

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: P283847

Luminaire Tested: **LDA2B059035D010 EU2B05WFL559035 2LBALPINSQ1MW**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P283847
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: LDA2B059035D010 EU2B05WFL559035 2LBALPINSQ1MW
Description: PORTFOLIO 2IN ADJ 500 LUMEN LED LUMINAIRE WITH WIDE FLOOD OPTIC AND
2in Adj SQ Pinhole w-lens, MW

Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 575.7 lumens
Efficiency: N/A
Efficacy: 82.2 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

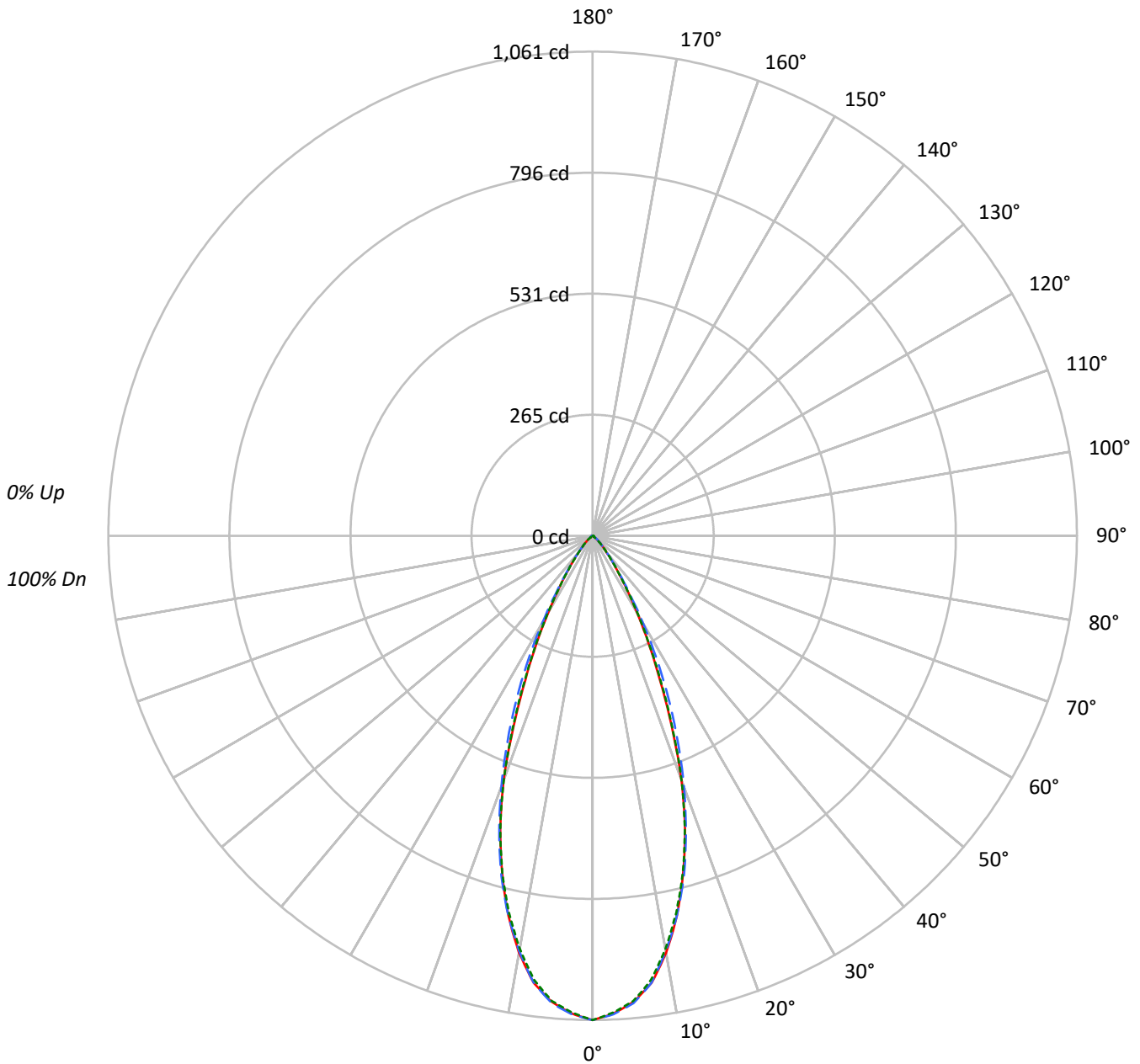
Input Watts (W): 7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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 | 84 | 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° | 523605 | 523605 | 523605 |
| 5° | 507875 | 509113 | 506786 |
| 10° | 464903 | 463049 | 460244 |
| 15° | 391042 | 394669 | 390378 |
| 20° | 299054 | 306982 | 298529 |
| 25° | 189874 | 214099 | 193576 |
| 30° | 110462 | 124704 | 112399 |
| 35° | 58361 | 62095 | 58542 |
| 40° | 30785 | 32202 | 30785 |
| 45° | 17234 | 17862 | 17443 |
| 50° | 8059 | 10208 | 8059 |
| 55° | 2925 | 5591 | 3183 |
| 60° | 3355 | 3355 | 3355 |
| 65° | 3619 | 3969 | 3619 |
| 70° | 4472 | 4039 | 4472 |
| 75° | 4194 | 4194 | 4194 |
| 80° | 4262 | 3409 | 4262 |
| 85° | 3396 | 3396 | 3396 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 94.7 | 16.5 |
| 10°-20° | 210.9 | 36.6 |
| 20°-30° | 170.4 | 29.6 |
| 30°-40° | 67.3 | 11.7 |
| 40°-50° | 20.7 | 3.6 |
| 50°-60° | 5.3 | 0.9 |
| 60°-70° | 3.2 | 0.6 |
| 70°-80° | 2.4 | 0.4 |
| 80°-90° | 0.7 | 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° | 476.0 | 82.7 |
| 0°-40° | 543.4 | 94.4 |
| 0°-60° | 569.4 | 98.9 |
| 0°-90° | 575.7 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 575.7 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|------|-------|------|-------|------|------|
| 0° | 1061 | 1061 | 1061 | 1061 | 1061 | |
| 5° | 1026 | 1027 | 1028 | 1026 | 1023 | 95 |
| 15° | 766 | 768 | 773 | 770 | 764 | 210 |
| 25° | 349 | 366 | 393 | 372 | 356 | 162 |
| 35° | 97 | 100 | 103 | 100 | 97 | 65 |
| 45° | 25 | 25 | 26 | 25 | 25 | 20 |
| 55° | 3 | 5 | 6 | 5 | 4 | 4 |
| 65° | 3 | 3 | 3 | 3 | 3 | 3 |
| 75° | 2 | 2 | 2 | 2 | 2 | 2 |
| 85° | 1 | 1 | 1 | 1 | 1 | 1 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P283847

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CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|--------|--------|--------|--------|--------|
| 0° | 1061.3 | 1061.3 | 1061.3 | 1061.3 | 1061.3 |
| 2.5° | 1048.0 | 1048.7 | 1049.6 | 1048.4 | 1045.3 |
| 5° | 1025.5 | 1027.4 | 1028.0 | 1025.8 | 1023.3 |
| 7.5° | 988.5 | 986.3 | 988.2 | 984.5 | 981.4 |
| 10° | 928.0 | 925.2 | 924.3 | 918.7 | 918.7 |
| 12.5° | 853.3 | 852.3 | 852.9 | 850.2 | 845.8 |
| 15° | 765.6 | 767.7 | 772.7 | 769.6 | 764.3 |
| 17.5° | 672.7 | 675.7 | 680.1 | 679.1 | 672.0 |
| 20° | 569.6 | 578.5 | 584.7 | 578.8 | 568.6 |
| 22.5° | 452.2 | 471.4 | 487.1 | 474.8 | 458.1 |
| 25° | 348.8 | 365.5 | 393.3 | 372.3 | 355.6 |
| 27.5° | 264.6 | 276.6 | 301.9 | 281.2 | 269.8 |
| 30° | 193.9 | 201.3 | 218.9 | 205.3 | 197.3 |
| 32.5° | 138.6 | 143.9 | 151.3 | 143.2 | 139.2 |
| 35° | 96.9 | 99.7 | 103.1 | 100.0 | 97.2 |
| 37.5° | 68.2 | 69.1 | 71.6 | 69.1 | 67.9 |
| 40° | 47.8 | 48.2 | 50.0 | 48.5 | 47.8 |
| 42.5° | 34.6 | 34.6 | 35.5 | 34.9 | 34.6 |
| 45° | 24.7 | 25.0 | 25.6 | 25.3 | 25.0 |
| 47.5° | 17.6 | 18.2 | 18.2 | 18.5 | 17.3 |
| 50° | 10.5 | 13.0 | 13.3 | 13.0 | 10.5 |
| 52.5° | 5.6 | 7.7 | 9.6 | 7.7 | 5.6 |
| 55° | 3.4 | 4.6 | 6.5 | 4.6 | 3.7 |
| 57.5° | 3.4 | 3.4 | 4.3 | 3.7 | 3.4 |
| 60° | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 |
| 62.5° | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 |
| 65° | 3.1 | 3.4 | 3.4 | 3.4 | 3.1 |
| 67.5° | 3.1 | 3.1 | 3.1 | 3.1 | 3.1 |
| 70° | 3.1 | 3.1 | 2.8 | 3.1 | 3.1 |
| 72.5° | 2.8 | 2.8 | 2.5 | 2.8 | 2.8 |
| 75° | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 |
| 77.5° | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 |
| 80° | 1.5 | 1.5 | 1.2 | 1.5 | 1.5 |
| 82.5° | 0.9 | 0.9 | 0.9 | 0.9 | 0.9 |
| 85° | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 |
| 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)