

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: P281749

Luminaire Tested: **LDA2B208050D010 EU2B20SP158050 2LBAPINSQ1MB**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P281749  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1808-908-10)  
Test Lab: INNOVATION CENTER(G2)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: io LED  
Catalog Number: LDA2B208050D010 EU2B20SP158050 2LBAPINSQ1MB  
Description: PORTFOLIO 2IN ADJ 2000 LUMEN LED LUMINAIRE WITH SPOT OPTIC AND 2in Adj SQ PinHole, MB  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2094.1 lumens  
Efficiency: N/A  
Efficacy: 101.7 lumens/watt  
Spacing Criteria (0/90/45): 0.3 / 0.3 / 0.29  
Luminous Opening: Circular (Dia: 0.17' x H: 0')  
CIE Type: Direct

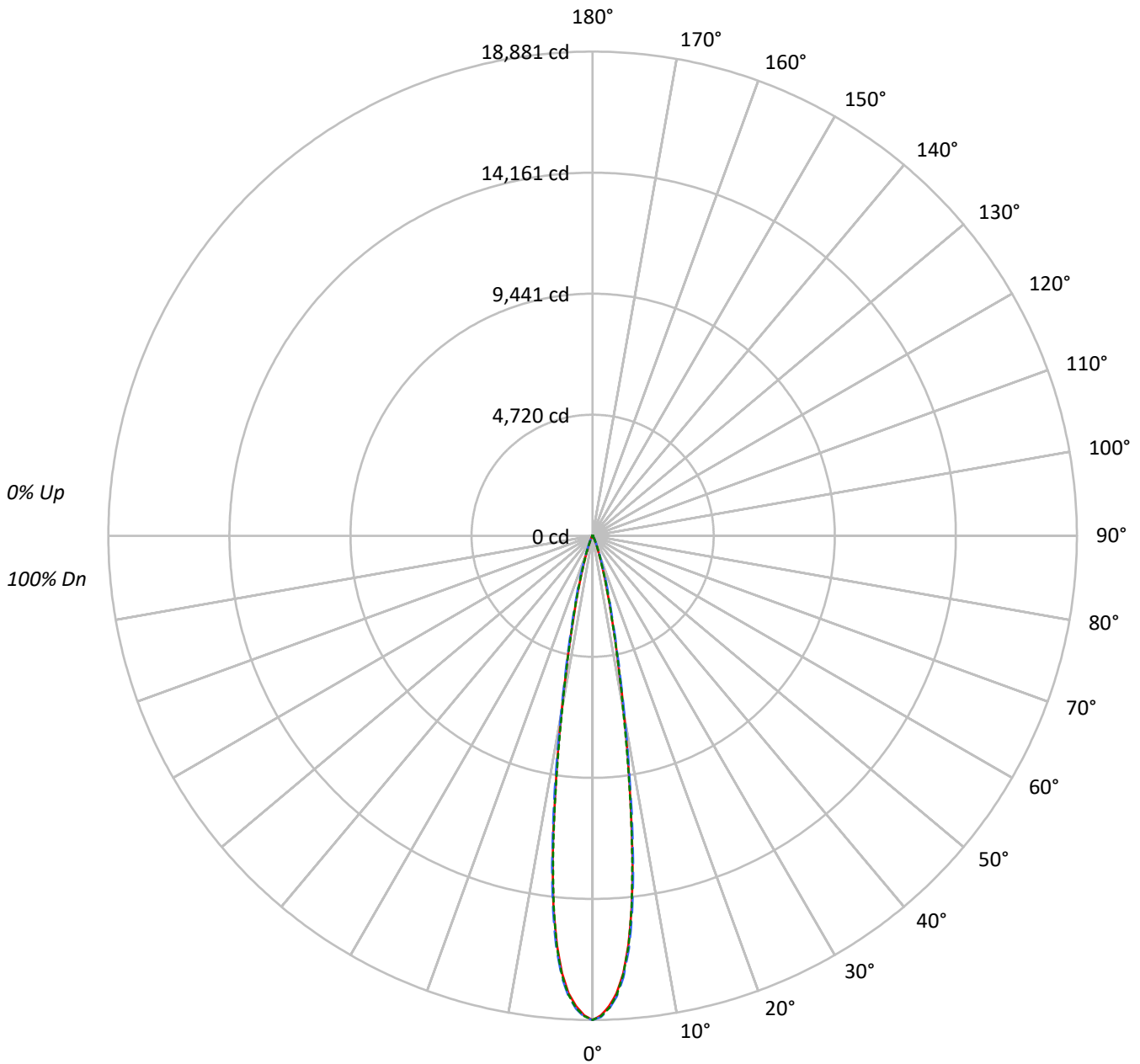
Input Watts (W): 20.6  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	116	114	112	111	113	112	110	109	108	107	106	104	103	103	101	100	100	98																			
2	113	110	107	105	111	108	106	104	105	103	102	102	101	99	99	98	97	96																			
3	110	106	103	101	108	105	102	100	102	100	98	100	98	97	98	97	95	94																			
4	107	103	100	97	106	102	99	97	100	98	96	98	96	95	97	95	94	93																			
5	105	100	97	95	104	100	96	94	98	95	93	97	94	93	95	93	92	91																			
6	103	98	95	92	102	97	94	92	96	93	91	95	93	91	94	92	90	89																			
7	101	96	93	90	100	95	92	90	94	92	90	93	91	89	93	90	89	88																			
8	99	94	91	89	98	94	91	88	93	90	88	92	90	88	91	89	88	87																			
9	98	92	89	87	97	92	89	87	91	89	87	91	88	86	90	88	86	85																			
10	96	91	88	86	95	90	88	86	90	87	85	89	87	85	89	87	85	84																			

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

	0°	45°	90°
0°	9315115	9315115	9315115
5°	7932113	8014720	7947119
10°	3501899	3582005	3420090
15°	1062597	1218738	1079299
20°	317955	423905	355284
25°	123843	121938	130212
30°	55146	49847	52525
35°	11263	9817	9817
40°	0	773	3027
45°	9768	8163	14652
50°	0	2686	8980
55°	0	0	4043
60°	0	1184	4638
65°	0	0	2685
70°	0	6780	13415
75°	0	0	0
80°	0	0	0
85°	0	6793	26605



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	1224.0	58.4
10°-20°	699.1	33.4
20°-30°	132.7	6.3
30°-40°	24.1	1.2
40°-50°	6.2	0.3
50°-60°	4.7	0.2
60°-70°	0.8	0.0
70°-80°	1.1	0.1
80°-90°	1.5	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°	2055.7	98.2
0°-40°	2079.8	99.3
0°-60°	2090.8	99.8
0°-90°	2094.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2094.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	18881	18881	18881	18881	18881	
5°	16016	16122	16183	16155	16047	1216
15°	2080	2262	2386	2241	2113	662
25°	228	245	224	256	239	119
35°	19	23	16	20	16	26
45°	14	22	12	13	21	7
55°	0	1	0	1	5	2
65°	0	0	0	0	2	0
75°	0	0	0	0	0	0
85°	0	1	1	1	5	0
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	18880.9	18880.9	18880.9	18880.9	18880.9
1°	18702.4	18722.3	18764.3	18807.4	18739.8
2°	18352.4	18400.2	18459.7	18499.4	18425.9
3°	17862.3	17928.8	17991.8	18000.0	17931.2
4°	17105.1	17186.8	17253.3	17245.1	17158.8
5°	16016.5	16121.5	16183.3	16155.3	16046.8
6°	14577.8	14679.3	14758.7	14678.2	14532.3
7°	12785.6	12902.3	12986.3	12848.7	12670.1
8°	10708.8	10872.1	10956.1	10763.6	10580.4
9°	8741.6	8854.7	8939.9	8729.9	8543.2
10°	6990.2	7197.9	7150.1	6987.9	6826.9
11°	5497.9	5685.8	5693.9	5584.2	5426.7
12°	4304.3	4502.6	4552.8	4468.8	4328.8
13°	3401.2	3549.4	3632.2	3545.9	3412.9
14°	2706.9	2838.8	2945.0	2833.0	2699.9
15°	2080.4	2262.4	2386.1	2241.4	2113.1
16°	1654.5	1805.0	1952.0	1787.5	1684.8
17°	1270.6	1404.8	1556.5	1407.1	1323.1
18°	1005.8	1111.9	1278.8	1124.8	1051.3
19°	787.6	868.1	1023.3	887.9	828.4
20°	605.6	694.2	807.4	715.2	676.7
22.5°	366.4	415.4	448.0	420.0	400.2
25°	227.5	245.0	224.0	255.5	239.2
26°	198.4	211.2	206.5	227.5	207.7
27°	158.7	175.0	162.2	178.5	172.7
28°	144.7	164.5	138.8	158.7	149.3
29°	101.5	109.7	99.2	106.2	106.2
30°	96.8	99.2	87.5	95.7	92.2
32.5°	75.8	71.2	58.3	61.8	59.5
35°	18.7	23.3	16.3	19.8	16.3
37.5°	28.0	25.7	30.3	29.2	28.0
40°	0.0	1.2	1.2	1.2	4.7
42.5°	21.0	12.8	11.7	8.2	14.0
45°	14.0	22.2	11.7	12.8	21.0
47.5°	0.0	1.2	0.0	2.3	2.3
50°	0.0	2.3	3.5	4.7	11.7
52.5°	2.3	14.0	7.0	12.8	18.7
55°	0.0	1.2	0.0	1.2	4.7
57.5°	4.7	2.3	4.7	4.7	21.0
60°	0.0	2.3	1.2	1.2	4.7
62.5°	0.0	0.0	0.0	0.0	0.0
65°	0.0	0.0	0.0	0.0	2.3
67.5°	0.0	1.2	0.0	0.0	0.0



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
75°	0.0	0.0	0.0	0.0	0.0
77.5°	0.0	0.0	1.2	0.0	0.0
80°	0.0	1.2	0.0	0.0	0.0
82.5°	0.0	1.2	2.3	3.5	2.3
85°	0.0	1.2	1.2	1.2	4.7
87.5°	0.0	2.3	3.5	0.0	2.3
90°	0.0	0.0	0.0	0.0	0.0



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







70°	0.0	3.5	4.7	0.0	9.3
72.5°	0.0	5.8	1.2	1.2	0.0



(END OF REPORT)