

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: P315288

Luminaire Tested: **LDA2B05FLD2WD010 PINW1MMS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P315288  
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 PINW1MMS  
Description: PORTFOLIO 2IN ADJ 500 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: 494.9 lumens  
Efficiency: N/A  
Efficacy: 70.7 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

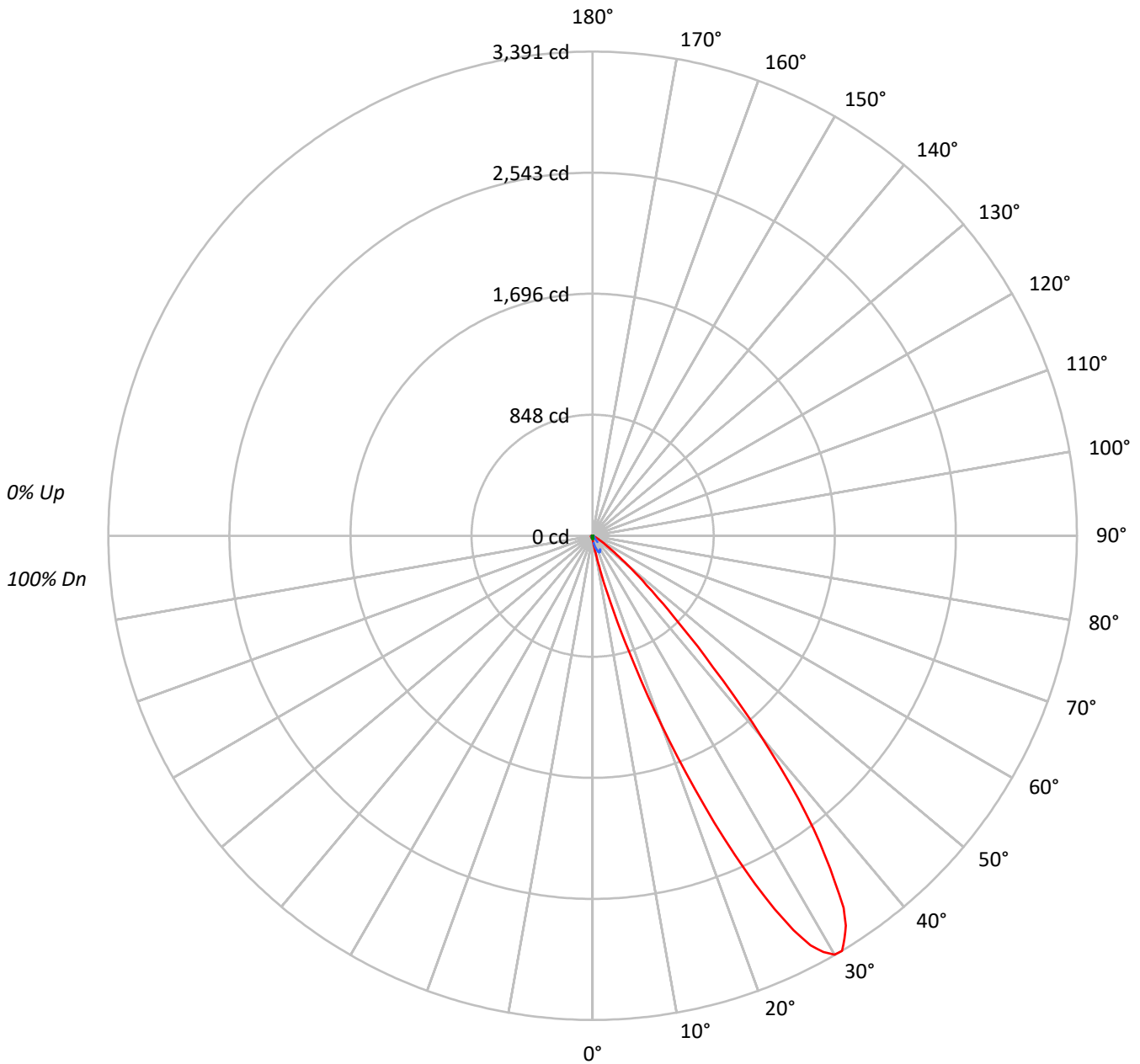
Input Watts (W): 7  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	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°	10410	10410	10410
5°	23227	10747	8370
10°	62171	6713	2355
15°	244657	8632	5618
20°	740127	5303	4358
25°	1464667	4518	3865
30°	1929922	2678	4728
35°	1780832	3915	5722
40°	1186189	3413	7857
45°	559501	1256	3279
50°	246686	4528	10285
55°	100293	0	10494
60°	41541	2960	9374
65°	14242	3502	6888
70°	11973	6780	17598
75°	6862	10103	23256
80°	0	5114	10228
85°	6793	6793	33398



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	2.9	0.6
10°-20°	30.3	6.1
20°-30°	155.6	31.5
30°-40°	199.3	40.3
40°-50°	76.6	15.5
50°-60°	15.6	3.1
60°-70°	5.3	1.1
70°-80°	6.1	1.2
80°-90°	3.1	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°	188.8	38.1
0°-40°	388.1	78.4
0°-60°	480.3	97.1
0°-90°	494.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	494.9	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	21	21	21	21	21	
5°	47	39	22	16	17	7
15°	479	93	17	10	11	184
25°	2691	122	8	6	7	1228
35°	2957	63	6	5	10	1767
45°	802	16	2	1	5	689
55°	117	3	0	2	12	121
65°	12	4	3	4	6	17
75°	4	6	5	9	12	5
85°	1	4	1	5	6	1
90°	0	0	0	0	0	



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CATALOG NUMBER: LDA2B05FLD2WD010 PINW1MMS

**CANDELA DISTRIBUTION (FULL):**

	0°	2.5°	5°	7.5°	10°	12.5°	15°	17.5°	22.5°	45°	67.5°
0°	21.1	21.1	21.1	21.1	21.1	21.1	21.1	21.1	21.1	21.1	21.1
2.5°	31.2	27.0	28.2	24.0	26.4	27.0	22.3	29.4	26.4	27.6	24.0
5°	46.9	50.5	46.3	44.5	43.3	44.5	43.3	45.1	43.9	38.6	27.6
7.5°	78.3	71.5	71.5	69.1	70.9	70.3	67.4	69.1	65.0	46.9	31.8
10°	124.1	117.2	116.6	114.9	114.3	108.9	105.9	103.6	95.0	55.5	28.8
12.5°	243.1	237.1	233.0	222.6	215.5	211.3	195.6	187.3	162.6	82.5	36.8
15°	479.0	448.4	456.1	422.6	398.0	381.7	349.0	320.2	261.2	93.2	35.6
17.5°	847.6	817.9	798.0	761.5	711.4	668.0	603.6	539.8	419.6	105.9	33.2
20°	1409.7	1362.8	1321.3	1258.6	1162.2	1078.8	965.4	843.4	624.7	121.1	30.0
21°	1656.6	1620.4	1572.3	1489.8	1377.3	1265.8	1129.8	982.9	712.0	122.3	27.0
22°	1914.2	1890.8	1827.6	1732.9	1601.7	1468.8	1302.0	1140.5	804.9	124.1	25.8
23°	2182.5	2157.9	2086.3	1978.0	1830.5	1669.7	1475.3	1283.9	892.1	126.4	25.2
24°	2445.1	2417.8	2338.0	2216.9	2049.5	1864.7	1645.0	1423.0	973.4	125.2	26.4
25°	2690.6	2652.6	2568.3	2434.2	2250.5	2043.0	1800.8	1543.2	1045.0	121.7	22.3
26°	2909.6	2866.3	2775.5	2629.1	2428.2	2203.6	1930.8	1654.8	1097.8	118.7	21.1
27°	3099.8	3045.2	2948.2	2794.8	2579.3	2331.2	2041.8	1742.1	1144.4	114.3	16.9
28°	3247.9	3185.3	3086.8	2924.7	2697.1	2430.6	2123.4	1796.7	1172.0	114.9	19.3
29°	3333.4	3285.3	3178.2	3008.4	2768.9	2487.9	2166.5	1827.0	1177.3	105.9	18.1
30°	3387.7	3334.0	3223.9	3046.4	2796.5	2500.9	2171.8	1821.3	1161.6	99.4	16.9
31°	3391.3	3335.2	3223.3	3039.6	2785.8	2479.3	2142.1	1787.8	1127.5	92.6	13.9
32°	3327.5	3284.1	3174.0	2984.4	2728.0	2419.6	2078.3	1731.1	1073.7	78.9	9.5
33°	3255.3	3202.8	3093.3	2901.9	2647.8	2338.0	1986.3	1654.8	1017.9	77.8	12.2
34°	3143.2	3080.0	2972.2	2783.8	2536.6	2221.7	1876.8	1553.0	946.7	70.9	11.6
35°	2956.8	2923.0	2814.0	2628.0	2387.9	2082.2	1745.0	1441.2	871.0	63.2	8.3
36°	2770.1	2728.6	2625.6	2445.7	2218.1	1916.0	1596.4	1313.5	785.6	53.7	6.5
37°	2572.8	2518.5	2424.7	2248.7	2011.0	1750.4	1453.6	1191.9	715.8	56.7	8.9
38°	2342.8	2324.7	2201.2	2037.4	1817.8	1571.7	1300.2	1063.6	638.7	52.8	14.5
39°	2089.9	2077.7	1954.6	1805.3	1608.2	1382.1	1143.2	930.7	561.5	38.6	4.7
40°	1841.8	1807.1	1719.8	1584.2	1412.7	1209.4	1002.8	817.3	494.7	38.0	9.5
42.5°	1248.2	1259.2	1164.9	1067.8	957.7	819.7	682.0	560.3	346.0	28.2	5.9
45°	801.9	804.3	762.1	686.7	614.6	528.6	437.7	364.7	223.2	15.7	1.8
47.5°	510.5	509.3	482.3	438.9	391.7	341.3	284.6	238.3	144.5	12.2	5.3
50°	321.4	320.2	303.3	275.7	249.3	216.1	180.4	153.4	91.4	14.5	5.9
51°	261.2	262.9	248.7	220.8	200.3	168.6	143.9	122.3	71.5	10.1	5.3
52°	215.5	214.3	205.4	181.9	165.0	137.7	117.2	100.0	59.7	8.9	2.4
53°	173.3	173.9	165.0	146.9	130.6	110.1	93.8	77.8	42.7	6.5	1.8
54°	137.1	135.9	133.0	115.4	105.4	87.3	73.3	59.7	36.8	1.2	0.0
55°	116.6	114.9	110.7	95.6	85.5	72.1	58.5	51.0	31.8	3.0	0.0
57.5°	67.4	67.4	65.0	56.7	49.9	44.5	35.6	33.2	16.3	3.0	0.0
60°	42.1	36.8	41.0	35.0	27.6	24.6	20.5	18.7	13.9	5.3	1.2
61°	35.0	28.2	27.6	25.8	24.0	16.3	13.9	15.1	8.9	1.8	1.2
62°	25.2	22.3	24.0	20.5	18.1	12.8	11.6	11.0	5.3	2.4	3.0
63°	22.9	20.5	19.9	15.1	13.4	13.4	10.1	9.5	6.5	4.7	2.4



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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°	12.2	10.1	8.9	10.1	5.9	7.7	3.0	8.3	1.8	3.0	1.8
67.5°	9.5	5.9	5.3	6.5	4.2	3.0	4.2	5.3	1.8	3.0	4.2
70°	8.3	4.2	5.9	5.3	4.2	5.3	5.9	5.9	1.8	5.9	5.3
72.5°	8.3	5.3	3.0	2.4	2.4	2.4	2.4	2.4	3.6	8.3	6.5
75°	3.6	3.6	1.8	4.2	2.4	3.6	2.4	5.9	2.4	6.5	5.3
77.5°	2.4	3.0	0.0	3.0	0.0	0.0	1.8	4.2	1.8	4.7	5.9
80°	0.0	3.0	1.8	0.0	1.2	1.8	0.0	0.6	1.2	5.3	2.4
82.5°	1.2	1.8	2.4	1.2	1.2	0.0	0.0	0.0	0.0	3.6	3.0
85°	1.2	2.4	0.0	0.6	2.4	1.2	0.6	3.0	1.2	4.2	4.7
87.5°	0.0	1.2	1.2	0.0	1.8	0.0	1.8	1.2	0.0	3.6	1.8
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°	21.1	21.1	21.1	21.1	21.1
2.5°	18.1	16.3	13.9	17.5	14.5
5°	21.7	19.9	15.7	18.7	16.9
7.5°	22.3	18.7	16.3	15.1	16.9
10°	13.4	8.9	6.5	8.9	4.7
12.5°	22.3	15.7	14.5	16.3	18.1
15°	16.9	10.1	10.1	7.7	11.0
17.5°	9.5	7.7	7.1	9.5	11.0
20°	10.1	6.5	5.3	8.9	8.3
21°	8.9	2.4	7.1	7.1	8.3
22°	12.8	5.9	7.1	11.6	12.2
23°	8.3	6.5	5.3	7.1	9.5
24°	12.2	7.1	6.5	8.9	13.4
25°	8.3	6.5	6.5	8.3	7.1
26°	4.7	6.5	4.7	7.1	5.9
27°	3.6	5.9	3.6	5.3	7.1
28°	7.7	9.5	8.9	9.5	8.3
29°	8.3	10.1	8.3	12.8	9.5
30°	4.7	8.9	4.2	9.5	8.3
31°	4.7	6.5	3.0	9.5	8.3
32°	0.6	3.6	1.8	3.6	3.6
33°	3.6	4.2	4.7	7.7	5.9
34°	5.9	7.1	4.7	8.3	7.1
35°	6.5	3.6	5.3	8.9	9.5
36°	1.8	1.8	3.0	7.1	2.4
37°	3.6	10.1	7.1	12.2	7.1
38°	5.9	12.2	11.6	15.1	12.2
39°	1.2	3.6	4.2	8.3	8.3
40°	5.3	8.9	6.5	12.2	12.2
42.5°	4.2	6.5	4.7	10.1	8.3
45°	1.8	1.8	1.2	6.5	4.7
47.5°	3.0	3.0	5.3	8.3	14.5
50°	5.9	5.9	7.7	13.9	13.4
51°	3.6	3.0	4.2	9.5	12.2
52°	3.0	4.2	4.2	9.5	9.5
53°	1.2	0.0	0.0	7.1	5.9
54°	1.2	0.6	1.8	5.3	8.3
55°	0.0	3.0	2.4	11.0	12.2
57.5°	0.6	4.7	2.4	7.7	9.5
60°	3.0	3.6	6.5	7.7	9.5
61°	0.0	3.0	3.0	7.1	8.3
62°	0.0	2.4	5.3	6.5	8.3
63°	3.0	3.6	4.7	7.7	9.5





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**CANDELA DISTRIBUTION (continued):**

	90°	112.5°	135°	157.5°	180°
66°	1.8	4.7	5.9	7.7	7.1
67.5°	3.6	4.2	3.6	10.1	12.2
70°	4.7	7.7	8.3	7.1	12.2
72.5°	3.0	4.2	5.9	11.0	12.2
75°	5.3	5.9	8.9	10.1	12.2
77.5°	4.2	5.9	5.9	6.5	12.2
80°	1.8	5.3	5.9	6.5	3.6
82.5°	2.4	3.6	2.4	6.5	4.7
85°	1.2	5.3	4.7	5.9	5.9
87.5°	1.8	3.0	3.0	5.3	3.6
90°	0.0	0.0	0.0	0.0	0.0



Report Generated By E9808895 / USPTCWHP6082093





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







64°	13.4	13.9	13.4	9.5	7.1	6.5	4.7	8.3	2.4	2.4	0.0
65°	12.2	13.4	10.1	11.6	7.7	7.1	4.2	8.3	1.2	4.2	3.0







64°	1.8	3.0	3.0	5.3	8.3
65°	3.0	4.2	4.2	7.7	5.9



(END OF REPORT)