

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: P315457

Luminaire Tested: **LDA2B15FLD2WD010 PIN1MB**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P315457  
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: LDA2B15FLD2WD010 PIN1MB  
Description: PORTFOLIO 2IN ADJ 1500 LUMEN LED LUMINAIRE WITH FLOOD OPTIC AND 2in Adj PinHole, Black oculus black finish  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 861.6 lumens  
Efficiency: N/A  
Efficacy: 61.1 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

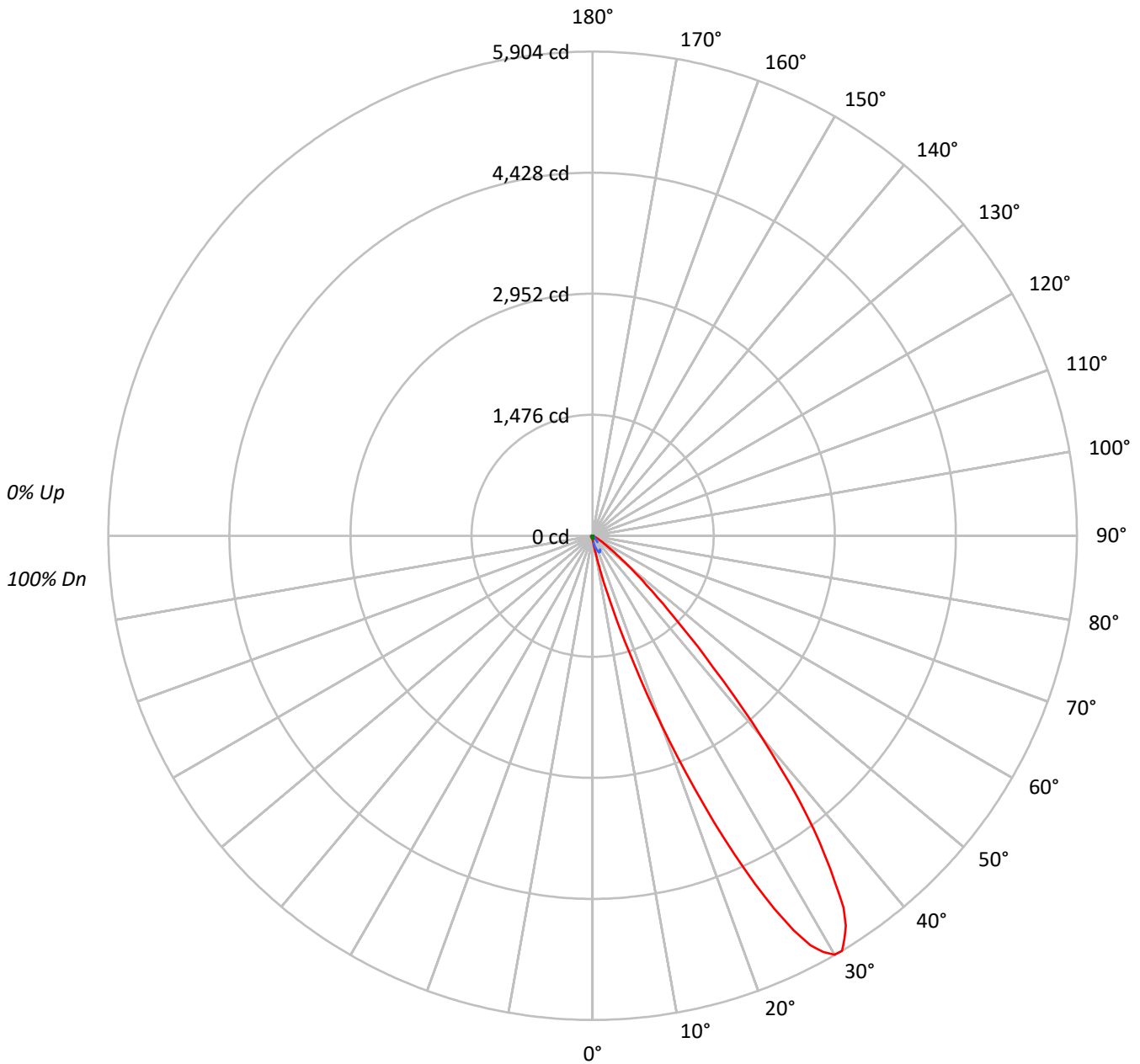
Input Watts (W): 14.1  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Luminous Intensity Polar Plot





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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20					20					20					20					20					
RC	80					70					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°	18106	18106	18106
5°	40412	18671	14610
10°	108210	11673	4158
15°	425979	15068	9756
20°	1288620	9240	7613
25°	2550076	7893	6750
30°	3360117	4728	8260
35°	3100495	6866	9938
40°	2065237	5990	13654
45°	974085	2163	5791
50°	429512	7906	17884
55°	174696	0	18235
60°	72426	5131	16281
65°	24749	6070	12024
70°	20916	11973	30581
75°	11818	17728	40412
80°	0	8808	17615
85°	11887	11887	58305



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	5.0	0.6
10°-20°	52.7	6.1
20°-30°	271.0	31.5
30°-40°	347.0	40.3
40°-50°	133.4	15.5
50°-60°	27.1	3.1
60°-70°	9.2	1.1
70°-80°	10.7	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°	328.7	38.1
0°-40°	675.7	78.4
0°-60°	836.3	97.1
0°-90°	861.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	861.6	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	37	37	37	37	37	
5°	82	67	38	27	30	12
15°	834	162	30	18	19	320
25°	4684	212	14	11	12	2138
35°	5148	110	11	9	16	3077
45°	1396	27	3	2	8	1200
55°	203	5	0	4	21	210
65°	21	7	5	7	10	30
75°	6	11	9	16	21	8
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°	36.7	36.7	36.7	36.7	36.7	36.7	36.7	36.7	36.7	36.7	36.7
2.5°	54.3	47.0	49.1	41.9	46.0	47.0	38.8	51.2	46.0	48.1	41.9
5°	81.6	87.8	80.6	77.5	75.4	77.5	75.4	78.5	76.5	67.2	48.1
7.5°	136.4	124.5	124.5	120.4	123.5	122.5	117.3	120.4	113.2	81.6	55.3
10°	216.0	204.1	203.1	200.0	198.9	189.6	184.5	180.3	165.3	96.6	50.1
12.5°	423.2	412.8	405.6	387.5	375.1	367.9	340.5	326.0	283.2	143.6	64.1
15°	834.0	780.7	794.2	735.8	692.9	664.5	607.6	557.5	454.7	162.2	62.0
17.5°	1475.7	1424.0	1389.4	1325.9	1238.5	1163.1	1051.0	939.9	730.6	184.5	57.9
20°	2454.4	2372.7	2300.4	2191.4	2023.4	1878.2	1680.8	1468.5	1087.7	210.8	52.2
21°	2884.3	2821.2	2737.5	2593.9	2398.0	2203.8	1967.1	1711.3	1239.6	212.9	47.0
22°	3332.8	3291.9	3181.9	3017.1	2788.7	2557.2	2266.8	1985.7	1401.3	216.0	45.0
23°	3799.9	3757.0	3632.4	3443.8	3187.0	2907.0	2568.5	2235.3	1553.2	220.1	43.9
24°	4257.1	4209.6	4070.6	3859.8	3568.4	3246.5	2864.1	2477.6	1694.8	218.1	46.0
25°	4684.5	4618.3	4471.6	4238.0	3918.2	3557.0	3135.4	2686.9	1819.3	211.8	38.8
26°	5065.8	4990.4	4832.2	4577.5	4227.7	3836.5	3361.7	2881.2	1911.3	206.7	36.7
27°	5397.0	5301.9	5133.0	4865.8	4490.7	4058.7	3554.9	3033.1	1992.4	198.9	29.5
28°	5654.8	5545.8	5374.3	5092.1	4695.8	4231.8	3697.0	3128.1	2040.5	200.0	33.6
29°	5803.6	5719.9	5533.4	5237.9	4820.9	4331.6	3772.0	3180.8	2049.8	184.5	31.5
30°	5898.2	5804.7	5613.0	5304.0	4868.9	4354.3	3781.3	3171.0	2022.4	173.1	29.5
31°	5904.4	5806.7	5612.0	5292.1	4850.3	4316.6	3729.6	3112.6	1963.0	161.2	24.3
32°	5793.3	5717.9	5526.2	5196.0	4749.6	4212.7	3618.5	3013.9	1869.4	137.4	16.5
33°	5667.8	5576.3	5385.6	5052.4	4610.1	4070.6	3458.3	2881.2	1772.3	135.4	21.2
34°	5472.4	5362.4	5174.8	4846.7	4416.3	3868.1	3267.7	2703.9	1648.3	123.5	20.2
35°	5147.9	5089.0	4899.4	4575.4	4157.4	3625.2	3038.2	2509.1	1516.5	110.1	14.5
36°	4822.9	4750.6	4571.3	4258.2	3861.9	3335.9	2779.4	2286.9	1367.7	93.5	11.4
37°	4479.3	4384.8	4221.5	3915.1	3501.2	3047.5	2530.8	2075.1	1246.3	98.7	15.5
38°	4078.9	4047.4	3832.4	3547.2	3164.8	2736.5	2263.7	1851.9	1112.0	92.0	25.3
39°	3638.6	3617.5	3403.0	3143.1	2800.0	2406.3	1990.4	1620.4	977.6	67.2	8.3
40°	3206.7	3146.2	2994.3	2758.2	2459.5	2105.6	1746.0	1423.0	861.3	66.1	16.5
42.5°	2173.3	2192.4	2028.1	1859.1	1667.4	1427.1	1187.4	975.5	602.5	49.1	10.3
45°	1396.1	1400.3	1326.9	1195.7	1070.1	920.3	762.1	635.0	388.6	27.4	3.1
47.5°	888.7	886.7	839.6	764.2	682.1	594.2	495.5	414.9	251.6	21.2	9.3
50°	559.6	557.5	528.1	480.0	434.0	376.2	314.2	267.1	159.1	25.3	10.3
51°	454.7	457.8	433.0	384.4	348.8	293.5	250.6	212.9	124.5	17.6	9.3
52°	375.1	373.1	357.6	316.7	287.3	239.8	204.1	174.1	103.9	15.5	4.1
53°	301.8	302.8	287.3	255.8	227.4	191.7	163.3	135.4	74.4	11.4	3.1
54°	238.7	236.7	231.5	201.0	183.4	151.9	127.6	103.9	64.1	2.1	0.0
55°	203.1	200.0	192.7	166.4	148.8	125.6	101.8	88.9	55.3	5.2	0.0
57.5°	117.3	117.3	113.2	98.7	86.8	77.5	62.0	57.9	28.4	5.2	0.0
60°	73.4	64.1	71.3	61.0	48.1	42.9	35.7	32.6	24.3	9.3	2.1
61°	61.0	49.1	48.1	45.0	41.9	28.4	24.3	26.4	15.5	3.1	2.1
62°	43.9	38.8	41.9	35.7	31.5	22.2	20.2	19.1	9.3	4.1	5.2
63°	39.8	35.7	34.6	26.4	23.3	23.3	17.6	16.5	11.4	8.3	4.1



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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°	21.2	17.6	15.5	17.6	10.3	13.4	5.2	14.5	3.1	5.2	3.1
67.5°	16.5	10.3	9.3	11.4	7.2	5.2	7.2	9.3	3.1	5.2	7.2
70°	14.5	7.2	10.3	9.3	7.2	9.3	10.3	10.3	3.1	10.3	9.3
72.5°	14.5	9.3	5.2	4.1	4.1	4.1	4.1	4.1	6.2	14.5	11.4
75°	6.2	6.2	3.1	7.2	4.1	6.2	4.1	10.3	4.1	11.4	9.3
77.5°	4.1	5.2	0.0	5.2	0.0	0.0	3.1	7.2	3.1	8.3	10.3
80°	0.0	5.2	3.1	0.0	2.1	3.1	0.0	1.0	2.1	9.3	4.1
82.5°	2.1	3.1	4.1	2.1	2.1	0.0	0.0	0.0	0.0	6.2	5.2
85°	2.1	4.1	0.0	1.0	4.1	2.1	1.0	5.2	2.1	7.2	8.3
87.5°	0.0	2.1	2.1	0.0	3.1	0.0	3.1	2.1	0.0	6.2	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°	36.7	36.7	36.7	36.7	36.7
2.5°	31.5	28.4	24.3	30.5	25.3
5°	37.7	34.6	27.4	32.6	29.5
7.5°	38.8	32.6	28.4	26.4	29.5
10°	23.3	15.5	11.4	15.5	8.3
12.5°	38.8	27.4	25.3	28.4	31.5
15°	29.5	17.6	17.6	13.4	19.1
17.5°	16.5	13.4	12.4	16.5	19.1
20°	17.6	11.4	9.3	15.5	14.5
21°	15.5	4.1	12.4	12.4	14.5
22°	22.2	10.3	12.4	20.2	21.2
23°	14.5	11.4	9.3	12.4	16.5
24°	21.2	12.4	11.4	15.5	23.3
25°	14.5	11.4	11.4	14.5	12.4
26°	8.3	11.4	8.3	12.4	10.3
27°	6.2	10.3	6.2	9.3	12.4
28°	13.4	16.5	15.5	16.5	14.5
29°	14.5	17.6	14.5	22.2	16.5
30°	8.3	15.5	7.2	16.5	14.5
31°	8.3	11.4	5.2	16.5	14.5
32°	1.0	6.2	3.1	6.2	6.2
33°	6.2	7.2	8.3	13.4	10.3
34°	10.3	12.4	8.3	14.5	12.4
35°	11.4	6.2	9.3	15.5	16.5
36°	3.1	3.1	5.2	12.4	4.1
37°	6.2	17.6	12.4	21.2	12.4
38°	10.3	21.2	20.2	26.4	21.2
39°	2.1	6.2	7.2	14.5	14.5
40°	9.3	15.5	11.4	21.2	21.2
42.5°	7.2	11.4	8.3	17.6	14.5
45°	3.1	3.1	2.1	11.4	8.3
47.5°	5.2	5.2	9.3	14.5	25.3
50°	10.3	10.3	13.4	24.3	23.3
51°	6.2	5.2	7.2	16.5	21.2
52°	5.2	7.2	7.2	16.5	16.5
53°	2.1	0.0	0.0	12.4	10.3
54°	2.1	1.0	3.1	9.3	14.5
55°	0.0	5.2	4.1	19.1	21.2
57.5°	1.0	8.3	4.1	13.4	16.5
60°	5.2	6.2	11.4	13.4	16.5
61°	0.0	5.2	5.2	12.4	14.5
62°	0.0	4.1	9.3	11.4	14.5
63°	5.2	6.2	8.3	13.4	16.5





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**CANDELA DISTRIBUTION (continued):**

	90°	112.5°	135°	157.5°	180°
66°	3.1	8.3	10.3	13.4	12.4
67.5°	6.2	7.2	6.2	17.6	21.2
70°	8.3	13.4	14.5	12.4	21.2
72.5°	5.2	7.2	10.3	19.1	21.2
75°	9.3	10.3	15.5	17.6	21.2
77.5°	7.2	10.3	10.3	11.4	21.2
80°	3.1	9.3	10.3	11.4	6.2
82.5°	4.1	6.2	4.1	11.4	8.3
85°	2.1	9.3	8.3	10.3	10.3
87.5°	3.1	5.2	5.2	9.3	6.2
90°	0.0	0.0	0.0	0.0	0.0



Report Generated By E9808895 / USPTCWHP6082093





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







64°	23.3	24.3	23.3	16.5	12.4	11.4	8.3	14.5	4.1	4.1	0.0
65°	21.2	23.3	17.6	20.2	13.4	12.4	7.2	14.5	2.1	7.2	5.2







64°	3.1	5.2	5.2	9.3	14.5
65°	5.2	7.2	7.2	13.4	10.3



(END OF REPORT)