

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: P135612

Luminaire Tested: **LD6A30D010TE ERM6A30927 6LM111LI**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P135612
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P23399)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: io LED
Catalog Number: LD6A30D010TE ERM6A30927 6LM111LI
Description: PORTFOLIO 6 INCH 50 DEGREE CUTOFF RECESSED SINGLE WALL WASH LUMINAIRE
SPECULAR CLEAR TRIM AND SPECULAR CLEAR KICKER
Light Source: (1) HIGH LUMEN LED 2700K
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2549.1 lumens
Efficiency: N/A
Efficacy: 56.1 lumens/watt
Spacing Criteria (0/90/45): 0.85 / 0.93 / 0.89
Luminous Opening: Circular (Dia: 0.46' x H: 0')
CIE Type: Direct

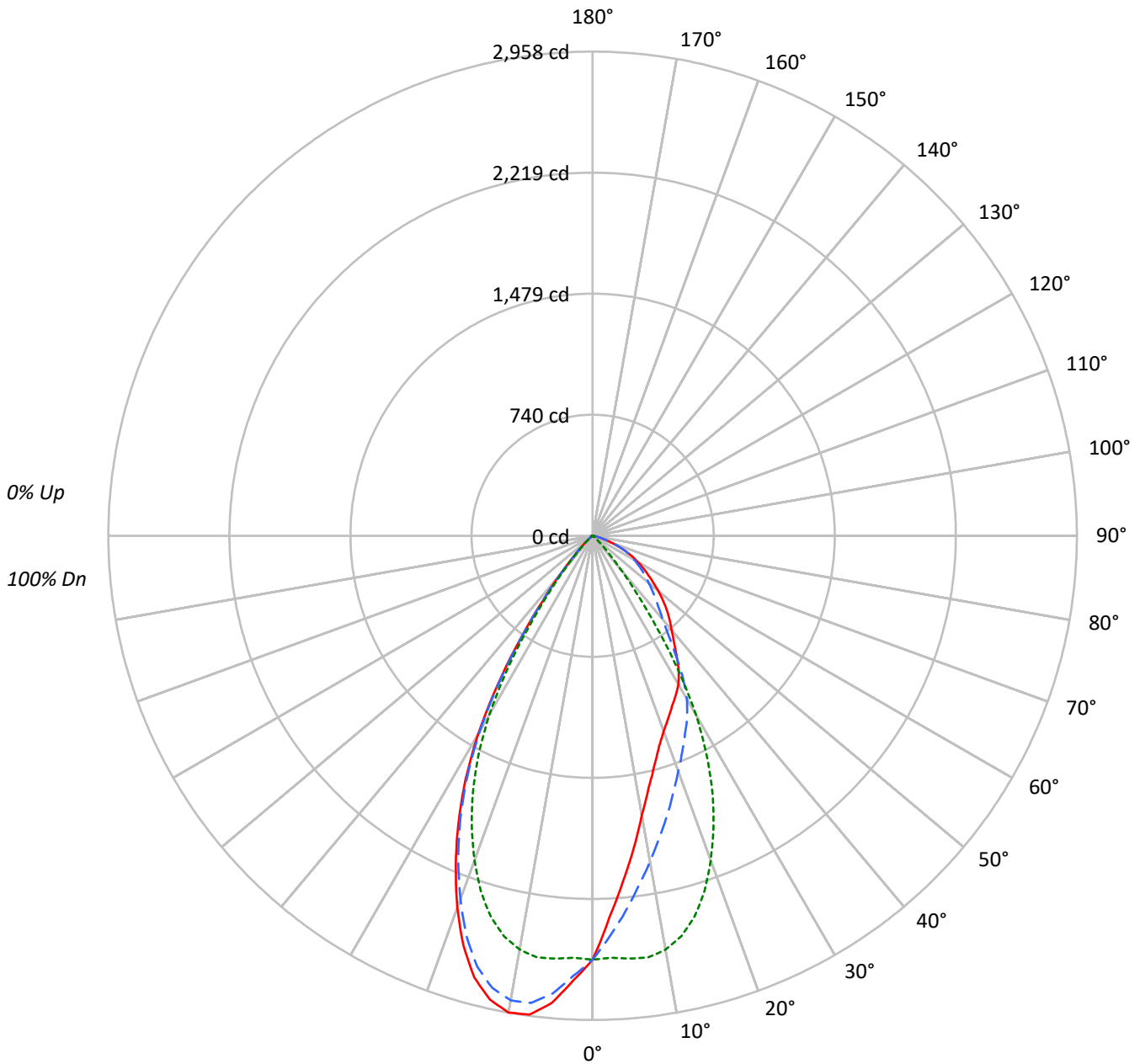
Input Watts (W): 45.4
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20					20					20					20					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				100				
1	113	110	107	104	110	107	105	103	103	101	100	100	98	97	96	95	94	92				92				
2	106	101	96	93	104	99	95	91	96	92	89	93	90	88	90	88	86	84				84				
3	100	93	87	83	98	92	86	82	89	85	81	86	83	80	84	81	78	77				77				
4	95	86	80	75	93	85	79	75	83	78	74	81	76	73	79	75	72	71				71				
5	89	80	74	69	88	79	73	69	77	72	68	75	71	67	74	70	67	65				65				
6	84	75	68	63	83	74	68	63	72	67	63	71	66	62	69	65	62	60				60				
7	80	70	63	59	78	69	63	59	68	62	58	67	62	58	65	61	58	56				56				
8	76	65	59	55	74	65	59	54	64	58	54	63	58	54	62	57	54	52				52				
9	72	62	55	51	71	61	55	51	60	55	51	59	54	50	58	54	50	49				49				
10	68	58	52	48	67	58	52	48	57	51	48	56	51	47	55	51	47	46				46				

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	168934	168934	168934
5°	138806	169809	187602
10°	114747	170030	195932
15°	98280	162574	188631
20°	88124	146423	167723
25°	82660	124685	139831
30°	78980	95086	105263
35°	71210	53895	61015
40°	63900	21947	25831
45°	59040	7603	8737
50°	53022	2669	2842
55°	46851	1604	1388
60°	41415	1370	1148
65°	34101	1081	818
70°	22737	1011	668
75°	12377	882	429
80°	6575	1991	0
85°	2620	2620	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	241.1	9.5
10°-20°	627.1	24.6
20°-30°	740.9	29.1
30°-40°	493.7	19.4
40°-50°	214.2	8.4
50°-60°	128.5	5.0
60°-70°	77.1	3.0
70°-80°	23.6	0.9
80°-90°	2.9	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°	1609.1	63.1
0°-40°	2102.8	82.5
0°-60°	2445.4	95.9
0°-90°	2549.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2549.1	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	2589	2589	2589	2589	2589	
5°	2120	2304	2593	2807	2865	191
15°	1455	1764	2407	2724	2793	410
25°	1148	1336	1732	1913	1942	531
35°	894	880	677	752	766	560
45°	640	542	82	95	95	492
55°	412	366	14	12	12	371
65°	221	219	7	5	5	217
75°	49	54	4	2	2	59
85°	4	5	4	0	0	6
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°	2589.4	2589.4	2589.4	2589.4	2589.4	2589.4	2589.4	2589.4	2589.4	2589.4	2589.4
2.5°	2336.9	2377.3	2394.8	2407.0	2361.5	2410.6	2394.8	2417.6	2424.6	2447.4	2468.4
5°	2119.5	2158.1	2177.4	2191.5	2156.4	2212.5	2210.7	2240.5	2265.1	2303.6	2330.0
7.5°	1925.0	1942.5	1961.8	1981.0	1965.2	2016.1	2024.9	2066.9	2103.7	2156.4	2205.4
10°	1732.1	1749.7	1768.9	1789.9	1782.9	1833.8	1853.1	1900.4	1949.5	2019.6	2072.2
12.5°	1577.8	1595.4	1612.9	1633.9	1630.4	1681.3	1705.8	1756.6	1816.2	1886.3	1946.0
15°	1455.1	1470.9	1488.5	1502.4	1506.0	1553.3	1579.6	1628.7	1691.8	1763.6	1825.0
17.5°	1348.1	1365.7	1381.5	1393.8	1397.3	1441.1	1467.4	1511.2	1572.6	1640.9	1700.6
20°	1269.3	1285.0	1299.1	1311.3	1311.3	1350.0	1372.7	1413.1	1467.4	1530.5	1581.3
22.5°	1206.2	1220.2	1232.5	1243.0	1243.0	1276.3	1295.5	1328.9	1376.3	1428.8	1470.9
25°	1148.3	1162.3	1172.8	1181.6	1179.9	1211.5	1227.2	1251.7	1292.1	1335.9	1367.5
27.5°	1099.3	1113.2	1122.0	1134.3	1127.3	1153.6	1165.8	1186.9	1218.4	1250.0	1267.5
30°	1048.4	1062.4	1071.1	1081.7	1074.7	1097.4	1104.5	1115.0	1136.0	1151.8	1153.6
32.5°	978.3	990.5	999.3	1004.6	995.8	1013.3	1013.3	1015.1	1022.1	1023.8	1009.8
35°	894.1	902.9	909.9	911.6	901.1	911.6	909.9	897.6	894.1	880.0	852.0
37.5°	815.2	825.7	829.3	829.3	815.2	820.5	813.5	794.2	780.2	755.6	717.1
40°	750.3	759.1	760.9	759.1	745.1	746.8	736.3	713.5	694.2	664.5	615.4
42.5°	696.0	703.0	704.7	703.0	688.9	688.9	678.5	653.9	631.2	597.8	547.0
45°	639.9	647.0	650.4	647.0	634.6	634.6	622.4	599.6	576.7	541.7	490.9
47.5°	582.0	587.3	590.8	589.1	576.7	576.7	566.2	543.5	524.2	492.7	443.5
50°	522.4	529.4	532.9	531.2	520.7	520.7	511.9	490.9	475.1	447.1	403.2
52.5°	464.6	473.4	475.1	471.6	464.6	462.8	457.6	438.3	426.0	406.7	364.7
55°	411.9	419.0	419.0	419.0	410.2	408.5	405.0	389.2	382.2	366.4	331.3
57.5°	364.7	369.9	368.1	366.4	362.9	359.4	355.9	343.7	340.1	329.6	299.8
60°	317.4	322.6	320.8	319.1	315.5	312.1	308.6	299.8	299.8	292.8	268.2
62.5°	271.7	275.3	273.5	271.7	271.7	268.2	266.5	259.5	261.2	257.7	236.6
65°	220.9	226.2	224.4	224.4	226.2	226.2	224.4	220.9	220.9	219.1	201.6
67.5°	168.3	173.6	171.8	173.6	178.9	180.6	180.6	178.9	178.9	175.3	159.5
70°	119.2	122.7	122.7	124.4	129.7	131.5	136.8	131.5	131.5	128.0	115.7
72.5°	78.9	80.6	82.4	85.9	87.6	89.4	92.9	92.9	91.2	85.9	77.1
75°	49.1	50.9	50.9	52.6	54.3	56.1	59.6	57.9	56.1	54.3	47.3
77.5°	29.8	29.8	31.6	31.6	33.3	35.1	35.1	35.1	33.3	31.6	28.0
80°	17.5	17.5	17.5	19.3	19.3	19.3	19.3	19.3	19.3	17.5	15.8
82.5°	8.8	8.8	8.8	10.5	10.5	10.5	10.5	10.5	10.5	8.8	8.8
85°	3.5	3.5	3.5	5.3	5.3	5.3	5.3	5.3	5.3	5.3	3.5
87.5°	0.0	0.0	0.0	1.7	0.0	0.0	0.0	0.0	1.7	1.7	1.7
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°	2589.4	2589.4	2589.4	2589.4	2589.4	2589.4	2589.4	2589.4	2589.4	2589.4	2589.4
2.5°	2489.5	2489.5	2484.2	2515.8	2556.1	2549.1	2550.8	2580.6	2592.9	2613.9	2633.2
5°	2375.5	2394.8	2408.9	2459.6	2517.5	2528.0	2547.4	2592.9	2620.9	2656.0	2689.3
7.5°	2261.6	2301.9	2335.2	2401.8	2477.2	2505.3	2540.3	2598.1	2635.0	2682.3	2727.9
10°	2144.1	2200.2	2249.3	2330.0	2417.6	2457.9	2501.7	2566.6	2615.7	2666.5	2717.4
12.5°	2026.7	2095.0	2156.4	2245.8	2338.7	2387.8	2436.9	2505.3	2557.9	2610.4	2663.0
15°	1910.9	1984.6	2049.4	2144.1	2238.8	2289.6	2338.7	2407.0	2463.2	2512.3	2564.9
17.5°	1782.9	1865.4	1925.0	2014.4	2105.6	2156.4	2210.7	2273.8	2322.9	2365.0	2415.8
20°	1658.5	1735.6	1789.9	1872.4	1954.7	2002.1	2053.0	2109.0	2152.9	2189.6	2237.0
22.5°	1537.5	1605.9	1656.7	1732.1	1795.2	1835.6	1879.4	1928.4	1967.1	1996.8	2038.9
25°	1420.1	1474.4	1512.9	1572.6	1623.4	1655.0	1691.8	1732.1	1765.4	1789.9	1828.6
27.5°	1302.6	1339.4	1353.4	1390.2	1421.8	1456.9	1476.1	1507.7	1537.5	1556.8	1590.1
30°	1167.6	1179.9	1167.6	1178.1	1186.9	1202.7	1225.4	1262.2	1276.3	1288.6	1321.8
32.5°	999.3	990.5	950.3	934.5	923.9	939.7	943.2	971.2	980.0	990.5	1016.8
35°	822.2	790.7	725.8	685.5	660.9	662.7	647.0	676.7	682.0	692.5	711.8
37.5°	671.4	620.7	536.5	480.3	443.5	434.8	415.5	433.0	434.8	441.8	455.9
40°	561.0	489.1	394.4	327.9	287.5	270.0	250.7	257.7	257.7	262.9	271.7
42.5°	483.9	406.7	299.8	227.9	184.1	163.1	147.3	147.3	147.3	149.0	154.3
45°	426.0	340.1	233.2	159.5	119.2	98.1	82.4	82.4	80.6	80.6	84.2
47.5°	378.7	292.8	184.1	117.5	77.1	57.9	47.3	43.8	42.1	43.8	45.6
50°	340.1	255.9	152.6	89.4	54.3	38.5	29.8	26.3	24.6	24.6	24.6
52.5°	306.8	226.2	128.0	71.9	42.1	28.0	21.0	17.5	15.8	15.8	15.8
55°	278.7	199.9	110.5	59.6	35.1	24.6	17.5	14.1	12.2	12.2	12.2
57.5°	250.7	177.0	94.7	50.9	29.8	21.0	15.8	12.2	10.5	10.5	10.5
60°	222.7	154.3	82.4	42.1	24.6	17.5	14.1	10.5	8.8	8.8	8.8
62.5°	194.6	131.5	68.4	35.1	21.0	15.8	10.5	8.8	8.8	7.0	7.0
65°	161.3	106.9	56.1	29.8	17.5	12.2	10.5	7.0	7.0	7.0	7.0
67.5°	126.3	82.4	42.1	22.8	14.1	10.5	8.8	7.0	5.3	5.3	5.3
70°	89.4	57.9	31.6	17.5	12.2	8.8	7.0	5.3	5.3	5.3	3.5
72.5°	59.6	38.5	22.8	14.1	10.5	7.0	5.3	5.3	3.5	3.5	3.5
75°	38.5	24.6	15.8	10.5	7.0	7.0	5.3	3.5	3.5	3.5	1.7
77.5°	22.8	15.8	10.5	7.0	5.3	5.3	5.3	5.3	5.3	3.5	1.7
80°	12.2	8.8	7.0	5.3	3.5	5.3	5.3	5.3	5.3	3.5	1.7
82.5°	7.0	5.3	3.5	3.5	3.5	3.5	3.5	5.3	5.3	3.5	1.7
85°	3.5	3.5	1.7	1.7	1.7	3.5	3.5	3.5	3.5	1.7	1.7
87.5°	1.7	1.7	1.7	1.7	1.7	1.7	1.7	3.5	3.5	1.7	1.7
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°	2589.4	2589.4	2589.4	2589.4	2589.4	2589.4	2589.4	2589.4	2589.4	2589.4	2589.4
2.5°	2649.0	2659.6	2663.0	2668.3	2698.1	2691.1	2717.4	2717.4	2738.5	2726.1	2738.5
5°	2717.4	2740.2	2750.7	2764.7	2806.7	2806.7	2838.3	2843.6	2871.7	2862.9	2875.1
7.5°	2761.2	2789.2	2803.3	2826.1	2871.7	2878.7	2908.5	2917.2	2950.5	2945.2	2952.3
10°	2752.4	2782.3	2799.8	2824.3	2871.7	2882.2	2908.5	2924.2	2955.8	2948.8	2952.3
12.5°	2698.1	2726.1	2745.4	2768.2	2817.3	2829.6	2852.4	2869.9	2899.7	2894.5	2894.5
15°	2596.4	2628.0	2643.8	2663.0	2710.3	2724.4	2741.9	2756.0	2789.2	2785.7	2780.5
17.5°	2443.9	2473.7	2485.9	2501.7	2547.4	2563.1	2577.1	2587.6	2619.2	2617.5	2608.7
20°	2258.0	2284.3	2294.8	2305.4	2345.7	2361.5	2372.0	2382.6	2408.9	2408.9	2396.5
22.5°	2054.7	2077.4	2084.5	2093.2	2128.3	2144.1	2149.4	2158.1	2182.7	2182.7	2166.9
25°	1839.1	1858.3	1861.9	1868.8	1898.7	1912.6	1914.5	1919.7	1944.2	1944.2	1928.4
27.5°	1597.1	1612.9	1616.4	1619.9	1646.2	1660.2	1658.5	1677.7	1684.8	1688.3	1669.0
30°	1325.4	1351.7	1337.6	1353.4	1362.2	1376.3	1371.0	1390.2	1395.5	1400.7	1376.3
32.5°	1020.4	1044.8	1029.1	1044.8	1048.4	1062.4	1055.4	1073.0	1076.4	1081.7	1058.9
35°	715.2	734.6	720.5	725.8	738.1	752.1	743.4	759.1	762.6	764.4	746.8
37.5°	459.3	473.4	476.9	482.2	482.2	492.7	496.1	496.1	497.9	499.7	485.6
40°	275.3	285.8	287.5	285.8	291.1	299.8	301.6	299.8	301.6	303.3	294.5
42.5°	156.0	163.1	164.8	164.8	168.3	173.6	173.6	171.8	173.6	173.6	168.3
45°	85.9	89.4	91.2	89.4	91.2	94.7	94.7	94.7	94.7	94.7	92.9
47.5°	45.6	47.3	47.3	49.1	47.3	49.1	49.1	49.1	50.9	50.9	49.1
50°	24.6	26.3	26.3	26.3	26.3	28.0	28.0	28.0	28.0	28.0	26.3
52.5°	15.8	15.8	15.8	15.8	15.8	15.8	15.8	15.8	15.8	15.8	15.8
55°	12.2	12.2	12.2	12.2	12.2	12.2	12.2	12.2	12.2	12.2	12.2
57.5°	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5
60°	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8
62.5°	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
65°	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3
67.5°	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3
70°	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
72.5°	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
75°	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
77.5°	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
80°	1.7	1.7	1.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	1.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	1.7	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: P135612

CATALOG NUMBER: LD6A30D010TE ERM6A30927 6LM111LI

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	2589.4	2589.4	2589.4	2589.4
2.5°	2743.7	2752.4	2740.2	2720.9
5°	2883.9	2894.5	2882.2	2864.6
7.5°	2961.0	2976.8	2962.8	2950.5
10°	2964.6	2980.3	2964.6	2957.6
12.5°	2906.7	2922.5	2905.0	2901.4
15°	2796.2	2808.6	2791.0	2792.8
17.5°	2626.2	2636.7	2619.2	2624.4
20°	2412.3	2422.8	2405.3	2415.8
22.5°	2182.7	2189.6	2186.2	2184.4
25°	1942.5	1947.7	1932.0	1942.5
27.5°	1679.6	1683.0	1684.8	1683.0
30°	1388.5	1390.2	1379.7	1397.3
32.5°	1069.4	1067.7	1064.2	1079.9
35°	752.1	752.1	752.1	766.1
37.5°	489.1	487.4	489.1	499.7
40°	296.3	294.5	296.3	303.3
42.5°	168.3	168.3	170.1	173.6
45°	94.7	92.9	92.9	94.7
47.5°	50.9	50.9	49.1	50.9
50°	28.0	28.0	26.3	28.0
52.5°	15.8	15.8	15.8	15.8
55°	12.2	12.2	12.2	12.2
57.5°	10.5	10.5	10.5	10.5
60°	8.8	8.8	8.8	8.8
62.5°	7.0	7.0	7.0	7.0
65°	5.3	7.0	5.3	5.3
67.5°	5.3	5.3	5.3	5.3
70°	3.5	3.5	3.5	3.5
72.5°	3.5	3.5	3.5	3.5
75°	1.7	1.7	1.7	1.7
77.5°	1.7	1.7	1.7	1.7
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



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













(END OF REPORT)