

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: P1191436

Luminaire Tested: **LDA4A10927D010TE LAR35FL 4LLWW1**

Issue Date: 3/3/2020



Test Information

Test Method: LM-41-14
Report Number: P1191436
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: LDA4A10927D010TE LAR35FL 4LLWW1
Description: PORTFOLIO 4" Lensed Wall Wash, Self-flanged, 35° Flood Optic, at 30° tilt
Light Source: (1) HIGH LUMEN LED 90CRI / 2700K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

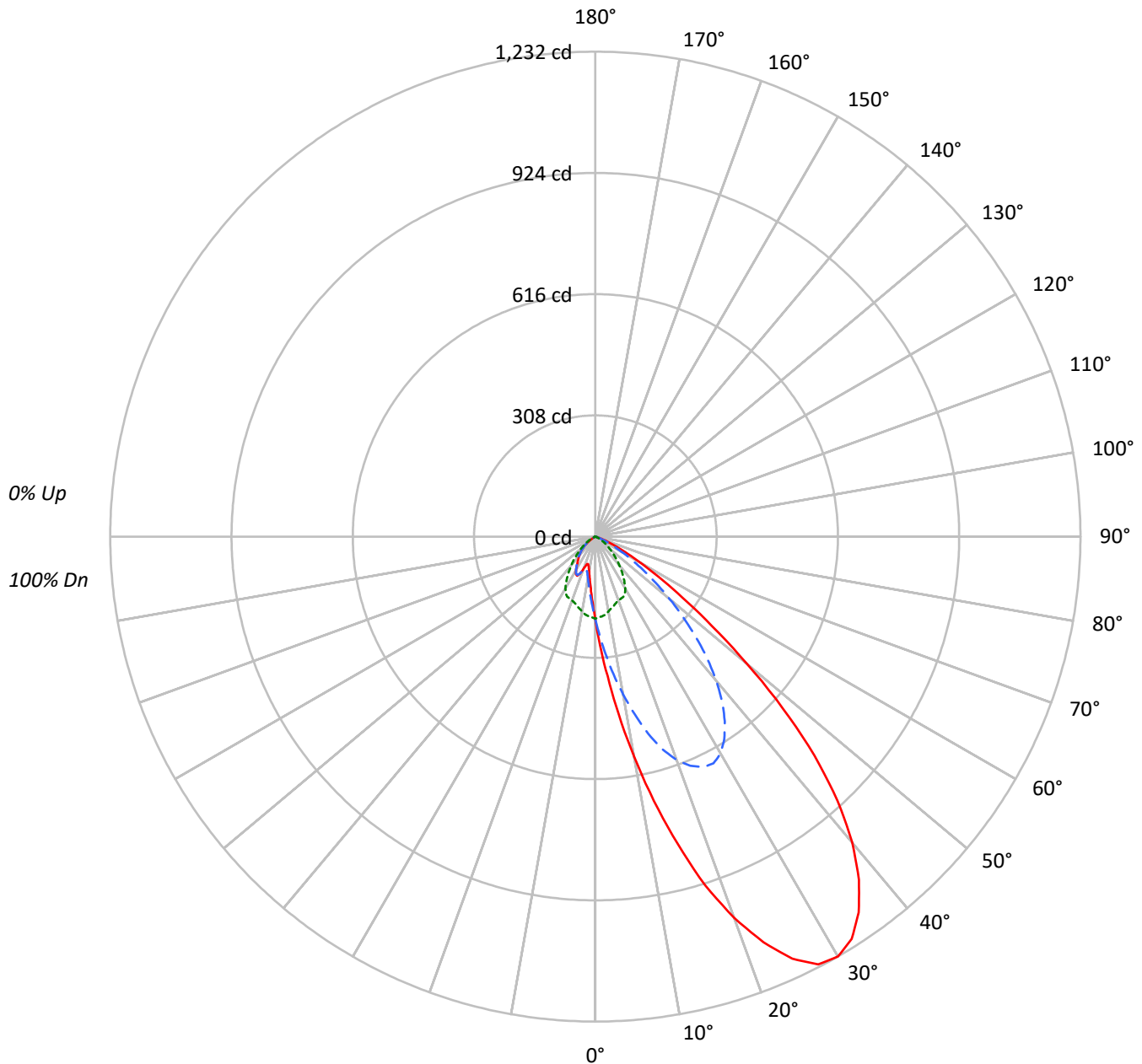
Lumens per Lamp: N/A
Luminaire Lumens: 782.2 lumens
Efficiency: N/A
Efficacy: 63.1 lumens/watt
Spacing Criteria (0/90/45): 2.19 / 1.11 / 1.55
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

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: P1191436

CATALOG NUMBER: LDA4A10927D010TE LAR35FL 4LLWW1

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	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	74	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	65	61	57	55		
6	77	65	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	57	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°	25767	25767	25767
5°	43967	25135	16418
10°	71078	24135	11210
15°	103256	23177	9130
20°	135213	22669	11367
25°	161030	22973	14984
30°	175485	21663	13929
35°	175513	18491	11775
40°	163335	15280	10241
45°	137195	11949	8792
50°	96310	8923	6486
55°	57955	6408	3591
60°	31996	4120	1307
65°	15439	2014	146
70°	6167	685	180
75°	1859	477	0
80°	710	710	0
85°	2123	1415	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	22.4	2.9
10°-20°	88.8	11.4
20°-30°	180.0	23.0
30°-40°	218.8	28.0
40°-50°	172.6	22.1
50°-60°	78.2	10.0
60°-70°	18.5	2.4
70°-80°	2.0	0.3
80°-90°	0.9	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°	291.2	37.2
0°-40°	510.0	65.2
0°-60°	760.8	97.3
0°-90°	782.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	782.2	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	209	209	209	209	209	
5°	355	299	203	149	133	41
15°	809	518	182	86	72	235
25°	1183	646	169	108	110	541
35°	1166	573	123	80	78	720
45°	786	362	68	50	50	595
55°	270	148	30	20	17	254
65°	53	31	7	2	0	60
75°	4	2	1	0	0	6
85°	2	2	1	0	0	1
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°	20°	22.5°	25°
0°	208.9	208.9	208.9	208.9	208.9	208.9	208.9	208.9	208.9	208.9	208.9
2.5°	277.3	270.5	270.5	265.6	269.5	261.6	263.2	262.6	267.6	266.1	261.6
5°	355.1	349.3	348.8	342.4	347.2	337.0	337.5	336.0	341.4	336.0	329.6
7.5°	455.4	445.0	444.7	437.3	442.1	429.0	428.5	425.6	430.4	420.2	410.9
10°	567.5	552.7	551.8	542.9	548.3	531.2	529.8	524.8	528.2	512.2	498.9
12.5°	687.2	671.1	669.1	659.8	664.8	644.1	640.3	633.9	635.3	611.9	594.3
15°	808.6	794.8	792.9	783.1	787.9	762.6	756.2	748.3	746.9	715.6	693.0
17.5°	929.3	901.4	910.2	900.5	904.9	875.1	866.8	857.0	851.6	812.9	784.5
20°	1030.1	1006.1	1012.5	1003.7	1007.7	973.4	963.1	950.9	941.6	895.1	862.3
22.5°	1115.2	1090.3	1086.9	1086.9	1089.3	1052.1	1038.5	1024.7	1011.5	956.2	923.0
25°	1183.2	1155.8	1151.9	1151.0	1151.5	1112.2	1096.2	1081.0	1063.8	1003.2	967.0
27.5°	1225.2	1196.4	1192.0	1191.5	1189.0	1148.9	1130.8	1114.3	1093.6	1031.6	991.0
30°	1232.1	1205.7	1200.8	1200.8	1194.4	1155.3	1135.3	1117.7	1094.7	1032.1	988.6
32.5°	1211.6	1184.7	1179.2	1179.7	1169.6	1132.9	1111.3	1093.3	1069.2	1007.7	962.6
35°	1165.6	1139.6	1134.8	1135.3	1122.6	1088.3	1065.9	1048.2	1022.8	964.1	918.1
37.5°	1099.6	1075.2	1070.2	1071.2	1055.6	1024.7	1001.7	985.1	959.1	904.9	859.9
40°	1014.4	991.0	986.5	987.0	970.0	943.1	920.5	904.9	879.0	830.5	787.6
42.5°	911.2	888.7	885.4	884.9	868.2	843.7	821.7	808.6	782.1	743.5	702.3
45°	786.5	767.4	752.3	762.6	745.4	725.9	705.3	694.6	669.6	642.2	605.5
47.5°	646.2	629.5	614.3	624.1	608.5	593.8	575.7	568.9	546.3	532.2	501.3
50°	501.9	487.7	474.0	482.2	470.0	460.3	446.1	442.6	424.0	422.1	398.2
52.5°	372.7	362.5	351.7	358.1	348.8	342.4	331.7	330.7	316.5	321.4	304.7
55°	269.5	262.1	253.9	258.7	251.9	248.0	240.1	240.6	229.9	237.2	225.5
57.5°	190.8	184.9	179.0	182.0	177.6	174.6	169.3	170.2	167.8	170.2	161.9
60°	129.7	126.2	121.8	124.2	120.4	118.8	115.4	115.9	110.1	117.8	112.0
62.5°	85.1	82.7	82.7	81.1	78.2	77.3	75.3	75.3	71.8	77.8	73.9
65°	52.9	51.8	51.3	50.4	48.4	47.9	46.5	46.5	44.1	48.4	45.5
67.5°	31.3	30.8	30.3	29.8	28.4	27.9	27.4	26.9	25.5	28.4	26.4
70°	17.1	17.1	16.7	16.2	15.2	15.2	14.6	14.6	13.8	15.2	13.8
72.5°	8.3	8.3	7.8	7.8	7.4	7.4	6.9	6.9	6.4	7.4	6.4
75°	3.9	3.9	3.4	3.4	3.4	3.4	2.9	2.9	2.9	3.4	2.9
77.5°	1.9	1.9	1.9	1.9	1.5	1.5	1.5	1.5	1.5	1.5	1.5
80°	1.0	1.0	1.0	1.0	1.0	0.5	0.5	0.5	0.5	1.0	1.0
82.5°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
85°	1.5	1.5	1.5	1.5	1.9	1.5	1.9	1.9	1.9	1.9	1.9
87.5°	1.9	1.9	1.9	1.9	1.9	2.4	2.4	2.4	1.9	2.4	1.9
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):

	27.5°	30°	32.5°	35°	37.5°	40°	42.5°	45°	67.5°	90°	112.5°
0°	208.9	208.9	208.9	208.9	208.9	208.9	208.9	208.9	208.9	208.9	208.9
2.5°	263.2	259.2	260.7	256.3	252.8	251.4	251.4	250.9	227.9	204.9	188.8
5°	329.1	321.9	322.8	315.0	311.6	306.7	305.2	298.8	249.0	203.0	171.7
7.5°	407.5	396.6	390.3	383.0	378.6	369.8	365.4	352.7	268.5	199.1	155.0
10°	491.5	476.4	466.2	454.3	450.0	436.3	428.0	406.5	285.7	192.7	139.3
12.5°	582.6	562.0	543.4	530.6	525.3	498.9	493.6	462.8	301.2	186.9	126.7
15°	676.0	650.0	626.6	608.5	601.6	575.7	559.0	518.0	315.0	181.5	116.9
17.5°	759.2	731.3	702.9	679.4	669.6	632.9	617.3	566.4	325.3	176.0	111.6
20°	833.0	799.3	769.3	737.1	725.9	684.3	658.9	604.1	331.2	172.7	112.0
22.5°	889.2	850.6	816.3	780.2	766.0	720.4	691.6	630.0	333.1	170.2	115.4
25°	930.3	887.3	849.1	809.5	792.9	744.5	712.7	646.2	332.6	168.8	116.9
27.5°	951.4	905.4	864.2	821.7	803.6	753.8	719.5	649.6	325.7	162.9	116.9
30°	948.4	900.0	857.0	812.9	793.4	744.0	708.7	636.4	311.0	152.1	108.5
32.5°	922.4	873.2	829.1	785.0	765.5	717.1	681.8	609.5	290.0	137.9	97.3
35°	879.4	830.5	787.1	744.0	724.4	677.5	643.2	572.8	266.1	122.8	87.1
37.5°	823.2	775.7	733.7	694.6	672.0	628.1	594.8	529.2	239.7	109.0	78.2
40°	753.3	708.2	668.6	632.4	608.5	567.8	537.5	477.9	211.8	94.9	69.9
42.5°	672.5	630.5	598.2	562.0	535.1	499.4	472.9	421.1	183.4	82.2	61.1
45°	581.1	543.9	516.0	484.3	456.4	426.1	403.5	361.5	154.5	68.5	52.9
47.5°	482.8	451.9	430.4	404.0	376.6	352.2	334.6	300.9	127.1	57.2	45.0
50°	385.9	361.5	345.8	325.7	300.9	282.3	268.5	246.1	100.8	46.5	37.7
52.5°	296.9	279.3	268.5	253.9	231.8	219.1	209.4	193.7	76.8	37.7	30.3
55°	221.6	208.9	202.0	191.7	172.7	163.8	157.6	147.8	57.2	29.8	23.4
57.5°	160.0	151.6	147.2	140.4	124.7	119.4	114.9	109.0	41.5	22.9	17.1
60°	111.6	105.6	103.2	98.8	86.1	82.7	76.8	76.8	29.3	16.7	11.7
62.5°	73.9	69.9	68.9	65.6	55.8	53.8	52.4	51.3	20.0	11.2	6.9
65°	46.0	43.1	42.5	40.6	33.8	32.7	31.3	31.3	12.7	6.9	3.4
67.5°	26.4	25.0	24.5	23.4	18.6	18.1	17.1	18.1	7.4	3.4	1.5
70°	14.1	12.7	12.7	12.2	9.3	8.8	8.3	8.8	3.9	1.9	1.0
72.5°	6.9	5.9	5.9	5.3	3.9	3.9	3.4	4.5	1.9	1.0	1.0
75°	2.9	2.9	2.4	2.4	1.5	1.5	1.5	1.9	1.0	1.0	1.0
77.5°	1.5	1.5	1.5	1.5	0.5	0.5	0.5	1.0	1.0	1.0	1.0
80°	1.0	1.0	1.0	1.0	0.0	0.0	0.0	1.0	1.0	1.0	1.0
82.5°	1.0	0.5	0.5	0.5	0.0	0.0	0.0	0.5	1.0	1.0	1.0
85°	1.5	1.5	1.5	1.5	1.0	1.0	1.0	1.5	1.0	1.0	1.0
87.5°	1.9	1.9	1.9	1.9	1.5	1.5	1.5	2.4	1.5	1.0	1.0
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):

	135°	157.5°	180°
0°	208.9	208.9	208.9
2.5°	175.1	164.8	165.8
5°	148.6	134.0	132.6
7.5°	125.7	110.1	108.1
10°	107.6	92.0	89.5
12.5°	94.4	80.2	77.8
15°	86.1	73.4	71.5
17.5°	84.6	74.9	73.9
20°	90.4	85.6	86.6
22.5°	100.8	99.4	101.8
25°	107.6	107.1	110.1
27.5°	106.1	105.2	107.1
30°	98.3	96.8	97.8
32.5°	89.0	86.6	87.5
35°	79.7	77.8	78.2
37.5°	71.8	70.4	70.4
40°	65.1	63.6	63.6
42.5°	57.7	56.7	57.2
45°	49.9	49.4	50.4
47.5°	42.0	41.5	42.5
50°	34.8	33.8	33.8
52.5°	27.4	26.0	25.0
55°	20.0	17.6	16.7
57.5°	13.8	11.2	10.3
60°	7.8	6.4	5.3
62.5°	3.9	2.4	1.9
65°	1.5	1.0	0.5
67.5°	1.0	0.5	0.5
70°	1.0	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



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Peachtree City, GA 30269

Scaled Data Report





— 0°-180° - - 45°-225° - - - 90°-270°

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(END OF REPORT)