

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: P282536

Luminaire Tested: **LDA2B158027D010 EU2B15SP158027 2LBALPINSQ1MW**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P282536  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1808-908-7)  
Test Lab: INNOVATION CENTER(G2)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: io LED  
Catalog Number: LDA2B158027D010 EU2B15SP158027 2LBALPINSQ1MW  
Description: PORTFOLIO 2IN ADJ 1500 LUMEN LED LUMINAIRE WITH SPOT OPTIC AND 2in Adj SQ Pinhole w-lens, MW  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1412.3 lumens  
Efficiency: N/A  
Efficacy: 100.2 lumens/watt  
Spacing Criteria (0/90/45): 0.32 / 0.3 / 0.32  
Luminous Opening: Circular (Dia: 0.17' x H: 0')  
CIE Type: Direct

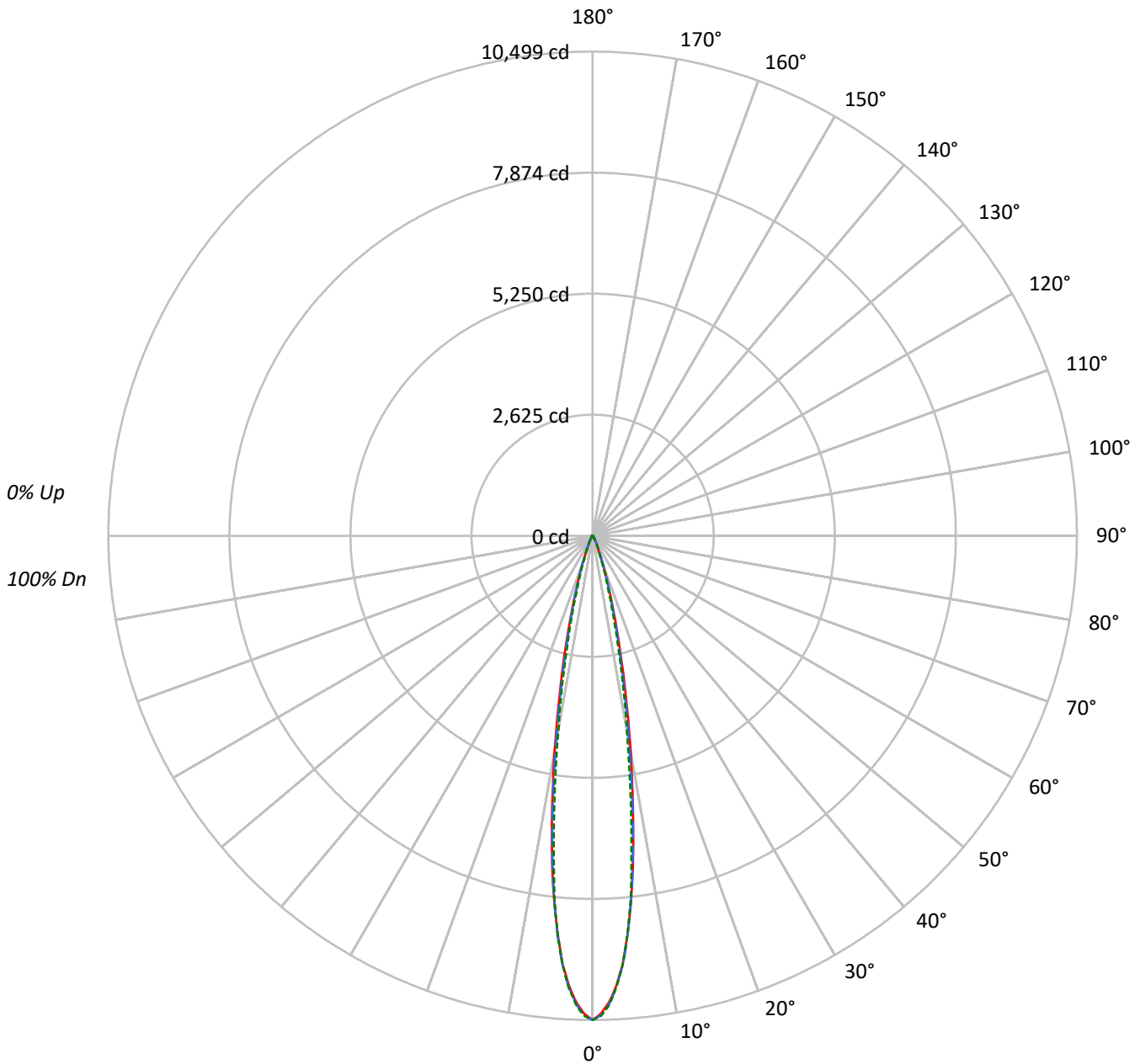
Input Watts (W): 14.1  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P282536

CATALOG NUMBER: LDA2B158027D010 EU2B15SP158027 2LBALPINSQ1MW

### Luminous Intensity Polar Plot





TEST NUMBER: P282536

CATALOG NUMBER: LDA2B158027D010 EU2B15SP158027 2LBALPINSQ1MW

**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				100															
1	115	113	111	109	113	111	109	107	107	105	104	103	102	101	100	99	98	96	98	99	98	96															
2	111	108	105	102	109	106	103	101	103	101	99	100	98	97	98	96	95	94	98	96	95	94															
3	108	104	100	97	106	102	99	97	100	97	95	98	95	94	96	94	92	91	96	94	92	91															
4	105	100	96	93	104	99	96	93	97	94	92	95	93	91	94	92	90	89	94	92	90	89															
5	102	97	93	90	101	96	93	90	95	91	89	93	90	88	92	89	88	87	92	89	88	87															
6	100	94	90	88	99	94	90	87	92	89	87	91	88	86	90	88	86	85	90	88	86	85															
7	98	92	88	85	97	91	88	85	90	87	85	89	86	84	88	86	84	83	88	86	84	83															
8	96	90	86	83	95	89	86	83	88	85	83	87	85	82	87	84	82	81	87	84	82	81															
9	94	88	84	81	93	87	84	81	86	83	81	86	83	81	85	82	81	80	85	82	81	80															
10	92	86	82	80	91	85	82	80	85	82	79	84	81	79	84	81	79	78	84	81	79	78															

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	5180003	5180003	5180003
5°	4297352	4311318	4294925
10°	2378418	2292501	2135596
15°	962793	920859	817634
20°	322575	342001	276898
25°	122754	123190	116603
30°	55032	54120	52297
35°	26681	23790	18912
40°	17647	22284	15586
45°	4465	7326	6768
50°	1228	1842	2456
55°	11096	9720	15225
60°	15886	12729	20623
65°	7471	19729	18795
70°	6924	5770	6924
75°	3050	7625	21540
80°	36651	50288	45743
85°	0	22643	27171



TEST NUMBER: P282536

CATALOG NUMBER: LDA2B158027D010 EU2B15SP158027 2LBALPINSQ1MW

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	687.7	48.7
10°-20°	520.9	36.9
20°-30°	118.4	8.4
30°-40°	35.0	2.5
40°-50°	11.7	0.8
50°-60°	10.3	0.7
60°-70°	12.4	0.9
70°-80°	7.9	0.6
80°-90°	8.2	0.6
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°	1326.9	94.0
0°-40°	1361.9	96.4
0°-60°	1383.9	98.0
0°-90°	1412.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1412.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	10499	10499	10499	10499	10499	
5°	8677	8746	8705	8592	8672	696
15°	1885	1911	1803	1634	1601	548
25°	226	242	226	224	214	118
35°	44	49	40	46	31	35
45°	6	18	10	18	10	10
55°	13	18	11	17	18	5
65°	6	14	17	16	16	7
75°	2	6	4	7	11	4
85°	0	0	4	4	5	5
90°	0	0	0	0	0	



TEST NUMBER: P282536

CATALOG NUMBER: LDA2B158027D010 EU2B15SP158027 2LBALPINSQ1MW

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	10499.4	10499.4	10499.4	10499.4	10499.4
1°	10364.1	10406.0	10402.0	10385.1	10414.9
2°	10125.8	10176.5	10171.7	10134.6	10187.8
3°	9776.3	9821.4	9814.2	9761.0	9819.0
4°	9309.3	9360.8	9340.7	9261.0	9335.0
5°	8677.2	8745.6	8705.4	8591.8	8672.3
6°	7976.6	8034.6	7971.0	7820.4	7899.3
7°	7192.3	7228.6	7144.8	6951.6	6898.4
8°	6336.4	6383.9	6267.1	6041.6	5983.7
9°	5518.2	5534.4	5392.6	5152.7	5079.4
10°	4747.6	4735.6	4576.1	4332.9	4262.9
11°	4017.3	4001.2	3832.9	3608.2	3630.8
12°	3353.0	3384.4	3188.7	2985.0	2989.0
13°	2807.0	2810.3	2642.0	2447.9	2436.6
14°	2298.1	2327.9	2183.8	2009.9	1977.6
15°	1885.0	1910.8	1802.9	1633.8	1600.8
16°	1509.0	1541.2	1463.9	1310.9	1267.4
17°	1215.1	1256.2	1205.4	1077.4	1027.5
18°	971.9	1003.3	991.2	859.2	818.1
19°	767.4	810.9	814.1	703.8	654.7
20°	614.4	653.8	651.4	566.1	527.4
22.5°	352.7	373.6	374.4	334.2	311.6
25°	225.5	242.4	226.3	223.9	214.2
26°	195.7	209.4	191.6	191.6	182.8
27°	158.6	170.7	153.8	161.0	149.0
28°	133.7	146.6	132.1	130.4	128.8
29°	111.1	123.2	104.7	112.7	107.9
30°	96.6	105.5	95.0	107.1	91.8
32.5°	74.9	82.1	63.6	80.5	60.4
35°	44.3	49.1	39.5	45.9	31.4
37.5°	45.9	47.5	42.7	47.5	44.3
40°	27.4	28.2	34.6	34.6	24.2
42.5°	25.8	25.0	15.3	24.2	19.3
45°	6.4	18.5	10.5	18.5	9.7
47.5°	4.8	6.4	6.4	12.9	12.9
50°	1.6	6.4	2.4	4.8	3.2
52.5°	0.0	15.3	3.2	11.3	9.7
55°	12.9	18.5	11.3	16.9	17.7
57.5°	1.6	12.9	6.4	13.7	9.7
60°	16.1	21.7	12.9	23.4	20.9
62.5°	1.6	14.5	16.9	12.9	11.3
65°	6.4	13.7	16.9	16.1	16.1
67.5°	8.1	13.7	10.5	10.5	14.5



TEST NUMBER: P282536

CATALOG NUMBER: LDA2B158027D010 EU2B15SP158027 2LBALPINSQ1MW

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
75°	1.6	5.6	4.0	7.2	11.3
77.5°	1.6	6.4	5.6	12.9	9.7
80°	12.9	14.5	17.7	23.4	16.1
82.5°	11.3	11.3	17.7	12.9	9.7
85°	0.0	0.0	4.0	4.0	4.8
87.5°	0.0	3.2	8.1	6.4	11.3
90°	0.0	0.0	0.0	0.0	0.0



Report Generated By E9808895 / USPTCWHP6082093







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







70°	4.8	1.6	4.0	4.0	4.8
72.5°	1.6	7.2	6.4	4.0	8.1



(END OF REPORT)