | | | | | | | | |
| 10 | 86 | 79 | 75 | 72 | 86 | 79 | 75 | 72 | 78 | 75 | 72 | 78 | 74 | 72 | 77 | 74 | 72 | | | 71 | | | | | | | | | | | | | | | | | |

AVERAGE LUMINANCE (cd/sqm):

| | |
|-----|--------|
| | 0° |
| 0° | 675354 |
| 5° | 619072 |
| 10° | 522123 |
| 15° | 423366 |
| 20° | 274166 |
| 25° | 79045 |
| 30° | 17276 |
| 35° | 4894 |
| 40° | 1836 |
| 45° | 768 |
| 50° | 345 |
| 55° | 194 |
| 60° | 222 |
| 65° | 263 |
| 70° | 325 |
| 75° | 0 |
| 80° | 0 |
| 85° | 0 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 450.5 | 26.3 |
| 10°-20° | 889.5 | 51.8 |
| 20°-30° | 342.7 | 20.0 |
| 30°-40° | 27.1 | 1.6 |
| 40°-50° | 3.9 | 0.2 |
| 50°-60° | 0.9 | 0.1 |
| 60°-70° | 0.9 | 0.1 |
| 70°-80° | 0.4 | 0.0 |
| 80°-90° | 0.5 | 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° | 1682.7 | 98.1 |
| 0°-40° | 1709.8 | 99.6 |
| 0°-60° | 1714.6 | 99.9 |
| 0°-90° | 1716.4 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 1716.1 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | Flux |
|-----|------|------|
| 0° | 5475 | |
| 5° | 5000 | 451 |
| 15° | 3315 | 890 |
| 25° | 581 | 343 |
| 35° | 32 | 27 |
| 45° | 4 | 4 |
| 55° | 1 | 1 |
| 65° | 1 | 1 |
| 75° | 0 | 0 |
| 85° | 0 | 0 |
| 90° | 0 | |



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CANDELA DISTRIBUTION (FULL):

| 0° | |
|-------|--------|
| 0° | 5475.3 |
| 1° | 5431.4 |
| 2° | 5386.6 |
| 3° | 5281.1 |
| 4° | 5142.3 |
| 5° | 4999.9 |
| 6° | 4843.5 |
| 7° | 4691.5 |
| 8° | 4523.7 |
| 9° | 4341.8 |
| 10° | 4168.7 |
| 11° | 4003.5 |
| 12° | 3831.2 |
| 13° | 3666.9 |
| 14° | 3499.1 |
| 15° | 3315.4 |
| 17.5° | 2775.9 |
| 20° | 2088.7 |
| 22.5° | 1290.8 |
| 25° | 580.8 |
| 27.5° | 223.2 |
| 30° | 121.3 |
| 32.5° | 62.4 |
| 35° | 32.5 |
| 37.5° | 19.3 |
| 40° | 11.4 |
| 42.5° | 7.0 |
| 45° | 4.4 |
| 47.5° | 2.6 |
| 50° | 1.8 |
| 52.5° | 0.9 |
| 55° | 0.9 |
| 57.5° | 0.9 |
| 60° | 0.9 |
| 62.5° | 0.9 |
| 65° | 0.9 |
| 67.5° | 0.9 |
| 70° | 0.9 |
| 72.5° | 0.0 |
| 75° | 0.0 |
| 77.5° | 0.9 |
| 80° | 0.0 |
| 82.5° | 0.0 |



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CANDELA DISTRIBUTION (continued):

0°
90° | 0.0



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— 0°-180°







| | | |
|-------|--|-----|
| 85° | | 0.0 |
| 87.5° | | 0.9 |



(END OF REPORT)