

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: P1191719

Luminaire Tested: **LDA4A25930D010TE LAR35FL 4LA1 30° Tilt**

Issue Date: 3/3/2020

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

**Test Information**

Test Method: LM-41-14
Report Number: P1191719
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P26217)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: io LED
Catalog Number: LDA4A25930D010TE LAR35FL 4LA1 30° Tilt
Description: PORTFOLIO 4" Adjustable Reflector, Self-flanged Trim Ring, 35° Flood Optic, at 30° tilt
Light Source: (1) HIGH LUMEN LED 90CRI / 3000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

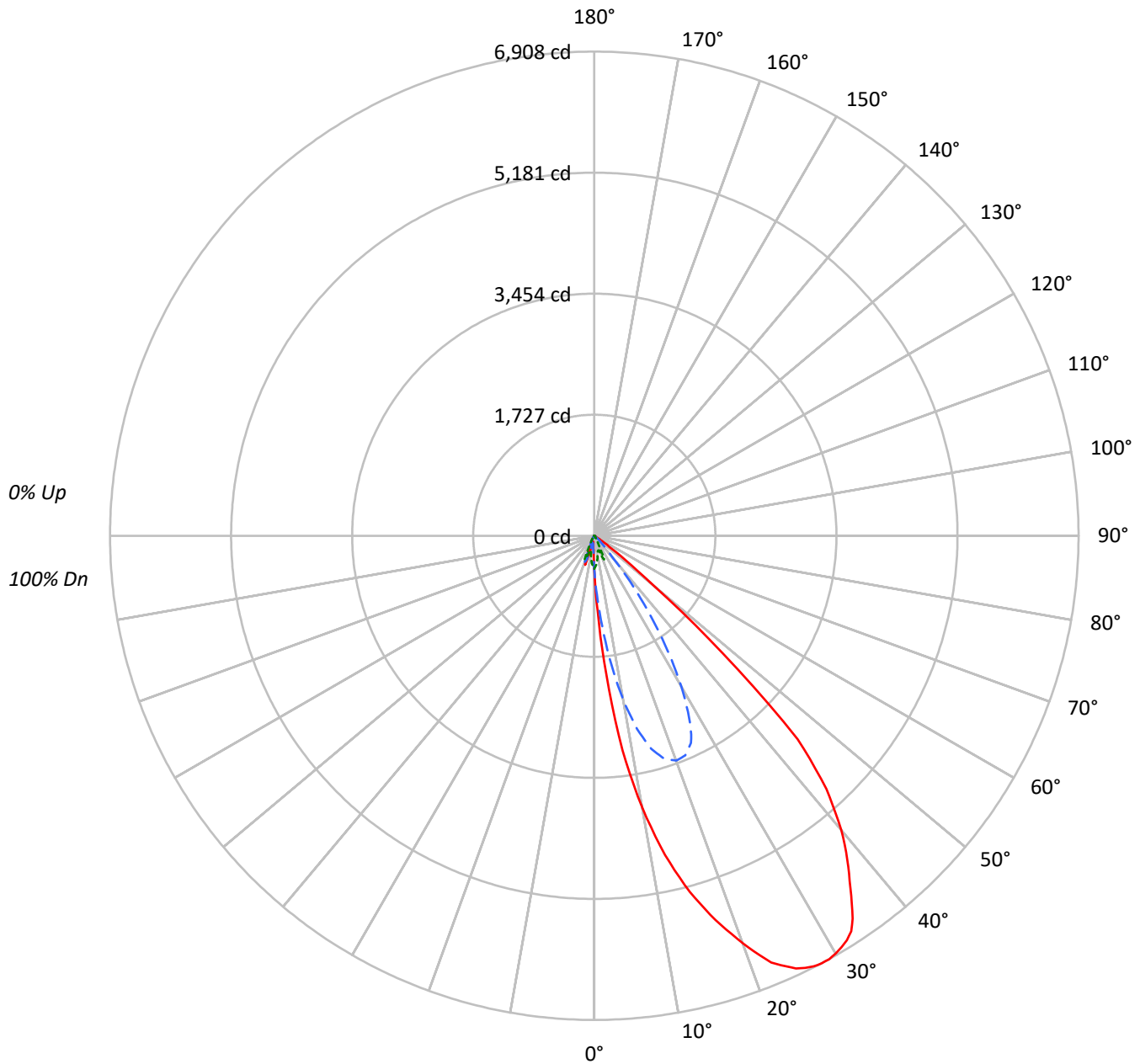
Lumens per Lamp: N/A
Luminaire Lumens: 2555.3 lumens
Efficiency: N/A
Efficacy: 82.7 lumens/watt
Spacing Criteria (0/90/45): 2.3 / 0.86 / 1.17
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

Input Watts (W): 30.9
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
RCR																				
0	119	119	119	119	116	116	116	116		111	111	111			106	106	106			102
1	113	110	107	104	110	107	105	103		103	101	99			100	98	96			96
2	106	101	96	92	104	99	95	91		96	92	89			92	90	87			90
3	100	92	87	82	98	91	86	81		88	84	80			86	82	79			83
4	93	85	78	74	92	84	78	73		81	76	72			79	75	71			77
5	88	78	71	66	86	77	71	66		75	70	65			73	68	65			72
6	82	72	65	60	81	71	64	60		69	64	59			68	63	59			66
7	77	66	59	54	76	66	59	54		64	58	54			63	58	54			62
8	72	61	54	50	71	61	54	49		59	54	49			58	53	49			57
9	68	57	50	45	67	56	50	45		55	49	45			54	49	45			53
10	64	53	46	42	63	52	46	42		51	46	41			51	45	41			50

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	58515	58515	58515
5°	245813	48957	18077
10°	493817	33679	10972
15°	671711	27340	24697
20°	811801	41518	45823
25°	927146	24661	12752
30°	980313	11608	5896
35°	964251	5135	2198
40°	882434	2544	596
45°	715768	1273	0
50°	212194	710	0
55°	38450	796	0
60°	7203	913	0
65°	1780	1080	0
70°	433	1334	0
75°	0	1763	0
80°	0	3481	0
85°	0	6935	0

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	86.2	3.4
10°-20°	446.3	17.5
20°-30°	781.6	30.6
30°-40°	784.9	30.7
40°-50°	413.5	16.2
50°-60°	34.5	1.3
60°-70°	3.5	0.1
70°-80°	2.5	0.1
80°-90°	2.3	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°	1314.1	51.4
0°-40°	2099.0	82.1
0°-60°	2547.0	99.7
0°-90°	2555.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2555.3	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	474	474	474	474	474	
5°	1985	1298	395	181	146	254
15°	5260	3148	214	144	193	1502
25°	6812	3260	181	103	94	3117
35°	6404	1416	34	18	15	3960
45°	4103	146	7	2	0	2812
55°	179	16	4	1	0	269
65°	6	2	4	2	0	9
75°	0	2	4	2	0	0
85°	0	2	5	2	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°	474.4	474.4	474.4	474.4	474.4	474.4	474.4	474.4	474.4	474.4	474.4
2.5°	1076.6	1077.8	1079.1	1087.6	1068.1	1063.2	1054.7	1042.5	1002.4	837.0	631.4
5°	1985.3	1999.9	1996.3	1984.1	1953.7	1936.6	1911.1	1884.4	1774.9	1298.0	783.4
7.5°	3085.0	3113.0	3106.9	3088.7	3037.6	3014.5	2950.1	2914.7	2749.3	1843.0	896.5
10°	3942.7	4016.8	4018.1	4001.0	3924.4	3891.5	3824.7	3761.4	3552.1	2377.0	948.9
12.5°	4667.7	4668.9	4726.1	4712.7	4623.9	4609.3	4553.4	4458.4	4238.2	2822.3	948.9
15°	5260.2	5340.4	5327.0	5312.4	5218.8	5199.3	5145.7	5058.2	4801.5	3148.3	902.6
17.5°	5749.1	5821.0	5800.3	5784.4	5690.8	5648.2	5589.8	5485.2	5203.0	3341.7	806.5
20°	6184.6	6252.8	6211.4	6183.5	6058.2	6005.8	5920.7	5800.3	5477.9	3413.4	694.6
22.5°	6591.0	6662.7	6610.5	6571.5	6409.8	6308.7	6188.3	6036.3	5656.7	3390.4	635.1
25°	6812.4	6906.0	6856.2	6825.8	6671.2	6553.2	6393.9	6198.0	5758.9	3260.2	478.1
26°	6861.1	6959.6	6912.1	6885.3	6728.5	6603.1	6432.8	6227.2	5767.4	3153.2	368.6
27°	6895.1	7004.5	6949.8	6915.8	6754.0	6620.2	6442.5	6228.4	5754.0	3008.4	293.1
28°	6908.5	7028.9	6962.0	6920.6	6752.8	6606.8	6418.2	6201.7	5718.8	2841.7	249.4
29°	6907.2	7038.6	6960.8	6915.8	6737.0	6575.1	6381.8	6164.0	5670.1	2667.8	225.0
30°	6882.9	7026.5	6948.6	6891.4	6699.2	6525.3	6329.4	6111.7	5615.3	2478.0	200.7
31°	6850.1	6997.2	6915.8	6845.2	6637.2	6448.6	6256.4	6041.1	5542.3	2274.8	183.6
32°	6802.6	6949.8	6859.8	6767.3	6549.6	6352.5	6167.7	5958.3	5453.6	2060.7	163.1
33°	6727.2	6857.4	6752.8	6645.8	6427.9	6243.1	6067.8	5862.3	5352.6	1838.1	141.1
34°	6589.8	6704.1	6595.8	6487.6	6293.0	6121.4	5953.6	5749.1	5234.6	1632.5	121.7
35°	6403.7	6501.0	6403.7	6312.4	6140.9	5981.5	5821.0	5621.4	5092.3	1416.0	104.6
36°	6213.8	6299.1	6209.0	6137.2	5973.0	5830.7	5681.0	5474.3	4931.6	1210.5	92.4
37°	6036.3	6112.9	6030.2	5958.3	5817.3	5672.5	5524.1	5312.4	4754.1	1013.3	76.6
38°	5859.8	5928.0	5857.4	5777.1	5647.0	5499.7	5350.2	5133.7	4555.8	827.2	65.6
39°	5676.2	5732.1	5664.0	5582.5	5449.9	5303.9	5150.6	4926.8	4328.3	633.7	57.1
40°	5480.4	5532.6	5448.7	5375.6	5243.1	5093.5	4936.5	4704.2	4081.4	424.5	48.7
42.5°	4901.3	4932.9	4862.3	4761.4	4628.8	4464.5	4274.8	4014.4	3291.9	223.8	34.1
45°	4103.3	4109.3	4054.6	3870.8	3693.3	3439.0	3155.6	2765.1	1913.5	146.0	21.9
47.5°	2476.8	2462.2	2375.8	2218.9	2053.4	1784.6	1519.4	1250.5	743.3	85.1	14.6
50°	1105.8	1088.8	1046.2	964.7	868.5	768.8	650.8	551.0	361.3	46.3	9.7
51°	801.7	787.1	755.4	693.4	622.9	552.3	470.8	402.7	270.1	37.7	8.5
52°	563.2	554.7	532.8	489.1	450.1	395.4	339.4	296.8	203.1	30.4	6.1
53°	393.0	386.9	373.5	344.3	321.1	281.1	245.7	211.7	147.2	24.4	6.1
54°	266.4	262.8	254.3	234.8	215.3	193.4	167.9	148.4	103.4	19.5	4.9
55°	178.8	176.3	169.1	159.4	148.4	135.0	118.0	103.4	73.0	15.8	3.7
57.5°	65.6	65.6	63.2	59.7	56.0	52.4	47.5	42.6	34.1	9.7	3.7
60°	29.2	28.0	28.0	26.8	25.6	24.4	23.1	20.7	17.0	6.1	3.7
61°	21.9	21.9	20.7	19.5	19.5	18.3	17.0	15.8	13.4	4.9	3.7
62°	15.8	15.8	15.8	14.6	14.6	13.4	13.4	12.2	9.7	3.7	3.7
63°	12.2	12.2	12.2	11.0	11.0	11.0	9.7	9.7	7.3	3.7	3.7
64°	8.5	8.5	8.5	8.5	8.5	8.5	7.3	7.3	6.1	2.4	3.7
65°	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1	4.9	2.4	3.7
66°	4.9	4.9	4.9	4.9	4.9	4.9	3.7	3.7	3.7	2.4	3.7



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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°	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	2.4	3.7
75°	0.0	0.0	0.0	0.0	0.0	0.0	1.2	1.2	1.2	2.4	3.7
77.5°	0.0	0.0	0.0	0.0	0.0	1.2	1.2	1.2	1.2	2.4	3.7
80°	0.0	0.0	0.0	0.0	0.0	1.2	1.2	1.2	1.2	2.4	3.7
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	1.2	1.2	1.2	2.4	3.7
85°	0.0	0.0	0.0	0.0	0.0	0.0	1.2	1.2	1.2	2.4	3.7
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	1.2	1.2	1.2	2.4	3.7
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°	474.4	474.4	474.4	474.4	474.4
2.5°	436.7	305.3	243.3	220.2	212.9
5°	395.4	228.7	181.2	155.7	146.0
7.5°	332.1	188.5	136.3	113.1	105.8
10°	268.9	155.7	110.7	92.4	87.6
12.5°	229.9	135.0	103.4	96.1	96.1
15°	214.1	142.4	143.6	172.8	193.4
17.5°	220.2	222.6	347.9	423.3	436.7
20°	316.3	400.3	396.6	360.1	349.1
22.5°	366.2	264.0	199.5	164.3	158.2
25°	181.2	120.4	103.4	94.9	93.7
26°	137.5	101.0	90.0	85.1	82.7
27°	114.3	88.8	80.3	74.2	71.7
28°	102.2	79.0	69.3	63.2	60.8
29°	92.4	68.1	58.3	52.4	51.1
30°	81.5	57.1	48.7	42.6	41.4
31°	69.3	47.5	39.0	35.3	32.9
32°	58.3	39.0	31.7	28.0	25.6
33°	48.7	31.7	26.8	23.1	20.7
34°	41.4	26.8	21.9	18.3	17.0
35°	34.1	21.9	18.3	15.8	14.6
36°	29.2	19.5	14.6	12.2	11.0
37°	25.6	15.8	12.2	9.7	9.7
38°	21.9	13.4	11.0	7.3	7.3
39°	18.3	11.0	8.5	6.1	6.1
40°	15.8	9.7	7.3	4.9	3.7
42.5°	11.0	6.1	4.9	2.4	1.2
45°	7.3	4.9	2.4	1.2	0.0
47.5°	4.9	3.7	2.4	1.2	0.0
50°	3.7	3.7	2.4	0.0	0.0
51°	3.7	2.4	2.4	0.0	0.0
52°	3.7	2.4	1.2	0.0	0.0
53°	3.7	2.4	1.2	0.0	0.0
54°	3.7	2.4	1.2	0.0	0.0
55°	3.7	2.4	1.2	0.0	0.0
57.5°	3.7	2.4	1.2	0.0	0.0
60°	3.7	2.4	2.4	0.0	0.0
61°	3.7	3.7	2.4	0.0	0.0
62°	3.7	3.7	2.4	0.0	0.0
63°	3.7	3.7	2.4	0.0	0.0
64°	3.7	3.7	2.4	1.2	0.0
65°	3.7	3.7	2.4	1.2	0.0
66°	3.7	3.7	2.4	1.2	0.0

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CANDELA DISTRIBUTION (continued):

	90°	112.5°	135°	157.5°	180°
72.5°	3.7	3.7	2.4	1.2	0.0
75°	3.7	3.7	2.4	1.2	0.0
77.5°	4.9	3.7	2.4	1.2	0.0
80°	4.9	3.7	2.4	1.2	0.0
82.5°	4.9	3.7	2.4	1.2	0.0
85°	4.9	3.7	2.4	1.2	0.0
87.5°	4.9	3.7	2.4	1.2	0.0
90°	0.0	0.0	0.0	0.0	0.0

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1121 Highway 74 South

Peachtree City, GA 30269

Scaled Data Report



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Scaled Data Report

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1121 Highway 74 South

Peachtree City, GA 30269



— 0°-180° - - 45°-225° - - - 90°-270°

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Cooper Lighting Solutions Photometric Lab

1121 Highway 74 South

Peachtree City, GA 30269

Scaled Data Report



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Peachtree City, GA 30269

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67.5°	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	3.7
70°	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	2.4	3.7

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1121 Highway 74 South

Peachtree City, GA 30269

Scaled Data Report



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Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

Scaled Data Report



67.5°	3.7	3.7	2.4	1.2	0.0
70°	3.7	3.7	2.4	1.2	0.0

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1121 Highway 74 South
Peachtree City, GA 30269

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(END OF REPORT)