

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: P135850

Luminaire Tested: **LD6A30D010TE ERM6A30835 6LM121LI**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P135850
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 ERM6A30835 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 3500K
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2937.0 lumens
Efficiency: N/A
Efficacy: 64.7 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

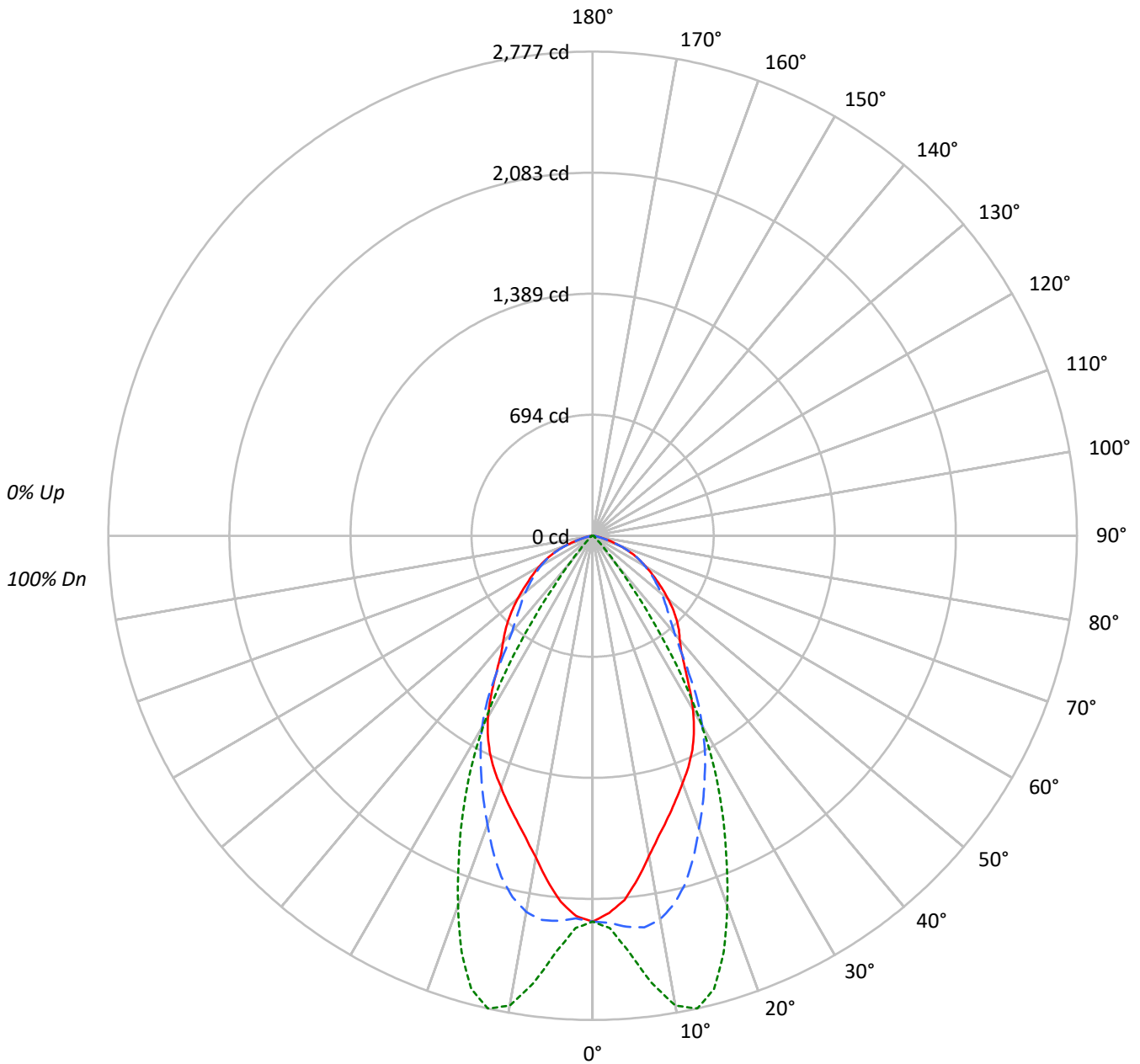
Input Watts (W): 45.4
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20									20									20									20									
RC	80									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°	144391	144391	144391
5°	137299	156802	137961
10°	123425	181272	124094
15°	112930	181695	114018
20°	104766	156733	106585
25°	97475	127018	99937
30°	86701	93971	90490
35°	73233	49674	76761
40°	66140	16624	68030
45°	62749	5757	62933
50°	57386	2446	56767
55°	51264	1831	50809
60°	45681	1840	46203
65°	40384	1868	40693
70°	31092	1526	30711
75°	19283	1008	18250
80°	9843	751	9055
85°	4491	0	4491



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	214.8	7.3
10°-20°	586.2	20.0
20°-30°	705.5	24.0
30°-40°	548.3	18.7
40°-50°	366.9	12.5
50°-60°	276.1	9.4
60°-70°	177.2	6.0
70°-80°	56.7	1.9
80°-90°	5.4	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°	1506.5	51.3
0°-40°	2054.7	70.0
0°-60°	2697.7	91.9
0°-90°	2937.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2937.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	2213	2213	2213	2213	2213	
5°	2096	2251	2394	2217	2107	192
15°	1672	2060	2690	2024	1688	470
25°	1354	1521	1764	1513	1388	617
35°	920	962	624	962	964	584
45°	680	608	62	594	682	522
55°	451	426	16	416	447	405
65°	262	264	12	258	264	256
75°	76	72	4	68	72	88
85°	6	6	0	6	6	9
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°	2213.2	2213.2	2213.2	2213.2	2213.2	2213.2	2213.2	2213.2	2213.2	2213.2	2213.2
2.5°	2164.9	2183.0	2177.0	2205.2	2185.0	2183.0	2197.1	2205.2	2207.2	2221.3	2221.3
5°	2096.5	2116.6	2110.6	2146.8	2138.8	2146.8	2177.0	2199.1	2219.2	2251.4	2271.6
7.5°	1983.8	2008.0	2012.0	2048.2	2052.2	2074.4	2122.7	2166.9	2209.2	2265.5	2313.8
10°	1863.1	1887.3	1893.3	1933.5	1945.6	1975.8	2038.2	2094.5	2154.9	2233.3	2305.8
12.5°	1758.5	1782.6	1790.7	1830.9	1845.0	1879.2	1945.6	2008.0	2076.4	2162.9	2249.4
15°	1672.0	1694.1	1702.2	1738.4	1752.5	1784.6	1847.0	1907.4	1973.8	2060.3	2144.8
17.5°	1587.5	1609.6	1615.6	1647.8	1657.9	1686.1	1742.4	1794.7	1851.0	1927.5	2004.0
20°	1509.0	1529.1	1533.1	1561.3	1567.4	1589.5	1635.8	1678.0	1724.3	1784.6	1847.0
22.5°	1434.6	1454.7	1456.7	1480.8	1482.8	1501.0	1539.2	1571.4	1603.6	1651.9	1696.1
25°	1354.1	1374.2	1376.2	1396.3	1398.3	1410.4	1440.6	1464.7	1486.9	1521.1	1551.3
27.5°	1257.5	1277.6	1283.7	1297.7	1299.8	1307.8	1334.0	1350.1	1372.2	1394.3	1406.4
30°	1150.9	1169.0	1177.0	1189.1	1191.1	1203.2	1227.3	1239.4	1253.5	1257.5	1261.5
32.5°	1032.2	1052.3	1060.3	1070.4	1076.4	1088.5	1110.6	1116.7	1120.7	1118.7	1096.5
35°	919.5	937.6	945.6	957.7	961.7	969.8	987.9	985.9	979.8	961.7	921.5
37.5°	835.0	849.1	857.1	865.2	867.2	871.2	881.3	873.2	857.1	826.9	774.6
40°	776.6	790.7	792.7	800.8	798.8	798.8	800.8	786.7	766.6	730.4	670.0
42.5°	732.4	744.4	744.4	752.5	746.5	742.4	742.4	726.3	700.2	661.9	601.6
45°	680.1	690.1	692.1	696.2	690.1	686.1	686.1	670.0	645.9	607.6	547.3
47.5°	625.7	635.8	635.8	641.8	635.8	631.8	631.8	617.7	595.6	561.3	505.0
50°	565.4	575.4	577.4	581.5	577.4	575.4	577.4	563.4	545.3	515.1	464.8
52.5°	507.0	517.1	517.1	521.1	517.1	517.1	519.1	509.0	492.9	468.8	424.5
55°	450.7	458.7	462.8	466.8	460.7	460.7	462.8	456.7	444.7	426.5	388.3
57.5°	398.4	406.4	408.4	412.5	408.4	410.4	412.5	406.4	400.4	386.3	356.1
60°	350.1	358.1	360.1	362.2	360.1	360.1	362.2	360.1	356.1	346.1	319.9
62.5°	305.8	311.9	313.9	317.9	313.9	311.9	315.9	313.9	311.9	305.8	287.7
65°	261.6	265.6	267.6	269.6	265.6	261.6	265.6	265.6	267.6	263.6	249.5
67.5°	213.3	217.3	217.3	217.3	211.3	209.2	213.3	213.3	217.3	215.3	205.2
70°	163.0	165.0	165.0	165.0	156.9	156.9	158.9	158.9	163.0	163.0	156.9
72.5°	116.7	114.7	114.7	112.7	110.7	106.6	106.6	108.6	112.7	112.7	108.6
75°	76.5	74.4	72.4	72.4	70.4	66.4	66.4	68.4	70.4	72.4	70.4
77.5°	46.3	44.3	44.3	42.3	42.3	40.2	40.2	40.2	42.3	42.3	42.3
80°	26.2	24.1	24.1	24.1	22.1	22.1	22.1	22.1	22.1	24.1	22.1
82.5°	14.1	12.1	12.1	12.1	12.1	12.1	10.1	12.1	12.1	12.1	12.1
85°	6.0	6.0	6.0	6.0	4.0	4.0	4.0	4.0	4.0	6.0	6.0
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):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	2213.2	2213.2	2213.2	2213.2	2213.2	2213.2	2213.2	2213.2	2213.2	2213.2	2213.2
2.5°	2215.2	2235.3	2221.3	2265.5	2235.3	2251.4	2273.6	2251.4	2257.5	2271.6	2243.4
5°	2283.6	2319.8	2323.9	2384.2	2360.1	2388.2	2418.4	2394.3	2398.3	2408.4	2372.2
7.5°	2354.0	2418.4	2448.6	2533.1	2527.1	2573.4	2609.6	2585.4	2585.4	2587.4	2533.1
10°	2374.2	2468.7	2525.1	2629.7	2645.8	2712.2	2752.4	2736.3	2732.3	2726.3	2651.8
12.5°	2329.9	2446.6	2519.0	2635.7	2667.9	2746.4	2782.6	2776.6	2770.5	2758.5	2671.9
15°	2227.3	2348.0	2424.5	2539.2	2579.4	2659.9	2690.1	2690.1	2684.0	2671.9	2579.4
17.5°	2076.4	2189.1	2259.5	2360.1	2400.3	2474.8	2494.9	2500.9	2494.9	2482.8	2398.3
20°	1905.4	1999.9	2056.3	2138.8	2171.0	2235.3	2247.4	2257.5	2253.4	2243.4	2168.9
22.5°	1738.4	1812.8	1855.1	1927.5	1939.6	1993.9	1997.9	2006.0	2004.0	1999.9	1939.6
25°	1585.5	1635.8	1659.9	1714.2	1718.3	1758.5	1756.5	1764.5	1762.5	1762.5	1716.2
27.5°	1424.5	1454.7	1460.7	1494.9	1486.9	1517.1	1521.1	1517.1	1519.1	1521.1	1486.9
30°	1263.5	1269.6	1251.5	1255.5	1233.4	1251.5	1233.4	1247.4	1247.4	1253.5	1233.4
32.5°	1080.4	1062.3	1014.1	989.9	951.7	951.7	941.6	941.6	941.6	951.7	947.7
35°	885.3	841.0	766.6	714.3	659.9	645.9	643.8	623.7	627.7	641.8	651.9
37.5°	718.3	651.9	553.3	478.9	414.5	386.3	376.2	360.1	366.2	382.3	406.4
40°	599.6	519.1	404.4	317.9	253.5	221.3	205.2	195.2	201.2	221.3	251.5
42.5°	525.1	436.6	313.9	223.3	163.0	132.8	116.7	108.6	114.7	132.8	169.0
45°	470.8	378.3	253.5	165.0	110.7	82.5	68.4	62.4	66.4	82.5	112.7
47.5°	428.6	334.0	211.3	126.8	78.5	54.3	42.3	36.2	40.2	54.3	78.5
50°	390.3	297.8	179.1	100.6	60.4	40.2	28.2	24.1	28.2	38.2	58.3
52.5°	356.1	265.6	152.9	82.5	46.3	32.2	22.1	18.1	20.1	30.2	46.3
55°	325.9	241.4	134.8	70.4	40.2	28.2	20.1	16.1	20.1	26.2	40.2
57.5°	297.8	217.3	118.7	60.4	34.2	24.1	18.1	16.1	18.1	24.1	34.2
60°	269.6	193.2	104.6	52.3	30.2	22.1	16.1	14.1	16.1	20.1	30.2
62.5°	241.4	171.0	90.5	44.3	26.2	18.1	14.1	12.1	14.1	18.1	26.2
65°	209.2	144.9	76.5	38.2	22.1	16.1	12.1	12.1	12.1	16.1	22.1
67.5°	173.0	118.7	60.4	30.2	18.1	14.1	10.1	10.1	10.1	14.1	18.1
70°	132.8	88.5	46.3	24.1	14.1	10.1	8.0	8.0	8.0	10.1	14.1
72.5°	92.6	62.4	32.2	18.1	10.1	8.0	6.0	6.0	6.0	8.0	10.1
75°	58.3	40.2	22.1	12.1	8.0	6.0	4.0	4.0	4.0	6.0	8.0
77.5°	34.2	24.1	14.1	8.0	4.0	4.0	2.0	2.0	2.0	4.0	4.0
80°	18.1	14.1	8.0	4.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
82.5°	10.1	6.0	4.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
85°	4.0	2.0	2.0	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



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CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	2213.2	2213.2	2213.2	2213.2	2213.2	2213.2	2213.2	2213.2	2213.2	2213.2	2213.2
2.5°	2235.3	2243.4	2241.4	2199.1	2195.1	2197.1	2168.9	2179.0	2189.1	2179.0	2181.0
5°	2344.0	2342.0	2317.8	2257.5	2233.3	2217.2	2171.0	2162.9	2156.9	2134.7	2126.7
7.5°	2486.8	2458.7	2408.4	2317.8	2267.5	2223.3	2154.9	2120.7	2096.5	2058.3	2036.1
10°	2585.4	2529.1	2454.6	2335.9	2259.5	2191.1	2102.5	2050.2	2010.0	1959.7	1927.5
12.5°	2599.5	2521.0	2434.5	2295.7	2207.2	2122.7	2026.1	1967.7	1921.5	1867.1	1837.0
15°	2509.0	2428.5	2337.9	2199.1	2110.6	2024.1	1931.5	1873.2	1826.9	1774.6	1748.4
17.5°	2337.9	2263.5	2183.0	2054.3	1977.8	1899.3	1816.8	1766.5	1726.3	1686.1	1659.9
20°	2120.7	2062.3	1995.9	1887.3	1826.9	1762.5	1698.1	1657.9	1627.7	1593.5	1573.4
22.5°	1905.4	1861.1	1812.8	1726.3	1682.0	1635.8	1585.5	1557.3	1535.2	1509.0	1494.9
25°	1698.1	1668.0	1637.8	1571.4	1545.2	1513.0	1476.8	1456.7	1442.6	1424.5	1414.4
27.5°	1482.8	1472.8	1464.7	1422.5	1412.4	1390.3	1366.2	1354.1	1344.0	1331.9	1323.9
30°	1249.5	1255.5	1287.7	1265.6	1275.6	1269.6	1259.5	1251.5	1247.4	1237.4	1227.3
32.5°	985.9	1028.1	1074.4	1080.4	1110.6	1124.7	1122.7	1124.7	1126.7	1118.7	1110.6
35°	706.2	774.6	847.1	879.2	929.5	961.7	973.8	985.9	993.9	991.9	985.9
37.5°	470.8	563.4	649.9	706.2	772.6	816.9	843.0	863.2	875.2	879.2	879.2
40°	313.9	402.4	517.1	589.5	664.0	718.3	748.5	774.6	792.7	800.8	804.8
42.5°	221.3	315.9	432.6	515.1	591.5	649.9	684.1	712.2	730.4	740.4	744.4
45°	163.0	253.5	374.2	458.7	537.2	593.5	627.7	653.9	672.0	682.1	688.1
47.5°	124.7	213.3	330.0	416.5	495.0	547.3	579.5	603.6	619.7	627.7	631.8
50°	98.6	179.1	293.8	380.3	452.7	501.0	529.2	549.3	563.4	569.4	573.4
52.5°	80.5	154.9	263.6	346.1	414.5	456.7	478.9	495.0	507.0	511.0	515.1
55°	68.4	134.8	237.4	317.9	380.3	416.5	432.6	446.7	452.7	456.7	458.7
57.5°	60.4	118.7	215.3	291.7	348.1	378.3	390.3	400.4	402.4	406.4	408.4
60°	52.3	102.6	191.1	263.6	313.9	340.0	346.1	354.1	354.1	356.1	358.1
62.5°	44.3	88.5	167.0	235.4	279.7	301.8	305.8	307.8	307.8	307.8	309.8
65°	36.2	74.4	140.8	203.2	243.5	257.5	259.5	261.6	257.5	257.5	259.5
67.5°	30.2	58.3	112.7	167.0	199.2	211.3	209.2	209.2	203.2	203.2	205.2
70°	22.1	44.3	84.5	126.8	150.9	158.9	154.9	154.9	148.9	148.9	150.9
72.5°	16.1	32.2	58.3	86.5	104.6	108.6	104.6	104.6	100.6	100.6	102.6
75°	12.1	20.1	38.2	56.3	66.4	68.4	66.4	64.4	62.4	62.4	64.4
77.5°	8.0	14.1	22.1	32.2	38.2	40.2	38.2	38.2	36.2	38.2	38.2
80°	4.0	8.0	12.1	18.1	20.1	22.1	22.1	22.1	20.1	20.1	22.1
82.5°	2.0	4.0	6.0	8.0	10.1	12.1	10.1	10.1	10.1	10.1	10.1
85°	0.0	2.0	2.0	4.0	4.0	6.0	4.0	4.0	4.0	4.0	4.0
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: P135850

CATALOG NUMBER: LD6A30D010TE ERM6A30835 6LM121LI

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	2213.2	2213.2	2213.2	2213.2
2.5°	2177.0	2166.9	2152.8	2183.0
5°	2114.6	2094.5	2078.4	2106.6
7.5°	2016.0	1987.9	1965.7	1993.9
10°	1903.4	1871.2	1847.0	1873.2
12.5°	1804.8	1772.6	1752.5	1772.6
15°	1718.3	1688.1	1670.0	1688.1
17.5°	1633.7	1607.6	1591.5	1611.6
20°	1553.3	1531.1	1517.1	1535.2
22.5°	1478.8	1458.7	1446.6	1464.7
25°	1400.4	1386.3	1372.2	1388.3
27.5°	1313.8	1297.7	1289.7	1299.8
30°	1215.3	1199.2	1193.1	1201.2
32.5°	1098.6	1082.5	1076.4	1082.5
35°	977.8	963.8	955.7	963.8
37.5°	875.2	863.2	857.1	863.2
40°	802.8	796.8	790.7	798.8
42.5°	746.5	740.4	736.4	742.4
45°	688.1	680.1	676.0	682.1
47.5°	629.8	621.7	617.7	621.7
50°	569.4	559.3	557.3	559.3
52.5°	509.0	501.0	497.0	499.0
55°	454.7	448.7	444.7	446.7
57.5°	406.4	398.4	396.4	398.4
60°	358.1	354.1	352.1	354.1
62.5°	309.8	307.8	309.8	309.8
65°	261.6	261.6	263.6	263.6
67.5°	209.2	213.3	215.3	215.3
70°	154.9	158.9	161.0	161.0
72.5°	104.6	108.6	110.7	112.7
75°	66.4	70.4	72.4	72.4
77.5°	40.2	42.3	42.3	44.3
80°	22.1	24.1	24.1	24.1
82.5°	12.1	12.1	12.1	14.1
85°	6.0	6.0	6.0	6.0
87.5°	0.0	2.0	2.0	2.0
90°	0.0	0.0	0.0	0.0



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













(END OF REPORT)