

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: P1191757

Luminaire Tested: **LDA4A25940D010TE LAR35FL 4LAL1 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: P1191757
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P26106)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: io LED
Catalog Number: LDA4A25940D010TE LAR35FL 4LAL1 30° Tilt
Description: PORTFOLIO 4" Lensed Adjustable, Self-flanged, 35° Flood Optic, at 30° tilt. --- 27.9W
Light Source: (1) HIGH LUMEN LED 90CRI / 4000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

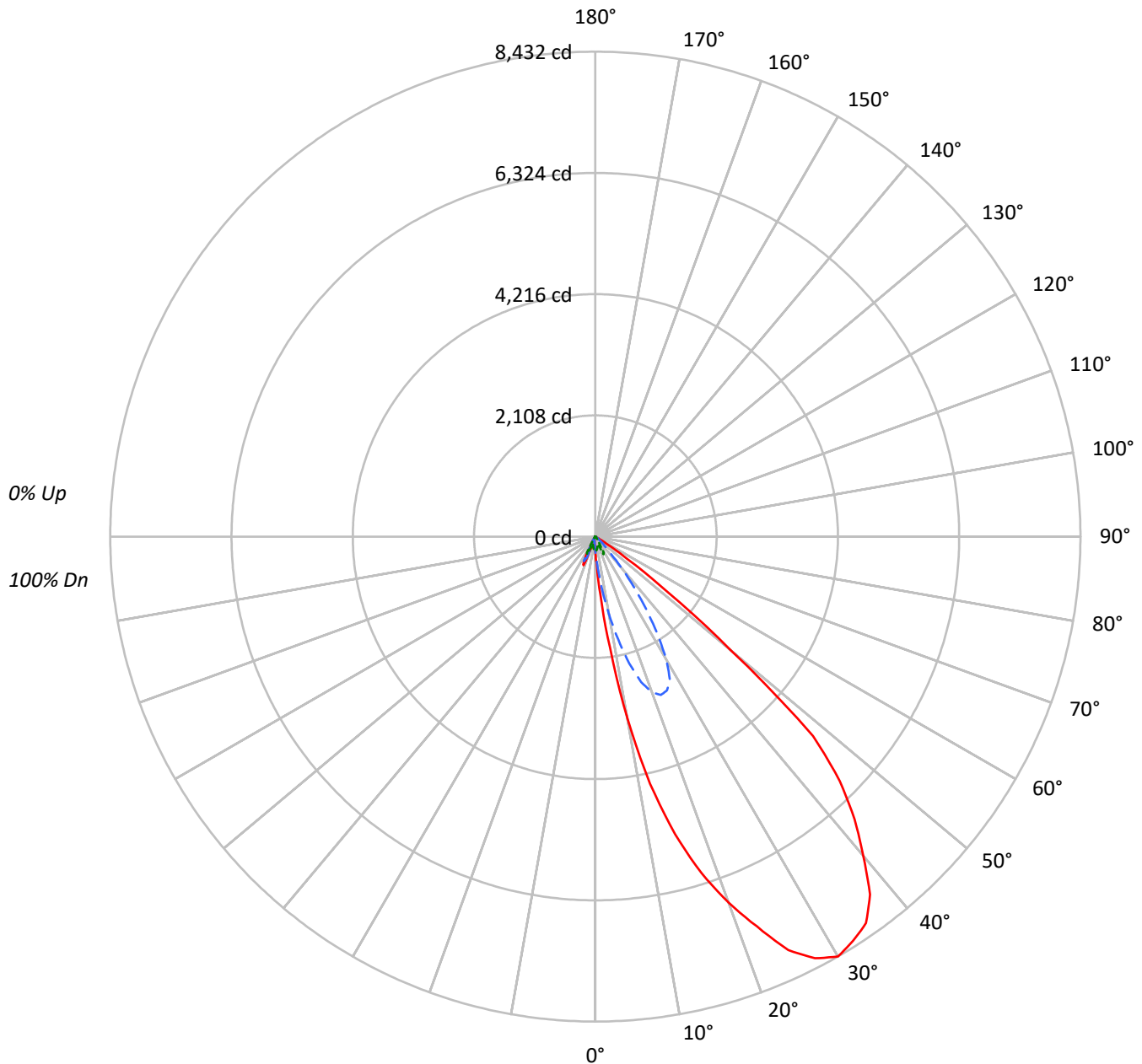
Lumens per Lamp: N/A
Luminaire Lumens: 3064.8 lumens
Efficiency: N/A
Efficacy: 99.2 lumens/watt
Spacing Criteria (0/90/45): 2.71 / 1.11 / 1.33
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

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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CATALOG NUMBER: LDA4A25940D010TE LAR35FL 4LAL1 30° Tilt

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	50	30	10
RCR																				
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100		
1	112	109	106	103	110	107	104	102	103	101	99	99	97	96	95	94	93	91		
2	105	99	94	90	103	97	93	89	94	90	87	91	88	85	88	86	83	82		
3	98	90	84	79	96	89	83	79	86	81	77	84	79	76	81	78	75	73		
4	91	82	75	70	89	81	75	70	79	73	69	77	72	68	75	70	67	65		
5	85	75	68	62	83	74	67	62	72	66	61	70	65	61	68	64	60	58		
6	79	68	61	56	78	67	60	55	66	60	55	64	59	55	63	58	54	52		
7	74	62	55	50	72	62	55	50	60	54	49	59	53	49	58	53	49	47		
8	69	57	50	45	68	57	50	45	55	49	44	54	48	44	53	48	44	42		
9	64	53	45	40	63	52	45	40	51	45	40	50	44	40	49	44	40	38		
10	60	48	41	37	59	48	41	37	47	41	36	46	40	36	45	40	36	35		

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	31083	31083	31083
5°	125166	29345	13744
10°	403525	24611	7891
15°	684531	19525	6129
20°	889692	17523	18508
25°	1079656	46137	65531
30°	1201004	16237	17305
35°	1235396	9697	8131
40°	1166482	4106	2898
45°	1048367	2355	785
50°	590029	1439	0
55°	146447	968	0
60°	22572	1110	0
65°	5253	1313	0
70°	1082	1623	0
75°	0	2145	0
80°	0	4262	0
85°	0	8491	2123

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Scaled Data Report

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	50.6	1.7
10°-20°	376.1	12.3
20°-30°	868.8	28.3
30°-40°	974.6	31.8
40°-50°	680.0	22.2
50°-60°	101.5	3.3
60°-70°	6.6	0.2
70°-80°	3.3	0.1
80°-90°	3.2	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°	1295.6	42.3
0°-40°	2270.1	74.1
0°-60°	3051.6	99.6
0°-90°	3064.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3064.8	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	252	252	252	252	252	
5°	1011	591	237	138	111	167
15°	5361	2281	153	58	48	1532
25°	7933	2949	339	472	482	3627
35°	8204	1533	64	54	54	5047
45°	6010	231	14	8	4	4409
55°	681	30	4	3	0	895
65°	18	4	4	3	0	28
75°	0	3	4	4	0	1
85°	0	3	6	4	2	0
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°	10°
0°	252.0	252.0	252.0	252.0	252.0	252.0	252.0	252.0	252.0	252.0	252.0
2.5°	458.9	454.5	442.5	439.4	450.0	441.0	445.4	454.5	445.4	435.0	445.4
5°	1010.9	1036.4	1010.9	1006.5	1024.4	1007.9	1015.4	1031.9	1009.4	988.4	1003.4
7.5°	1951.3	1967.9	1895.9	1921.4	1915.4	1919.9	1924.3	1924.3	1910.8	1873.4	1894.4
10°	3221.8	3233.7	3137.8	3170.8	3127.3	3170.8	3163.3	3130.3	3137.8	3086.8	3113.8
12.5°	4400.6	4439.7	4343.7	4375.2	4322.7	4372.2	4352.7	4343.7	4267.2	4267.2	4295.7
15°	5360.6	5449.1	5362.1	5395.1	5335.2	5404.2	5350.2	5374.1	5305.1	5219.7	5294.7
17.5°	6137.5	6224.6	6143.6	6184.1	6128.6	6182.6	6119.6	6170.6	6082.1	6020.6	6071.5
20°	6778.0	6842.6	6746.6	6803.5	6737.5	6791.5	6722.5	6790.0	6686.6	6641.5	6671.6
22.5°	7336.0	7361.5	7311.9	7408.0	7279.0	7336.0	7253.5	7322.5	7199.5	7142.5	7150.0
25°	7933.0	7990.0	7895.4	7931.4	7841.4	7880.5	7787.4	7852.0	7698.9	7617.9	7601.5
27.5°	8264.4	8345.4	8261.5	8302.0	8210.4	8243.4	8150.4	8243.4	8087.4	8008.0	7990.0
30°	8432.4	8471.5	8417.5	8444.5	8340.9	8357.4	8261.5	8361.9	8206.0	8135.4	8126.4
32.5°	8335.0	8412.9	8342.5	8376.9	8281.0	8297.4	8204.4	8312.4	8156.4	8091.9	8060.4
35°	8204.4	8283.9	8217.9	8254.0	8165.5	8177.4	8078.4	8173.0	7992.9	7913.5	7846.0
37.5°	7842.9	7917.9	7862.4	7874.5	7788.9	7779.9	7673.4	7752.9	7577.4	7509.9	7465.0
40°	7244.5	7311.9	7267.0	7292.5	7207.0	7187.5	7115.5	7189.0	7052.5	7003.0	6940.0
42.5°	6671.6	6727.1	6685.1	6725.5	6629.5	6604.1	6539.5	6632.6	6478.0	6437.5	6392.6
45°	6010.0	6044.6	6011.6	6046.1	5954.5	5914.0	5855.6	5935.0	5783.6	5746.1	5648.7
47.5°	5135.6	5098.2	5092.2	5125.2	5011.1	4927.2	4873.2	4975.2	4756.2	4682.7	4570.1
50°	3074.8	3137.8	3164.8	3142.3	3064.2	2948.7	2861.8	2986.3	2869.3	2689.3	2509.3
52.5°	1583.9	1513.4	1528.4	1535.9	1442.9	1408.4	1379.9	1408.4	1316.9	1270.4	1156.5
55°	681.0	648.0	660.0	664.4	646.5	604.5	589.4	607.4	565.5	547.4	500.9
57.5°	252.0	252.0	244.5	247.5	241.4	226.5	223.5	231.0	217.5	213.0	195.0
60°	91.5	91.5	91.5	91.5	84.0	82.5	82.5	85.5	81.0	79.5	73.5
62.5°	39.0	40.5	37.4	39.0	37.4	36.0	37.4	36.0	36.0	34.5	34.5
65°	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	16.5	16.5
67.5°	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	7.5	7.5	7.5
70°	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
72.5°	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
75°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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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CATALOG NUMBER: LDA4A25940D010TE LAR35FL 4LAL1 30° Tilt

CANDELA DISTRIBUTION (continued):

	11°	12°	13°	14°	15°	17.5°	20°	22.5°	45°	67.5°	90°
0°	252.0	252.0	252.0	252.0	252.0	252.0	252.0	252.0	252.0	252.0	252.0
2.5°	431.9	430.5	436.5	430.5	420.0	414.0	421.5	406.5	348.0	289.4	246.0
5°	976.4	968.9	958.5	961.4	935.9	914.9	914.9	874.4	591.0	335.9	237.0
7.5°	1850.8	1832.9	1756.4	1811.9	1757.9	1715.9	1687.3	1604.8	955.4	385.5	219.0
10°	3056.8	3025.3	2971.3	2981.8	2893.3	2822.8	2737.4	2599.3	1374.0	429.0	196.5
12.5°	4246.2	4214.7	4070.7	4153.2	4034.7	3965.8	3821.8	3659.8	1825.4	450.0	175.5
15°	5255.6	5228.6	5071.2	5149.1	5003.7	4939.1	4753.2	4573.2	2281.4	442.5	152.9
17.5°	6040.1	6035.6	5854.1	5932.1	5771.5	5719.1	5501.6	5324.6	2650.3	409.5	138.0
20°	6644.6	6634.0	6451.0	6529.1	6353.6	6302.5	6026.6	5840.6	2884.3	364.4	133.5
22.5°	7121.4	7100.5	6904.1	6971.6	6775.1	6709.0	6404.5	6211.1	2980.3	335.9	165.0
25°	7550.4	7513.0	7289.5	7342.0	7126.0	7139.5	6682.0	6469.1	2948.7	377.9	339.0
27.5°	7928.5	7861.0	7636.0	7650.9	7397.5	7265.5	6872.5	6637.0	2804.8	421.5	315.0
30°	8069.5	8003.5	7765.0	7773.9	7509.9	7324.0	6904.1	6641.5	2459.8	264.0	114.0
32.5°	7991.4	7919.5	7670.5	7673.4	7402.0	7213.0	6794.6	6505.0	2000.8	173.9	87.0
35°	7765.0	7690.0	7442.5	7454.4	7192.0	7004.5	6595.0	6286.1	1532.9	138.0	64.4
37.5°	7382.5	7330.0	7094.5	7115.5	6892.0	6692.6	6277.1	5942.6	1081.5	98.9	40.5
40°	6890.6	6850.1	6622.0	6655.0	6412.0	6227.5	5782.1	5419.1	673.5	67.5	25.5
42.5°	6314.5	6271.1	6046.1	6071.5	5864.6	5600.6	5146.2	4735.1	352.5	48.0	18.0
45°	5596.1	5545.1	5317.1	5330.6	5086.1	4777.2	4306.2	3943.2	231.0	33.0	13.5
47.5°	4466.7	4375.2	4078.2	4066.2	3866.7	3361.3	2692.3	2179.4	152.9	22.5	9.0
50°	2455.3	2360.8	2099.9	2071.4	1849.3	1517.9	1122.0	872.9	88.5	15.0	7.5
52.5°	1117.4	1068.0	946.5	926.9	832.4	689.9	531.0	436.5	50.9	10.4	6.0
55°	484.5	466.4	415.5	412.4	369.0	319.5	254.9	216.0	30.0	7.5	4.5
57.5°	190.5	184.5	173.9	166.4	150.0	133.5	111.0	93.0	19.5	6.0	4.5
60°	72.0	70.5	64.4	66.0	60.0	57.0	49.5	42.0	12.0	4.5	4.5
62.5°	33.0	33.0	31.5	31.5	30.0	27.0	23.9	22.5	7.5	4.5	4.5
65°	16.5	16.5	15.0	15.0	15.0	13.5	12.0	12.0	4.5	4.5	4.5
67.5°	7.5	7.5	7.5	7.5	7.5	6.0	6.0	6.0	3.0	4.5	4.5
70°	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	4.5	4.5
72.5°	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	3.0	4.5	4.5
75°	0.0	0.0	0.0	1.5	1.5	1.5	1.5	1.5	3.0	4.5	4.5
77.5°	0.0	0.0	0.0	0.0	1.5	1.5	1.5	1.5	3.0	4.5	6.0
80°	0.0	0.0	0.0	0.0	1.5	1.5	1.5	1.5	3.0	4.5	6.0
82.5°	0.0	0.0	0.0	1.5	1.5	1.5	1.5	1.5	3.0	4.5	6.0
85°	0.0	0.0	0.0	1.5	1.5	1.5	1.5	1.5	3.0	4.5	6.0
87.5°	0.0	0.0	0.0	1.5	1.5	1.5	1.5	1.5	3.0	4.5	6.0
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):

	112.5°	135°	157.5°	180°
0°	252.0	252.0	252.0	252.0
2.5°	211.5	187.4	166.4	162.0
5°	173.9	138.0	115.5	111.0
7.5°	141.0	100.5	84.0	81.0
10°	115.5	81.0	66.0	63.0
12.5°	96.0	66.0	52.5	49.5
15°	82.5	58.5	48.0	48.0
17.5°	79.5	64.4	61.5	63.0
20°	103.5	117.0	139.4	141.0
22.5°	240.0	390.0	516.0	539.9
25°	431.9	472.4	460.5	481.5
27.5°	227.9	178.5	181.5	186.0
30°	98.9	109.5	115.5	121.5
32.5°	82.5	85.5	87.0	91.5
35°	54.0	54.0	52.5	54.0
37.5°	33.0	31.5	30.0	30.0
40°	21.0	19.5	18.0	18.0
42.5°	15.0	12.0	10.4	10.4
45°	10.4	7.5	6.0	4.5
47.5°	7.5	4.5	3.0	1.5
50°	6.0	4.5	1.5	0.0
52.5°	4.5	3.0	1.5	0.0
55°	4.5	3.0	0.0	0.0
57.5°	4.5	3.0	0.0	0.0
60°	4.5	3.0	0.0	0.0
62.5°	4.5	3.0	0.0	0.0
65°	4.5	3.0	1.5	0.0
67.5°	4.5	3.0	1.5	0.0
70°	4.5	3.0	1.5	0.0
72.5°	4.5	3.0	1.5	0.0
75°	4.5	4.5	1.5	0.0
77.5°	6.0	4.5	1.5	0.0
80°	6.0	4.5	1.5	0.0
82.5°	6.0	4.5	1.5	0.0
85°	6.0	4.5	1.5	1.5
87.5°	6.0	4.5	1.5	0.0
90°	0.0	0.0	0.0	0.0

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— 0°-180° - - 45°-225° - - - 90°-270°

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