

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: P135851

Luminaire Tested: **LD6A30D010TE ERM6A30840 6LM121LI**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P135851
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 ERM6A30840 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 4000K
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2997.0 lumens
Efficiency: N/A
Efficacy: 66.0 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

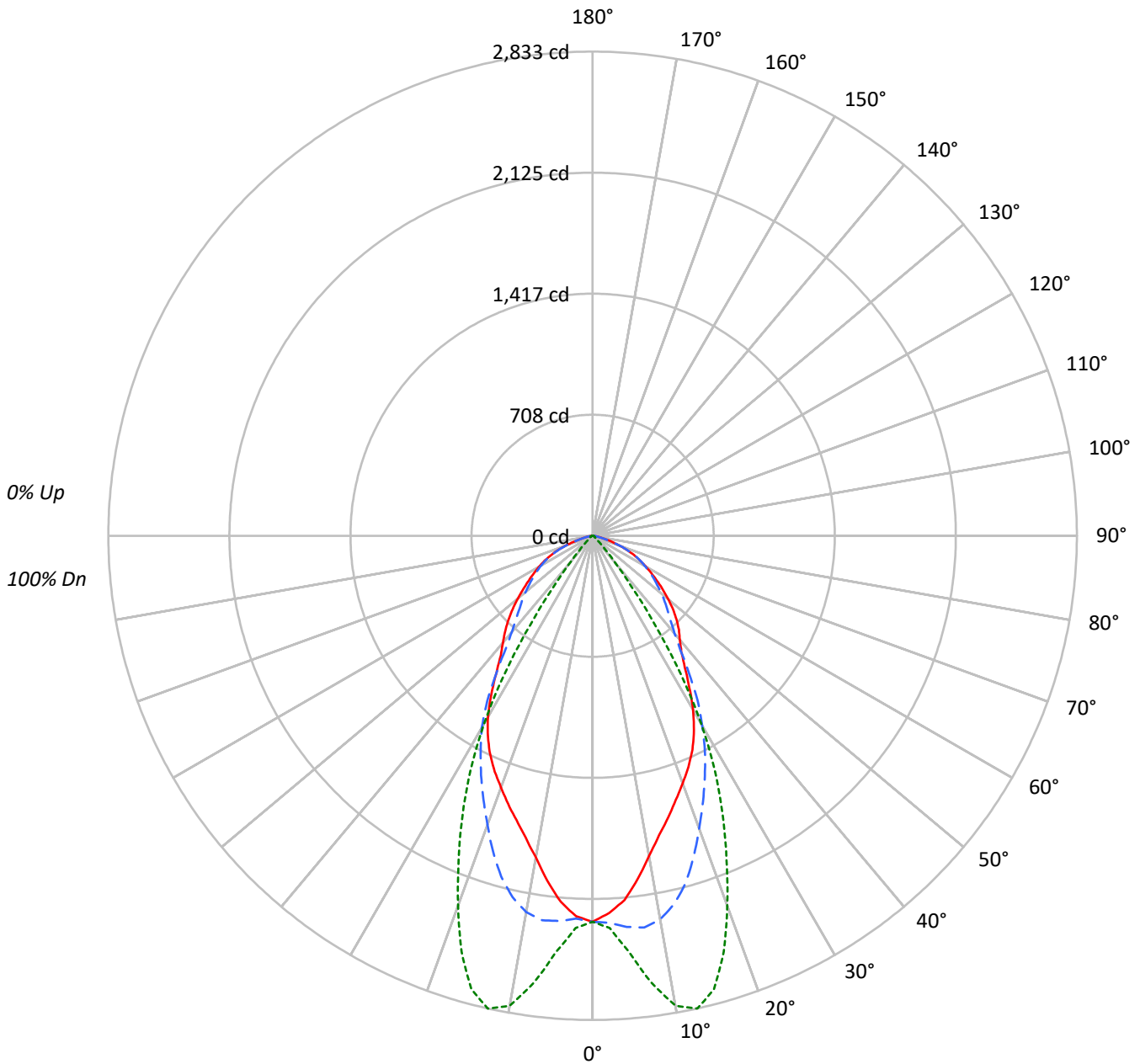
Input Watts (W): 45.4
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	147339	147339	147339
5°	140102	160005	140777
10°	125949	184975	126625
15°	115234	185403	116348
20°	106905	159933	108758
25°	99462	129616	101974
30°	88472	95892	92336
35°	74730	50693	78322
40°	67494	16965	69418
45°	64031	5868	64216
50°	58553	2497	57934
55°	52311	1865	51844
60°	46608	1879	47143
65°	41202	1899	41526
70°	31722	1564	31321
75°	19661	1033	18628
80°	10031	789	9242
85°	4641	0	4641



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	219.2	7.3
10°-20°	598.1	20.0
20°-30°	719.9	24.0
30°-40°	559.5	18.7
40°-50°	374.4	12.5
50°-60°	281.7	9.4
60°-70°	180.8	6.0
70°-80°	57.9	1.9
80°-90°	5.5	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°	1537.2	51.3
0°-40°	2096.7	70.0
0°-60°	2752.8	91.9
0°-90°	2997.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2997.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	2258	2258	2258	2258	2258	
5°	2139	2297	2443	2262	2150	196
15°	1706	2102	2745	2065	1723	480
25°	1382	1552	1801	1544	1417	630
35°	938	981	636	981	983	596
45°	694	620	64	606	696	533
55°	460	435	16	425	456	413
65°	267	269	12	263	269	261
75°	78	74	4	70	74	90
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°	2258.4	2258.4	2258.4	2258.4	2258.4	2258.4	2258.4	2258.4	2258.4	2258.4	2258.4
2.5°	2209.1	2227.6	2221.5	2250.2	2229.7	2227.6	2242.0	2250.2	2252.3	2266.6	2266.6
5°	2139.3	2159.9	2153.7	2190.7	2182.5	2190.7	2221.5	2244.0	2264.6	2297.4	2318.0
7.5°	2024.4	2049.0	2053.1	2090.1	2094.2	2116.8	2166.0	2211.2	2254.3	2311.8	2361.1
10°	1901.2	1925.8	1932.0	1973.0	1985.4	2016.2	2079.8	2137.3	2198.9	2278.9	2352.9
12.5°	1794.4	1819.1	1827.3	1868.3	1882.7	1917.6	1985.4	2049.0	2118.8	2207.1	2295.4
15°	1706.1	1728.7	1736.9	1773.9	1788.3	1821.1	1884.8	1946.3	2014.1	2102.4	2188.6
17.5°	1619.9	1642.5	1648.6	1681.5	1691.8	1720.5	1778.0	1831.4	1888.9	1966.9	2044.9
20°	1539.8	1560.4	1564.5	1593.2	1599.4	1622.0	1669.2	1712.3	1759.5	1821.1	1884.8
22.5°	1463.9	1484.4	1486.5	1511.1	1513.1	1531.6	1570.6	1603.5	1636.3	1685.6	1730.8
25°	1381.7	1402.3	1404.3	1424.9	1426.9	1439.2	1470.0	1494.7	1517.2	1552.1	1582.9
27.5°	1283.2	1303.7	1309.9	1324.3	1326.3	1334.5	1361.2	1377.6	1400.2	1422.8	1435.1
30°	1174.4	1192.9	1201.1	1213.4	1215.4	1227.8	1252.4	1264.7	1279.1	1283.2	1287.3
32.5°	1053.2	1073.8	1082.0	1092.3	1098.4	1110.7	1133.3	1139.5	1143.6	1141.5	1118.9
35°	938.3	956.7	965.0	977.3	981.4	989.6	1008.1	1006.0	999.9	981.4	940.3
37.5°	852.0	866.4	874.6	882.8	884.9	889.0	899.3	891.0	874.6	843.8	790.4
40°	792.5	806.9	808.9	817.1	815.1	815.1	817.1	802.8	782.2	745.3	683.7
42.5°	747.3	759.6	759.6	767.9	761.7	757.6	757.6	741.2	714.5	675.5	613.9
45°	694.0	704.2	706.3	710.4	704.2	700.1	700.1	683.7	659.0	620.0	558.4
47.5°	638.5	648.8	648.8	654.9	648.8	644.7	644.7	630.3	607.7	572.8	515.3
50°	576.9	587.2	589.2	593.3	589.2	587.2	589.2	574.9	556.4	525.6	474.3
52.5°	517.4	527.6	527.6	531.8	527.6	527.6	529.7	519.4	503.0	478.4	433.2
55°	459.9	468.1	472.2	476.3	470.2	470.2	472.2	466.1	453.7	435.3	396.2
57.5°	406.5	414.7	416.8	420.9	416.8	418.8	420.9	414.7	408.6	394.2	363.4
60°	357.2	365.5	367.5	369.6	367.5	367.5	369.6	367.5	363.4	353.1	326.4
62.5°	312.1	318.2	320.3	324.4	320.3	318.2	322.3	320.3	318.2	312.1	293.6
65°	266.9	271.0	273.1	275.1	271.0	266.9	271.0	271.0	273.1	269.0	254.6
67.5°	217.6	221.7	221.7	221.7	215.6	213.5	217.6	217.6	221.7	219.7	209.4
70°	166.3	168.4	168.4	168.4	160.1	160.1	162.2	162.2	166.3	166.3	160.1
72.5°	119.1	117.0	117.0	115.0	112.9	108.8	108.8	110.9	115.0	115.0	110.9
75°	78.0	76.0	73.9	73.9	71.9	67.8	67.8	69.8	71.9	73.9	71.9
77.5°	47.2	45.2	45.2	43.1	43.1	41.1	41.1	41.1	43.1	43.1	43.1
80°	26.7	24.6	24.6	24.6	22.6	22.6	22.6	22.6	22.6	24.6	22.6
82.5°	14.4	12.3	12.3	12.3	12.3	12.3	10.3	12.3	12.3	12.3	12.3
85°	6.2	6.2	6.2	6.2	4.1	4.1	4.1	4.1	4.1	6.2	6.2
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°	2258.4	2258.4	2258.4	2258.4	2258.4	2258.4	2258.4	2258.4	2258.4	2258.4	2258.4
2.5°	2260.5	2281.0	2266.6	2311.8	2281.0	2297.4	2320.0	2297.4	2303.6	2318.0	2289.2
5°	2330.3	2367.2	2371.3	2432.9	2408.3	2437.0	2467.8	2443.2	2447.3	2457.6	2420.6
7.5°	2402.1	2467.8	2498.6	2584.9	2578.7	2625.9	2662.9	2638.2	2638.2	2640.3	2584.9
10°	2422.7	2519.2	2576.7	2683.4	2699.8	2767.6	2808.7	2792.2	2788.1	2782.0	2706.0
12.5°	2377.5	2496.6	2570.5	2689.6	2722.4	2802.5	2839.4	2833.3	2827.1	2814.8	2726.5
15°	2272.8	2396.0	2474.0	2591.0	2632.1	2714.2	2745.0	2745.0	2738.8	2726.5	2632.1
17.5°	2118.8	2233.8	2305.6	2408.3	2449.4	2525.3	2545.9	2552.0	2545.9	2533.5	2447.3
20°	1944.3	2040.8	2098.3	2182.5	2215.3	2281.0	2293.3	2303.6	2299.5	2289.2	2213.3
22.5°	1773.9	1849.9	1893.0	1966.9	1979.2	2034.6	2038.7	2046.9	2044.9	2040.8	1979.2
25°	1617.8	1669.2	1693.8	1749.2	1753.4	1794.4	1792.4	1800.6	1798.5	1798.5	1751.3
27.5°	1453.6	1484.4	1490.6	1525.5	1517.2	1548.0	1552.1	1548.0	1550.1	1552.1	1517.2
30°	1289.4	1295.5	1277.0	1281.1	1258.6	1277.0	1258.6	1272.9	1272.9	1279.1	1258.6
32.5°	1102.5	1084.0	1034.8	1010.1	971.1	971.1	960.9	960.9	960.9	971.1	967.0
35°	903.4	858.2	782.2	728.9	673.4	659.0	657.0	636.5	640.6	654.9	665.2
37.5°	733.0	665.2	564.6	488.6	422.9	394.2	383.9	367.5	373.7	390.1	414.7
40°	611.8	529.7	412.7	324.4	258.7	225.8	209.4	199.2	205.3	225.8	256.6
42.5°	535.9	445.5	320.3	227.9	166.3	135.5	119.1	110.9	117.0	135.5	172.5
45°	480.4	386.0	258.7	168.4	112.9	84.2	69.8	63.6	67.8	84.2	115.0
47.5°	437.3	340.8	215.6	129.3	80.1	55.4	43.1	37.0	41.1	55.4	80.1
50°	398.3	303.9	182.7	102.7	61.6	41.1	28.7	24.6	28.7	39.0	59.5
52.5°	363.4	271.0	156.0	84.2	47.2	32.8	22.6	18.5	20.5	30.8	47.2
55°	332.6	246.4	137.6	71.9	41.1	28.7	20.5	16.4	20.5	26.7	41.1
57.5°	303.9	221.7	121.1	61.6	34.9	24.6	18.5	16.4	18.5	24.6	34.9
60°	275.1	197.1	106.8	53.4	30.8	22.6	16.4	14.4	16.4	20.5	30.8
62.5°	246.4	174.5	92.4	45.2	26.7	18.5	14.4	12.3	14.4	18.5	26.7
65°	213.5	147.8	78.0	39.0	22.6	16.4	12.3	12.3	12.3	16.4	22.6
67.5°	176.6	121.1	61.6	30.8	18.5	14.4	10.3	10.3	10.3	14.4	18.5
70°	135.5	90.3	47.2	24.6	14.4	10.3	8.2	8.2	8.2	10.3	14.4
72.5°	94.4	63.6	32.8	18.5	10.3	8.2	6.2	6.2	6.2	8.2	10.3
75°	59.5	41.1	22.6	12.3	8.2	6.2	4.1	4.1	4.1	6.2	8.2
77.5°	34.9	24.6	14.4	8.2	4.1	4.1	2.1	2.1	2.1	4.1	4.1
80°	18.5	14.4	8.2	4.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
82.5°	10.3	6.2	4.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
85°	4.1	2.1	2.1	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°	2258.4	2258.4	2258.4	2258.4	2258.4	2258.4	2258.4	2258.4	2258.4	2258.4	2258.4
2.5°	2281.0	2289.2	2287.2	2244.0	2239.9	2242.0	2213.3	2223.5	2233.8	2223.5	2225.6
5°	2391.9	2389.8	2365.2	2303.6	2278.9	2262.5	2215.3	2207.1	2200.9	2178.3	2170.1
7.5°	2537.6	2508.9	2457.6	2365.2	2313.9	2268.7	2198.9	2164.0	2139.3	2100.3	2077.7
10°	2638.2	2580.8	2504.8	2383.7	2305.6	2235.8	2145.5	2092.1	2051.1	1999.7	1966.9
12.5°	2652.6	2572.5	2484.3	2342.6	2252.3	2166.0	2067.5	2007.9	1960.7	1905.3	1874.5
15°	2560.2	2478.1	2385.7	2244.0	2153.7	2065.4	1971.0	1911.4	1864.2	1810.8	1784.2
17.5°	2385.7	2309.7	2227.6	2096.2	2018.2	1938.1	1854.0	1802.6	1761.6	1720.5	1693.8
20°	2164.0	2104.4	2036.7	1925.8	1864.2	1798.5	1732.8	1691.8	1661.0	1626.1	1605.5
22.5°	1944.3	1899.1	1849.9	1761.6	1716.4	1669.2	1617.8	1589.1	1566.5	1539.8	1525.5
25°	1732.8	1702.0	1671.2	1603.5	1576.8	1543.9	1507.0	1486.5	1472.1	1453.6	1443.3
27.5°	1513.1	1502.9	1494.7	1451.5	1441.3	1418.7	1394.1	1381.7	1371.5	1359.2	1350.9
30°	1275.0	1281.1	1314.0	1291.4	1301.7	1295.5	1285.2	1277.0	1272.9	1262.7	1252.4
32.5°	1006.0	1049.1	1096.4	1102.5	1133.3	1147.7	1145.6	1147.7	1149.7	1141.5	1133.3
35°	720.6	790.4	864.4	897.2	948.5	981.4	993.7	1006.0	1014.2	1012.2	1006.0
37.5°	480.4	574.9	663.2	720.6	788.4	833.6	860.3	880.8	893.1	897.2	897.2
40°	320.3	410.6	527.6	601.6	677.5	733.0	763.8	790.4	808.9	817.1	821.2
42.5°	225.8	322.3	441.4	525.6	603.6	663.2	698.1	726.8	745.3	755.5	759.6
45°	166.3	258.7	381.9	468.1	548.2	605.7	640.6	667.3	685.7	696.0	702.2
47.5°	127.3	217.6	336.7	425.0	505.1	558.4	591.3	615.9	632.4	640.6	644.7
50°	100.6	182.7	299.8	388.0	461.9	511.2	540.0	560.5	574.9	581.0	585.1
52.5°	82.1	158.1	269.0	353.1	422.9	466.1	488.6	505.1	517.4	521.5	525.6
55°	69.8	137.6	242.3	324.4	388.0	425.0	441.4	455.8	461.9	466.1	468.1
57.5°	61.6	121.1	219.7	297.7	355.2	386.0	398.3	408.6	410.6	414.7	416.8
60°	53.4	104.7	195.0	269.0	320.3	347.0	353.1	361.3	361.3	363.4	365.5
62.5°	45.2	90.3	170.4	240.2	285.4	308.0	312.1	314.1	314.1	314.1	316.2
65°	37.0	76.0	143.7	207.4	248.4	262.8	264.9	266.9	262.8	262.8	264.9
67.5°	30.8	59.5	115.0	170.4	203.3	215.6	213.5	213.5	207.4	207.4	209.4
70°	22.6	45.2	86.2	129.3	154.0	162.2	158.1	158.1	151.9	151.9	154.0
72.5°	16.4	32.8	59.5	88.3	106.8	110.9	106.8	106.8	102.7	102.7	104.7
75°	12.3	20.5	39.0	57.5	67.8	69.8	67.8	65.7	63.6	63.6	65.7
77.5°	8.2	14.4	22.6	32.8	39.0	41.1	39.0	39.0	37.0	39.0	39.0
80°	4.1	8.2	12.3	18.5	20.5	22.6	22.6	22.6	20.5	20.5	22.6
82.5°	2.1	4.1	6.2	8.2	10.3	12.3	10.3	10.3	10.3	10.3	10.3
85°	0.0	2.1	2.1	4.1	4.1	6.2	4.1	4.1	4.1	4.1	4.1
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: P135851

CATALOG NUMBER: LD6A30D010TE ERM6A30840 6LM121LI

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	2258.4	2258.4	2258.4	2258.4
2.5°	2221.5	2211.2	2196.8	2227.6
5°	2157.8	2137.3	2120.9	2149.6
7.5°	2057.2	2028.5	2005.9	2034.6
10°	1942.2	1909.4	1884.8	1911.4
12.5°	1841.6	1808.8	1788.3	1808.8
15°	1753.4	1722.6	1704.1	1722.6
17.5°	1667.1	1640.4	1624.0	1644.5
20°	1585.0	1562.4	1548.0	1566.5
22.5°	1509.0	1488.5	1476.2	1494.7
25°	1429.0	1414.6	1400.2	1416.6
27.5°	1340.7	1324.3	1316.0	1326.3
30°	1240.1	1223.7	1217.5	1225.7
32.5°	1121.0	1104.6	1098.4	1104.6
35°	997.8	983.4	975.2	983.4
37.5°	893.1	880.8	874.6	880.8
40°	819.2	813.0	806.9	815.1
42.5°	761.7	755.5	751.4	757.6
45°	702.2	694.0	689.8	696.0
47.5°	642.6	634.4	630.3	634.4
50°	581.0	570.8	568.7	570.8
52.5°	519.4	511.2	507.1	509.2
55°	464.0	457.8	453.7	455.8
57.5°	414.7	406.5	404.5	406.5
60°	365.5	361.3	359.3	361.3
62.5°	316.2	314.1	316.2	316.2
65°	266.9	266.9	269.0	269.0
67.5°	213.5	217.6	219.7	219.7
70°	158.1	162.2	164.2	164.2
72.5°	106.8	110.9	112.9	115.0
75°	67.8	71.9	73.9	73.9
77.5°	41.1	43.1	43.1	45.2
80°	22.6	24.6	24.6	24.6
82.5°	12.3	12.3	12.3	14.4
85°	6.2	6.2	6.2	6.2
87.5°	0.0	2.1	2.1	2.1
90°	0.0	0.0	0.0	0.0



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













(END OF REPORT)