

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: P315402

Luminaire Tested: **LDA2B15FL8050D010 PINW1MMS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P315402
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: LDA2B15FL8050D010 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

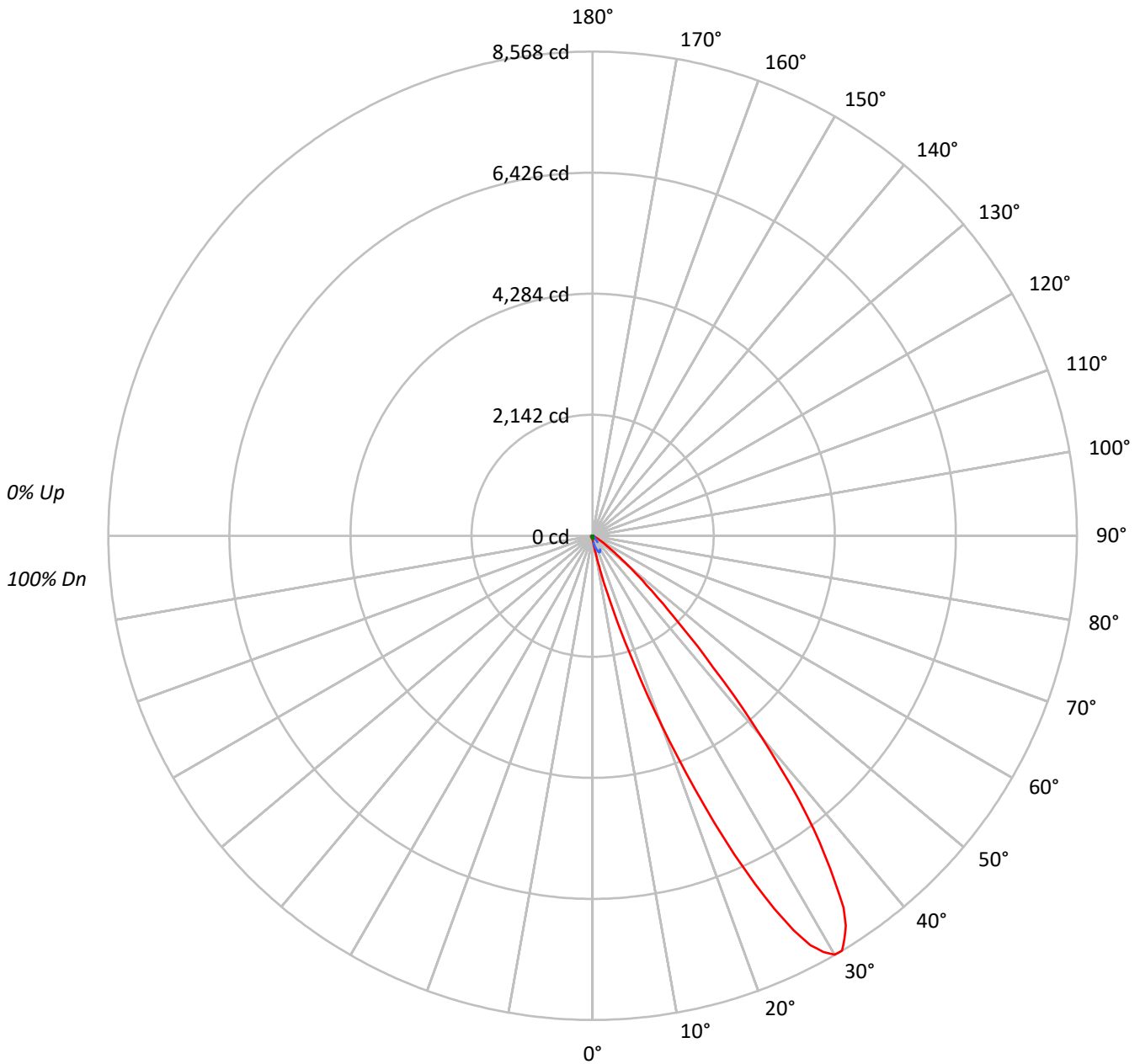
Lumens per Lamp: N/A
Luminaire Lumens: 1250.3 lumens
Efficiency: N/A
Efficacy: 88.7 lumens/watt
Spacing Criteria (0/90/45): 2.92 / 0.6 / 1.34
Luminous Opening: Circular (Dia: 0.17' x H: 0')
CIE Type: Direct

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



TEST NUMBER: P315402
CATALOG NUMBER: LDA2B15FL8050D010 PINW1MMS

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°	26247	26247	26247
5°	58687	27090	21147
10°	157005	16883	6012
15°	618078	21810	14148
20°	1869875	13388	11026
25°	3700318	11432	9799
30°	4875821	6836	11963
35°	4499118	9938	14455
40°	2996774	8695	19772
45°	1413509	3140	8373
50°	623238	11513	25866
55°	253486	0	26407
60°	105086	7400	23681
65°	35839	8755	17511
70°	30292	17310	44285
75°	17156	25734	58520
80°	0	12785	25570
85°	16982	16982	84910



TEST NUMBER: P315402

CATALOG NUMBER: LDA2B15FL8050D010 PINW1MMS

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	7.2	0.6
10°-20°	76.5	6.1
20°-30°	393.2	31.5
30°-40°	503.5	40.3
40°-50°	193.6	15.5
50°-60°	39.4	3.1
60°-70°	13.4	1.1
70°-80°	15.5	1.2
80°-90°	7.9	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°	477.0	38.1
0°-40°	980.5	78.4
0°-60°	1213.5	97.1
0°-90°	1250.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1250.3	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	53	53	53	53	53	
5°	118	98	55	40	43	18
15°	1210	235	43	26	28	464
25°	6798	307	21	16	18	3103
35°	7470	160	16	14	24	4465
45°	2026	40	4	3	12	1741
55°	295	8	0	6	31	305
65°	31	10	8	10	15	43
75°	9	16	14	22	31	12
85°	3	10	3	12	15	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°	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2
2.5°	78.7	68.2	71.2	60.7	66.7	68.2	56.2	74.2	66.7	69.7	60.7
5°	118.5	127.5	117.0	112.5	109.5	112.5	109.5	114.0	111.0	97.5	69.7
7.5°	197.9	180.7	180.7	174.7	179.2	177.7	170.2	174.7	164.2	118.5	80.2
10°	313.4	296.2	294.7	290.2	288.7	275.2	267.7	261.7	239.9	140.2	72.7
12.5°	614.1	599.1	588.6	562.3	544.3	533.8	494.1	473.1	410.9	208.4	93.0
15°	1210.1	1132.9	1152.4	1067.7	1005.5	964.2	881.7	809.0	659.8	235.4	90.0
17.5°	2141.4	2066.4	2016.2	1923.9	1797.2	1687.8	1525.1	1363.9	1060.2	267.7	84.0
20°	3561.5	3443.0	3338.0	3179.8	2936.1	2725.5	2439.0	2130.9	1578.3	305.9	75.7
21°	4185.3	4093.8	3972.3	3763.9	3479.7	3197.8	2854.4	2483.3	1798.7	308.9	68.2
22°	4836.1	4776.9	4617.2	4378.0	4046.6	3710.7	3289.3	2881.4	2033.4	313.4	65.2
23°	5513.9	5451.7	5271.0	4997.3	4624.7	4218.3	3727.2	3243.6	2253.8	319.4	63.7
24°	6177.4	6108.5	5906.8	5600.9	5178.0	4710.9	4156.0	3595.2	2459.3	316.4	66.7
25°	6797.5	6701.5	6488.6	6149.7	5685.6	5161.5	4549.7	3898.9	2640.0	307.4	56.2
26°	7350.9	7241.4	7012.0	6642.3	6134.7	5567.1	4878.1	4180.8	2773.4	299.9	53.2
27°	7831.5	7693.5	7448.3	7060.7	6516.4	5889.5	5158.5	4401.2	2891.2	288.7	42.7
28°	8205.6	8047.4	7798.5	7389.1	6814.0	6140.7	5364.7	4539.2	2960.9	290.2	48.7
29°	8421.5	8300.1	8029.4	7600.5	6995.5	6285.4	5473.4	4615.7	2974.4	267.7	45.7
30°	8558.8	8423.0	8144.9	7696.5	7065.2	6318.4	5486.9	4601.4	2934.6	251.2	42.7
31°	8567.8	8426.0	8143.4	7679.3	7038.2	6263.7	5411.9	4516.7	2848.4	233.9	35.2
32°	8406.5	8297.1	8018.9	7539.8	6892.0	6113.0	5250.7	4373.5	2712.7	199.4	24.0
33°	8224.4	8091.6	7815.0	7331.4	6689.6	5906.8	5018.3	4180.8	2571.8	196.4	30.7
34°	7940.9	7781.2	7509.1	7033.0	6408.4	5612.9	4741.6	3923.6	2391.8	179.2	29.2
35°	7470.1	7384.6	7109.4	6639.3	6032.7	5260.5	4408.7	3640.9	2200.6	159.7	21.0
36°	6998.5	6893.5	6633.3	6178.9	5603.9	4840.6	4033.1	3318.5	1984.7	135.7	16.5
37°	6499.9	6362.6	6125.7	5681.1	5080.5	4422.2	3672.4	3011.1	1808.5	143.2	22.5
38°	5918.8	5873.0	5561.1	5147.2	4592.4	3970.8	3284.8	2687.2	1613.5	133.5	36.7
39°	5280.0	5249.2	4938.1	4560.9	4063.1	3491.7	2888.2	2351.3	1418.6	97.5	12.0
40°	4653.1	4565.4	4345.0	4002.3	3569.0	3055.4	2533.5	2064.9	1249.9	96.0	24.0
42.5°	3153.6	3181.3	2942.9	2697.7	2419.5	2070.9	1723.0	1415.6	874.2	71.2	15.0
45°	2025.9	2031.9	1925.4	1735.0	1552.8	1335.4	1105.9	921.5	563.8	39.7	4.5
47.5°	1289.6	1286.6	1218.4	1108.9	989.7	862.2	719.0	602.1	365.1	30.7	13.5
50°	812.0	809.0	766.3	696.5	629.8	545.8	455.9	387.6	230.9	36.7	15.0
51°	659.8	664.3	628.3	557.8	506.1	425.9	363.6	308.9	180.7	25.5	13.5
52°	544.3	541.3	518.8	459.6	416.9	347.9	296.2	252.7	150.7	22.5	6.0
53°	437.9	439.4	416.9	371.1	329.9	278.2	236.9	196.4	108.0	16.5	4.5
54°	346.4	343.4	335.9	291.7	266.2	220.4	185.2	150.7	93.0	3.0	0.0
55°	294.7	290.2	279.7	241.4	215.9	182.2	147.7	129.0	80.2	7.5	0.0
57.5°	170.2	170.2	164.2	143.2	126.0	112.5	90.0	84.0	41.2	7.5	0.0
60°	106.5	93.0	103.5	88.5	69.7	62.2	51.7	47.2	35.2	13.5	3.0
61°	88.5	71.2	69.7	65.2	60.7	41.2	35.2	38.2	22.5	4.5	3.0
62°	63.7	56.2	60.7	51.7	45.7	32.2	29.2	27.7	13.5	6.0	7.5
63°	57.7	51.7	50.2	38.2	33.7	33.7	25.5	24.0	16.5	12.0	6.0



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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°	30.7	25.5	22.5	25.5	15.0	19.5	7.5	21.0	4.5	7.5	4.5
67.5°	24.0	15.0	13.5	16.5	10.5	7.5	10.5	13.5	4.5	7.5	10.5
70°	21.0	10.5	15.0	13.5	10.5	13.5	15.0	15.0	4.5	15.0	13.5
72.5°	21.0	13.5	7.5	6.0	6.0	6.0	6.0	6.0	9.0	21.0	16.5
75°	9.0	9.0	4.5	10.5	6.0	9.0	6.0	15.0	6.0	16.5	13.5
77.5°	6.0	7.5	0.0	7.5	0.0	0.0	4.5	10.5	4.5	12.0	15.0
80°	0.0	7.5	4.5	0.0	3.0	4.5	0.0	1.5	3.0	13.5	6.0
82.5°	3.0	4.5	6.0	3.0	3.0	0.0	0.0	0.0	0.0	9.0	7.5
85°	3.0	6.0	0.0	1.5	6.0	3.0	1.5	7.5	3.0	10.5	12.0
87.5°	0.0	3.0	3.0	0.0	4.5	0.0	4.5	3.0	0.0	9.0	4.5
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°	53.2	53.2	53.2	53.2	53.2
2.5°	45.7	41.2	35.2	44.2	36.7
5°	54.7	50.2	39.7	47.2	42.7
7.5°	56.2	47.2	41.2	38.2	42.7
10°	33.7	22.5	16.5	22.5	12.0
12.5°	56.2	39.7	36.7	41.2	45.7
15°	42.7	25.5	25.5	19.5	27.7
17.5°	24.0	19.5	18.0	24.0	27.7
20°	25.5	16.5	13.5	22.5	21.0
21°	22.5	6.0	18.0	18.0	21.0
22°	32.2	15.0	18.0	29.2	30.7
23°	21.0	16.5	13.5	18.0	24.0
24°	30.7	18.0	16.5	22.5	33.7
25°	21.0	16.5	16.5	21.0	18.0
26°	12.0	16.5	12.0	18.0	15.0
27°	9.0	15.0	9.0	13.5	18.0
28°	19.5	24.0	22.5	24.0	21.0
29°	21.0	25.5	21.0	32.2	24.0
30°	12.0	22.5	10.5	24.0	21.0
31°	12.0	16.5	7.5	24.0	21.0
32°	1.5	9.0	4.5	9.0	9.0
33°	9.0	10.5	12.0	19.5	15.0
34°	15.0	18.0	12.0	21.0	18.0
35°	16.5	9.0	13.5	22.5	24.0
36°	4.5	4.5	7.5	18.0	6.0
37°	9.0	25.5	18.0	30.7	18.0
38°	15.0	30.7	29.2	38.2	30.7
39°	3.0	9.0	10.5	21.0	21.0
40°	13.5	22.5	16.5	30.7	30.7
42.5°	10.5	16.5	12.0	25.5	21.0
45°	4.5	4.5	3.0	16.5	12.0
47.5°	7.5	7.5	13.5	21.0	36.7
50°	15.0	15.0	19.5	35.2	33.7
51°	9.0	7.5	10.5	24.0	30.7
52°	7.5	10.5	10.5	24.0	24.0
53°	3.0	0.0	0.0	18.0	15.0
54°	3.0	1.5	4.5	13.5	21.0
55°	0.0	7.5	6.0	27.7	30.7
57.5°	1.5	12.0	6.0	19.5	24.0
60°	7.5	9.0	16.5	19.5	24.0
61°	0.0	7.5	7.5	18.0	21.0
62°	0.0	6.0	13.5	16.5	21.0
63°	7.5	9.0	12.0	19.5	24.0



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CANDELA DISTRIBUTION (continued):

	90°	112.5°	135°	157.5°	180°
66°	4.5	12.0	15.0	19.5	18.0
67.5°	9.0	10.5	9.0	25.5	30.7
70°	12.0	19.5	21.0	18.0	30.7
72.5°	7.5	10.5	15.0	27.7	30.7
75°	13.5	15.0	22.5	25.5	30.7
77.5°	10.5	15.0	15.0	16.5	30.7
80°	4.5	13.5	15.0	16.5	9.0
82.5°	6.0	9.0	6.0	16.5	12.0
85°	3.0	13.5	12.0	15.0	15.0
87.5°	4.5	7.5	7.5	13.5	9.0
90°	0.0	0.0	0.0	0.0	0.0



Report Generated By E9808895 / USPTCWHP6082093





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







64°	33.7	35.2	33.7	24.0	18.0	16.5	12.0	21.0	6.0	6.0	0.0
65°	30.7	33.7	25.5	29.2	19.5	18.0	10.5	21.0	3.0	10.5	7.5





64°	4.5	7.5	7.5	13.5	21.0
65°	7.5	10.5	10.5	19.5	15.0



(END OF REPORT)