

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: P283540

Luminaire Tested: **LDA2B05D2WD010 EU2B05FL40D2W 2LBAPINSQ1MMS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P283540
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1809-951-15)
Test Lab: INNOVATION CENTER(G2)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: io LED
Catalog Number: LDA2B05D2WD010 EU2B05FL40D2W 2LBAPINSQ1MMS
Description: PORTFOLIO 2IN ADJ 500 LUMEN LED LUMINAIRE WITH FLOOD OPTIC AND 2in Adj SQ PinHole, MMS

Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 518.4 lumens
Efficiency: N/A
Efficacy: 74.1 lumens/watt
Spacing Criteria (0/90/45): 0.55 / 0.55 / 0.55
Luminous Opening: Circular (Dia: 0.17' x H: 0')
CIE Type: Direct

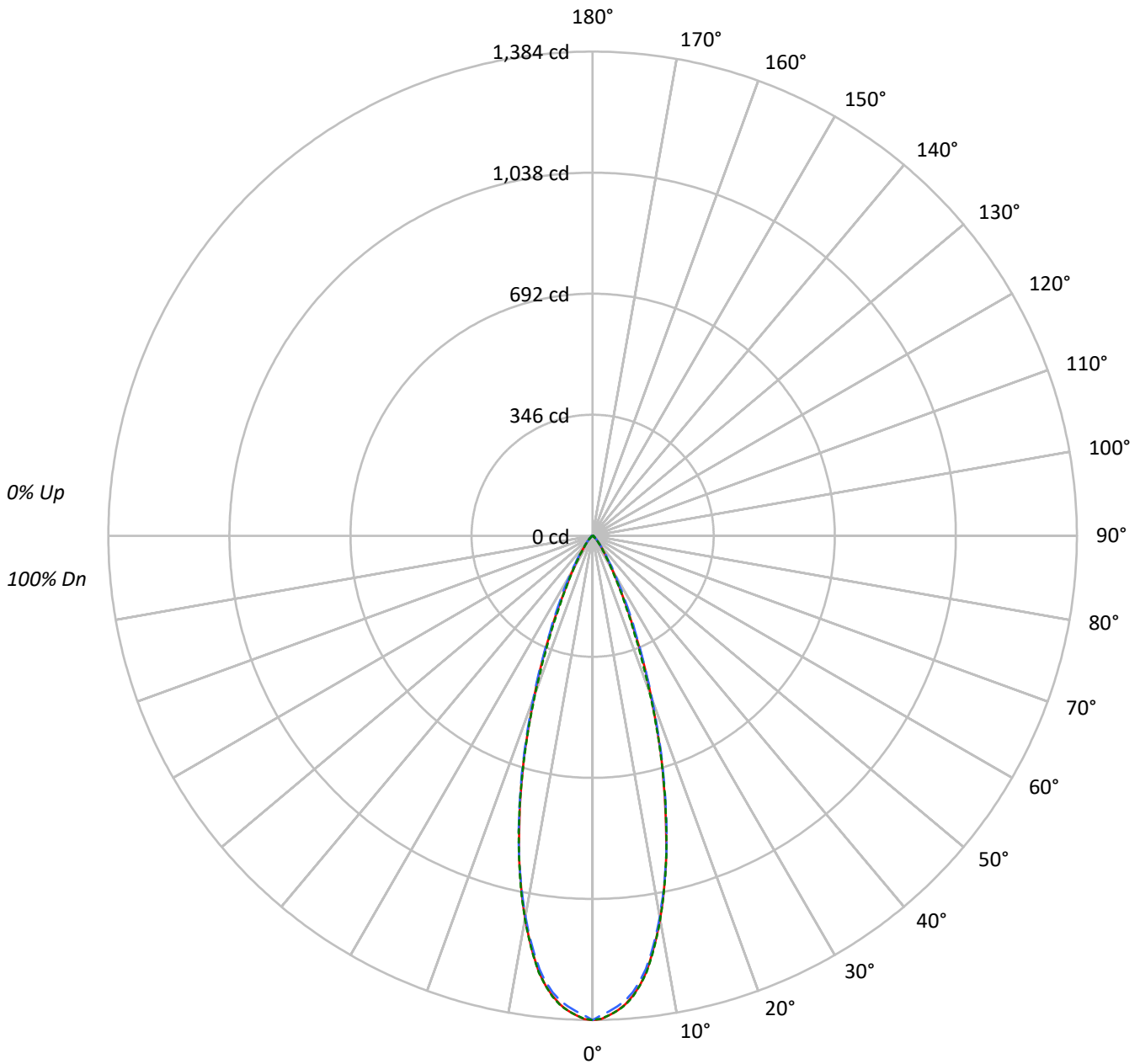
Input Watts (W): 7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|----|---|--|--|--|--|--|--|----|--|--|--|--|--|--|--|--|---|
| RF | 20 | | | | | | | | | 20 | | | | | | | | | 20 | | | | | | | | | 20 | | | | | | | | | |
| 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 | 112 | 110 | 108 | 112 | 110 | 108 | 106 | 106 | 104 | 103 | 102 | 101 | 100 | 99 | 98 | 97 | 95 | | | | | | | | | | | | | | | | | | | |
| 2 | 110 | 106 | 102 | 99 | 108 | 104 | 101 | 98 | 101 | 98 | 96 | 98 | 96 | 94 | 95 | 93 | 92 | 90 | | | | | | | | | | | | | | | | | | | |
| 3 | 105 | 100 | 96 | 92 | 104 | 99 | 95 | 92 | 96 | 93 | 90 | 94 | 91 | 89 | 92 | 89 | 88 | 86 | | | | | | | | | | | | | | | | | | | |
| 4 | 101 | 95 | 90 | 87 | 100 | 94 | 90 | 86 | 92 | 88 | 85 | 90 | 87 | 84 | 88 | 86 | 83 | 82 | | | | | | | | | | | | | | | | | | | |
| 5 | 98 | 91 | 86 | 82 | 96 | 90 | 85 | 82 | 88 | 84 | 81 | 86 | 83 | 80 | 85 | 82 | 80 | 79 | | | | | | | | | | | | | | | | | | | |
| 6 | 94 | 87 | 82 | 78 | 93 | 86 | 81 | 78 | 84 | 80 | 77 | 83 | 80 | 77 | 82 | 79 | 76 | 75 | | | | | | | | | | | | | | | | | | | |
| 7 | 91 | 83 | 78 | 75 | 89 | 82 | 78 | 74 | 81 | 77 | 74 | 80 | 76 | 74 | 79 | 76 | 73 | 72 | | | | | | | | | | | | | | | | | | | |
| 8 | 87 | 80 | 75 | 71 | 86 | 79 | 74 | 71 | 78 | 74 | 71 | 77 | 73 | 71 | 76 | 73 | 70 | 69 | | | | | | | | | | | | | | | | | | | |
| 9 | 84 | 77 | 72 | 69 | 83 | 76 | 72 | 68 | 75 | 71 | 68 | 74 | 71 | 68 | 74 | 70 | 68 | 67 | | | | | | | | | | | | | | | | | | | |
| 10 | 82 | 74 | 69 | 66 | 81 | 73 | 69 | 66 | 73 | 69 | 66 | 72 | 68 | 65 | 71 | 68 | 65 | 64 | | | | | | | | | | | | | | | | | | | |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|--------|--------|--------|
| 0° | 683059 | 683059 | 683059 |
| 5° | 653676 | 648773 | 654666 |
| 10° | 556881 | 553425 | 557482 |
| 15° | 410451 | 413158 | 411779 |
| 20° | 256212 | 260990 | 250594 |
| 25° | 132389 | 142025 | 125694 |
| 30° | 63463 | 72749 | 60501 |
| 35° | 32764 | 36257 | 30656 |
| 40° | 18355 | 19321 | 17389 |
| 45° | 11164 | 11164 | 10745 |
| 50° | 5833 | 7138 | 5833 |
| 55° | 3011 | 4731 | 3269 |
| 60° | 3454 | 3454 | 3454 |
| 65° | 3736 | 3736 | 3736 |
| 70° | 4616 | 4183 | 4616 |
| 75° | 4384 | 4384 | 4384 |
| 80° | 4262 | 4262 | 4262 |
| 85° | 3396 | 3396 | 3396 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 119.1 | 23.0 |
| 10°-20° | 218.7 | 42.2 |
| 20°-30° | 118.6 | 22.9 |
| 30°-40° | 38.1 | 7.3 |
| 40°-50° | 13.0 | 2.5 |
| 50°-60° | 4.6 | 0.9 |
| 60°-70° | 3.3 | 0.6 |
| 70°-80° | 2.4 | 0.5 |
| 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° | 456.4 | 88.0 |
| 0°-40° | 494.5 | 95.4 |
| 0°-60° | 512.0 | 98.8 |
| 0°-90° | 518.4 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 518.4 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|------|-------|------|-------|------|------|
| 0° | 1384 | 1384 | 1384 | 1384 | 1384 | |
| 5° | 1320 | 1312 | 1310 | 1323 | 1322 | 119 |
| 15° | 804 | 810 | 809 | 813 | 806 | 218 |
| 25° | 243 | 254 | 261 | 243 | 231 | 117 |
| 35° | 54 | 57 | 60 | 55 | 51 | 37 |
| 45° | 16 | 16 | 16 | 16 | 15 | 13 |
| 55° | 4 | 4 | 6 | 4 | 4 | 4 |
| 65° | 3 | 4 | 3 | 4 | 3 | 3 |
| 75° | 2 | 2 | 2 | 2 | 2 | 2 |
| 85° | 1 | 1 | 1 | 1 | 1 | 1 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P283540

CATALOG NUMBER: LDA2B05D2WD010 EU2B05FL40D2W 2LBAPINSQ1MMS

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|--------|--------|--------|--------|--------|
| 0° | 1384.5 | 1384.5 | 1384.5 | 1384.5 | 1384.5 |
| 1° | 1382.1 | 1372.2 | 1370.8 | 1383.6 | 1380.7 |
| 2° | 1371.1 | 1361.8 | 1360.3 | 1373.1 | 1370.5 |
| 3° | 1358.9 | 1350.4 | 1347.5 | 1360.9 | 1359.1 |
| 4° | 1342.6 | 1334.7 | 1332.1 | 1345.5 | 1344.0 |
| 5° | 1319.9 | 1311.7 | 1310.0 | 1323.1 | 1321.9 |
| 6° | 1292.0 | 1285.3 | 1282.1 | 1295.2 | 1292.8 |
| 7° | 1257.1 | 1251.0 | 1247.5 | 1257.1 | 1258.2 |
| 8° | 1211.7 | 1208.8 | 1204.7 | 1214.3 | 1214.3 |
| 9° | 1163.4 | 1160.8 | 1156.4 | 1165.1 | 1165.1 |
| 10° | 1111.6 | 1109.9 | 1104.7 | 1112.8 | 1112.8 |
| 11° | 1054.9 | 1054.0 | 1050.3 | 1057.0 | 1057.0 |
| 12° | 995.3 | 997.3 | 993.8 | 999.7 | 997.6 |
| 13° | 935.7 | 934.8 | 935.1 | 939.4 | 936.2 |
| 14° | 868.2 | 873.4 | 874.3 | 876.9 | 872.0 |
| 15° | 803.6 | 810.3 | 808.9 | 812.6 | 806.2 |
| 16° | 737.6 | 745.2 | 744.9 | 745.7 | 739.6 |
| 17° | 675.9 | 680.3 | 680.6 | 679.7 | 672.2 |
| 18° | 610.2 | 616.3 | 616.3 | 614.9 | 605.8 |
| 19° | 545.9 | 550.6 | 553.8 | 550.6 | 540.1 |
| 20° | 488.0 | 491.2 | 497.1 | 488.9 | 477.3 |
| 21° | 432.5 | 435.4 | 440.3 | 430.8 | 418.0 |
| 22° | 379.3 | 383.1 | 387.7 | 376.7 | 363.3 |
| 23° | 329.5 | 338.3 | 340.0 | 324.9 | 313.5 |
| 24° | 283.9 | 293.8 | 296.7 | 281.3 | 269.3 |
| 25° | 243.2 | 254.2 | 260.9 | 242.9 | 230.9 |
| 26° | 208.0 | 218.7 | 226.9 | 208.8 | 197.5 |
| 27° | 177.1 | 188.5 | 196.9 | 180.0 | 169.3 |
| 28° | 150.7 | 161.7 | 170.4 | 154.7 | 144.6 |
| 29° | 130.9 | 137.3 | 146.0 | 132.9 | 123.6 |
| 30° | 111.4 | 118.4 | 127.7 | 114.3 | 106.2 |
| 32.5° | 76.5 | 80.3 | 87.5 | 79.4 | 73.0 |
| 35° | 54.4 | 56.7 | 60.2 | 54.7 | 50.9 |
| 37.5° | 38.7 | 39.8 | 41.9 | 38.7 | 36.6 |
| 40° | 28.5 | 29.1 | 30.0 | 28.2 | 27.0 |
| 42.5° | 21.2 | 21.5 | 21.5 | 20.9 | 20.4 |
| 45° | 16.0 | 16.3 | 16.0 | 16.0 | 15.4 |
| 47.5° | 11.6 | 12.5 | 12.2 | 12.2 | 11.3 |
| 50° | 7.6 | 9.3 | 9.3 | 9.0 | 7.6 |
| 52.5° | 4.7 | 6.4 | 7.3 | 6.4 | 4.9 |
| 55° | 3.5 | 4.4 | 5.5 | 4.4 | 3.8 |
| 57.5° | 3.5 | 3.5 | 4.1 | 3.5 | 3.5 |
| 60° | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 |



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CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|-----|-------|-----|-------|-----|
| 67.5° | 3.2 | 3.2 | 3.2 | 3.2 | 3.2 |
| 70° | 3.2 | 3.2 | 2.9 | 3.2 | 3.2 |
| 72.5° | 2.9 | 2.9 | 2.6 | 2.9 | 2.6 |
| 75° | 2.3 | 2.3 | 2.3 | 2.3 | 2.3 |
| 77.5° | 1.7 | 1.7 | 1.7 | 1.7 | 1.7 |
| 80° | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 |
| 82.5° | 0.9 | 0.9 | 0.9 | 1.2 | 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°







| | | | | | |
|-------|-----|-----|-----|-----|-----|
| 62.5° | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 |
| 65° | 3.2 | 3.5 | 3.2 | 3.5 | 3.2 |



(END OF REPORT)