

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: P282559

Luminaire Tested: **LDA2B159030D010 EU2B15SP159030 2LBALPINSQ1MMS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P282559
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: LDA2B159030D010 EU2B15SP159030 2LBALPINSQ1MMS
Description: PORTFOLIO 2IN ADJ 1500 LUMEN LED LUMINAIRE WITH SPOT OPTIC AND 2in Adj SQ Pinhole w-lens, MMS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1161.2 lumens
Efficiency: N/A
Efficacy: 82.4 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

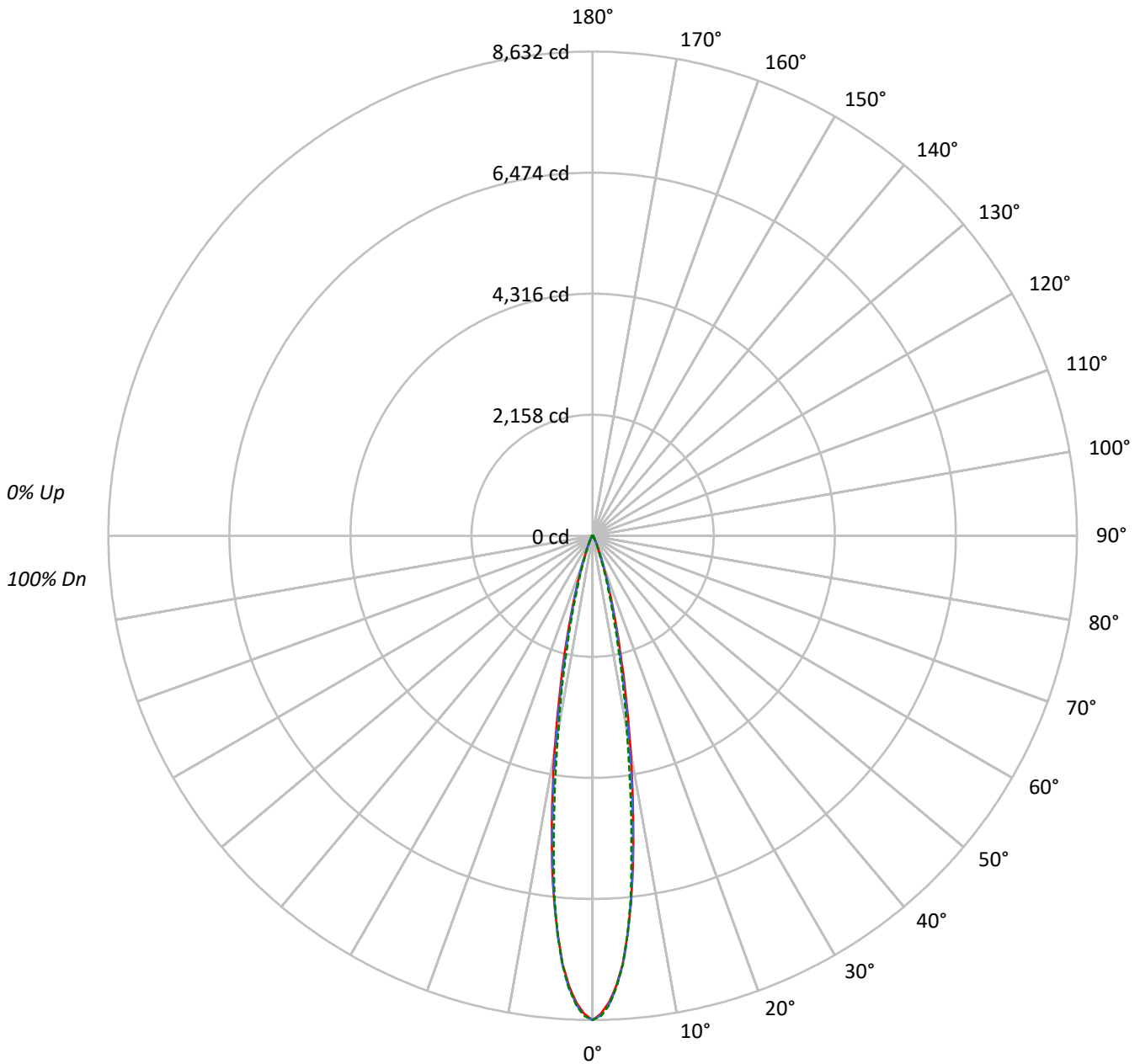
Input Watts (W): 14.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P282559

CATALOG NUMBER: LDA2B159030D010 EU2B15SP159030 2LBALPINSQ1MMS

Luminous Intensity Polar Plot





TEST NUMBER: P282559

CATALOG NUMBER: LDA2B159030D010 EU2B15SP159030 2LBALPINSQ1MMS

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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4258798	4258798	4258798
5°	3533087	3544577	3531106
10°	1955447	1884810	1755809
15°	791585	757108	672219
20°	265190	281203	227651
25°	100925	101252	95863
30°	45233	44492	43011
35°	21923	19514	15539
40°	14491	18355	12816
45°	3698	6000	5512
50°	998	1535	1996
55°	9118	7999	12558
60°	13025	10459	16972
65°	6187	16227	15410
70°	5770	4760	5770
75°	2478	6290	17728
80°	30116	41481	37503
85°	0	18680	22643



TEST NUMBER: P282559

CATALOG NUMBER: LDA2B159030D010 EU2B15SP159030 2LBALPINSQ1MMS

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	565.4	48.7
10°-20°	428.3	36.9
20°-30°	97.3	8.4
30°-40°	28.8	2.5
40°-50°	9.6	0.8
50°-60°	8.4	0.7
60°-70°	10.2	0.9
70°-80°	6.5	0.6
80°-90°	6.8	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°	1091.0	94.0
0°-40°	1119.7	96.4
0°-60°	1137.8	98.0
0°-90°	1161.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1161.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	8632	8632	8632	8632	8632	
5°	7134	7190	7157	7064	7130	572
15°	1550	1571	1482	1343	1316	450
25°	185	199	186	184	176	97
35°	36	40	32	38	26	29
45°	5	15	9	15	8	8
55°	11	15	9	14	15	4
65°	5	11	14	13	13	5
75°	1	5	3	6	9	3
85°	0	0	3	3	4	4
90°	0	0	0	0	0	



TEST NUMBER: P282559

CATALOG NUMBER: LDA2B159030D010 EU2B15SP159030 2LBALPINSQ1MMS

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	8632.2	8632.2	8632.2	8632.2	8632.2
1°	8521.0	8555.4	8552.1	8538.2	8562.7
2°	8325.0	8366.7	8362.7	8332.3	8376.0
3°	8037.7	8074.8	8068.8	8025.1	8072.8
4°	7653.7	7696.1	7679.5	7614.0	7674.9
5°	7134.0	7190.3	7157.2	7063.8	7130.0
6°	6558.1	6605.7	6553.4	6429.6	6494.5
7°	5913.2	5943.0	5874.2	5715.3	5671.6
8°	5209.5	5248.6	5152.6	4967.2	4919.5
9°	4536.9	4550.1	4433.6	4236.3	4176.1
10°	3903.3	3893.4	3762.3	3562.4	3504.8
11°	3302.9	3289.6	3151.3	2966.6	2985.1
12°	2756.7	2782.5	2621.6	2454.1	2457.5
13°	2307.8	2310.5	2172.1	2012.6	2003.3
14°	1889.4	1913.9	1795.4	1652.4	1625.9
15°	1549.8	1571.0	1482.3	1343.3	1316.1
16°	1240.6	1267.1	1203.6	1077.8	1042.0
17°	999.0	1032.8	991.1	885.8	844.7
18°	799.1	824.9	815.0	706.4	672.6
19°	630.9	666.7	669.3	578.6	538.2
20°	505.1	537.6	535.6	465.4	433.6
22.5°	290.0	307.2	307.8	274.7	256.2
25°	185.4	199.3	186.0	184.0	176.1
26°	160.9	172.1	157.6	157.6	150.3
27°	130.4	140.4	126.4	132.4	122.5
28°	109.9	120.5	108.6	107.2	105.9
29°	91.4	101.3	86.1	92.7	88.7
30°	79.4	86.7	78.1	88.0	75.5
32.5°	61.6	67.5	52.3	66.2	49.7
35°	36.4	40.4	32.4	37.7	25.8
37.5°	37.7	39.1	35.1	39.1	36.4
40°	22.5	23.2	28.5	28.5	19.9
42.5°	21.2	20.5	12.6	19.9	15.9
45°	5.3	15.2	8.6	15.2	7.9
47.5°	4.0	5.3	5.3	10.6	10.6
50°	1.3	5.3	2.0	4.0	2.6
52.5°	0.0	12.6	2.6	9.3	7.9
55°	10.6	15.2	9.3	13.9	14.6
57.5°	1.3	10.6	5.3	11.3	7.9
60°	13.2	17.9	10.6	19.2	17.2
62.5°	1.3	11.9	13.9	10.6	9.3
65°	5.3	11.3	13.9	13.2	13.2
67.5°	6.6	11.3	8.6	8.6	11.9



TEST NUMBER: P282559

CATALOG NUMBER: LDA2B159030D010 EU2B15SP159030 2LBALPINSQ1MMS

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
75°	1.3	4.6	3.3	6.0	9.3
77.5°	1.3	5.3	4.6	10.6	7.9
80°	10.6	11.9	14.6	19.2	13.2
82.5°	9.3	9.3	14.6	10.6	7.9
85°	0.0	0.0	3.3	3.3	4.0
87.5°	0.0	2.6	6.6	5.3	9.3
90°	0.0	0.0	0.0	0.0	0.0



Report Generated By E9808895 / USPTCWHP6082093





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







70°	4.0	1.3	3.3	3.3	4.0
72.5°	1.3	6.0	5.3	3.3	6.6



(END OF REPORT)