

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: P315287

Luminaire Tested: **LDA2B05FLD2WD010 PIN1MMS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P315287
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: LDA2B05FLD2WD010 PIN1MMS
Description: PORTFOLIO 2IN ADJ 500 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: 476.6 lumens
Efficiency: N/A
Efficacy: 68.1 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

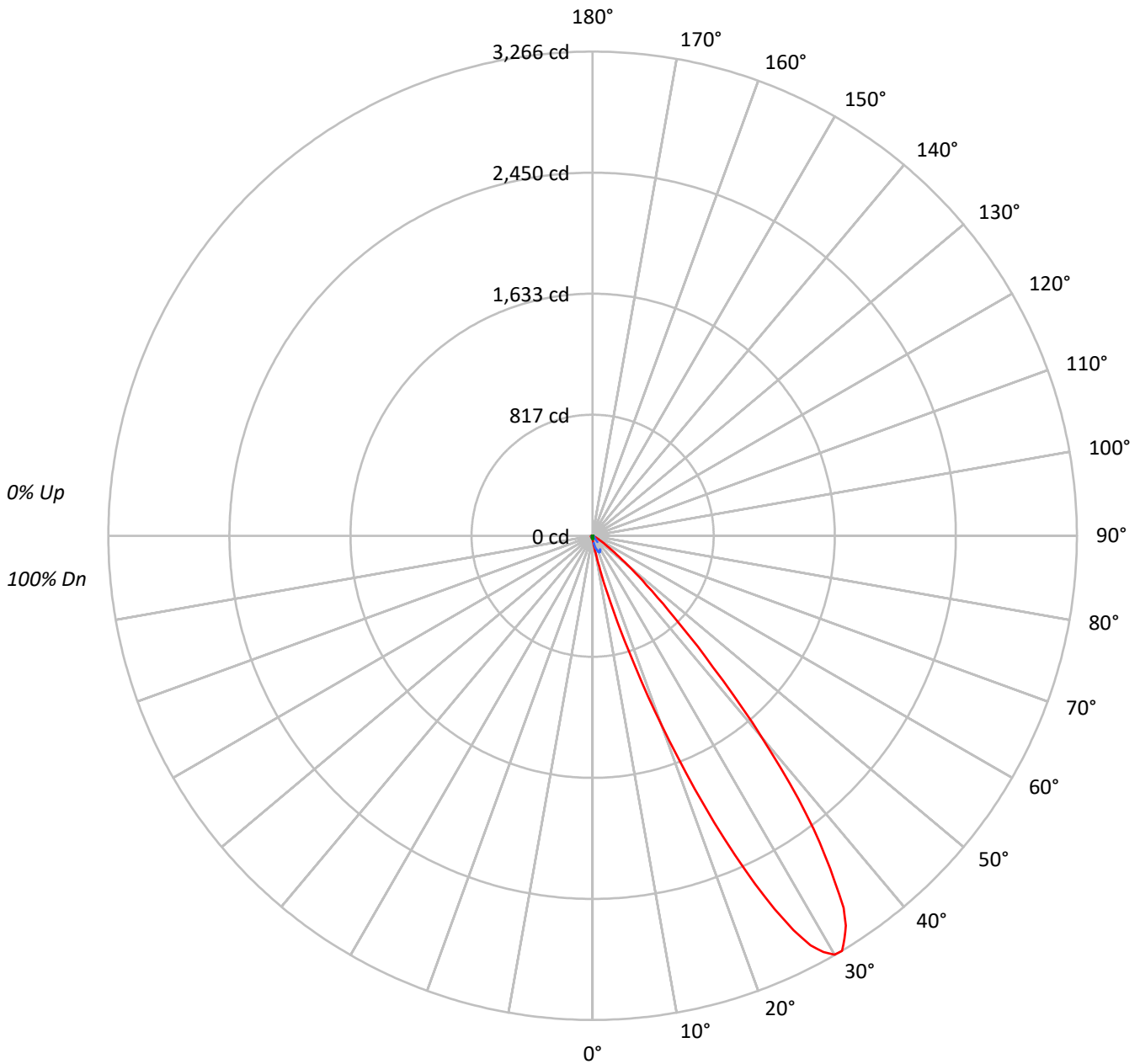
Input Watts (W): 7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P315287

CATALOG NUMBER: LDA2B05FLD2WD010 PIN1MMS

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	50	30	10	0		
RCR																										
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100					100			
1	112	108	105	102	109	106	103	101	102	100	97	98	96	95	95	93	92	90					90			
2	104	98	93	89	102	96	92	88	93	89	86	90	87	84	87	84	82	80					80			
3	97	89	82	77	95	87	82	77	85	80	75	82	78	74	80	76	73	71					71			
4	90	81	74	68	88	79	73	68	77	71	67	75	70	66	73	69	65	63					63			
5	84	73	66	60	82	72	65	60	70	64	59	68	63	59	67	62	58	56					56			
6	78	67	59	53	76	66	58	53	64	58	53	62	57	52	61	56	52	50					50			
7	72	61	53	48	71	60	53	47	58	52	47	57	51	47	56	51	47	45					45			
8	67	55	48	43	66	55	47	42	53	47	42	52	46	42	51	46	42	40					40			
9	63	51	43	38	61	50	43	38	49	42	38	48	42	38	47	41	37	36					36			
10	59	46	39	34	57	46	39	34	45	38	34	44	38	34	43	38	34	32					32			

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	10015	10015	10015
5°	22385	10351	8073
10°	59866	6463	2304
15°	235616	8325	5414
20°	712826	5093	4200
25°	1410666	4355	3756
30°	1858769	2621	4557
35°	1715183	3794	5481
40°	1142459	3285	7535
45°	538848	1186	3210
50°	237629	4375	9901
55°	96595	0	10064
60°	40061	2861	8979
65°	13659	3385	6654
70°	11540	6635	16877
75°	6481	9722	22303
80°	0	4830	9660
85°	6227	6227	32266



TEST NUMBER: P315287

CATALOG NUMBER: LDA2B05FLD2WD010 PIN1MMS

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	2.8	0.6
10°-20°	29.2	6.1
20°-30°	149.9	31.5
30°-40°	192.0	40.3
40°-50°	73.8	15.5
50°-60°	15.0	3.1
60°-70°	5.1	1.1
70°-80°	5.9	1.2
80°-90°	3.0	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°	181.8	38.2
0°-40°	373.8	78.4
0°-60°	462.6	97.1
0°-90°	476.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	476.6	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	20	20	20	20	20	
5°	45	37	21	15	16	7
15°	461	90	16	10	11	177
25°	2591	117	8	6	7	1183
35°	2848	61	6	5	9	1702
45°	772	15	2	1	5	664
55°	112	3	0	2	12	116
65°	12	4	3	4	6	16
75°	3	6	5	9	12	5
85°	1	4	1	5	6	1
90°	0	0	0	0	0	



TEST NUMBER: P315287

CATALOG NUMBER: LDA2B05FLD2WD010 PIN1MMS

CANDELA DISTRIBUTION (FULL):

	0°	2.5°	5°	7.5°	10°	12.5°	15°	17.5°	22.5°	45°	67.5°
0°	20.3	20.3	20.3	20.3	20.3	20.3	20.3	20.3	20.3	20.3	20.3
2.5°	30.0	26.0	27.2	23.2	25.4	26.0	21.4	28.3	25.4	26.6	23.2
5°	45.2	48.6	44.6	42.9	41.7	42.9	41.7	43.4	42.3	37.2	26.6
7.5°	75.5	68.9	68.9	66.6	68.3	67.7	64.9	66.6	62.6	45.2	30.6
10°	119.5	112.9	112.3	110.6	110.0	104.9	102.0	99.8	91.5	53.5	27.7
12.5°	234.1	228.4	224.4	214.4	207.5	203.5	188.4	180.4	156.6	79.5	35.4
15°	461.3	431.9	439.3	407.0	383.3	367.6	336.1	308.4	251.5	89.8	34.3
17.5°	816.4	787.8	768.6	733.5	685.2	643.4	581.4	519.9	404.2	102.0	32.0
20°	1357.7	1312.6	1272.5	1212.2	1119.3	1039.0	929.8	812.4	601.7	116.6	28.9
21°	1595.5	1560.7	1514.4	1434.9	1326.6	1219.1	1088.2	946.7	685.7	117.8	26.0
22°	1843.7	1821.1	1760.2	1669.0	1542.7	1414.6	1254.0	1098.5	775.2	119.5	24.9
23°	2102.1	2078.3	2009.4	1905.1	1763.0	1608.1	1420.9	1236.5	859.2	121.8	24.3
24°	2355.0	2328.7	2251.8	2135.2	1974.0	1795.9	1584.4	1370.6	937.5	120.6	25.4
25°	2591.4	2554.8	2473.6	2344.4	2167.5	1967.7	1734.5	1486.4	1006.4	117.2	21.4
26°	2802.4	2760.6	2673.2	2532.2	2338.7	2122.3	1859.7	1593.8	1057.3	114.3	20.3
27°	2985.6	2933.0	2839.5	2691.7	2484.2	2245.3	1966.6	1677.9	1102.2	110.0	16.3
28°	3128.2	3067.9	2973.0	2816.9	2597.7	2341.0	2045.2	1730.5	1128.8	110.6	18.6
29°	3210.5	3164.2	3061.0	2897.5	2666.9	2396.2	2086.6	1759.6	1133.9	102.0	17.4
30°	3262.8	3211.1	3105.1	2934.1	2693.4	2408.8	2091.8	1754.2	1118.8	95.8	16.3
31°	3266.3	3212.2	3104.5	2927.5	2683.2	2387.9	2063.2	1721.9	1085.9	89.2	13.4
32°	3204.8	3163.1	3057.0	2874.4	2627.4	2330.4	2001.7	1667.3	1034.2	76.0	9.1
33°	3135.4	3084.8	2979.3	2794.9	2550.2	2251.8	1913.1	1593.8	980.4	74.9	11.7
34°	3027.3	2966.4	2862.7	2681.2	2443.1	2139.8	1807.6	1495.8	911.8	68.3	11.1
35°	2847.8	2815.2	2710.3	2531.1	2299.9	2005.4	1680.7	1388.0	838.9	60.9	8.0
36°	2668.0	2628.0	2528.8	2355.6	2136.4	1845.4	1537.5	1265.1	756.6	51.7	6.3
37°	2477.9	2425.6	2335.3	2165.8	1936.8	1685.9	1400.0	1147.9	689.4	54.6	8.6
38°	2256.4	2239.0	2120.1	1962.3	1750.8	1513.8	1252.3	1024.4	615.1	50.9	14.0
39°	2012.9	2001.1	1882.5	1738.8	1549.0	1331.1	1101.0	896.4	540.8	37.2	4.6
40°	1773.9	1740.5	1656.4	1525.8	1360.6	1164.8	965.8	787.2	476.5	36.6	9.1
42.5°	1202.2	1212.8	1121.9	1028.4	922.4	789.5	656.9	539.7	333.3	27.2	5.7
45°	772.3	774.6	734.0	661.4	592.0	509.1	421.6	351.3	214.9	15.1	1.7
47.5°	491.6	490.5	464.5	422.8	377.3	328.7	274.1	229.5	139.2	11.7	5.1
50°	309.6	308.4	292.1	265.5	240.1	208.1	173.8	147.8	88.0	14.0	5.7
51°	251.5	253.3	239.5	212.7	192.9	162.4	138.6	117.8	68.9	9.7	5.1
52°	207.5	206.4	197.8	175.2	158.9	132.6	112.9	96.3	57.5	8.6	2.3
53°	166.9	167.5	158.9	141.5	125.8	106.0	90.3	74.9	41.2	6.3	1.7
54°	132.1	130.9	128.1	111.2	101.5	84.0	70.6	57.5	35.4	1.1	0.0
55°	112.3	110.6	106.6	92.0	82.3	69.5	56.3	49.2	30.6	2.9	0.0
57.5°	64.9	64.9	62.6	54.6	48.0	42.9	34.3	32.0	15.7	2.9	0.0
60°	40.6	35.4	39.4	33.7	26.6	23.7	19.7	18.0	13.4	5.1	1.1
61°	33.7	27.2	26.6	24.9	23.2	15.7	13.4	14.6	8.6	1.7	1.1
62°	24.3	21.4	23.2	19.7	17.4	12.3	11.1	10.6	5.1	2.3	2.9
63°	22.0	19.7	19.2	14.6	12.9	12.9	9.7	9.1	6.3	4.6	2.3



TEST NUMBER: P315287

CATALOG NUMBER: LDA2B05FLD2WD010 PIN1MMS

CANDELA DISTRIBUTION (continued):

	0°	2.5°	5°	7.5°	10°	12.5°	15°	17.5°	22.5°	45°	67.5°
66°	11.7	9.7	8.6	9.7	5.7	7.4	2.9	8.0	1.7	2.9	1.7
67.5°	9.1	5.7	5.1	6.3	4.0	2.9	4.0	5.1	1.7	2.9	4.0
70°	8.0	4.0	5.7	5.1	4.0	5.1	5.7	5.7	1.7	5.7	5.1
72.5°	8.0	5.1	2.9	2.3	2.3	2.3	2.3	2.3	3.4	8.0	6.3
75°	3.4	3.4	1.7	4.0	2.3	3.4	2.3	5.7	2.3	6.3	5.1
77.5°	2.3	2.9	0.0	2.9	0.0	0.0	1.7	4.0	1.7	4.6	5.7
80°	0.0	2.9	1.7	0.0	1.1	1.7	0.0	0.6	1.1	5.1	2.3
82.5°	1.1	1.7	2.3	1.1	1.1	0.0	0.0	0.0	0.0	3.4	2.9
85°	1.1	2.3	0.0	0.6	2.3	1.1	0.6	2.9	1.1	4.0	4.6
87.5°	0.0	1.1	1.1	0.0	1.7	0.0	1.7	1.1	0.0	3.4	1.7
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P315287

CATALOG NUMBER: LDA2B05FLD2WD010 PIN1MMS

CANDELA DISTRIBUTION (continued):

	90°	112.5°	135°	157.5°	180°
0°	20.3	20.3	20.3	20.3	20.3
2.5°	17.4	15.7	13.4	16.9	14.0
5°	20.9	19.2	15.1	18.0	16.3
7.5°	21.4	18.0	15.7	14.6	16.3
10°	12.9	8.6	6.3	8.6	4.6
12.5°	21.4	15.1	14.0	15.7	17.4
15°	16.3	9.7	9.7	7.4	10.6
17.5°	9.1	7.4	6.9	9.1	10.6
20°	9.7	6.3	5.1	8.6	8.0
21°	8.6	2.3	6.9	6.9	8.0
22°	12.3	5.7	6.9	11.1	11.7
23°	8.0	6.3	5.1	6.9	9.1
24°	11.7	6.9	6.3	8.6	12.9
25°	8.0	6.3	6.3	8.0	6.9
26°	4.6	6.3	4.6	6.9	5.7
27°	3.4	5.7	3.4	5.1	6.9
28°	7.4	9.1	8.6	9.1	8.0
29°	8.0	9.7	8.0	12.3	9.1
30°	4.6	8.6	4.0	9.1	8.0
31°	4.6	6.3	2.9	9.1	8.0
32°	0.6	3.4	1.7	3.4	3.4
33°	3.4	4.0	4.6	7.4	5.7
34°	5.7	6.9	4.6	8.0	6.9
35°	6.3	3.4	5.1	8.6	9.1
36°	1.7	1.7	2.9	6.9	2.3
37°	3.4	9.7	6.9	11.7	6.9
38°	5.7	11.7	11.1	14.6	11.7
39°	1.1	3.4	4.0	8.0	8.0
40°	5.1	8.6	6.3	11.7	11.7
42.5°	4.0	6.3	4.6	9.7	8.0
45°	1.7	1.7	1.1	6.3	4.6
47.5°	2.9	2.9	5.1	8.0	14.0
50°	5.7	5.7	7.4	13.4	12.9
51°	3.4	2.9	4.0	9.1	11.7
52°	2.9	4.0	4.0	9.1	9.1
53°	1.1	0.0	0.0	6.9	5.7
54°	1.1	0.6	1.7	5.1	8.0
55°	0.0	2.9	2.3	10.6	11.7
57.5°	0.6	4.6	2.3	7.4	9.1
60°	2.9	3.4	6.3	7.4	9.1
61°	0.0	2.9	2.9	6.9	8.0
62°	0.0	2.3	5.1	6.3	8.0
63°	2.9	3.4	4.6	7.4	9.1



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CANDELA DISTRIBUTION (continued):

	90°	112.5°	135°	157.5°	180°
66°	1.7	4.6	5.7	7.4	6.9
67.5°	3.4	4.0	3.4	9.7	11.7
70°	4.6	7.4	8.0	6.9	11.7
72.5°	2.9	4.0	5.7	10.6	11.7
75°	5.1	5.7	8.6	9.7	11.7
77.5°	4.0	5.7	5.7	6.3	11.7
80°	1.7	5.1	5.7	6.3	3.4
82.5°	2.3	3.4	2.3	6.3	4.6
85°	1.1	5.1	4.6	5.7	5.7
87.5°	1.7	2.9	2.9	5.1	3.4
90°	0.0	0.0	0.0	0.0	0.0



Report Generated By E9808895 / USPTCWHP6082093





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







64°	12.9	13.4	12.9	9.1	6.9	6.3	4.6	8.0	2.3	2.3	0.0
65°	11.7	12.9	9.7	11.1	7.4	6.9	4.0	8.0	1.1	4.0	2.9





64°	1.7	2.9	2.9	5.1	8.0
65°	2.9	4.0	4.0	7.4	5.7



(END OF REPORT)