

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: P170622

Luminaire Tested: **LDA4A09830D010TE LAR25NF 4LFC1**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P170622
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P26142)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: io LED
Catalog Number: LDA4A09830D010TE LAR25NF 4LFC1
Description: PORTFOLIO 4" Flat Cone, Self-flange Trim Ring, 25° Narrow Flood Optic, at 0° tilt
Light Source: (1) HIGH LUMEN LED 80CRI / 3000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1070.9 lumens
Efficiency: N/A
Efficacy: 77.4 lumens/watt
Spacing Criteria (0/90/45): 0.46 / 0.46 / 0.47
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

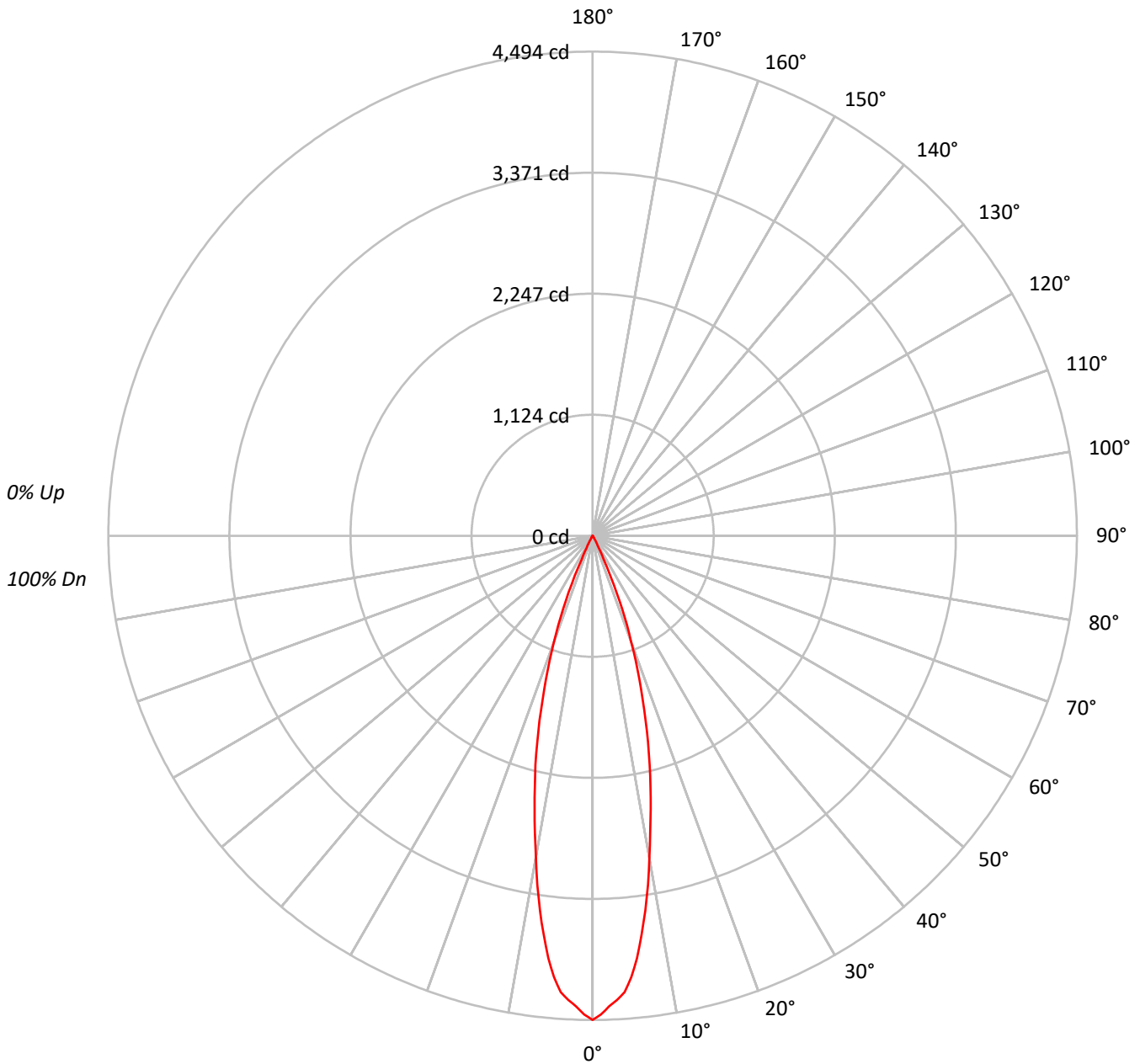
Input Watts (W): 13.84
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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 | | | 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 | 115 | 113 | 111 | 110 | 113 | 111 | 109 | 108 | 107 | 106 | 104 | 103 | 102 | 101 | 100 | 99 | 98 | 97 | 97 | 97 | 97 |
| 2 | 111 | 108 | 105 | 103 | 109 | 106 | 104 | 101 | 103 | 101 | 99 | 100 | 99 | 97 | 98 | 96 | 95 | 94 | 94 | 94 | 94 |
| 3 | 108 | 104 | 100 | 97 | 106 | 102 | 99 | 96 | 100 | 97 | 95 | 98 | 95 | 94 | 95 | 94 | 92 | 91 | 91 | 91 | 91 |
| 4 | 105 | 100 | 96 | 93 | 103 | 99 | 95 | 92 | 97 | 94 | 91 | 95 | 92 | 90 | 93 | 91 | 89 | 88 | 88 | 88 | 88 |
| 5 | 102 | 96 | 92 | 89 | 100 | 95 | 92 | 89 | 94 | 91 | 88 | 92 | 89 | 87 | 91 | 89 | 87 | 86 | 86 | 86 | 86 |
| 6 | 99 | 93 | 89 | 86 | 98 | 92 | 88 | 86 | 91 | 88 | 85 | 90 | 87 | 85 | 89 | 86 | 84 | 83 | 83 | 83 | 83 |
| 7 | 96 | 90 | 86 | 83 | 95 | 89 | 86 | 83 | 88 | 85 | 83 | 87 | 84 | 82 | 86 | 84 | 82 | 81 | 81 | 81 | 81 |
| 8 | 94 | 87 | 83 | 81 | 93 | 87 | 83 | 80 | 86 | 83 | 80 | 85 | 82 | 80 | 84 | 82 | 79 | 79 | 79 | 79 | 79 |
| 9 | 91 | 85 | 81 | 78 | 90 | 84 | 81 | 78 | 84 | 80 | 78 | 83 | 80 | 78 | 82 | 79 | 77 | 76 | 76 | 76 | 76 |
| 10 | 89 | 82 | 79 | 76 | 88 | 82 | 78 | 76 | 81 | 78 | 76 | 81 | 78 | 76 | 80 | 77 | 75 | 74 | 74 | 74 | 74 |

AVERAGE LUMINANCE (cd/sqm):

| | |
|-----|--------|
| | 0° |
| 0° | 554328 |
| 5° | 509060 |
| 10° | 380267 |
| 15° | 253287 |
| 20° | 137208 |
| 25° | 32731 |
| 30° | 7663 |
| 35° | 2183 |
| 40° | 757 |
| 45° | 279 |
| 50° | 96 |
| 55° | 0 |
| 60° | 0 |
| 65° | 0 |
| 70° | 0 |
| 75° | 0 |
| 80° | 0 |
| 85° | 0 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 356.3 | 33.3 |
| 10°-20° | 537.3 | 50.2 |
| 20°-30° | 164.0 | 15.3 |
| 30°-40° | 11.9 | 1.1 |
| 40°-50° | 1.4 | 0.1 |
| 50°-60° | 0.1 | 0.0 |
| 60°-70° | 0.0 | 0.0 |
| 70°-80° | 0.0 | 0.0 |
| 80°-90° | 0.0 | 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° | 1057.6 | 98.8 |
| 0°-40° | 1069.5 | 99.9 |
| 0°-60° | 1070.9 | 100.0 |
| 0°-90° | 1070.9 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 1070.9 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | Flux |
|-----|------|------|
| 0° | 4494 | |
| 5° | 4111 | 356 |
| 15° | 1984 | 537 |
| 25° | 240 | 164 |
| 35° | 14 | 12 |
| 45° | 2 | 1 |
| 55° | 0 | 0 |
| 65° | 0 | 0 |
| 75° | 0 | 0 |
| 85° | 0 | 0 |
| 90° | 0 | |



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CANDELA DISTRIBUTION (FULL):

| | 0° |
|-------|--------|
| 0° | 4494.1 |
| 1° | 4443.5 |
| 2° | 4370.5 |
| 3° | 4315.7 |
| 4° | 4245.9 |
| 5° | 4111.4 |
| 6° | 3942.3 |
| 7° | 3730.7 |
| 8° | 3512.5 |
| 9° | 3279.7 |
| 10° | 3036.1 |
| 11° | 2803.9 |
| 12° | 2591.3 |
| 13° | 2387.5 |
| 14° | 2191.0 |
| 15° | 1983.5 |
| 17.5° | 1490.1 |
| 20° | 1045.3 |
| 22.5° | 652.2 |
| 25° | 240.5 |
| 27.5° | 97.2 |
| 30° | 53.8 |
| 32.5° | 26.9 |
| 35° | 14.5 |
| 37.5° | 8.3 |
| 40° | 4.7 |
| 42.5° | 2.6 |
| 45° | 1.6 |
| 47.5° | 0.5 |
| 50° | 0.5 |
| 52.5° | 0.0 |
| 55° | 0.0 |
| 57.5° | 0.0 |
| 60° | 0.0 |
| 62.5° | 0.0 |
| 65° | 0.0 |
| 67.5° | 0.0 |
| 70° | 0.0 |
| 72.5° | 0.0 |
| 75° | 0.0 |
| 77.5° | 0.0 |
| 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° | | 0.0 |



(END OF REPORT)