

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: P315224

Luminaire Tested: **LDA2B05FL8035D010 PINW1MB**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P315224
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: LDA2B05FL8035D010 PINW1MB
Description: PORTFOLIO 2IN ADJ 500 LUMEN LED LUMINAIRE WITH FLOOD OPTIC AND 2in Adj PinHole, White oculus black finish
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 668.7 lumens
Efficiency: N/A
Efficacy: 95.5 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

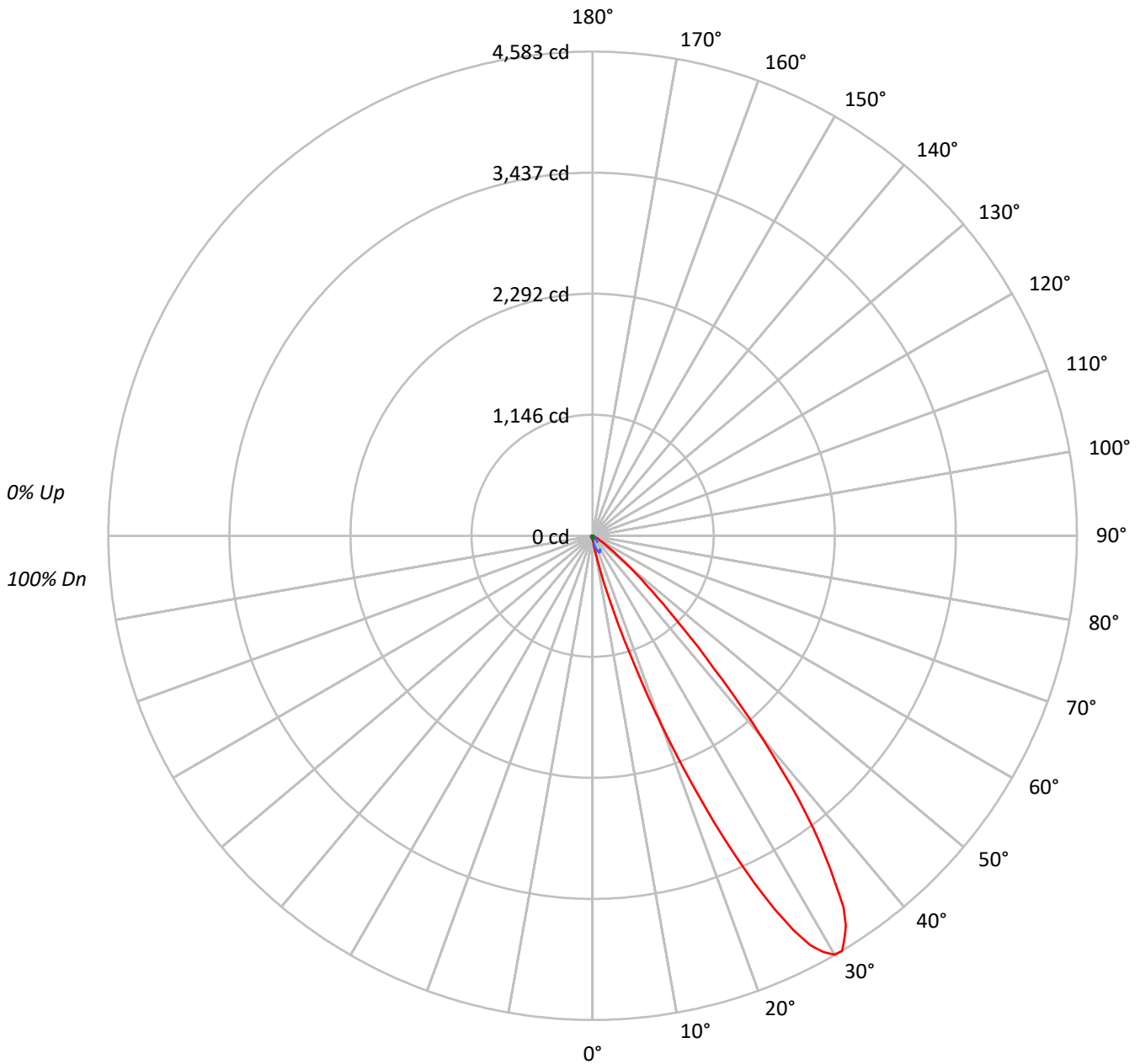
Input Watts (W): 7
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P315224

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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°	14061	14061	14061
5°	31399	14511	11341
10°	84013	9018	3206
15°	330670	11697	7559
20°	1000277	7140	5880
25°	1979473	6097	5226
30°	2608246	3646	6380
35°	2406785	5300	7709
40°	1603140	4637	10562
45°	756118	1675	4465
50°	333417	6140	13816
55°	135560	0	14106
60°	56243	3947	12630
65°	19145	4670	9339
70°	16156	9232	23657
75°	9150	13725	31262
80°	0	6819	13638
85°	9057	9057	45286



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	3.9	0.6
10°-20°	40.9	6.1
20°-30°	210.3	31.5
30°-40°	269.3	40.3
40°-50°	103.6	15.5
50°-60°	21.0	3.1
60°-70°	7.1	1.1
70°-80°	8.3	1.2
80°-90°	4.2	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°	255.1	38.2
0°-40°	524.5	78.4
0°-60°	649.1	97.1
0°-90°	668.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	668.7	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	28	28	28	28	28	
5°	63	52	29	21	23	9
15°	647	126	23	14	15	248
25°	3636	164	11	9	10	1660
35°	3996	85	9	7	13	2388
45°	1084	21	2	2	6	932
55°	158	4	0	3	16	163
65°	16	6	4	6	8	23
75°	5	9	7	12	16	7
85°	2	6	2	6	8	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°	28.5	28.5	28.5	28.5	28.5	28.5	28.5	28.5	28.5	28.5	28.5
2.5°	42.1	36.5	38.1	32.5	35.7	36.5	30.1	39.7	35.7	37.3	32.5
5°	63.4	68.2	62.6	60.2	58.6	60.2	58.6	61.0	59.4	52.1	37.3
7.5°	105.9	96.7	96.7	93.5	95.9	95.1	91.0	93.5	87.8	63.4	42.9
10°	167.7	158.4	157.6	155.2	154.4	147.2	143.2	140.0	128.3	75.0	38.9
12.5°	328.5	320.5	314.9	300.8	291.2	285.6	264.3	253.1	219.8	111.5	49.7
15°	647.4	606.0	616.5	571.2	537.9	515.8	471.7	432.8	353.0	125.9	48.1
17.5°	1145.5	1105.4	1078.5	1029.2	961.4	902.9	815.8	729.6	567.1	143.2	44.9
20°	1905.2	1841.8	1785.7	1701.0	1570.7	1458.0	1304.7	1139.9	844.3	163.6	40.5
21°	2238.9	2189.9	2125.0	2013.5	1861.5	1710.6	1526.9	1328.4	962.2	165.2	36.5
22°	2587.0	2555.3	2469.9	2342.0	2164.7	1985.0	1759.6	1541.4	1087.8	167.7	34.9
23°	2949.6	2916.3	2819.7	2673.3	2473.9	2256.5	1993.8	1735.1	1205.7	170.9	34.1
24°	3304.6	3267.7	3159.8	2996.1	2769.9	2520.0	2223.2	1923.2	1315.6	169.3	35.7
25°	3636.3	3584.9	3471.0	3289.7	3041.5	2761.1	2433.8	2085.7	1412.2	164.4	30.1
26°	3932.3	3873.7	3751.0	3553.3	3281.7	2978.1	2609.5	2236.5	1483.6	160.4	28.5
27°	4189.4	4115.6	3984.4	3777.1	3485.9	3150.6	2759.5	2354.4	1546.6	154.4	22.9
28°	4389.5	4304.9	4171.7	3952.7	3645.1	3284.9	2869.8	2428.2	1583.9	155.2	26.1
29°	4505.0	4440.1	4295.3	4065.8	3742.2	3362.3	2928.0	2469.1	1591.1	143.2	24.5
30°	4578.4	4505.8	4357.0	4117.2	3779.5	3380.0	2935.2	2461.5	1569.9	134.4	22.9
31°	4583.3	4507.4	4356.2	4108.0	3765.0	3350.7	2895.1	2416.2	1523.7	125.1	18.9
32°	4497.0	4438.5	4289.7	4033.4	3686.8	3270.1	2808.8	2339.6	1451.1	106.7	12.8
33°	4399.6	4328.6	4180.6	3921.9	3578.5	3159.8	2684.5	2236.5	1375.7	105.1	16.4
34°	4247.9	4162.5	4016.9	3762.2	3428.1	3002.6	2536.5	2098.9	1279.5	95.9	15.6
35°	3996.1	3950.3	3803.1	3551.6	3227.2	2814.0	2358.4	1947.7	1177.2	85.4	11.2
36°	3743.8	3687.6	3548.4	3305.4	2997.7	2589.4	2157.5	1775.2	1061.7	72.6	8.8
37°	3477.0	3403.6	3276.9	3039.1	2717.8	2365.6	1964.5	1610.8	967.4	76.6	12.0
38°	3166.2	3141.7	2974.9	2753.5	2456.7	2124.2	1757.2	1437.5	863.1	71.4	19.7
39°	2824.5	2808.0	2641.6	2439.8	2173.5	1867.9	1545.0	1257.8	758.9	52.1	6.4
40°	2489.2	2442.2	2324.3	2141.0	1909.2	1634.4	1355.3	1104.6	668.6	51.3	12.8
42.5°	1687.0	1701.8	1574.3	1443.1	1294.3	1107.8	921.7	757.3	467.7	38.1	8.0
45°	1083.7	1087.0	1030.0	928.1	830.7	714.3	591.6	492.9	301.6	21.3	2.4
47.5°	689.9	688.3	651.8	593.2	529.4	461.3	384.6	322.1	195.3	16.4	7.2
50°	434.4	432.8	409.9	372.6	336.9	292.0	243.9	207.4	123.5	19.7	8.0
51°	353.0	355.4	336.1	298.4	270.7	227.8	194.5	165.2	96.7	13.6	7.2
52°	291.2	289.6	277.6	245.9	223.0	186.1	158.4	135.2	80.6	12.0	3.2
53°	234.2	235.0	223.0	198.5	176.5	148.8	126.7	105.1	57.8	8.8	2.4
54°	185.3	183.7	179.7	156.0	142.4	117.9	99.1	80.6	49.7	1.6	0.0
55°	157.6	155.2	149.6	129.2	115.5	97.5	79.0	69.0	42.9	4.0	0.0
57.5°	91.0	91.0	87.8	76.6	67.4	60.2	48.1	44.9	22.1	4.0	0.0
60°	57.0	49.7	55.4	47.3	37.3	33.3	27.7	25.3	18.9	7.2	1.6
61°	47.3	38.1	37.3	34.9	32.5	22.1	18.9	20.5	12.0	2.4	1.6
62°	34.1	30.1	32.5	27.7	24.5	17.2	15.6	14.8	7.2	3.2	4.0
63°	30.9	27.7	26.9	20.5	18.0	18.0	13.6	12.8	8.8	6.4	3.2



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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°	16.4	13.6	12.0	13.6	8.0	10.4	4.0	11.2	2.4	4.0	2.4
67.5°	12.8	8.0	7.2	8.8	5.6	4.0	5.6	7.2	2.4	4.0	5.6
70°	11.2	5.6	8.0	7.2	5.6	7.2	8.0	8.0	2.4	8.0	7.2
72.5°	11.2	7.2	4.0	3.2	3.2	3.2	3.2	3.2	4.8	11.2	8.8
75°	4.8	4.8	2.4	5.6	3.2	4.8	3.2	8.0	3.2	8.8	7.2
77.5°	3.2	4.0	0.0	4.0	0.0	0.0	2.4	5.6	2.4	6.4	8.0
80°	0.0	4.0	2.4	0.0	1.6	2.4	0.0	0.8	1.6	7.2	3.2
82.5°	1.6	2.4	3.2	1.6	1.6	0.0	0.0	0.0	0.0	4.8	4.0
85°	1.6	3.2	0.0	0.8	3.2	1.6	0.8	4.0	1.6	5.6	6.4
87.5°	0.0	1.6	1.6	0.0	2.4	0.0	2.4	1.6	0.0	4.8	2.4
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°	28.5	28.5	28.5	28.5	28.5
2.5°	24.5	22.1	18.9	23.7	19.7
5°	29.3	26.9	21.3	25.3	22.9
7.5°	30.1	25.3	22.1	20.5	22.9
10°	18.0	12.0	8.8	12.0	6.4
12.5°	30.1	21.3	19.7	22.1	24.5
15°	22.9	13.6	13.6	10.4	14.8
17.5°	12.8	10.4	9.6	12.8	14.8
20°	13.6	8.8	7.2	12.0	11.2
21°	12.0	3.2	9.6	9.6	11.2
22°	17.2	8.0	9.6	15.6	16.4
23°	11.2	8.8	7.2	9.6	12.8
24°	16.4	9.6	8.8	12.0	18.0
25°	11.2	8.8	8.8	11.2	9.6
26°	6.4	8.8	6.4	9.6	8.0
27°	4.8	8.0	4.8	7.2	9.6
28°	10.4	12.8	12.0	12.8	11.2
29°	11.2	13.6	11.2	17.2	12.8
30°	6.4	12.0	5.6	12.8	11.2
31°	6.4	8.8	4.0	12.8	11.2
32°	0.8	4.8	2.4	4.8	4.8
33°	4.8	5.6	6.4	10.4	8.0
34°	8.0	9.6	6.4	11.2	9.6
35°	8.8	4.8	7.2	12.0	12.8
36°	2.4	2.4	4.0	9.6	3.2
37°	4.8	13.6	9.6	16.4	9.6
38°	8.0	16.4	15.6	20.5	16.4
39°	1.6	4.8	5.6	11.2	11.2
40°	7.2	12.0	8.8	16.4	16.4
42.5°	5.6	8.8	6.4	13.6	11.2
45°	2.4	2.4	1.6	8.8	6.4
47.5°	4.0	4.0	7.2	11.2	19.7
50°	8.0	8.0	10.4	18.9	18.0
51°	4.8	4.0	5.6	12.8	16.4
52°	4.0	5.6	5.6	12.8	12.8
53°	1.6	0.0	0.0	9.6	8.0
54°	1.6	0.8	2.4	7.2	11.2
55°	0.0	4.0	3.2	14.8	16.4
57.5°	0.8	6.4	3.2	10.4	12.8
60°	4.0	4.8	8.8	10.4	12.8
61°	0.0	4.0	4.0	9.6	11.2
62°	0.0	3.2	7.2	8.8	11.2
63°	4.0	4.8	6.4	10.4	12.8



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CANDELA DISTRIBUTION (continued):

	90°	112.5°	135°	157.5°	180°
66°	2.4	6.4	8.0	10.4	9.6
67.5°	4.8	5.6	4.8	13.6	16.4
70°	6.4	10.4	11.2	9.6	16.4
72.5°	4.0	5.6	8.0	14.8	16.4
75°	7.2	8.0	12.0	13.6	16.4
77.5°	5.6	8.0	8.0	8.8	16.4
80°	2.4	7.2	8.0	8.8	4.8
82.5°	3.2	4.8	3.2	8.8	6.4
85°	1.6	7.2	6.4	8.0	8.0
87.5°	2.4	4.0	4.0	7.2	4.8
90°	0.0	0.0	0.0	0.0	0.0



Report Generated By E9808895 / USPTCWHP6082093





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







64°	18.0	18.9	18.0	12.8	9.6	8.8	6.4	11.2	3.2	3.2	0.0
65°	16.4	18.0	13.6	15.6	10.4	9.6	5.6	11.2	1.6	5.6	4.0





64°	2.4	4.0	4.0	7.2	11.2
65°	4.0	5.6	5.6	10.4	8.0



(END OF REPORT)