

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: P135855

Luminaire Tested: **LD6A30D010TE ERM6A30940 6LM121LI**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P135855
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 ERM6A30940 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 4000K
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2736.3 lumens
Efficiency: N/A
Efficacy: 60.3 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

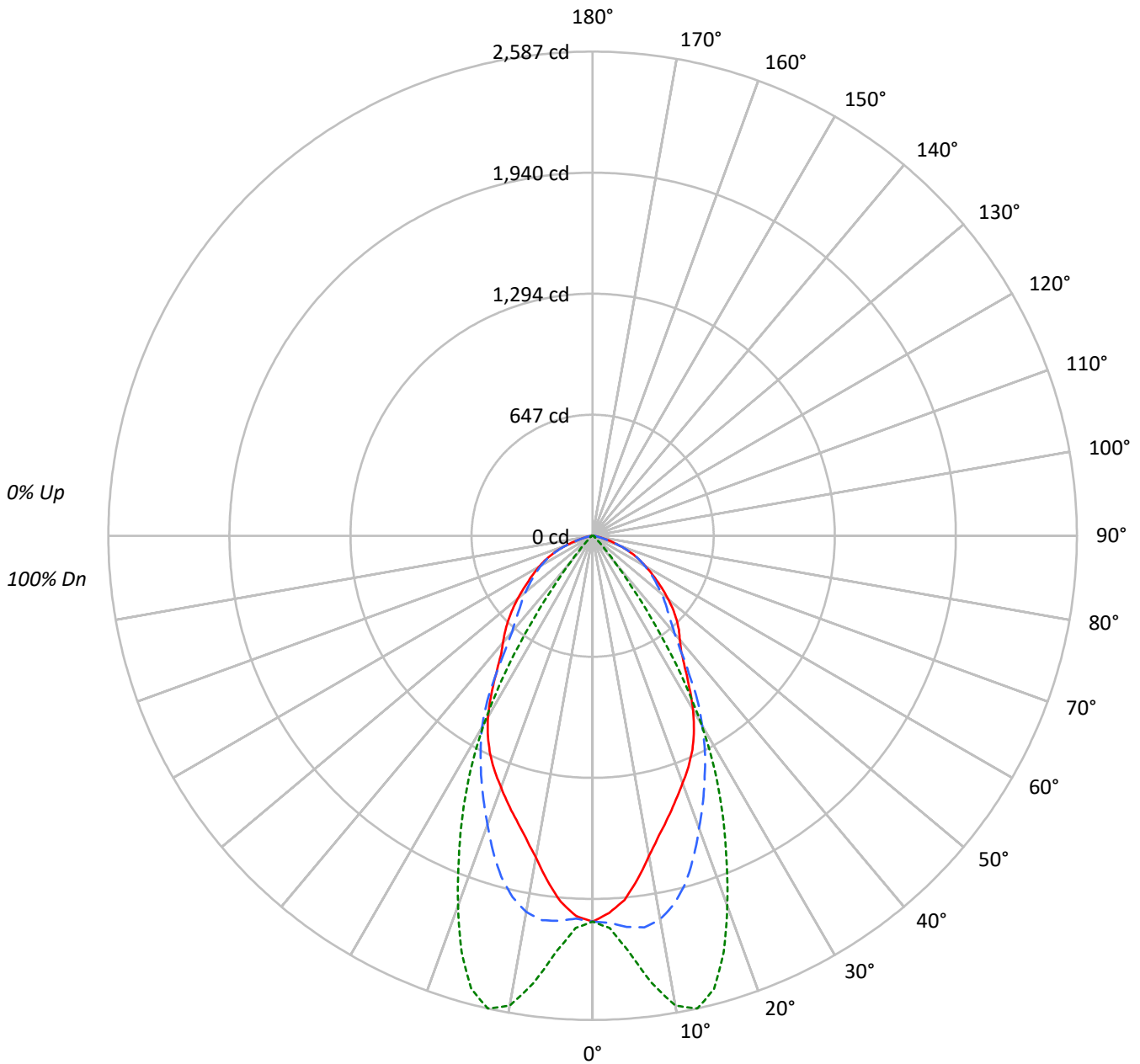
Input Watts (W): 45.4
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P135855

CATALOG NUMBER: LD6A30D010TE ERM6A30940 6LM121LI

Luminous Intensity Polar Plot





TEST NUMBER: P135855

CATALOG NUMBER: LD6A30D010TE ERM6A30940 6LM121LI

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	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°	134520	134520	134520
5°	127915	146082	128530
10°	114992	168884	115608
15°	105210	169274	106223
20°	97601	146020	99295
25°	90809	118336	93105
30°	80772	87552	84306
35°	68231	46281	71504
40°	61626	15492	63380
45°	58459	5361	58625
50°	53458	2284	52890
55°	47761	1706	47329
60°	42550	1709	43046
65°	37621	1729	37914
70°	28956	1431	28594
75°	17947	933	17015
80°	9167	714	8453
85°	4267	0	4267



TEST NUMBER: P135855

CATALOG NUMBER: LD6A30D010TE ERM6A30940 6LM121LI

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	200.1	7.3
10°-20°	546.1	20.0
20°-30°	657.3	24.0
30°-40°	510.8	18.7
40°-50°	341.8	12.5
50°-60°	257.2	9.4
60°-70°	165.1	6.0
70°-80°	52.9	1.9
80°-90°	5.0	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°	1403.5	51.3
0°-40°	1914.3	70.0
0°-60°	2513.3	91.9
0°-90°	2736.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2736.3	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	2062	2062	2062	2062	2062	
5°	1953	2098	2231	2066	1963	179
15°	1558	1920	2506	1886	1573	438
25°	1262	1417	1644	1410	1293	575
35°	857	896	581	896	898	544
45°	634	566	58	553	635	487
55°	420	397	15	388	416	377
65°	244	246	11	240	246	239
75°	71	68	4	64	68	82
85°	6	6	0	6	6	8
90°	0	0	0	0	0	



TEST NUMBER: P135855

CATALOG NUMBER: LD6A30D010TE ERM6A30940 6LM121LI

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	2061.9	2061.9	2061.9	2061.9	2061.9	2061.9	2061.9	2061.9	2061.9	2061.9	2061.9
2.5°	2016.9	2033.8	2028.2	2054.4	2035.7	2033.8	2046.9	2054.4	2056.3	2069.4	2069.4
5°	1953.2	1972.0	1966.3	2000.1	1992.6	2000.1	2028.2	2048.8	2067.6	2097.5	2116.3
7.5°	1848.3	1870.7	1874.5	1908.3	1912.0	1932.6	1977.6	2018.8	2058.2	2110.7	2155.7
10°	1735.8	1758.3	1763.9	1801.3	1812.7	1840.8	1898.9	1951.4	2007.6	2080.6	2148.2
12.5°	1638.3	1660.8	1668.3	1705.8	1718.9	1750.8	1812.7	1870.7	1934.5	2015.1	2095.7
15°	1557.7	1578.3	1585.8	1619.6	1632.7	1662.7	1720.8	1777.0	1838.9	1919.5	1998.2
17.5°	1479.0	1499.6	1505.2	1535.2	1544.6	1570.8	1623.3	1672.1	1724.6	1795.8	1867.0
20°	1405.8	1424.6	1428.4	1454.6	1460.3	1480.9	1524.0	1563.3	1606.4	1662.7	1720.8
22.5°	1336.5	1355.3	1357.2	1379.6	1381.5	1398.4	1434.0	1464.0	1493.9	1539.0	1580.2
25°	1261.5	1280.3	1282.1	1300.9	1302.8	1314.0	1342.1	1364.7	1385.2	1417.1	1445.2
27.5°	1171.6	1190.3	1195.9	1209.1	1210.9	1218.4	1242.8	1257.7	1278.4	1299.0	1310.2
30°	1072.2	1089.1	1096.6	1107.8	1109.7	1121.0	1143.4	1154.7	1167.8	1171.6	1175.3
32.5°	961.6	980.4	987.9	997.3	1002.8	1014.1	1034.7	1040.4	1044.1	1042.2	1021.6
35°	856.7	873.5	881.0	892.3	896.0	903.5	920.4	918.5	912.9	896.0	858.5
37.5°	777.9	791.0	798.5	806.0	807.9	811.7	821.1	813.5	798.5	770.4	721.6
40°	723.6	736.7	738.5	746.0	744.2	744.2	746.0	733.0	714.1	680.5	624.2
42.5°	682.3	693.5	693.5	701.1	695.4	691.7	691.7	676.7	652.3	616.7	560.5
45°	633.6	642.9	644.9	648.6	642.9	639.2	639.2	624.2	601.7	566.1	509.8
47.5°	583.0	592.4	592.4	597.9	592.4	588.6	588.6	575.5	554.8	523.0	470.5
50°	526.7	536.1	537.9	541.7	537.9	536.1	537.9	524.9	508.0	479.9	433.0
52.5°	472.4	481.7	481.7	485.5	481.7	481.7	483.6	474.2	459.2	436.8	395.5
55°	419.9	427.4	431.1	434.9	429.3	429.3	431.1	425.5	414.2	397.4	361.7
57.5°	371.1	378.6	380.5	384.3	380.5	382.4	384.3	378.6	373.1	359.9	331.8
60°	326.1	333.7	335.5	337.4	335.5	335.5	337.4	335.5	331.8	322.4	298.0
62.5°	284.9	290.5	292.4	296.2	292.4	290.5	294.3	292.4	290.5	284.9	268.1
65°	243.7	247.4	249.3	251.2	247.4	243.7	247.4	247.4	249.3	245.6	232.4
67.5°	198.7	202.4	202.4	202.4	196.8	194.9	198.7	198.7	202.4	200.6	191.2
70°	151.8	153.7	153.7	153.7	146.2	146.2	148.1	148.1	151.8	151.8	146.2
72.5°	108.7	106.8	106.8	105.0	103.1	99.3	99.3	101.3	105.0	105.0	101.3
75°	71.2	69.4	67.5	67.5	65.6	61.9	61.9	63.7	65.6	67.5	65.6
77.5°	43.1	41.3	41.3	39.4	39.4	37.5	37.5	37.5	39.4	39.4	39.4
80°	24.4	22.5	22.5	22.5	20.6	20.6	20.6	20.6	20.6	22.5	20.6
82.5°	13.1	11.2	11.2	11.2	11.2	11.2	9.4	11.2	11.2	11.2	11.2
85°	5.7	5.7	5.7	5.7	3.7	3.7	3.7	3.7	3.7	5.7	5.7
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: P135855

CATALOG NUMBER: LD6A30D010TE ERM6A30940 6LM121LI

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	2061.9	2061.9	2061.9	2061.9	2061.9	2061.9	2061.9	2061.9	2061.9	2061.9	2061.9
2.5°	2063.8	2082.6	2069.4	2110.7	2082.6	2097.5	2118.2	2097.5	2103.2	2116.3	2090.0
5°	2127.6	2161.3	2165.0	2221.2	2198.8	2225.0	2253.1	2230.6	2234.4	2243.8	2210.0
7.5°	2193.1	2253.1	2281.2	2360.0	2354.4	2397.4	2431.2	2408.7	2408.7	2410.6	2360.0
10°	2211.9	2300.0	2352.5	2449.9	2464.9	2526.8	2564.3	2549.3	2545.5	2540.0	2470.6
12.5°	2170.7	2279.4	2346.9	2455.6	2485.6	2558.7	2592.4	2586.8	2581.1	2569.9	2489.3
15°	2075.1	2187.5	2258.8	2365.6	2403.1	2478.1	2506.2	2506.2	2500.5	2489.3	2403.1
17.5°	1934.5	2039.5	2105.0	2198.8	2236.3	2305.6	2324.4	2330.0	2324.4	2313.1	2234.4
20°	1775.1	1863.3	1915.7	1992.6	2022.6	2082.6	2093.8	2103.2	2099.4	2090.0	2020.7
22.5°	1619.6	1689.0	1728.3	1795.8	1807.0	1857.6	1861.3	1868.8	1867.0	1863.3	1807.0
25°	1477.1	1524.0	1546.4	1597.0	1600.9	1638.3	1636.5	1643.9	1642.0	1642.0	1598.9
27.5°	1327.1	1355.3	1360.9	1392.8	1385.2	1413.3	1417.1	1413.3	1415.2	1417.1	1385.2
30°	1177.2	1182.8	1165.9	1169.6	1149.1	1165.9	1149.1	1162.2	1162.2	1167.8	1149.1
32.5°	1006.6	989.7	944.8	922.2	886.6	886.6	877.3	877.3	877.3	886.6	882.9
35°	824.8	783.5	714.1	665.5	614.8	601.7	599.8	581.1	584.9	597.9	607.3
37.5°	669.2	607.3	515.5	446.1	386.1	359.9	350.5	335.5	341.2	356.2	378.6
40°	558.6	483.6	376.8	296.2	236.2	206.2	191.2	181.9	187.4	206.2	234.3
42.5°	489.3	406.7	292.4	208.1	151.8	123.7	108.7	101.3	106.8	123.7	157.5
45°	438.6	352.4	236.2	153.7	103.1	76.9	63.7	58.1	61.9	76.9	105.0
47.5°	399.3	311.2	196.8	118.1	73.1	50.6	39.4	33.8	37.5	50.6	73.1
50°	363.6	277.5	166.8	93.8	56.2	37.5	26.2	22.5	26.2	35.6	54.3
52.5°	331.8	247.4	142.4	76.9	43.1	29.9	20.6	16.9	18.7	28.1	43.1
55°	303.7	225.0	125.6	65.6	37.5	26.2	18.7	15.0	18.7	24.4	37.5
57.5°	277.5	202.4	110.6	56.2	31.9	22.5	16.9	15.0	16.9	22.5	31.9
60°	251.2	180.0	97.5	48.8	28.1	20.6	15.0	13.1	15.0	18.7	28.1
62.5°	225.0	159.3	84.4	41.3	24.4	16.9	13.1	11.2	13.1	16.9	24.4
65°	194.9	134.9	71.2	35.6	20.6	15.0	11.2	11.2	11.2	15.0	20.6
67.5°	161.2	110.6	56.2	28.1	16.9	13.1	9.4	9.4	9.4	13.1	16.9
70°	123.7	82.4	43.1	22.5	13.1	9.4	7.5	7.5	7.5	9.4	13.1
72.5°	86.2	58.1	29.9	16.9	9.4	7.5	5.7	5.7	5.7	7.5	9.4
75°	54.3	37.5	20.6	11.2	7.5	5.7	3.7	3.7	3.7	5.7	7.5
77.5°	31.9	22.5	13.1	7.5	3.7	3.7	1.9	1.9	1.9	3.7	3.7
80°	16.9	13.1	7.5	3.7	1.9	1.9	1.9	1.9	1.9	1.9	1.9
82.5°	9.4	5.7	3.7	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
85°	3.7	1.9	1.9	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: P135855

CATALOG NUMBER: LD6A30D010TE ERM6A30940 6LM121LI

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	2061.9	2061.9	2061.9	2061.9	2061.9	2061.9	2061.9	2061.9	2061.9	2061.9	2061.9
2.5°	2082.6	2090.0	2088.2	2048.8	2045.0	2046.9	2020.7	2030.1	2039.5	2030.1	2032.0
5°	2183.8	2181.9	2159.4	2103.2	2080.6	2065.7	2022.6	2015.1	2009.4	1988.8	1981.3
7.5°	2316.8	2290.6	2243.8	2159.4	2112.6	2071.3	2007.6	1975.7	1953.2	1917.6	1896.9
10°	2408.7	2356.3	2286.9	2176.3	2105.0	2041.3	1958.8	1910.1	1872.7	1825.7	1795.8
12.5°	2421.8	2348.7	2268.2	2138.8	2056.3	1977.6	1887.6	1833.2	1790.1	1739.5	1711.4
15°	2337.5	2262.5	2178.1	2048.8	1966.3	1885.7	1799.5	1745.1	1702.0	1653.3	1629.0
17.5°	2178.1	2108.8	2033.8	1913.8	1842.6	1769.5	1692.7	1645.8	1608.3	1570.8	1546.4
20°	1975.7	1921.3	1859.5	1758.3	1702.0	1642.0	1582.0	1544.6	1516.5	1484.6	1465.8
22.5°	1775.1	1733.9	1689.0	1608.3	1567.1	1524.0	1477.1	1450.8	1430.2	1405.8	1392.8
25°	1582.0	1553.9	1525.8	1464.0	1439.6	1409.6	1375.9	1357.2	1344.0	1327.1	1317.7
27.5°	1381.5	1372.1	1364.7	1325.2	1315.9	1295.3	1272.8	1261.5	1252.2	1240.9	1233.4
30°	1164.1	1169.6	1199.7	1179.0	1188.5	1182.8	1173.4	1165.9	1162.2	1152.8	1143.4
32.5°	918.5	957.8	1001.0	1006.6	1034.7	1047.9	1045.9	1047.9	1049.7	1042.2	1034.7
35°	657.9	721.6	789.2	819.1	866.0	896.0	907.2	918.5	926.0	924.1	918.5
37.5°	438.6	524.9	605.5	657.9	719.8	761.1	785.5	804.2	815.4	819.1	819.1
40°	292.4	374.9	481.7	549.3	618.6	669.2	697.3	721.6	738.5	746.0	749.8
42.5°	206.2	294.3	403.0	479.9	551.1	605.5	637.4	663.6	680.5	689.8	693.5
45°	151.8	236.2	348.7	427.4	500.5	553.0	584.9	609.2	626.0	635.4	641.1
47.5°	116.2	198.7	307.4	388.0	461.2	509.8	539.9	562.3	577.4	584.9	588.6
50°	91.8	166.8	273.7	354.2	421.7	466.7	493.0	511.7	524.9	530.5	534.2
52.5°	75.0	144.3	245.6	322.4	386.1	425.5	446.1	461.2	472.4	476.1	479.9
55°	63.7	125.6	221.2	296.2	354.2	388.0	403.0	416.1	421.7	425.5	427.4
57.5°	56.2	110.6	200.6	271.8	324.3	352.4	363.6	373.1	374.9	378.6	380.5
60°	48.8	95.6	178.0	245.6	292.4	316.8	322.4	329.9	329.9	331.8	333.7
62.5°	41.3	82.4	155.6	219.3	260.6	281.2	284.9	286.8	286.8	286.8	288.7
65°	33.8	69.4	131.2	189.4	226.8	239.9	241.9	243.7	239.9	239.9	241.9
67.5°	28.1	54.3	105.0	155.6	185.6	196.8	194.9	194.9	189.4	189.4	191.2
70°	20.6	41.3	78.7	118.1	140.6	148.1	144.3	144.3	138.7	138.7	140.6
72.5°	15.0	29.9	54.3	80.6	97.5	101.3	97.5	97.5	93.8	93.8	95.6
75°	11.2	18.7	35.6	52.5	61.9	63.7	61.9	60.0	58.1	58.1	60.0
77.5°	7.5	13.1	20.6	29.9	35.6	37.5	35.6	35.6	33.8	35.6	35.6
80°	3.7	7.5	11.2	16.9	18.7	20.6	20.6	20.6	18.7	18.7	20.6
82.5°	1.9	3.7	5.7	7.5	9.4	11.2	9.4	9.4	9.4	9.4	9.4
85°	0.0	1.9	1.9	3.7	3.7	5.7	3.7	3.7	3.7	3.7	3.7
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: P135855

CATALOG NUMBER: LD6A30D010TE ERM6A30940 6LM121LI

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	2061.9	2061.9	2061.9	2061.9
2.5°	2028.2	2018.8	2005.7	2033.8
5°	1970.1	1951.4	1936.4	1962.6
7.5°	1878.2	1852.0	1831.4	1857.6
10°	1773.2	1743.3	1720.8	1745.1
12.5°	1681.4	1651.4	1632.7	1651.4
15°	1600.9	1572.7	1555.8	1572.7
17.5°	1522.1	1497.7	1482.7	1501.4
20°	1447.1	1426.5	1413.3	1430.2
22.5°	1377.7	1359.0	1347.8	1364.7
25°	1304.7	1291.5	1278.4	1293.4
27.5°	1224.1	1209.1	1201.5	1210.9
30°	1132.2	1117.2	1111.6	1119.1
32.5°	1023.5	1008.5	1002.8	1008.5
35°	911.0	897.8	890.4	897.8
37.5°	815.4	804.2	798.5	804.2
40°	747.9	742.3	736.7	744.2
42.5°	695.4	689.8	686.0	691.7
45°	641.1	633.6	629.8	635.4
47.5°	586.7	579.2	575.5	579.2
50°	530.5	521.1	519.2	521.1
52.5°	474.2	466.7	463.0	464.9
55°	423.6	418.0	414.2	416.1
57.5°	378.6	371.1	369.3	371.1
60°	333.7	329.9	328.0	329.9
62.5°	288.7	286.8	288.7	288.7
65°	243.7	243.7	245.6	245.6
67.5°	194.9	198.7	200.6	200.6
70°	144.3	148.1	149.9	149.9
72.5°	97.5	101.3	103.1	105.0
75°	61.9	65.6	67.5	67.5
77.5°	37.5	39.4	39.4	41.3
80°	20.6	22.5	22.5	22.5
82.5°	11.2	11.2	11.2	13.1
85°	5.7	5.7	5.7	5.7
87.5°	0.0	1.9	1.9	1.9
90°	0.0	0.0	0.0	0.0



Report Generated By E9808895 / USPTCWHP6082093





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













(END OF REPORT)