

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: P1191567

Luminaire Tested: **LDA4A15940D010TE LAR15SP 4LFC1**

Issue Date: 3/3/2020

Cooper Lighting Solutions Photometric Lab  
1121 Highway 74 South  
Peachtree City, GA 30269

**Test Information**

Test Method: LM-41-14  
Report Number: P1191567  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P26141)  
Test Lab: INNOVATION CENTER-P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: io LED  
Catalog Number: LDA4A15940D010TE LAR15SP 4LFC1  
Description: PORTFOLIO 4" Flat Cone, Self-flange Trim Ring, 15° Spot Optic, at 0° tilt  
Light Source: (1) HIGH LUMEN LED 90CRI / 4000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

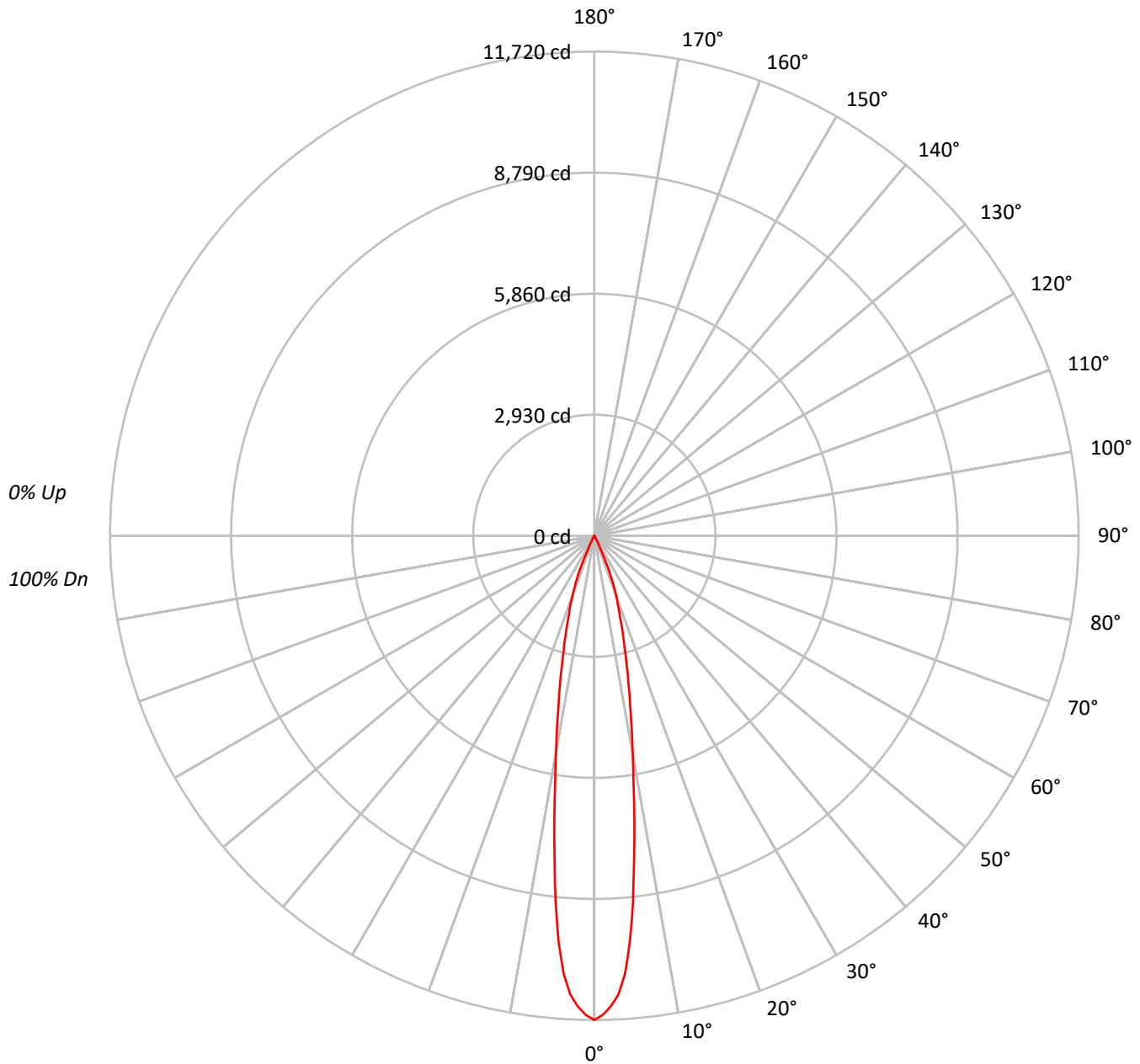
Lumens per Lamp: N/A  
Luminaire Lumens: 1850.3 lumens  
Efficiency: N/A  
Efficacy: 90.7 lumens/watt  
Spacing Criteria (0/90/45): 0.32 / 0.32 / 0.36  
Luminous Opening: Circular (Dia: 0.33' x H: 0')  
CIE Type: Direct

Input Watts (W): 20.4  
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  |     |  |     |     | 20  |
| RC  | 80  |     |     |     | 70  |     |     |     |  | 50  |     |     |  |     | 30  |     |  |     |     | 0   |
| RW  | 70  | 50  | 30  | 10  | 70  | 50  | 30  | 10  |  | 50  | 30  | 10  |  | 50  | 30  | 10  |  | 50  | 30  | 10  |
| RCR |     |     |     |     |     |     |     |     |  |     |     |     |  |     |     |     |  |     |     |     |
| 0   | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 |  | 111 | 111 | 111 |  | 106 | 106 | 106 |  | 102 | 102 | 102 |
| 1   | 115 | 113 | 112 | 110 | 113 | 111 | 110 | 108 |  | 107 | 106 | 105 |  | 104 | 103 | 102 |  | 100 | 100 | 99  |
| 2   | 112 | 109 | 106 | 103 | 110 | 107 | 104 | 102 |  | 104 | 102 | 100 |  | 101 | 99  | 98  |  | 98  | 97  | 96  |
| 3   | 109 | 104 | 101 | 98  | 107 | 103 | 100 | 98  |  | 101 | 98  | 96  |  | 98  | 96  | 95  |  | 96  | 95  | 93  |
| 4   | 106 | 101 | 97  | 94  | 104 | 100 | 97  | 94  |  | 98  | 95  | 93  |  | 96  | 94  | 92  |  | 94  | 92  | 91  |
| 5   | 103 | 98  | 94  | 91  | 102 | 97  | 93  | 91  |  | 95  | 92  | 90  |  | 94  | 91  | 89  |  | 92  | 90  | 89  |
| 6   | 100 | 95  | 91  | 88  | 99  | 94  | 91  | 88  |  | 93  | 90  | 87  |  | 92  | 89  | 87  |  | 91  | 88  | 86  |
| 7   | 98  | 92  | 88  | 86  | 97  | 92  | 88  | 86  |  | 91  | 87  | 85  |  | 90  | 87  | 85  |  | 89  | 86  | 84  |
| 8   | 96  | 90  | 86  | 83  | 95  | 89  | 86  | 83  |  | 88  | 85  | 83  |  | 88  | 85  | 83  |  | 87  | 84  | 82  |
| 9   | 94  | 87  | 84  | 81  | 93  | 87  | 84  | 81  |  | 86  | 83  | 81  |  | 86  | 83  | 81  |  | 85  | 82  | 81  |
| 10  | 91  | 85  | 82  | 79  | 91  | 85  | 82  | 79  |  | 84  | 81  | 79  |  | 84  | 81  | 79  |  | 83  | 81  | 79  |

**AVERAGE LUMINANCE (cd/sqm):**

|     |         |
|-----|---------|
|     | 0°      |
| 0°  | 1445672 |
| 5°  | 1222344 |
| 10° | 669866  |
| 15° | 365660  |
| 20° | 203692  |
| 25° | 47062   |
| 30° | 9115    |
| 35° | 2635    |
| 40° | 950     |
| 45° | 331     |
| 50° | 0       |
| 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°    | 777.4  | 42.0      |
| 10°-20°   | 813.3  | 44.0      |
| 20°-30°   | 243.9  | 13.2      |
| 30°-40°   | 14.1   | 0.8       |
| 40°-50°   | 1.6    | 0.1       |
| 50°-60°   | 0.0    | 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°    | 1834.5 | 99.1      |
| 0°-40°    | 1848.7 | 99.9      |
| 0°-60°    | 1850.3 | 100.0     |
| 0°-90°    | 1850.3 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 1850.3 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°    | Flux |
|-----|-------|------|
| 0°  | 11720 |      |
| 5°  | 9872  | 777  |
| 15° | 2864  | 813  |
| 25° | 346   | 244  |
| 35° | 18    | 14   |
| 45° | 2     | 2    |
| 55° | 0     | 0    |
| 65° | 0     | 0    |
| 75° | 0     | 0    |
| 85° | 0     | 0    |
| 90° | 0     |      |



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°      |
|-------|---------|
| 0°    | 11720.5 |
| 1°    | 11605.3 |
| 2°    | 11396.9 |
| 3°    | 11118.0 |
| 4°    | 10635.6 |
| 5°    | 9872.2  |
| 6°    | 8927.8  |
| 7°    | 7899.8  |
| 8°    | 6944.7  |
| 9°    | 6071.9  |
| 10°   | 5348.3  |
| 11°   | 4721.5  |
| 12°   | 4164.6  |
| 13°   | 3683.1  |
| 14°   | 3252.0  |
| 15°   | 2863.5  |
| 17.5° | 2080.8  |
| 20°   | 1551.8  |
| 22.5° | 1023.0  |
| 25°   | 345.8   |
| 27.5° | 120.1   |
| 30°   | 64.0    |
| 32.5° | 31.9    |
| 35°   | 17.5    |
| 37.5° | 9.7     |
| 40°   | 5.9     |
| 42.5° | 2.9     |
| 45°   | 1.9     |
| 47.5° | 1.0     |
| 50°   | 0.0     |
| 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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## Scaled Data Report



— 0°-180°

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## Scaled Data Report



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

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Scaled Data Report



(END OF REPORT)