

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: P1192081

Luminaire Tested: **LDA6A25935D010TE 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: P1192081
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: LDA6A25935D010TE 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 / 3500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

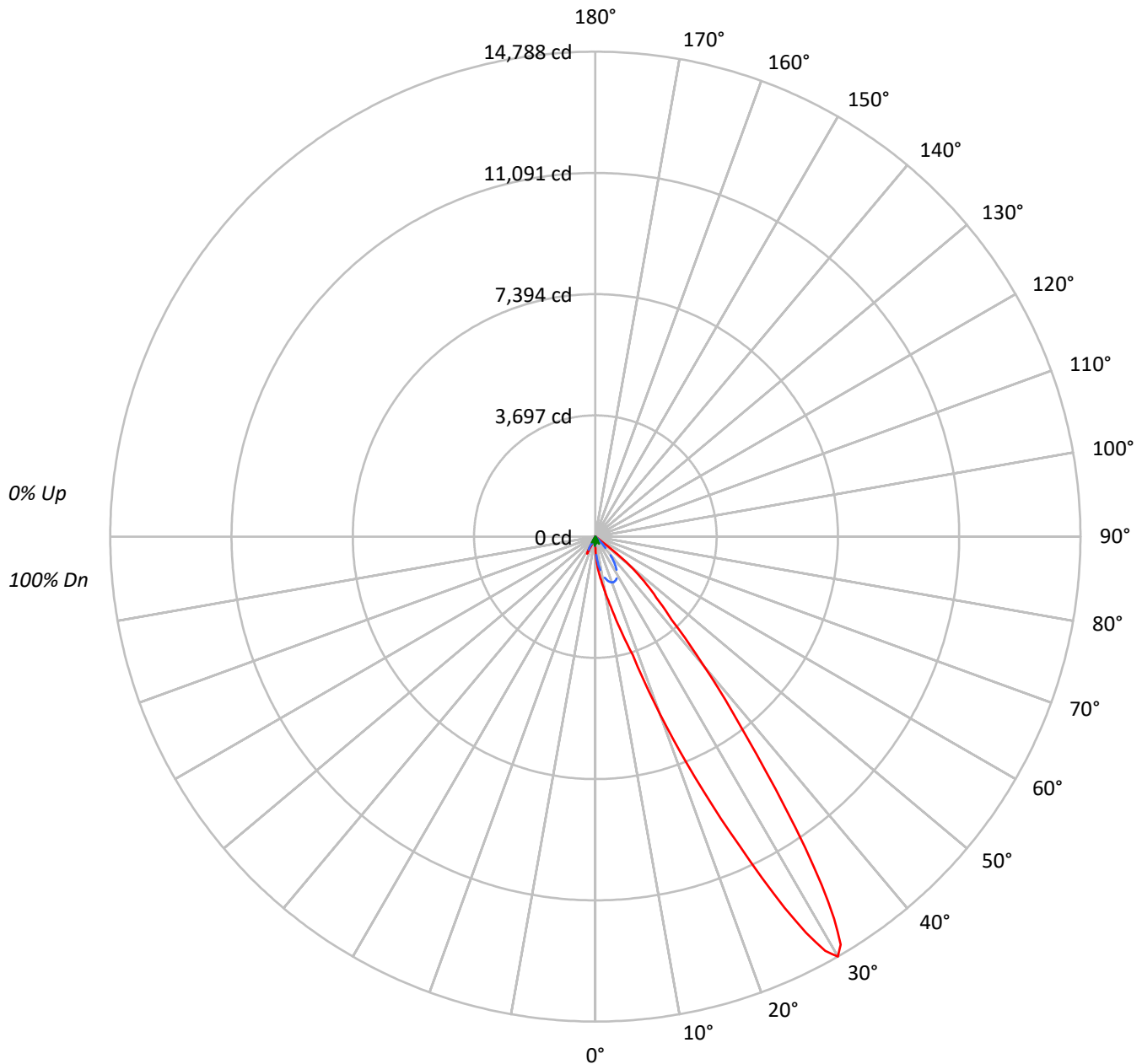
Lumens per Lamp: N/A
Luminaire Lumens: 2046.4 lumens
Efficiency: N/A
Efficacy: 65.6 lumens/watt
Spacing Criteria (0/90/45): 2.44 / 0.33 / 1.32
Luminous Opening: Circular (Dia: 0.5' x H: 0')
CIE Type: Direct

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: P1192081

CATALOG NUMBER: LDA6A25935D010TE LARL15SP 6LAL1 30° Tilt

Luminous Intensity Polar Plot



Cooper Lighting Solutions Photometric Lab

1121 Highway 74 South

Peachtree City, GA 30269



TEST NUMBER: P1192081

CATALOG NUMBER: LDA6A25935D010TE 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°	16512	16512	16512
5°	56471	14038	1877
10°	94504	7793	918
15°	164161	2877	789
20°	335387	1878	1342
25°	629571	3684	23796
30°	936081	6412	3855
35°	675542	495	308
40°	366923	200	0
45°	203680	217	0
50°	119177	239	0
55°	3785	172	0
60°	1316	307	0
65°	597	363	0
70°	449	449	0
75°	191	784	0
80°	0	1168	0
85°	0	2327	0



TEST NUMBER: P1192081

CATALOG NUMBER: LDA6A25935D010TE LARL15SP 6LAL1 30° Tilt

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	42.2	2.1
10°-20°	219.1	10.7
20°-30°	705.1	34.5
30°-40°	734.1	35.9
40°-50°	312.8	15.3
50°-60°	26.0	1.3
60°-70°	2.7	0.1
70°-80°	2.3	0.1
80°-90°	2.2	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°	966.4	47.2
0°-40°	1700.5	83.1
0°-60°	2039.3	99.6
0°-90°	2046.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2046.4	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	301	301	301	301	301	
5°	1026	748	255	46	34	117
15°	2892	1377	51	17	14	946
25°	10408	1466	61	183	393	4999
35°	10094	1047	7	6	5	6249
45°	2627	180	3	2	0	2161
55°	40	6	2	2	0	247
65°	5	3	3	2	0	5
75°	1	3	4	3	0	1
85°	0	3	4	3	0	0
90°	0	0	0	0	0	

Cooper Lighting Solutions Photometric Lab

1121 Highway 74 South

Peachtree City, GA 30269



TEST NUMBER: P1192081

CATALOG NUMBER: LDA6A25935D010TE LARL15SP 6LAL1 30° Tilt

CANDELA DISTRIBUTION (FULL):

	0°	2.5°	5°	7.5°	10°	12.5°	15°	17.5°	20°	22.5°	25°
0°	301.2	301.2	301.2	301.2	301.2	301.2	301.2	301.2	301.2	301.2	301.2
2.5°	668.9	633.9	660.4	644.8	634.7	631.9	647.6	630.2	611.7	610.8	605.2
5°	1026.2	993.1	1020.7	996.8	985.7	976.4	983.8	955.3	924.8	925.7	912.0
7.5°	1337.5	1319.1	1337.5	1311.7	1303.4	1294.3	1291.5	1263.8	1227.9	1230.8	1209.5
10°	1697.7	1644.4	1673.7	1617.6	1603.7	1578.9	1570.6	1525.4	1468.4	1465.6	1435.2
12.5°	2194.3	2173.0	2202.6	2123.4	2106.7	2064.3	2041.4	1969.5	1875.5	1851.6	1781.6
15°	2892.5	2824.3	2853.8	2742.3	2711.0	2637.3	2586.6	2475.2	2385.9	2284.5	2177.6
17.5°	3779.5	3740.8	3778.7	3559.5	3478.4	3334.6	3215.9	3029.8	2839.9	2748.8	2598.6
20°	5749.0	5564.8	5585.0	5178.0	4918.1	4531.3	4221.8	3810.9	3434.2	3217.6	2969.9
22.5°	7935.0	7725.0	7673.4	7150.2	6709.9	6128.6	5585.0	4897.9	4230.1	3746.5	3326.4
25°	10408.3	10272.0	10002.1	9145.5	8388.2	7559.2	6759.7	5860.5	4994.6	4254.0	3623.8
26°	11583.0	11473.4	11068.0	9996.7	9016.4	8024.4	7110.6	6145.2	5211.0	4398.6	3693.9
27°	12698.5	12610.0	12083.1	10835.8	9610.7	8416.9	7365.7	6347.8	5366.7	4491.7	3743.6
28°	13681.4	13591.1	12910.3	11546.9	10081.5	8700.5	7526.0	6474.0	5456.1	4513.8	3740.8
29°	14445.9	14331.8	13452.9	12002.9	10357.7	8836.8	7558.2	6489.6	5443.2	4462.1	3689.3
30°	14787.8	14645.8	13607.7	12100.5	10362.4	8785.3	7467.1	6405.9	5338.2	4340.6	3593.6
31°	14519.7	14399.0	13326.7	11818.7	10081.5	8549.5	7240.5	6212.4	5139.2	4164.6	3466.4
32°	13738.4	13627.9	12639.6	11199.6	9549.8	8150.5	6911.7	5936.0	4874.8	3951.9	3319.0
33°	12667.2	12581.5	11695.2	10349.4	8867.2	7659.5	6518.3	5589.8	4557.1	3713.2	3139.4
34°	11444.7	11377.5	10568.8	9388.7	8122.0	7114.3	6069.7	5091.4	4209.8	3472.9	3004.9
35°	10094.3	10048.2	9388.7	8402.1	7380.5	6547.7	5571.3	4651.1	3859.8	3241.6	2860.3
36°	8811.1	8773.3	8270.3	7497.5	6674.9	5960.1	5031.4	4192.3	3524.4	3033.4	2724.9
37°	7714.9	7687.3	7315.1	6692.3	5996.9	5349.3	4481.5	3763.0	3232.4	2851.9	2585.7
38°	6803.0	6780.8	6478.7	5926.9	5298.6	4717.4	3950.9	3383.5	2983.7	2694.4	2428.3
39°	5952.7	5924.0	5652.4	5153.1	4603.2	4102.0	3599.0	3071.3	2788.4	2530.5	2258.7
40°	5127.3	5090.5	4851.8	4427.1	3968.5	3579.7	3128.3	2879.7	2629.9	2339.8	2085.6
42.5°	3440.5	3420.3	3290.5	3098.9	2904.5	2762.7	2619.8	2397.8	2134.3	1894.9	1707.0
45°	2627.2	2622.7	2559.0	2458.7	2329.6	2209.9	2019.2	1891.2	1713.3	1511.7	1377.1
47.5°	2015.6	2016.4	1957.5	1882.0	1793.5	1716.1	1577.0	1474.8	1347.7	1232.5	1128.4
50°	1397.4	1338.4	1346.7	1286.9	1215.1	1169.9	1040.9	962.7	782.2	599.7	468.8
51°	1047.4	970.0	980.1	912.9	838.3	798.7	678.0	598.8	429.3	281.8	184.2
52°	639.3	578.4	577.6	526.0	461.4	426.4	330.7	257.9	146.5	77.4	53.5
53°	286.4	245.9	236.8	201.8	158.5	137.2	93.9	69.1	51.5	39.6	30.4
54°	75.5	67.2	64.6	58.9	53.5	51.5	45.2	37.8	29.6	23.0	19.4
55°	39.6	36.8	35.9	34.1	31.3	30.4	26.7	23.0	18.5	16.5	14.8
57.5°	18.5	18.5	17.4	16.5	15.7	15.7	13.9	12.8	12.0	12.0	10.2
60°	12.0	12.0	12.0	11.1	11.1	10.2	9.1	8.3	7.4	8.3	7.4
61°	10.2	10.2	10.2	9.1	8.3	7.4	7.4	7.4	6.5	6.5	5.5
62°	7.4	7.4	6.5	6.5	5.5	5.5	5.5	5.5	4.6	5.5	5.5
63°	5.5	5.5	4.6	4.6	4.6	4.6	3.7	3.7	3.7	5.5	5.5
64°	4.6	4.6	4.6	3.7	3.7	3.7	3.7	3.7	3.7	4.6	3.7
65°	4.6	3.7	3.7	3.7	3.7	3.7	3.7	3.7	2.8	3.7	3.7
66°	3.7	3.7	3.7	3.7	3.7	3.7	3.7	2.8	2.8	3.7	3.7



TEST NUMBER: P1192081

CATALOG NUMBER: LDA6A25935D010TE 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

Cooper Lighting Solutions Photometric Lab

1121 Highway 74 South

Peachtree City, GA 30269



TEST NUMBER: P1192081

CATALOG NUMBER: LDA6A25935D010TE 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°	301.2	301.2	301.2	301.2	301.2	301.2	301.2	301.2	301.2	301.2	301.2
2.5°	605.2	594.1	571.0	566.5	544.5	531.5	535.2	527.8	409.9	289.2	180.5
5°	901.8	877.0	842.8	830.9	793.1	772.8	766.5	748.0	507.5	255.1	84.8
7.5°	1192.1	1159.7	1118.3	1099.0	1047.4	1013.3	991.2	963.5	574.7	202.7	47.0
10°	1407.6	1370.8	1327.3	1302.5	1244.5	1210.4	1174.5	1144.0	610.8	140.0	35.0
12.5°	1695.0	1622.2	1531.9	1477.6	1391.9	1344.9	1303.4	1274.0	624.5	83.7	26.7
15°	2078.2	1961.2	1833.1	1734.6	1589.1	1500.6	1430.6	1377.1	613.4	50.7	23.0
17.5°	2449.4	2283.7	2116.0	1982.3	1815.7	1683.9	1549.4	1444.3	566.5	40.5	21.1
20°	2757.9	2563.6	2350.0	2163.0	1970.3	1813.8	1635.0	1486.7	491.0	32.2	23.0
22.5°	2995.6	2747.9	2505.7	2273.5	2044.1	1864.4	1668.3	1496.1	395.1	33.2	32.2
25°	3167.0	2841.9	2584.0	2319.5	2069.9	1872.7	1650.7	1466.5	291.2	60.9	108.7
26°	3202.0	2861.2	2594.0	2315.0	2060.6	1859.0	1630.5	1448.0	262.5	120.7	239.4
27°	3221.3	2858.4	2586.6	2296.5	2041.4	1838.8	1607.4	1431.5	257.9	206.4	357.5
28°	3203.9	2835.4	2555.3	2263.3	2010.1	1812.0	1580.7	1412.1	255.1	253.3	339.0
29°	3155.9	2794.9	2508.3	2211.7	1962.1	1769.6	1540.2	1384.5	228.5	201.8	204.4
30°	3083.2	2737.7	2440.2	2142.7	1901.4	1708.7	1482.2	1340.4	151.1	101.3	86.6
31°	2993.0	2664.0	2356.3	2062.5	1832.2	1635.0	1421.5	1283.2	78.3	43.3	40.5
32°	2893.4	2575.7	2266.1	1981.4	1762.2	1564.1	1370.8	1232.5	51.5	23.9	23.0
33°	2788.4	2472.4	2166.7	1897.7	1683.9	1485.0	1318.2	1178.2	38.7	14.8	13.9
34°	2685.3	2361.9	2066.2	1807.4	1599.1	1414.1	1270.3	1115.5	31.3	11.1	9.1
35°	2568.3	2242.1	1963.0	1711.6	1508.0	1353.2	1222.5	1047.4	24.8	7.4	7.4
36°	2432.0	2114.9	1856.2	1611.1	1421.5	1297.1	1169.9	972.7	19.4	5.5	6.5
37°	2287.4	1988.8	1748.3	1511.7	1350.4	1245.4	1106.4	896.3	16.5	4.6	5.5
38°	2138.0	1863.6	1632.4	1415.8	1288.8	1189.2	1034.4	817.2	13.9	3.7	4.6
39°	1991.6	1735.5	1516.3	1338.4	1230.8	1122.9	952.4	736.1	12.0	3.7	4.6
40°	1848.8	1606.5	1413.0	1271.2	1166.2	1041.8	867.8	651.3	8.3	2.8	4.6
42.5°	1509.8	1339.5	1216.9	1075.1	956.1	816.1	638.4	422.7	6.5	2.8	3.7
45°	1263.8	1123.8	981.1	820.7	703.7	560.1	377.7	179.6	6.5	2.8	3.7
47.5°	999.4	834.6	624.5	421.9	275.5	141.8	44.2	24.8	4.6	2.8	3.7
50°	291.2	168.5	62.6	37.8	28.5	17.4	11.1	10.2	3.7	2.8	3.7
51°	83.7	49.8	33.2	22.2	16.5	10.2	8.3	9.1	3.7	2.8	2.8
52°	39.6	28.5	19.4	14.8	11.1	8.3	7.4	8.3	3.7	2.8	2.8
53°	23.0	17.4	13.9	12.0	8.3	7.4	5.5	7.4	3.7	2.8	2.8
54°	15.7	13.9	12.0	10.2	7.4	5.5	5.5	7.4	3.7	2.8	2.8
55°	13.9	12.0	10.2	9.1	6.5	5.5	5.5	5.5	2.8	1.8	2.8
57.5°	9.1	9.1	7.4	7.4	5.5	3.7	1.8	4.6	3.7	2.8	2.8
60°	6.5	6.5	6.5	4.6	1.8	1.8	0.9	3.7	3.7	2.8	3.7
61°	6.5	6.5	4.6	3.7	1.8	1.8	0.9	3.7	3.7	2.8	3.7
62°	5.5	4.6	3.7	3.7	1.8	1.8	0.9	3.7	3.7	2.8	3.7
63°	4.6	3.7	3.7	3.7	1.8	0.9	0.9	3.7	3.7	2.8	3.7
64°	3.7	3.7	3.7	3.7	0.9	0.9	0.9	3.7	3.7	2.8	3.7
65°	3.7	3.7	3.7	2.8	0.9	0.9	0.9	2.8	3.7	2.8	3.7
66°	3.7	3.7	2.8	2.8	0.9	0.9	0.9	2.8	3.7	2.8	3.7



TEST NUMBER: P1192081

CATALOG NUMBER: LDA6A25935D010TE 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	1.8	1.8	1.8	0.0	0.0	0.0	2.8	3.7	2.8	3.7
75°	0.9	0.9	1.8	1.8	0.0	0.0	0.0	2.8	3.7	3.7	3.7
77.5°	0.9	0.9	1.8	1.8	0.0	0.0	0.0	2.8	3.7	3.7	4.6
80°	0.9	0.9	1.8	1.8	0.0	0.0	0.0	2.8	3.7	3.7	4.6
82.5°	0.9	0.9	1.8	1.8	0.0	0.0	0.0	2.8	3.7	3.7	4.6
85°	0.9	0.9	1.8	1.8	0.0	0.0	0.0	2.8	3.7	3.7	4.6
87.5°	0.9	0.9	1.8	1.8	0.0	0.0	0.0	2.8	3.7	3.7	4.6
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: P1192081

CATALOG NUMBER: LDA6A25935D010TE LARL15SP 6LAL1 30° Tilt

CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	301.2	301.2	301.2
2.5°	115.2	82.9	75.5
5°	46.1	37.8	34.1
7.5°	28.5	23.9	22.2
10°	23.0	17.4	16.5
12.5°	18.5	15.7	14.8
15°	17.4	14.8	13.9
17.5°	17.4	16.5	15.7
20°	22.2	22.2	23.0
22.5°	37.8	44.2	49.8
25°	183.3	296.6	393.4
26°	384.2	541.7	579.5
27°	476.2	492.8	473.4
28°	366.6	328.8	309.4
29°	196.2	164.0	150.2
30°	78.3	64.6	60.9
31°	37.8	32.2	31.3
32°	21.1	17.4	17.4
33°	12.8	11.1	10.2
34°	9.1	7.4	6.5
35°	6.5	5.5	4.6
36°	5.5	3.7	2.8
37°	4.6	2.8	2.8
38°	3.7	2.8	1.8
39°	2.8	1.8	0.9
40°	2.8	0.9	0.0
42.5°	1.8	0.9	0.0
45°	1.8	0.0	0.0
47.5°	2.8	1.8	0.9
50°	1.8	0.9	0.0
51°	1.8	0.0	0.0
52°	1.8	0.0	0.0
53°	1.8	0.0	0.0
54°	1.8	0.0	0.0
55°	1.8	0.0	0.0
57.5°	1.8	0.0	0.0
60°	1.8	0.0	0.0
61°	1.8	0.0	0.0
62°	1.8	0.0	0.0
63°	1.8	0.9	0.0
64°	1.8	0.9	0.0
65°	1.8	0.9	0.0
66°	1.8	0.9	0.0



TEST NUMBER: P1192081

CATALOG NUMBER: LDA6A25935D010TE LARL15SP 6LAL1 30° Tilt

CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
72.5°	2.8	0.9	0.0
75°	2.8	0.9	0.0
77.5°	2.8	0.9	0.0
80°	2.8	0.9	0.0
82.5°	2.8	0.9	0.0
85°	2.8	0.9	0.0
87.5°	2.8	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





67.5°	3.7	2.8	2.8	2.8	2.8	2.8	2.8	1.8	1.8	2.8	2.8
70°	2.8	2.8	2.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8

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°	2.8	2.8	2.8	2.8	0.9	0.0	0.0	2.8	3.7	2.8	3.7
70°	1.8	1.8	1.8	1.8	0.0	0.0	0.0	2.8	3.7	2.8	3.7

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°	2.8	0.9	0.0
70°	2.8	0.9	0.0

Classified

Cooper Lighting Solutions Photometric Lab

1121 Highway 74 South

Peachtree City, GA 30269

Scaled Data Report



(END OF REPORT)