

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: P135735

Luminaire Tested: **LD6A30D010TE ERM6A30940 6LM111H**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P135735  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P23372)  
Test Lab: INNOVATION CENTER P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: io LED  
Catalog Number: LD6A30D010TE ERM6A30940 6LM111H  
Description: PORTFOLIO 6 INCH 50 DEGREE CUTOFF RECESSED SINGLE WALL WASH LUMINAIRE  
SEMI-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: 2589.3 lumens  
Efficiency: N/A  
Efficacy: 57.0 lumens/watt  
Spacing Criteria (0/90/45): 0.9 / 0.96 / 0.92  
Luminous Opening: Circular (Dia: 0.46' x H: 0')  
CIE Type: Direct

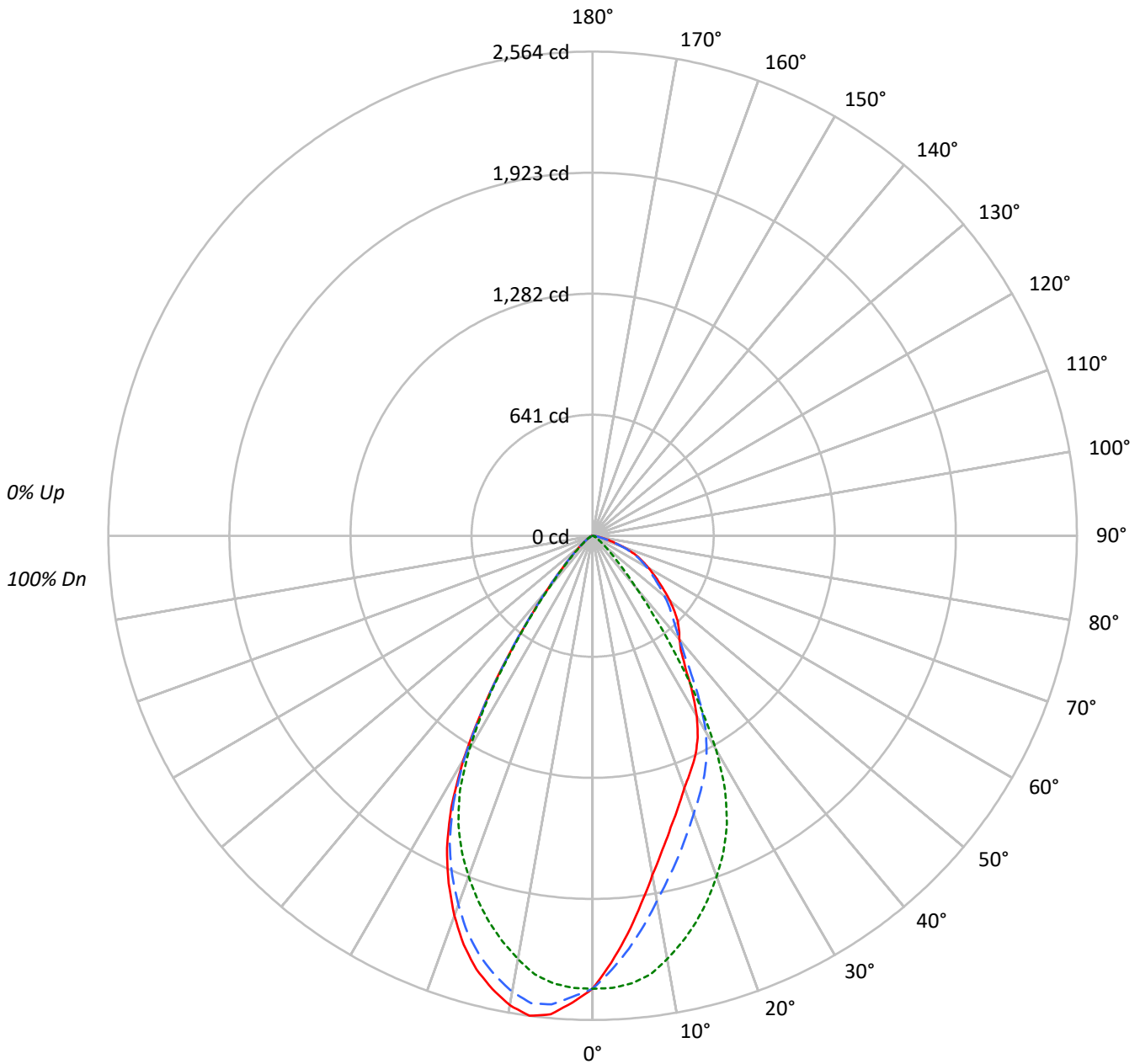
Input Watts (W): 45.4  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Luminous Intensity Polar Plot





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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20				20				20				20				20				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	112	109	106	104	110	107	104	102	103	101	99	99	97	96	96	94	93	91				91
2	106	100	95	91	103	98	94	90	95	91	88	92	89	86	89	87	84	83				83
3	99	92	86	81	97	90	85	81	88	83	79	85	81	78	83	80	77	75				75
4	93	85	78	73	91	83	77	73	81	76	72	79	75	71	77	73	70	68				68
5	88	78	72	67	86	77	71	66	75	70	66	74	69	65	72	68	64	63				63
6	83	73	66	61	81	72	65	61	70	65	60	69	64	60	67	63	59	58				58
7	78	68	61	56	77	67	61	56	66	60	56	64	59	55	63	59	55	53				53
8	74	63	57	52	73	63	56	52	62	56	52	60	55	51	59	55	51	50				50
9	70	59	53	48	69	59	53	48	58	52	48	57	52	48	56	51	48	46				46
10	67	56	49	45	65	55	49	45	54	49	45	54	48	45	53	48	45	43				43

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

	0°	90°	180°
0°	156506	156506	156506
5°	138655	155827	166606
10°	120855	150792	167234
15°	107959	143000	160520
20°	98573	133239	148540
25°	92573	121079	131322
30°	83002	98348	102755
35°	68207	60872	62425
40°	60817	29936	31596
45°	58680	14928	15952
50°	54077	7927	8495
55°	48864	4754	5073
60°	44768	3275	3275
65°	40909	2578	2161
70°	32981	2117	1602
75°	20392	1412	706
80°	11534	1052	0
85°	6288	0	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	220.0	8.5
10°-20°	571.3	22.1
20°-30°	727.0	28.1
30°-40°	520.9	20.1
40°-50°	259.8	10.0
50°-60°	157.3	6.1
60°-70°	96.2	3.7
70°-80°	33.2	1.3
80°-90°	3.5	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°	1518.3	58.6
0°-40°	2039.3	78.8
0°-60°	2456.4	94.9
0°-90°	2589.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2589.3	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	2399	2399	2399	2399	2399	
5°	2117	2195	2379	2491	2544	193
15°	1598	1757	2117	2304	2377	450
25°	1286	1400	1682	1791	1824	587
35°	856	923	764	784	784	547
45°	636	594	162	178	173	487
55°	430	404	42	45	45	387
65°	265	257	17	14	14	259
75°	81	72	6	3	3	93
85°	8	6	0	0	0	12
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°	2398.9	2398.9	2398.9	2398.9	2398.9	2398.9	2398.9	2398.9	2398.9	2398.9	2398.9
2.5°	2262.2	2265.1	2270.6	2265.1	2267.8	2281.8	2276.2	2278.9	2287.3	2301.3	2292.9
5°	2117.2	2120.0	2134.0	2125.6	2131.1	2147.8	2147.8	2159.1	2175.8	2195.3	2195.3
7.5°	1966.5	1972.2	1986.0	1980.5	1988.9	2011.2	2014.0	2030.7	2053.1	2080.9	2094.9
10°	1824.3	1829.8	1843.8	1841.1	1852.2	1874.5	1885.6	1902.4	1930.3	1963.8	1980.5
12.5°	1704.4	1710.0	1721.1	1721.1	1735.1	1757.3	1768.5	1790.8	1818.7	1854.9	1877.3
15°	1598.4	1606.7	1617.8	1617.8	1631.8	1654.2	1668.1	1687.6	1718.3	1757.3	1782.4
17.5°	1506.3	1509.1	1520.2	1520.2	1534.2	1556.5	1570.5	1590.0	1620.7	1656.9	1684.9
20°	1419.8	1422.6	1433.8	1436.6	1447.7	1467.3	1481.2	1500.7	1528.6	1564.9	1590.0
22.5°	1352.9	1358.5	1366.9	1369.6	1375.2	1394.7	1411.5	1425.4	1450.5	1481.2	1506.3
25°	1286.0	1288.7	1297.1	1299.8	1308.2	1322.2	1333.3	1347.3	1369.6	1400.3	1419.8
27.5°	1205.1	1213.4	1216.2	1218.9	1227.3	1238.5	1249.6	1260.9	1280.4	1305.5	1322.2
30°	1101.8	1104.6	1112.9	1118.6	1126.9	1138.1	1152.0	1163.2	1180.0	1199.5	1210.6
32.5°	981.8	984.7	993.1	998.6	1012.6	1023.7	1034.9	1043.3	1054.4	1065.6	1065.6
35°	856.4	864.7	867.5	875.8	889.8	900.9	909.3	912.2	917.7	923.3	903.8
37.5°	767.1	772.7	778.2	783.8	794.9	803.3	808.9	808.9	806.2	800.6	775.5
40°	714.1	716.9	722.5	725.3	736.4	742.0	742.0	736.4	725.3	711.3	672.2
42.5°	677.8	680.6	683.4	686.2	691.8	694.6	691.8	680.6	666.7	647.1	602.5
45°	636.0	638.8	641.6	641.6	647.1	647.1	644.4	633.2	616.5	594.2	546.7
47.5°	585.8	588.6	591.4	594.2	596.9	596.9	594.2	583.0	566.2	546.7	496.5
50°	532.8	535.6	538.4	538.4	544.0	544.0	541.1	530.0	516.0	496.5	451.8
52.5°	479.8	482.6	482.6	488.2	488.2	488.2	485.4	474.2	463.1	449.1	407.3
55°	429.6	432.4	432.4	438.0	440.7	438.0	435.1	426.8	415.6	404.5	371.0
57.5°	384.9	387.8	387.8	390.5	393.3	390.5	387.8	382.2	376.6	365.4	337.5
60°	343.1	345.9	345.9	348.7	348.7	345.9	345.9	340.3	334.7	329.1	304.0
62.5°	304.0	304.0	304.0	306.9	306.9	304.0	304.0	298.5	295.7	292.9	273.4
65°	265.0	265.0	265.0	265.0	265.0	259.4	259.4	256.6	253.8	256.6	239.9
67.5°	220.4	220.4	217.6	217.6	217.6	212.0	212.0	212.0	209.2	212.0	198.0
70°	172.9	172.9	170.2	170.2	167.4	161.8	161.8	161.8	159.0	161.8	153.4
72.5°	122.7	125.5	120.0	120.0	117.1	111.6	114.4	111.6	114.4	114.4	108.8
75°	80.9	83.7	78.1	78.1	75.3	72.5	72.5	72.5	75.3	72.5	69.8
77.5°	50.2	53.0	50.2	50.2	47.4	44.6	44.6	44.6	44.6	44.6	41.8
80°	30.7	30.7	30.7	27.9	27.9	25.1	25.1	25.1	25.1	25.1	22.3
82.5°	16.7	16.7	16.7	16.7	16.7	14.0	14.0	14.0	14.0	14.0	11.1
85°	8.4	8.4	8.4	8.4	8.4	5.6	5.6	5.6	5.6	5.6	5.6
87.5°	2.8	2.8	2.8	2.8	2.8	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°	2398.9	2398.9	2398.9	2398.9	2398.9	2398.9	2398.9	2398.9	2398.9	2398.9	2398.9
2.5°	2318.0	2329.2	2320.8	2354.3	2348.7	2373.8	2371.1	2396.2	2393.3	2396.2	2401.7
5°	2228.7	2251.1	2253.8	2295.7	2298.5	2337.6	2346.0	2379.4	2384.9	2396.2	2410.0
7.5°	2131.1	2164.6	2175.8	2223.2	2240.0	2281.8	2298.5	2343.1	2354.3	2373.8	2390.5
10°	2025.1	2064.2	2080.9	2136.7	2159.1	2206.4	2228.7	2276.2	2292.9	2315.3	2334.7
12.5°	1924.7	1966.5	1988.9	2047.4	2078.2	2125.6	2150.7	2200.9	2217.6	2245.5	2265.1
15°	1829.8	1874.5	1899.6	1958.2	1988.9	2041.8	2066.9	2117.2	2136.7	2164.6	2184.2
17.5°	1732.2	1776.9	1804.7	1860.5	1899.6	1944.2	1972.2	2022.4	2041.8	2066.9	2086.5
20°	1637.4	1682.0	1707.1	1762.9	1799.2	1843.8	1868.9	1919.1	1933.1	1958.2	1974.9
22.5°	1548.2	1590.0	1612.3	1670.9	1701.6	1740.6	1765.7	1810.4	1827.1	1846.6	1857.8
25°	1458.9	1495.1	1511.8	1562.1	1587.2	1623.5	1642.9	1682.0	1698.7	1715.5	1729.5
27.5°	1358.5	1378.0	1383.6	1422.6	1442.2	1475.6	1484.0	1520.2	1534.2	1545.3	1556.5
30°	1232.9	1235.7	1218.9	1238.5	1246.9	1272.0	1272.0	1305.5	1316.6	1324.9	1336.2
32.5°	1074.0	1057.2	1018.2	1012.6	1006.9	1020.9	1015.3	1043.3	1054.4	1060.0	1068.4
35°	898.2	862.0	797.8	772.7	756.0	753.1	744.8	764.3	772.7	778.2	783.8
37.5°	744.8	691.8	610.9	566.2	538.4	527.2	516.0	527.2	532.8	538.4	544.0
40°	633.2	566.2	471.4	415.6	376.6	359.8	345.9	351.5	357.1	362.6	365.4
42.5°	552.3	477.0	373.8	306.9	267.8	248.2	234.3	237.1	239.9	242.7	248.2
45°	490.9	410.0	304.0	231.5	192.5	172.9	161.8	161.8	164.6	167.4	170.2
47.5°	440.7	354.2	248.2	178.5	142.2	122.7	111.6	111.6	114.4	114.4	117.1
50°	393.3	306.9	203.6	139.5	106.0	89.3	80.9	78.1	80.9	80.9	83.7
52.5°	354.2	270.6	170.2	111.6	80.9	66.9	58.6	58.6	58.6	58.6	58.6
55°	318.0	237.1	142.2	89.3	64.2	53.0	44.6	41.8	41.8	41.8	41.8
57.5°	290.1	212.0	122.7	75.3	53.0	41.8	36.2	33.5	33.5	33.5	33.5
60°	262.2	186.9	106.0	61.4	41.8	36.2	30.7	25.1	25.1	25.1	25.1
62.5°	234.3	161.8	89.3	53.0	36.2	27.9	25.1	19.5	19.5	19.5	19.5
65°	203.6	139.5	75.3	41.8	27.9	22.3	19.5	16.7	16.7	14.0	14.0
67.5°	167.4	111.6	61.4	36.2	25.1	19.5	16.7	14.0	11.1	11.1	11.1
70°	128.3	83.7	47.4	27.9	19.5	16.7	11.1	11.1	8.4	8.4	8.4
72.5°	92.0	58.6	33.5	22.3	14.0	11.1	11.1	8.4	8.4	8.4	5.6
75°	58.6	39.1	22.3	14.0	11.1	8.4	8.4	5.6	5.6	5.6	5.6
77.5°	36.2	25.1	16.7	11.1	8.4	5.6	5.6	5.6	2.8	2.8	2.8
80°	19.5	14.0	8.4	5.6	5.6	2.8	2.8	2.8	2.8	2.8	2.8
82.5°	11.1	8.4	5.6	2.8	2.8	2.8	2.8	2.8	0.0	0.0	0.0
85°	5.6	2.8	2.8	2.8	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°	2398.9	2398.9	2398.9	2398.9	2398.9	2398.9	2398.9	2398.9	2398.9	2398.9	2398.9
2.5°	2418.4	2432.4	2424.0	2429.6	2454.7	2443.6	2463.1	2463.1	2485.4	2485.4	2468.7
5°	2435.2	2452.0	2454.7	2463.1	2496.5	2490.9	2513.3	2518.9	2544.0	2549.6	2535.6
7.5°	2424.0	2443.6	2452.0	2465.8	2499.3	2496.5	2521.6	2532.8	2555.1	2563.5	2552.3
10°	2371.1	2393.3	2404.5	2418.4	2454.7	2452.0	2479.8	2493.8	2513.3	2521.6	2513.3
12.5°	2301.3	2326.4	2337.6	2351.5	2387.8	2384.9	2412.9	2426.8	2443.6	2454.7	2446.3
15°	2223.2	2240.0	2259.4	2273.4	2306.9	2304.0	2332.0	2346.0	2359.8	2373.8	2365.4
17.5°	2122.7	2139.5	2159.1	2170.2	2203.6	2203.6	2226.0	2237.1	2256.7	2267.8	2256.7
20°	2008.4	2028.0	2041.8	2050.2	2080.9	2078.2	2100.4	2111.6	2128.4	2136.7	2128.4
22.5°	1888.4	1905.2	1916.4	1922.0	1947.1	1944.2	1960.9	1972.2	1986.0	1994.4	1986.0
25°	1751.8	1762.9	1771.3	1774.1	1796.4	1790.8	1813.1	1813.1	1824.3	1832.7	1824.3
27.5°	1576.0	1584.4	1590.0	1587.2	1604.0	1595.6	1615.1	1601.1	1623.5	1629.1	1620.7
30°	1350.1	1355.6	1361.3	1350.1	1361.3	1350.1	1366.9	1347.3	1366.9	1375.2	1366.9
32.5°	1082.3	1082.3	1087.8	1074.0	1079.5	1068.4	1076.7	1071.1	1076.7	1085.1	1076.7
35°	794.9	794.9	800.6	792.2	794.9	783.8	789.4	783.8	786.6	792.2	789.4
37.5°	552.3	549.5	557.8	552.3	555.1	549.5	552.3	546.7	549.5	552.3	549.5
40°	373.8	373.8	379.4	376.6	379.4	376.6	379.4	376.6	376.6	376.6	373.8
42.5°	251.1	253.8	256.6	256.6	259.4	256.6	259.4	256.6	256.6	256.6	253.8
45°	172.9	172.9	175.8	175.8	178.5	178.5	178.5	175.8	175.8	175.8	175.8
47.5°	120.0	122.7	122.7	122.7	122.7	122.7	122.7	122.7	122.7	122.7	120.0
50°	83.7	86.5	86.5	86.5	86.5	86.5	86.5	83.7	83.7	83.7	83.7
52.5°	61.4	61.4	61.4	61.4	61.4	61.4	61.4	61.4	61.4	58.6	58.6
55°	44.6	44.6	44.6	44.6	44.6	44.6	44.6	44.6	44.6	44.6	44.6
57.5°	33.5	33.5	33.5	33.5	33.5	33.5	33.5	33.5	33.5	33.5	33.5
60°	25.1	25.1	25.1	25.1	25.1	25.1	25.1	25.1	25.1	25.1	25.1
62.5°	19.5	19.5	19.5	19.5	19.5	19.5	19.5	19.5	19.5	19.5	19.5
65°	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0
67.5°	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.1
70°	8.4	8.4	8.4	8.4	8.4	8.4	8.4	8.4	8.4	8.4	8.4
72.5°	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6
75°	5.6	5.6	5.6	5.6	5.6	2.8	2.8	2.8	2.8	2.8	2.8
77.5°	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8
80°	0.0	2.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	0.0	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: P135735

CATALOG NUMBER: LD6A30D010TE ERM6A30940 6LM111H

**CANDELA DISTRIBUTION (continued):**

	165°	170°	175°	180°
0°	2398.9	2398.9	2398.9	2398.9
2.5°	2460.3	2482.6	2474.2	2474.2
5°	2527.3	2552.3	2546.7	2544.0
7.5°	2546.7	2569.1	2563.5	2563.5
10°	2507.7	2530.0	2524.4	2524.4
12.5°	2443.6	2463.1	2460.3	2457.5
15°	2362.7	2382.2	2379.4	2376.6
17.5°	2253.8	2276.2	2273.4	2270.6
20°	2122.7	2142.3	2142.3	2139.5
22.5°	1980.5	1994.4	1997.3	1991.6
25°	1818.7	1829.8	1829.8	1824.3
27.5°	1615.1	1623.5	1623.5	1620.7
30°	1364.0	1366.9	1369.6	1364.0
32.5°	1071.1	1071.1	1076.7	1071.1
35°	781.1	781.1	786.6	783.8
37.5°	544.0	544.0	546.7	544.0
40°	371.0	371.0	373.8	371.0
42.5°	253.8	251.1	253.8	253.8
45°	172.9	172.9	175.8	172.9
47.5°	120.0	120.0	120.0	120.0
50°	83.7	83.7	83.7	83.7
52.5°	58.6	58.6	58.6	58.6
55°	41.8	44.6	44.6	44.6
57.5°	30.7	33.5	33.5	33.5
60°	25.1	25.1	25.1	25.1
62.5°	19.5	19.5	19.5	19.5
65°	14.0	14.0	14.0	14.0
67.5°	11.1	11.1	11.1	11.1
70°	8.4	8.4	8.4	8.4
72.5°	5.6	5.6	5.6	5.6
75°	2.8	2.8	2.8	2.8
77.5°	2.8	2.8	2.8	2.8
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)