

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: P282590

Luminaire Tested: **LDA2B208050D010 EU2B20SP158050 2LBALPINSQ1MW**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P282590  
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: LDA2B208050D010 EU2B20SP158050 2LBALPINSQ1MW  
Description: PORTFOLIO 2IN ADJ 2000 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: 2094.1 lumens  
Efficiency: N/A  
Efficacy: 101.7 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

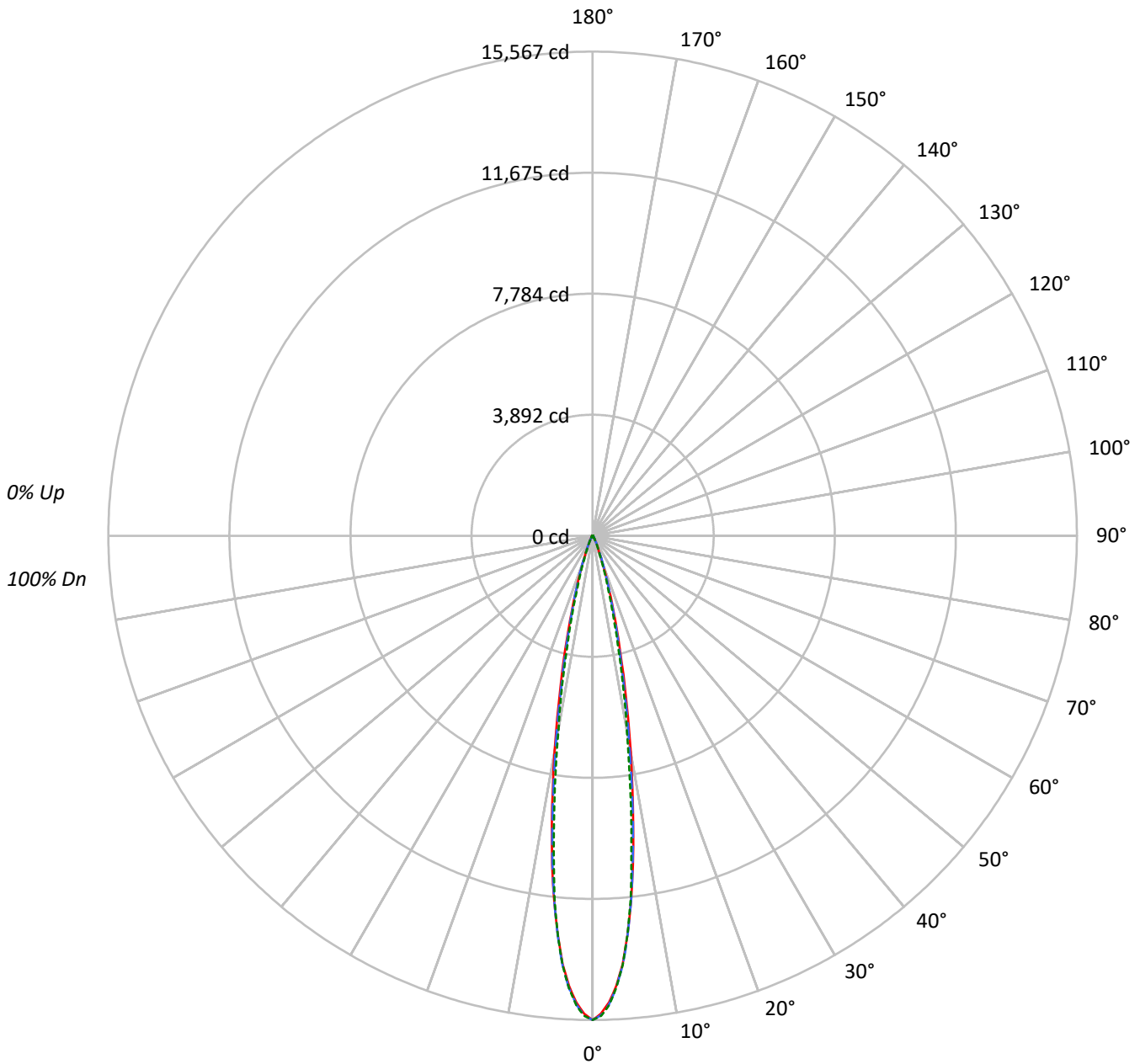
Input Watts (W): 20.6  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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				100															
1	115	113	111	109	113	111	109	107	107	105	104	103	102	101	100	99	98	96	96	98	96	96															
2	111	108	105	102	109	106	103	101	103	101	99	100	98	97	98	96	95	94	94	96	94	94															
3	108	104	100	97	106	102	99	97	100	97	95	98	95	94	96	94	92	91	94	92	90	89															
4	105	100	96	93	104	99	96	93	97	94	92	95	93	91	92	89	88	87	92	89	88	87															
5	102	97	93	90	101	96	93	90	95	91	89	93	90	88	92	89	88	87	90	88	86	85															
6	100	94	90	88	99	94	90	87	92	89	87	91	88	86	90	88	86	85	88	86	84	83															
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°	7680311	7680311	7680311
5°	6371592	6392293	6368076
10°	3526497	3399100	3166398
15°	1427539	1365379	1212302
20°	478245	507121	410569
25°	181981	182634	172890
30°	81636	80269	77534
35°	39570	35234	28066
40°	26148	33039	23057
45°	6698	10815	9977
50°	1842	2763	3684
55°	16429	14365	22622
60°	23583	18846	30588
65°	11207	29302	27901
70°	10386	8655	10386
75°	4575	11437	31834
80°	54266	74722	67904
85°	0	33964	40757



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	1019.6	48.7
10°-20°	772.3	36.9
20°-30°	175.5	8.4
30°-40°	51.9	2.5
40°-50°	17.3	0.8
50°-60°	15.2	0.7
60°-70°	18.3	0.9
70°-80°	11.7	0.6
80°-90°	12.2	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°	1967.4	94.0
0°-40°	2019.3	96.4
0°-60°	2051.9	98.0
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°	15567	15567	15567	15567	15567	
5°	12866	12967	12907	12739	12858	1032
15°	2795	2833	2673	2422	2374	812
25°	334	359	336	332	318	175
35°	66	73	58	68	47	52
45°	10	28	16	28	14	14
55°	19	28	17	25	26	8
65°	10	20	25	24	24	10
75°	2	8	6	11	17	5
85°	0	0	6	6	7	7
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	15567.3	15567.3	15567.3	15567.3	15567.3
1°	15366.7	15428.8	15422.9	15397.8	15442.0
2°	15013.3	15088.6	15081.4	15026.5	15105.3
3°	14495.2	14562.1	14551.3	14472.5	14558.5
4°	13802.7	13879.1	13849.3	13731.1	13840.9
5°	12865.5	12967.0	12907.3	12739.0	12858.4
6°	11826.8	11912.8	11818.5	11595.2	11712.2
7°	10664.0	10717.7	10593.5	10307.0	10228.2
8°	9394.8	9465.3	9292.2	8957.9	8871.9
9°	8181.8	8205.7	7995.6	7639.8	7531.1
10°	7039.3	7021.4	6785.0	6424.4	6320.5
11°	5956.4	5932.5	5683.0	5349.9	5383.3
12°	4971.4	5018.0	4727.9	4425.8	4431.8
13°	4162.0	4166.7	3917.2	3629.5	3612.8
14°	3407.4	3451.6	3237.9	2980.0	2932.2
15°	2794.9	2833.1	2673.2	2422.4	2373.5
16°	2237.4	2285.1	2170.5	1943.7	1879.2
17°	1801.6	1862.5	1787.3	1597.4	1523.4
18°	1441.0	1487.6	1469.7	1273.9	1213.0
19°	1137.8	1202.3	1207.0	1043.5	970.6
20°	910.9	969.5	965.9	839.3	782.0
22.5°	522.9	554.0	555.2	495.5	462.0
25°	334.3	359.4	335.5	331.9	317.6
26°	290.1	310.4	284.1	284.1	271.0
27°	235.2	253.1	228.0	238.8	220.9
28°	198.2	217.3	195.8	193.4	191.0
29°	164.8	182.7	155.2	167.1	160.0
30°	143.3	156.4	140.9	158.8	136.1
32.5°	111.0	121.8	94.3	119.4	89.5
35°	65.7	72.8	58.5	68.1	46.6
37.5°	68.1	70.4	63.3	70.4	65.7
40°	40.6	41.8	51.3	51.3	35.8
42.5°	38.2	37.0	22.7	35.8	28.7
45°	9.6	27.5	15.5	27.5	14.3
47.5°	7.2	9.6	9.6	19.1	19.1
50°	2.4	9.6	3.6	7.2	4.8
52.5°	0.0	22.7	4.8	16.7	14.3
55°	19.1	27.5	16.7	25.1	26.3
57.5°	2.4	19.1	9.6	20.3	14.3
60°	23.9	32.2	19.1	34.6	31.0
62.5°	2.4	21.5	25.1	19.1	16.7
65°	9.6	20.3	25.1	23.9	23.9
67.5°	11.9	20.3	15.5	15.5	21.5



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
75°	2.4	8.4	6.0	10.7	16.7
77.5°	2.4	9.6	8.4	19.1	14.3
80°	19.1	21.5	26.3	34.6	23.9
82.5°	16.7	16.7	26.3	19.1	14.3
85°	0.0	0.0	6.0	6.0	7.2
87.5°	0.0	4.8	11.9	9.6	16.7
90°	0.0	0.0	0.0	0.0	0.0



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







70°	7.2	2.4	6.0	6.0	7.2
72.5°	2.4	10.7	9.6	6.0	11.9



(END OF REPORT)