

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: P282406

Luminaire Tested: **LDA2B209027D010 EU2B20NFL259027 2LBAPINSQ1MMS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P282406  
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: LDA2B209027D010 EU2B20NFL259027 2LBAPINSQ1MMS  
Description: PORTFOLIO 2IN ADJ 2000 LUMEN LED LUMINAIRE WITH NARROW FLOOD OPTIC AND 2in Adj SQ PinHole, MMS  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1405.5 lumens  
Efficiency: N/A  
Efficacy: 68.2 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

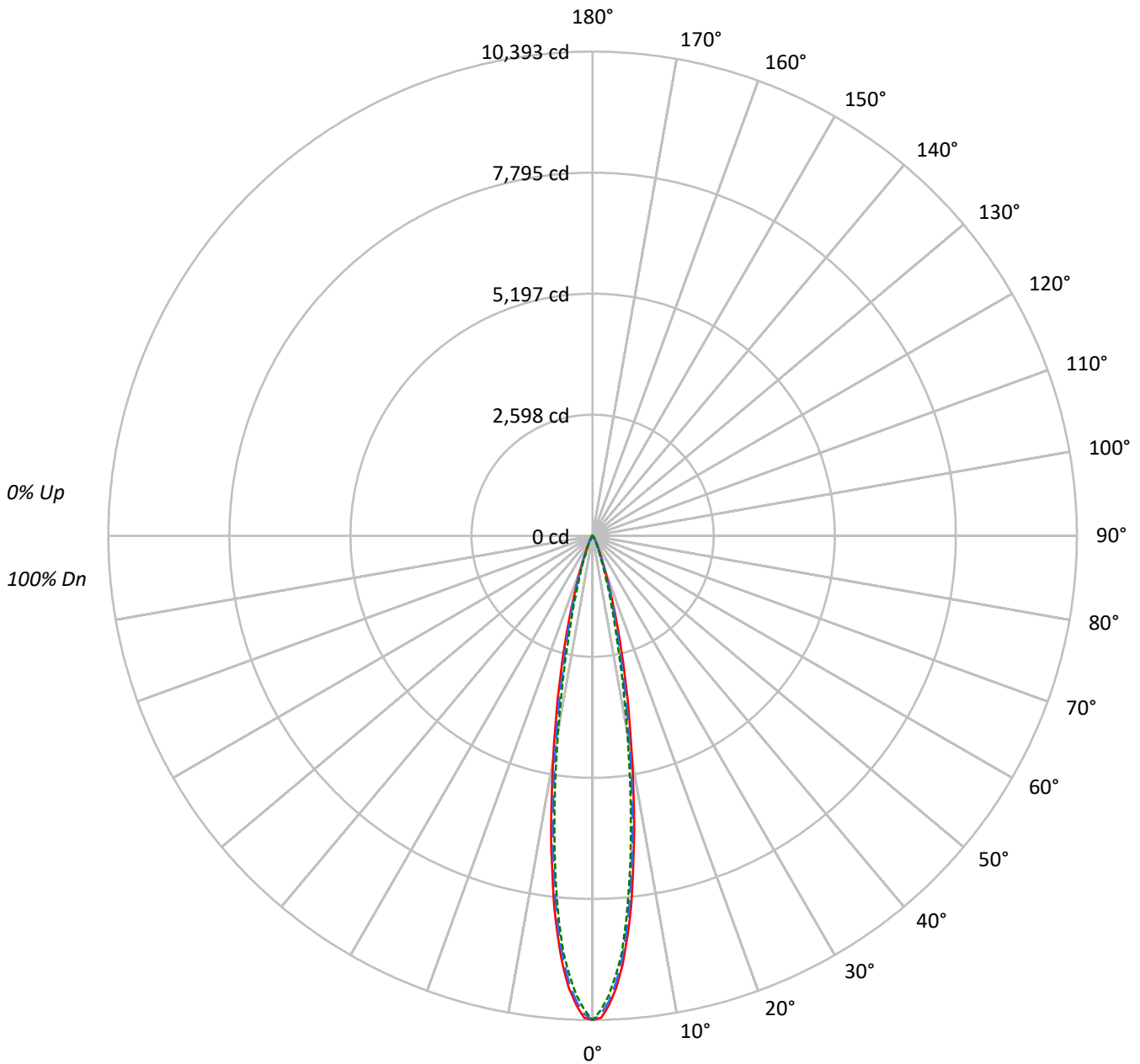
Input Watts (W): 20.6  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	5127558	5127558	5127558
5°	4266696	4188447	4103908
10°	2443895	2293353	2140356
15°	1087012	965398	809002
20°	394346	370772	293751
25°	151388	141371	121720
30°	65286	60728	53892
35°	30897	30897	25597
40°	15457	15972	12881
45°	8931	8373	7814
50°	6140	5526	5526
55°	4817	3441	4129
60°	3947	2368	3158
65°	2802	1868	2802
70°	2308	1154	2308
75°	1525	1525	1525
80°	0	0	0
85°	0	0	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	676.0	48.1
10°-20°	547.0	38.9
20°-30°	131.9	9.4
30°-40°	33.6	2.4
40°-50°	10.0	0.7
50°-60°	4.3	0.3
60°-70°	2.1	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°	1354.9	96.4
0°-40°	1388.5	98.8
0°-60°	1402.8	99.8
0°-90°	1405.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1405.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	10393	10393	10393	10393	10393	
5°	8615	8536	8457	8384	8287	697
15°	2128	2078	1890	1702	1584	607
25°	278	280	260	236	224	144
35°	51	52	51	46	42	35
45°	13	13	12	11	11	11
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	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	10393.1	10393.1	10393.1	10393.1	10393.1
1°	10346.6	10274.5	10265.7	10310.6	10178.3
2°	10082.1	10030.8	10001.2	10027.6	9877.7
3°	9719.0	9669.3	9615.6	9616.4	9448.9
4°	9224.4	9185.2	9094.6	9067.3	8970.3
5°	8615.3	8535.9	8457.3	8383.6	8286.6
6°	7941.9	7839.3	7727.1	7617.3	7517.9
7°	7150.0	7081.9	6933.6	6783.7	6699.5
8°	6405.3	6295.5	6122.4	5934.8	5863.5
9°	5604.6	5526.0	5327.2	5109.2	5037.9
10°	4878.3	4796.6	4577.8	4334.9	4272.4
11°	4197.0	4120.1	3892.4	3637.5	3571.0
12°	3620.7	3511.7	3250.4	3029.1	2964.2
13°	3046.8	2972.2	2724.5	2505.7	2379.9
14°	2558.6	2496.9	2272.4	2080.1	1947.0
15°	2128.2	2077.7	1890.1	1702.5	1583.9
16°	1745.8	1714.6	1566.3	1385.1	1288.1
17°	1416.4	1387.5	1292.9	1126.2	1044.4
18°	1143.8	1139.8	1061.3	917.0	844.1
19°	941.0	939.4	867.3	746.3	686.1
20°	751.1	761.5	706.2	600.4	559.5
21°	612.4	618.0	573.9	493.8	456.9
22°	498.6	502.6	473.7	408.0	388.0
23°	408.8	411.2	387.2	338.3	320.6
24°	336.7	338.3	316.6	282.2	266.9
25°	278.1	279.7	259.7	235.7	223.6
26°	230.9	232.5	214.8	198.0	186.0
27°	191.6	194.8	177.1	166.7	153.9
28°	163.5	164.3	148.3	141.9	129.9
29°	133.9	138.7	125.0	119.4	110.6
30°	114.6	117.0	106.6	102.6	94.6
32.5°	76.1	77.8	72.9	69.7	63.3
35°	51.3	52.1	51.3	46.5	42.5
37.5°	35.3	35.3	36.1	30.5	28.9
40°	24.0	24.0	24.8	20.8	20.0
42.5°	17.6	17.6	16.8	14.4	14.4
45°	12.8	12.8	12.0	11.2	11.2
47.5°	10.4	9.6	8.8	8.8	8.8
50°	8.0	8.0	7.2	6.4	7.2
52.5°	6.4	6.4	5.6	5.6	5.6
55°	5.6	4.8	4.0	4.0	4.8
57.5°	4.0	4.0	3.2	3.2	4.0
60°	4.0	3.2	2.4	3.2	3.2



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
67.5°	2.4	1.6	1.6	1.6	1.6
70°	1.6	1.6	0.8	0.8	1.6
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°	3.2	2.4	2.4	2.4	2.4
65°	2.4	2.4	1.6	1.6	2.4



(END OF REPORT)