

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: P1212812

Luminaire Tested: **LDA4A30950D010TE LAR35FL 4LAL1 30° Tilt**

Issue Date: 3/3/2020



Test Information

Test Method: LM-41-14
Report Number: P1212812
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: LDA4A30950D010TE 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 / 5000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

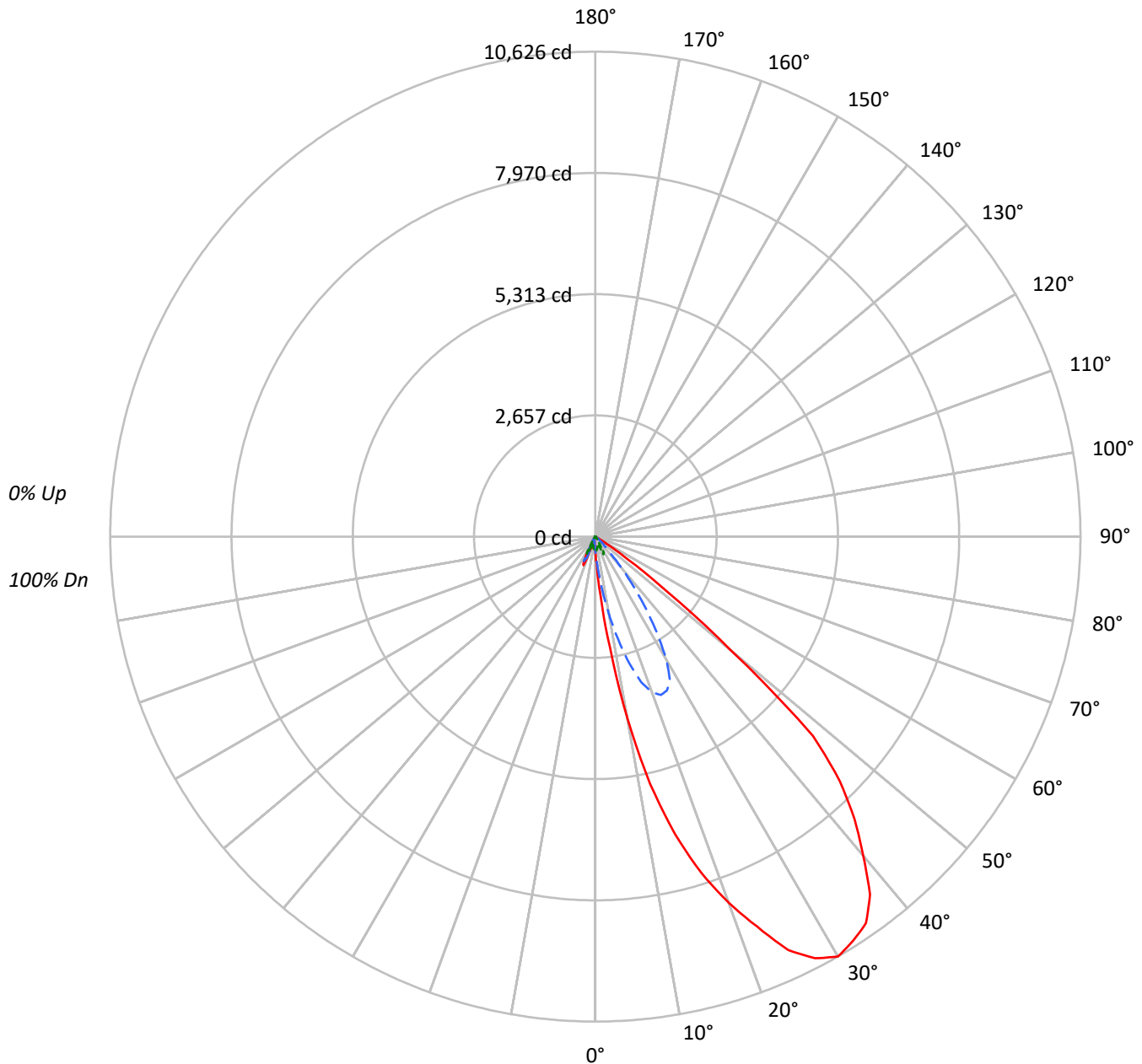
Lumens per Lamp: N/A
Luminaire Lumens: 3862.2 lumens
Efficiency: N/A
Efficacy: 98.0 lumens/watt
Spacing Criteria (0/90/45): 2.71 / 1.11 / 1.33
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

Input Watts (W): 39.4
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: P1212812

CATALOG NUMBER: LDA4A30950D010TE LAR35FL 4LAL1 30° Tilt

Luminous Intensity Polar Plot



Cooper Lighting Solutions Photometric Lab

1121 Highway 74 South

Peachtree City, GA 30269



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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°	39175	39175	39175
5°	157743	36972	17322
10°	508521	31012	9957
15°	862643	24607	7726
20°	1121185	22078	23312
25°	1360560	58127	82570
30°	1513489	20453	21806
35°	1556848	12227	10239
40°	1469982	5169	3655
45°	1321151	2983	977
50°	743542	1823	0
55°	184553	1204	0
60°	28444	1381	0
65°	6625	1634	0
70°	1370	2020	0
75°	0	2669	0
80°	0	5398	0
85°	0	10756	2689

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Scaled Data Report

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	63.8	1.7
10°-20°	474.0	12.3
20°-30°	1094.9	28.3
30°-40°	1228.1	31.8
40°-50°	856.9	22.2
50°-60°	127.9	3.3
60°-70°	8.3	0.2
70°-80°	4.2	0.1
80°-90°	4.1	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°	1632.7	42.3
0°-40°	2860.8	74.1
0°-60°	3845.6	99.6
0°-90°	3862.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3862.2	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	318	318	318	318	318	
5°	1274	745	299	174	140	211
15°	6755	2875	193	74	60	1930
25°	9997	3716	427	595	607	4570
35°	10339	1932	81	68	68	6360
45°	7574	291	17	10	6	5557
55°	858	38	6	4	0	1128
65°	23	6	6	4	0	35
75°	0	4	6	6	0	1
85°	0	4	8	6	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°	317.6	317.6	317.6	317.6	317.6	317.6	317.6	317.6	317.6	317.6	317.6
2.5°	578.3	572.7	557.6	553.8	567.1	555.7	561.3	572.7	561.3	548.2	561.3
5°	1274.0	1306.0	1274.0	1268.4	1291.0	1270.2	1279.6	1300.4	1272.0	1245.6	1264.5
7.5°	2459.1	2479.9	2389.2	2421.3	2413.7	2419.4	2425.0	2425.0	2408.0	2360.8	2387.3
10°	4060.1	4075.1	3954.3	3995.8	3941.0	3995.8	3986.3	3944.8	3954.3	3889.9	3923.9
12.5°	5545.7	5594.9	5473.9	5513.6	5447.4	5509.8	5485.3	5473.9	5377.5	5377.5	5413.4
15°	6755.4	6866.9	6757.3	6798.9	6723.3	6810.3	6742.2	6772.5	6685.4	6577.8	6672.3
17.5°	7734.5	7844.2	7742.2	7793.1	7723.2	7791.3	7711.8	7776.2	7664.6	7587.1	7651.3
20°	8541.6	8623.0	8502.0	8573.7	8490.6	8558.6	8471.6	8556.7	8426.4	8369.6	8407.5
22.5°	9244.8	9276.9	9214.5	9335.5	9172.9	9244.8	9140.8	9227.7	9072.8	9000.9	9010.4
25°	9997.0	10069.0	9949.7	9995.1	9881.7	9931.0	9813.6	9895.0	9702.2	9600.0	9579.3
27.5°	10414.8	10516.8	10411.0	10462.1	10346.8	10388.2	10271.1	10388.2	10191.7	10091.5	10069.0
30°	10626.4	10675.7	10607.6	10641.7	10511.2	10531.9	10411.0	10537.7	10341.1	10252.2	10240.8
32.5°	10503.7	10601.9	10513.2	10556.4	10435.6	10456.4	10339.2	10475.3	10278.6	10197.3	10157.7
35°	10339.2	10439.3	10356.2	10401.6	10290.1	10305.2	10180.4	10299.5	10072.6	9972.5	9887.5
37.5°	9883.6	9978.1	9908.2	9923.4	9815.5	9804.2	9670.0	9770.2	9549.1	9464.0	9407.3
40°	9129.4	9214.5	9157.8	9189.9	9082.2	9057.7	8966.9	9059.5	8887.5	8825.1	8745.7
42.5°	8407.5	8477.4	8424.4	8475.5	8354.5	8322.4	8241.1	8358.4	8163.6	8112.5	8055.8
45°	7573.8	7617.3	7575.8	7619.2	7503.8	7452.8	7379.2	7479.3	7288.5	7241.2	7118.4
47.5°	6471.9	6424.7	6417.1	6458.7	6315.0	6209.2	6141.1	6269.6	5993.7	5901.1	5759.2
50°	3874.8	3954.3	3988.3	3959.9	3861.5	3716.0	3606.4	3763.3	3615.9	3389.0	3162.2
52.5°	1996.1	1907.2	1926.1	1935.5	1818.2	1774.8	1739.0	1774.8	1659.5	1601.0	1457.4
55°	858.2	816.6	831.7	837.3	814.7	761.7	742.8	765.4	712.6	689.8	631.3
57.5°	317.6	317.6	308.0	311.9	304.3	285.5	281.6	291.1	274.0	268.4	245.6
60°	115.3	115.3	115.3	115.3	105.9	104.0	104.0	107.6	102.0	100.2	92.6
62.5°	49.1	51.1	47.2	49.1	47.2	45.4	47.2	45.4	45.4	43.5	43.5
65°	22.7	22.7	22.7	22.7	22.7	22.7	22.7	22.7	22.7	20.8	20.8
67.5°	11.3	11.3	11.3	11.3	11.3	11.3	11.3	11.3	9.5	9.5	9.5
70°	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8
72.5°	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
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

TEST NUMBER: P1212812

CATALOG NUMBER: LDA4A30950D010TE LAR35FL 4LAL1 30° Tilt

CANDELA DISTRIBUTION (continued):

	11°	12°	13°	14°	15°	17.5°	20°	22.5°	45°	67.5°	90°
0°	317.6	317.6	317.6	317.6	317.6	317.6	317.6	317.6	317.6	317.6	317.6
2.5°	544.3	542.6	550.1	542.6	529.3	521.7	531.1	512.2	438.6	364.7	310.0
5°	1230.5	1221.1	1207.9	1211.5	1179.5	1152.9	1152.9	1102.0	744.7	423.3	298.6
7.5°	2332.4	2309.7	2213.3	2283.3	2215.3	2162.4	2126.4	2022.4	1204.0	485.8	276.0
10°	3852.2	3812.4	3744.4	3757.7	3646.1	3557.3	3449.6	3275.7	1731.5	540.6	247.6
12.5°	5351.0	5311.4	5129.9	5233.9	5084.5	4997.6	4816.1	4612.0	2300.3	567.1	221.1
15°	6623.0	6589.0	6390.7	6488.9	6305.6	6224.3	5990.0	5763.1	2875.0	557.6	192.7
17.5°	7611.7	7606.0	7377.2	7475.6	7273.2	7207.1	6933.1	6710.0	3339.9	516.0	174.0
20°	8373.5	8360.1	8129.5	8227.9	8006.8	7942.4	7594.7	7360.2	3634.8	459.3	168.2
22.5°	8974.4	8948.1	8700.4	8785.5	8537.9	8454.7	8070.9	7827.1	3755.8	423.3	208.0
25°	9515.0	9467.8	9186.2	9252.4	8980.2	8997.1	8420.6	8152.2	3716.0	476.3	427.1
27.5°	9991.4	9906.4	9622.8	9641.6	9322.2	9155.8	8660.7	8364.0	3534.6	531.1	397.0
30°	10169.1	10085.9	9785.4	9796.6	9464.0	9229.7	8700.4	8369.6	3099.8	332.7	143.6
32.5°	10070.7	9980.0	9666.3	9670.0	9327.9	9089.8	8562.4	8197.6	2521.5	219.2	109.6
35°	9785.4	9690.8	9378.9	9394.0	9063.3	8827.1	8311.1	7921.7	1931.7	174.0	81.2
37.5°	9303.3	9237.2	8940.4	8966.9	8685.2	8433.9	7910.3	7488.7	1362.8	124.7	51.1
40°	8683.5	8632.4	8345.1	8386.6	8080.4	7847.9	7286.6	6829.1	848.7	85.1	32.1
42.5°	7957.5	7902.8	7619.2	7651.3	7390.6	7057.9	6485.2	5967.2	444.2	60.5	22.7
45°	7052.1	6988.0	6700.5	6717.6	6409.4	6020.1	5426.6	4969.2	291.1	41.6	17.1
47.5°	5628.9	5513.6	5139.4	5124.3	4872.8	4235.9	3392.8	2746.4	192.7	28.4	11.3
50°	3094.2	2975.1	2646.3	2610.3	2330.5	1912.8	1413.9	1100.0	111.5	18.9	9.5
52.5°	1408.2	1345.9	1192.8	1168.0	1048.9	869.4	669.1	550.1	64.2	13.2	7.6
55°	610.6	587.8	523.6	519.8	465.0	402.6	321.3	272.2	37.9	9.5	5.6
57.5°	240.0	232.5	219.2	209.8	189.1	168.2	139.9	117.1	24.5	7.6	5.6
60°	90.7	88.9	81.2	83.1	75.6	71.9	62.4	52.9	15.1	5.6	5.6
62.5°	41.6	41.6	39.6	39.6	37.9	34.0	30.2	28.4	9.5	5.6	5.6
65°	20.8	20.8	18.9	18.9	18.9	17.1	15.1	15.1	5.6	5.6	5.6
67.5°	9.5	9.5	9.5	9.5	9.5	7.6	7.6	7.6	3.8	5.6	5.6
70°	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	5.6	5.6
72.5°	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	3.8	5.6	5.6
75°	0.0	0.0	0.0	1.9	1.9	1.9	1.9	1.9	3.8	5.6	5.6
77.5°	0.0	0.0	0.0	0.0	1.9	1.9	1.9	1.9	3.8	5.6	7.6
80°	0.0	0.0	0.0	0.0	1.9	1.9	1.9	1.9	3.8	5.6	7.6
82.5°	0.0	0.0	0.0	1.9	1.9	1.9	1.9	1.9	3.8	5.6	7.6
85°	0.0	0.0	0.0	1.9	1.9	1.9	1.9	1.9	3.8	5.6	7.6
87.5°	0.0	0.0	0.0	1.9	1.9	1.9	1.9	1.9	3.8	5.6	7.6
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°	317.6	317.6	317.6	317.6
2.5°	266.6	236.2	209.8	204.2
5°	219.2	174.0	145.5	139.9
7.5°	177.6	126.6	105.9	102.0
10°	145.5	102.0	83.1	79.5
12.5°	121.0	83.1	66.1	62.4
15°	104.0	73.6	60.5	60.5
17.5°	100.2	81.2	77.5	79.5
20°	130.4	147.5	175.8	177.6
22.5°	302.4	491.5	650.2	680.4
25°	544.3	595.4	580.2	606.7
27.5°	287.2	225.0	228.7	234.4
30°	124.7	138.0	145.5	153.1
32.5°	104.0	107.6	109.6	115.3
35°	68.0	68.0	66.1	68.0
37.5°	41.6	39.6	37.9	37.9
40°	26.5	24.5	22.7	22.7
42.5°	18.9	15.1	13.2	13.2
45°	13.2	9.5	7.6	5.6
47.5°	9.5	5.6	3.8	1.9
50°	7.6	5.6	1.9	0.0
52.5°	5.6	3.8	1.9	0.0
55°	5.6	3.8	0.0	0.0
57.5°	5.6	3.8	0.0	0.0
60°	5.6	3.8	0.0	0.0
62.5°	5.6	3.8	0.0	0.0
65°	5.6	3.8	1.9	0.0
67.5°	5.6	3.8	1.9	0.0
70°	5.6	3.8	1.9	0.0
72.5°	5.6	3.8	1.9	0.0
75°	5.6	5.6	1.9	0.0
77.5°	7.6	5.6	1.9	0.0
80°	7.6	5.6	1.9	0.0
82.5°	7.6	5.6	1.9	0.0
85°	7.6	5.6	1.9	1.9
87.5°	7.6	5.6	1.9	0.0
90°	0.0	0.0	0.0	0.0

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Peachtree City, GA 30269

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Peachtree City, GA 30269



— 0°-180° - - 45°-225° - - - 90°-270°

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Peachtree City, GA 30269

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