

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: P135853

Luminaire Tested: **LD6A30D010TE ERM6A30930 6LM121LI**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P135853  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P23357-R2)  
Test Lab: INNOVATION CENTER P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: io LED  
Catalog Number: LD6A30D010TE ERM6A30930 6LM121LI  
Description: PORTFOLIO 6 INCH 50 DEGREE CUTOFF RECESSED DOUBLE WALL WASH LUMINAIRE  
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: 2613.9 lumens  
Efficiency: N/A  
Efficacy: 57.6 lumens/watt  
Spacing Criteria (0/90/45): 0.86 / 1.02 / 0.97  
Luminous Opening: Circular (Dia: 0.46' x H: 0')  
CIE Type: Direct

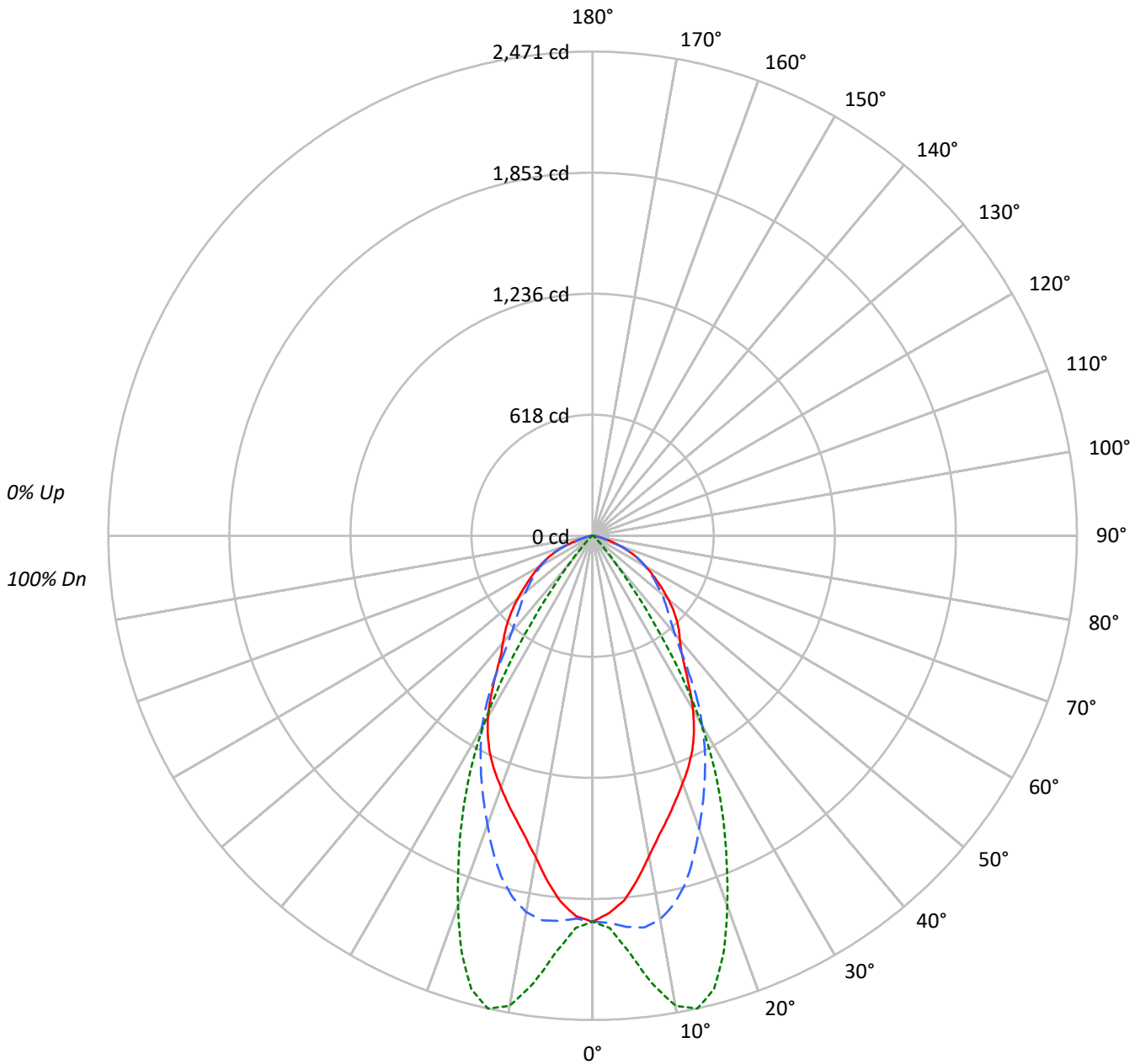
Input Watts (W): 45.4  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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			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	108	105	102	109	106	103	101	102	100	97	98	96	95	95	93	92	90			
2	104	98	93	89	102	96	91	87	93	89	86	90	87	84	87	84	82	80			
3	97	89	83	78	95	88	82	77	85	80	76	82	78	75	80	76	73	72			
4	91	81	74	69	89	80	74	69	78	72	68	76	71	67	74	70	66	64			
5	85	75	68	62	83	74	67	62	72	66	61	70	65	61	68	64	60	58			
6	80	69	62	56	78	68	61	56	66	60	56	65	59	55	63	59	55	53			
7	75	64	57	52	74	63	56	51	62	56	51	60	55	51	59	54	50	49			
8	71	59	52	47	69	59	52	47	58	51	47	57	51	47	55	50	47	45			
9	67	56	49	44	66	55	48	44	54	48	44	53	47	43	52	47	43	42			
10	63	52	45	41	62	52	45	41	51	45	41	50	44	40	49	44	40	39			

**AVERAGE LUMINANCE (cd/sqm):**

	0°	90°	180°
0°	128504	128504	128504
5°	122197	139552	122780
10°	109851	161331	110440
15°	100503	161709	101468
20°	93241	139487	94859
25°	86756	113053	88945
30°	77164	83635	80531
35°	65173	44210	68319
40°	58866	14793	60544
45°	55838	5121	56014
50°	51073	2182	50525
55°	45623	1627	45213
60°	40658	1631	41128
65°	35938	1667	36200
70°	27678	1354	27316
75°	17141	907	16259
80°	8754	676	8078
85°	4042	0	4042



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	191.2	7.3
10°-20°	521.7	20.0
20°-30°	627.9	24.0
30°-40°	487.9	18.7
40°-50°	326.6	12.5
50°-60°	245.7	9.4
60°-70°	157.7	6.0
70°-80°	50.5	1.9
80°-90°	4.8	0.2
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°	1340.7	51.3
0°-40°	1828.7	70.0
0°-60°	2400.9	91.9
0°-90°	2613.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2613.9	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	1970	1970	1970	1970	1970	
5°	1866	2004	2131	1973	1875	171
15°	1488	1834	2394	1801	1502	418
25°	1205	1354	1570	1347	1236	549
35°	818	856	555	856	858	520
45°	605	541	56	528	607	465
55°	401	380	14	371	398	360
65°	233	234	11	229	234	228
75°	68	64	4	61	64	78
85°	5	5	0	5	5	8
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1969.7	1969.7	1969.7	1969.7	1969.7	1969.7	1969.7	1969.7	1969.7	1969.7	1969.7
2.5°	1926.8	1942.9	1937.5	1962.6	1944.7	1942.9	1955.5	1962.6	1964.4	1976.9	1976.9
5°	1865.9	1883.8	1878.4	1910.6	1903.5	1910.6	1937.5	1957.2	1975.1	2003.8	2021.7
7.5°	1765.7	1787.1	1790.7	1822.9	1826.5	1846.2	1889.2	1928.5	1966.1	2016.3	2059.3
10°	1658.2	1679.6	1685.0	1720.8	1731.6	1758.4	1813.9	1864.1	1917.8	1987.7	2052.2
12.5°	1565.1	1586.5	1593.7	1629.5	1642.0	1672.5	1731.6	1787.1	1848.0	1925.0	2001.9
15°	1488.0	1507.7	1514.9	1547.2	1559.7	1588.3	1643.9	1697.5	1756.6	1833.7	1908.9
17.5°	1412.9	1432.5	1437.9	1466.6	1475.5	1500.6	1550.7	1597.3	1647.4	1715.4	1783.5
20°	1343.0	1360.9	1364.5	1389.6	1395.0	1414.6	1455.8	1493.4	1534.6	1588.3	1643.9
22.5°	1276.7	1294.6	1296.5	1317.9	1319.7	1335.8	1369.9	1398.5	1427.2	1470.1	1509.6
25°	1205.2	1223.1	1224.8	1242.7	1244.5	1255.3	1282.1	1303.6	1323.3	1353.8	1380.6
27.5°	1119.2	1137.1	1142.4	1154.9	1156.8	1164.0	1187.2	1201.5	1221.2	1240.9	1251.7
30°	1024.3	1040.4	1047.6	1058.3	1060.1	1070.9	1092.3	1103.1	1115.6	1119.2	1122.7
32.5°	918.7	936.6	943.7	952.6	958.0	968.8	988.4	993.8	997.5	995.6	975.9
35°	818.3	834.5	841.6	852.4	855.9	863.2	879.2	877.4	872.1	855.9	820.1
37.5°	743.1	755.7	762.8	770.0	771.8	775.3	784.4	777.1	762.8	736.0	689.4
40°	691.2	703.7	705.6	712.7	710.9	710.9	712.7	700.2	682.3	650.1	596.3
42.5°	651.8	662.6	662.6	669.7	664.3	660.7	660.7	646.4	623.1	589.2	535.4
45°	605.2	614.2	616.0	619.6	614.2	610.6	610.6	596.3	574.8	540.8	487.1
47.5°	556.9	565.9	565.9	571.3	565.9	562.3	562.3	549.7	530.0	499.6	449.5
50°	503.2	512.1	513.9	517.5	513.9	512.1	513.9	501.4	485.3	458.4	413.7
52.5°	451.3	460.2	460.2	463.8	460.2	460.2	462.0	453.0	438.7	417.2	377.8
55°	401.1	408.3	411.9	415.4	410.0	410.0	411.9	406.5	395.7	379.6	345.6
57.5°	354.5	361.7	363.5	367.1	363.5	365.3	367.1	361.7	356.3	343.8	317.0
60°	311.6	318.7	320.6	322.3	320.6	320.6	322.3	320.6	317.0	308.0	284.7
62.5°	272.2	277.6	279.4	282.9	279.4	277.6	281.1	279.4	277.6	272.2	256.1
65°	232.8	236.4	238.2	239.9	236.4	232.8	236.4	236.4	238.2	234.5	222.0
67.5°	189.8	193.4	193.4	193.4	188.0	186.3	189.8	189.8	193.4	191.6	182.7
70°	145.1	146.8	146.8	146.8	139.7	139.7	141.4	141.4	145.1	145.1	139.7
72.5°	103.9	102.1	102.1	100.2	98.5	94.9	94.9	96.7	100.2	100.2	96.7
75°	68.0	66.3	64.5	64.5	62.6	59.1	59.1	60.9	62.6	64.5	62.6
77.5°	41.2	39.4	39.4	37.6	37.6	35.8	35.8	35.8	37.6	37.6	37.6
80°	23.3	21.5	21.5	21.5	19.7	19.7	19.7	19.7	19.7	21.5	19.7
82.5°	12.5	10.8	10.8	10.8	10.8	10.8	8.9	10.8	10.8	10.8	10.8
85°	5.4	5.4	5.4	5.4	3.6	3.6	3.6	3.6	3.6	5.4	5.4
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



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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	1969.7	1969.7	1969.7	1969.7	1969.7	1969.7	1969.7	1969.7	1969.7	1969.7	1969.7
2.5°	1971.5	1989.4	1976.9	2016.3	1989.4	2003.8	2023.5	2003.8	2009.1	2021.7	1996.6
5°	2032.4	2064.7	2068.2	2122.0	2100.4	2125.6	2152.4	2130.9	2134.5	2143.5	2111.2
7.5°	2095.1	2152.4	2179.2	2254.5	2249.1	2290.3	2322.5	2301.0	2301.0	2302.8	2254.5
10°	2113.0	2197.1	2247.3	2340.4	2354.7	2413.8	2449.7	2435.3	2431.8	2426.4	2360.1
12.5°	2073.6	2177.5	2242.0	2345.8	2374.4	2444.3	2476.5	2471.1	2465.7	2455.1	2378.0
15°	1982.3	2089.7	2157.8	2259.9	2295.6	2367.3	2394.2	2394.2	2388.8	2378.0	2295.6
17.5°	1848.0	1948.3	2011.0	2100.4	2136.2	2202.5	2220.4	2225.8	2220.4	2209.7	2134.5
20°	1695.8	1779.9	1830.1	1903.5	1932.2	1989.4	2000.2	2009.1	2005.6	1996.6	1930.4
22.5°	1547.2	1613.4	1651.0	1715.4	1726.2	1774.6	1778.2	1785.3	1783.5	1779.9	1726.2
25°	1411.0	1455.8	1477.3	1525.6	1529.3	1565.1	1563.2	1570.5	1568.6	1568.6	1527.4
27.5°	1267.8	1294.6	1300.0	1330.5	1323.3	1350.1	1353.8	1350.1	1352.0	1353.8	1323.3
30°	1124.5	1129.9	1113.8	1117.4	1097.7	1113.8	1097.7	1110.2	1110.2	1115.6	1097.7
32.5°	961.6	945.5	902.5	881.0	847.0	847.0	838.0	838.0	838.0	847.0	843.4
35°	787.9	748.5	682.3	635.7	587.3	574.8	573.0	555.1	558.7	571.3	580.2
37.5°	639.3	580.2	492.5	426.2	368.9	343.8	334.9	320.6	325.9	340.2	361.7
40°	533.6	462.0	359.9	282.9	225.6	196.9	182.7	173.7	179.0	196.9	223.9
42.5°	467.4	388.6	279.4	198.8	145.1	118.1	103.9	96.7	102.1	118.1	150.5
45°	419.0	336.6	225.6	146.8	98.5	73.4	60.9	55.5	59.1	73.4	100.2
47.5°	381.5	297.3	188.0	112.8	69.8	48.4	37.6	32.2	35.8	48.4	69.8
50°	347.4	265.0	159.4	89.6	53.7	35.8	25.1	21.5	25.1	34.1	51.9
52.5°	317.0	236.4	136.1	73.4	41.2	28.7	19.7	16.2	17.9	26.8	41.2
55°	290.1	214.9	120.0	62.6	35.8	25.1	17.9	14.3	17.9	23.3	35.8
57.5°	265.0	193.4	105.6	53.7	30.4	21.5	16.2	14.3	16.2	21.5	30.4
60°	239.9	171.9	93.1	46.6	26.8	19.7	14.3	12.5	14.3	17.9	26.8
62.5°	214.9	152.2	80.6	39.4	23.3	16.2	12.5	10.8	12.5	16.2	23.3
65°	186.3	128.9	68.0	34.1	19.7	14.3	10.8	10.8	10.8	14.3	19.7
67.5°	154.0	105.6	53.7	26.8	16.2	12.5	8.9	8.9	8.9	12.5	16.2
70°	118.1	78.8	41.2	21.5	12.5	8.9	7.1	7.1	7.1	8.9	12.5
72.5°	82.4	55.5	28.7	16.2	8.9	7.1	5.4	5.4	5.4	7.1	8.9
75°	51.9	35.8	19.7	10.8	7.1	5.4	3.6	3.6	3.6	5.4	7.1
77.5°	30.4	21.5	12.5	7.1	3.6	3.6	1.8	1.8	1.8	3.6	3.6
80°	16.2	12.5	7.1	3.6	1.8	1.8	1.8	1.8	1.8	1.8	1.8
82.5°	8.9	5.4	3.6	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8
85°	3.6	1.8	1.8	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



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**CANDELA DISTRIBUTION (continued):**

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	1969.7	1969.7	1969.7	1969.7	1969.7	1969.7	1969.7	1969.7	1969.7	1969.7	1969.7
2.5°	1989.4	1996.6	1994.8	1957.2	1953.6	1955.5	1930.4	1939.3	1948.3	1939.3	1941.1
5°	2086.1	2084.4	2062.8	2009.1	1987.7	1973.4	1932.2	1925.0	1919.6	1900.0	1892.7
7.5°	2213.3	2188.2	2143.5	2062.8	2018.1	1978.7	1917.8	1887.4	1865.9	1831.8	1812.1
10°	2301.0	2250.9	2184.6	2079.0	2011.0	1950.1	1871.3	1824.7	1788.8	1744.1	1715.4
12.5°	2313.5	2243.7	2166.7	2043.2	1964.4	1889.2	1803.2	1751.3	1710.1	1661.8	1634.9
15°	2233.0	2161.3	2080.7	1957.2	1878.4	1801.4	1719.1	1667.1	1626.0	1579.4	1556.1
17.5°	2080.7	2014.5	1942.9	1828.3	1760.3	1690.4	1617.0	1572.2	1536.4	1500.6	1477.3
20°	1887.4	1835.4	1776.3	1679.6	1626.0	1568.6	1511.3	1475.5	1448.7	1418.3	1400.3
22.5°	1695.8	1656.4	1613.4	1536.4	1497.0	1455.8	1411.0	1386.0	1366.3	1343.0	1330.5
25°	1511.3	1484.4	1457.6	1398.5	1375.3	1346.6	1314.4	1296.5	1284.0	1267.8	1258.8
27.5°	1319.7	1310.8	1303.6	1266.0	1257.0	1237.4	1215.8	1205.2	1196.2	1185.4	1178.2
30°	1112.0	1117.4	1146.0	1126.4	1135.3	1129.9	1121.0	1113.8	1110.2	1101.3	1092.3
32.5°	877.4	915.0	956.2	961.6	988.4	1001.0	999.2	1001.0	1002.7	995.6	988.4
35°	628.5	689.4	753.9	782.5	827.3	855.9	866.7	877.4	884.6	882.8	877.4
37.5°	419.0	501.4	578.4	628.5	687.6	727.0	750.3	768.2	779.0	782.5	782.5
40°	279.4	358.2	460.2	524.7	590.9	639.3	666.1	689.4	705.6	712.7	716.2
42.5°	196.9	281.1	385.0	458.4	526.4	578.4	608.8	633.9	650.1	659.0	662.6
45°	145.1	225.6	333.1	408.3	478.1	528.3	558.7	581.9	598.1	607.1	612.4
47.5°	111.0	189.8	293.7	370.7	440.5	487.1	515.8	537.2	551.5	558.7	562.3
50°	87.7	159.4	261.5	338.4	402.9	445.9	470.9	488.8	501.4	506.8	510.4
52.5°	71.7	137.9	234.5	308.0	368.9	406.5	426.2	440.5	451.3	454.9	458.4
55°	60.9	120.0	211.3	282.9	338.4	370.7	385.0	397.5	402.9	406.5	408.3
57.5°	53.7	105.6	191.6	259.7	309.8	336.6	347.4	356.3	358.2	361.7	363.5
60°	46.6	91.3	170.1	234.5	279.4	302.7	308.0	315.2	315.2	317.0	318.7
62.5°	39.4	78.8	148.6	209.5	248.9	268.6	272.2	274.0	274.0	274.0	275.7
65°	32.2	66.3	125.4	180.9	216.7	229.2	231.0	232.8	229.2	229.2	231.0
67.5°	26.8	51.9	100.2	148.6	177.3	188.0	186.3	186.3	180.9	180.9	182.7
70°	19.7	39.4	75.2	112.8	134.3	141.4	137.9	137.9	132.5	132.5	134.3
72.5°	14.3	28.7	51.9	77.0	93.1	96.7	93.1	93.1	89.6	89.6	91.3
75°	10.8	17.9	34.1	50.1	59.1	60.9	59.1	57.3	55.5	55.5	57.3
77.5°	7.1	12.5	19.7	28.7	34.1	35.8	34.1	34.1	32.2	34.1	34.1
80°	3.6	7.1	10.8	16.2	17.9	19.7	19.7	19.7	17.9	17.9	19.7
82.5°	1.8	3.6	5.4	7.1	8.9	10.8	8.9	8.9	8.9	8.9	8.9
85°	0.0	1.8	1.8	3.6	3.6	5.4	3.6	3.6	3.6	3.6	3.6
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: P135853

CATALOG NUMBER: LD6A30D010TE ERM6A30930 6LM121LI

**CANDELA DISTRIBUTION (continued):**

	165°	170°	175°	180°
0°	1969.7	1969.7	1969.7	1969.7
2.5°	1937.5	1928.5	1916.0	1942.9
5°	1882.0	1864.1	1849.7	1874.8
7.5°	1794.2	1769.2	1749.5	1774.6
10°	1694.0	1665.3	1643.9	1667.1
12.5°	1606.2	1577.6	1559.7	1577.6
15°	1529.3	1502.3	1486.3	1502.3
17.5°	1454.0	1430.8	1416.4	1434.3
20°	1382.4	1362.7	1350.1	1366.3
22.5°	1316.2	1298.3	1287.5	1303.6
25°	1246.3	1233.7	1221.2	1235.6
27.5°	1169.3	1154.9	1147.8	1156.8
30°	1081.5	1067.2	1061.9	1069.0
32.5°	977.7	963.4	958.0	963.4
35°	870.3	857.8	850.6	857.8
37.5°	779.0	768.2	762.8	768.2
40°	714.5	709.1	703.7	710.9
42.5°	664.3	659.0	655.4	660.7
45°	612.4	605.2	601.7	607.1
47.5°	560.5	553.3	549.7	553.3
50°	506.8	497.8	496.0	497.8
52.5°	453.0	445.9	442.3	444.1
55°	404.7	399.3	395.7	397.5
57.5°	361.7	354.5	352.8	354.5
60°	318.7	315.2	313.3	315.2
62.5°	275.7	274.0	275.7	275.7
65°	232.8	232.8	234.5	234.5
67.5°	186.3	189.8	191.6	191.6
70°	137.9	141.4	143.2	143.2
72.5°	93.1	96.7	98.5	100.2
75°	59.1	62.6	64.5	64.5
77.5°	35.8	37.6	37.6	39.4
80°	19.7	21.5	21.5	21.5
82.5°	10.8	10.8	10.8	12.5
85°	5.4	5.4	5.4	5.4
87.5°	0.0	1.8	1.8	1.8
90°	0.0	0.0	0.0	0.0



Report Generated By E9808895 / USPTCWHP6082093





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















(END OF REPORT)