

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: P315384

Luminaire Tested: **LDA2B15FL8030D010 PINW1MMS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P315384  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1808-908-15)  
Test Lab: INNOVATION CENTER(G2)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: io LED  
Catalog Number: LDA2B15FL8030D010 PINW1MMS  
Description: PORTFOLIO 2IN ADJ 1500 LUMEN LED LUMINAIRE WITH FLOOD OPTIC AND 2in Adj PinHole, White oculus, matte metallic silver finish  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1195.7 lumens  
Efficiency: N/A  
Efficacy: 84.8 lumens/watt  
Spacing Criteria (0/90/45): 2.92 / 0.6 / 1.34  
Luminous Opening: Circular (Dia: 0.17' x H: 0')  
CIE Type: Direct

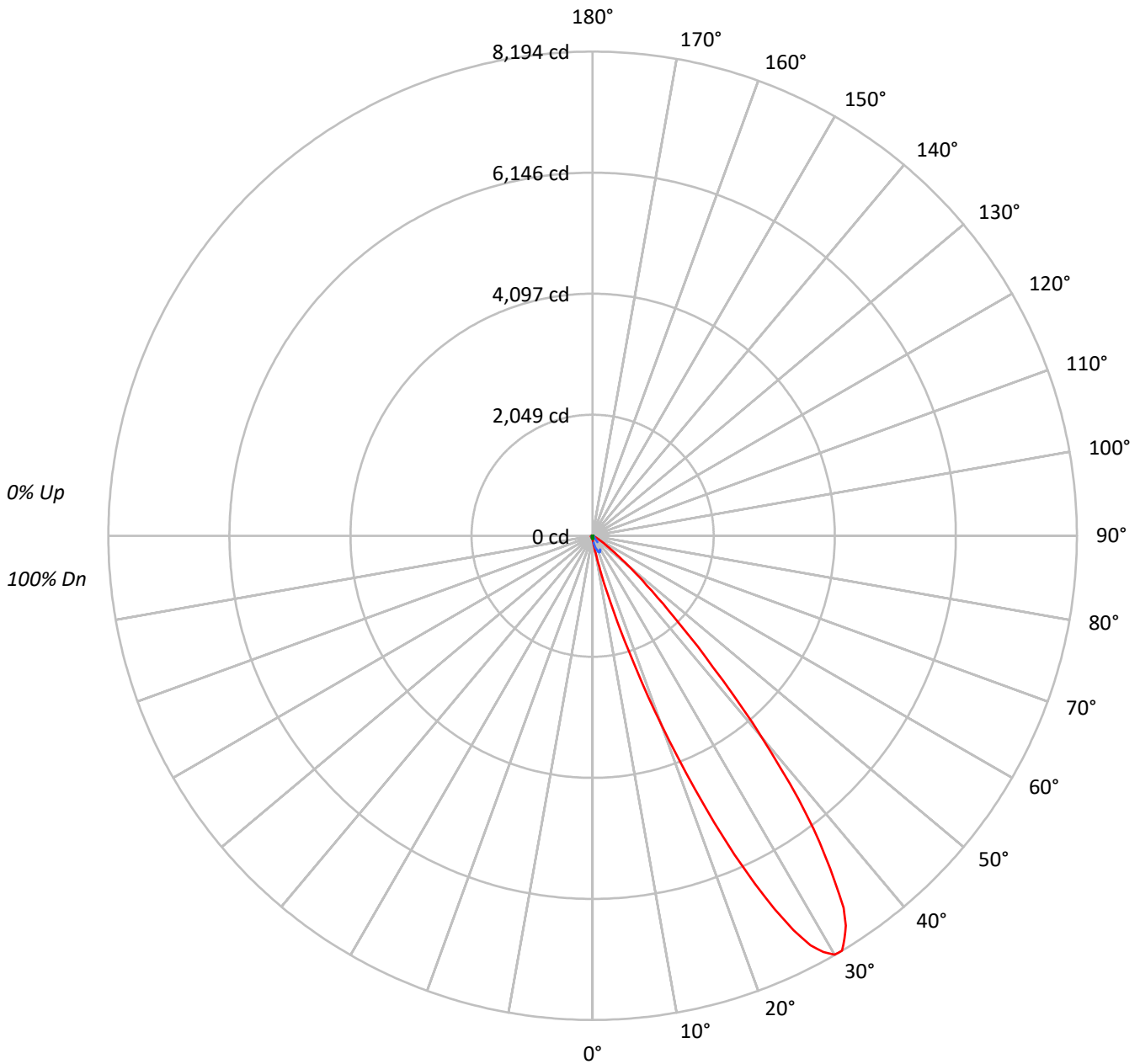
Input Watts (W): 14.1  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P315384

CATALOG NUMBER: LDA2B15FL8030D010 PINW1MMS

### Luminous Intensity Polar Plot





TEST NUMBER: P315384

CATALOG NUMBER: LDA2B15FL8030D010 PINW1MMS

**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																			
1	112	108	105	102	109	106	103	101	102	100	97	98	96	95	95	93	92	90																			
2	104	98	93	89	102	96	92	88	93	89	86	90	87	84	87	84	82	80																			
3	97	89	82	77	95	87	82	77	85	80	75	82	78	74	80	76	73	71																			
4	90	81	74	68	88	79	73	68	77	71	67	75	70	66	73	69	65	63																			
5	84	73	66	60	82	72	65	60	70	64	59	68	63	59	67	62	58	56																			
6	78	67	59	53	76	66	58	53	64	58	53	62	57	52	61	56	52	50																			
7	72	61	53	48	71	60	53	47	58	52	47	57	51	47	56	51	47	45																			
8	67	55	48	43	66	55	47	42	53	47	42	52	46	42	51	46	42	40																			
9	63	51	43	38	61	50	43	38	49	42	38	48	42	38	47	41	37	36																			
10	59	46	39	34	57	46	39	34	45	38	34	44	38	34	43	38	34	32																			

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

	0°	90°	180°
0°	25112	25112	25112
5°	56111	25901	20256
10°	150142	16181	5761
15°	591160	20890	13535
20°	1788339	12811	10553
25°	3538968	10942	9363
30°	4663215	6551	11451
35°	4302954	9516	13792
40°	2866163	8308	18935
45°	1351900	3000	8024
50°	596067	10976	24791
55°	242390	0	25288
60°	100448	7104	22596
65°	34321	8405	16694
70°	28994	16589	42409
75°	16393	24590	56042
80°	0	12217	24434
85°	16416	16416	80948



TEST NUMBER: P315384

CATALOG NUMBER: LDA2B15FL8030D010 PINW1MMS

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	6.9	0.6
10°-20°	73.2	6.1
20°-30°	376.1	31.5
30°-40°	481.6	40.3
40°-50°	185.2	15.5
50°-60°	37.6	3.1
60°-70°	12.8	1.1
70°-80°	14.8	1.2
80°-90°	7.6	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°	456.2	38.1
0°-40°	937.7	78.4
0°-60°	1160.5	97.1
0°-90°	1195.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1195.7	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	51	51	51	51	51	
5°	113	93	52	38	41	17
15°	1157	225	41	24	26	444
25°	6501	294	20	16	17	2967
35°	7144	153	16	13	23	4270
45°	1938	38	4	3	12	1665
55°	282	7	0	6	29	292
65°	29	10	7	10	14	41
75°	9	16	13	22	29	12
85°	3	10	3	12	14	2
90°	0	0	0	0	0	



TEST NUMBER: P315384

CATALOG NUMBER: LDA2B15FL8030D010 PINW1MMS

**CANDELA DISTRIBUTION (FULL):**

	0°	2.5°	5°	7.5°	10°	12.5°	15°	17.5°	22.5°	45°	67.5°
0°	50.9	50.9	50.9	50.9	50.9	50.9	50.9	50.9	50.9	50.9	50.9
2.5°	75.3	65.3	68.1	58.1	63.8	65.3	53.8	71.0	63.8	66.7	58.1
5°	113.3	121.9	111.9	107.6	104.7	107.6	104.7	109.0	106.1	93.2	66.7
7.5°	189.3	172.8	172.8	167.1	171.4	170.0	162.8	167.1	157.0	113.3	76.7
10°	299.7	283.3	281.8	277.5	276.1	263.2	256.0	250.3	229.5	134.1	69.6
12.5°	587.3	573.0	562.9	537.8	520.6	510.6	472.6	452.5	393.0	199.4	88.9
15°	1157.4	1083.5	1102.2	1021.1	961.6	922.2	843.3	773.7	631.0	225.2	86.1
17.5°	2048.0	1976.3	1928.3	1840.1	1718.9	1614.2	1458.6	1304.4	1014.0	256.0	80.3
20°	3406.2	3292.9	3192.5	3041.2	2808.1	2606.6	2332.7	2038.0	1509.5	292.6	72.4
21°	4002.8	3915.3	3799.1	3599.8	3328.0	3058.4	2730.0	2375.0	1720.3	295.4	65.3
22°	4625.2	4568.6	4415.8	4187.1	3870.1	3548.9	3145.9	2755.8	1944.7	299.7	62.4
23°	5273.5	5214.0	5041.1	4779.4	4423.0	4034.3	3564.7	3102.1	2155.6	305.5	61.0
24°	5908.1	5842.1	5649.2	5356.7	4952.2	4505.5	3974.8	3438.4	2352.1	302.6	63.8
25°	6501.1	6409.3	6205.7	5881.6	5437.7	4936.4	4351.3	3728.9	2524.9	294.0	53.8
26°	7030.3	6925.7	6706.2	6352.7	5867.2	5324.4	4665.4	3998.5	2652.5	286.8	50.9
27°	7490.0	7358.1	7123.6	6752.8	6232.2	5632.7	4933.6	4209.3	2765.1	276.1	40.9
28°	7847.8	7696.5	7458.5	7066.9	6516.9	5873.0	5130.8	4341.3	2831.8	277.5	46.6
29°	8054.4	7938.2	7679.3	7269.1	6690.4	6011.4	5234.8	4414.4	2844.7	256.0	43.7
30°	8185.6	8055.8	7789.7	7360.9	6757.1	6042.9	5247.7	4400.8	2806.7	240.2	40.9
31°	8194.2	8058.7	7788.3	7344.4	6731.3	5990.6	5176.0	4319.7	2724.2	223.7	33.7
32°	8040.0	7935.3	7669.3	7211.1	6591.5	5846.4	5021.8	4182.8	2594.4	190.7	22.9
33°	7865.8	7738.8	7474.2	7011.7	6397.9	5649.2	4799.5	3998.5	2459.6	187.9	29.4
34°	7594.7	7442.0	7181.7	6726.3	6129.0	5368.1	4534.9	3752.5	2287.5	171.4	28.0
35°	7144.4	7062.6	6799.4	6349.8	5769.7	5031.1	4216.5	3482.2	2104.7	152.7	20.1
36°	6693.3	6592.9	6344.1	5909.5	5359.5	4629.5	3857.2	3173.8	1898.1	129.8	15.8
37°	6216.5	6085.2	5858.6	5433.4	4859.0	4229.4	3512.3	2879.8	1729.6	137.0	21.5
38°	5660.7	5617.0	5318.7	4922.8	4392.2	3797.7	3141.6	2570.0	1543.2	127.6	35.1
39°	5049.7	5020.3	4722.8	4362.1	3885.9	3339.5	2762.2	2248.8	1356.7	93.2	11.5
40°	4450.3	4366.4	4155.5	3827.8	3413.3	2922.1	2423.0	1974.9	1195.4	91.8	22.9
42.5°	3016.1	3042.6	2814.6	2580.1	2314.0	1980.6	1647.9	1353.9	836.1	68.1	14.3
45°	1937.6	1943.3	1841.5	1659.3	1485.1	1277.1	1057.7	881.3	539.3	38.0	4.3
47.5°	1233.4	1230.5	1165.3	1060.6	946.6	824.7	687.7	575.8	349.2	29.4	12.9
50°	776.6	773.7	732.9	666.2	602.4	522.0	436.0	370.7	220.9	35.1	14.3
51°	631.0	635.3	600.9	533.5	484.0	407.3	347.8	295.4	172.8	24.4	12.9
52°	520.6	517.7	496.2	439.6	398.7	332.7	283.3	241.7	144.1	21.5	5.7
53°	418.8	420.2	398.7	355.0	315.5	266.0	226.6	187.9	103.3	15.8	4.3
54°	331.3	328.4	321.3	278.9	254.6	210.8	177.1	144.1	88.9	2.9	0.0
55°	281.8	277.5	267.5	230.9	206.5	174.3	141.3	123.3	76.7	7.2	0.0
57.5°	162.8	162.8	157.0	137.0	120.5	107.6	86.1	80.3	39.4	7.2	0.0
60°	101.8	88.9	99.0	84.6	66.7	59.5	49.5	45.2	33.7	12.9	2.9
61°	84.6	68.1	66.7	62.4	58.1	39.4	33.7	36.6	21.5	4.3	2.9
62°	61.0	53.8	58.1	49.5	43.7	30.8	28.0	26.5	12.9	5.7	7.2
63°	55.2	49.5	48.0	36.6	32.3	32.3	24.4	22.9	15.8	11.5	5.7



TEST NUMBER: P315384

CATALOG NUMBER: LDA2B15FL8030D010 PINW1MMS

**CANDELA DISTRIBUTION (continued):**

	0°	2.5°	5°	7.5°	10°	12.5°	15°	17.5°	22.5°	45°	67.5°
66°	29.4	24.4	21.5	24.4	14.3	18.6	7.2	20.1	4.3	7.2	4.3
67.5°	22.9	14.3	12.9	15.8	10.0	7.2	10.0	12.9	4.3	7.2	10.0
70°	20.1	10.0	14.3	12.9	10.0	12.9	14.3	14.3	4.3	14.3	12.9
72.5°	20.1	12.9	7.2	5.7	5.7	5.7	5.7	5.7	8.6	20.1	15.8
75°	8.6	8.6	4.3	10.0	5.7	8.6	5.7	14.3	5.7	15.8	12.9
77.5°	5.7	7.2	0.0	7.2	0.0	0.0	4.3	10.0	4.3	11.5	14.3
80°	0.0	7.2	4.3	0.0	2.9	4.3	0.0	1.4	2.9	12.9	5.7
82.5°	2.9	4.3	5.7	2.9	2.9	0.0	0.0	0.0	0.0	8.6	7.2
85°	2.9	5.7	0.0	1.4	5.7	2.9	1.4	7.2	2.9	10.0	11.5
87.5°	0.0	2.9	2.9	0.0	4.3	0.0	4.3	2.9	0.0	8.6	4.3
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P315384

CATALOG NUMBER: LDA2B15FL8030D010 PINW1MMS

**CANDELA DISTRIBUTION (continued):**

	90°	112.5°	135°	157.5°	180°
0°	50.9	50.9	50.9	50.9	50.9
2.5°	43.7	39.4	33.7	42.3	35.1
5°	52.3	48.0	38.0	45.2	40.9
7.5°	53.8	45.2	39.4	36.6	40.9
10°	32.3	21.5	15.8	21.5	11.5
12.5°	53.8	38.0	35.1	39.4	43.7
15°	40.9	24.4	24.4	18.6	26.5
17.5°	22.9	18.6	17.2	22.9	26.5
20°	24.4	15.8	12.9	21.5	20.1
21°	21.5	5.7	17.2	17.2	20.1
22°	30.8	14.3	17.2	28.0	29.4
23°	20.1	15.8	12.9	17.2	22.9
24°	29.4	17.2	15.8	21.5	32.3
25°	20.1	15.8	15.8	20.1	17.2
26°	11.5	15.8	11.5	17.2	14.3
27°	8.6	14.3	8.6	12.9	17.2
28°	18.6	22.9	21.5	22.9	20.1
29°	20.1	24.4	20.1	30.8	22.9
30°	11.5	21.5	10.0	22.9	20.1
31°	11.5	15.8	7.2	22.9	20.1
32°	1.4	8.6	4.3	8.6	8.6
33°	8.6	10.0	11.5	18.6	14.3
34°	14.3	17.2	11.5	20.1	17.2
35°	15.8	8.6	12.9	21.5	22.9
36°	4.3	4.3	7.2	17.2	5.7
37°	8.6	24.4	17.2	29.4	17.2
38°	14.3	29.4	28.0	36.6	29.4
39°	2.9	8.6	10.0	20.1	20.1
40°	12.9	21.5	15.8	29.4	29.4
42.5°	10.0	15.8	11.5	24.4	20.1
45°	4.3	4.3	2.9	15.8	11.5
47.5°	7.2	7.2	12.9	20.1	35.1
50°	14.3	14.3	18.6	33.7	32.3
51°	8.6	7.2	10.0	22.9	29.4
52°	7.2	10.0	10.0	22.9	22.9
53°	2.9	0.0	0.0	17.2	14.3
54°	2.9	1.4	4.3	12.9	20.1
55°	0.0	7.2	5.7	26.5	29.4
57.5°	1.4	11.5	5.7	18.6	22.9
60°	7.2	8.6	15.8	18.6	22.9
61°	0.0	7.2	7.2	17.2	20.1
62°	0.0	5.7	12.9	15.8	20.1
63°	7.2	8.6	11.5	18.6	22.9





TEST NUMBER: P315384

CATALOG NUMBER: LDA2B15FL8030D010 PINW1MMS

**CANDELA DISTRIBUTION (continued):**

	90°	112.5°	135°	157.5°	180°
66°	4.3	11.5	14.3	18.6	17.2
67.5°	8.6	10.0	8.6	24.4	29.4
70°	11.5	18.6	20.1	17.2	29.4
72.5°	7.2	10.0	14.3	26.5	29.4
75°	12.9	14.3	21.5	24.4	29.4
77.5°	10.0	14.3	14.3	15.8	29.4
80°	4.3	12.9	14.3	15.8	8.6
82.5°	5.7	8.6	5.7	15.8	11.5
85°	2.9	12.9	11.5	14.3	14.3
87.5°	4.3	7.2	7.2	12.9	8.6
90°	0.0	0.0	0.0	0.0	0.0



Report Generated By E9808895 / USPTCWHP6082093





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







64°	32.3	33.7	32.3	22.9	17.2	15.8	11.5	20.1	5.7	5.7	0.0
65°	29.4	32.3	24.4	28.0	18.6	17.2	10.0	20.1	2.9	10.0	7.2







64°	4.3	7.2	7.2	12.9	20.1
65°	7.2	10.0	10.0	18.6	14.3



(END OF REPORT)