

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: P170351

Luminaire Tested: **LDA6A30835D010TE LAR30NF 6LA1 30° Tilt**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P170351
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P25661)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: io LED
Catalog Number: LDA6A30835D010TE LAR30NF 6LA1 30° Tilt
Description: PORTFOLIO 6" Adjustable Reflector, Self-flange Trim Ring, 30° Narrow Flood Optic, at 30° tilt
Light Source: (1) HIGH LUMEN LED 80CRI / 3500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3178.6 lumens
Efficiency: N/A
Efficacy: 71.4 lumens/watt
Spacing Criteria (0/90/45): 2.69 / 0.56 / 1.41
Luminous Opening: Circular (Dia: 0.5' x H: 0')
CIE Type: Direct

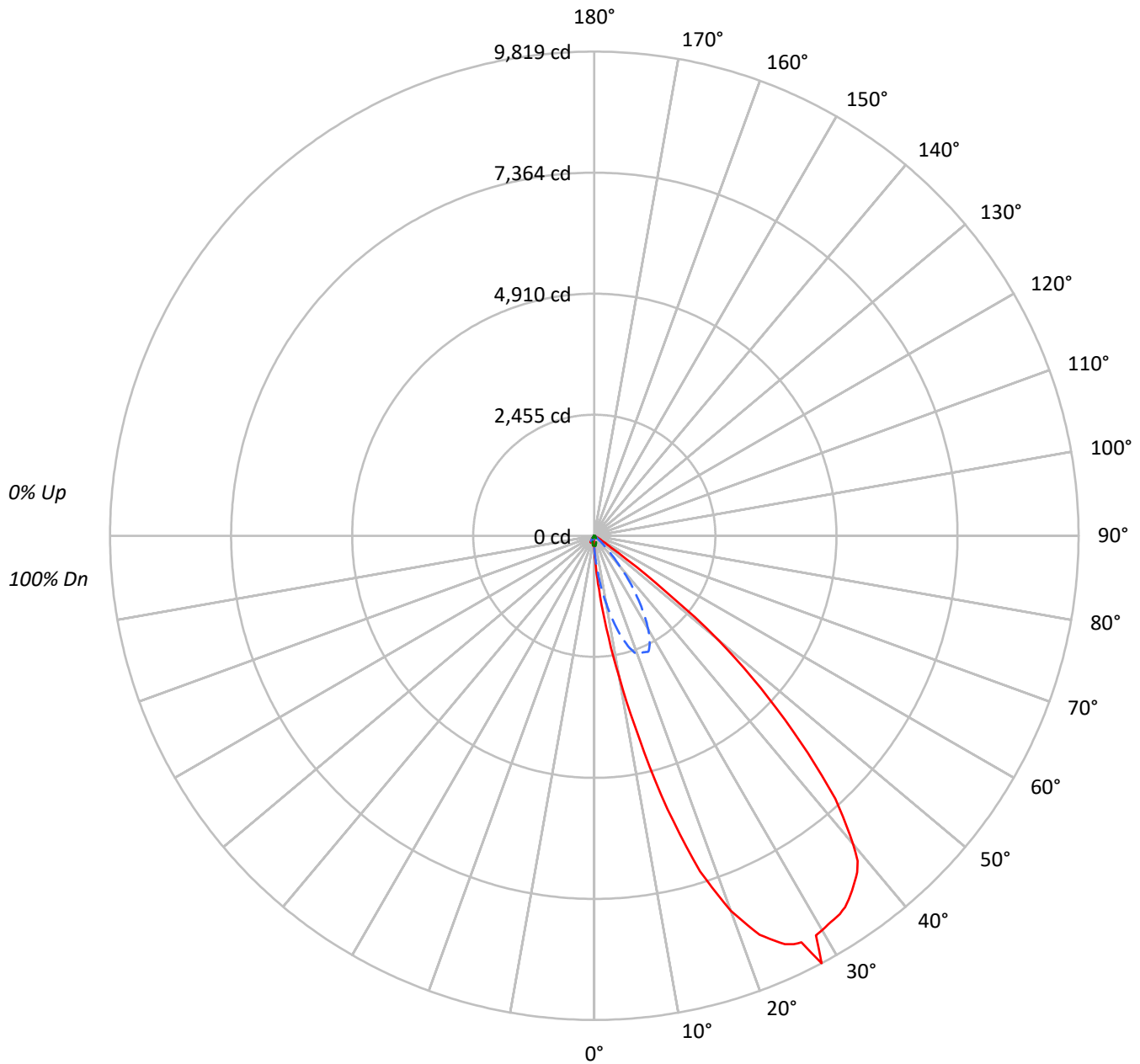
Input Watts (W): 44.49
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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
RW	70	50	30	10		70	50	30	10		50	30	10		50	30	10		50	30	10
RCR																					
0	119	119	119	119		116	116	116	116		111	111	111		106	106	106		102	102	102
1	112	109	106	103		110	107	104	102		103	101	99		99	97	96		95	94	93
2	105	99	94	90		103	98	93	89		94	90	87		91	88	85		88	86	84
3	98	90	84	79		96	89	83	79		86	81	77		84	80	76		81	78	75
4	92	82	75	70		90	81	75	70		79	73	69		77	72	68		75	71	67
5	85	75	68	62		83	74	67	62		72	66	61		70	65	61		68	64	60
6	79	68	61	56		78	68	61	55		66	60	55		64	59	55		63	58	54
7	74	63	55	50		72	62	55	50		60	54	49		59	53	49		58	53	49
8	69	57	50	45		68	57	50	45		55	49	45		54	49	44		53	48	44
9	64	53	45	40		63	52	45	40		51	45	40		50	44	40		49	44	40
10	60	48	41	37		59	48	41	37		47	41	36		46	40	36		45	40	36

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	12965	12965	12965
5°	59459	11804	5431
10°	161965	9936	3835
15°	325728	7730	3910
20°	472226	6032	5116
25°	552988	5402	8051
30°	584660	5551	9020
35°	602395	3875	6077
40°	584424	2133	3249
45°	458187	1217	1333
50°	279129	665	401
55°	40113	449	0
60°	7894	515	0
65°	1829	610	0
70°	256	753	0
75°	0	996	0
80°	0	1989	0
85°	0	3963	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	51.1	1.6
10°-20°	383.4	12.1
20°-30°	894.8	28.2
30°-40°	1064.9	33.5
40°-50°	671.2	21.1
50°-60°	100.7	3.2
60°-70°	5.8	0.2
70°-80°	3.4	0.1
80°-90°	3.3	0.1
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°	1329.3	41.8
0°-40°	2394.2	75.3
0°-60°	3166.1	99.6
0°-90°	3178.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3178.6	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	236	236	236	236	236	
5°	1080	681	214	124	99	161
15°	5739	2119	136	70	69	1679
25°	9142	2593	89	110	133	4192
35°	9001	1514	58	85	91	5587
45°	5910	315	16	17	17	4486
55°	420	30	5	3	0	821
65°	14	3	5	3	0	21
75°	0	3	5	3	0	0
85°	0	3	6	5	0	0
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°	236.5	236.5	236.5	236.5	236.5	236.5	236.5	236.5	236.5	236.5	236.5
2.5°	563.8	562.2	543.4	549.7	545.0	534.0	540.3	530.9	519.9	424.4	322.6
5°	1080.5	1105.6	1111.8	1086.8	1072.7	1049.2	1046.1	1030.4	952.1	681.2	405.6
7.5°	1883.9	1871.4	1852.6	1835.3	1830.6	1763.3	1727.3	1716.3	1570.7	1044.5	485.5
10°	2909.6	2895.5	2854.8	2823.5	2754.6	2693.5	2657.5	2640.3	2334.9	1393.7	535.6
12.5°	4206.2	4151.4	4162.4	4110.7	4149.9	3766.2	3753.7	3738.0	3290.1	1772.7	559.1
15°	5739.3	5664.2	5629.7	5628.1	5459.0	5255.4	5061.3	4986.1	4381.6	2118.8	551.2
17.5°	7136.2	7040.7	6993.7	7054.8	7039.1	6597.5	6332.8	6218.5	5391.7	2391.3	507.4
20°	8094.6	8072.7	8019.4	7952.1	7844.0	7595.0	7400.8	7263.0	6373.6	2574.5	435.3
22.5°	8757.0	8706.9	8680.3	8614.5	8528.4	8271.5	7811.1	7948.9	7034.4	2558.8	349.2
25°	9142.2	9115.6	9079.6	9034.2	9214.3	8717.8	8489.2	8379.6	7444.7	2593.3	270.9
26°	9215.8	9192.3	9162.6	9140.7	9063.9	8827.5	8606.7	8667.7	7555.9	2543.2	244.3
27°	9253.4	9233.0	9212.7	9209.6	9143.8	8910.5	8695.9	8603.5	7635.7	2469.6	223.9
28°	9818.7	9250.3	9228.3	9244.0	9187.6	8960.6	8742.9	8658.3	7673.3	2388.1	202.0
29°	9264.4	9245.6	9229.9	9248.7	9200.2	8979.4	8761.7	8678.7	7674.9	2291.0	186.4
30°	9236.2	9228.3	9214.3	9234.6	9186.1	8968.4	8752.3	8669.3	7634.2	2179.9	169.1
31°	9198.6	9192.3	9176.7	9198.6	9148.5	9129.7	8716.3	8622.3	7554.3	2059.3	155.0
32°	9172.0	9165.7	9131.3	9150.0	9089.0	8869.7	8656.8	8550.3	7440.0	1930.9	144.1
33°	9143.8	8979.4	9095.2	9101.5	9012.2	8793.0	8580.0	8448.5	7281.8	1796.2	126.8
34°	9089.0	9081.1	9032.6	9020.1	8923.0	8710.0	8482.9	8320.1	7093.9	1658.4	112.8
35°	9001.3	8990.3	8929.2	8908.9	8816.5	8606.7	8346.7	8143.1	6835.5	1514.3	100.2
36°	8893.2	8877.6	8813.4	8799.3	8713.1	8468.8	8152.5	7928.6	6556.8	1371.8	89.3
37°	8778.9	8764.8	8706.9	8694.3	8572.2	8284.1	7944.2	7668.6	6279.6	1248.1	78.3
38°	8658.3	8648.9	8575.3	8539.3	8368.6	8046.0	7651.4	7368.0	5917.9	1099.3	70.5
39°	8484.5	8473.5	8374.9	8497.0	8091.4	7759.5	7306.9	6992.1	5546.7	961.5	64.2
40°	8166.6	8219.9	8096.1	7978.7	7778.2	7394.6	6931.0	6559.9	5153.7	787.7	57.9
42.5°	7231.7	7258.3	7084.5	6960.8	6628.8	6209.1	5806.7	5388.6	4137.3	526.2	43.8
45°	5910.0	5891.2	5755.0	5540.5	5310.3	5127.0	4604.0	4226.6	3178.9	314.8	32.9
47.5°	4582.1	4597.7	4411.4	4315.9	4048.1	3769.3	3346.5	3133.5	2302.0	137.8	23.5
50°	3272.9	3224.4	3132.0	2978.5	2773.4	2535.3	2248.8	2056.1	1357.7	75.2	17.2
51°	2624.6	2562.0	2485.2	2502.4	2153.2	1946.5	1692.8	1531.5	939.6	62.6	14.1
52°	1813.4	1902.7	1836.9	1782.1	1539.4	1367.1	1185.5	1028.9	571.6	51.7	12.5
53°	1345.2	1266.9	1263.7	1185.5	985.0	850.3	717.2	593.5	332.0	42.3	11.0
54°	790.8	714.1	734.4	659.3	546.5	469.8	402.5	355.5	225.5	36.0	9.4
55°	419.7	424.4	421.2	389.9	360.2	306.9	270.9	242.7	158.2	29.8	7.8
57.5°	170.7	169.1	162.9	153.5	139.4	126.8	111.2	101.8	72.0	18.8	4.7
60°	72.0	67.3	65.8	64.2	61.1	54.8	50.1	48.5	37.6	11.0	4.7
61°	48.5	50.1	48.5	47.0	45.4	40.7	39.1	36.0	29.8	9.4	4.7
62°	37.6	37.6	37.6	36.0	34.5	31.3	28.2	28.2	21.9	6.3	4.7
63°	28.2	28.2	28.2	26.6	25.1	23.5	21.9	21.9	17.2	6.3	3.1
64°	20.4	20.4	18.8	18.8	18.8	17.2	15.7	15.7	12.5	4.7	4.7
65°	14.1	14.1	14.1	14.1	14.1	12.5	12.5	11.0	9.4	3.1	4.7
66°	11.0	11.0	11.0	11.0	9.4	9.4	7.8	7.8	6.3	3.1	4.7



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CANDELA DISTRIBUTION (continued):

	0°	2.5°	5°	7.5°	10°	12.5°	15°	17.5°	22.5°	45°	67.5°
72.5°	0.0	0.0	0.0	0.0	0.0	1.6	1.6	1.6	1.6	3.1	4.7
75°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.6	1.6	3.1	4.7
77.5°	0.0	0.0	0.0	0.0	0.0	0.0	1.6	1.6	1.6	3.1	4.7
80°	0.0	0.0	0.0	0.0	0.0	0.0	1.6	1.6	1.6	3.1	4.7
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.6	1.6	3.1	4.7
85°	0.0	0.0	0.0	0.0	0.0	0.0	1.6	1.6	1.6	3.1	4.7
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.6	1.6	3.1	4.7
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°	236.5	236.5	236.5	236.5	236.5
2.5°	228.6	191.1	166.0	155.0	142.5
5°	214.5	156.6	123.7	108.1	98.7
7.5°	197.3	126.8	92.4	84.6	78.3
10°	178.5	104.9	79.9	75.2	68.9
12.5°	156.6	90.8	73.6	70.5	65.8
15°	136.2	83.0	70.5	70.5	68.9
17.5°	117.4	79.9	73.6	76.7	75.2
20°	103.4	79.9	79.9	86.1	87.7
22.5°	95.5	84.6	92.4	104.9	106.5
25°	89.3	94.0	109.6	130.0	133.1
26°	92.4	97.1	117.4	140.9	144.1
27°	92.4	101.8	126.8	148.8	150.3
28°	89.3	106.5	131.5	151.9	151.9
29°	90.8	106.5	133.1	150.3	150.3
30°	87.7	103.4	130.0	145.6	142.5
31°	83.0	98.7	123.7	137.8	139.4
32°	78.3	92.4	115.9	128.4	130.0
33°	72.0	84.6	106.5	117.4	117.4
34°	65.8	76.7	95.5	106.5	104.9
35°	57.9	67.3	84.6	94.0	90.8
36°	51.7	59.5	73.6	81.4	83.0
37°	45.4	51.7	64.2	70.5	72.0
38°	39.1	43.8	54.8	61.1	62.6
39°	34.5	39.1	47.0	51.7	53.2
40°	29.8	32.9	39.1	43.8	45.4
42.5°	21.9	21.9	26.6	28.2	28.2
45°	15.7	14.1	17.2	17.2	17.2
47.5°	11.0	9.4	11.0	11.0	9.4
50°	7.8	6.3	6.3	4.7	4.7
51°	6.3	6.3	4.7	3.1	3.1
52°	6.3	6.3	4.7	3.1	1.6
53°	6.3	4.7	3.1	1.6	1.6
54°	4.7	4.7	3.1	1.6	0.0
55°	4.7	4.7	3.1	1.6	0.0
57.5°	4.7	4.7	3.1	1.6	0.0
60°	4.7	4.7	3.1	0.0	0.0
61°	4.7	4.7	3.1	0.0	0.0
62°	4.7	4.7	3.1	0.0	0.0
63°	4.7	4.7	3.1	0.0	0.0
64°	4.7	4.7	3.1	0.0	0.0
65°	4.7	4.7	3.1	0.0	0.0
66°	4.7	4.7	3.1	0.0	0.0



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CANDELA DISTRIBUTION (continued):

	90°	112.5°	135°	157.5°	180°
72.5°	4.7	4.7	3.1	1.6	0.0
75°	4.7	7.8	3.1	1.6	0.0
77.5°	6.3	6.3	3.1	1.6	0.0
80°	6.3	6.3	4.7	1.6	0.0
82.5°	6.3	6.3	4.7	1.6	0.0
85°	6.3	6.3	4.7	1.6	0.0
87.5°	6.3	6.3	4.7	1.6	0.0
90°	0.0	0.0	0.0	0.0	0.0



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— 0°-180° - - 45°-225° - - - 90°-270°







67.5°	6.3	6.3	6.3	6.3	6.3	4.7	4.7	4.7	4.7	3.1	4.7
70°	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	3.1	4.7





67.5°	4.7	4.7	3.1	1.6	0.0
70°	4.7	4.7	3.1	1.6	0.0



(END OF REPORT)