

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: P135849

Luminaire Tested: **LD6A30D010TE ERM6A30830 6LM121LI**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P135849
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 ERM6A30830 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: 2863.0 lumens
Efficiency: N/A
Efficacy: 63.1 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

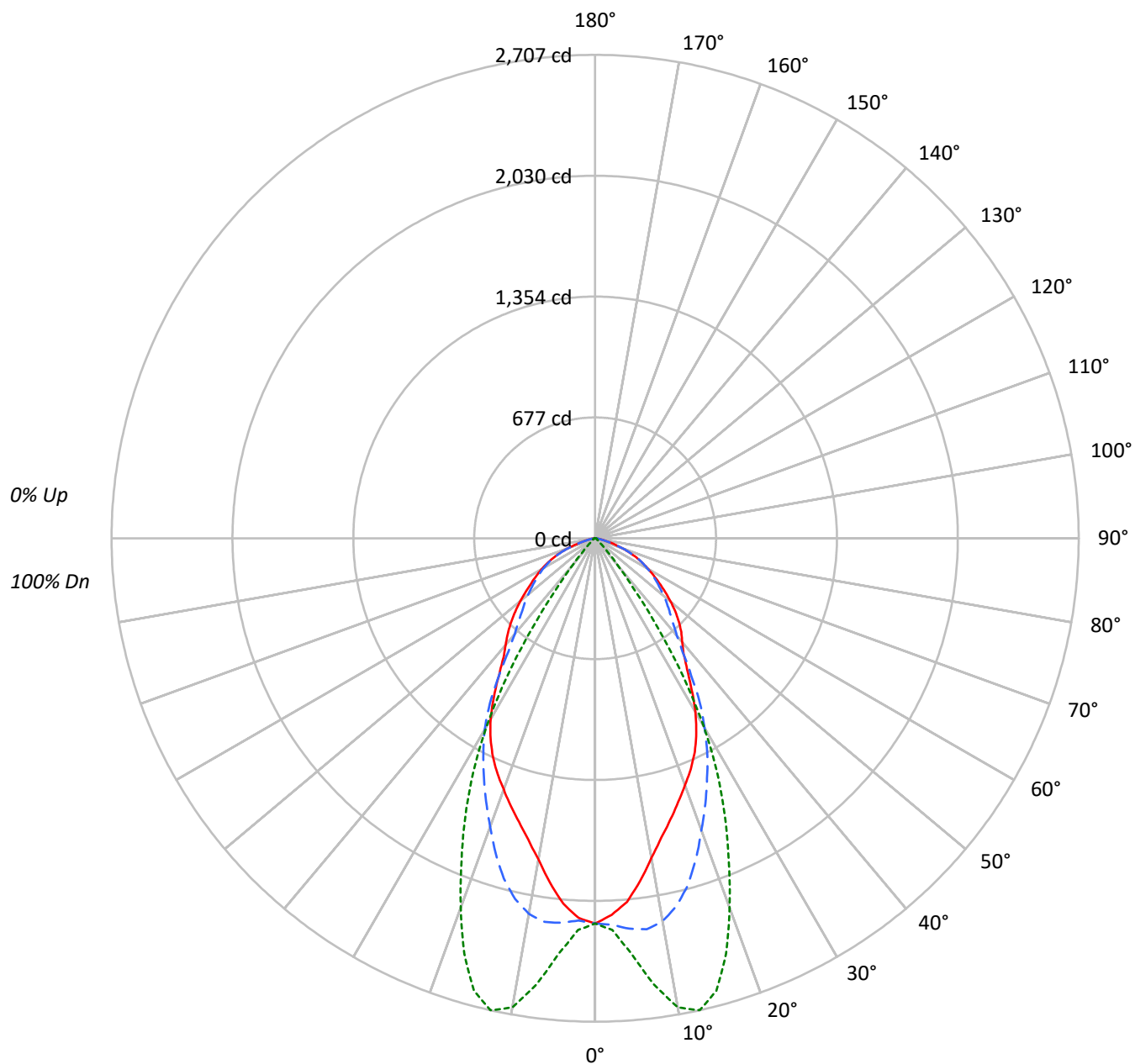
Input Watts (W): 45.4
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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				0
RW	70	50	30	10	70	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°	140750	140750	140750
5°	133842	152853	134483
10°	120318	176707	120967
15°	110080	177116	111140
20°	102128	152782	103898
25°	95020	123822	97417
30°	84517	91605	88208
35°	71385	48424	74826
40°	64479	16198	66310
45°	61162	5610	61346
50°	55935	2385	55336
55°	49968	1786	49524
60°	44533	1788	45042
65°	39365	1822	39658
70°	30310	1488	29929
75°	18779	983	17796
80°	9580	751	8829
85°	4416	0	4416



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	209.4	7.3
10°-20°	571.4	20.0
20°-30°	687.7	24.0
30°-40°	534.4	18.7
40°-50°	357.7	12.5
50°-60°	269.1	9.4
60°-70°	172.7	6.0
70°-80°	55.3	1.9
80°-90°	5.2	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°	1468.5	51.3
0°-40°	2002.9	70.0
0°-60°	2629.7	91.9
0°-90°	2863.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2863.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	2157	2157	2157	2157	2157	
5°	2044	2195	2334	2161	2054	188
15°	1630	2008	2622	1973	1646	458
25°	1320	1483	1720	1475	1353	602
35°	896	938	608	938	940	570
45°	663	592	61	579	665	509
55°	439	416	16	406	435	395
65°	255	257	12	251	257	250
75°	74	71	4	67	71	86
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°	2157.4	2157.4	2157.4	2157.4	2157.4	2157.4	2157.4	2157.4	2157.4	2157.4	2157.4
2.5°	2110.4	2128.0	2122.1	2149.6	2130.0	2128.0	2141.8	2149.6	2151.6	2165.3	2165.3
5°	2043.7	2063.3	2057.4	2092.7	2084.9	2092.7	2122.1	2143.7	2163.3	2194.7	2214.3
7.5°	1933.9	1957.4	1961.3	1996.6	2000.5	2022.1	2069.2	2112.3	2153.5	2208.4	2255.5
10°	1816.2	1839.7	1845.6	1884.8	1896.6	1926.0	1986.8	2041.7	2100.6	2177.1	2247.7
12.5°	1714.2	1737.7	1745.6	1784.8	1798.5	1831.9	1896.6	1957.4	2024.1	2108.4	2192.7
15°	1629.8	1651.4	1659.3	1694.6	1708.3	1739.7	1800.5	1859.3	1924.0	2008.4	2090.8
17.5°	1547.5	1569.0	1574.9	1606.3	1616.1	1643.6	1698.5	1749.5	1804.4	1878.9	1953.5
20°	1471.0	1490.6	1494.5	1522.0	1527.9	1549.4	1594.5	1635.7	1680.8	1739.7	1800.5
22.5°	1398.4	1418.0	1420.0	1443.5	1445.5	1463.1	1500.4	1531.8	1563.2	1610.2	1653.4
25°	1320.0	1339.6	1341.5	1361.1	1363.1	1374.9	1404.3	1427.8	1449.4	1482.8	1512.2
27.5°	1225.8	1245.4	1251.3	1265.0	1267.0	1274.9	1300.3	1316.0	1337.6	1359.2	1371.0
30°	1121.9	1139.5	1147.4	1159.1	1161.1	1172.9	1196.4	1208.2	1221.9	1225.8	1229.7
32.5°	1006.2	1025.8	1033.6	1043.4	1049.3	1061.1	1082.6	1088.5	1092.5	1090.5	1068.9
35°	896.3	914.0	921.8	933.6	937.5	945.4	963.0	961.0	955.2	937.5	898.3
37.5°	813.9	827.7	835.5	843.4	845.3	849.2	859.1	851.2	835.5	806.1	755.1
40°	757.1	770.8	772.8	780.6	778.6	778.6	780.6	766.9	747.3	712.0	653.1
42.5°	713.9	725.7	725.7	733.5	727.6	723.7	723.7	708.0	682.5	645.3	586.4
45°	662.9	672.7	674.7	678.6	672.7	668.8	668.8	653.1	629.6	592.3	533.5
47.5°	610.0	619.8	619.8	625.7	619.8	615.9	615.9	602.1	580.5	547.2	492.3
50°	551.1	560.9	562.9	566.8	562.9	560.9	562.9	549.2	531.5	502.1	453.1
52.5°	494.3	504.1	504.1	508.0	504.1	504.1	506.0	496.2	480.5	457.0	413.8
55°	439.3	447.2	451.1	455.0	449.1	449.1	451.1	445.2	433.4	415.8	378.5
57.5°	388.3	396.2	398.1	402.1	398.1	400.1	402.1	396.2	390.3	376.6	347.2
60°	341.3	349.1	351.1	353.0	351.1	351.1	353.0	351.1	347.2	337.3	311.8
62.5°	298.1	304.0	306.0	309.9	306.0	304.0	307.9	306.0	304.0	298.1	280.5
65°	255.0	258.9	260.9	262.8	258.9	255.0	258.9	258.9	260.9	256.9	243.2
67.5°	207.9	211.8	211.8	211.8	205.9	204.0	207.9	207.9	211.8	209.9	200.1
70°	158.9	160.8	160.8	160.8	153.0	153.0	154.9	154.9	158.9	158.9	153.0
72.5°	113.8	111.8	111.8	109.8	107.9	103.9	103.9	105.9	109.8	109.8	105.9
75°	74.5	72.6	70.6	70.6	68.6	64.7	64.7	66.7	68.6	70.6	68.6
77.5°	45.1	43.1	43.1	41.2	41.2	39.2	39.2	39.2	41.2	41.2	41.2
80°	25.5	23.5	23.5	23.5	21.6	21.6	21.6	21.6	21.6	23.5	21.6
82.5°	13.7	11.8	11.8	11.8	11.8	11.8	9.8	11.8	11.8	11.8	11.8
85°	5.9	5.9	5.9	5.9	3.9	3.9	3.9	3.9	3.9	5.9	5.9
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°	2157.4	2157.4	2157.4	2157.4	2157.4	2157.4	2157.4	2157.4	2157.4	2157.4	2157.4
2.5°	2159.4	2179.0	2165.3	2208.4	2179.0	2194.7	2216.3	2194.7	2200.6	2214.3	2186.9
5°	2226.1	2261.4	2265.3	2324.2	2300.6	2328.1	2357.5	2334.0	2337.9	2347.7	2312.4
7.5°	2294.7	2357.5	2386.9	2469.3	2463.4	2508.5	2543.8	2520.3	2520.3	2522.2	2469.3
10°	2314.3	2406.5	2461.4	2563.4	2579.1	2643.8	2683.1	2667.4	2663.5	2657.6	2585.0
12.5°	2271.2	2385.0	2455.6	2569.3	2600.7	2677.2	2712.5	2706.6	2700.7	2689.0	2604.6
15°	2171.2	2288.8	2363.4	2475.2	2514.4	2592.9	2622.3	2622.3	2616.4	2604.6	2514.4
17.5°	2024.1	2133.9	2202.6	2300.6	2339.8	2412.4	2432.0	2437.9	2432.0	2420.3	2337.9
20°	1857.4	1949.5	2004.5	2084.9	2116.3	2179.0	2190.8	2200.6	2196.7	2186.9	2114.3
22.5°	1694.6	1767.1	1808.3	1878.9	1890.7	1943.7	1947.6	1955.4	1953.5	1949.5	1890.7
25°	1545.5	1594.5	1618.1	1671.0	1675.0	1714.2	1712.2	1720.1	1718.1	1718.1	1673.0
27.5°	1388.6	1418.0	1423.9	1457.3	1449.4	1478.8	1482.8	1478.8	1480.8	1482.8	1449.4
30°	1231.7	1237.6	1219.9	1223.9	1202.3	1219.9	1202.3	1216.0	1216.0	1221.9	1202.3
32.5°	1053.2	1035.6	988.5	965.0	927.7	927.7	917.9	917.9	917.9	927.7	923.8
35°	863.0	819.8	747.3	696.3	643.3	629.6	627.6	608.0	611.9	625.7	635.5
37.5°	700.2	635.5	539.4	466.8	404.0	376.6	366.8	351.1	357.0	372.6	396.2
40°	584.5	506.0	394.2	309.9	247.1	215.7	200.1	190.2	196.1	215.7	245.2
42.5°	511.9	425.6	306.0	217.7	158.9	129.4	113.8	105.9	111.8	129.4	164.8
45°	458.9	368.7	247.1	160.8	107.9	80.4	66.7	60.8	64.7	80.4	109.8
47.5°	417.8	325.6	205.9	123.6	76.5	53.0	41.2	35.3	39.2	53.0	76.5
50°	380.5	290.3	174.6	98.1	58.8	39.2	27.5	23.5	27.5	37.3	56.9
52.5°	347.2	258.9	149.1	80.4	45.1	31.4	21.6	17.7	19.6	29.4	45.1
55°	317.7	235.4	131.4	68.6	39.2	27.5	19.6	15.7	19.6	25.5	39.2
57.5°	290.3	211.8	115.7	58.8	33.3	23.5	17.7	15.7	17.7	23.5	33.3
60°	262.8	188.3	102.0	51.0	29.4	21.6	15.7	13.7	15.7	19.6	29.4
62.5°	235.4	166.7	88.3	43.1	25.5	17.7	13.7	11.8	13.7	17.7	25.5
65°	204.0	141.2	74.5	37.3	21.6	15.7	11.8	11.8	11.8	15.7	21.6
67.5°	168.7	115.7	58.8	29.4	17.7	13.7	9.8	9.8	9.8	13.7	17.7
70°	129.4	86.3	45.1	23.5	13.7	9.8	7.8	7.8	7.8	9.8	13.7
72.5°	90.2	60.8	31.4	17.7	9.8	7.8	5.9	5.9	5.9	7.8	9.8
75°	56.9	39.2	21.6	11.8	7.8	5.9	3.9	3.9	3.9	5.9	7.8
77.5°	33.3	23.5	13.7	7.8	3.9	3.9	2.0	2.0	2.0	3.9	3.9
80°	17.7	13.7	7.8	3.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0
82.5°	9.8	5.9	3.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
85°	3.9	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°	2157.4	2157.4	2157.4	2157.4	2157.4	2157.4	2157.4	2157.4	2157.4	2157.4	2157.4
2.5°	2179.0	2186.9	2184.9	2143.7	2139.8	2141.8	2114.3	2124.1	2133.9	2124.1	2126.1
5°	2284.9	2283.0	2259.4	2200.6	2177.1	2161.4	2116.3	2108.4	2102.5	2081.0	2073.1
7.5°	2424.2	2396.7	2347.7	2259.4	2210.4	2167.2	2100.6	2067.2	2043.7	2006.4	1984.8
10°	2520.3	2465.4	2392.8	2277.1	2202.6	2135.9	2049.6	1998.6	1959.3	1910.3	1878.9
12.5°	2534.0	2457.5	2373.2	2237.9	2151.6	2069.2	1975.0	1918.2	1873.1	1820.1	1790.7
15°	2445.8	2367.3	2279.0	2143.7	2057.4	1973.1	1882.9	1826.0	1780.9	1729.9	1704.4
17.5°	2279.0	2206.5	2128.0	2002.5	1928.0	1851.5	1771.1	1722.0	1682.8	1643.6	1618.1
20°	2067.2	2010.3	1945.6	1839.7	1780.9	1718.1	1655.3	1616.1	1586.7	1553.4	1533.7
22.5°	1857.4	1814.2	1767.1	1682.8	1639.7	1594.5	1545.5	1518.1	1496.5	1471.0	1457.3
25°	1655.3	1625.9	1596.5	1531.8	1506.3	1474.9	1439.6	1420.0	1406.3	1388.6	1378.8
27.5°	1445.5	1435.7	1427.8	1386.6	1376.8	1355.3	1331.7	1320.0	1310.2	1298.4	1290.5
30°	1218.0	1223.9	1255.2	1233.7	1243.5	1237.6	1227.8	1219.9	1216.0	1206.2	1196.4
32.5°	961.0	1002.2	1047.3	1053.2	1082.6	1096.4	1094.4	1096.4	1098.3	1090.5	1082.6
35°	688.4	755.1	825.7	857.1	906.1	937.5	949.3	961.0	968.9	966.9	961.0
37.5°	458.9	549.2	633.5	688.4	753.1	796.3	821.8	841.4	853.2	857.1	857.1
40°	306.0	392.3	504.1	574.7	647.2	700.2	729.6	755.1	772.8	780.6	784.5
42.5°	215.7	307.9	421.7	502.1	576.6	633.5	666.8	694.3	712.0	721.8	725.7
45°	158.9	247.1	364.8	447.2	523.7	578.6	611.9	637.4	655.1	664.9	670.8
47.5°	121.6	207.9	321.7	406.0	482.5	533.5	564.9	588.4	604.1	611.9	615.9
50°	96.1	174.6	286.4	370.7	441.3	488.4	515.8	535.4	549.2	555.1	559.0
52.5°	78.5	151.0	256.9	337.3	404.0	445.2	466.8	482.5	494.3	498.2	502.1
55°	66.7	131.4	231.4	309.9	370.7	406.0	421.7	435.4	441.3	445.2	447.2
57.5°	58.8	115.7	209.9	284.4	339.3	368.7	380.5	390.3	392.3	396.2	398.1
60°	51.0	100.0	186.3	256.9	306.0	331.5	337.3	345.2	345.2	347.2	349.1
62.5°	43.1	86.3	162.8	229.5	272.6	294.2	298.1	300.1	300.1	300.1	302.0
65°	35.3	72.6	137.3	198.1	237.3	251.0	253.0	255.0	251.0	251.0	253.0
67.5°	29.4	56.9	109.8	162.8	194.2	205.9	204.0	204.0	198.1	198.1	200.1
70°	21.6	43.1	82.4	123.6	147.1	154.9	151.0	151.0	145.1	145.1	147.1
72.5°	15.7	31.4	56.9	84.3	102.0	105.9	102.0	102.0	98.1	98.1	100.0
75°	11.8	19.6	37.3	54.9	64.7	66.7	64.7	62.8	60.8	60.8	62.8
77.5°	7.8	13.7	21.6	31.4	37.3	39.2	37.3	37.3	35.3	37.3	37.3
80°	3.9	7.8	11.8	17.7	19.6	21.6	21.6	21.6	19.6	19.6	21.6
82.5°	2.0	3.9	5.9	7.8	9.8	11.8	9.8	9.8	9.8	9.8	9.8
85°	0.0	2.0	2.0	3.9	3.9	5.9	3.9	3.9	3.9	3.9	3.9
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: P135849

CATALOG NUMBER: LD6A30D010TE ERM6A30830 6LM121LI

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	2157.4	2157.4	2157.4	2157.4
2.5°	2122.1	2112.3	2098.6	2128.0
5°	2061.3	2041.7	2026.0	2053.5
7.5°	1965.2	1937.8	1916.2	1943.7
10°	1855.4	1824.0	1800.5	1826.0
12.5°	1759.3	1727.9	1708.3	1727.9
15°	1675.0	1645.5	1627.9	1645.5
17.5°	1592.6	1567.1	1551.4	1571.0
20°	1514.1	1492.6	1478.8	1496.5
22.5°	1441.6	1422.0	1410.2	1427.8
25°	1365.1	1351.3	1337.6	1353.3
27.5°	1280.7	1265.0	1257.2	1267.0
30°	1184.6	1168.9	1163.1	1170.9
32.5°	1070.9	1055.2	1049.3	1055.2
35°	953.2	939.5	931.6	939.5
37.5°	853.2	841.4	835.5	841.4
40°	782.6	776.7	770.8	778.6
42.5°	727.6	721.8	717.8	723.7
45°	670.8	662.9	659.0	664.9
47.5°	613.9	606.0	602.1	606.0
50°	555.1	545.2	543.3	545.2
52.5°	496.2	488.4	484.4	486.4
55°	443.3	437.4	433.4	435.4
57.5°	396.2	388.3	386.4	388.3
60°	349.1	345.2	343.2	345.2
62.5°	302.0	300.1	302.0	302.0
65°	255.0	255.0	256.9	256.9
67.5°	204.0	207.9	209.9	209.9
70°	151.0	154.9	156.9	156.9
72.5°	102.0	105.9	107.9	109.8
75°	64.7	68.6	70.6	70.6
77.5°	39.2	41.2	41.2	43.1
80°	21.6	23.5	23.5	23.5
82.5°	11.8	11.8	11.8	13.7
85°	5.9	5.9	5.9	5.9
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)