

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: P315390

Luminaire Tested: **LDA2B15FL8035D010 PINW1MMS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P315390
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: LDA2B15FL8035D010 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

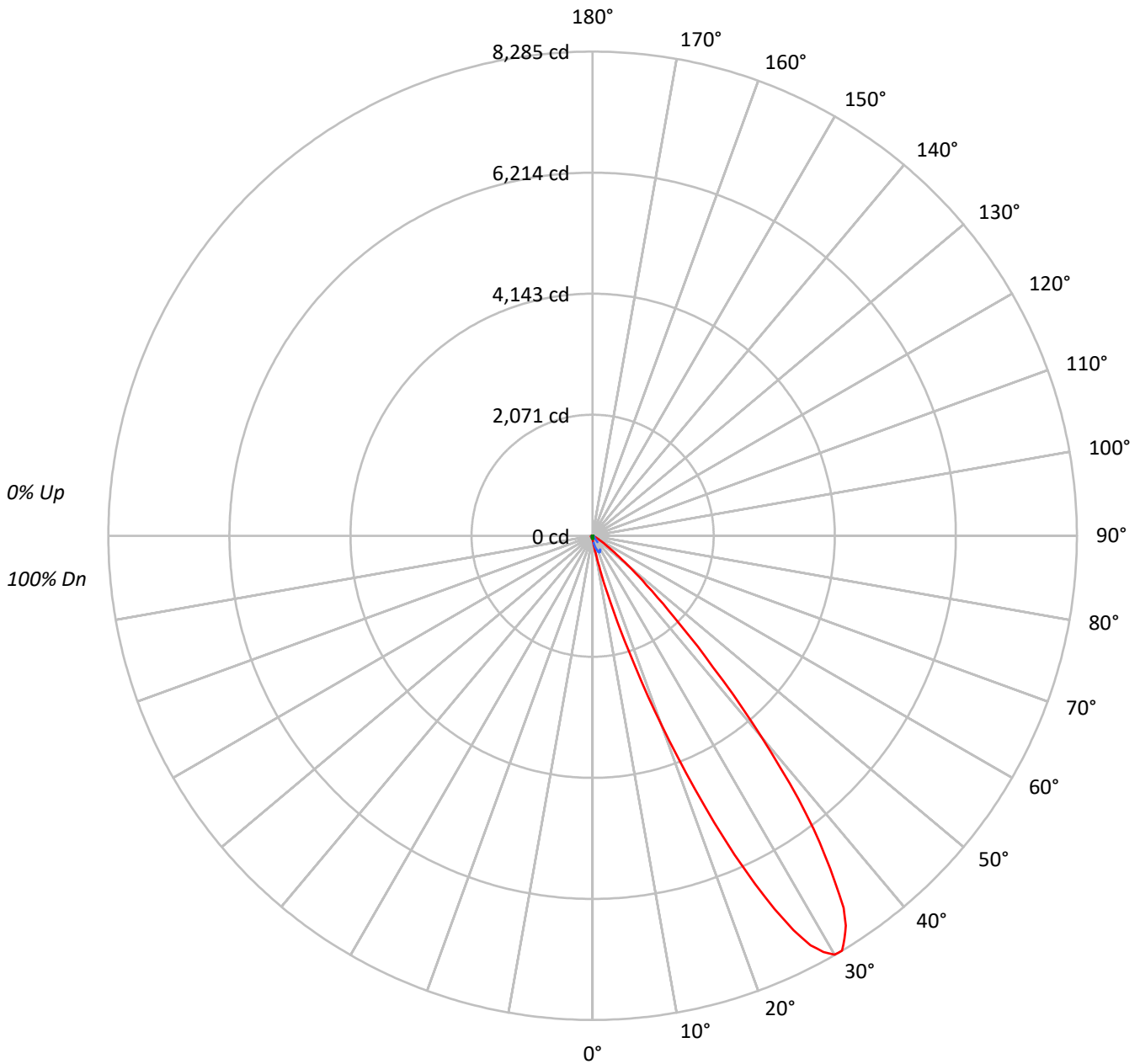
Lumens per Lamp: N/A
Luminaire Lumens: 1209.1 lumens
Efficiency: N/A
Efficacy: 85.8 lumens/watt
Spacing Criteria (0/90/45): 2.92 / 0.6 / 1.34
Luminous Opening: Circular (Dia: 0.17' x H: 0')
CIE Type: Direct

Input Watts (W): 14.1
Input Voltage (V): NR
Input Current (A_{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°	25408	25408	25408
5°	56755	26199	20454
10°	151845	16332	5811
15°	597698	21095	13689
20°	1808185	12968	10658
25°	3578271	11051	9472
30°	4714942	6608	11565
35°	4350655	9637	13973
40°	2897914	8437	19128
45°	1366901	3070	8094
50°	602668	11129	25022
55°	245057	0	25546
60°	101633	7203	22892
65°	34672	8522	16927
70°	29283	16733	42842
75°	16584	24971	56614
80°	0	12501	24718
85°	16416	16416	82080



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	7.0	0.6
10°-20°	74.0	6.1
20°-30°	380.3	31.4
30°-40°	486.9	40.3
40°-50°	187.2	15.5
50°-60°	38.1	3.1
60°-70°	12.9	1.1
70°-80°	15.0	1.2
80°-90°	7.7	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°	461.2	38.1
0°-40°	948.2	78.4
0°-60°	1173.5	97.1
0°-90°	1209.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1209.1	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	52	52	52	52	52	
5°	115	94	53	38	41	17
15°	1170	228	41	25	27	449
25°	6573	297	20	16	17	3000
35°	7224	154	16	13	23	4317
45°	1959	38	4	3	12	1684
55°	285	7	0	6	30	295
65°	30	10	7	10	14	42
75°	9	16	13	22	30	12
85°	3	10	3	12	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°	51.5	51.5	51.5	51.5	51.5	51.5	51.5	51.5	51.5	51.5	51.5
2.5°	76.1	66.0	68.9	58.7	64.5	66.0	54.4	71.8	64.5	67.4	58.7
5°	114.6	123.3	113.1	108.8	105.9	108.8	105.9	110.2	107.3	94.3	67.4
7.5°	191.4	174.7	174.7	168.9	173.3	171.8	164.6	168.9	158.8	114.6	77.6
10°	303.1	286.4	284.9	280.6	279.1	266.1	258.8	253.0	232.0	135.6	70.3
12.5°	593.8	579.3	569.2	543.8	526.4	516.2	477.8	457.5	397.3	201.6	89.9
15°	1170.2	1095.5	1114.4	1032.5	972.3	932.4	852.7	782.3	638.0	227.7	87.0
17.5°	2070.7	1998.2	1949.7	1860.5	1737.9	1632.1	1474.7	1318.9	1025.2	258.8	81.2
20°	3444.0	3329.4	3227.9	3074.9	2839.3	2635.5	2358.6	2060.6	1526.2	295.8	73.2
21°	4047.2	3958.8	3841.3	3639.7	3364.9	3092.3	2760.3	2401.4	1739.4	298.7	66.0
22°	4676.6	4619.3	4464.8	4233.5	3913.1	3588.3	3180.8	2786.4	1966.3	303.1	63.1
23°	5332.0	5271.8	5097.1	4832.4	4472.1	4079.1	3604.2	3136.6	2179.5	308.9	61.6
24°	5973.7	5907.0	5711.9	5416.1	5007.2	4555.5	4018.9	3476.6	2378.2	306.0	64.5
25°	6573.3	6480.5	6274.6	5946.8	5498.0	4991.2	4399.6	3770.2	2552.9	297.3	54.4
26°	7108.4	7002.5	6780.6	6423.2	5932.3	5383.5	4717.2	4042.9	2681.9	290.0	51.5
27°	7573.1	7439.7	7202.6	6827.8	6301.4	5695.2	4988.3	4256.0	2795.8	279.1	41.3
28°	7934.9	7781.9	7541.2	7145.3	6589.2	5938.1	5187.7	4389.4	2863.2	280.6	47.1
29°	8143.7	8026.3	7764.5	7349.8	6764.7	6078.1	5292.8	4463.4	2876.3	258.8	44.2
30°	8276.4	8145.2	7876.2	7442.6	6832.1	6110.0	5305.9	4449.6	2837.8	242.9	41.3
31°	8285.1	8148.1	7874.7	7425.9	6806.0	6057.0	5233.4	4367.7	2754.5	226.2	34.1
32°	8129.2	8023.4	7754.4	7291.1	6664.6	5911.3	5077.5	4229.2	2623.2	192.9	23.2
33°	7953.0	7824.7	7557.2	7089.5	6468.9	5711.9	4852.7	4042.9	2486.9	190.0	29.7
34°	7679.0	7524.5	7261.3	6800.9	6197.0	5427.7	4585.2	3794.2	2312.9	173.3	28.3
35°	7223.6	7141.0	6874.9	6420.3	5833.7	5086.9	4263.3	3520.8	2128.0	154.4	20.3
36°	6767.6	6666.1	6414.5	5975.1	5419.0	4680.9	3900.0	3209.1	1919.2	131.2	16.0
37°	6285.4	6152.7	5923.6	5493.7	4912.9	4276.3	3551.3	2911.8	1748.8	138.5	21.8
38°	5723.5	5679.3	5377.7	4977.4	4440.9	3839.8	3176.4	2598.6	1560.3	129.1	35.5
39°	5105.8	5076.1	4775.2	4410.5	3929.0	3376.5	2792.9	2273.7	1371.8	94.3	11.6
40°	4499.6	4414.8	4201.6	3870.3	3451.2	2954.6	2449.9	1996.8	1208.7	92.8	23.2
42.5°	3049.5	3076.4	2845.8	2608.7	2339.7	2002.6	1666.2	1368.9	845.4	68.9	14.5
45°	1959.1	1964.9	1861.9	1677.8	1501.6	1291.3	1069.4	891.1	545.2	38.4	4.4
47.5°	1247.1	1244.2	1178.2	1072.3	957.1	833.8	695.3	582.2	353.1	29.7	13.1
50°	785.2	782.3	741.0	673.6	609.0	527.8	440.8	374.8	223.3	35.5	14.5
51°	638.0	642.4	607.6	539.4	489.4	411.8	351.6	298.7	174.7	24.7	13.1
52°	526.4	523.5	501.7	444.5	403.1	336.4	286.4	244.3	145.7	21.8	5.8
53°	423.4	424.9	403.1	358.9	319.0	269.0	229.1	190.0	104.4	16.0	4.4
54°	335.0	332.1	324.8	282.0	257.4	213.2	179.1	145.7	89.9	2.9	0.0
55°	284.9	280.6	270.4	233.5	208.8	176.2	142.8	124.7	77.6	7.3	0.0
57.5°	164.6	164.6	158.8	138.5	121.8	108.8	87.0	81.2	39.9	7.3	0.0
60°	103.0	89.9	100.1	85.6	67.4	60.2	50.0	45.7	34.1	13.1	2.9
61°	85.6	68.9	67.4	63.1	58.7	39.9	34.1	37.0	21.8	4.4	2.9
62°	61.6	54.4	58.7	50.0	44.2	31.2	28.3	26.8	13.1	5.8	7.3
63°	55.8	50.0	48.6	37.0	32.6	32.6	24.7	23.2	16.0	11.6	5.8



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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°	29.7	24.7	21.8	24.7	14.5	18.9	7.3	20.3	4.4	7.3	4.4
67.5°	23.2	14.5	13.1	16.0	10.2	7.3	10.2	13.1	4.4	7.3	10.2
70°	20.3	10.2	14.5	13.1	10.2	13.1	14.5	14.5	4.4	14.5	13.1
72.5°	20.3	13.1	7.3	5.8	5.8	5.8	5.8	5.8	8.7	20.3	16.0
75°	8.7	8.7	4.4	10.2	5.8	8.7	5.8	14.5	5.8	16.0	13.1
77.5°	5.8	7.3	0.0	7.3	0.0	0.0	4.4	10.2	4.4	11.6	14.5
80°	0.0	7.3	4.4	0.0	2.9	4.4	0.0	1.5	2.9	13.1	5.8
82.5°	2.9	4.4	5.8	2.9	2.9	0.0	0.0	0.0	0.0	8.7	7.3
85°	2.9	5.8	0.0	1.5	5.8	2.9	1.5	7.3	2.9	10.2	11.6
87.5°	0.0	2.9	2.9	0.0	4.4	0.0	4.4	2.9	0.0	8.7	4.4
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°	51.5	51.5	51.5	51.5	51.5
2.5°	44.2	39.9	34.1	42.8	35.5
5°	52.9	48.6	38.4	45.7	41.3
7.5°	54.4	45.7	39.9	37.0	41.3
10°	32.6	21.8	16.0	21.8	11.6
12.5°	54.4	38.4	35.5	39.9	44.2
15°	41.3	24.7	24.7	18.9	26.8
17.5°	23.2	18.9	17.4	23.2	26.8
20°	24.7	16.0	13.1	21.8	20.3
21°	21.8	5.8	17.4	17.4	20.3
22°	31.2	14.5	17.4	28.3	29.7
23°	20.3	16.0	13.1	17.4	23.2
24°	29.7	17.4	16.0	21.8	32.6
25°	20.3	16.0	16.0	20.3	17.4
26°	11.6	16.0	11.6	17.4	14.5
27°	8.7	14.5	8.7	13.1	17.4
28°	18.9	23.2	21.8	23.2	20.3
29°	20.3	24.7	20.3	31.2	23.2
30°	11.6	21.8	10.2	23.2	20.3
31°	11.6	16.0	7.3	23.2	20.3
32°	1.5	8.7	4.4	8.7	8.7
33°	8.7	10.2	11.6	18.9	14.5
34°	14.5	17.4	11.6	20.3	17.4
35°	16.0	8.7	13.1	21.8	23.2
36°	4.4	4.4	7.3	17.4	5.8
37°	8.7	24.7	17.4	29.7	17.4
38°	14.5	29.7	28.3	37.0	29.7
39°	2.9	8.7	10.2	20.3	20.3
40°	13.1	21.8	16.0	29.7	29.7
42.5°	10.2	16.0	11.6	24.7	20.3
45°	4.4	4.4	2.9	16.0	11.6
47.5°	7.3	7.3	13.1	20.3	35.5
50°	14.5	14.5	18.9	34.1	32.6
51°	8.7	7.3	10.2	23.2	29.7
52°	7.3	10.2	10.2	23.2	23.2
53°	2.9	0.0	0.0	17.4	14.5
54°	2.9	1.5	4.4	13.1	20.3
55°	0.0	7.3	5.8	26.8	29.7
57.5°	1.5	11.6	5.8	18.9	23.2
60°	7.3	8.7	16.0	18.9	23.2
61°	0.0	7.3	7.3	17.4	20.3
62°	0.0	5.8	13.1	16.0	20.3
63°	7.3	8.7	11.6	18.9	23.2



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CANDELA DISTRIBUTION (continued):

	90°	112.5°	135°	157.5°	180°
66°	4.4	11.6	14.5	18.9	17.4
67.5°	8.7	10.2	8.7	24.7	29.7
70°	11.6	18.9	20.3	17.4	29.7
72.5°	7.3	10.2	14.5	26.8	29.7
75°	13.1	14.5	21.8	24.7	29.7
77.5°	10.2	14.5	14.5	16.0	29.7
80°	4.4	13.1	14.5	16.0	8.7
82.5°	5.8	8.7	5.8	16.0	11.6
85°	2.9	13.1	11.6	14.5	14.5
87.5°	4.4	7.3	7.3	13.1	8.7
90°	0.0	0.0	0.0	0.0	0.0



Report Generated By E9808895 / USPTCWHP6082093





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







64°	32.6	34.1	32.6	23.2	17.4	16.0	11.6	20.3	5.8	5.8	0.0
65°	29.7	32.6	24.7	28.3	18.9	17.4	10.2	20.3	2.9	10.2	7.3





64°	4.4	7.3	7.3	13.1	20.3
65°	7.3	10.2	10.2	18.9	14.5



(END OF REPORT)