

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: P315685

Luminaire Tested: **LDA2B10WFL9040D010 PIN1MB**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P315685  
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: LDA2B10WFL9040D010 PIN1MB  
Description: PORTFOLIO 2IN ADJ 1000 LUMEN LED LUMINAIRE WITH WIDE FLOOD OPTIC AND  
2in Adj PinHole, Black oculus black finish  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 768.5 lumens  
Efficiency: N/A  
Efficacy: 76.8 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

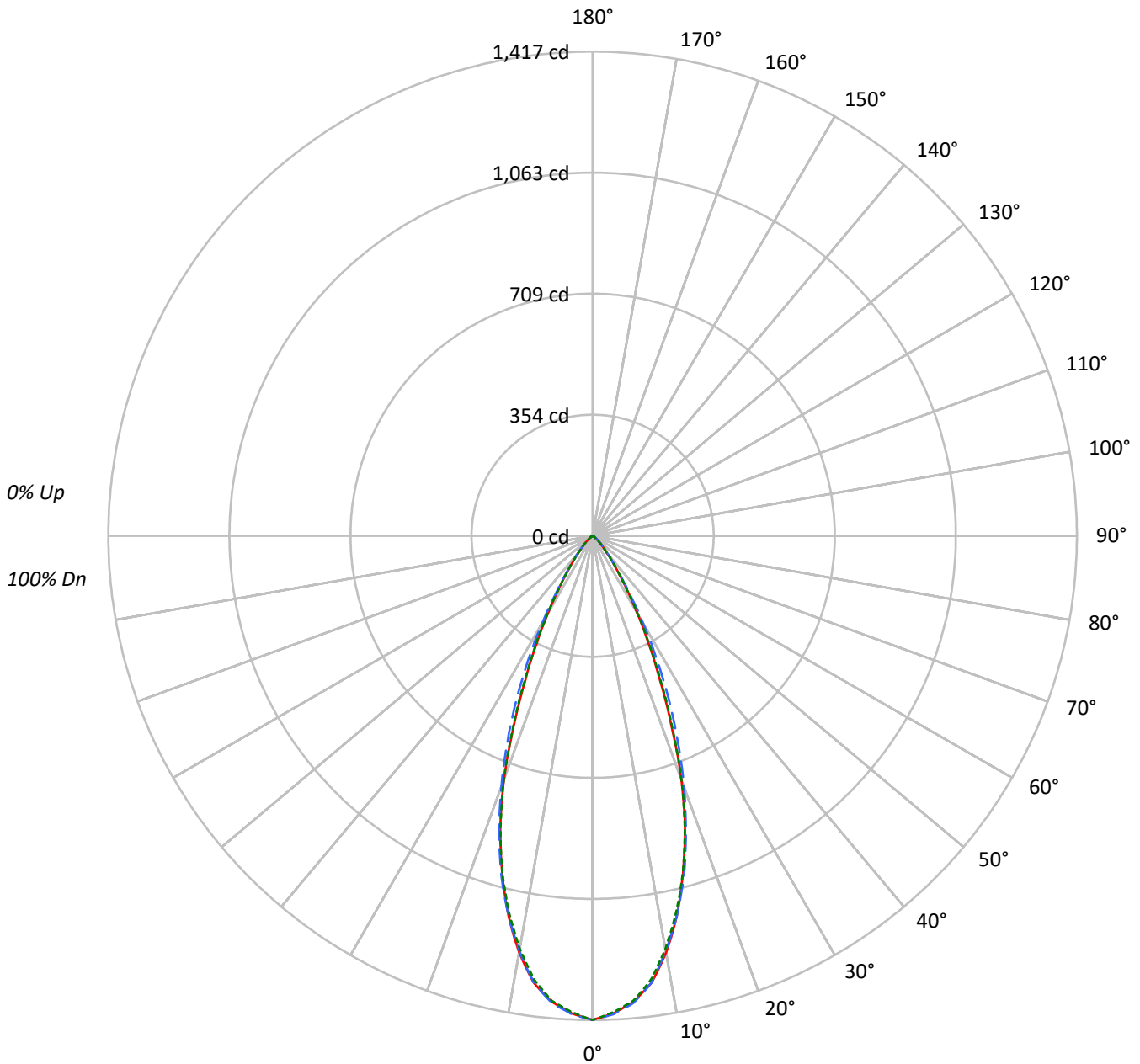
Input Watts (W): 10  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°  | 699044 | 699044 | 699044 |
| 5°  | 678042 | 679676 | 676606 |
| 10° | 620655 | 618150 | 614443 |
| 15° | 522054 | 526906 | 521185 |
| 20° | 399229 | 409834 | 398599 |
| 25° | 253511 | 285846 | 258464 |
| 30° | 147435 | 166462 | 150055 |
| 35° | 77935  | 82934  | 78176  |
| 40° | 41154  | 43022  | 41154  |
| 45° | 23025  | 23862  | 23304  |
| 50° | 10745  | 13585  | 10745  |
| 55° | 3871   | 7483   | 4215   |
| 60° | 4440   | 4440   | 4440   |
| 65° | 4786   | 5253   | 4786   |
| 70° | 5914   | 5337   | 5914   |
| 75° | 5528   | 5528   | 5528   |
| 80° | 5966   | 4546   | 5966   |
| 85° | 4529   | 4529   | 4529   |



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 126.5  | 16.5      |
| 10°-20°   | 281.6  | 36.6      |
| 20°-30°   | 227.4  | 29.6      |
| 30°-40°   | 89.9   | 11.7      |
| 40°-50°   | 27.6   | 3.6       |
| 50°-60°   | 7.1    | 0.9       |
| 60°-70°   | 4.3    | 0.6       |
| 70°-80°   | 3.2    | 0.4       |
| 80°-90°   | 0.9    | 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°    | 635.5  | 82.7      |
| 0°-40°    | 725.4  | 94.4      |
| 0°-60°    | 760.1  | 98.9      |
| 0°-90°    | 768.5  | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 768.5  | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|-----|------|-------|------|-------|------|------|
| 0°  | 1417 | 1417  | 1417 | 1417  | 1417 |      |
| 5°  | 1369 | 1372  | 1372 | 1370  | 1366 | 127  |
| 15° | 1022 | 1025  | 1032 | 1028  | 1020 | 281  |
| 25° | 466  | 488   | 525  | 497   | 475  | 217  |
| 35° | 129  | 133   | 138  | 134   | 130  | 87   |
| 45° | 33   | 33    | 34   | 34    | 33   | 27   |
| 55° | 4    | 6     | 9    | 6     | 5    | 6    |
| 65° | 4    | 4     | 4    | 4     | 4    | 4    |
| 75° | 3    | 3     | 3    | 3     | 3    | 3    |
| 85° | 1    | 1     | 1    | 1     | 1    | 1    |
| 90° | 0    | 0     | 0    | 0     | 0    |      |



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|-------|--------|--------|--------|--------|--------|
| 0°    | 1416.9 | 1416.9 | 1416.9 | 1416.9 | 1416.9 |
| 2.5°  | 1399.2 | 1400.0 | 1401.3 | 1399.6 | 1395.5 |
| 5°    | 1369.1 | 1371.6 | 1372.4 | 1369.5 | 1366.2 |
| 7.5°  | 1319.7 | 1316.8 | 1319.2 | 1314.3 | 1310.2 |
| 10°   | 1238.9 | 1235.2 | 1233.9 | 1226.5 | 1226.5 |
| 12.5° | 1139.1 | 1137.9 | 1138.7 | 1135.0 | 1129.3 |
| 15°   | 1022.1 | 1025.0 | 1031.6 | 1027.5 | 1020.4 |
| 17.5° | 898.0  | 902.2  | 907.9  | 906.7  | 897.2  |
| 20°   | 760.4  | 772.3  | 780.6  | 772.8  | 759.2  |
| 22.5° | 603.8  | 629.3  | 650.3  | 633.9  | 611.6  |
| 25°   | 465.7  | 488.0  | 525.1  | 497.0  | 474.8  |
| 27.5° | 353.2  | 369.3  | 403.1  | 375.5  | 360.2  |
| 30°   | 258.8  | 268.7  | 292.2  | 274.1  | 263.4  |
| 32.5° | 185.0  | 192.1  | 201.9  | 191.2  | 185.9  |
| 35°   | 129.4  | 133.1  | 137.7  | 133.5  | 129.8  |
| 37.5° | 91.1   | 92.3   | 95.6   | 92.3   | 90.7   |
| 40°   | 63.9   | 64.3   | 66.8   | 64.7   | 63.9   |
| 42.5° | 46.2   | 46.2   | 47.4   | 46.6   | 46.2   |
| 45°   | 33.0   | 33.4   | 34.2   | 33.8   | 33.4   |
| 47.5° | 23.5   | 24.3   | 24.3   | 24.7   | 23.1   |
| 50°   | 14.0   | 17.3   | 17.7   | 17.3   | 14.0   |
| 52.5° | 7.4    | 10.3   | 12.8   | 10.3   | 7.4    |
| 55°   | 4.5    | 6.2    | 8.7    | 6.2    | 4.9    |
| 57.5° | 4.5    | 4.5    | 5.8    | 4.9    | 4.5    |
| 60°   | 4.5    | 4.5    | 4.5    | 4.5    | 4.5    |
| 62.5° | 4.5    | 4.5    | 4.5    | 4.5    | 4.5    |
| 65°   | 4.1    | 4.5    | 4.5    | 4.5    | 4.1    |
| 67.5° | 4.1    | 4.1    | 4.1    | 4.1    | 4.1    |
| 70°   | 4.1    | 4.1    | 3.7    | 4.1    | 4.1    |
| 72.5° | 3.7    | 3.7    | 3.3    | 3.7    | 3.7    |
| 75°   | 2.9    | 2.9    | 2.9    | 2.9    | 2.9    |
| 77.5° | 2.5    | 2.5    | 2.5    | 2.5    | 2.5    |
| 80°   | 2.1    | 2.1    | 1.6    | 2.1    | 2.1    |
| 82.5° | 1.2    | 1.2    | 1.2    | 1.2    | 1.2    |
| 85°   | 0.8    | 0.8    | 0.8    | 0.8    | 0.8    |
| 87.5° | 0.4    | 0.4    | 0.4    | 0.4    | 0.4    |
| 90°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |



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







(END OF REPORT)