

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: P315381

Luminaire Tested: **LDA2B15FL8030D010 PIN1MW**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P315381
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 PIN1MW
Description: PORTFOLIO 2IN ADJ 1500 LUMEN LED LUMINAIRE WITH FLOOD OPTIC AND 2in Adj PinHole, Black oculus, matte white finish
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1151.7 lumens
Efficiency: N/A
Efficacy: 81.7 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

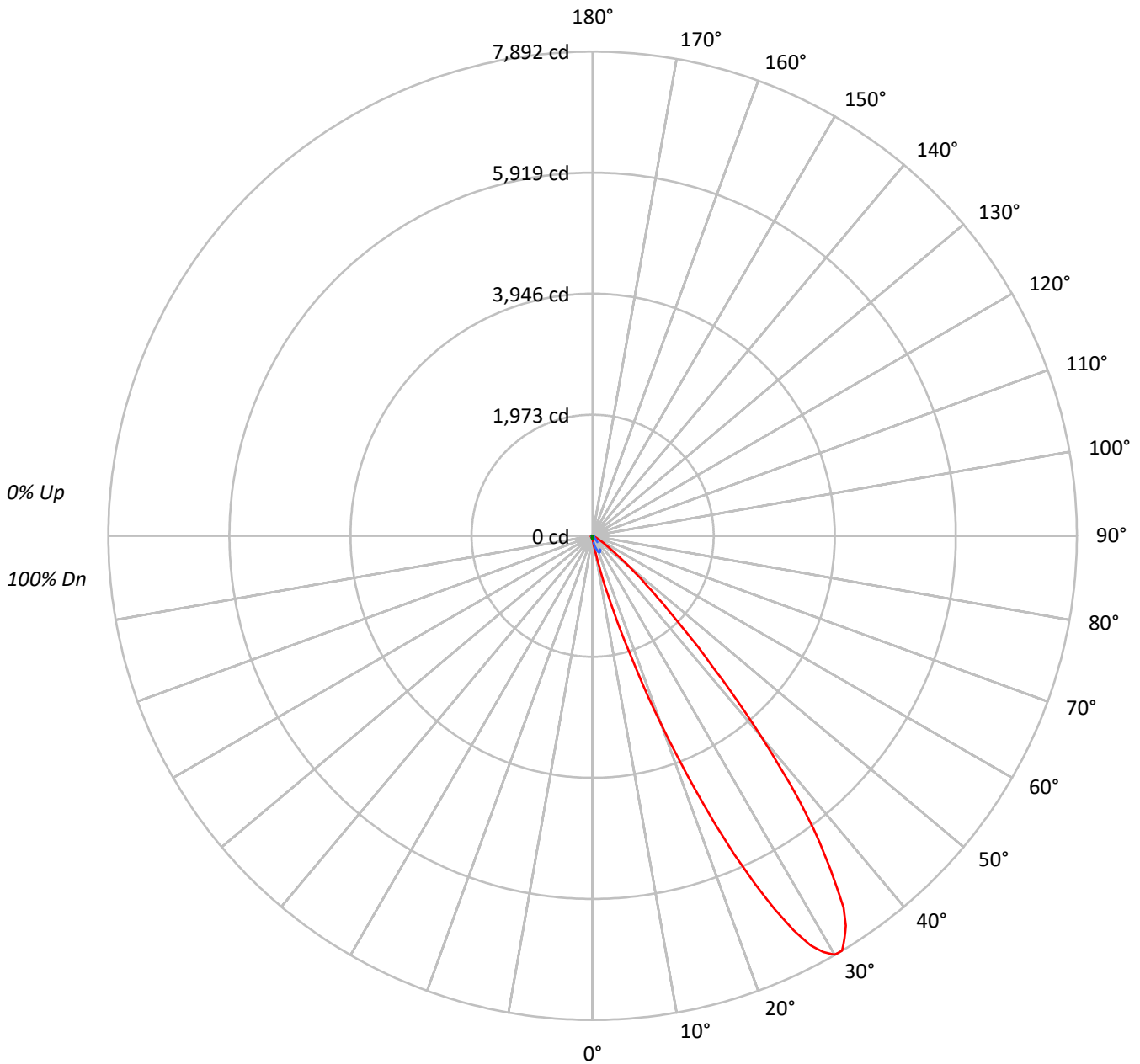
Input Watts (W): 14.1
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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																			
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°	24175	24175	24175
5°	54031	24960	19513
10°	144631	15580	5561
15°	569351	20124	13076
20°	1722396	12338	10133
25°	3408538	10506	9036
30°	4491341	6324	10995
35°	4144313	9155	13310
40°	2760476	7986	18226
45°	1302083	2861	7745
50°	574116	10592	23870
55°	233445	0	24342
60°	96798	6808	21807
65°	33037	8055	16110
70°	27840	16012	40823
75°	15821	23637	53946
80°	0	11649	23582
85°	15850	15850	78118



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	6.7	0.6
10°-20°	70.5	6.1
20°-30°	362.2	31.5
30°-40°	463.8	40.3
40°-50°	178.4	15.5
50°-60°	36.3	3.1
60°-70°	12.3	1.1
70°-80°	14.3	1.2
80°-90°	7.3	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°	439.4	38.1
0°-40°	903.2	78.4
0°-60°	1117.8	97.1
0°-90°	1151.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1151.7	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	49	49	49	49	49	
5°	109	90	50	37	39	16
15°	1115	217	39	24	26	427
25°	6262	283	19	15	17	2858
35°	6881	147	15	12	22	4113
45°	1866	37	4	3	11	1604
55°	271	7	0	6	28	281
65°	28	10	7	10	14	40
75°	8	15	12	21	28	11
85°	3	10	3	11	14	2
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	2.5°	5°	7.5°	10°	12.5°	15°	17.5°	22.5°	45°	67.5°
0°	49.0	49.0	49.0	49.0	49.0	49.0	49.0	49.0	49.0	49.0	49.0
2.5°	72.5	62.8	65.6	55.9	61.5	62.8	51.8	68.4	61.5	64.2	55.9
5°	109.1	117.4	107.7	103.6	100.8	103.6	100.8	105.0	102.2	89.8	64.2
7.5°	182.3	166.4	166.4	160.9	165.1	163.7	156.8	160.9	151.3	109.1	73.9
10°	288.7	272.8	271.4	267.3	265.9	253.5	246.6	241.0	221.0	129.2	67.0
12.5°	565.6	551.8	542.2	518.0	501.4	491.7	455.1	435.8	378.5	192.0	85.6
15°	1114.7	1043.6	1061.5	983.5	926.2	888.2	812.2	745.2	607.8	216.9	82.9
17.5°	1972.5	1903.5	1857.2	1772.2	1655.5	1554.7	1404.8	1256.3	976.6	246.6	77.4
20°	3280.6	3171.5	3074.8	2929.1	2704.6	2510.5	2246.7	1962.8	1453.8	281.8	69.8
21°	3855.2	3771.0	3659.1	3467.1	3205.3	2945.7	2629.3	2287.5	1656.9	284.6	62.8
22°	4454.7	4400.2	4253.1	4032.7	3727.5	3418.1	3029.9	2654.2	1873.1	288.7	60.1
23°	5079.1	5021.8	4855.3	4603.2	4260.0	3885.6	3433.3	2987.8	2076.1	294.2	58.7
24°	5690.3	5626.8	5441.0	5159.2	4769.7	4339.4	3828.3	3311.7	2265.4	291.5	61.5
25°	6261.5	6173.1	5976.9	5664.8	5237.3	4754.5	4190.9	3591.4	2431.8	283.2	51.8
26°	6771.2	6670.4	6459.0	6118.5	5651.0	5128.1	4493.4	3851.1	2554.7	276.3	49.0
27°	7213.9	7086.8	6861.0	6503.9	6002.5	5425.1	4751.7	4054.2	2663.2	265.9	39.4
28°	7558.6	7412.8	7183.5	6806.4	6276.7	5656.5	4941.7	4181.2	2727.4	267.3	44.9
29°	7757.5	7645.6	7396.2	7001.2	6443.8	5789.8	5041.8	4251.7	2739.8	246.6	42.1
30°	7883.9	7758.8	7502.6	7089.6	6508.1	5820.2	5054.2	4238.6	2703.2	231.4	39.4
31°	7892.1	7761.6	7501.2	7073.7	6483.2	5769.8	4985.2	4160.5	2623.8	215.5	32.5
32°	7743.6	7642.8	7386.6	6945.2	6348.5	5630.9	4836.7	4028.6	2498.8	183.7	22.1
33°	7575.8	7453.6	7198.7	6753.2	6162.0	5441.0	4622.6	3851.1	2369.0	181.0	28.3
34°	7314.8	7167.6	6916.9	6478.4	5903.0	5170.3	4367.7	3614.2	2203.2	165.1	26.9
35°	6881.0	6802.3	6548.8	6115.8	5557.0	4845.7	4061.1	3353.8	2027.1	147.1	19.3
36°	6446.6	6349.9	6110.2	5691.7	5162.0	4458.9	3715.0	3056.8	1828.2	125.0	15.2
37°	5987.3	5860.9	5642.7	5233.1	4679.9	4073.5	3382.8	2773.7	1665.9	131.9	20.7
38°	5452.0	5409.9	5122.6	4741.4	4230.3	3657.7	3025.8	2475.3	1486.3	122.9	33.8
39°	4863.6	4835.3	4548.7	4201.3	3742.7	3216.4	2660.4	2165.9	1306.7	89.8	11.1
40°	4286.2	4205.4	4002.4	3686.7	3287.5	2814.4	2333.7	1902.1	1151.3	88.4	22.1
42.5°	2904.9	2930.5	2710.8	2485.0	2228.8	1907.6	1587.1	1304.0	805.3	65.6	13.8
45°	1866.2	1871.7	1773.6	1598.2	1430.4	1230.1	1018.7	848.8	519.4	36.6	4.1
47.5°	1187.9	1185.2	1122.3	1021.5	911.7	794.3	662.3	554.6	336.4	28.3	12.4
50°	748.0	745.2	705.9	641.6	580.2	502.8	419.9	357.1	212.7	33.8	13.8
51°	607.8	611.9	578.8	513.8	466.2	392.3	335.0	284.6	166.4	23.5	12.4
52°	501.4	498.7	477.9	423.4	384.0	320.5	272.8	232.8	138.8	20.7	5.5
53°	403.3	404.7	384.0	341.9	303.9	256.2	218.2	181.0	99.5	15.2	4.1
54°	319.1	316.3	309.4	268.7	245.2	203.1	170.6	138.8	85.6	2.8	0.0
55°	271.4	267.3	257.6	222.4	198.9	167.8	136.1	118.8	73.9	6.9	0.0
57.5°	156.8	156.8	151.3	131.9	116.0	103.6	82.9	77.4	38.0	6.9	0.0
60°	98.1	85.6	95.3	81.5	64.2	57.3	47.7	43.5	32.5	12.4	2.8
61°	81.5	65.6	64.2	60.1	55.9	38.0	32.5	35.2	20.7	4.1	2.8
62°	58.7	51.8	55.9	47.7	42.1	29.7	26.9	25.6	12.4	5.5	6.9
63°	53.2	47.7	46.3	35.2	31.1	31.1	23.5	22.1	15.2	11.1	5.5



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CANDELA DISTRIBUTION (continued):

	0°	2.5°	5°	7.5°	10°	12.5°	15°	17.5°	22.5°	45°	67.5°
66°	28.3	23.5	20.7	23.5	13.8	18.0	6.9	19.3	4.1	6.9	4.1
67.5°	22.1	13.8	12.4	15.2	9.7	6.9	9.7	12.4	4.1	6.9	9.7
70°	19.3	9.7	13.8	12.4	9.7	12.4	13.8	13.8	4.1	13.8	12.4
72.5°	19.3	12.4	6.9	5.5	5.5	5.5	5.5	5.5	8.3	19.3	15.2
75°	8.3	8.3	4.1	9.7	5.5	8.3	5.5	13.8	5.5	15.2	12.4
77.5°	5.5	6.9	0.0	6.9	0.0	0.0	4.1	9.7	4.1	11.1	13.8
80°	0.0	6.9	4.1	0.0	2.8	4.1	0.0	1.4	2.8	12.4	5.5
82.5°	2.8	4.1	5.5	2.8	2.8	0.0	0.0	0.0	0.0	8.3	6.9
85°	2.8	5.5	0.0	1.4	5.5	2.8	1.4	6.9	2.8	9.7	11.1
87.5°	0.0	2.8	2.8	0.0	4.1	0.0	4.1	2.8	0.0	8.3	4.1
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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CANDELA DISTRIBUTION (continued):

	90°	112.5°	135°	157.5°	180°
0°	49.0	49.0	49.0	49.0	49.0
2.5°	42.1	38.0	32.5	40.7	33.8
5°	50.4	46.3	36.6	43.5	39.4
7.5°	51.8	43.5	38.0	35.2	39.4
10°	31.1	20.7	15.2	20.7	11.1
12.5°	51.8	36.6	33.8	38.0	42.1
15°	39.4	23.5	23.5	18.0	25.6
17.5°	22.1	18.0	16.6	22.1	25.6
20°	23.5	15.2	12.4	20.7	19.3
21°	20.7	5.5	16.6	16.6	19.3
22°	29.7	13.8	16.6	26.9	28.3
23°	19.3	15.2	12.4	16.6	22.1
24°	28.3	16.6	15.2	20.7	31.1
25°	19.3	15.2	15.2	19.3	16.6
26°	11.1	15.2	11.1	16.6	13.8
27°	8.3	13.8	8.3	12.4	16.6
28°	18.0	22.1	20.7	22.1	19.3
29°	19.3	23.5	19.3	29.7	22.1
30°	11.1	20.7	9.7	22.1	19.3
31°	11.1	15.2	6.9	22.1	19.3
32°	1.4	8.3	4.1	8.3	8.3
33°	8.3	9.7	11.1	18.0	13.8
34°	13.8	16.6	11.1	19.3	16.6
35°	15.2	8.3	12.4	20.7	22.1
36°	4.1	4.1	6.9	16.6	5.5
37°	8.3	23.5	16.6	28.3	16.6
38°	13.8	28.3	26.9	35.2	28.3
39°	2.8	8.3	9.7	19.3	19.3
40°	12.4	20.7	15.2	28.3	28.3
42.5°	9.7	15.2	11.1	23.5	19.3
45°	4.1	4.1	2.8	15.2	11.1
47.5°	6.9	6.9	12.4	19.3	33.8
50°	13.8	13.8	18.0	32.5	31.1
51°	8.3	6.9	9.7	22.1	28.3
52°	6.9	9.7	9.7	22.1	22.1
53°	2.8	0.0	0.0	16.6	13.8
54°	2.8	1.4	4.1	12.4	19.3
55°	0.0	6.9	5.5	25.6	28.3
57.5°	1.4	11.1	5.5	18.0	22.1
60°	6.9	8.3	15.2	18.0	22.1
61°	0.0	6.9	6.9	16.6	19.3
62°	0.0	5.5	12.4	15.2	19.3
63°	6.9	8.3	11.1	18.0	22.1



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CANDELA DISTRIBUTION (continued):

	90°	112.5°	135°	157.5°	180°
66°	4.1	11.1	13.8	18.0	16.6
67.5°	8.3	9.7	8.3	23.5	28.3
70°	11.1	18.0	19.3	16.6	28.3
72.5°	6.9	9.7	13.8	25.6	28.3
75°	12.4	13.8	20.7	23.5	28.3
77.5°	9.7	13.8	13.8	15.2	28.3
80°	4.1	12.4	13.8	15.2	8.3
82.5°	5.5	8.3	5.5	15.2	11.1
85°	2.8	12.4	11.1	13.8	13.8
87.5°	4.1	6.9	6.9	12.4	8.3
90°	0.0	0.0	0.0	0.0	0.0



Report Generated By E9808895 / USPTCWHP6082093





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







64°	31.1	32.5	31.1	22.1	16.6	15.2	11.1	19.3	5.5	5.5	0.0
65°	28.3	31.1	23.5	26.9	18.0	16.6	9.7	19.3	2.8	9.7	6.9





64°	4.1	6.9	6.9	12.4	19.3
65°	6.9	9.7	9.7	18.0	13.8



(END OF REPORT)