

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: P315305

Luminaire Tested: **LDA2B10FL8035D010 PIN1MMS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P315305
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: LDA2B10FL8035D010 PIN1MMS
Description: PORTFOLIO 2IN ADJ 1000 LUMEN LED LUMINAIRE WITH FLOOD OPTIC AND 2in
Adj PinHole, Black oculus, matte metallic silver finish
Light Source: -
Ballast/Driver: -

Summary

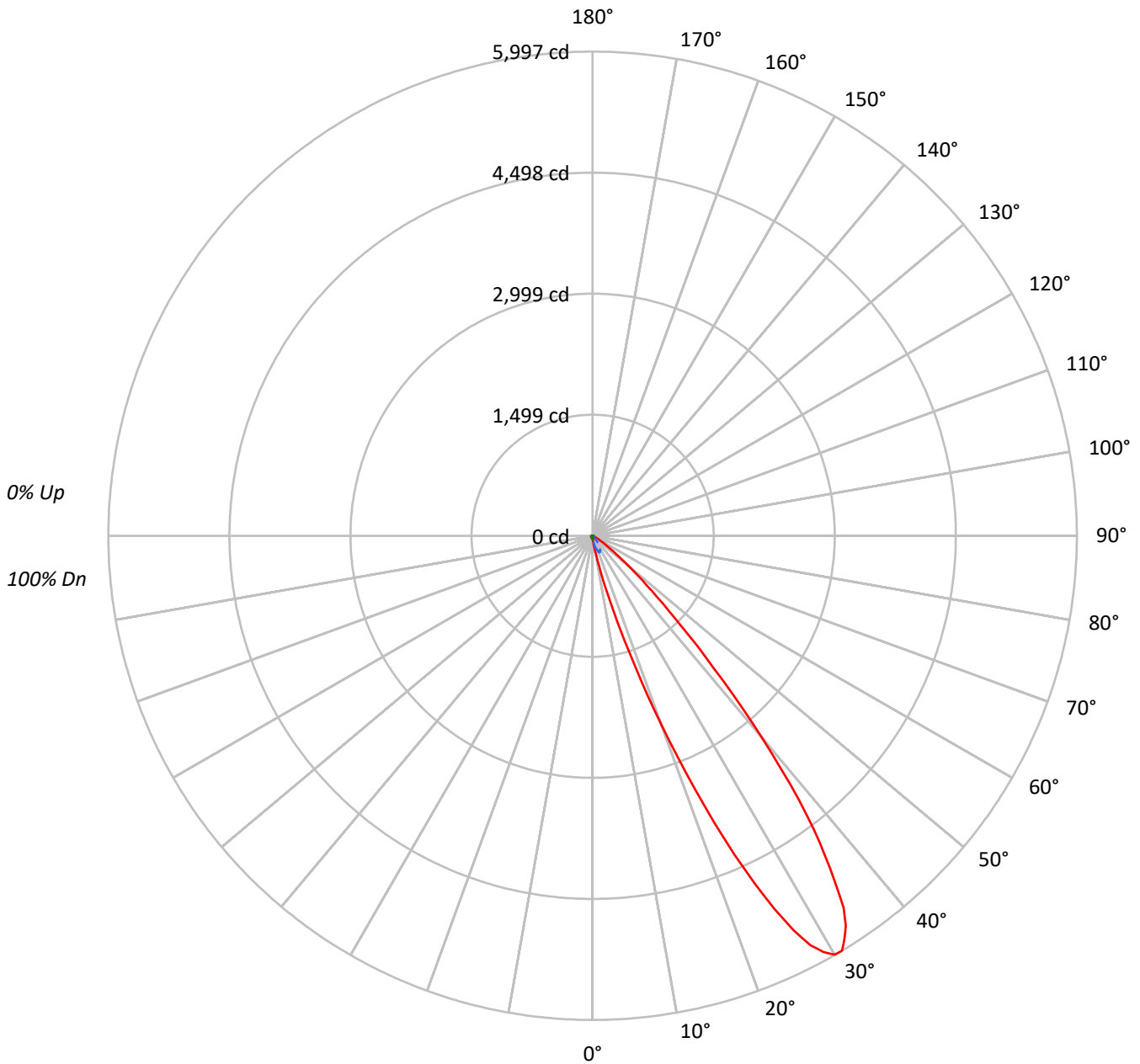
Lumens per Lamp: N/A
Luminaire Lumens: 875.0 lumens
Efficiency: N/A
Efficacy: 87.5 lumens/watt
Spacing Criteria (0/90/45): 2.92 / 0.6 / 1.34
Luminous Opening: Circular (Dia: 0.17' x H: 0')
CIE Type: Direct

Input Watts (W): 10
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	83	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°	18402	18402	18402
5°	41056	18968	14808
10°	109913	11823	4208
15°	432670	15272	9909
20°	1308834	9345	7718
25°	2590086	8002	6859
30°	3412870	4785	8374
35°	3149220	6926	10118
40°	2097632	6054	13847
45°	989435	2163	5861
50°	436267	8059	18114
55°	177449	0	18493
60°	73511	5131	16577
65°	25099	6070	12258
70°	21205	12117	31014
75°	12009	17918	40983
80°	0	8808	17899
85°	11887	11887	59437



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	5.1	0.6
10°-20°	53.5	6.1
20°-30°	275.2	31.5
30°-40°	352.4	40.3
40°-50°	135.5	15.5
50°-60°	27.5	3.1
60°-70°	9.3	1.1
70°-80°	10.8	1.2
80°-90°	5.5	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°	333.9	38.2
0°-40°	686.3	78.4
0°-60°	849.3	97.1
0°-90°	875.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	875.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	37	37	37	37	37	
5°	83	68	38	28	30	12
15°	847	165	30	18	19	325
25°	4758	215	15	12	13	2172
35°	5229	112	12	9	17	3125
45°	1418	28	3	2	8	1219
55°	206	5	0	4	22	214
65°	22	7	5	7	10	30
75°	6	12	9	16	22	9
85°	2	7	2	8	10	1
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°	37.3	37.3	37.3	37.3	37.3	37.3	37.3	37.3	37.3	37.3	37.3
2.5°	55.1	47.8	49.9	42.5	46.7	47.8	39.4	52.0	46.7	48.8	42.5
5°	82.9	89.2	81.9	78.7	76.6	78.7	76.6	79.8	77.7	68.2	48.8
7.5°	138.6	126.5	126.5	122.3	125.4	124.4	119.1	122.3	114.9	82.9	56.2
10°	219.4	207.3	206.3	203.1	202.1	192.6	187.4	183.2	167.9	98.1	50.9
12.5°	429.8	419.3	412.0	393.6	381.0	373.7	345.9	331.2	287.6	145.9	65.1
15°	847.1	793.0	806.6	747.3	703.8	674.9	617.2	566.3	461.8	164.8	63.0
17.5°	1498.9	1446.4	1411.2	1346.7	1258.0	1181.4	1067.5	954.6	742.1	187.4	58.8
20°	2492.9	2410.0	2336.5	2225.8	2055.2	1907.7	1707.2	1491.5	1104.7	214.1	53.0
21°	2929.5	2865.5	2780.5	2634.6	2435.7	2238.4	1998.0	1738.2	1259.0	216.2	47.8
22°	3385.1	3343.6	3231.8	3064.4	2832.4	2597.3	2302.4	2016.9	1423.3	219.4	45.7
23°	3859.5	3816.0	3689.5	3497.9	3237.1	2952.6	2608.9	2270.4	1577.6	223.6	44.6
24°	4324.0	4275.7	4134.5	3920.4	3624.4	3297.4	2909.1	2516.5	1721.4	221.5	46.7
25°	4758.0	4690.8	4541.8	4304.6	3979.7	3612.9	3184.6	2729.1	1847.9	215.2	39.4
26°	5145.3	5068.7	4908.1	4649.4	4294.1	3896.8	3414.5	2926.4	1941.3	209.9	37.3
27°	5481.7	5385.2	5213.6	4942.2	4561.2	4122.5	3610.8	3080.7	2023.7	202.1	29.9
28°	5743.6	5632.9	5458.6	5172.1	4769.6	4298.3	3755.1	3177.3	2072.5	203.1	34.1
29°	5894.8	5809.7	5620.3	5320.1	4896.6	4399.6	3831.2	3230.8	2082.0	187.4	32.0
30°	5990.8	5895.8	5701.1	5387.3	4945.4	4422.6	3840.6	3220.8	2054.1	175.8	29.9
31°	5997.1	5897.9	5700.1	5375.2	4926.5	4384.3	3788.1	3161.5	1993.8	163.7	24.7
32°	5884.3	5807.6	5612.9	5277.6	4824.1	4278.8	3675.3	3061.3	1898.8	139.6	16.8
33°	5756.7	5663.8	5470.2	5131.7	4682.4	4134.5	3512.6	2926.4	1800.1	137.5	21.5
34°	5558.4	5446.6	5256.1	4922.8	4485.6	3928.8	3319.0	2746.4	1674.2	125.4	20.5
35°	5228.8	5168.9	4976.3	4647.3	4222.7	3682.1	3085.9	2548.5	1540.3	111.8	14.7
36°	4898.7	4825.2	4643.1	4325.0	3922.5	3388.2	2823.0	2322.8	1389.2	95.0	11.5
37°	4549.7	4453.6	4287.8	3976.6	3556.2	3095.4	2570.6	2107.7	1265.9	100.2	15.7
38°	4142.9	4110.9	3892.6	3602.9	3214.5	2779.4	2299.2	1881.0	1129.4	93.4	25.7
39°	3695.8	3674.3	3456.5	3192.5	2844.0	2444.1	2021.6	1645.8	993.0	68.2	8.4
40°	3257.0	3195.6	3041.3	2801.5	2498.1	2138.6	1773.4	1445.4	874.9	67.2	16.8
42.5°	2207.4	2226.8	2059.9	1888.3	1693.6	1449.5	1206.0	990.9	611.9	49.9	10.5
45°	1418.1	1422.3	1347.7	1214.4	1086.9	934.7	774.1	645.0	394.7	27.8	3.1
47.5°	902.7	900.6	852.8	776.2	692.8	603.5	503.3	421.4	255.6	21.5	9.4
50°	568.4	566.3	536.4	487.6	440.8	382.1	319.1	271.3	161.6	25.7	10.5
51°	461.8	465.0	439.8	390.5	354.3	298.1	254.5	216.2	126.5	17.8	9.4
52°	381.0	378.9	363.2	321.7	291.8	243.5	207.3	176.9	105.5	15.7	4.2
53°	306.5	307.5	291.8	259.8	230.9	194.7	165.8	137.5	75.6	11.5	3.1
54°	242.5	240.4	235.1	204.2	186.3	154.3	129.6	105.5	65.1	2.1	0.0
55°	206.3	203.1	195.8	169.0	151.1	127.5	103.4	90.3	56.2	5.2	0.0
57.5°	119.1	119.1	114.9	100.2	88.2	78.7	63.0	58.8	28.9	5.2	0.0
60°	74.5	65.1	72.4	61.9	48.8	43.6	36.2	33.1	24.7	9.4	2.1
61°	61.9	49.9	48.8	45.7	42.5	28.9	24.7	26.8	15.7	3.1	2.1
62°	44.6	39.4	42.5	36.2	32.0	22.6	20.5	19.4	9.4	4.2	5.2
63°	40.4	36.2	35.2	26.8	23.6	23.6	17.8	16.8	11.5	8.4	4.2



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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°	21.5	17.8	15.7	17.8	10.5	13.6	5.2	14.7	3.1	5.2	3.1
67.5°	16.8	10.5	9.4	11.5	7.3	5.2	7.3	9.4	3.1	5.2	7.3
70°	14.7	7.3	10.5	9.4	7.3	9.4	10.5	10.5	3.1	10.5	9.4
72.5°	14.7	9.4	5.2	4.2	4.2	4.2	4.2	4.2	6.3	14.7	11.5
75°	6.3	6.3	3.1	7.3	4.2	6.3	4.2	10.5	4.2	11.5	9.4
77.5°	4.2	5.2	0.0	5.2	0.0	0.0	3.1	7.3	3.1	8.4	10.5
80°	0.0	5.2	3.1	0.0	2.1	3.1	0.0	1.0	2.1	9.4	4.2
82.5°	2.1	3.1	4.2	2.1	2.1	0.0	0.0	0.0	0.0	6.3	5.2
85°	2.1	4.2	0.0	1.0	4.2	2.1	1.0	5.2	2.1	7.3	8.4
87.5°	0.0	2.1	2.1	0.0	3.1	0.0	3.1	2.1	0.0	6.3	3.1
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°	37.3	37.3	37.3	37.3	37.3
2.5°	32.0	28.9	24.7	31.0	25.7
5°	38.3	35.2	27.8	33.1	29.9
7.5°	39.4	33.1	28.9	26.8	29.9
10°	23.6	15.7	11.5	15.7	8.4
12.5°	39.4	27.8	25.7	28.9	32.0
15°	29.9	17.8	17.8	13.6	19.4
17.5°	16.8	13.6	12.6	16.8	19.4
20°	17.8	11.5	9.4	15.7	14.7
21°	15.7	4.2	12.6	12.6	14.7
22°	22.6	10.5	12.6	20.5	21.5
23°	14.7	11.5	9.4	12.6	16.8
24°	21.5	12.6	11.5	15.7	23.6
25°	14.7	11.5	11.5	14.7	12.6
26°	8.4	11.5	8.4	12.6	10.5
27°	6.3	10.5	6.3	9.4	12.6
28°	13.6	16.8	15.7	16.8	14.7
29°	14.7	17.8	14.7	22.6	16.8
30°	8.4	15.7	7.3	16.8	14.7
31°	8.4	11.5	5.2	16.8	14.7
32°	1.0	6.3	3.1	6.3	6.3
33°	6.3	7.3	8.4	13.6	10.5
34°	10.5	12.6	8.4	14.7	12.6
35°	11.5	6.3	9.4	15.7	16.8
36°	3.1	3.1	5.2	12.6	4.2
37°	6.3	17.8	12.6	21.5	12.6
38°	10.5	21.5	20.5	26.8	21.5
39°	2.1	6.3	7.3	14.7	14.7
40°	9.4	15.7	11.5	21.5	21.5
42.5°	7.3	11.5	8.4	17.8	14.7
45°	3.1	3.1	2.1	11.5	8.4
47.5°	5.2	5.2	9.4	14.7	25.7
50°	10.5	10.5	13.6	24.7	23.6
51°	6.3	5.2	7.3	16.8	21.5
52°	5.2	7.3	7.3	16.8	16.8
53°	2.1	0.0	0.0	12.6	10.5
54°	2.1	1.0	3.1	9.4	14.7
55°	0.0	5.2	4.2	19.4	21.5
57.5°	1.0	8.4	4.2	13.6	16.8
60°	5.2	6.3	11.5	13.6	16.8
61°	0.0	5.2	5.2	12.6	14.7
62°	0.0	4.2	9.4	11.5	14.7
63°	5.2	6.3	8.4	13.6	16.8



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CANDELA DISTRIBUTION (continued):

	90°	112.5°	135°	157.5°	180°
66°	3.1	8.4	10.5	13.6	12.6
67.5°	6.3	7.3	6.3	17.8	21.5
70°	8.4	13.6	14.7	12.6	21.5
72.5°	5.2	7.3	10.5	19.4	21.5
75°	9.4	10.5	15.7	17.8	21.5
77.5°	7.3	10.5	10.5	11.5	21.5
80°	3.1	9.4	10.5	11.5	6.3
82.5°	4.2	6.3	4.2	11.5	8.4
85°	2.1	9.4	8.4	10.5	10.5
87.5°	3.1	5.2	5.2	9.4	6.3
90°	0.0	0.0	0.0	0.0	0.0



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







64°	23.6	24.7	23.6	16.8	12.6	11.5	8.4	14.7	4.2	4.2	0.0
65°	21.5	23.6	17.8	20.5	13.6	12.6	7.3	14.7	2.1	7.3	5.2





64°	3.1	5.2	5.2	9.4	14.7
65°	5.2	7.3	7.3	13.6	10.5



(END OF REPORT)