

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: P1191562

Luminaire Tested: **LDA4A15935D010TE 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: P1191562
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: LDA4A15935D010TE LAR35FL 4LLWW1
Description: PORTFOLIO 4" Lensed Wall Wash, Self-flanged, 35° Flood Optic, at 30° tilt
Light Source: (1) HIGH LUMEN LED 90CRI / 3500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

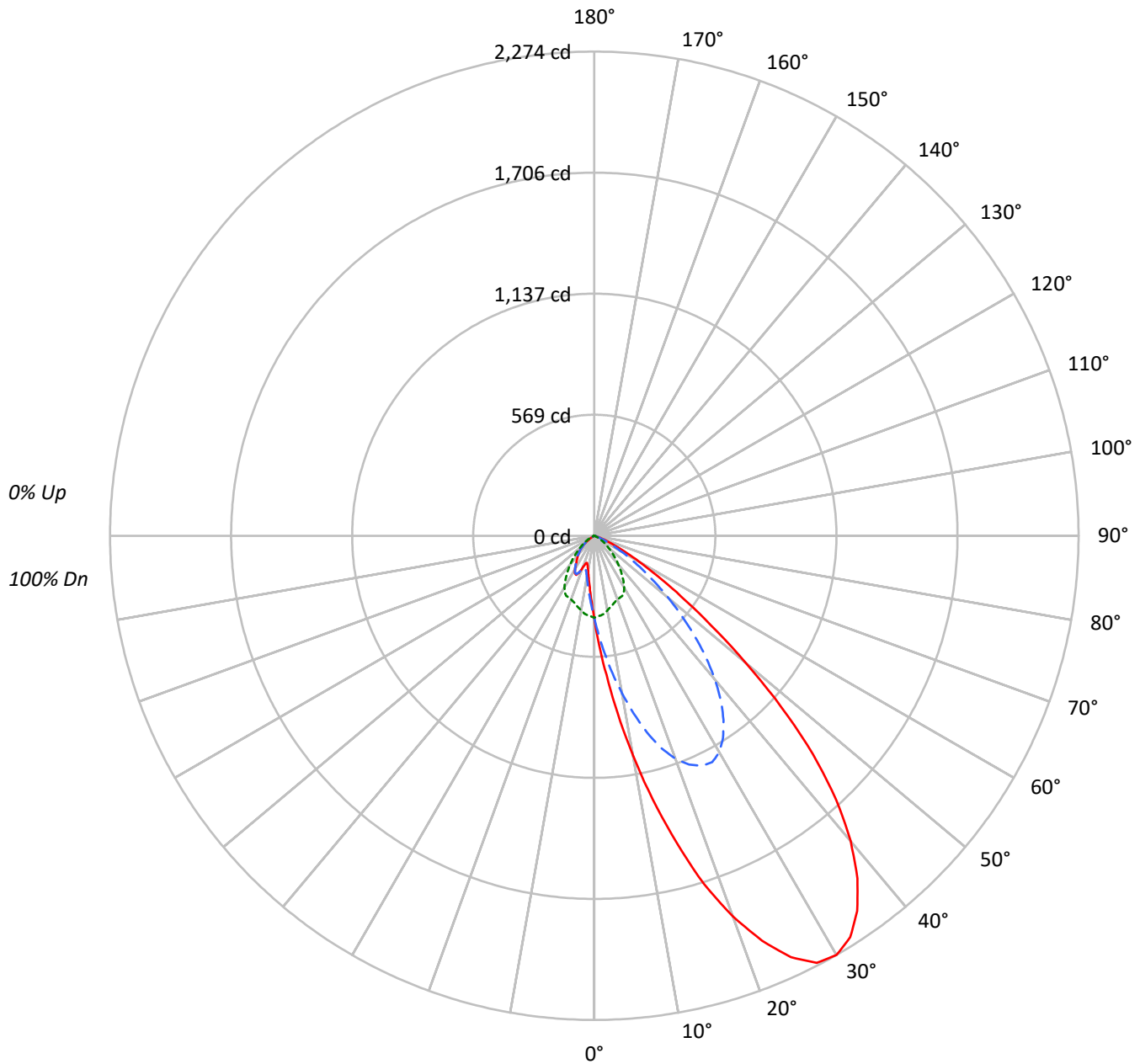
Lumens per Lamp: N/A
Luminaire Lumens: 1443.6 lumens
Efficiency: N/A
Efficacy: 70.8 lumens/watt
Spacing Criteria (0/90/45): 2.19 / 1.11 / 1.55
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

Input Watts (W): 20.4
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: P1191562

CATALOG NUMBER: LDA4A15935D010TE LAR35FL 4LLWW1

Luminous Intensity Polar Plot



Cooper Lighting Solutions Photometric Lab

1121 Highway 74 South

Peachtree City, GA 30269



TEST NUMBER: P1191562

CATALOG NUMBER: LDA4A15935D010TE 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	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°	47550	47550	47550
5°	81150	46382	30286
10°	131148	44538	20679
15°	190549	42766	16843
20°	249555	41833	20976
25°	297195	42394	27655
30°	323880	39994	25708
35°	323937	34121	21743
40°	301471	28194	18903
45°	253213	22049	16223
50°	177730	16464	11955
55°	106986	11849	6602
60°	59009	7573	2467
65°	28456	3707	292
70°	11396	1262	361
75°	3431	858	0
80°	1279	1279	0
85°	3821	2547	0



TEST NUMBER: P1191562

CATALOG NUMBER: LDA4A15935D010TE LAR35FL 4LLWW1

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	41.4	2.9
10°-20°	163.9	11.4
20°-30°	332.3	23.0
30°-40°	403.8	28.0
40°-50°	318.6	22.1
50°-60°	144.3	10.0
60°-70°	34.1	2.4
70°-80°	3.7	0.3
80°-90°	1.6	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°	537.5	37.2
0°-40°	941.3	65.2
0°-60°	1404.2	97.3
0°-90°	1443.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1443.6	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	386	386	386	386	386	
5°	655	552	375	274	245	75
15°	1492	956	335	159	132	434
25°	2184	1192	312	198	203	999
35°	2151	1057	227	147	144	1328
45°	1452	667	126	92	93	1098
55°	498	273	55	37	31	470
65°	98	58	13	3	1	110
75°	7	4	2	1	0	11
85°	3	3	2	1	0	2
90°	0	0	0	0	0	

TEST NUMBER: P1191562

CATALOG NUMBER: LDA4A15935D010TE LAR35FL 4LLWW1

CANDELA DISTRIBUTION (FULL):

	0°	2.5°	5°	7.5°	10°	12.5°	15°	17.5°	20°	22.5°	25°
0°	385.5	385.5	385.5	385.5	385.5	385.5	385.5	385.5	385.5	385.5	385.5
2.5°	511.9	499.2	499.2	490.2	497.5	483.0	485.7	484.8	493.8	491.0	483.0
5°	655.4	644.6	643.6	631.9	640.9	622.0	622.9	620.2	630.1	620.2	608.5
7.5°	840.4	821.5	820.6	807.0	816.1	791.7	790.8	785.5	794.5	775.5	758.3
10°	1047.1	1020.1	1018.4	1002.0	1012.0	980.5	977.7	968.6	975.0	945.1	920.9
12.5°	1268.3	1238.6	1234.9	1217.9	1226.9	1189.0	1181.7	1170.0	1172.7	1129.4	1096.9
15°	1492.2	1467.0	1463.3	1445.3	1454.3	1407.4	1395.7	1381.2	1378.5	1320.7	1279.2
17.5°	1715.2	1663.8	1680.0	1662.0	1670.0	1615.1	1599.7	1581.7	1571.7	1500.4	1448.0
20°	1901.2	1857.0	1868.7	1852.5	1859.7	1796.5	1777.5	1755.0	1737.8	1652.0	1591.5
22.5°	2058.3	2012.2	2005.9	2005.9	2010.4	1941.8	1916.6	1891.2	1867.0	1764.8	1703.5
25°	2183.7	2133.3	2126.1	2124.1	2125.1	2052.8	2023.1	1995.1	1963.5	1851.6	1784.7
27.5°	2261.5	2208.1	2200.0	2199.1	2194.6	2120.6	2087.2	2056.5	2018.6	1903.9	1829.1
30°	2274.0	2225.3	2216.3	2216.3	2204.5	2132.3	2095.2	2062.8	2020.4	1904.9	1824.4
32.5°	2236.1	2186.5	2176.5	2177.5	2158.5	2090.7	2051.1	2017.6	1973.5	1859.7	1776.7
35°	2151.3	2103.4	2094.4	2095.2	2071.8	2008.6	1967.1	1934.6	1887.7	1779.3	1694.5
37.5°	2029.4	1984.2	1975.2	1977.0	1948.1	1891.2	1848.8	1818.1	1770.3	1670.0	1587.0
40°	1872.3	1829.1	1820.9	1821.8	1790.2	1740.6	1699.0	1670.0	1622.2	1532.9	1453.5
42.5°	1681.8	1640.3	1634.0	1633.1	1602.4	1557.3	1516.6	1492.2	1443.5	1372.2	1296.4
45°	1451.6	1416.4	1388.5	1407.4	1375.8	1339.6	1301.7	1282.0	1235.9	1185.3	1117.6
47.5°	1192.5	1161.8	1133.9	1151.9	1123.1	1096.0	1062.5	1049.9	1008.4	982.2	925.4
50°	926.2	900.0	874.8	890.2	867.5	849.5	823.4	817.0	782.7	779.0	734.9
52.5°	688.0	669.0	649.1	660.8	643.6	631.9	612.0	610.2	584.0	593.0	562.4
55°	497.5	483.8	468.5	477.5	464.9	457.6	443.3	444.1	424.2	437.9	416.2
57.5°	352.1	341.2	330.4	335.9	327.7	322.2	312.4	314.2	309.7	314.2	298.8
60°	239.2	232.9	224.7	229.4	222.1	219.4	213.0	214.0	203.2	217.5	206.7
62.5°	157.1	152.6	152.6	149.9	144.4	142.6	139.1	139.1	132.7	143.6	136.4
65°	97.5	95.7	94.8	93.0	89.3	88.5	85.8	85.8	81.3	89.3	84.0
67.5°	57.8	56.9	55.9	55.1	52.4	51.4	50.6	49.6	46.9	52.4	48.7
70°	31.6	31.6	30.7	29.7	28.0	28.0	27.1	27.1	25.2	28.0	25.2
72.5°	15.4	15.4	14.5	14.5	13.5	13.5	12.7	12.7	11.7	13.5	11.7
75°	7.2	7.2	6.3	6.3	6.3	6.3	5.5	5.5	5.5	6.3	5.5
77.5°	3.5	3.5	3.5	3.5	2.7	2.7	2.7	2.7	2.7	2.7	2.7
80°	1.8	1.8	1.8	1.8	1.8	1.0	1.0	1.0	1.0	1.8	1.8
82.5°	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8
85°	2.7	2.7	2.7	2.7	3.5	2.7	3.5	3.5	3.5	3.5	3.5
87.5°	3.5	3.5	3.5	3.5	3.5	4.5	4.5	4.5	3.5	4.5	3.5
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: P1191562

CATALOG NUMBER: LDA4A15935D010TE LAR35FL 4LLWW1

CANDELA DISTRIBUTION (continued):

	27.5°	30°	32.5°	35°	37.5°	40°	42.5°	45°	67.5°	90°	112.5°
0°	385.5	385.5	385.5	385.5	385.5	385.5	385.5	385.5	385.5	385.5	385.5
2.5°	485.7	478.5	481.2	473.0	466.8	464.0	464.0	463.1	420.7	378.3	348.4
5°	607.5	594.0	595.8	581.3	575.0	566.0	563.3	551.6	459.5	374.6	316.9
7.5°	752.0	732.1	720.4	706.9	698.7	682.5	674.3	650.9	495.5	367.4	286.2
10°	907.2	879.3	860.3	838.6	830.6	805.2	790.0	750.1	527.2	355.6	257.3
12.5°	1075.2	1037.3	1003.0	979.5	969.5	920.9	910.9	854.0	556.1	344.9	233.9
15°	1247.6	1199.7	1156.4	1123.1	1110.4	1062.5	1031.9	956.0	581.3	334.9	215.7
17.5°	1401.1	1349.6	1297.2	1253.9	1235.9	1168.2	1139.3	1045.4	600.3	325.0	205.8
20°	1537.4	1475.0	1420.1	1360.5	1339.6	1263.0	1216.0	1114.9	611.2	318.7	206.7
22.5°	1641.3	1570.0	1506.7	1439.9	1413.7	1329.8	1276.5	1162.8	614.7	314.2	213.0
25°	1717.1	1637.6	1567.2	1494.0	1463.3	1374.0	1315.4	1192.5	613.9	311.5	215.7
27.5°	1755.8	1671.0	1595.2	1516.6	1483.2	1391.2	1327.9	1198.9	601.2	300.7	215.7
30°	1750.5	1661.0	1581.7	1500.4	1464.3	1373.0	1308.1	1174.5	574.1	280.8	200.5
32.5°	1702.6	1611.4	1530.1	1448.9	1412.9	1323.4	1258.5	1124.9	535.4	254.6	179.6
35°	1623.1	1532.9	1452.5	1373.0	1336.9	1250.3	1187.2	1057.1	491.0	226.6	160.6
37.5°	1519.4	1431.8	1354.1	1282.0	1240.4	1159.1	1097.7	976.8	442.4	201.3	144.4
40°	1390.2	1307.2	1234.1	1167.3	1123.1	1048.1	992.2	882.0	391.0	175.1	129.1
42.5°	1241.3	1163.6	1104.0	1037.3	987.5	921.7	873.0	777.3	338.6	151.6	112.9
45°	1072.5	1003.9	952.4	893.7	842.3	786.3	744.8	667.1	285.3	126.4	97.5
47.5°	891.0	834.1	794.5	745.6	695.2	650.0	617.5	555.1	234.7	105.7	83.0
50°	712.2	667.1	638.2	601.2	555.1	520.9	495.5	454.1	186.0	85.8	69.5
52.5°	547.9	515.5	495.5	468.5	427.9	404.5	386.3	357.5	141.7	69.5	55.9
55°	409.0	385.5	372.8	353.9	318.7	302.5	290.7	272.6	105.7	55.1	43.4
57.5°	295.2	279.8	271.8	259.1	230.2	220.2	212.2	201.3	76.8	42.4	31.6
60°	205.8	195.0	190.5	182.3	158.9	152.6	141.7	141.7	54.1	30.7	21.7
62.5°	136.4	129.1	127.2	121.0	103.0	99.3	96.5	94.8	37.0	20.7	12.7
65°	84.8	79.5	78.5	74.9	62.3	60.5	57.8	57.8	23.5	12.7	6.3
67.5°	48.7	46.1	45.1	43.4	34.4	33.4	31.6	33.4	13.5	6.3	2.7
70°	26.2	23.5	23.5	22.6	17.2	16.2	15.4	16.2	7.2	3.5	1.8
72.5°	12.7	10.8	10.8	10.0	7.2	7.2	6.3	8.2	3.5	1.8	1.8
75°	5.5	5.5	4.5	4.5	2.7	2.7	2.7	3.5	1.8	1.8	1.8
77.5°	2.7	2.7	2.7	2.7	1.0	1.0	1.0	1.8	1.8	1.8	1.8
80°	1.8	1.8	1.8	1.8	0.0	0.0	0.0	1.8	1.8	1.8	1.8
82.5°	1.8	1.0	1.0	1.0	0.0	0.0	0.0	1.0	1.8	1.8	1.8
85°	2.7	2.7	2.7	2.7	1.8	1.8	1.8	2.7	1.8	1.8	1.8
87.5°	3.5	3.5	3.5	3.5	2.7	2.7	2.7	4.5	2.7	1.8	1.8
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: P1191562

CATALOG NUMBER: LDA4A15935D010TE LAR35FL 4LLWW1

CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	385.5	385.5	385.5
2.5°	323.2	304.2	306.0
5°	274.5	247.4	244.6
7.5°	232.0	203.2	199.5
10°	198.5	169.8	165.1
12.5°	174.3	148.1	143.6
15°	158.9	135.4	131.9
17.5°	156.1	138.1	136.4
20°	167.0	158.0	159.8
22.5°	186.0	183.3	187.8
25°	198.5	197.7	203.2
27.5°	196.0	194.0	197.7
30°	181.5	178.8	180.5
32.5°	164.3	159.8	161.6
35°	147.1	143.6	144.4
37.5°	132.7	130.0	130.0
40°	120.0	117.4	117.4
42.5°	106.5	104.7	105.7
45°	92.0	91.2	93.0
47.5°	77.6	76.8	78.5
50°	64.1	62.3	62.3
52.5°	50.6	47.9	46.1
55°	37.0	32.5	30.7
57.5°	25.2	20.7	19.0
60°	14.5	11.7	10.0
62.5°	7.2	4.5	3.5
65°	2.7	1.8	1.0
67.5°	1.8	1.0	1.0
70°	1.8	1.0	1.0
72.5°	1.0	1.0	1.0
75°	1.0	1.0	0.0
77.5°	1.0	1.0	1.0
80°	1.0	1.0	0.0
82.5°	1.0	1.0	0.0
85°	1.0	1.0	0.0
87.5°	1.0	1.0	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



Classified

Scaled Data Report

Cooper Lighting Solutions Photometric Lab

1121 Highway 74 South

Peachtree City, GA 30269



— 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)