

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: P282776

Luminaire Tested: **LDA2B209050D010 EU2B20NFL259050 2LBALPINSQ1MW**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P282776  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1809-951-26)  
Test Lab: INNOVATION CENTER(G2)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: io LED  
Catalog Number: LDA2B209050D010 EU2B20NFL259050 2LBALPINSQ1MW  
Description: PORTFOLIO 2IN ADJ 2000 LUMEN LED LUMINAIRE WITH NARROW FLOOD OPTIC AND 2in Adj SQ Pinhole w-lens, MW  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1488.0 lumens  
Efficiency: N/A  
Efficacy: 72.2 lumens/watt  
Spacing Criteria (0/90/45): 0.33 / 0.3 / 0.32  
Luminous Opening: Circular (Dia: 0.17' x H: 0')  
CIE Type: Direct

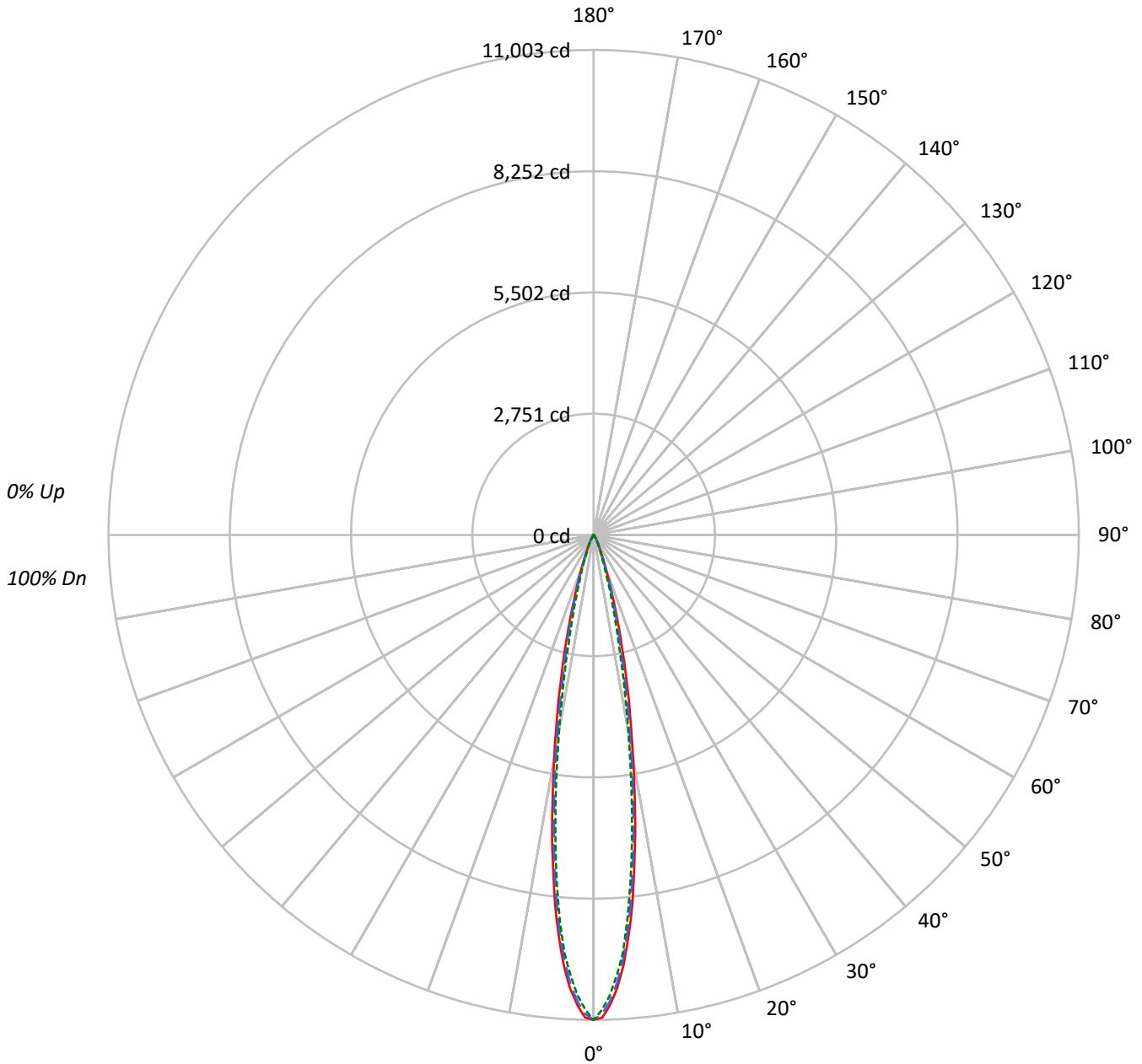
Input Watts (W): 20.6  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Luminous Intensity Polar Plot





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

RF	20									20									20									20									
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	112	110	113	111	110	108	107	106	105	104	103	102	100	100	99	97				97															
2	112	109	106	104	110	107	105	103	104	102	100	101	100	98	99	97	96	95				95															
3	109	105	101	99	107	103	100	98	101	99	97	99	97	95	97	95	94	92				92															
4	106	101	98	95	105	100	97	94	98	96	93	96	94	92	95	93	91	90				90															
5	103	98	94	92	102	97	94	91	96	93	91	94	92	90	93	91	89	88				88															
6	101	95	92	89	100	95	91	89	93	90	88	92	90	88	91	89	87	86				86															
7	99	93	89	87	98	92	89	86	91	88	86	90	88	86	89	87	85	84				84															
8	96	91	87	85	96	90	87	84	89	86	84	88	86	84	88	85	83	83				83															
9	94	89	85	83	94	88	85	82	87	84	82	87	84	82	86	84	82	81				81															
10	93	87	83	81	92	86	83	81	86	83	81	85	82	80	85	82	80	79				79															

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

	0°	45°	90°
0°	5428558	5428558	5428558
5°	4517142	4434337	4344796
10°	2587374	2427964	2265950
15°	1150806	1022042	856503
20°	417500	392508	310972
25°	160315	149700	128906
30°	69160	64317	57025
35°	32704	32704	27103
40°	16423	16938	13654
45°	9489	8861	8303
50°	6524	5833	5833
55°	5075	3613	4387
60°	4144	2467	3355
65°	2918	1985	2918
70°	2452	1154	2452
75°	1525	1525	1525
80°	0	0	0
85°	0	0	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	715.6	48.1
10°-20°	579.1	38.9
20°-30°	139.7	9.4
30°-40°	35.6	2.4
40°-50°	10.6	0.7
50°-60°	4.5	0.3
60°-70°	2.2	0.1
70°-80°	0.7	0.0
80°-90°	0.0	0.0
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°	1434.4	96.4
0°-40°	1470.0	98.8
0°-60°	1485.2	99.8
0°-90°	1488.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1488.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	11003	11003	11003	11003	11003	
5°	9121	9037	8954	8876	8773	738
15°	2253	2200	2001	1802	1677	642
25°	294	296	275	250	237	152
35°	54	55	54	49	45	37
45°	14	14	13	12	12	12
55°	6	5	4	4	5	5
65°	2	2	2	2	2	3
75°	1	1	1	1	1	1
85°	0	0	0	0	0	0
90°	0	0	0	0	0	0



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	11003.2	11003.2	11003.2	11003.2	11003.2
1°	10954.0	10877.6	10868.3	10915.8	10775.8
2°	10674.0	10619.6	10588.2	10616.2	10457.6
3°	10289.5	10236.9	10180.1	10180.9	10003.5
4°	9765.9	9724.3	9628.5	9599.6	9496.9
5°	9121.0	9037.0	8953.8	8875.7	8773.0
6°	8408.1	8299.5	8180.7	8064.4	7959.2
7°	7569.7	7497.6	7340.6	7181.9	7092.8
8°	6781.3	6665.1	6481.8	6283.2	6207.7
9°	5933.6	5850.4	5639.9	5409.1	5333.6
10°	5164.7	5078.1	4846.5	4589.3	4523.1
11°	4443.4	4361.9	4120.9	3851.0	3780.6
12°	3833.2	3717.8	3441.2	3206.9	3138.2
13°	3225.6	3146.7	2884.5	2652.8	2519.6
14°	2708.8	2643.5	2405.8	2202.2	2061.3
15°	2253.1	2199.6	2001.0	1802.5	1676.9
16°	1848.3	1815.2	1658.2	1466.4	1363.7
17°	1499.5	1469.0	1368.8	1192.3	1105.8
18°	1211.0	1206.7	1123.6	970.8	893.6
19°	996.3	994.6	918.2	790.1	726.4
20°	795.2	806.2	747.6	635.6	592.3
21°	648.3	654.3	607.6	522.8	483.7
22°	527.8	532.1	501.5	431.9	410.7
23°	432.8	435.3	409.9	358.1	339.4
24°	356.4	358.1	335.2	298.7	282.6
25°	294.5	296.2	275.0	249.5	236.8
26°	244.4	246.1	227.4	209.6	196.9
27°	202.8	206.2	187.5	176.5	162.9
28°	173.1	174.0	157.0	150.2	137.5
29°	141.7	146.8	132.4	126.4	117.1
30°	121.4	123.9	112.9	108.6	100.1
32.5°	80.6	82.3	77.2	73.8	67.0
35°	54.3	55.2	54.3	49.2	45.0
37.5°	37.3	37.3	38.2	32.2	30.6
40°	25.5	25.5	26.3	22.1	21.2
42.5°	18.7	18.7	17.8	15.3	15.3
45°	13.6	13.6	12.7	11.9	11.9
47.5°	11.0	10.2	9.3	9.3	9.3
50°	8.5	8.5	7.6	6.8	7.6
52.5°	6.8	6.8	5.9	5.9	5.9
55°	5.9	5.1	4.2	4.2	5.1
57.5°	4.2	4.2	3.4	3.4	4.2
60°	4.2	3.4	2.5	3.4	3.4



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
67.5°	2.5	1.7	1.7	1.7	1.7
70°	1.7	1.7	0.8	0.8	1.7
72.5°	0.8	0.8	0.8	0.8	0.8
75°	0.8	0.8	0.8	0.8	0.8
77.5°	0.8	0.8	0.0	0.0	0.8
80°	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0



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







62.5°	3.4	2.5	2.5	2.5	2.5
65°	2.5	2.5	1.7	1.7	2.5



(END OF REPORT)