

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: P1192074

Luminaire Tested: **LDA6A25930D010TE 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: P1192074
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: LDA6A25930D010TE 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 / 3000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

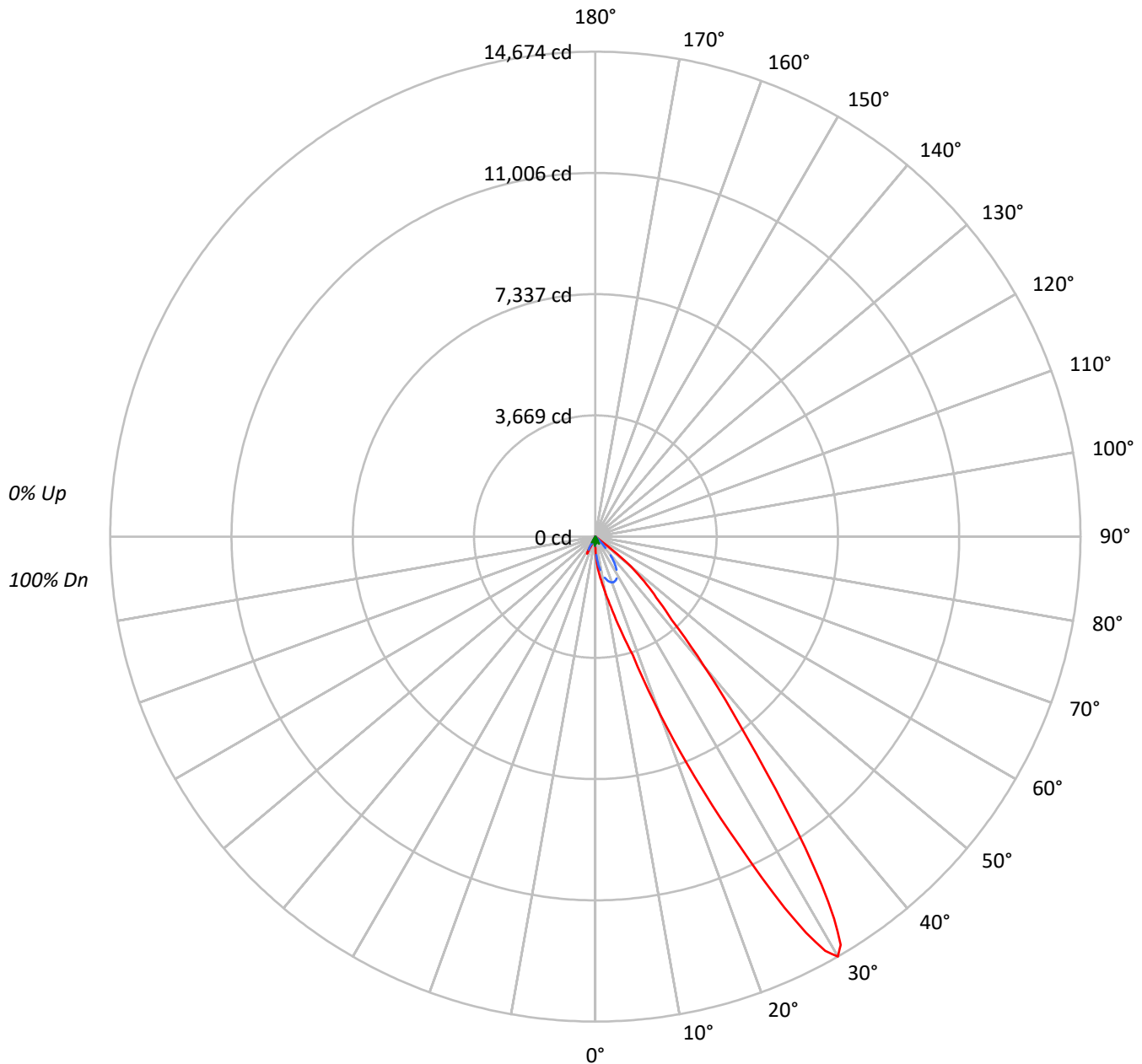
Lumens per Lamp: N/A
Luminaire Lumens: 2030.8 lumens
Efficiency: N/A
Efficacy: 65.1 lumens/watt
Spacing Criteria (0/90/45): 2.44 / 0.33 / 1.32
Luminous Opening: Circular (Dia: 0.5' x H: 0')
CIE Type: Direct

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

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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	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°	16386	16386	16386
5°	56031	13933	1860
10°	93775	7738	918
15°	162907	2855	778
20°	332821	1867	1336
25°	624750	3647	23614
30°	928896	6368	3817
35°	670362	495	308
40°	364118	200	0
45°	202114	217	0
50°	118273	239	0
55°	3747	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



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	41.9	2.1
10°-20°	217.4	10.7
20°-30°	699.7	34.5
30°-40°	728.5	35.9
40°-50°	310.4	15.3
50°-60°	25.8	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°	959.0	47.2
0°-40°	1687.5	83.1
0°-60°	2023.7	99.6
0°-90°	2030.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2030.8	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	299	299	299	299	299	
5°	1018	742	253	46	34	116
15°	2870	1367	50	17	14	938
25°	10329	1455	60	182	390	4960
35°	10017	1039	7	6	5	6201
45°	2607	178	3	2	0	2144
55°	39	6	2	2	0	245
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	

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CANDELA DISTRIBUTION (FULL):

	0°	2.5°	5°	7.5°	10°	12.5°	15°	17.5°	20°	22.5°	25°
0°	298.9	298.9	298.9	298.9	298.9	298.9	298.9	298.9	298.9	298.9	298.9
2.5°	663.6	628.9	655.5	639.8	629.8	627.2	642.6	625.2	606.9	606.1	600.6
5°	1018.2	985.3	1012.8	989.0	978.1	969.0	976.2	947.9	917.8	918.7	904.9
7.5°	1327.3	1309.0	1327.3	1301.7	1293.6	1284.4	1281.6	1254.2	1218.4	1221.3	1200.1
10°	1684.6	1631.7	1660.9	1605.1	1591.4	1566.8	1558.5	1513.8	1457.2	1454.4	1424.3
12.5°	2177.4	2156.5	2185.7	2107.0	2090.7	2048.5	2025.8	1954.3	1861.1	1837.3	1767.9
15°	2870.4	2802.6	2832.0	2721.4	2690.2	2617.0	2566.9	2456.2	2367.6	2266.9	2161.0
17.5°	3750.7	3712.2	3749.6	3532.2	3451.8	3309.1	3191.2	3006.5	2818.3	2727.7	2578.7
20°	5705.0	5522.2	5542.3	5138.2	4880.5	4496.6	4189.4	3781.6	3407.8	3193.0	2947.1
22.5°	7874.2	7665.9	7614.7	7095.3	6658.5	6081.7	5542.3	4860.4	4197.7	3717.8	3300.8
25°	10328.6	10193.3	9925.4	9075.4	8324.0	7501.2	6707.8	5815.7	4956.3	4221.5	3596.2
26°	11494.1	11385.4	10983.1	9920.0	8947.5	7962.8	7056.1	6098.0	5171.1	4364.8	3665.5
27°	12601.0	12513.4	11990.4	10752.8	9537.0	8352.3	7309.3	6299.1	5325.7	4457.2	3715.0
28°	13576.5	13486.8	12811.4	11458.4	10004.1	8633.8	7468.3	6424.4	5414.4	4479.2	3712.2
29°	14335.1	14221.8	13349.8	11910.9	10278.3	8769.1	7500.3	6440.0	5401.5	4428.0	3661.0
30°	14674.3	14533.6	13503.3	12007.8	10282.9	8717.9	7409.9	6356.8	5297.2	4307.3	3566.0
31°	14408.3	14288.5	13224.5	11728.1	10004.1	8483.9	7184.9	6164.9	5099.8	4132.8	3439.8
32°	13633.2	13523.4	12542.6	11113.8	9476.6	8088.1	6858.5	5890.6	4837.5	3921.5	3293.6
33°	12570.1	12485.1	11605.7	10270.1	8799.3	7600.9	6468.3	5546.9	4522.1	3684.9	3115.2
34°	11357.1	11290.2	10487.7	9316.7	8059.7	7059.8	6023.1	5052.3	4177.5	3446.2	2981.9
35°	10016.9	9971.2	9316.7	8337.7	7323.9	6497.6	5528.6	4615.3	3830.2	3216.8	2838.3
36°	8743.6	8706.1	8207.0	7440.0	6623.7	5914.4	4992.9	4160.2	3497.4	3010.2	2703.9
37°	7655.7	7628.4	7258.9	6641.1	5951.0	5308.3	4447.2	3734.1	3207.6	2830.1	2565.8
38°	6750.7	6728.9	6428.9	5881.5	5258.0	4681.1	3920.6	3357.5	2960.8	2673.9	2409.6
39°	5907.0	5878.7	5609.0	5113.6	4567.8	4070.5	3571.4	3047.7	2767.1	2511.1	2241.4
40°	5088.1	5051.5	4814.7	4393.3	3938.0	3552.2	3104.3	2857.5	2609.8	2321.8	2069.6
42.5°	3414.1	3394.1	3265.3	3075.1	2882.2	2741.4	2599.8	2379.4	2117.9	1880.3	1693.8
45°	2607.0	2602.4	2539.5	2439.7	2311.8	2192.9	2003.8	1876.7	1700.3	1500.1	1366.6
47.5°	2000.1	2001.0	1942.5	1867.6	1779.8	1702.9	1565.0	1463.5	1337.4	1223.0	1119.8
50°	1386.8	1328.2	1336.5	1277.0	1205.8	1160.9	1033.0	955.3	776.2	595.1	465.3
51°	1039.4	962.7	972.7	905.8	831.8	792.5	672.7	594.1	425.9	279.7	182.8
52°	634.4	574.0	573.2	522.0	457.9	423.3	328.1	256.0	145.3	76.7	53.0
53°	284.3	244.0	234.9	200.2	157.3	136.2	93.2	68.6	51.2	39.2	30.1
54°	74.9	66.7	64.0	58.6	53.0	51.2	44.9	37.5	29.2	22.9	19.2
55°	39.2	36.6	35.7	33.8	31.1	30.1	26.6	22.9	18.3	16.5	14.6
57.5°	18.3	18.3	17.4	16.5	15.5	15.5	13.7	12.8	12.0	12.0	10.0
60°	12.0	12.0	12.0	10.9	10.9	10.0	9.1	8.3	7.4	8.3	7.4
61°	10.0	10.0	10.0	9.1	8.3	7.4	7.4	7.4	6.3	6.3	5.5
62°	7.4	7.4	6.3	6.3	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: P1192074

CATALOG NUMBER: LDA6A25930D010TE 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

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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°	298.9	298.9	298.9	298.9	298.9	298.9	298.9	298.9	298.9	298.9	298.9
2.5°	600.6	589.5	566.8	562.3	540.3	527.4	531.1	523.7	406.7	287.1	179.1
5°	894.9	870.3	836.3	824.6	787.1	767.0	760.5	742.2	503.7	253.2	84.1
7.5°	1182.9	1150.9	1109.7	1090.5	1039.4	1005.6	983.6	956.1	570.3	201.1	46.6
10°	1396.8	1360.2	1317.3	1292.5	1235.0	1201.2	1165.5	1135.4	606.1	139.0	34.7
12.5°	1682.0	1609.7	1520.2	1466.3	1381.2	1334.6	1293.6	1264.2	619.8	83.2	26.6
15°	2062.2	1946.2	1819.0	1721.2	1576.8	1489.0	1419.7	1366.6	608.9	50.3	22.9
17.5°	2430.6	2266.1	2099.6	1967.2	1801.8	1670.9	1537.6	1433.4	562.3	40.3	21.1
20°	2736.8	2544.0	2331.9	2146.3	1955.2	1799.9	1622.5	1475.5	487.3	32.0	22.9
22.5°	2972.8	2726.8	2486.3	2256.0	2028.4	1850.2	1655.4	1484.4	392.1	32.9	32.0
25°	3142.7	2820.1	2564.1	2301.8	2054.1	1858.5	1638.0	1455.2	288.9	60.3	107.8
26°	3177.5	2839.2	2574.1	2297.2	2044.9	1844.7	1618.0	1436.9	260.5	119.8	237.7
27°	3196.7	2836.6	2566.9	2278.9	2025.8	1824.5	1595.1	1420.6	256.0	204.8	354.7
28°	3179.3	2813.7	2535.8	2246.0	1994.6	1798.1	1568.7	1401.4	253.2	251.4	336.4
29°	3131.8	2773.4	2489.1	2194.8	1947.1	1756.1	1528.4	1374.0	226.8	200.2	203.0
30°	3059.5	2716.8	2421.6	2126.2	1886.8	1695.7	1470.9	1330.0	149.9	100.6	85.9
31°	2969.9	2643.6	2338.4	2046.7	1818.2	1622.5	1410.6	1273.3	77.8	42.9	40.3
32°	2871.2	2555.8	2248.7	1966.3	1748.7	1552.2	1360.2	1223.0	51.2	23.7	22.9
33°	2767.1	2453.4	2150.0	1883.1	1670.9	1473.5	1308.2	1169.2	38.4	14.6	13.7
34°	2664.7	2343.8	2050.4	1793.5	1586.8	1403.2	1260.5	1106.9	31.1	10.9	9.1
35°	2548.6	2224.9	1948.0	1698.4	1496.4	1342.8	1213.0	1039.4	24.6	7.4	7.4
36°	2413.3	2098.8	1841.9	1598.8	1410.6	1287.1	1160.9	965.3	19.2	5.5	6.3
37°	2269.8	1973.5	1735.0	1500.1	1340.2	1235.9	1097.9	889.5	16.5	4.6	5.5
38°	2121.6	1849.3	1619.9	1404.9	1278.8	1180.1	1026.5	810.8	13.7	3.7	4.6
39°	1976.3	1722.1	1504.7	1328.2	1221.3	1114.3	945.2	730.4	12.0	3.7	4.6
40°	1834.7	1594.2	1402.3	1261.5	1157.2	1033.9	861.1	646.3	8.3	2.8	4.6
42.5°	1498.2	1329.1	1207.5	1066.8	948.9	810.0	633.5	419.6	6.3	2.8	3.7
45°	1254.2	1115.2	973.6	814.5	698.4	555.7	374.7	178.2	6.3	2.8	3.7
47.5°	991.9	828.2	619.8	418.7	273.4	140.7	43.8	24.6	4.6	2.8	3.7
50°	288.9	167.3	62.1	37.5	28.3	17.4	10.9	10.0	3.7	2.8	3.7
51°	83.2	49.4	32.9	22.0	16.5	10.0	8.3	9.1	3.7	2.8	2.8
52°	39.2	28.3	19.2	14.6	10.9	8.3	7.4	8.3	3.7	2.8	2.8
53°	22.9	17.4	13.7	12.0	8.3	7.4	5.5	7.4	3.7	2.8	2.8
54°	15.5	13.7	12.0	10.0	7.4	5.5	5.5	7.4	3.7	2.8	2.8
55°	13.7	12.0	10.0	9.1	6.3	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°	6.3	6.3	6.3	4.6	1.8	1.8	0.9	3.7	3.7	2.8	3.7
61°	6.3	6.3	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: P1192074

CATALOG NUMBER: LDA6A25930D010TE 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

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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	298.9	298.9	298.9
2.5°	114.4	82.3	74.9
5°	45.7	37.5	33.8
7.5°	28.3	23.7	22.0
10°	22.9	17.4	16.5
12.5°	18.3	15.5	14.6
15°	17.4	14.6	13.7
17.5°	17.4	16.5	15.5
20°	22.0	22.0	22.9
22.5°	37.5	43.8	49.4
25°	181.9	294.3	390.4
26°	381.2	537.4	574.9
27°	472.5	489.1	469.9
28°	363.8	326.3	307.2
29°	194.7	162.7	149.0
30°	77.8	64.0	60.3
31°	37.5	32.0	31.1
32°	21.1	17.4	17.4
33°	12.8	10.9	10.0
34°	9.1	7.4	6.3
35°	6.3	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: P1192074

CATALOG NUMBER: LDA6A25930D010TE 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

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Scaled Data Report

Cooper Lighting Solutions Photometric Lab

1121 Highway 74 South

Peachtree City, GA 30269



Report Generated By 670245859 / DESKTOP-T8S5UU9

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— 0°-180° - - 45°-225° - - - 90°-270°

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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

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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

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67.5°	2.8	0.9	0.0
70°	2.8	0.9	0.0

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(END OF REPORT)