

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: P135734

Luminaire Tested: **LD6A30D010TE ERM6A30935 6LM111H**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P135734
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 ERM6A30935 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 3500K
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2538.2 lumens
Efficiency: N/A
Efficacy: 55.9 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

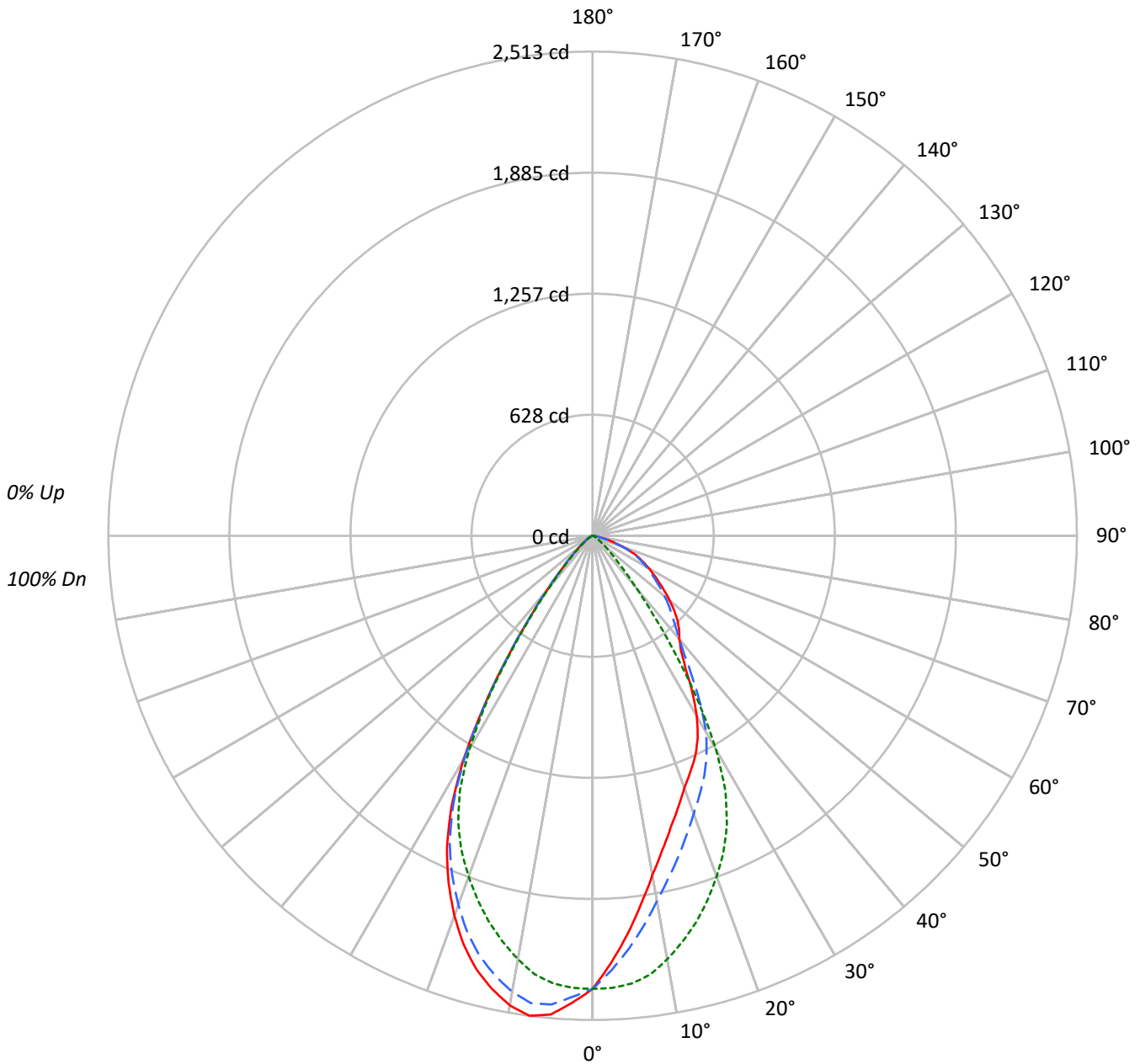
Input Watts (W): 45.4
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20					20					20					20					20					
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								
1	112	109	106	104	110	107	104	102	103	101	99	99	97	96	96	94	93	91								
2	106	100	95	91	103	98	94	90	95	91	88	92	89	86	89	87	84	83								
3	99	92	86	81	97	90	85	81	88	83	79	85	81	78	83	80	77	75								
4	93	85	78	73	91	83	77	73	81	76	72	79	75	71	77	73	70	68								
5	88	78	72	67	86	77	71	66	75	70	66	74	69	65	72	68	64	63								
6	83	73	66	61	81	72	65	61	70	65	60	69	64	60	67	63	59	58								
7	78	68	61	56	77	67	61	56	66	60	56	64	59	55	63	59	55	53								
8	74	63	57	52	73	63	56	52	62	56	52	60	55	51	59	55	51	50								
9	70	59	53	48	69	59	53	48	58	52	48	57	52	48	56	51	48	46								
10	67	56	49	45	65	55	49	45	54	49	45	54	48	45	53	48	45	43								

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	153413	153413	153413
5°	135911	152748	163319
10°	118470	147817	163935
15°	105825	140170	157353
20°	96629	130607	145611
25°	90744	118689	128731
30°	81368	96404	100728
35°	66853	59669	61199
40°	59616	29348	30966
45°	57517	14633	15639
50°	53001	7775	8323
55°	47897	4663	4971
60°	43881	3223	3223
65°	40091	2532	2115
70°	32332	2098	1564
75°	19989	1386	681
80°	11271	1014	0
85°	6138	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	215.6	8.5
10°-20°	560.0	22.1
20°-30°	712.7	28.1
30°-40°	510.6	20.1
40°-50°	254.7	10.0
50°-60°	154.2	6.1
60°-70°	94.3	3.7
70°-80°	32.5	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°	1488.4	58.6
0°-40°	1999.0	78.8
0°-60°	2407.9	94.9
0°-90°	2538.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2538.2	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	2352	2352	2352	2352	2352	
5°	2075	2152	2332	2442	2494	189
15°	1567	1723	2075	2259	2330	441
25°	1261	1373	1649	1755	1788	575
35°	839	905	749	768	768	536
45°	623	582	159	175	170	477
55°	421	396	41	44	44	379
65°	260	252	16	14	14	254
75°	79	71	6	3	3	92
85°	8	6	0	0	0	11
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°	2351.5	2351.5	2351.5	2351.5	2351.5	2351.5	2351.5	2351.5	2351.5	2351.5	2351.5
2.5°	2217.6	2220.3	2225.8	2220.3	2223.1	2236.7	2231.3	2233.9	2242.1	2255.8	2247.6
5°	2075.3	2078.1	2091.8	2083.6	2089.0	2105.5	2105.5	2116.4	2132.8	2151.9	2151.9
7.5°	1927.7	1933.2	1946.9	1941.4	1949.6	1971.4	1974.2	1990.6	2012.5	2039.8	2053.5
10°	1788.3	1793.8	1807.4	1804.6	1815.6	1837.5	1848.5	1864.8	1892.2	1925.0	1941.4
12.5°	1670.7	1676.2	1687.1	1687.1	1700.7	1722.6	1733.6	1755.4	1782.8	1818.3	1840.2
15°	1566.8	1575.0	1586.0	1586.0	1599.6	1621.5	1635.2	1654.3	1684.4	1722.6	1747.3
17.5°	1476.6	1479.2	1490.2	1490.2	1503.9	1525.8	1539.4	1558.6	1588.6	1624.2	1651.5
20°	1391.8	1394.5	1405.5	1408.2	1419.2	1438.2	1451.9	1471.1	1498.4	1533.9	1558.6
22.5°	1326.1	1331.6	1339.8	1342.6	1348.0	1367.2	1383.6	1397.3	1421.9	1451.9	1476.6
25°	1260.6	1263.3	1271.4	1274.2	1282.4	1296.1	1307.1	1320.7	1342.6	1372.6	1391.8
27.5°	1181.2	1189.5	1192.2	1194.9	1203.2	1214.0	1225.0	1235.9	1255.1	1279.7	1296.1
30°	1080.1	1082.8	1091.0	1096.5	1104.6	1115.6	1129.3	1140.2	1156.6	1175.8	1186.7
32.5°	962.5	965.2	973.4	978.9	992.6	1003.5	1014.4	1022.7	1033.6	1044.6	1044.6
35°	839.4	847.6	850.4	858.6	872.3	883.2	891.4	894.1	899.6	905.1	886.0
37.5°	751.9	757.4	762.9	768.4	779.3	787.5	792.9	792.9	790.2	784.7	760.2
40°	700.0	702.7	708.2	711.0	721.9	727.3	727.3	721.9	711.0	697.3	659.0
42.5°	664.5	667.2	670.0	672.6	678.1	680.8	678.1	667.2	653.5	634.4	590.6
45°	623.4	626.1	628.9	628.9	634.4	634.4	631.6	620.7	604.3	582.4	535.9
47.5°	574.2	576.9	579.7	582.4	585.1	585.1	582.4	571.4	555.1	535.9	486.7
50°	522.2	525.0	527.7	527.7	533.2	533.2	530.5	519.5	505.9	486.7	443.0
52.5°	470.3	473.0	473.0	478.5	478.5	478.5	475.8	464.8	453.9	440.2	399.3
55°	421.1	423.8	423.8	429.3	432.0	429.3	426.6	418.3	407.4	396.5	363.6
57.5°	377.3	380.1	380.1	382.8	385.6	382.8	380.1	374.6	369.1	358.2	330.9
60°	336.3	339.1	339.1	341.8	341.8	339.1	339.1	333.6	328.1	322.7	298.0
62.5°	298.0	298.0	298.0	300.7	300.7	298.0	298.0	292.6	289.9	287.1	268.0
65°	259.7	259.7	259.7	259.7	259.7	254.3	254.3	251.5	248.8	251.5	235.2
67.5°	216.0	216.0	213.3	213.3	213.3	207.8	207.8	207.8	205.1	207.8	194.1
70°	169.5	169.5	166.8	166.8	164.1	158.6	158.6	158.6	155.8	158.6	150.4
72.5°	120.3	123.1	117.6	117.6	114.9	109.4	112.1	109.4	112.1	112.1	106.6
75°	79.3	82.0	76.6	76.6	73.9	71.1	71.1	71.1	73.9	71.1	68.4
77.5°	49.2	51.9	49.2	49.2	46.5	43.7	43.7	43.7	43.7	43.7	41.0
80°	30.0	30.0	30.0	27.3	27.3	24.7	24.7	24.7	24.7	24.7	21.9
82.5°	16.4	16.4	16.4	16.4	16.4	13.7	13.7	13.7	13.7	13.7	11.0
85°	8.2	8.2	8.2	8.2	8.2	5.5	5.5	5.5	5.5	5.5	5.5
87.5°	2.7	2.7	2.7	2.7	2.7	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°	2351.5	2351.5	2351.5	2351.5	2351.5	2351.5	2351.5	2351.5	2351.5	2351.5	2351.5
2.5°	2272.3	2283.2	2275.0	2307.8	2302.3	2327.0	2324.2	2348.8	2346.0	2348.8	2354.3
5°	2184.7	2206.6	2209.4	2250.4	2253.1	2291.4	2299.6	2332.4	2337.9	2348.8	2362.5
7.5°	2089.0	2121.9	2132.8	2179.2	2195.7	2236.7	2253.1	2296.8	2307.8	2327.0	2343.3
10°	1985.1	2023.4	2039.8	2094.5	2116.4	2162.9	2184.7	2231.3	2247.6	2269.5	2288.6
12.5°	1886.7	1927.7	1949.6	2007.0	2037.1	2083.6	2108.2	2157.4	2173.9	2201.2	2220.3
15°	1793.8	1837.5	1862.1	1919.5	1949.6	2001.6	2026.1	2075.3	2094.5	2121.9	2141.0
17.5°	1698.0	1741.8	1769.1	1823.8	1862.1	1905.9	1933.2	1982.4	2001.6	2026.1	2045.3
20°	1605.1	1648.8	1673.4	1728.1	1763.6	1807.4	1832.0	1881.2	1894.9	1919.5	1935.9
22.5°	1517.6	1558.6	1580.5	1637.9	1668.0	1706.2	1730.9	1774.6	1791.0	1810.1	1821.1
25°	1430.0	1465.6	1482.0	1531.3	1555.8	1591.4	1610.5	1648.8	1665.2	1681.7	1695.3
27.5°	1331.6	1350.8	1356.3	1394.5	1413.7	1446.5	1454.7	1490.2	1503.9	1514.8	1525.8
30°	1208.6	1211.3	1194.9	1214.0	1222.2	1246.9	1246.9	1279.7	1290.6	1298.8	1309.8
32.5°	1052.7	1036.3	998.0	992.6	987.1	1000.7	995.3	1022.7	1033.6	1039.1	1047.3
35°	880.5	844.9	782.0	757.4	741.0	738.3	730.0	749.2	757.4	762.9	768.4
37.5°	730.0	678.1	598.8	555.1	527.7	516.8	505.9	516.8	522.2	527.7	533.2
40°	620.7	555.1	462.1	407.4	369.1	352.7	339.1	344.6	350.0	355.4	358.2
42.5°	541.4	467.5	366.4	300.7	262.5	243.3	229.7	232.4	235.2	237.9	243.3
45°	481.2	402.0	298.0	227.0	188.6	169.5	158.6	158.6	161.3	164.1	166.8
47.5°	432.0	347.3	243.3	175.0	139.4	120.3	109.4	109.4	112.1	112.1	114.9
50°	385.6	300.7	199.6	136.7	103.9	87.5	79.3	76.6	79.3	79.3	82.0
52.5°	347.3	265.2	166.8	109.4	79.3	65.6	57.4	57.4	57.4	57.4	57.4
55°	311.7	232.4	139.4	87.5	62.9	51.9	43.7	41.0	41.0	41.0	41.0
57.5°	284.4	207.8	120.3	73.9	51.9	41.0	35.5	32.8	32.8	32.8	32.8
60°	257.0	183.2	103.9	60.2	41.0	35.5	30.0	24.7	24.7	24.7	24.7
62.5°	229.7	158.6	87.5	51.9	35.5	27.3	24.7	19.2	19.2	19.2	19.2
65°	199.6	136.7	73.9	41.0	27.3	21.9	19.2	16.4	16.4	13.7	13.7
67.5°	164.1	109.4	60.2	35.5	24.7	19.2	16.4	13.7	11.0	11.0	11.0
70°	125.8	82.0	46.5	27.3	19.2	16.4	11.0	11.0	8.2	8.2	8.2
72.5°	90.2	57.4	32.8	21.9	13.7	11.0	11.0	8.2	8.2	8.2	5.5
75°	57.4	38.3	21.9	13.7	11.0	8.2	8.2	5.5	5.5	5.5	5.5
77.5°	35.5	24.7	16.4	11.0	8.2	5.5	5.5	5.5	2.7	2.7	2.7
80°	19.2	13.7	8.2	5.5	5.5	2.7	2.7	2.7	2.7	2.7	2.7
82.5°	11.0	8.2	5.5	2.7	2.7	2.7	2.7	2.7	0.0	0.0	0.0
85°	5.5	2.7	2.7	2.7	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°	2351.5	2351.5	2351.5	2351.5	2351.5	2351.5	2351.5	2351.5	2351.5	2351.5	2351.5
2.5°	2370.7	2384.4	2376.2	2381.7	2406.2	2395.3	2414.4	2414.4	2436.3	2436.3	2419.9
5°	2387.1	2403.5	2406.2	2414.4	2447.2	2441.8	2463.6	2469.1	2493.8	2499.2	2485.6
7.5°	2376.2	2395.3	2403.5	2417.2	2449.9	2447.2	2471.9	2482.8	2504.6	2512.8	2501.9
10°	2324.2	2346.0	2357.0	2370.7	2406.2	2403.5	2430.9	2444.6	2463.6	2471.9	2463.6
12.5°	2255.8	2280.5	2291.4	2305.1	2340.6	2337.9	2365.2	2378.9	2395.3	2406.2	2398.0
15°	2179.2	2195.7	2214.8	2228.5	2261.3	2258.6	2285.9	2299.6	2313.3	2327.0	2318.7
17.5°	2080.8	2097.3	2116.4	2127.3	2160.2	2160.2	2182.0	2192.9	2212.1	2223.1	2212.1
20°	1968.7	1987.9	2001.6	2009.8	2039.8	2037.1	2059.0	2070.0	2086.3	2094.5	2086.3
22.5°	1851.2	1867.5	1878.5	1884.0	1908.6	1905.9	1922.2	1933.2	1946.9	1955.1	1946.9
25°	1717.2	1728.1	1736.3	1739.1	1760.9	1755.4	1777.3	1777.3	1788.3	1796.5	1788.3
27.5°	1544.9	1553.1	1558.6	1555.8	1572.3	1564.1	1583.2	1569.5	1591.4	1596.8	1588.6
30°	1323.4	1328.9	1334.3	1323.4	1334.3	1323.4	1339.8	1320.7	1339.8	1348.0	1339.8
32.5°	1060.9	1060.9	1066.4	1052.7	1058.2	1047.3	1055.4	1050.0	1055.4	1063.6	1055.4
35°	779.3	779.3	784.7	776.6	779.3	768.4	773.9	768.4	771.1	776.6	773.9
37.5°	541.4	538.7	546.9	541.4	544.1	538.7	541.4	535.9	538.7	541.4	538.7
40°	366.4	366.4	371.9	369.1	371.9	369.1	371.9	369.1	369.1	369.1	366.4
42.5°	246.1	248.8	251.5	251.5	254.3	251.5	254.3	251.5	251.5	251.5	248.8
45°	169.5	169.5	172.3	172.3	175.0	175.0	175.0	172.3	172.3	172.3	172.3
47.5°	117.6	120.3	120.3	120.3	120.3	120.3	120.3	120.3	120.3	120.3	117.6
50°	82.0	84.7	84.7	84.7	84.7	84.7	84.7	82.0	82.0	82.0	82.0
52.5°	60.2	60.2	60.2	60.2	60.2	60.2	60.2	60.2	60.2	57.4	57.4
55°	43.7	43.7	43.7	43.7	43.7	43.7	43.7	43.7	43.7	43.7	43.7
57.5°	32.8	32.8	32.8	32.8	32.8	32.8	32.8	32.8	32.8	32.8	32.8
60°	24.7	24.7	24.7	24.7	24.7	24.7	24.7	24.7	24.7	24.7	24.7
62.5°	19.2	19.2	19.2	19.2	19.2	19.2	19.2	19.2	19.2	19.2	19.2
65°	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7
67.5°	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0
70°	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2
72.5°	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
75°	5.5	5.5	5.5	5.5	5.5	2.7	2.7	2.7	2.7	2.7	2.7
77.5°	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
80°	0.0	2.7	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: P135734

CATALOG NUMBER: LD6A30D010TE ERM6A30935 6LM111H

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	2351.5	2351.5	2351.5	2351.5
2.5°	2411.7	2433.6	2425.4	2425.4
5°	2477.3	2501.9	2496.5	2493.8
7.5°	2496.5	2518.3	2512.8	2512.8
10°	2458.2	2480.1	2474.6	2474.6
12.5°	2395.3	2414.4	2411.7	2409.0
15°	2316.0	2335.2	2332.4	2329.7
17.5°	2209.4	2231.3	2228.5	2225.8
20°	2080.8	2100.0	2100.0	2097.3
22.5°	1941.4	1955.1	1957.8	1952.4
25°	1782.8	1793.8	1793.8	1788.3
27.5°	1583.2	1591.4	1591.4	1588.6
30°	1337.1	1339.8	1342.6	1337.1
32.5°	1050.0	1050.0	1055.4	1050.0
35°	765.6	765.6	771.1	768.4
37.5°	533.2	533.2	535.9	533.2
40°	363.6	363.6	366.4	363.6
42.5°	248.8	246.1	248.8	248.8
45°	169.5	169.5	172.3	169.5
47.5°	117.6	117.6	117.6	117.6
50°	82.0	82.0	82.0	82.0
52.5°	57.4	57.4	57.4	57.4
55°	41.0	43.7	43.7	43.7
57.5°	30.0	32.8	32.8	32.8
60°	24.7	24.7	24.7	24.7
62.5°	19.2	19.2	19.2	19.2
65°	13.7	13.7	13.7	13.7
67.5°	11.0	11.0	11.0	11.0
70°	8.2	8.2	8.2	8.2
72.5°	5.5	5.5	5.5	5.5
75°	2.7	2.7	2.7	2.7
77.5°	2.7	2.7	2.7	2.7
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)