

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: P135733

Luminaire Tested: **LD6A30D010TE ERM6A30930 6LM111H**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P135733
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P23372)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: io LED
Catalog Number: LD6A30D010TE ERM6A30930 6LM111H
Description: PORTFOLIO 6 INCH 50 DEGREE CUTOFF RECESSED SINGLE WALL WASH LUMINAIRE
SEMI-SPECULAR CLEAR TRIM AND SPECULAR CLEAR KICKER
Light Source: (1) HIGH LUMEN LED 3000K
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2474.2 lumens
Efficiency: N/A
Efficacy: 54.5 lumens/watt
Spacing Criteria (0/90/45): 0.9 / 0.96 / 0.92
Luminous Opening: Circular (Dia: 0.46' x H: 0')
CIE Type: Direct

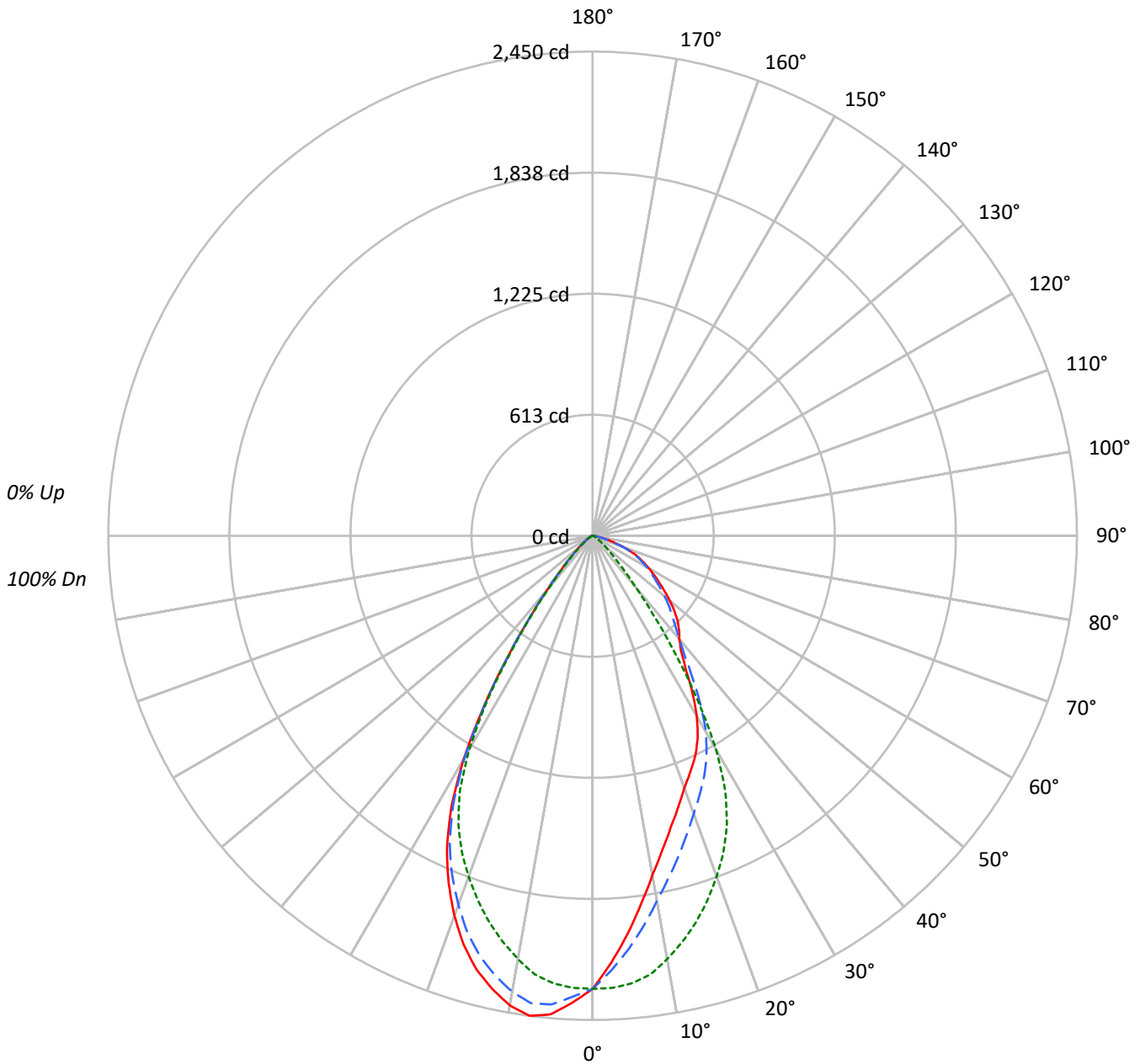
Input Watts (W): 45.4
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P135733

CATALOG NUMBER: LD6A30D010TE ERM6A30930 6LM111H

Luminous Intensity Polar Plot





TEST NUMBER: P135733

CATALOG NUMBER: LD6A30D010TE ERM6A30930 6LM111H

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20				
RC	80				70				50				30				10			0	
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR																					
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100			
1	112	109	106	104	110	107	104	102	103	101	99	99	97	96	96	94	93	91			
2	106	100	95	91	103	98	94	90	95	91	88	92	89	86	89	87	84	83			
3	99	92	86	81	97	90	85	81	88	83	79	85	81	78	83	80	77	75			
4	93	85	78	73	91	83	77	73	81	76	72	79	75	71	77	73	70	68			
5	88	78	72	67	86	77	71	66	75	70	66	74	69	65	72	68	64	63			
6	83	73	66	61	81	72	65	61	70	65	60	69	64	60	67	63	59	58			
7	78	68	61	56	77	67	61	56	66	60	56	64	59	55	63	59	55	53			
8	74	63	57	52	73	63	56	52	62	56	52	60	55	51	59	55	51	50			
9	70	59	53	48	69	59	53	48	58	52	48	57	52	48	56	51	48	46			
10	67	56	49	45	65	55	49	45	54	49	45	54	48	45	53	48	45	43			

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	149558	149558	149558
5°	132492	148898	159206
10°	115489	144087	159808
15°	103164	136644	153388
20°	94192	127323	141945
25°	88455	115702	125492
30°	79319	93971	98190
35°	65173	58164	59653
40°	58117	28607	30191
45°	56069	14264	15251
50°	51672	7572	8120
55°	46692	4550	4845
60°	42785	3132	3132
65°	39103	2470	2053
70°	31531	2041	1526
75°	19485	1336	655
80°	11008	977	0
85°	5988	0	0



TEST NUMBER: P135733

CATALOG NUMBER: LD6A30D010TE ERM6A30930 6LM111H

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	210.2	8.5
10°-20°	545.9	22.1
20°-30°	694.7	28.1
30°-40°	497.8	20.1
40°-50°	248.3	10.0
50°-60°	150.3	6.1
60°-70°	91.9	3.7
70°-80°	31.7	1.3
80°-90°	3.4	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°	1450.9	58.6
0°-40°	1948.7	78.8
0°-60°	2347.3	94.9
0°-90°	2474.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2474.2	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	2292	2292	2292	2292	2292	
5°	2023	2098	2274	2380	2431	185
15°	1527	1679	2023	2202	2271	430
25°	1229	1338	1607	1711	1743	560
35°	818	882	730	749	749	523
45°	608	568	155	170	165	465
55°	410	386	40	43	43	370
65°	253	245	16	13	13	247
75°	77	69	5	3	3	89
85°	8	5	0	0	0	11
90°	0	0	0	0	0	



TEST NUMBER: P135733

CATALOG NUMBER: LD6A30D010TE ERM6A30930 6LM111H

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	2292.4	2292.4	2292.4	2292.4	2292.4	2292.4	2292.4	2292.4	2292.4	2292.4	2292.4
2.5°	2161.7	2164.4	2169.7	2164.4	2167.1	2180.4	2175.0	2177.7	2185.7	2199.1	2191.0
5°	2023.1	2025.8	2039.1	2031.2	2036.4	2052.4	2052.4	2063.1	2079.1	2097.7	2097.7
7.5°	1879.1	1884.5	1897.9	1892.5	1900.5	1921.9	1924.5	1940.5	1961.9	1988.4	2001.8
10°	1743.3	1748.6	1761.9	1759.3	1769.9	1791.2	1801.9	1817.9	1844.5	1876.5	1892.5
12.5°	1628.6	1634.0	1644.6	1644.6	1657.9	1679.3	1690.0	1711.2	1737.9	1772.6	1793.9
15°	1527.4	1535.3	1546.0	1546.0	1559.3	1580.7	1594.0	1612.6	1641.9	1679.3	1703.3
17.5°	1439.3	1442.1	1452.7	1452.7	1466.0	1487.4	1500.7	1519.3	1548.6	1583.3	1610.0
20°	1356.7	1359.4	1370.0	1372.7	1383.4	1402.1	1415.4	1434.0	1460.7	1495.3	1519.3
22.5°	1292.8	1298.1	1306.1	1308.8	1314.1	1332.8	1348.8	1362.1	1386.0	1415.4	1439.3
25°	1228.8	1231.5	1239.5	1242.1	1250.1	1263.4	1274.1	1287.4	1308.8	1338.1	1356.7
27.5°	1151.5	1159.5	1162.2	1164.8	1172.8	1183.5	1194.1	1204.8	1223.5	1247.4	1263.4
30°	1052.9	1055.5	1063.6	1068.8	1076.9	1087.6	1100.9	1111.5	1127.5	1146.2	1156.9
32.5°	938.3	940.9	948.9	954.3	967.6	978.3	988.9	996.9	1007.6	1018.3	1018.3
35°	818.3	826.3	829.0	836.9	850.3	861.0	869.0	871.6	876.9	882.3	863.6
37.5°	733.0	738.3	743.6	749.0	759.7	767.7	773.0	773.0	770.3	765.0	741.0
40°	682.4	685.0	690.4	693.1	703.6	709.0	709.0	703.6	693.1	679.7	642.4
42.5°	647.7	650.4	653.1	655.7	661.0	663.8	661.0	650.4	637.1	618.4	575.7
45°	607.7	610.4	613.1	613.1	618.4	618.4	615.7	605.0	589.1	567.8	522.4
47.5°	559.8	562.4	565.1	567.8	570.4	570.4	567.8	557.1	541.1	522.4	474.5
50°	509.1	511.7	514.5	514.5	519.8	519.8	517.1	506.4	493.1	474.5	431.8
52.5°	458.5	461.2	461.2	466.5	466.5	466.5	463.8	453.1	442.4	429.1	389.1
55°	410.5	413.1	413.1	418.5	421.2	418.5	415.8	407.8	397.2	386.5	354.5
57.5°	367.8	370.5	370.5	373.1	375.8	373.1	370.5	365.2	359.8	349.2	322.6
60°	327.9	330.5	330.5	333.2	333.2	330.5	330.5	325.2	319.8	314.5	290.5
62.5°	290.5	290.5	290.5	293.2	293.2	290.5	290.5	285.2	282.6	279.8	261.2
65°	253.3	253.3	253.3	253.3	253.3	247.9	247.9	245.2	242.6	245.2	229.3
67.5°	210.5	210.5	207.9	207.9	207.9	202.6	202.6	202.6	199.9	202.6	189.3
70°	165.3	165.3	162.6	162.6	160.0	154.6	154.6	154.6	151.9	154.6	146.6
72.5°	117.3	120.0	114.6	114.6	111.9	106.6	109.3	106.6	109.3	109.3	104.0
75°	77.3	80.0	74.6	74.6	71.9	69.3	69.3	69.3	71.9	69.3	66.6
77.5°	48.0	50.7	48.0	48.0	45.3	42.6	42.6	42.6	42.6	42.6	40.0
80°	29.3	29.3	29.3	26.7	26.7	24.0	24.0	24.0	24.0	24.0	21.4
82.5°	16.0	16.0	16.0	16.0	16.0	13.3	13.3	13.3	13.3	13.3	10.7
85°	8.0	8.0	8.0	8.0	8.0	5.3	5.3	5.3	5.3	5.3	5.3
87.5°	2.6	2.6	2.6	2.6	2.6	0.0	0.0	0.0	0.0	0.0	0.0
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: P135733

CATALOG NUMBER: LD6A30D010TE ERM6A30930 6LM111H

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	2292.4	2292.4	2292.4	2292.4	2292.4	2292.4	2292.4	2292.4	2292.4	2292.4	2292.4
2.5°	2215.0	2225.7	2217.7	2249.7	2244.3	2268.3	2265.7	2289.7	2287.0	2289.7	2295.0
5°	2129.8	2151.0	2153.8	2193.8	2196.4	2233.7	2241.7	2273.6	2279.0	2289.7	2303.0
7.5°	2036.4	2068.4	2079.1	2124.4	2140.4	2180.4	2196.4	2239.0	2249.7	2268.3	2284.3
10°	1935.2	1972.4	1988.4	2041.7	2063.1	2108.4	2129.8	2175.0	2191.0	2212.4	2231.0
12.5°	1839.2	1879.1	1900.5	1956.5	1985.8	2031.2	2055.1	2103.1	2119.1	2145.7	2164.4
15°	1748.6	1791.2	1815.2	1871.2	1900.5	1951.2	1975.2	2023.1	2041.7	2068.4	2087.1
17.5°	1655.3	1697.9	1724.6	1777.9	1815.2	1857.9	1884.5	1932.5	1951.2	1975.2	1993.8
20°	1564.6	1607.3	1631.3	1684.6	1719.3	1761.9	1785.9	1833.9	1847.2	1871.2	1887.2
22.5°	1479.3	1519.3	1540.7	1596.7	1626.0	1663.3	1687.2	1730.0	1745.9	1764.6	1775.2
25°	1394.1	1428.8	1444.7	1492.7	1516.7	1551.4	1570.0	1607.3	1623.3	1639.3	1652.6
27.5°	1298.1	1316.7	1322.1	1359.4	1378.1	1410.0	1418.1	1452.7	1466.0	1476.7	1487.4
30°	1178.1	1180.8	1164.8	1183.5	1191.5	1215.5	1215.5	1247.4	1258.1	1266.1	1276.7
32.5°	1026.2	1010.2	972.9	967.6	962.2	975.5	970.2	996.9	1007.6	1012.9	1020.9
35°	858.3	823.6	762.4	738.3	722.4	719.7	711.7	730.3	738.3	743.6	749.0
37.5°	711.7	661.0	583.8	541.1	514.5	503.8	493.1	503.8	509.1	514.5	519.8
40°	605.0	541.1	450.5	397.2	359.8	343.8	330.5	335.9	341.2	346.5	349.2
42.5°	527.8	455.8	357.2	293.2	255.9	237.2	223.9	226.6	229.3	231.9	237.2
45°	469.1	391.9	290.5	221.2	183.9	165.3	154.6	154.6	157.3	160.0	162.6
47.5°	421.2	338.5	237.2	170.5	135.9	117.3	106.6	106.6	109.3	109.3	111.9
50°	375.8	293.2	194.6	133.3	101.3	85.3	77.3	74.6	77.3	77.3	80.0
52.5°	338.5	258.6	162.6	106.6	77.3	64.0	56.0	56.0	56.0	56.0	56.0
55°	303.8	226.6	135.9	85.3	61.3	50.7	42.6	40.0	40.0	40.0	40.0
57.5°	277.2	202.6	117.3	71.9	50.7	40.0	34.7	32.0	32.0	32.0	32.0
60°	250.5	178.6	101.3	58.6	40.0	34.7	29.3	24.0	24.0	24.0	24.0
62.5°	223.9	154.6	85.3	50.7	34.7	26.7	24.0	18.6	18.6	18.6	18.6
65°	194.6	133.3	71.9	40.0	26.7	21.4	18.6	16.0	16.0	13.3	13.3
67.5°	160.0	106.6	58.6	34.7	24.0	18.6	16.0	13.3	10.7	10.7	10.7
70°	122.6	80.0	45.3	26.7	18.6	16.0	10.7	10.7	8.0	8.0	8.0
72.5°	87.9	56.0	32.0	21.4	13.3	10.7	10.7	8.0	8.0	8.0	5.3
75°	56.0	37.3	21.4	13.3	10.7	8.0	8.0	5.3	5.3	5.3	5.3
77.5°	34.7	24.0	16.0	10.7	8.0	5.3	5.3	5.3	2.6	2.6	2.6
80°	18.6	13.3	8.0	5.3	5.3	2.6	2.6	2.6	2.6	2.6	2.6
82.5°	10.7	8.0	5.3	2.6	2.6	2.6	2.6	2.6	0.0	0.0	0.0
85°	5.3	2.6	2.6	2.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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: P135733

CATALOG NUMBER: LD6A30D010TE ERM6A30930 6LM111H

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	2292.4	2292.4	2292.4	2292.4	2292.4	2292.4	2292.4	2292.4	2292.4	2292.4	2292.4
2.5°	2311.0	2324.3	2316.3	2321.7	2345.7	2335.0	2353.6	2353.6	2375.0	2375.0	2359.0
5°	2327.0	2342.9	2345.7	2353.6	2385.7	2380.3	2401.6	2406.9	2431.0	2436.2	2422.9
7.5°	2316.3	2335.0	2342.9	2356.3	2388.3	2385.7	2409.6	2420.3	2441.6	2449.6	2438.9
10°	2265.7	2287.0	2297.7	2311.0	2345.7	2342.9	2369.6	2382.9	2401.6	2409.6	2401.6
12.5°	2199.1	2223.1	2233.7	2247.0	2281.7	2279.0	2305.7	2319.0	2335.0	2345.7	2337.6
15°	2124.4	2140.4	2159.1	2172.4	2204.3	2201.7	2228.4	2241.7	2255.0	2268.3	2260.3
17.5°	2028.4	2044.5	2063.1	2073.8	2105.7	2105.7	2127.1	2137.7	2156.4	2167.1	2156.4
20°	1919.1	1937.8	1951.2	1959.1	1988.4	1985.8	2007.1	2017.8	2033.8	2041.7	2033.8
22.5°	1804.5	1820.5	1831.2	1836.5	1860.5	1857.9	1873.8	1884.5	1897.9	1905.8	1897.9
25°	1673.9	1684.6	1692.6	1695.3	1716.6	1711.2	1732.6	1732.6	1743.3	1751.2	1743.3
27.5°	1506.0	1514.0	1519.3	1516.7	1532.7	1524.7	1543.3	1530.0	1551.4	1556.7	1548.6
30°	1290.1	1295.5	1300.8	1290.1	1300.8	1290.1	1306.1	1287.4	1306.1	1314.1	1306.1
32.5°	1034.2	1034.2	1039.5	1026.2	1031.5	1020.9	1028.9	1023.6	1028.9	1036.9	1028.9
35°	759.7	759.7	765.0	757.0	759.7	749.0	754.3	749.0	751.7	757.0	754.3
37.5°	527.8	525.1	533.1	527.8	530.5	525.1	527.8	522.4	525.1	527.8	525.1
40°	357.2	357.2	362.6	359.8	362.6	359.8	362.6	359.8	359.8	359.8	357.2
42.5°	239.9	242.6	245.2	245.2	247.9	245.2	247.9	245.2	245.2	245.2	242.6
45°	165.3	165.3	167.9	167.9	170.5	170.5	170.5	167.9	167.9	167.9	167.9
47.5°	114.6	117.3	117.3	117.3	117.3	117.3	117.3	117.3	117.3	117.3	114.6
50°	80.0	82.6	82.6	82.6	82.6	82.6	82.6	80.0	80.0	80.0	80.0
52.5°	58.6	58.6	58.6	58.6	58.6	58.6	58.6	58.6	58.6	56.0	56.0
55°	42.6	42.6	42.6	42.6	42.6	42.6	42.6	42.6	42.6	42.6	42.6
57.5°	32.0	32.0	32.0	32.0	32.0	32.0	32.0	32.0	32.0	32.0	32.0
60°	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0
62.5°	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6
65°	13.3	13.3	13.3	13.3	13.3	13.3	13.3	13.3	13.3	13.3	13.3
67.5°	10.7	10.7	10.7	10.7	10.7	10.7	10.7	10.7	10.7	10.7	10.7
70°	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0
72.5°	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3
75°	5.3	5.3	5.3	5.3	5.3	2.6	2.6	2.6	2.6	2.6	2.6
77.5°	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6
80°	0.0	2.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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: P135733

CATALOG NUMBER: LD6A30D010TE ERM6A30930 6LM111H

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	2292.4	2292.4	2292.4	2292.4
2.5°	2351.0	2372.3	2364.3	2364.3
5°	2415.0	2438.9	2433.6	2431.0
7.5°	2433.6	2455.0	2449.6	2449.6
10°	2396.3	2417.6	2412.3	2412.3
12.5°	2335.0	2353.6	2351.0	2348.3
15°	2257.7	2276.4	2273.6	2271.0
17.5°	2153.8	2175.0	2172.4	2169.7
20°	2028.4	2047.1	2047.1	2044.5
22.5°	1892.5	1905.8	1908.5	1903.1
25°	1737.9	1748.6	1748.6	1743.3
27.5°	1543.3	1551.4	1551.4	1548.6
30°	1303.4	1306.1	1308.8	1303.4
32.5°	1023.6	1023.6	1028.9	1023.6
35°	746.4	746.4	751.7	749.0
37.5°	519.8	519.8	522.4	519.8
40°	354.5	354.5	357.2	354.5
42.5°	242.6	239.9	242.6	242.6
45°	165.3	165.3	167.9	165.3
47.5°	114.6	114.6	114.6	114.6
50°	80.0	80.0	80.0	80.0
52.5°	56.0	56.0	56.0	56.0
55°	40.0	42.6	42.6	42.6
57.5°	29.3	32.0	32.0	32.0
60°	24.0	24.0	24.0	24.0
62.5°	18.6	18.6	18.6	18.6
65°	13.3	13.3	13.3	13.3
67.5°	10.7	10.7	10.7	10.7
70°	8.0	8.0	8.0	8.0
72.5°	5.3	5.3	5.3	5.3
75°	2.6	2.6	2.6	2.6
77.5°	2.6	2.6	2.6	2.6
80°	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0



Report Generated By E9808895 / USPTCWHP6082093





— 0°-180° - - 45°-225° - - - - 90°-270°













(END OF REPORT)