

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: P1212743

Luminaire Tested: **LDA4A10950D010TE LAR35FL 4LLWW1**

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: P1212743
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: LDA4A10950D010TE LAR35FL 4LLWW1
Description: PORTFOLIO 4" Lensed Wall Wash, Self-flanged, 35° Flood Optic, at 30° tilt
Light Source: (1) HIGH LUMEN LED 90CRI / 5000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

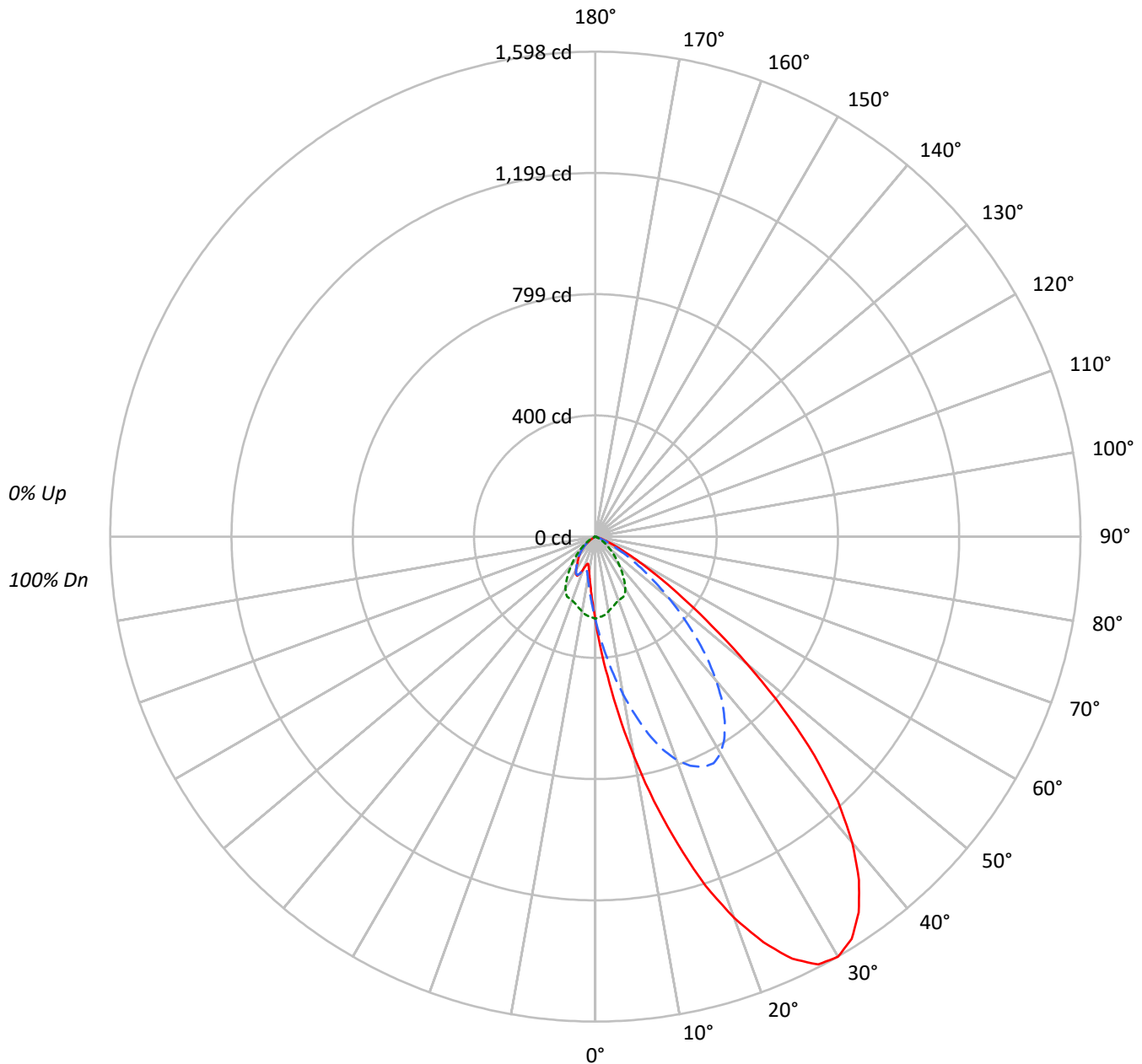
Lumens per Lamp: N/A
Luminaire Lumens: 1014.7 lumens
Efficiency: N/A
Efficacy: 81.8 lumens/watt
Spacing Criteria (0/90/45): 2.19 / 1.11 / 1.55
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

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

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CATALOG NUMBER: LDA4A10950D010TE LAR35FL 4LLWW1

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	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°	33414	33414	33414
5°	57030	32601	21284
10°	92183	31312	14541
15°	133916	30060	11825
20°	175392	29403	14741
25°	208881	29778	19435
30°	227641	28115	18074
35°	227688	23972	15284
40°	211881	19805	13300
45°	177961	15507	11391
50°	124902	11571	8386
55°	75159	8322	4645
60°	41469	5329	1752
65°	19992	2568	175
70°	8042	902	216
75°	2383	667	0
80°	994	994	0
85°	2689	1981	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	29.1	2.9
10°-20°	115.2	11.3
20°-30°	233.5	23.0
30°-40°	283.8	28.0
40°-50°	223.9	22.1
50°-60°	101.4	10.0
60°-70°	23.9	2.4
70°-80°	2.6	0.3
80°-90°	1.2	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°	377.8	37.2
0°-40°	661.6	65.2
0°-60°	986.9	97.3
0°-90°	1014.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1014.7	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	271	271	271	271	271	
5°	461	388	263	193	172	53
15°	1049	672	235	112	93	305
25°	1535	838	219	140	143	702
35°	1512	743	159	104	102	934
45°	1020	469	89	65	65	772
55°	350	192	39	26	22	330
65°	68	41	9	2	1	77
75°	5	2	1	1	0	8
85°	2	2	1	1	0	2
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°	270.9	270.9	270.9	270.9	270.9	270.9	270.9	270.9	270.9	270.9	270.9
2.5°	359.8	350.9	350.9	344.6	349.5	339.4	341.3	340.7	347.0	345.2	339.4
5°	460.6	453.0	452.4	444.2	450.5	437.1	437.8	435.9	442.8	435.9	427.6
7.5°	590.7	577.4	576.8	567.2	573.6	556.4	555.9	552.0	558.4	545.0	532.9
10°	736.0	717.0	715.7	704.2	711.3	689.0	687.1	680.8	685.3	664.4	647.1
12.5°	891.4	870.5	868.0	855.9	862.3	835.6	830.5	822.2	824.2	793.7	770.8
15°	1048.7	1031.1	1028.5	1015.8	1022.1	989.1	980.9	970.7	968.9	928.2	899.1
17.5°	1205.5	1169.3	1180.7	1168.1	1173.8	1135.2	1124.2	1111.6	1104.7	1054.5	1017.6
20°	1336.2	1305.1	1313.3	1301.9	1307.1	1262.6	1249.4	1233.4	1221.4	1161.1	1118.6
22.5°	1446.5	1414.3	1409.7	1409.7	1412.9	1364.7	1346.9	1329.2	1312.1	1240.4	1197.2
25°	1534.8	1499.3	1494.2	1492.9	1493.6	1442.9	1421.8	1402.2	1380.0	1301.2	1254.3
27.5°	1589.3	1551.9	1546.2	1545.5	1542.3	1490.4	1467.0	1445.4	1418.8	1338.1	1285.4
30°	1598.3	1564.0	1557.6	1557.6	1549.4	1498.6	1472.6	1449.8	1419.9	1338.8	1282.3
32.5°	1571.6	1536.7	1529.7	1530.3	1517.0	1469.5	1441.5	1418.0	1386.9	1307.1	1248.6
35°	1512.1	1478.4	1472.0	1472.6	1456.1	1411.7	1382.6	1359.7	1326.7	1250.5	1190.9
37.5°	1426.3	1394.6	1388.3	1389.4	1369.2	1329.2	1299.4	1277.8	1244.2	1173.8	1115.4
40°	1315.9	1285.4	1279.8	1280.3	1258.2	1223.2	1194.1	1173.8	1140.2	1077.3	1021.5
42.5°	1182.1	1152.8	1148.4	1147.7	1126.2	1094.5	1066.0	1048.7	1014.6	964.4	911.1
45°	1020.2	995.5	975.7	989.1	966.9	941.6	915.0	901.0	868.6	833.1	785.5
47.5°	838.1	816.5	797.0	809.6	789.3	770.3	746.7	737.9	708.8	690.4	650.3
50°	650.9	632.5	614.7	625.7	609.8	597.1	578.7	574.3	550.2	547.5	516.5
52.5°	483.5	470.2	456.2	464.5	452.4	444.2	430.1	428.9	410.5	416.8	395.3
55°	349.5	340.1	329.4	335.7	326.8	321.7	311.6	312.1	298.2	307.7	292.4
57.5°	247.4	239.7	232.2	236.1	230.4	226.5	219.5	220.8	217.7	220.8	210.0
60°	168.1	163.7	158.1	161.2	156.0	154.2	149.7	150.4	142.8	152.9	145.3
62.5°	110.3	107.1	107.1	105.4	101.5	100.3	97.8	97.8	93.3	101.0	95.8
65°	68.5	67.3	66.7	65.3	62.8	62.1	60.3	60.3	57.1	62.8	59.0
67.5°	40.7	40.0	39.3	38.7	36.8	36.2	35.5	34.8	33.0	36.8	34.3
70°	22.3	22.3	21.6	20.9	19.7	19.7	19.0	19.0	17.8	19.7	17.8
72.5°	10.7	10.7	10.2	10.2	9.6	9.6	8.8	8.8	8.2	9.6	8.2
75°	5.0	5.0	4.5	4.5	4.5	4.5	3.8	3.8	3.8	4.5	3.8
77.5°	2.5	2.5	2.5	2.5	1.9	1.9	1.9	1.9	1.9	1.9	1.9
80°	1.4	1.4	1.4	1.4	1.4	0.6	0.6	0.6	0.6	1.4	1.4
82.5°	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
85°	1.9	1.9	1.9	1.9	2.5	1.9	2.5	2.5	2.5	2.5	2.5
87.5°	2.5	2.5	2.5	2.5	2.5	3.2	3.2	3.2	2.5	3.2	2.5
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°	270.9	270.9	270.9	270.9	270.9	270.9	270.9	270.9	270.9	270.9	270.9
2.5°	341.3	336.2	338.2	332.5	328.0	326.1	326.1	325.5	295.7	265.8	244.9
5°	426.9	417.6	418.7	408.5	404.1	397.8	395.9	387.6	322.9	263.3	222.7
7.5°	528.5	514.5	506.3	496.8	491.1	479.6	473.9	457.4	348.3	258.2	201.1
10°	637.7	618.0	604.6	589.5	583.6	565.9	555.2	527.3	370.6	250.0	180.9
12.5°	755.6	728.9	704.9	688.5	681.4	647.1	640.2	600.2	390.8	242.4	164.4
15°	876.8	843.1	812.7	789.3	780.4	746.7	725.2	671.8	408.5	235.4	151.6
17.5°	984.7	948.5	911.8	881.3	868.6	821.1	800.7	734.7	421.9	228.4	144.7
20°	1080.6	1036.7	998.0	956.2	941.6	887.6	854.7	783.5	429.6	224.0	145.3
22.5°	1153.5	1103.3	1058.9	1011.9	993.5	934.5	897.1	817.2	432.1	220.8	149.7
25°	1206.8	1150.9	1101.5	1050.1	1028.5	965.7	924.4	838.1	431.5	218.8	151.6
27.5°	1234.1	1174.5	1121.1	1066.0	1042.4	977.8	933.3	842.6	422.6	211.3	151.6
30°	1230.2	1167.5	1111.6	1054.5	1029.2	965.0	919.4	825.4	403.5	197.4	140.8
32.5°	1196.6	1132.5	1075.4	1018.3	993.0	930.2	884.5	790.6	376.2	179.0	126.3
35°	1140.9	1077.3	1020.9	965.0	939.6	878.8	834.3	743.0	345.2	159.2	113.0
37.5°	1067.9	1006.2	951.7	901.0	871.8	814.7	771.5	686.5	310.9	141.4	101.5
40°	977.1	918.6	867.3	820.4	789.3	736.6	697.3	619.8	274.8	123.0	90.8
42.5°	872.5	817.9	776.0	728.9	694.1	647.8	613.6	546.3	238.0	106.6	79.4
45°	753.8	705.5	669.3	628.2	592.0	552.7	523.4	468.9	200.5	88.9	68.5
47.5°	626.2	586.4	558.4	524.1	488.6	456.9	434.0	390.2	164.9	74.2	58.4
50°	500.7	468.9	448.6	422.6	390.2	366.2	348.3	319.1	130.7	60.3	48.9
52.5°	385.1	362.3	348.3	329.4	300.7	284.2	271.5	251.3	99.6	48.9	39.3
55°	287.5	270.9	262.0	248.8	224.0	212.6	204.3	191.6	74.2	38.7	30.5
57.5°	207.5	196.8	191.0	182.1	161.7	154.9	149.1	141.4	53.9	29.8	22.3
60°	144.7	137.1	134.0	128.1	111.7	107.1	99.6	99.6	38.1	21.6	15.2
62.5°	95.8	90.8	89.4	85.1	72.3	69.8	67.8	66.7	26.0	14.6	8.8
65°	59.6	55.7	55.2	52.7	43.7	42.5	40.7	40.7	16.5	8.8	4.5
67.5°	34.3	32.3	31.6	30.5	24.1	23.4	22.3	23.4	9.6	4.5	1.9
70°	18.4	16.5	16.5	15.9	12.1	11.4	10.7	11.4	5.0	2.5	1.4
72.5°	8.8	7.6	7.6	7.1	5.0	5.0	4.5	5.7	2.5	1.4	1.4
75°	3.8	3.8	3.2	3.2	1.9	1.9	1.9	2.5	1.4	1.4	1.4
77.5°	1.9	1.9	1.9	1.9	0.6	0.6	0.6	1.4	1.4	1.4	1.4
80°	1.4	1.4	1.4	1.4	0.0	0.0	0.0	1.4	1.4	1.4	1.4
82.5°	1.4	0.6	0.6	0.6	0.0	0.0	0.0	0.6	1.4	1.4	1.4
85°	1.9	1.9	1.9	1.9	1.4	1.4	1.4	1.9	1.4	1.4	1.4
87.5°	2.5	2.5	2.5	2.5	1.9	1.9	1.9	3.2	1.9	1.4	1.4
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°	270.9	270.9	270.9
2.5°	227.1	213.8	215.2
5°	192.9	173.8	171.9
7.5°	163.1	142.8	140.2
10°	139.7	119.2	116.1
12.5°	122.4	104.0	101.0
15°	111.7	95.2	92.6
17.5°	109.8	97.1	95.8
20°	117.4	111.0	112.3
22.5°	130.7	128.8	132.0
25°	139.7	138.9	142.8
27.5°	137.6	136.4	138.9
30°	127.6	125.6	126.9
32.5°	115.5	112.3	113.6
35°	103.5	101.0	101.5
37.5°	93.3	91.4	91.4
40°	84.3	82.6	82.6
42.5°	74.9	73.6	74.2
45°	64.8	64.1	65.3
47.5°	54.6	53.9	55.2
50°	45.0	43.7	43.7
52.5°	35.5	33.7	32.3
55°	26.0	22.8	21.6
57.5°	17.8	14.6	13.4
60°	10.2	8.2	7.1
62.5°	5.0	3.2	2.5
65°	1.9	1.4	0.6
67.5°	1.4	0.6	0.6
70°	1.4	0.6	0.6
72.5°	0.6	0.6	0.6
75°	0.6	0.6	0.0
77.5°	0.6	0.6	0.6
80°	0.6	0.6	0.0
82.5°	0.6	0.6	0.0
85°	0.6	0.6	0.0
87.5°	0.6	0.6	0.0
90°	0.0	0.0	0.0

Classified

Scaled Data Report

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Scaled Data Report





— 0°-180° - - 45°-225° - - - 90°-270°

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(END OF REPORT)