

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: P282608

Luminaire Tested: **LDA2B209050D010 EU2B20SP159050 2LBALPINSQ1MW**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P282608  
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: LDA2B209050D010 EU2B20SP159050 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: 1759.6 lumens  
Efficiency: N/A  
Efficacy: 85.4 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

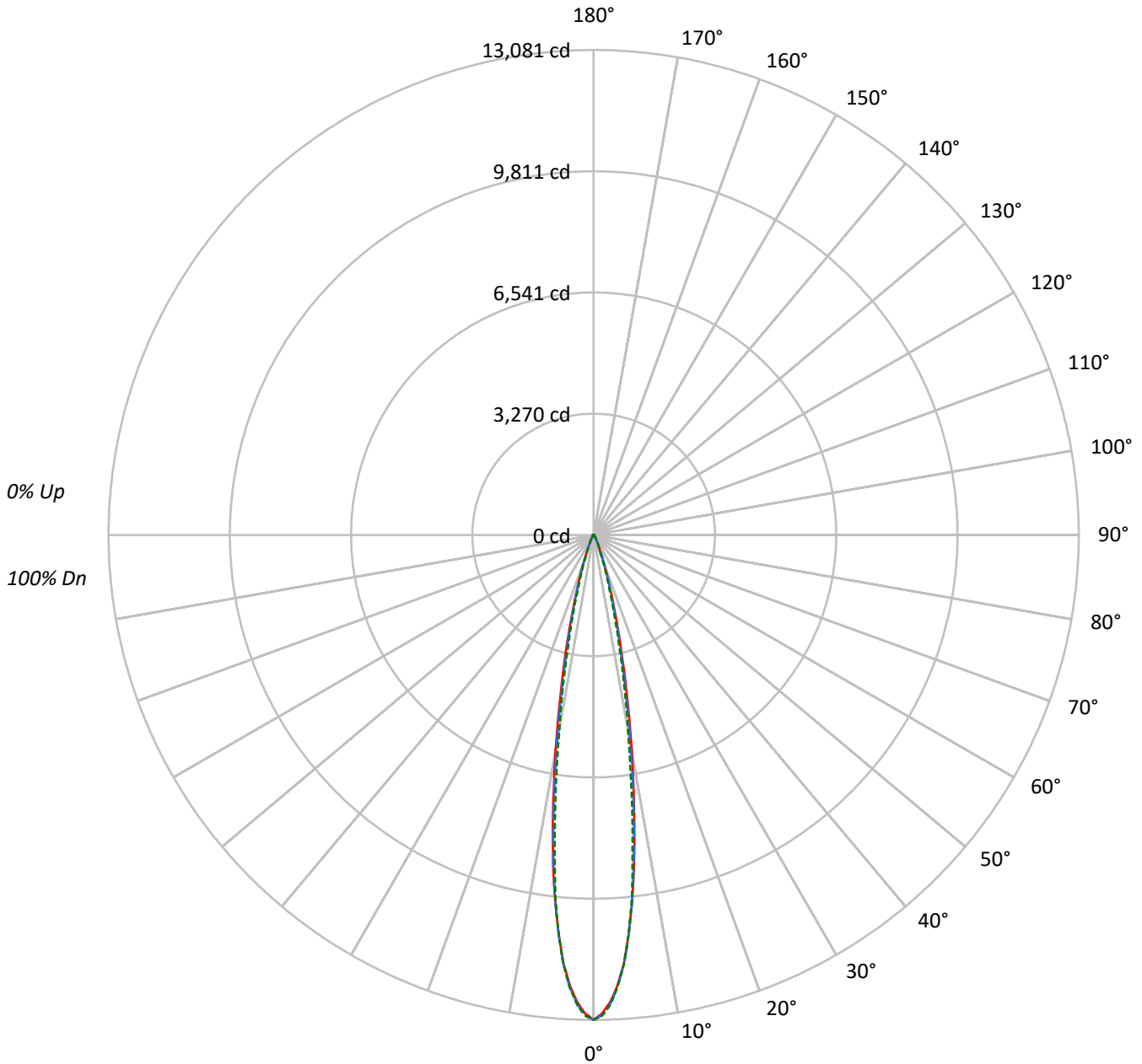
Input Watts (W): 20.6  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Luminous Intensity Polar Plot





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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20					20					20					20					20					
RC	80					70					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	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	100	100	100	100		
	1	115	113	111	109	113	111	109	107	107	105	104	103	102	101	100	99	98	96	96	96	96	96	96		
	2	111	108	105	102	109	106	103	101	103	101	99	100	98	97	98	96	95	94	94	94	94	94	94		
	3	108	104	100	97	106	102	99	97	100	97	95	98	95	94	96	94	92	91	91	91	91	91	91		
	4	105	100	96	93	104	99	96	93	97	94	92	95	93	91	94	92	90	89	89	89	89	89	89		
	5	102	97	93	90	101	96	93	90	95	91	89	93	90	88	92	89	88	87	87	87	87	87	87		
	6	100	94	90	88	99	94	90	87	92	89	87	91	88	86	90	88	86	85	85	85	85	85	85		
	7	98	92	88	85	97	91	88	85	90	87	85	89	86	84	88	86	84	83	83	83	83	83	83		
	8	96	90	86	83	95	89	86	83	88	85	83	87	85	82	87	84	82	81	81	81	81	81	81		
	9	94	88	84	81	93	87	84	81	86	83	81	86	83	81	85	82	81	80	80	80	80	80	80		
	10	92	86	82	80	91	85	82	80	85	82	79	84	81	79	84	81	79	78	78	78	78	78	78		

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

	0°	45°	90°
0°	6453666	6453666	6453666
5°	5353960	5371343	5350988
10°	2963253	2856196	2660666
15°	1199533	1147282	1018671
20°	401906	426110	344994
25°	152912	153456	145291
30°	68590	67451	65172
35°	33246	29632	23549
40°	21962	27758	19386
45°	5582	9070	8373
50°	1535	2303	3070
55°	13848	12042	19009
60°	19833	15886	25753
65°	9339	24632	23465
70°	8655	7212	8655
75°	3812	9531	26687
80°	45743	62790	57107
85°	0	28303	33964



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	856.7	48.7
10°-20°	649.0	36.9
20°-30°	147.5	8.4
30°-40°	43.6	2.5
40°-50°	14.5	0.8
50°-60°	12.8	0.7
60°-70°	15.4	0.9
70°-80°	9.8	0.6
80°-90°	10.3	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°	1653.2	94.0
0°-40°	1696.8	96.4
0°-60°	1724.1	98.0
0°-90°	1759.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1759.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	13081	13081	13081	13081	13081	
5°	10811	10896	10846	10704	10805	867
15°	2348	2381	2246	2036	1994	682
25°	281	302	282	279	267	147
35°	55	61	49	57	39	43
45°	8	23	13	23	12	12
55°	16	23	14	21	22	7
65°	8	17	21	20	20	8
75°	2	7	5	9	14	5
85°	0	0	5	5	6	6
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	13081.0	13081.0	13081.0	13081.0	13081.0
1°	12912.4	12964.6	12959.6	12938.5	12975.6
2°	12615.5	12678.7	12672.7	12626.5	12692.7
3°	12180.1	12236.3	12227.2	12161.0	12233.3
4°	11598.2	11662.4	11637.4	11538.0	11630.3
5°	10810.7	10896.0	10845.8	10704.4	10804.7
6°	9937.9	10010.1	9930.9	9743.3	9841.6
7°	8960.8	9005.9	8901.6	8660.8	8594.6
8°	7894.3	7953.5	7808.1	7527.2	7454.9
9°	6875.1	6895.1	6718.6	6419.6	6328.3
10°	5915.0	5899.9	5701.3	5398.3	5311.0
11°	5005.1	4985.0	4775.3	4495.4	4523.5
12°	4177.4	4216.5	3972.8	3718.9	3724.0
13°	3497.2	3501.2	3291.6	3049.8	3035.7
14°	2863.2	2900.3	2720.7	2504.0	2463.9
15°	2348.5	2380.6	2246.2	2035.5	1994.4
16°	1880.0	1920.2	1823.9	1633.2	1579.1
17°	1513.9	1565.0	1501.8	1342.3	1280.1
18°	1210.9	1250.0	1235.0	1070.4	1019.3
19°	956.1	1010.2	1014.3	876.8	815.6
20°	765.5	814.6	811.6	705.3	657.1
22.5°	439.4	465.5	466.5	416.3	388.2
25°	280.9	302.0	281.9	278.9	266.9
26°	243.8	260.8	238.8	238.8	227.7
27°	197.6	212.7	191.6	200.6	185.6
28°	166.5	182.6	164.5	162.5	160.5
29°	138.4	153.5	130.4	140.5	134.4
30°	120.4	131.4	118.4	133.4	114.4
32.5°	93.3	102.3	79.3	100.3	75.2
35°	55.2	61.2	49.2	57.2	39.1
37.5°	57.2	59.2	53.2	59.2	55.2
40°	34.1	35.1	43.1	43.1	30.1
42.5°	32.1	31.1	19.1	30.1	24.1
45°	8.0	23.1	13.0	23.1	12.0
47.5°	6.0	8.0	8.0	16.1	16.1
50°	2.0	8.0	3.0	6.0	4.0
52.5°	0.0	19.1	4.0	14.0	12.0
55°	16.1	23.1	14.0	21.1	22.1
57.5°	2.0	16.1	8.0	17.1	12.0
60°	20.1	27.1	16.1	29.1	26.1
62.5°	2.0	18.1	21.1	16.1	14.0
65°	8.0	17.1	21.1	20.1	20.1
67.5°	10.0	17.1	13.0	13.0	18.1



TEST NUMBER: P282608

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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
75°	2.0	7.0	5.0	9.0	14.0
77.5°	2.0	8.0	7.0	16.1	12.0
80°	16.1	18.1	22.1	29.1	20.1
82.5°	14.0	14.0	22.1	16.1	12.0
85°	0.0	0.0	5.0	5.0	6.0
87.5°	0.0	4.0	10.0	8.0	14.0
90°	0.0	0.0	0.0	0.0	0.0



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







70°	6.0	2.0	5.0	5.0	6.0
72.5°	2.0	9.0	8.0	5.0	10.0



(END OF REPORT)