

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: P283867

Luminaire Tested: **LDA2B059727D010 EU2B05WFL559727 2LBALPINSQ1MMS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P283867
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1809-951-61)
Test Lab: INNOVATION CENTER(G2)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: io LED
Catalog Number: LDA2B059727D010 EU2B05WFL559727 2LBALPINSQ1MMS
Description: PORTFOLIO 2IN ADJ 500 LUMEN LED LUMINAIRE WITH WIDE FLOOD OPTIC AND
2in Adj SQ Pinhole w-lens, MMS

Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 468.2 lumens
Efficiency: N/A
Efficacy: 66.9 lumens/watt
Spacing Criteria (0/90/45): 0.68 / 0.68 / 0.68
Luminous Opening: Circular (Dia: 0.17' x H: 0')
CIE Type: Direct

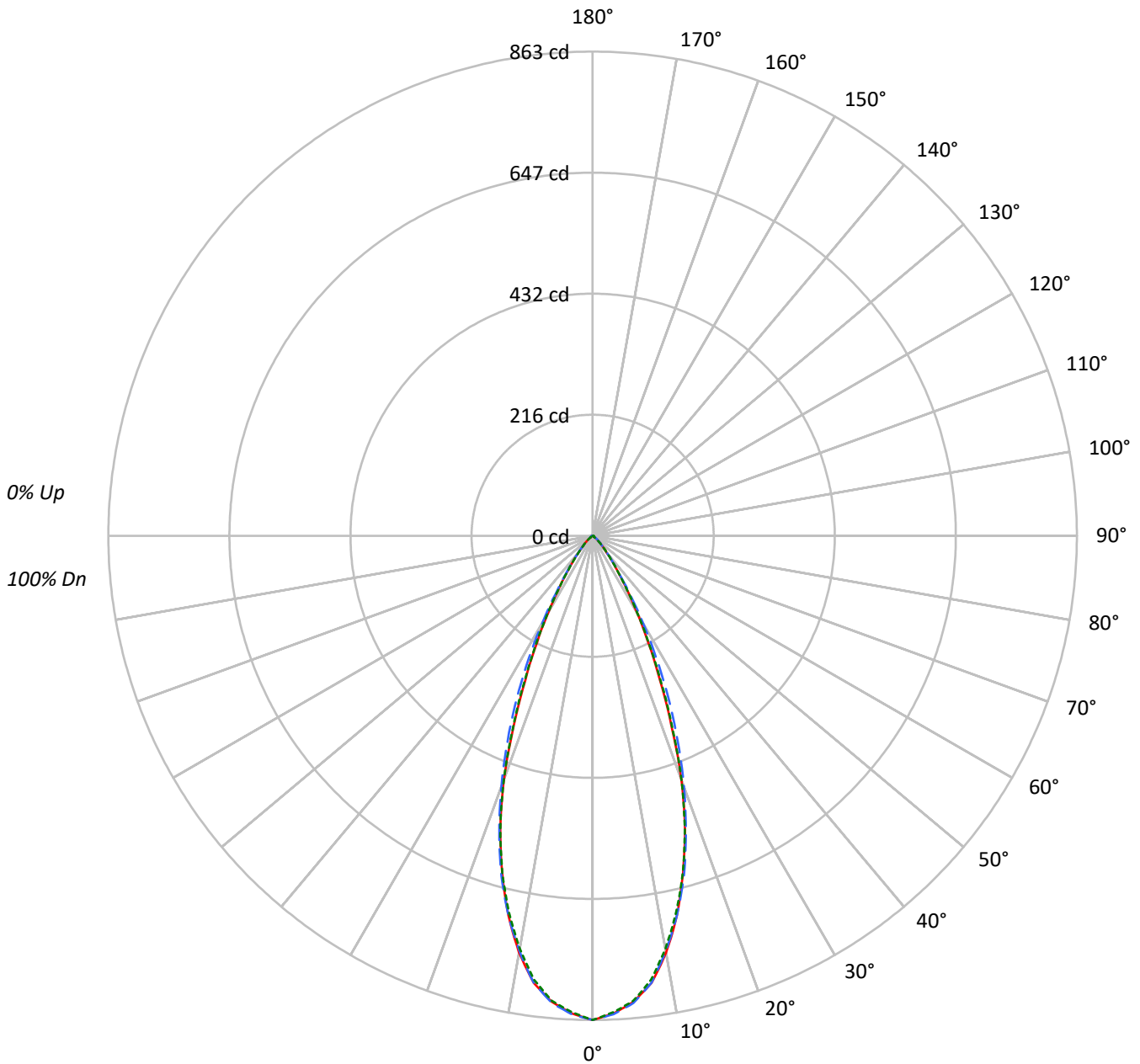
Input Watts (W): 7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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 | 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 | 114 | 111 | 109 | 107 | 111 | 109 | 107 | 105 | 105 | 103 | 102 | 101 | 100 | 99 | 98 | 97 | 96 | 94 | | | | | 94 | | | |
| 2 | 109 | 104 | 101 | 98 | 107 | 103 | 99 | 96 | 100 | 97 | 94 | 97 | 94 | 92 | 94 | 92 | 90 | 89 | | | | | 89 | | | |
| 3 | 104 | 98 | 94 | 90 | 102 | 97 | 93 | 89 | 94 | 91 | 88 | 92 | 89 | 87 | 90 | 87 | 85 | 84 | | | | | 84 | | | |
| 4 | 100 | 93 | 88 | 84 | 98 | 92 | 87 | 83 | 90 | 86 | 82 | 88 | 84 | 81 | 86 | 83 | 81 | 79 | | | | | 79 | | | |
| 5 | 95 | 88 | 82 | 79 | 94 | 87 | 82 | 78 | 85 | 81 | 78 | 83 | 80 | 77 | 82 | 79 | 76 | 75 | | | | | 75 | | | |
| 6 | 91 | 83 | 78 | 74 | 90 | 82 | 77 | 74 | 81 | 77 | 73 | 80 | 76 | 73 | 78 | 75 | 72 | 71 | | | | | 71 | | | |
| 7 | 87 | 79 | 74 | 70 | 86 | 78 | 73 | 70 | 77 | 73 | 69 | 76 | 72 | 69 | 75 | 71 | 69 | 67 | | | | | 67 | | | |
| 8 | 84 | 75 | 70 | 66 | 83 | 75 | 70 | 66 | 74 | 69 | 66 | 73 | 69 | 66 | 72 | 68 | 65 | 64 | | | | | 64 | | | |
| 9 | 81 | 72 | 67 | 63 | 80 | 71 | 66 | 63 | 71 | 66 | 63 | 70 | 66 | 63 | 69 | 65 | 62 | 61 | | | | | 61 | | | |
| 10 | 77 | 69 | 64 | 60 | 76 | 68 | 63 | 60 | 68 | 63 | 60 | 67 | 63 | 60 | 66 | 62 | 60 | 58 | | | | | 58 | | | |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|--------|--------|--------|
| 0° | 425771 | 425771 | 425771 |
| 5° | 412986 | 413976 | 412094 |
| 10° | 378034 | 376531 | 374227 |
| 15° | 317952 | 320914 | 317441 |
| 20° | 243139 | 249597 | 242771 |
| 25° | 154436 | 174088 | 157430 |
| 30° | 89782 | 101404 | 91377 |
| 35° | 47460 | 50471 | 47641 |
| 40° | 25053 | 26212 | 25053 |
| 45° | 14024 | 14513 | 14164 |
| 50° | 6524 | 8289 | 6524 |
| 55° | 2408 | 4559 | 2580 |
| 60° | 2763 | 2763 | 2763 |
| 65° | 2918 | 3269 | 2918 |
| 70° | 3606 | 3318 | 3606 |
| 75° | 3431 | 3431 | 3431 |
| 80° | 3694 | 2841 | 3694 |
| 85° | 2830 | 2830 | 2830 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 77.0 | 16.5 |
| 10°-20° | 171.5 | 36.6 |
| 20°-30° | 138.5 | 29.6 |
| 30°-40° | 54.7 | 11.7 |
| 40°-50° | 16.8 | 3.6 |
| 50°-60° | 4.3 | 0.9 |
| 60°-70° | 2.6 | 0.6 |
| 70°-80° | 1.9 | 0.4 |
| 80°-90° | 0.6 | 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° | 387.1 | 82.7 |
| 0°-40° | 441.8 | 94.4 |
| 0°-60° | 463.0 | 98.9 |
| 0°-90° | 468.2 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 468.2 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0° | 863 | 863 | 863 | 863 | 863 | |
| 5° | 834 | 835 | 836 | 834 | 832 | 77 |
| 15° | 622 | 624 | 628 | 626 | 622 | 171 |
| 25° | 284 | 297 | 320 | 303 | 289 | 132 |
| 35° | 79 | 81 | 84 | 81 | 79 | 53 |
| 45° | 20 | 20 | 21 | 21 | 20 | 16 |
| 55° | 3 | 4 | 5 | 4 | 3 | 3 |
| 65° | 2 | 3 | 3 | 3 | 2 | 3 |
| 75° | 2 | 2 | 2 | 2 | 2 | 2 |
| 85° | 0 | 0 | 0 | 0 | 0 | 1 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



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CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|-------|-------|-------|-------|-------|
| 0° | 863.0 | 863.0 | 863.0 | 863.0 | 863.0 |
| 2.5° | 852.2 | 852.7 | 853.5 | 852.5 | 850.0 |
| 5° | 833.9 | 835.4 | 835.9 | 834.1 | 832.1 |
| 7.5° | 803.8 | 802.0 | 803.5 | 800.5 | 798.0 |
| 10° | 754.6 | 752.3 | 751.6 | 747.0 | 747.0 |
| 12.5° | 693.8 | 693.1 | 693.6 | 691.3 | 687.8 |
| 15° | 622.5 | 624.3 | 628.3 | 625.8 | 621.5 |
| 17.5° | 547.0 | 549.5 | 553.0 | 552.2 | 546.5 |
| 20° | 463.1 | 470.4 | 475.4 | 470.7 | 462.4 |
| 22.5° | 367.7 | 383.3 | 396.1 | 386.1 | 372.5 |
| 25° | 283.7 | 297.2 | 319.8 | 302.7 | 289.2 |
| 27.5° | 215.1 | 224.9 | 245.5 | 228.7 | 219.4 |
| 30° | 157.6 | 163.7 | 178.0 | 166.9 | 160.4 |
| 32.5° | 112.7 | 117.0 | 123.0 | 116.5 | 113.2 |
| 35° | 78.8 | 81.1 | 83.8 | 81.3 | 79.1 |
| 37.5° | 55.5 | 56.2 | 58.2 | 56.2 | 55.2 |
| 40° | 38.9 | 39.2 | 40.7 | 39.4 | 38.9 |
| 42.5° | 28.1 | 28.1 | 28.9 | 28.4 | 28.1 |
| 45° | 20.1 | 20.3 | 20.8 | 20.6 | 20.3 |
| 47.5° | 14.3 | 14.8 | 14.8 | 15.1 | 14.1 |
| 50° | 8.5 | 10.5 | 10.8 | 10.5 | 8.5 |
| 52.5° | 4.5 | 6.3 | 7.8 | 6.3 | 4.5 |
| 55° | 2.8 | 3.8 | 5.3 | 3.8 | 3.0 |
| 57.5° | 2.8 | 2.8 | 3.5 | 3.0 | 2.8 |
| 60° | 2.8 | 2.8 | 2.8 | 2.8 | 2.8 |
| 62.5° | 2.8 | 2.8 | 2.8 | 2.8 | 2.8 |
| 65° | 2.5 | 2.8 | 2.8 | 2.8 | 2.5 |
| 67.5° | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 |
| 70° | 2.5 | 2.5 | 2.3 | 2.5 | 2.5 |
| 72.5° | 2.3 | 2.3 | 2.0 | 2.3 | 2.3 |
| 75° | 1.8 | 1.8 | 1.8 | 1.8 | 1.8 |
| 77.5° | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 |
| 80° | 1.3 | 1.3 | 1.0 | 1.3 | 1.3 |
| 82.5° | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 |
| 85° | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 |
| 87.5° | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |



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— 0°-180° - - 45°-225° - - - - 90°-270°







(END OF REPORT)