

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: P1192067

Luminaire Tested: **LDA6A25927D010TE LARL15SP 6LAL1 30° Tilt**

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: P1192067
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P26267)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: io LED
Catalog Number: LDA6A25927D010TE LARL15SP 6LAL1 30° Tilt
Description: PORTFOLIO 6" Lensed Adjustable, Self-flange Trim Ring, 15° Spot
Optic, at 30° tilt
Light Source: (1) HIGH LUMEN LED 90CRI / 2700K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

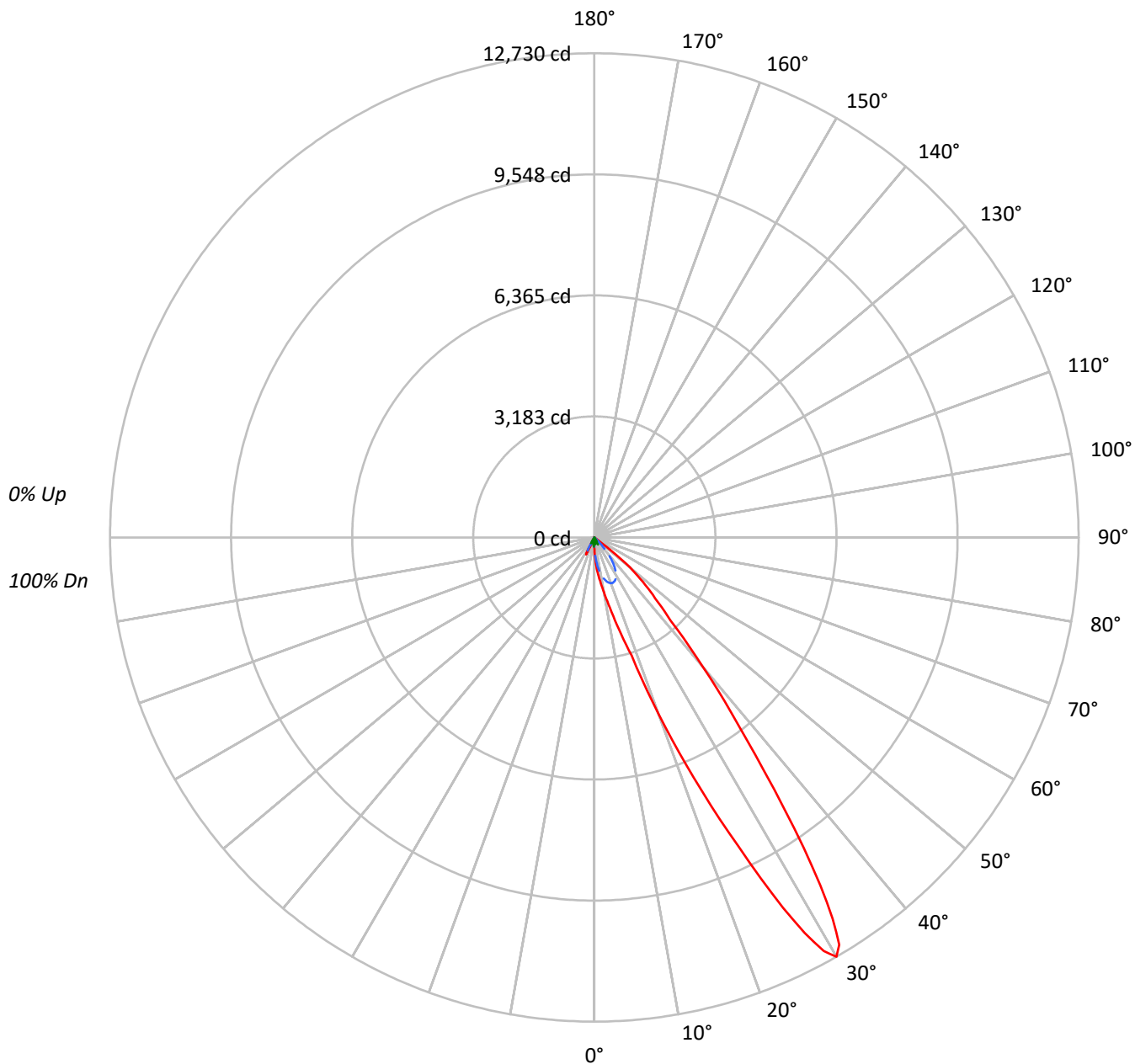
Lumens per Lamp: N/A
Luminaire Lumens: 1761.9 lumens
Efficiency: N/A
Efficacy: 56.5 lumens/watt
Spacing Criteria (0/90/45): 2.44 / 0.33 / 1.32
Luminous Opening: Circular (Dia: 0.5' x H: 0')
CIE Type: Direct

Input Watts (W): 31.2
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: P1192067

CATALOG NUMBER: LDA6A25927D010TE LARL15SP 6LAL1 30° Tilt

Luminous Intensity Polar Plot



Cooper Lighting Solutions Photometric Lab

1121 Highway 74 South

Peachtree City, GA 30269



TEST NUMBER: P1192067

CATALOG NUMBER: LDA6A25927D010TE LARL15SP 6LAL1 30° Tilt

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	113	109	106	104	110	107	105	102	103	101	99	99	98	96	96	95	93	91		
2	106	100	95	91	103	98	94	90	95	91	88	92	89	86	89	87	85	83		
3	99	91	86	81	97	90	85	80	87	83	79	85	81	78	82	79	76	75		
4	93	84	77	72	91	82	76	72	80	75	71	78	74	70	76	72	69	67		
5	87	77	70	64	85	76	69	64	74	68	64	72	67	63	70	66	62	61		
6	81	70	63	58	79	69	63	58	68	62	57	66	61	57	65	60	56	55		
7	75	64	57	52	74	64	57	52	62	56	52	61	55	51	60	55	51	49		
8	71	59	52	47	69	59	52	47	57	51	47	56	51	47	55	50	46	45		
9	66	55	47	43	65	54	47	43	53	47	42	52	46	42	51	46	42	41		
10	62	50	43	39	61	50	43	39	49	43	39	48	42	38	47	42	38	37		

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	14215	14215	14215
5°	48608	12090	1618
10°	81361	6708	790
15°	141317	2474	681
20°	288723	1622	1161
25°	541973	3170	20487
30°	805820	5526	3317
35°	581541	422	268
40°	315856	179	0
45°	175344	194	0
50°	102598	213	0
55°	3259	153	0
60°	1140	274	0
65°	519	324	0
70°	401	401	0
75°	191	678	0
80°	0	1010	0
85°	0	2013	0



TEST NUMBER: P1192067

CATALOG NUMBER: LDA6A25927D010TE LARL15SP 6LAL1 30° Tilt

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	36.3	2.1
10°-20°	188.6	10.7
20°-30°	607.0	34.5
30°-40°	632.0	35.9
40°-50°	269.3	15.3
50°-60°	22.4	1.3
60°-70°	2.4	0.1
70°-80°	2.1	0.1
80°-90°	1.9	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°	832.0	47.2
0°-40°	1463.9	83.1
0°-60°	1755.6	99.6
0°-90°	1761.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1761.9	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	259	259	259	259	259	
5°	883	644	220	40	29	100
15°	2490	1186	44	15	12	814
25°	8960	1262	52	158	339	4303
35°	8690	902	6	6	4	5379
45°	2262	155	2	2	0	1860
55°	34	5	2	2	0	213
65°	4	2	2	2	0	5
75°	1	2	3	2	0	1
85°	0	2	3	2	0	0
90°	0	0	0	0	0	

Cooper Lighting Solutions Photometric Lab

1121 Highway 74 South

Peachtree City, GA 30269



TEST NUMBER: P1192067

CATALOG NUMBER: LDA6A25927D010TE LARL15SP 6LAL1 30° Tilt

CANDELA DISTRIBUTION (FULL):

	0°	2.5°	5°	7.5°	10°	12.5°	15°	17.5°	20°	22.5°	25°
0°	259.3	259.3	259.3	259.3	259.3	259.3	259.3	259.3	259.3	259.3	259.3
2.5°	575.8	545.5	568.6	555.0	546.4	544.0	557.5	542.4	526.5	525.8	521.1
5°	883.3	854.8	878.6	858.0	848.5	840.6	846.9	822.3	796.2	796.9	785.1
7.5°	1151.4	1135.6	1151.4	1129.3	1122.0	1114.1	1111.8	1087.9	1057.1	1059.4	1041.3
10°	1461.6	1415.5	1440.8	1392.4	1380.6	1359.2	1352.0	1313.3	1264.0	1261.7	1235.5
12.5°	1888.9	1870.6	1896.1	1827.8	1813.6	1777.2	1757.3	1695.4	1614.6	1593.9	1533.7
15°	2490.0	2431.3	2456.8	2360.7	2333.8	2270.3	2226.7	2130.8	2053.9	1966.6	1874.6
17.5°	3253.7	3220.3	3252.8	3064.1	2994.4	2870.7	2768.3	2608.2	2444.8	2366.3	2237.0
20°	4949.1	4790.6	4808.0	4457.4	4233.8	3900.7	3634.2	3280.6	2956.2	2769.9	2556.7
22.5°	6830.9	6650.1	6605.6	6155.2	5776.3	5275.8	4808.0	4216.4	3641.4	3225.0	2863.5
25°	8960.1	8842.6	8610.4	7872.9	7220.9	6507.4	5819.0	5045.0	4299.6	3662.0	3119.6
26°	9971.2	9876.7	9527.8	8605.6	7761.9	6907.8	6121.1	5290.0	4486.0	3786.6	3180.0
27°	10931.5	10855.3	10401.6	9328.0	8273.3	7245.6	6340.8	5464.5	4619.9	3866.6	3222.7
28°	11777.5	11699.8	11113.8	9940.2	8678.5	7489.8	6478.7	5573.2	4697.0	3885.6	3220.3
29°	12435.8	12337.5	11580.9	10332.7	8916.5	7607.3	6506.5	5586.6	4685.9	3841.3	3175.9
30°	12730.0	12607.9	11714.2	10416.8	8920.4	7562.8	6428.1	5514.5	4595.5	3736.6	3093.4
31°	12499.2	12395.4	11472.3	10174.2	8678.5	7359.8	6233.0	5347.9	4424.1	3585.1	2984.0
32°	11826.8	11731.6	10880.7	9641.3	8221.1	7016.3	5949.9	5110.0	4196.5	3402.0	2857.2
33°	10904.4	10830.7	10067.9	8909.3	7633.3	6593.8	5611.2	4811.9	3922.9	3196.5	2702.5
34°	9852.2	9794.4	9098.0	8082.3	6991.9	6124.2	5225.1	4383.0	3624.0	2989.6	2586.8
35°	8689.7	8650.0	8082.3	7232.9	6353.5	5636.6	4796.0	4003.8	3322.7	2790.5	2462.2
36°	7584.9	7552.6	7119.4	6454.3	5746.0	5130.6	4331.4	3608.9	3034.0	2611.4	2345.8
37°	6641.3	6617.5	6297.2	5761.1	5162.5	4605.0	3858.0	3239.5	2782.6	2455.2	2226.0
38°	5856.3	5837.3	5577.1	5102.1	4561.3	4061.0	3401.1	2912.6	2568.5	2319.5	2090.3
39°	5124.3	5099.8	4865.9	4436.1	3962.7	3531.1	3098.2	2643.8	2400.5	2178.3	1944.5
40°	4413.7	4382.1	4176.8	3811.2	3416.3	3081.6	2693.0	2478.9	2264.0	2014.1	1795.3
42.5°	2961.8	2944.4	2832.5	2667.7	2500.4	2378.1	2255.3	2064.1	1837.3	1631.2	1469.5
45°	2261.7	2257.6	2202.9	2116.5	2005.5	1902.4	1738.3	1628.0	1474.9	1301.3	1185.5
47.5°	1735.1	1735.8	1685.2	1620.1	1543.9	1477.4	1357.6	1269.6	1160.2	1061.0	971.4
50°	1203.0	1152.3	1159.3	1107.8	1046.0	1007.2	896.2	828.6	673.3	516.2	403.6
51°	901.6	835.1	843.7	785.8	721.6	687.5	583.7	515.5	369.6	242.6	158.7
52°	550.3	498.0	497.2	452.8	397.2	367.2	284.6	222.0	126.1	66.7	45.9
53°	246.6	211.8	203.7	173.6	136.3	118.2	80.9	59.5	44.3	34.1	26.2
54°	65.1	57.9	55.6	50.7	45.9	44.3	38.9	32.5	25.3	19.9	16.7
55°	34.1	31.7	31.0	29.4	26.9	26.2	23.0	19.9	15.8	14.2	12.7
57.5°	15.8	15.8	15.1	14.2	13.5	13.5	12.0	11.1	10.4	10.4	8.8
60°	10.4	10.4	10.4	9.5	9.5	8.8	7.9	7.2	6.3	7.2	6.3
61°	8.8	8.8	8.8	7.9	7.2	6.3	6.3	6.3	5.6	5.6	4.7
62°	6.3	6.3	5.6	5.6	4.7	4.7	4.7	4.7	4.0	4.7	4.7
63°	4.7	4.7	4.0	4.0	4.0	4.0	3.2	3.2	3.2	4.7	4.7
64°	4.0	4.0	4.0	3.2	3.2	3.2	3.2	3.2	3.2	4.0	3.2
65°	4.0	3.2	3.2	3.2	3.2	3.2	3.2	3.2	2.5	3.2	3.2
66°	3.2	3.2	3.2	3.2	3.2	3.2	3.2	2.5	2.5	3.2	3.2

Classified

Scaled Data Report

Cooper Lighting Solutions Photometric Lab

1121 Highway 74 South

Peachtree City, GA 30269



TEST NUMBER: P1192067

CATALOG NUMBER: LDA6A25927D010TE LARL15SP 6LAL1 30° Tilt

CANDELA DISTRIBUTION (continued):

	0°	2.5°	5°	7.5°	10°	12.5°	15°	17.5°	20°	22.5°	25°
72.5°	0.9	0.9	0.9	0.9	0.0	0.0	0.0	0.0	0.0	0.9	0.9
75°	0.9	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.9
77.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.9
80°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.9
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.9
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.9
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.9
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: P1192067

CATALOG NUMBER: LDA6A25927D010TE LARL15SP 6LAL1 30° Tilt

CANDELA DISTRIBUTION (continued):

	27.5°	30°	32.5°	35°	37.5°	40°	42.5°	45°	67.5°	90°	112.5°
0°	259.3	259.3	259.3	259.3	259.3	259.3	259.3	259.3	259.3	259.3	259.3
2.5°	521.1	511.4	491.7	487.7	468.7	457.6	460.7	454.4	352.9	248.9	155.3
5°	776.3	754.9	725.5	715.3	682.8	665.3	659.7	643.9	437.0	219.7	73.0
7.5°	1026.2	998.4	962.7	946.1	901.6	872.2	853.2	829.5	494.9	174.5	40.5
10°	1211.8	1179.9	1142.6	1121.3	1071.4	1042.0	1011.0	984.8	525.8	120.5	30.1
12.5°	1459.1	1396.5	1318.7	1271.9	1198.2	1157.8	1122.0	1096.7	537.6	72.1	23.0
15°	1789.0	1688.3	1578.0	1493.2	1368.0	1291.8	1231.5	1185.5	528.1	43.6	19.9
17.5°	2108.6	1965.8	1821.5	1706.5	1563.1	1449.6	1333.9	1243.4	487.7	34.8	18.3
20°	2374.3	2207.0	2022.9	1862.0	1696.3	1561.5	1407.6	1279.8	422.7	27.8	19.9
22.5°	2578.9	2365.5	2157.0	1957.1	1759.6	1604.9	1436.1	1287.8	340.2	28.5	27.8
25°	2726.3	2446.4	2224.4	1996.7	1781.9	1612.2	1421.1	1262.4	250.5	52.4	93.6
26°	2756.4	2463.1	2233.0	1992.9	1774.0	1600.2	1403.5	1246.6	226.1	103.8	206.2
27°	2773.1	2460.6	2226.7	1977.0	1757.3	1582.8	1383.8	1232.3	222.0	177.7	307.7
28°	2758.1	2440.8	2199.7	1948.4	1730.4	1559.7	1360.8	1215.6	219.7	218.1	291.9
29°	2716.8	2405.9	2159.3	1904.0	1689.0	1523.3	1325.9	1191.9	196.7	173.6	176.1
30°	2654.2	2356.8	2100.7	1844.6	1636.8	1471.1	1276.0	1153.9	130.0	87.3	74.6
31°	2576.4	2293.3	2028.4	1775.6	1577.3	1407.6	1223.5	1104.6	67.4	37.3	34.8
32°	2490.7	2217.2	1950.8	1705.8	1517.0	1346.5	1179.9	1061.0	44.3	20.6	19.9
33°	2400.5	2128.3	1865.1	1633.6	1449.6	1278.3	1134.7	1014.2	33.2	12.7	12.0
34°	2311.6	2033.3	1778.8	1555.9	1376.6	1217.2	1093.5	960.4	26.9	9.5	7.9
35°	2210.8	1930.2	1689.9	1473.4	1298.1	1165.0	1052.4	901.6	21.5	6.3	6.3
36°	2093.5	1820.8	1597.9	1387.0	1223.5	1116.6	1007.2	837.4	16.7	4.7	5.6
37°	1968.9	1712.1	1505.0	1301.3	1162.5	1072.1	952.4	771.6	14.2	4.0	4.7
38°	1840.5	1604.2	1405.3	1218.8	1109.4	1023.7	890.5	703.3	12.0	3.2	4.0
39°	1714.4	1493.9	1305.4	1152.3	1059.4	966.7	820.0	633.7	10.4	3.2	4.0
40°	1591.6	1382.9	1216.5	1094.4	1004.0	896.9	747.0	560.7	7.2	2.5	4.0
42.5°	1299.7	1153.0	1047.6	925.4	823.1	702.6	549.6	364.0	5.6	2.5	3.2
45°	1087.9	967.4	844.6	706.5	605.9	482.2	325.1	154.6	5.6	2.5	3.2
47.5°	860.4	718.5	537.6	363.1	237.1	122.1	38.0	21.5	4.0	2.5	3.2
50°	250.5	145.1	54.0	32.5	24.6	15.1	9.5	8.8	3.2	2.5	3.2
51°	72.1	42.7	28.5	19.0	14.2	8.8	7.2	7.9	3.2	2.5	2.5
52°	34.1	24.6	16.7	12.7	9.5	7.2	6.3	7.2	3.2	2.5	2.5
53°	19.9	15.1	12.0	10.4	7.2	6.3	4.7	6.3	3.2	2.5	2.5
54°	13.5	12.0	10.4	8.8	6.3	4.7	4.7	6.3	3.2	2.5	2.5
55°	12.0	10.4	8.8	7.9	5.6	4.7	4.7	4.7	2.5	1.6	2.5
57.5°	7.9	7.9	6.3	6.3	4.7	3.2	1.6	4.0	3.2	2.5	2.5
60°	5.6	5.6	5.6	4.0	1.6	1.6	0.9	3.2	3.2	2.5	3.2
61°	5.6	5.6	4.0	3.2	1.6	1.6	0.9	3.2	3.2	2.5	3.2
62°	4.7	4.0	3.2	3.2	1.6	1.6	0.9	3.2	3.2	2.5	3.2
63°	4.0	3.2	3.2	3.2	1.6	0.9	0.9	3.2	3.2	2.5	3.2
64°	3.2	3.2	3.2	3.2	0.9	0.9	0.9	3.2	3.2	2.5	3.2
65°	3.2	3.2	3.2	2.5	0.9	0.9	0.9	2.5	3.2	2.5	3.2
66°	3.2	3.2	2.5	2.5	0.9	0.9	0.9	2.5	3.2	2.5	3.2



TEST NUMBER: P1192067

CATALOG NUMBER: LDA6A25927D010TE LARL15SP 6LAL1 30° Tilt

CANDELA DISTRIBUTION (continued):

	27.5°	30°	32.5°	35°	37.5°	40°	42.5°	45°	67.5°	90°	112.5°
72.5°	0.9	1.6	1.6	1.6	0.0	0.0	0.0	2.5	3.2	2.5	3.2
75°	0.9	0.9	1.6	1.6	0.0	0.0	0.0	2.5	3.2	3.2	3.2
77.5°	0.9	0.9	1.6	1.6	0.0	0.0	0.0	2.5	3.2	3.2	4.0
80°	0.9	0.9	1.6	1.6	0.0	0.0	0.0	2.5	3.2	3.2	4.0
82.5°	0.9	0.9	1.6	1.6	0.0	0.0	0.0	2.5	3.2	3.2	4.0
85°	0.9	0.9	1.6	1.6	0.0	0.0	0.0	2.5	3.2	3.2	4.0
87.5°	0.9	0.9	1.6	1.6	0.0	0.0	0.0	2.5	3.2	3.2	4.0
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: P1192067

CATALOG NUMBER: LDA6A25927D010TE LARL15SP 6LAL1 30° Tilt

CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	259.3	259.3	259.3
2.5°	99.0	71.4	65.1
5°	39.6	32.5	29.4
7.5°	24.6	20.6	19.0
10°	19.9	15.1	14.2
12.5°	15.8	13.5	12.7
15°	15.1	12.7	12.0
17.5°	15.1	14.2	13.5
20°	19.0	19.0	19.9
22.5°	32.5	38.0	42.7
25°	157.8	255.3	338.7
26°	330.7	466.2	498.7
27°	409.9	424.3	407.6
28°	315.6	283.1	266.5
29°	168.9	141.1	129.3
30°	67.4	55.6	52.4
31°	32.5	27.8	26.9
32°	18.3	15.1	15.1
33°	11.1	9.5	8.8
34°	7.9	6.3	5.6
35°	5.6	4.7	4.0
36°	4.7	3.2	2.5
37°	4.0	2.5	2.5
38°	3.2	2.5	1.6
39°	2.5	1.6	0.9
40°	2.5	0.9	0.0
42.5°	1.6	0.9	0.0
45°	1.6	0.0	0.0
47.5°	2.5	1.6	0.9
50°	1.6	0.9	0.0
51°	1.6	0.0	0.0
52°	1.6	0.0	0.0
53°	1.6	0.0	0.0
54°	1.6	0.0	0.0
55°	1.6	0.0	0.0
57.5°	1.6	0.0	0.0
60°	1.6	0.0	0.0
61°	1.6	0.0	0.0
62°	1.6	0.0	0.0
63°	1.6	0.9	0.0
64°	1.6	0.9	0.0
65°	1.6	0.9	0.0
66°	1.6	0.9	0.0



TEST NUMBER: P1192067

CATALOG NUMBER: LDA6A25927D010TE LARL15SP 6LAL1 30° Tilt

CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
72.5°	2.5	0.9	0.0
75°	2.5	0.9	0.0
77.5°	2.5	0.9	0.0
80°	2.5	0.9	0.0
82.5°	2.5	0.9	0.0
85°	2.5	0.9	0.0
87.5°	2.5	0.9	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



67.5°	3.2	2.5	2.5	2.5	2.5	2.5	2.5	1.6	1.6	2.5	2.5
70°	2.5	2.5	2.5	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6

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



67.5°	2.5	2.5	2.5	2.5	0.9	0.0	0.0	2.5	3.2	2.5	3.2
70°	1.6	1.6	1.6	1.6	0.0	0.0	0.0	2.5	3.2	2.5	3.2

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



67.5°	2.5	0.9	0.0
70°	2.5	0.9	0.0

Classified

Cooper Lighting Solutions Photometric Lab

1121 Highway 74 South

Peachtree City, GA 30269

Scaled Data Report



(END OF REPORT)