

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: P170473

Luminaire Tested: **LDA4A13927D010TE LAR35FL 4LA1**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P170473
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P25630)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: io LED
Catalog Number: LDA4A13927D010TE LAR35FL 4LA1
Description: PORTFOLIO 4" Adjustable Reflector, Self-flange Trim Ring, 35° Flood Optic, at 0° tilt
Light Source: (1) HIGH LUMEN LED 90CRI / 2700K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1022.4 lumens
Efficiency: N/A
Efficacy: 45.9 lumens/watt
Spacing Criteria (0/90/45): 0.56 / 0.56 / 0.54
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

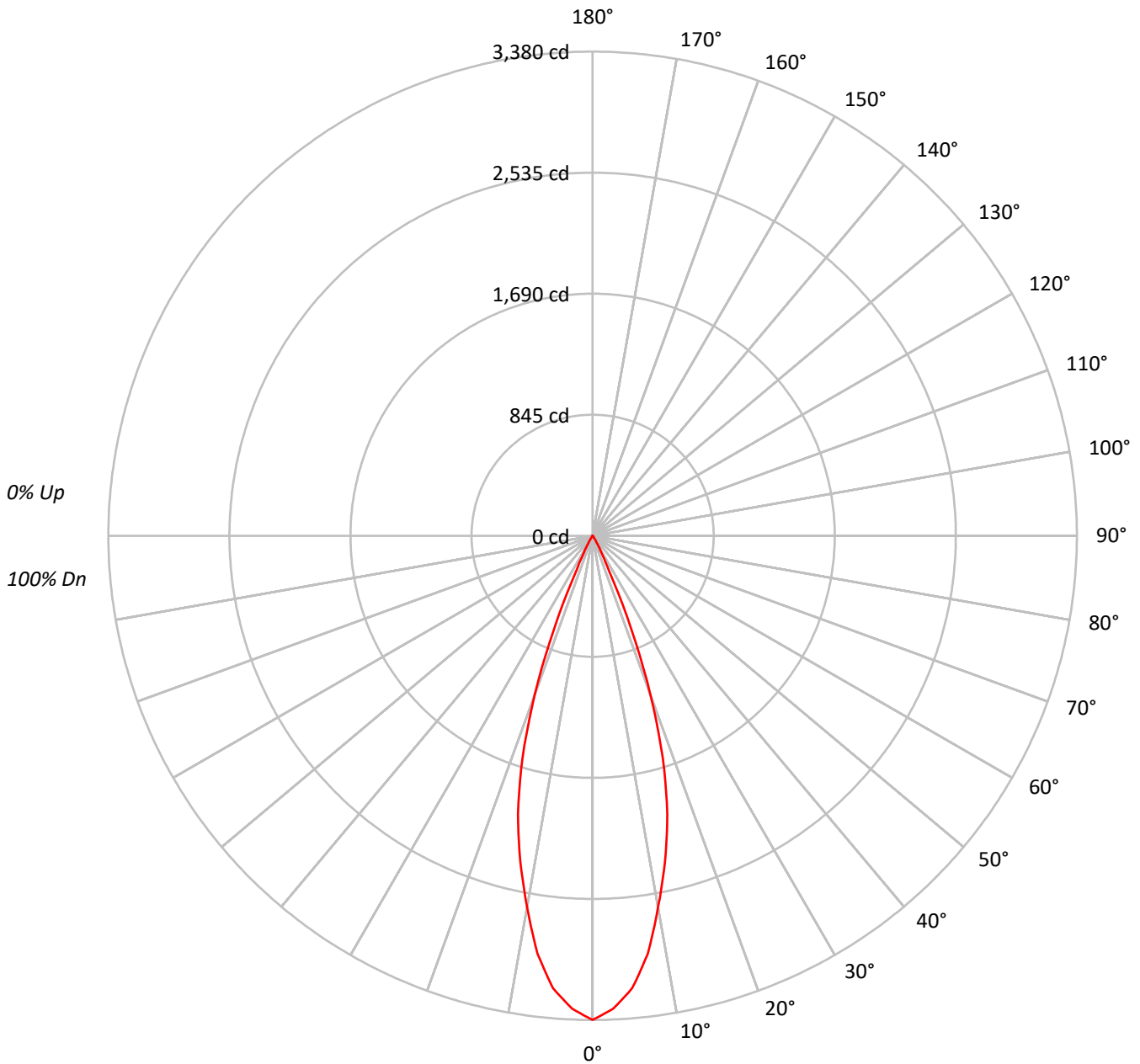
Input Watts (W): 22.27
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

| | | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| RF | 20 | | | | 20 | | | | 20 | | | | 20 | | | | 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 | 0 |
| RCR | | | | | | | | | | | | | | | | | | |
| 0 | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 | 106 | 106 | 106 | 102 | 102 | 102 | 100 |
| 1 | 115 | 113 | 111 | 109 | 113 | 111 | 109 | 107 | 107 | 105 | 104 | 103 | 102 | 101 | 100 | 99 | 98 | 97 |
| 2 | 111 | 108 | 104 | 102 | 109 | 106 | 103 | 101 | 103 | 101 | 99 | 100 | 98 | 97 | 97 | 96 | 95 | 93 |
| 3 | 108 | 103 | 99 | 96 | 106 | 102 | 98 | 96 | 99 | 96 | 94 | 97 | 95 | 93 | 95 | 93 | 91 | 90 |
| 4 | 104 | 99 | 95 | 92 | 103 | 98 | 94 | 91 | 96 | 93 | 90 | 94 | 91 | 89 | 92 | 90 | 88 | 87 |
| 5 | 101 | 95 | 91 | 88 | 100 | 94 | 90 | 87 | 93 | 89 | 87 | 91 | 88 | 86 | 90 | 87 | 85 | 84 |
| 6 | 98 | 92 | 87 | 84 | 97 | 91 | 87 | 84 | 90 | 86 | 84 | 88 | 85 | 83 | 87 | 85 | 83 | 81 |
| 7 | 95 | 88 | 84 | 81 | 94 | 88 | 84 | 81 | 87 | 83 | 81 | 86 | 83 | 80 | 85 | 82 | 80 | 79 |
| 8 | 92 | 86 | 81 | 78 | 91 | 85 | 81 | 78 | 84 | 81 | 78 | 83 | 80 | 78 | 82 | 80 | 77 | 76 |
| 9 | 90 | 83 | 79 | 76 | 89 | 82 | 79 | 76 | 82 | 78 | 76 | 81 | 78 | 75 | 80 | 77 | 75 | 74 |
| 10 | 87 | 80 | 76 | 74 | 86 | 80 | 76 | 73 | 79 | 76 | 73 | 79 | 75 | 73 | 78 | 75 | 73 | 72 |

AVERAGE LUMINANCE (cd/sqm):

| | |
|-----|--------|
| | 0° |
| 0° | 416871 |
| 5° | 392512 |
| 10° | 329716 |
| 15° | 257105 |
| 20° | 155204 |
| 25° | 35970 |
| 30° | 9414 |
| 35° | 2229 |
| 40° | 741 |
| 45° | 192 |
| 50° | 115 |
| 55° | 129 |
| 60° | 148 |
| 65° | 0 |
| 70° | 0 |
| 75° | 0 |
| 80° | 0 |
| 85° | 0 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 285.5 | 27.9 |
| 10°-20° | 537.8 | 52.6 |
| 20°-30° | 184.1 | 18.0 |
| 30°-40° | 13.1 | 1.3 |
| 40°-50° | 1.2 | 0.1 |
| 50°-60° | 0.5 | 0.1 |
| 60°-70° | 0.2 | 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° | 1007.3 | 98.5 |
| 0°-40° | 1020.5 | 99.8 |
| 0°-60° | 1022.2 | 100.0 |
| 0°-90° | 1022.4 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 1022.4 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | Flux |
|-----|------|------|
| 0° | 3380 | |
| 5° | 3170 | 286 |
| 15° | 2013 | 538 |
| 25° | 264 | 184 |
| 35° | 15 | 13 |
| 45° | 1 | 1 |
| 55° | 1 | 1 |
| 65° | 0 | 0 |
| 75° | 0 | 0 |
| 85° | 0 | 0 |
| 90° | 0 | |



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CANDELA DISTRIBUTION (FULL):

| | 0° |
|-------|--------|
| 0° | 3379.7 |
| 2.5° | 3304.0 |
| 5° | 3170.1 |
| 7.5° | 2943.4 |
| 10° | 2632.5 |
| 12.5° | 2330.6 |
| 15° | 2013.4 |
| 17.5° | 1628.4 |
| 20° | 1182.4 |
| 22.5° | 706.2 |
| 25° | 264.3 |
| 27.5° | 128.7 |
| 30° | 66.1 |
| 32.5° | 29.6 |
| 35° | 14.8 |
| 37.5° | 8.0 |
| 40° | 4.6 |
| 42.5° | 2.3 |
| 45° | 1.1 |
| 47.5° | 0.6 |
| 50° | 0.6 |
| 52.5° | 0.6 |
| 55° | 0.6 |
| 57.5° | 0.6 |
| 60° | 0.6 |
| 62.5° | 0.6 |
| 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 |
| 85° | 0.0 |
| 87.5° | 0.0 |
| 90° | 0.0 |



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— 0°-180°







(END OF REPORT)