

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: P281392

Luminaire Tested: **LDA2B209030D010 EU2B20SP159030 2LBALD1WHH**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P281392  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1808-908-5)  
Test Lab: INNOVATION CENTER(G2)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: io LED  
Catalog Number: LDA2B209030D010 EU2B20SP159030 2LBALD1WHH  
Description: PORTFOLIO 2IN ADJ 2000 LUMEN LED LUMINAIRE WITH SPOT OPTIC AND 2in  
ADJ spun Refl w/lens Self-Flanged, WHH  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1615.4 lumens  
Efficiency: N/A  
Efficacy: 78.4 lumens/watt  
Spacing Criteria (0/90/45): 0.33 / 0.31 / 0.32  
Luminous Opening: Circular (Dia: 0.17' x H: 0')  
CIE Type: Direct

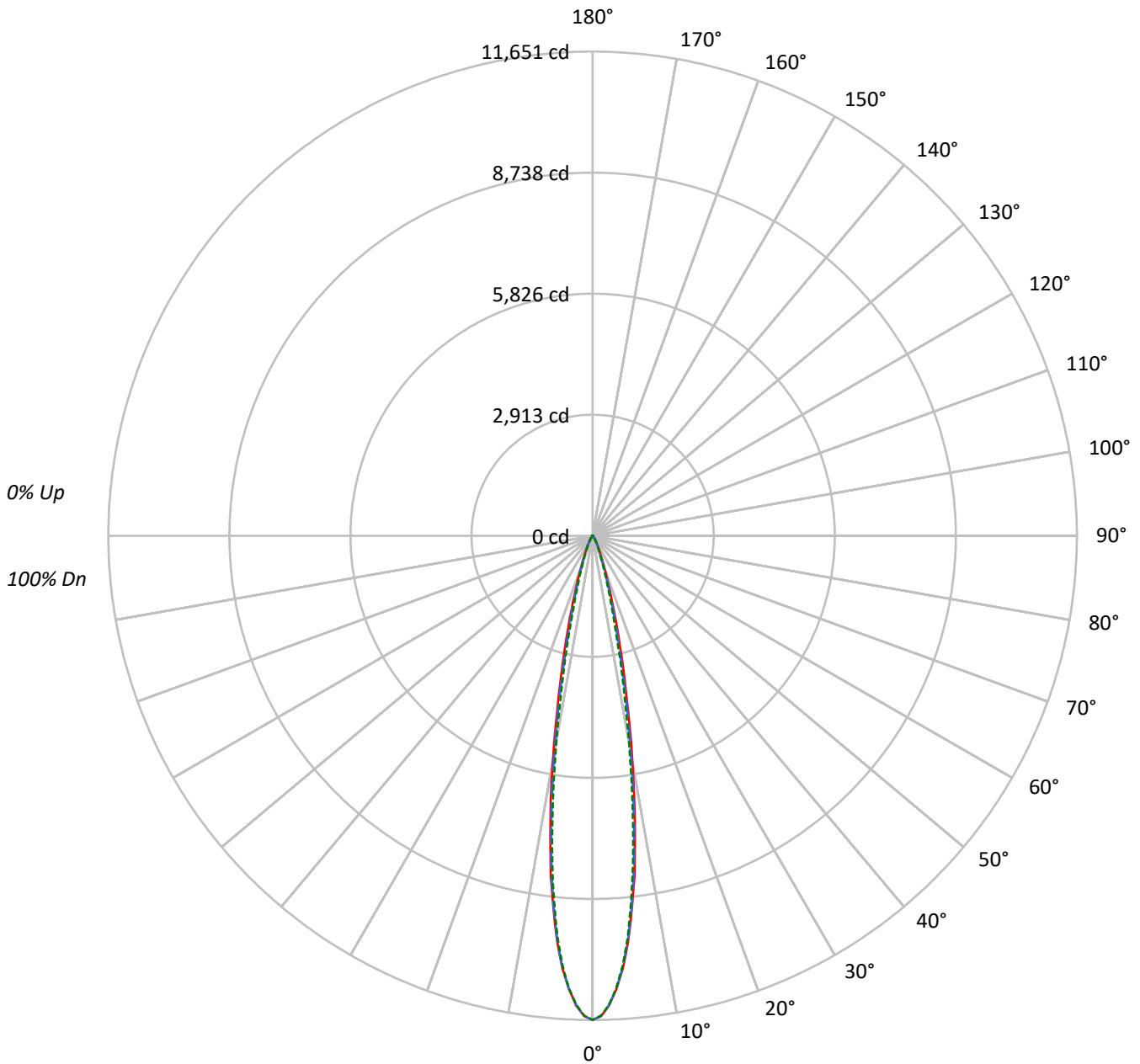
Input Watts (W): 20.6  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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

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

	0°	45°	90°
0°	5748060	5748060	5748060
5°	4856534	4830583	4794975
10°	2764267	2642581	2508170
15°	1144728	1013921	893227
20°	435455	381325	349141
25°	192378	184757	164289
30°	88985	98328	78275
35°	46797	55169	43846
40°	20545	23701	13718
45°	8024	6279	9140
50°	3761	4375	6294
55°	0	2838	0
60°	0	0	1579
65°	0	0	0
70°	0	1154	0
75°	0	0	0
80°	4546	0	0
85°	46418	41889	18680



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	779.0	48.2
10°-20°	595.5	36.9
20°-30°	165.6	10.3
30°-40°	53.8	3.3
40°-50°	11.9	0.7
50°-60°	3.6	0.2
60°-70°	2.1	0.1
70°-80°	1.3	0.1
80°-90°	2.6	0.2
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°	1540.1	95.3
0°-40°	1594.0	98.7
0°-60°	1609.5	99.6
0°-90°	1615.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1615.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	11651	11651	11651	11651	11651	
5°	9806	9734	9754	9681	9682	793
15°	2241	2164	1985	1832	1749	654
25°	353	357	339	320	302	177
35°	78	84	92	70	73	51
45°	12	16	9	9	13	12
55°	0	5	3	2	0	3
65°	0	3	0	0	0	2
75°	0	0	0	2	0	1
85°	8	4	7	4	3	2
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	11650.8	11650.8	11650.8	11650.8	11650.8
1°	11561.6	11518.2	11560.0	11535.4	11549.3
2°	11310.5	11256.5	11299.9	11265.5	11294.1
3°	10919.5	10877.8	10916.2	10872.9	10895.8
4°	10429.6	10369.0	10407.5	10349.4	10363.3
5°	9806.3	9734.3	9753.9	9681.2	9682.0
6°	9021.1	8971.2	8982.6	8868.9	8860.8
7°	8253.0	8135.2	8123.0	7992.9	7967.6
8°	7320.6	7213.4	7178.3	7025.3	6971.3
9°	6426.6	6293.2	6221.3	6043.8	5980.8
10°	5517.8	5382.9	5274.9	5074.5	5006.6
11°	4677.0	4555.1	4421.0	4206.7	4140.4
12°	3896.7	3801.0	3653.7	3446.8	3377.3
13°	3259.5	3149.1	2991.2	2799.0	2739.3
14°	2707.4	2588.8	2430.9	2266.5	2150.4
15°	2241.2	2163.5	1985.1	1832.2	1748.8
16°	1831.4	1765.1	1611.3	1478.8	1419.9
17°	1501.7	1448.6	1317.7	1213.8	1164.7
18°	1239.2	1172.9	1069.9	1002.0	963.5
19°	1005.2	953.7	878.5	826.1	787.7
20°	829.4	786.9	726.3	679.7	665.0
22.5°	535.8	528.4	489.1	463.8	451.5
25°	353.4	357.4	339.4	319.8	301.8
26°	301.8	304.3	287.9	276.5	253.6
27°	258.5	259.3	259.3	238.0	215.9
28°	211.0	220.0	211.8	202.0	180.8
29°	180.8	192.2	188.1	178.3	157.9
30°	156.2	164.4	172.6	157.0	137.4
32.5°	109.6	117.0	126.0	117.8	101.4
35°	77.7	84.2	91.6	69.5	72.8
37.5°	53.2	64.6	62.2	56.4	48.3
40°	31.9	33.5	36.8	39.3	21.3
42.5°	22.9	27.0	24.5	27.8	9.8
45°	11.5	16.4	9.0	9.0	13.1
47.5°	8.2	13.9	4.9	4.9	1.6
50°	4.9	10.6	5.7	2.5	8.2
52.5°	8.2	9.8	6.5	7.4	1.6
55°	0.0	4.9	3.3	1.6	0.0
57.5°	3.3	5.7	3.3	1.6	3.3
60°	0.0	0.0	0.0	0.8	1.6
62.5°	0.0	1.6	0.0	2.5	3.3
65°	0.0	3.3	0.0	0.0	0.0
67.5°	4.9	5.7	3.3	6.5	9.8



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
75°	0.0	0.0	0.0	1.6	0.0
77.5°	0.0	8.2	2.5	2.5	3.3
80°	1.6	0.0	0.0	0.8	0.0
82.5°	0.0	6.5	0.8	3.3	4.9
85°	8.2	4.1	7.4	4.1	3.3
87.5°	0.0	0.8	1.6	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	0.8	0.8	0.0
72.5°	1.6	0.0	0.0	0.0	0.0



(END OF REPORT)