

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: P135728

Luminaire Tested: **LD6A30D010TE ERM6A30827 6LM111H**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P135728
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 ERM6A30827 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 2700K
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2588.0 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

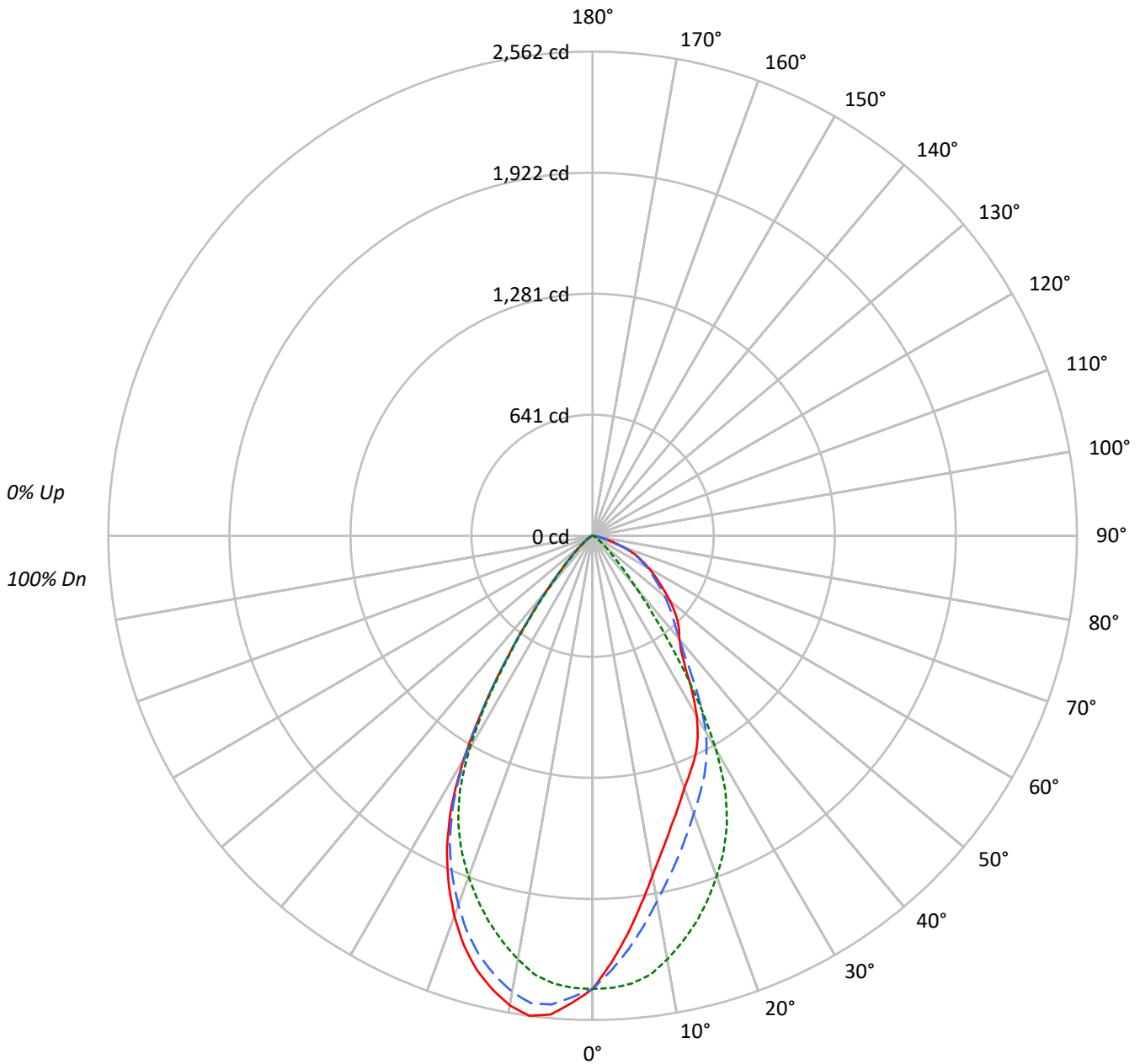
Input Watts (W): 45.4
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20				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°	156427	156427	156427
5°	138583	155748	166521
10°	120795	150719	167155
15°	107905	142926	160439
20°	98525	133176	148471
25°	92522	121021	131258
30°	82965	98295	102710
35°	68167	60840	62393
40°	60783	29919	31579
45°	58652	14919	15952
50°	54047	7927	8485
55°	48841	4754	5073
60°	44742	3275	3275
65°	40893	2578	2146
70°	32981	2136	1602
75°	20392	1412	706
80°	11534	1052	0
85°	6288	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	219.9	8.5
10°-20°	571.0	22.1
20°-30°	726.7	28.1
30°-40°	520.7	20.1
40°-50°	259.7	10.0
50°-60°	157.2	6.1
60°-70°	96.1	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°	1517.6	58.6
0°-40°	2038.3	78.8
0°-60°	2455.2	94.9
0°-90°	2588.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2588.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	2398	2398	2398	2398	2398	
5°	2116	2194	2378	2490	2543	193
15°	1598	1756	2116	2303	2375	450
25°	1285	1400	1681	1790	1823	586
35°	856	923	764	783	783	547
45°	636	594	162	178	173	486
55°	429	404	42	45	45	387
65°	265	256	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°	2397.7	2397.7	2397.7	2397.7	2397.7	2397.7	2397.7	2397.7	2397.7	2397.7	2397.7
2.5°	2261.1	2263.9	2269.5	2263.9	2266.7	2280.6	2275.1	2277.9	2286.2	2300.2	2291.8
5°	2116.1	2118.9	2132.9	2124.5	2130.1	2146.8	2146.8	2158.0	2174.7	2194.2	2194.2
7.5°	1965.6	1971.2	1985.1	1979.5	1987.9	2010.2	2013.0	2029.7	2052.0	2079.9	2093.8
10°	1823.4	1829.0	1842.9	1840.1	1851.3	1873.6	1884.7	1901.5	1929.3	1962.8	1979.5
12.5°	1703.5	1709.1	1720.2	1720.2	1734.2	1756.5	1767.6	1789.9	1817.8	1854.1	1876.4
15°	1597.6	1605.9	1617.1	1617.1	1631.0	1653.3	1667.3	1686.8	1717.5	1756.5	1781.6
17.5°	1505.6	1508.3	1519.5	1519.5	1533.4	1555.7	1569.7	1589.2	1619.9	1656.1	1684.0
20°	1419.1	1421.9	1433.1	1435.9	1447.0	1466.5	1480.5	1500.0	1527.9	1564.1	1589.2
22.5°	1352.2	1357.8	1366.2	1368.9	1374.5	1394.0	1410.8	1424.7	1449.8	1480.5	1505.6
25°	1285.3	1288.1	1296.5	1299.2	1307.6	1321.5	1332.7	1346.6	1368.9	1399.6	1419.1
27.5°	1204.4	1212.8	1215.6	1218.4	1226.8	1237.9	1249.1	1260.2	1279.7	1304.8	1321.5
30°	1101.3	1104.1	1112.4	1118.0	1126.4	1137.5	1151.5	1162.6	1179.4	1198.9	1210.0
32.5°	981.4	984.2	992.6	998.1	1012.1	1023.2	1034.4	1042.7	1053.9	1065.0	1065.0
35°	855.9	864.3	867.1	875.5	889.4	900.5	908.9	911.7	917.3	922.9	903.3
37.5°	766.7	772.3	777.9	783.4	794.6	803.0	808.5	808.5	805.8	800.2	775.1
40°	713.7	716.5	722.1	724.9	736.1	741.6	741.6	736.1	724.9	711.0	671.9
42.5°	677.5	680.3	683.1	685.9	691.4	694.2	691.4	680.3	666.3	646.8	602.2
45°	635.7	638.5	641.3	641.3	646.8	646.8	644.0	632.9	616.2	593.9	546.5
47.5°	585.5	588.3	591.1	593.9	596.6	596.6	593.9	582.7	566.0	546.5	496.3
50°	532.5	535.3	538.1	538.1	543.7	543.7	540.9	529.7	515.8	496.3	451.7
52.5°	479.5	482.3	482.3	487.9	487.9	487.9	485.1	474.0	462.8	448.9	407.1
55°	429.4	432.2	432.2	437.7	440.5	437.7	434.9	426.6	415.4	404.3	370.8
57.5°	384.8	387.5	387.5	390.3	393.1	390.3	387.5	382.0	376.4	365.2	337.4
60°	342.9	345.7	345.7	348.5	348.5	345.7	345.7	340.1	334.6	329.0	303.9
62.5°	303.9	303.9	303.9	306.7	306.7	303.9	303.9	298.3	295.5	292.7	273.2
65°	264.9	264.9	264.9	264.9	264.9	259.3	259.3	256.5	253.7	256.5	239.8
67.5°	220.3	220.3	217.5	217.5	217.5	211.9	211.9	211.9	209.1	211.9	198.0
70°	172.9	172.9	170.1	170.1	167.3	161.7	161.7	161.7	158.9	161.7	153.3
72.5°	122.7	125.5	119.9	119.9	117.1	111.5	114.3	111.5	114.3	114.3	108.7
75°	80.9	83.6	78.1	78.1	75.3	72.5	72.5	72.5	75.3	72.5	69.7
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	13.9	13.9	13.9	13.9	13.9	11.2
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°	2397.7	2397.7	2397.7	2397.7	2397.7	2397.7	2397.7	2397.7	2397.7	2397.7	2397.7
2.5°	2316.9	2328.0	2319.7	2353.1	2347.6	2372.6	2369.9	2395.0	2392.2	2395.0	2400.5
5°	2227.7	2250.0	2252.8	2294.6	2297.4	2336.4	2344.8	2378.2	2383.8	2395.0	2408.9
7.5°	2130.1	2163.5	2174.7	2222.1	2238.8	2280.6	2297.4	2342.0	2353.1	2372.6	2389.4
10°	2024.1	2063.2	2079.9	2135.7	2158.0	2205.4	2227.7	2275.1	2291.8	2314.1	2333.6
12.5°	1923.8	1965.6	1987.9	2046.4	2077.1	2124.5	2149.6	2199.8	2216.5	2244.4	2263.9
15°	1829.0	1873.6	1898.7	1957.2	1987.9	2040.9	2066.0	2116.1	2135.7	2163.5	2183.1
17.5°	1731.4	1776.0	1803.9	1859.6	1898.7	1943.3	1971.2	2021.4	2040.9	2066.0	2085.5
20°	1636.6	1681.2	1706.3	1762.1	1798.3	1842.9	1868.0	1918.2	1932.1	1957.2	1974.0
22.5°	1547.4	1589.2	1611.5	1670.1	1700.7	1739.8	1764.8	1809.5	1826.2	1845.7	1856.9
25°	1458.2	1494.4	1511.1	1561.3	1586.4	1622.7	1642.2	1681.2	1697.9	1714.7	1728.6
27.5°	1357.8	1377.3	1382.9	1421.9	1441.4	1474.9	1483.3	1519.5	1533.4	1544.6	1555.7
30°	1232.3	1235.1	1218.4	1237.9	1246.3	1271.4	1271.4	1304.8	1316.0	1324.3	1335.5
32.5°	1073.4	1056.7	1017.6	1012.1	1006.5	1020.4	1014.9	1042.7	1053.9	1059.5	1067.8
35°	897.8	861.5	797.4	772.3	755.6	752.8	744.4	763.9	772.3	777.9	783.4
37.5°	744.4	691.4	610.6	566.0	538.1	526.9	515.8	526.9	532.5	538.1	543.7
40°	632.9	566.0	471.2	415.4	376.4	359.7	345.7	351.3	356.9	362.4	365.2
42.5°	552.0	476.8	373.6	306.7	267.7	248.1	234.2	237.0	239.8	242.6	248.1
45°	490.7	409.8	303.9	231.4	192.4	172.9	161.7	161.7	164.5	167.3	170.1
47.5°	440.5	354.1	248.1	178.4	142.2	122.7	111.5	111.5	114.3	114.3	117.1
50°	393.1	306.7	203.5	139.4	105.9	89.2	80.9	78.1	80.9	80.9	83.6
52.5°	354.1	270.4	170.1	111.5	80.9	66.9	58.5	58.5	58.5	58.5	58.5
55°	317.8	237.0	142.2	89.2	64.1	53.0	44.6	41.8	41.8	41.8	41.8
57.5°	290.0	211.9	122.7	75.3	53.0	41.8	36.2	33.5	33.5	33.5	33.5
60°	262.1	186.8	105.9	61.3	41.8	36.2	30.7	25.1	25.1	25.1	25.1
62.5°	234.2	161.7	89.2	53.0	36.2	27.9	25.1	19.5	19.5	19.5	19.5
65°	203.5	139.4	75.3	41.8	27.9	22.3	19.5	16.7	16.7	13.9	13.9
67.5°	167.3	111.5	61.3	36.2	25.1	19.5	16.7	13.9	11.2	11.2	11.2
70°	128.3	83.6	47.4	27.9	19.5	16.7	11.2	11.2	8.4	8.4	8.4
72.5°	92.0	58.5	33.5	22.3	13.9	11.2	11.2	8.4	8.4	8.4	5.6
75°	58.5	39.0	22.3	13.9	11.2	8.4	8.4	5.6	5.6	5.6	5.6
77.5°	36.2	25.1	16.7	11.2	8.4	5.6	5.6	5.6	2.8	2.8	2.8
80°	19.5	13.9	8.4	5.6	5.6	2.8	2.8	2.8	2.8	2.8	2.8
82.5°	11.2	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°	2397.7	2397.7	2397.7	2397.7	2397.7	2397.7	2397.7	2397.7	2397.7	2397.7	2397.7
2.5°	2417.3	2431.2	2422.8	2428.4	2453.5	2442.4	2461.9	2461.9	2484.2	2484.2	2467.4
5°	2434.0	2450.7	2453.5	2461.9	2495.3	2489.7	2512.1	2517.6	2542.7	2548.3	2534.4
7.5°	2422.8	2442.4	2450.7	2464.7	2498.1	2495.3	2520.4	2531.6	2553.9	2562.2	2551.1
10°	2369.9	2392.2	2403.3	2417.3	2453.5	2450.7	2478.6	2492.5	2512.1	2520.4	2512.1
12.5°	2300.2	2325.3	2336.4	2350.3	2386.6	2383.8	2411.7	2425.6	2442.4	2453.5	2445.1
15°	2222.1	2238.8	2258.3	2272.3	2305.7	2302.9	2330.8	2344.8	2358.7	2372.6	2364.3
17.5°	2121.7	2138.5	2158.0	2169.1	2202.6	2202.6	2224.9	2236.0	2255.5	2266.7	2255.5
20°	2007.4	2026.9	2040.9	2049.2	2079.9	2077.1	2099.4	2110.6	2127.3	2135.7	2127.3
22.5°	1887.5	1904.3	1915.4	1921.0	1946.1	1943.3	1960.0	1971.2	1985.1	1993.5	1985.1
25°	1750.9	1762.1	1770.4	1773.2	1795.5	1789.9	1812.2	1812.2	1823.4	1831.8	1823.4
27.5°	1575.3	1583.6	1589.2	1586.4	1603.1	1594.8	1614.3	1600.4	1622.7	1628.2	1619.9
30°	1349.4	1355.0	1360.6	1349.4	1360.6	1349.4	1366.2	1346.6	1366.2	1374.5	1366.2
32.5°	1081.8	1081.8	1087.3	1073.4	1079.0	1067.8	1076.2	1070.6	1076.2	1084.6	1076.2
35°	794.6	794.6	800.2	791.8	794.6	783.4	789.0	783.4	786.2	791.8	789.0
37.5°	552.0	549.3	557.6	552.0	554.8	549.3	552.0	546.5	549.3	552.0	549.3
40°	373.6	373.6	379.2	376.4	379.2	376.4	379.2	376.4	376.4	376.4	373.6
42.5°	250.9	253.7	256.5	256.5	259.3	256.5	259.3	256.5	256.5	256.5	253.7
45°	172.9	172.9	175.6	175.6	178.4	178.4	178.4	175.6	175.6	175.6	175.6
47.5°	119.9	122.7	122.7	122.7	122.7	122.7	122.7	122.7	122.7	122.7	119.9
50°	83.6	86.4	86.4	86.4	86.4	86.4	86.4	83.6	83.6	83.6	83.6
52.5°	61.3	61.3	61.3	61.3	61.3	61.3	61.3	61.3	61.3	58.5	58.5
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°	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9
67.5°	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2
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: P135728

CATALOG NUMBER: LD6A30D010TE ERM6A30827 6LM111H

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	2397.7	2397.7	2397.7	2397.7
2.5°	2459.1	2481.4	2473.0	2473.0
5°	2526.0	2551.1	2545.5	2542.7
7.5°	2545.5	2567.8	2562.2	2562.2
10°	2506.5	2528.8	2523.2	2523.2
12.5°	2442.4	2461.9	2459.1	2456.3
15°	2361.5	2381.0	2378.2	2375.4
17.5°	2252.8	2275.1	2272.3	2269.5
20°	2121.7	2141.2	2141.2	2138.5
22.5°	1979.5	1993.5	1996.3	1990.7
25°	1817.8	1829.0	1829.0	1823.4
27.5°	1614.3	1622.7	1622.7	1619.9
30°	1363.4	1366.2	1368.9	1363.4
32.5°	1070.6	1070.6	1076.2	1070.6
35°	780.7	780.7	786.2	783.4
37.5°	543.7	543.7	546.5	543.7
40°	370.8	370.8	373.6	370.8
42.5°	253.7	250.9	253.7	253.7
45°	172.9	172.9	175.6	172.9
47.5°	119.9	119.9	119.9	119.9
50°	83.6	83.6	83.6	83.6
52.5°	58.5	58.5	58.5	58.5
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°	13.9	13.9	13.9	13.9
67.5°	11.2	11.2	11.2	11.2
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)