

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: P281590

Luminaire Tested: **LDA2B209030D010 EU2B20SP159030 2LBASQC1MB**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P281590  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1808-908-6)  
Test Lab: INNOVATION CENTER(G2)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: io LED  
Catalog Number: LDA2B209030D010 EU2B20SP159030 2LBASQC1MB  
Description: PORTFOLIO 2IN ADJ 2000 LUMEN LED LUMINAIRE WITH SPOT OPTIC AND 2in Adj SQ Cast Trim, MB  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1615.5 lumens  
Efficiency: N/A  
Efficacy: 78.4 lumens/watt  
Spacing Criteria (0/90/45): 0.31 / 0.31 / 0.29  
Luminous Opening: Circular (Dia: 0.17' x H: 0')  
CIE Type: Direct

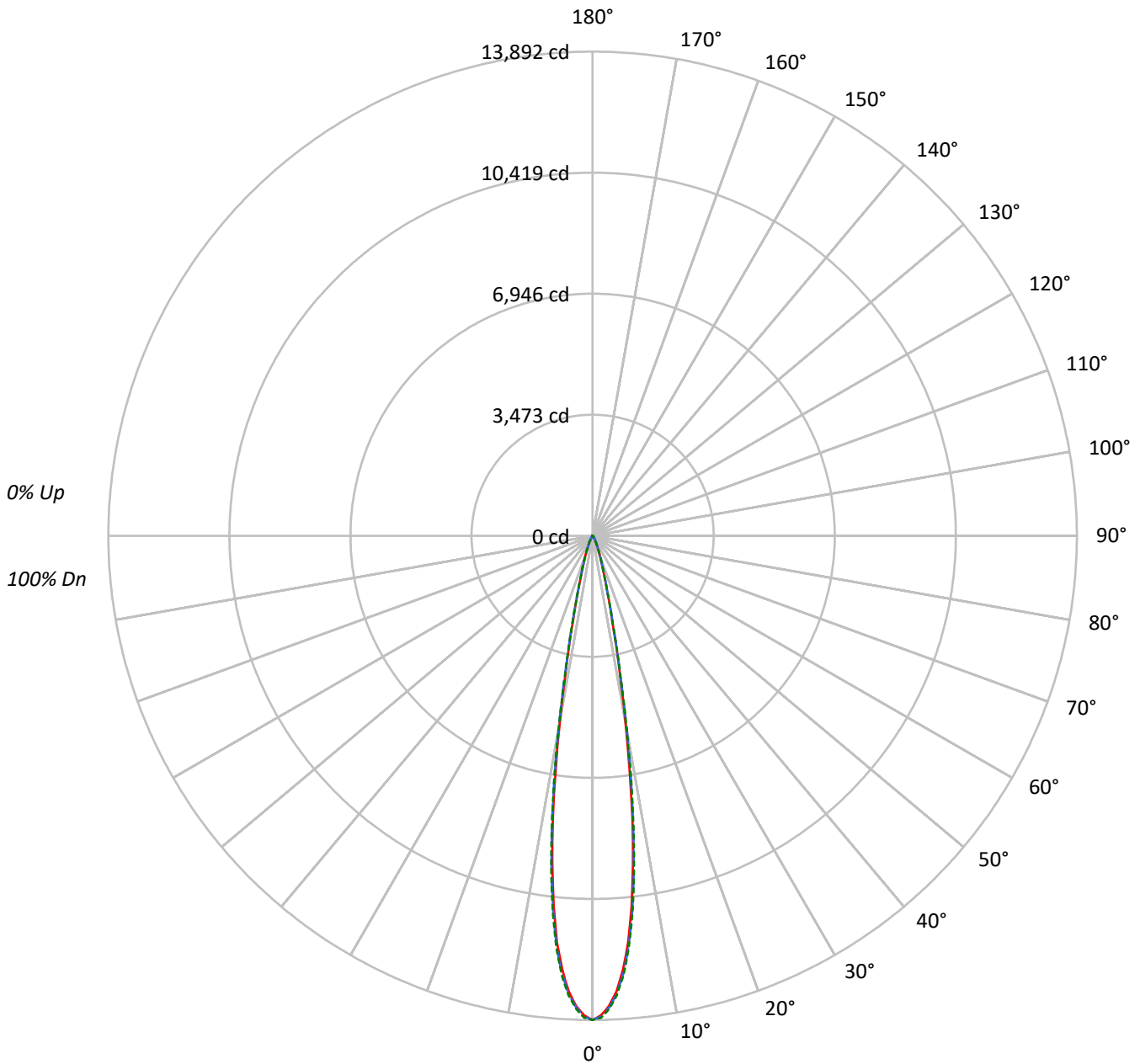
Input Watts (W): 20.6  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	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	116	114	112	111	113	112	110	109	108	107	106	104	103	102	101	100	99	98	97	96						98											
2	113	109	107	105	111	108	105	103	105	103	101	102	100	99	99	98	97	96	95	94						96											
3	110	106	103	100	108	104	102	99	102	100	98	100	98	96	98	96	95	94	93	92						94											
4	107	103	99	97	106	102	99	96	100	97	95	98	96	94	96	95	93	92	91	90						92											
5	105	100	96	94	103	99	96	93	97	95	93	96	94	92	95	93	91	90	89	88						90											
6	103	97	94	91	101	97	94	91	96	93	91	94	92	90	93	91	90	89	88	87						89											
7	100	95	92	89	100	95	91	89	94	91	89	93	90	88	92	90	88	87	86	85						87											
8	99	93	90	88	98	93	90	87	92	89	87	91	89	87	90	88	86	85	84	83						86											
9	97	91	88	86	96	91	88	86	90	88	86	90	87	85	89	87	85	84	83	82						84											
10	95	90	87	84	94	89	86	84	89	86	84	88	86	84	88	85	84	83	82	81						83											

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

	0°	45°	90°
0°	6853733	6853733	6853733
5°	5800870	5861538	5887043
10°	2712567	2815366	2820827
15°	794496	806039	805682
20°	319057	319477	319898
25°	142242	156723	145672
30°	60444	83117	55089
35°	27705	38546	25838
40°	9017	15070	8050
45°	0	5442	0
50°	0	0	0
55°	2666	1376	0
60°	0	0	0
65°	0	0	0
70°	0	0	0
75°	0	0	0
80°	4546	0	0
85°	9057	0	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	918.1	56.8
10°-20°	520.3	32.2
20°-30°	135.9	8.4
30°-40°	35.0	2.2
40°-50°	3.5	0.2
50°-60°	1.1	0.1
60°-70°	0.2	0.0
70°-80°	1.2	0.1
80°-90°	0.3	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°	1574.3	97.5
0°-40°	1609.3	99.6
0°-60°	1613.9	99.9
0°-90°	1615.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1615.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	13892	13892	13892	13892	13892	
5°	11713	11818	11836	11761	11887	906
15°	1556	1577	1578	1560	1577	511
25°	261	283	288	275	268	130
35°	46	49	64	44	43	31
45°	0	3	8	1	0	2
55°	3	4	2	1	0	2
65°	0	0	0	0	0	1
75°	0	1	0	0	0	3
85°	2	0	0	0	0	1
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	13891.9	13891.9	13891.9	13891.9	13891.9
1°	13761.6	13816.2	13799.9	13780.4	13835.0
2°	13496.4	13549.5	13544.8	13519.0	13583.0
3°	13087.6	13161.8	13161.8	13123.5	13203.1
4°	12478.4	12591.5	12602.4	12548.6	12647.7
5°	11713.1	11817.6	11835.6	11760.7	11887.1
6°	10676.4	10819.1	10859.7	10773.1	10902.6
7°	9485.2	9634.9	9696.6	9599.8	9744.9
8°	8200.4	8308.0	8382.1	8271.3	8418.8
9°	6762.6	6917.9	6985.7	6878.1	7021.6
10°	5414.6	5557.4	5619.8	5594.1	5630.7
11°	4205.5	4331.9	4374.0	4338.9	4356.0
12°	3292.8	3343.5	3370.8	3347.4	3359.1
13°	2500.2	2568.1	2580.6	2570.4	2575.9
14°	1952.6	1985.3	1999.4	1994.7	1997.0
15°	1555.5	1576.6	1578.1	1560.2	1577.4
16°	1252.8	1269.2	1276.2	1257.5	1280.1
17°	1026.6	1039.9	1047.7	1028.9	1038.3
18°	844.8	855.0	865.9	849.5	863.6
19°	709.1	715.3	716.1	711.4	715.3
20°	607.7	604.6	608.5	599.9	609.3
22.5°	400.2	408.0	417.4	407.2	411.1
25°	261.3	283.2	287.9	274.6	267.6
26°	215.3	243.4	255.9	234.8	212.2
27°	178.6	198.9	215.3	187.2	169.3
28°	156.8	174.0	190.3	163.8	142.8
29°	131.1	148.2	176.3	145.9	132.6
30°	106.1	118.6	145.9	110.8	96.7
32.5°	60.1	70.2	94.4	65.5	53.8
35°	46.0	49.1	64.0	43.7	42.9
37.5°	39.8	35.9	49.9	35.9	28.9
40°	14.0	21.1	23.4	15.6	12.5
42.5°	6.2	6.2	10.1	3.1	3.1
45°	0.0	3.1	7.8	0.8	0.0
47.5°	0.0	0.0	1.6	0.0	0.0
50°	0.0	1.6	0.0	0.0	0.0
52.5°	1.6	0.0	0.0	0.0	0.0
55°	3.1	3.9	1.6	0.8	0.0
57.5°	4.7	3.9	1.6	1.6	1.6
60°	0.0	0.0	0.0	0.0	0.0
62.5°	0.0	0.0	0.0	0.0	0.0
65°	0.0	0.0	0.0	0.0	0.0
67.5°	1.6	0.8	0.0	0.0	0.0



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
75°	0.0	0.8	0.0	0.0	0.0
77.5°	7.8	1.6	2.3	1.6	3.1
80°	1.6	0.0	0.0	0.0	0.0
82.5°	3.1	0.0	0.0	0.0	0.0
85°	1.6	0.0	0.0	0.0	0.0
87.5°	0.0	0.8	0.0	0.8	0.0
90°	0.0	0.0	0.0	0.0	0.0



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







70°	0.0	0.0	0.0	0.0	0.0
72.5°	3.1	2.3	0.0	0.0	3.1



(END OF REPORT)