

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: P284126

Luminaire Tested: **LDA2B20D2WD010 EU2B20WFL55D2W 2LBAPINSQ1MW**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P284126
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: LDA2B20D2WD010 EU2B20WFL55D2W 2LBAPINSQ1MW
Description: PORTFOLIO 2IN ADJ 2000 LUMEN LED LUMINAIRE WITH WIDE FLOOD OPTIC AND
2in Adj SQ PinHole, MW

Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1379.9 lumens
Efficiency: N/A
Efficacy: 67.0 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

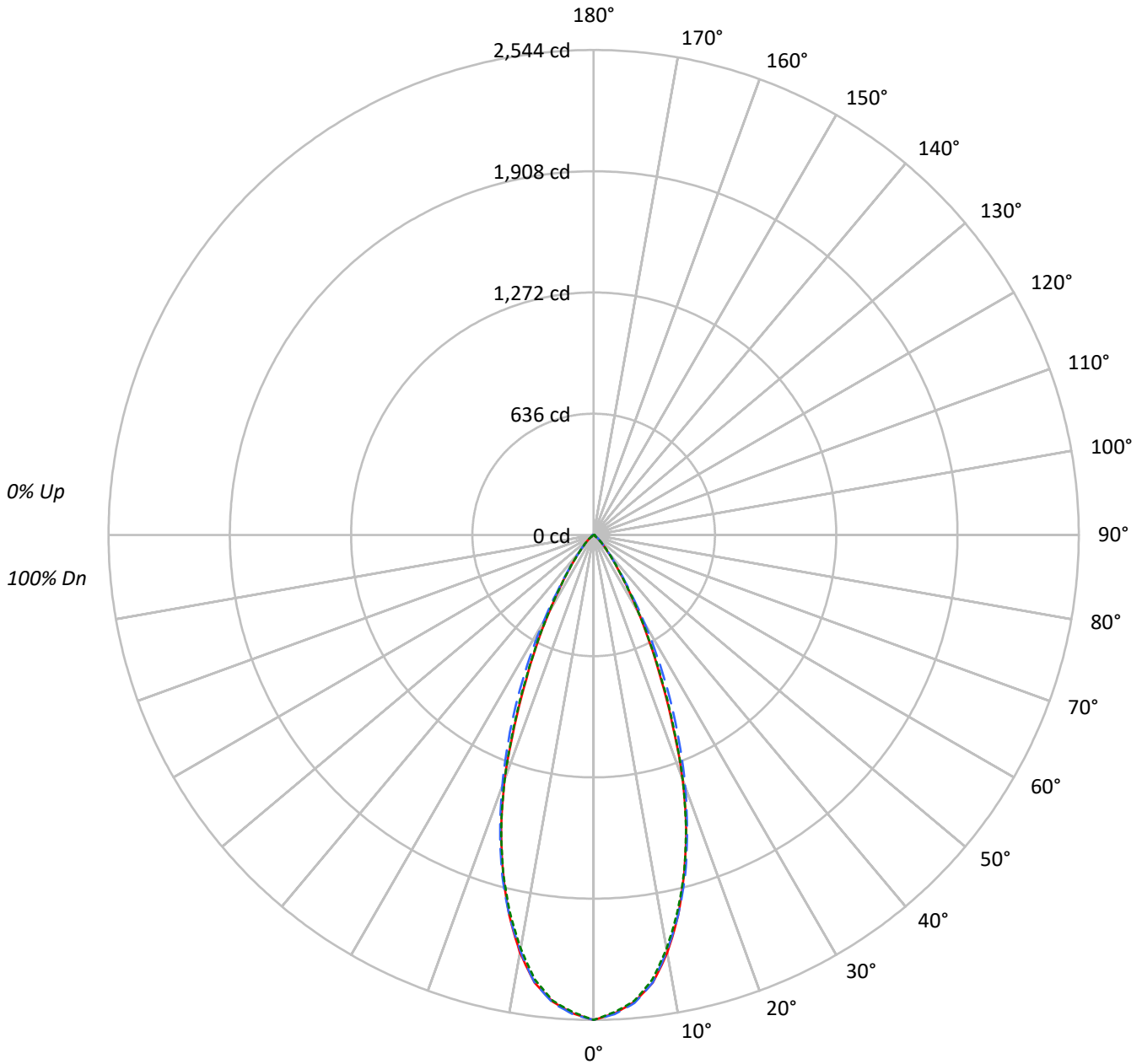
Input Watts (W): 20.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|----|---|--|--|--|--|--|--|----|--|--|--|--|--|--|--|--|---|
| RF | 20 | | | | | | | | | 20 | | | | | | | | | 20 | | | | | | | | | 20 | | | | | | | | | |
| RC | 80 | | | | | | | | | 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 | | | | | | | | | | | | | | | | | | | |
| 1 | 114 | 111 | 109 | 107 | 111 | 109 | 107 | 105 | 105 | 103 | 102 | 101 | 100 | 99 | 98 | 97 | 96 | 94 | | | | | | | | | | | | | | | | | | | |
| 2 | 109 | 104 | 101 | 98 | 107 | 103 | 99 | 96 | 100 | 97 | 94 | 97 | 94 | 92 | 94 | 92 | 90 | 89 | | | | | | | | | | | | | | | | | | | |
| 3 | 104 | 98 | 94 | 90 | 102 | 97 | 93 | 89 | 94 | 91 | 88 | 92 | 89 | 87 | 90 | 87 | 85 | 84 | | | | | | | | | | | | | | | | | | | |
| 4 | 100 | 93 | 88 | 84 | 98 | 92 | 87 | 83 | 90 | 86 | 82 | 88 | 84 | 81 | 86 | 83 | 81 | 79 | | | | | | | | | | | | | | | | | | | |
| 5 | 95 | 88 | 82 | 79 | 94 | 87 | 82 | 78 | 85 | 81 | 78 | 84 | 80 | 77 | 82 | 79 | 76 | 75 | | | | | | | | | | | | | | | | | | | |
| 6 | 91 | 83 | 78 | 74 | 90 | 82 | 77 | 74 | 81 | 77 | 73 | 80 | 76 | 73 | 78 | 75 | 72 | 71 | | | | | | | | | | | | | | | | | | | |
| 7 | 87 | 79 | 74 | 70 | 86 | 78 | 73 | 70 | 77 | 73 | 69 | 76 | 72 | 69 | 75 | 71 | 69 | 67 | | | | | | | | | | | | | | | | | | | |
| 8 | 84 | 75 | 70 | 66 | 83 | 75 | 70 | 66 | 74 | 69 | 66 | 73 | 69 | 66 | 72 | 68 | 65 | 64 | | | | | | | | | | | | | | | | | | | |
| 9 | 81 | 72 | 67 | 63 | 80 | 71 | 66 | 63 | 71 | 66 | 63 | 70 | 66 | 63 | 69 | 65 | 62 | 61 | | | | | | | | | | | | | | | | | | | |
| 10 | 77 | 69 | 64 | 60 | 76 | 68 | 63 | 60 | 68 | 63 | 60 | 67 | 63 | 60 | 66 | 62 | 60 | 58 | | | | | | | | | | | | | | | | | | | |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|---------|---------|---------|
| 0° | 1255211 | 1255211 | 1255211 |
| 5° | 1217514 | 1220436 | 1214938 |
| 10° | 1114414 | 1109955 | 1103292 |
| 15° | 937408 | 946091 | 935876 |
| 20° | 716869 | 735875 | 715661 |
| 25° | 455198 | 513227 | 464071 |
| 30° | 264733 | 298914 | 269404 |
| 35° | 139971 | 148884 | 140392 |
| 40° | 73871 | 77220 | 73871 |
| 45° | 41305 | 42840 | 41793 |
| 50° | 19342 | 24408 | 19342 |
| 55° | 6967 | 13332 | 7655 |
| 60° | 7992 | 7992 | 7992 |
| 65° | 8639 | 9456 | 8639 |
| 70° | 10674 | 9665 | 10674 |
| 75° | 9912 | 9912 | 9912 |
| 80° | 10512 | 8523 | 10512 |
| 85° | 8491 | 8491 | 8491 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 227.1 | 16.5 |
| 10°-20° | 505.7 | 36.6 |
| 20°-30° | 408.4 | 29.6 |
| 30°-40° | 161.4 | 11.7 |
| 40°-50° | 49.6 | 3.6 |
| 50°-60° | 12.8 | 0.9 |
| 60°-70° | 7.7 | 0.6 |
| 70°-80° | 5.7 | 0.4 |
| 80°-90° | 1.7 | 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° | 1141.2 | 82.7 |
| 0°-40° | 1302.6 | 94.4 |
| 0°-60° | 1364.9 | 98.9 |
| 0°-90° | 1379.9 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 1379.9 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|------|-------|------|-------|------|------|
| 0° | 2544 | 2544 | 2544 | 2544 | 2544 | |
| 5° | 2458 | 2463 | 2464 | 2459 | 2453 | 228 |
| 15° | 1835 | 1840 | 1852 | 1845 | 1832 | 504 |
| 25° | 836 | 876 | 943 | 892 | 852 | 389 |
| 35° | 232 | 239 | 247 | 240 | 233 | 156 |
| 45° | 59 | 60 | 61 | 61 | 60 | 48 |
| 55° | 8 | 11 | 16 | 11 | 9 | 10 |
| 65° | 7 | 8 | 8 | 8 | 7 | 8 |
| 75° | 5 | 5 | 5 | 5 | 5 | 6 |
| 85° | 2 | 2 | 2 | 2 | 2 | 2 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



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CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|--------|--------|--------|--------|--------|
| 0° | 2544.2 | 2544.2 | 2544.2 | 2544.2 | 2544.2 |
| 2.5° | 2512.4 | 2513.9 | 2516.1 | 2513.1 | 2505.7 |
| 5° | 2458.4 | 2462.8 | 2464.3 | 2459.1 | 2453.2 |
| 7.5° | 2369.6 | 2364.4 | 2368.8 | 2360.0 | 2352.6 |
| 10° | 2224.5 | 2217.9 | 2215.6 | 2202.3 | 2202.3 |
| 12.5° | 2045.4 | 2043.2 | 2044.7 | 2038.0 | 2027.7 |
| 15° | 1835.3 | 1840.5 | 1852.3 | 1844.9 | 1832.3 |
| 17.5° | 1612.5 | 1619.9 | 1630.3 | 1628.1 | 1611.0 |
| 20° | 1365.4 | 1386.8 | 1401.6 | 1387.6 | 1363.1 |
| 22.5° | 1084.1 | 1130.0 | 1167.8 | 1138.2 | 1098.2 |
| 25° | 836.2 | 876.2 | 942.8 | 892.5 | 852.5 |
| 27.5° | 634.2 | 663.1 | 723.7 | 674.2 | 646.8 |
| 30° | 464.7 | 482.5 | 524.7 | 492.1 | 472.9 |
| 32.5° | 332.3 | 344.9 | 362.6 | 343.4 | 333.8 |
| 35° | 232.4 | 239.0 | 247.2 | 239.8 | 233.1 |
| 37.5° | 163.5 | 165.8 | 171.7 | 165.8 | 162.8 |
| 40° | 114.7 | 115.4 | 119.9 | 116.2 | 114.7 |
| 42.5° | 82.9 | 82.9 | 85.1 | 83.6 | 82.9 |
| 45° | 59.2 | 59.9 | 61.4 | 60.7 | 59.9 |
| 47.5° | 42.2 | 43.7 | 43.7 | 44.4 | 41.4 |
| 50° | 25.2 | 31.1 | 31.8 | 31.1 | 25.2 |
| 52.5° | 13.3 | 18.5 | 22.9 | 18.5 | 13.3 |
| 55° | 8.1 | 11.1 | 15.5 | 11.1 | 8.9 |
| 57.5° | 8.1 | 8.1 | 10.4 | 8.9 | 8.1 |
| 60° | 8.1 | 8.1 | 8.1 | 8.1 | 8.1 |
| 62.5° | 8.1 | 8.1 | 8.1 | 8.1 | 8.1 |
| 65° | 7.4 | 8.1 | 8.1 | 8.1 | 7.4 |
| 67.5° | 7.4 | 7.4 | 7.4 | 7.4 | 7.4 |
| 70° | 7.4 | 7.4 | 6.7 | 7.4 | 7.4 |
| 72.5° | 6.7 | 6.7 | 5.9 | 6.7 | 6.7 |
| 75° | 5.2 | 5.2 | 5.2 | 5.2 | 5.2 |
| 77.5° | 4.4 | 4.4 | 4.4 | 4.4 | 4.4 |
| 80° | 3.7 | 3.7 | 3.0 | 3.7 | 3.7 |
| 82.5° | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 |
| 85° | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 |
| 87.5° | 0.7 | 0.7 | 0.7 | 0.7 | 0.7 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |



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







(END OF REPORT)