

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: P1191454

Luminaire Tested: **LDA4A10930D010TE LAR35FL 4LLWW1**

Issue Date: 3/3/2020



Test Information

Test Method: LM-41-14
Report Number: P1191454
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P26103)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: io LED
Catalog Number: LDA4A10930D010TE LAR35FL 4LLWW1
Description: PORTFOLIO 4" Lensed Wall Wash, Self-flanged, 35° Flood Optic, at 30° tilt
Light Source: (1) HIGH LUMEN LED 90CRI / 3000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

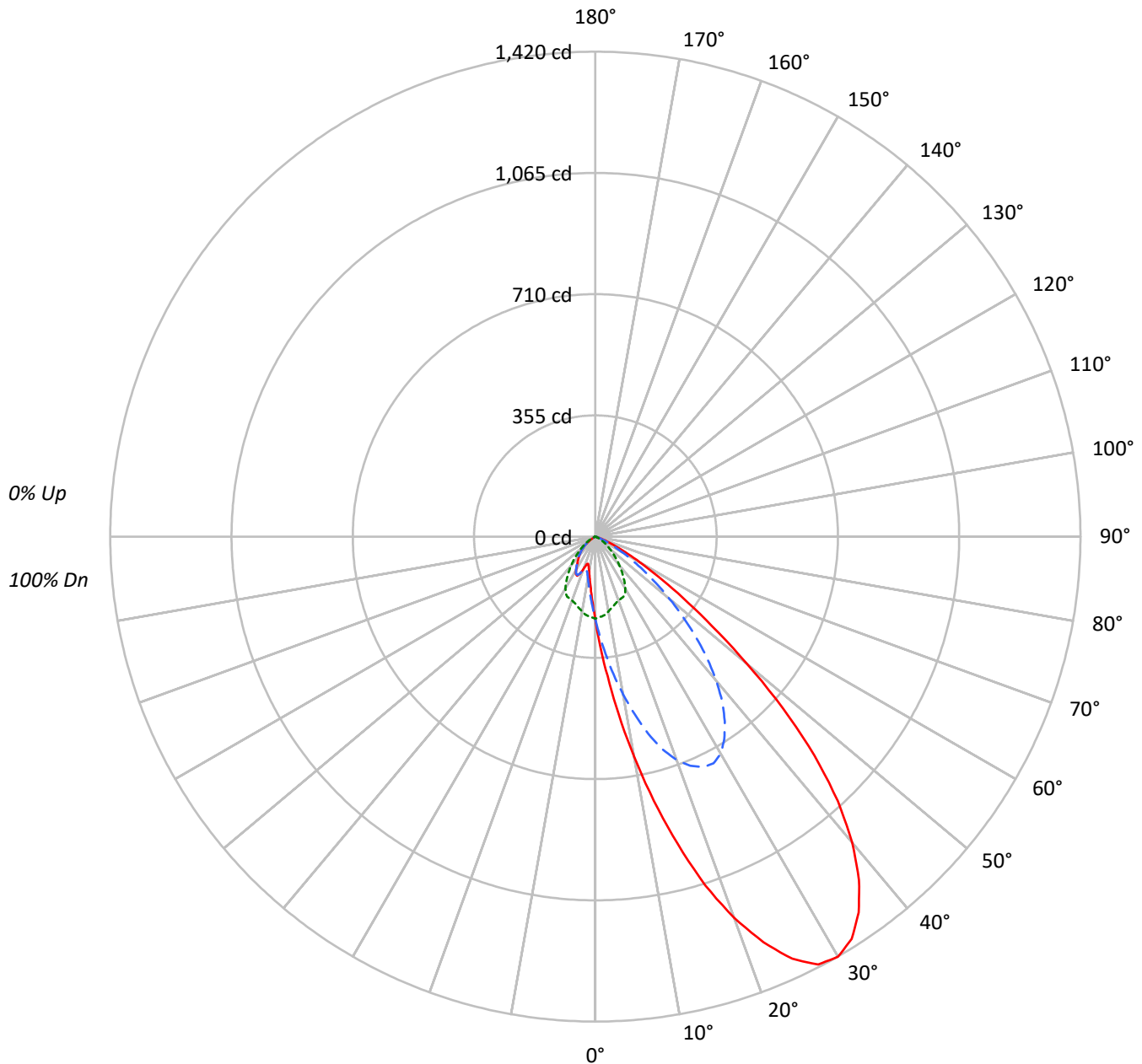
Lumens per Lamp: N/A
Luminaire Lumens: 901.6 lumens
Efficiency: N/A
Efficacy: 72.7 lumens/watt
Spacing Criteria (0/90/45): 2.19 / 1.11 / 1.55
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

Input Watts (W): 12.4
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: P1191454

CATALOG NUMBER: LDA4A10930D010TE LAR35FL 4LLWW1

Luminous Intensity Polar Plot



Cooper Lighting Solutions Photometric Lab

1121 Highway 74 South

Peachtree City, GA 30269



TEST NUMBER: P1191454

CATALOG NUMBER: LDA4A10930D010TE LAR35FL 4LLWW1

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	108	105	102	109	106	103	101	102	100	98	98	96	95	95	93	92	90		
2	104	98	92	88	102	96	91	87	93	89	85	89	86	83	87	84	81	80		
3	97	88	82	76	94	87	81	76	84	79	75	81	77	73	79	75	72	70		
4	90	80	72	67	87	78	72	66	76	70	66	74	69	65	72	67	64	62		
5	83	72	64	59	81	71	64	59	69	63	58	67	62	57	66	61	57	55		
6	77	66	58	52	75	65	57	52	63	56	52	61	56	51	60	55	51	49		
7	72	60	52	46	70	59	52	46	58	51	46	56	50	46	55	50	45	44		
8	67	55	47	42	65	54	47	42	53	46	41	52	46	41	50	45	41	39		
9	62	50	43	38	61	50	42	37	49	42	37	47	41	37	47	41	37	35		
10	58	46	39	34	57	46	39	34	45	38	34	44	38	34	43	38	34	32		

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	29689	29689	29689
5°	50691	28973	18919
10°	81925	27818	12926
15°	119013	26701	10509
20°	155860	26134	13113
25°	185622	26471	17271
30°	202304	24982	16052
35°	202331	21307	13582
40°	188292	17615	11786
45°	158162	13781	10135
50°	111009	10285	7445
55°	66815	7398	4129
60°	36856	4736	1529
65°	17774	2306	146
70°	7105	829	180
75°	2145	524	0
80°	781	781	0
85°	2406	1557	0



TEST NUMBER: P1191454

CATALOG NUMBER: LDA4A10930D010TE LAR35FL 4LLWW1

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	25.8	2.9
10°-20°	102.3	11.4
20°-30°	207.6	23.0
30°-40°	252.2	28.0
40°-50°	199.0	22.1
50°-60°	90.1	10.0
60°-70°	21.3	2.4
70°-80°	2.3	0.3
80°-90°	1.0	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°	335.7	37.2
0°-40°	587.9	65.2
0°-60°	877.0	97.3
0°-90°	901.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	901.6	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	241	241	241	241	241	
5°	409	344	234	171	153	47
15°	932	597	209	99	82	271
25°	1364	745	194	124	127	624
35°	1344	660	142	92	90	830
45°	907	417	79	58	58	686
55°	311	170	34	23	19	293
65°	61	36	8	2	0	69
75°	4	2	1	0	0	7
85°	2	2	1	0	0	2
90°	0	0	0	0	0	

TEST NUMBER: P1191454

CATALOG NUMBER: LDA4A10930D010TE LAR35FL 4LLWW1

CANDELA DISTRIBUTION (FULL):

	0°	2.5°	5°	7.5°	10°	12.5°	15°	17.5°	20°	22.5°	25°
0°	240.7	240.7	240.7	240.7	240.7	240.7	240.7	240.7	240.7	240.7	240.7
2.5°	319.7	311.8	311.8	306.2	310.7	301.6	303.4	302.8	308.4	306.7	301.6
5°	409.4	402.6	402.0	394.7	400.3	388.5	389.0	387.3	393.6	387.3	380.1
7.5°	524.9	513.1	512.6	504.0	509.8	494.5	494.0	490.5	496.1	484.3	473.6
10°	654.1	637.1	636.0	625.9	632.0	612.3	610.6	605.0	609.0	590.4	575.1
12.5°	792.1	773.5	771.4	760.7	766.3	742.6	738.0	730.8	732.4	705.4	685.0
15°	932.0	916.2	914.0	902.7	908.3	879.0	871.8	862.7	860.9	824.9	799.0
17.5°	1071.4	1039.1	1049.3	1038.0	1043.1	1008.7	999.1	987.8	981.7	937.1	904.4
20°	1187.4	1159.9	1167.1	1156.9	1161.5	1122.0	1110.2	1096.1	1085.4	1031.9	994.0
22.5°	1285.6	1256.8	1252.9	1252.9	1255.7	1212.9	1197.1	1181.3	1166.0	1102.3	1064.0
25°	1363.9	1332.3	1327.9	1326.7	1327.2	1282.2	1263.6	1246.1	1226.4	1156.4	1114.7
27.5°	1412.5	1379.2	1374.1	1373.5	1370.7	1324.4	1303.6	1284.4	1260.8	1189.2	1142.3
30°	1420.4	1389.9	1384.2	1384.2	1376.9	1331.8	1308.7	1288.4	1261.9	1189.7	1139.5
32.5°	1396.7	1365.6	1359.5	1360.0	1348.1	1305.8	1281.0	1260.1	1232.6	1161.5	1109.7
35°	1343.7	1313.7	1308.1	1308.7	1294.0	1254.5	1228.7	1208.3	1179.0	1111.3	1058.4
37.5°	1267.5	1239.4	1233.6	1234.8	1216.8	1181.3	1154.8	1135.5	1105.7	1043.1	991.2
40°	1169.4	1142.3	1137.2	1137.8	1118.1	1087.1	1061.2	1043.1	1013.3	957.4	907.8
42.5°	1050.5	1024.5	1020.5	1020.0	1000.8	972.6	947.3	932.0	901.6	857.0	809.7
45°	906.7	884.6	867.2	879.0	859.3	836.7	813.0	800.7	771.9	740.3	698.0
47.5°	744.9	725.7	708.2	719.4	701.5	684.5	663.6	655.7	629.9	613.4	577.9
50°	578.5	562.1	546.3	556.0	541.9	530.5	514.2	510.3	488.9	486.6	458.9
52.5°	429.6	417.8	405.4	412.7	402.0	394.7	382.3	381.1	364.8	370.4	351.3
55°	310.7	302.3	292.6	298.3	290.4	285.8	276.8	277.4	265.1	273.5	260.0
57.5°	219.8	213.1	206.3	209.8	204.7	201.3	195.1	196.2	193.4	196.2	186.6
60°	149.4	145.5	140.4	143.2	138.7	137.1	133.1	133.6	126.9	135.9	129.2
62.5°	98.1	95.3	95.3	93.6	90.2	89.0	86.9	86.9	82.9	89.7	85.1
65°	60.9	59.7	59.2	58.1	55.8	55.3	53.6	53.6	50.7	55.8	52.5
67.5°	36.0	35.5	34.9	34.4	32.7	32.1	31.6	31.0	29.3	32.7	30.4
70°	19.7	19.7	19.2	18.6	17.5	17.5	16.9	16.9	15.8	17.5	15.8
72.5°	9.6	9.6	9.0	9.0	8.4	8.4	7.9	7.9	7.4	8.4	7.4
75°	4.5	4.5	3.9	3.9	3.9	3.9	3.4	3.4	3.4	3.9	3.4
77.5°	2.3	2.3	2.3	2.3	1.7	1.7	1.7	1.7	1.7	1.7	1.7
80°	1.1	1.1	1.1	1.1	1.1	0.5	0.5	0.5	0.5	1.1	1.1
82.5°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
85°	1.7	1.7	1.7	1.7	2.3	1.7	2.3	2.3	2.3	2.3	2.3
87.5°	2.3	2.3	2.3	2.3	2.3	2.8	2.8	2.8	2.3	2.8	2.3
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: P1191454

CATALOG NUMBER: LDA4A10930D010TE LAR35FL 4LLWW1

CANDELA DISTRIBUTION (continued):

	27.5°	30°	32.5°	35°	37.5°	40°	42.5°	45°	67.5°	90°	112.5°
0°	240.7	240.7	240.7	240.7	240.7	240.7	240.7	240.7	240.7	240.7	240.7
2.5°	303.4	298.8	300.5	295.5	291.6	289.8	289.8	289.3	262.8	236.3	217.7
5°	379.5	371.0	372.2	363.1	359.2	353.5	351.8	344.5	287.0	234.0	197.9
7.5°	469.6	457.3	449.9	441.5	436.4	426.3	421.2	406.6	309.5	229.5	178.7
10°	566.7	549.2	537.4	523.8	518.7	503.0	493.3	468.6	329.3	222.1	160.7
12.5°	671.5	647.8	626.4	611.8	605.5	575.1	568.9	533.4	347.4	215.4	146.0
15°	779.3	749.3	722.3	701.5	693.6	663.6	644.5	597.1	363.1	209.1	134.8
17.5°	875.1	843.0	810.2	783.2	771.9	729.6	711.5	652.9	375.0	203.0	128.5
20°	960.3	921.3	886.9	849.7	836.7	788.8	759.5	696.4	381.7	199.1	129.2
22.5°	1025.1	980.5	941.0	899.3	883.0	830.5	797.2	726.2	384.0	196.2	133.1
25°	1072.4	1022.8	978.9	933.1	914.0	858.1	821.6	744.9	383.4	194.5	134.8
27.5°	1096.7	1043.7	996.3	947.3	926.4	868.8	829.5	748.8	375.5	187.8	134.8
30°	1093.3	1037.5	987.8	937.1	914.6	857.6	817.0	733.6	358.6	175.4	125.2
32.5°	1063.5	1006.5	955.7	905.0	882.5	826.5	786.0	702.6	334.4	159.0	112.2
35°	1013.8	957.4	907.2	857.6	835.1	780.9	741.4	660.3	306.7	141.5	100.4
37.5°	948.9	894.3	845.8	800.7	774.7	724.0	685.7	610.1	276.3	125.7	90.2
40°	868.3	816.5	770.7	729.1	701.5	654.6	619.7	550.9	244.2	109.4	80.6
42.5°	775.3	726.8	689.6	647.8	616.9	575.7	545.3	485.4	211.4	94.8	70.4
45°	669.9	626.9	594.8	558.2	526.1	491.2	465.2	416.6	178.2	79.0	60.9
47.5°	556.5	521.0	496.1	465.7	434.1	405.9	385.7	346.7	146.6	66.0	51.8
50°	444.9	416.6	398.7	375.5	346.7	325.3	309.5	283.7	116.2	53.6	43.4
52.5°	342.3	322.0	309.5	292.6	267.2	252.6	241.4	223.3	88.5	43.4	34.9
55°	255.4	240.7	232.8	221.0	199.1	188.9	181.5	170.3	66.0	34.4	27.0
57.5°	184.4	174.8	169.7	161.8	143.8	137.6	132.5	125.7	47.9	26.5	19.7
60°	128.5	121.8	119.0	113.9	99.2	95.3	88.5	88.5	33.9	19.2	13.5
62.5°	85.1	80.6	79.5	75.5	64.3	62.0	60.4	59.2	23.1	13.0	7.9
65°	53.0	49.7	49.0	46.7	38.8	37.8	36.0	36.0	14.6	7.9	3.9
67.5°	30.4	28.8	28.1	27.0	21.4	20.9	19.7	20.9	8.4	3.9	1.7
70°	16.3	14.6	14.6	14.1	10.7	10.2	9.6	10.2	4.5	2.3	1.1
72.5°	7.9	6.8	6.8	6.2	4.5	4.5	3.9	5.1	2.3	1.1	1.1
75°	3.4	3.4	2.8	2.8	1.7	1.7	1.7	2.3	1.1	1.1	1.1
77.5°	1.7	1.7	1.7	1.7	0.5	0.5	0.5	1.1	1.1	1.1	1.1
80°	1.1	1.1	1.1	1.1	0.0	0.0	0.0	1.1	1.1	1.1	1.1
82.5°	1.1	0.5	0.5	0.5	0.0	0.0	0.0	0.5	1.1	1.1	1.1
85°	1.7	1.7	1.7	1.7	1.1	1.1	1.1	1.7	1.1	1.1	1.1
87.5°	2.3	2.3	2.3	2.3	1.7	1.7	1.7	2.8	1.7	1.1	1.1
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Cooper Lighting Solutions Photometric Lab

1121 Highway 74 South

Peachtree City, GA 30269



TEST NUMBER: P1191454

CATALOG NUMBER: LDA4A10930D010TE LAR35FL 4LLWW1

CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	240.7	240.7	240.7
2.5°	201.9	190.0	191.2
5°	171.4	154.5	152.8
7.5°	145.0	126.9	124.6
10°	124.1	106.0	103.2
12.5°	108.8	92.5	89.7
15°	99.2	84.6	82.3
17.5°	97.6	86.2	85.1
20°	104.3	98.7	99.9
22.5°	116.2	114.5	117.3
25°	124.1	123.4	126.9
27.5°	122.4	121.3	123.4
30°	113.4	111.6	112.7
32.5°	102.7	99.9	100.9
35°	92.0	89.7	90.2
37.5°	82.9	81.1	81.1
40°	75.0	73.2	73.2
42.5°	66.5	65.3	66.0
45°	57.6	56.9	58.1
47.5°	48.5	47.9	49.0
50°	40.0	38.8	38.8
52.5°	31.6	29.9	28.8
55°	23.1	20.3	19.2
57.5°	15.8	13.0	11.8
60°	9.0	7.4	6.2
62.5°	4.5	2.8	2.3
65°	1.7	1.1	0.5
67.5°	1.1	0.5	0.5
70°	1.1	0.5	0.5
72.5°	0.5	0.5	0.5
75°	0.5	0.5	0.0
77.5°	0.5	0.5	0.5
80°	0.5	0.5	0.0
82.5°	0.5	0.5	0.0
85°	0.5	0.5	0.0
87.5°	0.5	0.5	0.0
90°	0.0	0.0	0.0

Classified

Scaled Data Report

Cooper Lighting Solutions Photometric Lab

1121 Highway 74 South

Peachtree City, GA 30269



Report Generated By 670245859 / DESKTOP-T8S5UU9

Classified

Cooper Lighting Solutions Photometric Lab

1121 Highway 74 South

Peachtree City, GA 30269

Scaled Data Report





— 0°-180° - - 45°-225° - - - 90°-270°

Classified

Cooper Lighting Solutions Photometric Lab

1121 Highway 74 South

Peachtree City, GA 30269

Scaled Data Report



Classified

Cooper Lighting Solutions Photometric Lab

1121 Highway 74 South

Peachtree City, GA 30269

Scaled Data Report



Classified

Cooper Lighting Solutions Photometric Lab

1121 Highway 74 South

Peachtree City, GA 30269

Scaled Data Report



Classified

Cooper Lighting Solutions Photometric Lab

1121 Highway 74 South

Peachtree City, GA 30269

Scaled Data Report



Classified

Cooper Lighting Solutions Photometric Lab

1121 Highway 74 South

Peachtree City, GA 30269

Scaled Data Report



(END OF REPORT)