

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: P135732

Luminaire Tested: **LD6A30D010TE ERM6A30927 6LM111H**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P135732
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 ERM6A30927 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: 2362.9 lumens
Efficiency: N/A
Efficacy: 52.0 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

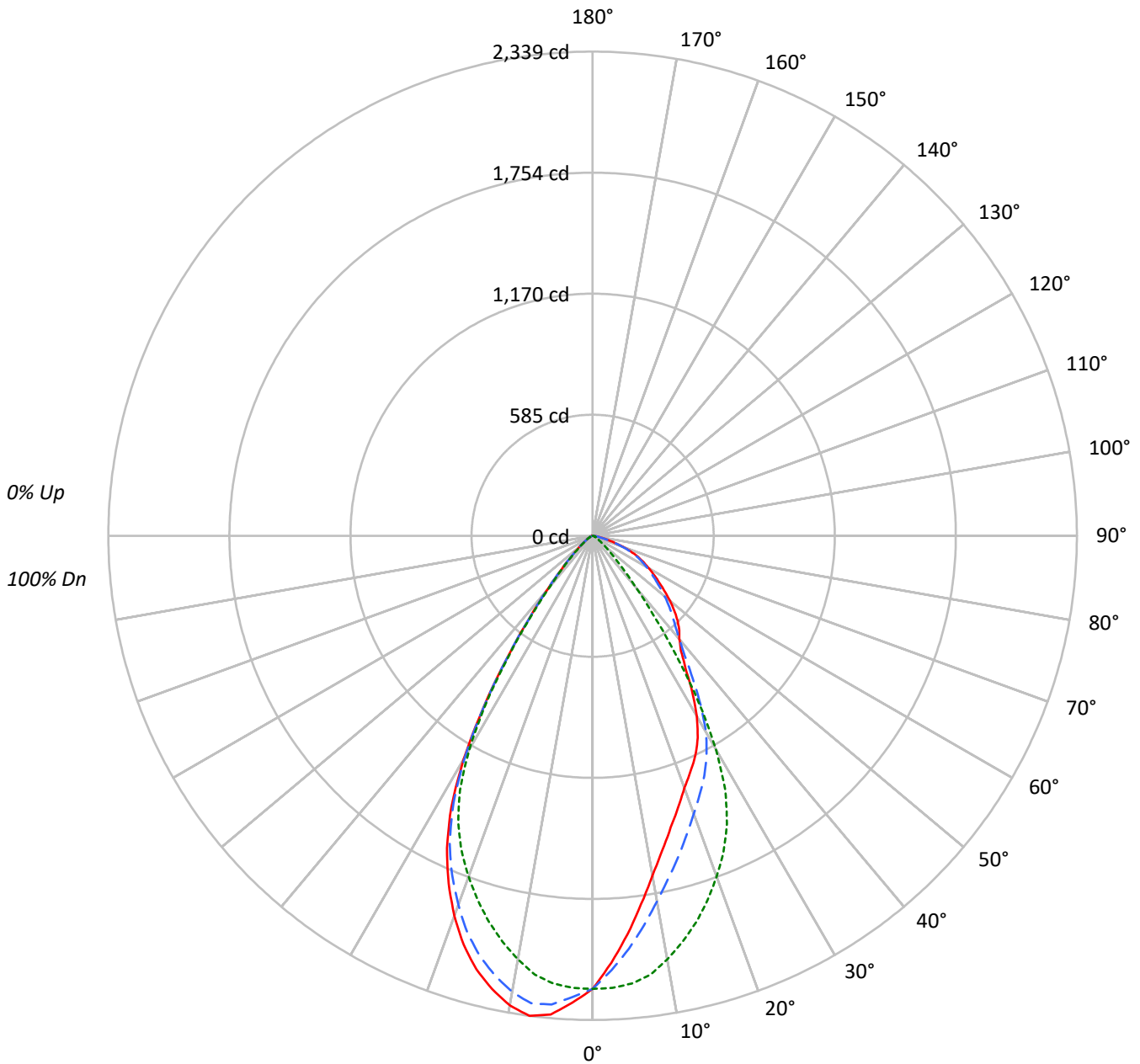
Input Watts (W): 45.4
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	142818	142818	142818
5°	126526	142198	152035
10°	110288	137608	152613
15°	98517	130491	146478
20°	89950	121589	135557
25°	84474	110490	119841
30°	75748	89745	93775
35°	62234	55544	56961
40°	55494	27313	28829
45°	53550	13618	14569
50°	49348	7237	7744
55°	44587	4345	4629
60°	40854	2988	2988
65°	37343	2346	1961
70°	30120	1946	1469
75°	18628	1286	655
80°	10520	977	0
85°	5764	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	200.8	8.5
10°-20°	521.3	22.1
20°-30°	663.5	28.1
30°-40°	475.4	20.1
40°-50°	237.1	10.0
50°-60°	143.5	6.1
60°-70°	87.7	3.7
70°-80°	30.3	1.3
80°-90°	3.2	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°	1385.6	58.6
0°-40°	1860.9	78.8
0°-60°	2241.6	94.9
0°-90°	2362.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2362.9	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	2189	2189	2189	2189	2189	
5°	1932	2003	2171	2273	2322	176
15°	1459	1604	1932	2102	2169	411
25°	1174	1278	1535	1634	1665	535
35°	781	843	697	715	715	499
45°	580	542	148	163	158	444
55°	392	369	38	41	41	353
65°	242	234	15	13	13	236
75°	74	66	5	3	3	85
85°	8	5	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°	2189.1	2189.1	2189.1	2189.1	2189.1	2189.1	2189.1	2189.1	2189.1	2189.1	2189.1
2.5°	2064.4	2066.9	2072.1	2066.9	2069.5	2082.2	2077.2	2079.7	2087.3	2100.1	2092.4
5°	1932.0	1934.6	1947.3	1939.7	1944.8	1960.0	1960.0	1970.3	1985.5	2003.3	2003.3
7.5°	1794.6	1799.7	1812.4	1807.3	1815.0	1835.3	1837.9	1853.1	1873.5	1898.9	1911.6
10°	1664.8	1669.9	1682.6	1680.0	1690.2	1710.6	1720.7	1736.1	1761.5	1792.0	1807.3
12.5°	1555.3	1560.4	1570.5	1570.5	1583.3	1603.7	1613.8	1634.2	1659.7	1692.8	1713.2
15°	1458.6	1466.2	1476.4	1476.4	1489.1	1509.5	1522.2	1540.0	1568.1	1603.7	1626.6
17.5°	1374.6	1377.1	1387.3	1387.3	1400.0	1420.4	1433.1	1450.9	1479.0	1512.0	1537.5
20°	1295.6	1298.2	1308.4	1311.0	1321.1	1338.9	1351.7	1369.5	1395.0	1428.0	1450.9
22.5°	1234.6	1239.7	1247.3	1249.8	1254.9	1272.7	1288.1	1300.8	1323.7	1351.7	1374.6
25°	1173.5	1176.0	1183.7	1186.2	1193.8	1206.5	1216.8	1229.4	1249.8	1277.8	1295.6
27.5°	1099.6	1107.3	1109.8	1112.4	1120.1	1130.2	1140.4	1150.6	1168.4	1191.3	1206.5
30°	1005.5	1008.0	1015.6	1020.7	1028.4	1038.5	1051.3	1061.5	1076.8	1094.6	1104.7
32.5°	896.0	898.6	906.2	911.3	924.0	934.2	944.4	952.0	962.2	972.3	972.3
35°	781.4	789.1	791.7	799.3	812.0	822.2	829.8	832.4	837.5	842.6	824.7
37.5°	700.0	705.1	710.2	715.2	725.5	733.1	738.2	738.2	735.7	730.6	707.7
40°	651.6	654.2	659.3	661.8	672.1	677.1	677.1	672.1	661.8	649.1	613.4
42.5°	618.6	621.1	623.7	626.2	631.2	633.8	631.2	621.1	608.3	590.5	549.8
45°	580.4	583.0	585.5	585.5	590.5	590.5	588.0	577.8	562.6	542.2	499.0
47.5°	534.6	537.1	539.7	542.2	544.7	544.7	542.2	532.0	516.8	499.0	453.1
50°	486.2	488.7	491.3	491.3	496.4	496.4	493.8	483.6	470.9	453.1	412.4
52.5°	437.8	440.3	440.3	445.5	445.5	445.5	442.9	432.8	422.5	409.8	371.7
55°	392.0	394.6	394.6	399.6	402.2	399.6	397.1	389.5	379.3	369.1	338.5
57.5°	351.3	353.8	353.8	356.3	358.9	356.3	353.8	348.8	343.7	333.4	308.0
60°	313.1	315.6	315.6	318.2	318.2	315.6	315.6	310.5	305.5	300.4	277.5
62.5°	277.5	277.5	277.5	280.0	280.0	277.5	277.5	272.3	269.8	267.2	249.4
65°	241.9	241.9	241.9	241.9	241.9	236.7	236.7	234.2	231.6	234.2	218.9
67.5°	201.1	201.1	198.6	198.6	198.6	193.5	193.5	193.5	190.9	193.5	180.8
70°	157.9	157.9	155.3	155.3	152.7	147.6	147.6	147.6	145.1	147.6	140.0
72.5°	112.0	114.6	109.5	109.5	106.9	101.8	104.4	101.8	104.4	104.4	99.2
75°	73.9	76.3	71.3	71.3	68.7	66.2	66.2	66.2	68.7	66.2	63.6
77.5°	45.8	48.4	45.8	45.8	43.3	40.7	40.7	40.7	40.7	40.7	38.2
80°	28.0	28.0	28.0	25.5	25.5	22.9	22.9	22.9	22.9	22.9	20.4
82.5°	15.2	15.2	15.2	15.2	15.2	12.7	12.7	12.7	12.7	12.7	10.2
85°	7.7	7.7	7.7	7.7	7.7	5.1	5.1	5.1	5.1	5.1	5.1
87.5°	2.6	2.6	2.6	2.6	2.6	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°	2189.1	2189.1	2189.1	2189.1	2189.1	2189.1	2189.1	2189.1	2189.1	2189.1	2189.1
2.5°	2115.3	2125.5	2117.9	2148.4	2143.4	2166.2	2163.7	2186.6	2184.1	2186.6	2191.7
5°	2033.9	2054.2	2056.8	2095.0	2097.5	2133.1	2140.8	2171.3	2176.4	2186.6	2199.3
7.5°	1944.8	1975.3	1985.5	2028.8	2044.0	2082.2	2097.5	2138.2	2148.4	2166.2	2181.5
10°	1848.0	1883.7	1898.9	1949.9	1970.3	2013.5	2033.9	2077.2	2092.4	2112.8	2130.6
12.5°	1756.4	1794.6	1815.0	1868.4	1896.4	1939.7	1962.6	2008.4	2023.7	2049.1	2066.9
15°	1669.9	1710.6	1733.5	1786.9	1815.0	1863.3	1886.3	1932.0	1949.9	1975.3	1993.2
17.5°	1580.8	1621.5	1647.0	1697.8	1733.5	1774.2	1799.7	1845.5	1863.3	1886.3	1904.1
20°	1494.2	1534.9	1557.9	1608.8	1641.8	1682.6	1705.5	1751.3	1764.0	1786.9	1802.3
22.5°	1412.8	1450.9	1471.3	1524.8	1552.7	1588.4	1611.3	1652.1	1667.3	1685.1	1695.3
25°	1331.3	1364.4	1379.6	1425.5	1448.4	1481.5	1499.3	1534.9	1550.2	1565.5	1578.2
27.5°	1239.7	1257.5	1262.6	1298.2	1316.0	1346.6	1354.3	1387.3	1400.0	1410.2	1420.4
30°	1125.1	1127.6	1112.4	1130.2	1137.9	1160.8	1160.8	1191.3	1201.5	1209.1	1219.3
32.5°	980.0	964.8	929.1	924.0	918.9	931.6	926.6	952.0	962.2	967.3	974.9
35°	819.7	786.5	728.0	705.1	689.9	687.3	679.6	697.4	705.1	710.2	715.2
37.5°	679.6	631.2	557.5	516.8	491.3	481.1	470.9	481.1	486.2	491.3	496.4
40°	577.8	516.8	430.2	379.3	343.7	328.4	315.6	320.7	325.8	330.9	333.4
42.5°	504.0	435.3	341.1	280.0	244.4	226.5	213.8	216.4	218.9	221.5	226.5
45°	448.0	374.1	277.5	211.3	175.7	157.9	147.6	147.6	150.2	152.7	155.3
47.5°	402.2	323.3	226.5	162.9	129.8	112.0	101.8	101.8	104.4	104.4	106.9
50°	358.9	280.0	185.8	127.3	96.7	81.4	73.9	71.3	73.9	73.9	76.3
52.5°	323.3	246.9	155.3	101.8	73.9	61.1	53.4	53.4	53.4	53.4	53.4
55°	290.2	216.4	129.8	81.4	58.5	48.4	40.7	38.2	38.2	38.2	38.2
57.5°	264.8	193.5	112.0	68.7	48.4	38.2	33.1	30.6	30.6	30.6	30.6
60°	239.3	170.5	96.7	56.0	38.2	33.1	28.0	22.9	22.9	22.9	22.9
62.5°	213.8	147.6	81.4	48.4	33.1	25.5	22.9	17.8	17.8	17.8	17.8
65°	185.8	127.3	68.7	38.2	25.5	20.4	17.8	15.2	15.2	12.7	12.7
67.5°	152.7	101.8	56.0	33.1	22.9	17.8	15.2	12.7	10.2	10.2	10.2
70°	117.1	76.3	43.3	25.5	17.8	15.2	10.2	10.2	7.7	7.7	7.7
72.5°	84.0	53.4	30.6	20.4	12.7	10.2	10.2	7.7	7.7	7.7	5.1
75°	53.4	35.6	20.4	12.7	10.2	7.7	7.7	5.1	5.1	5.1	5.1
77.5°	33.1	22.9	15.2	10.2	7.7	5.1	5.1	5.1	2.6	2.6	2.6
80°	17.8	12.7	7.7	5.1	5.1	2.6	2.6	2.6	2.6	2.6	2.6
82.5°	10.2	7.7	5.1	2.6	2.6	2.6	2.6	2.6	0.0	0.0	0.0
85°	5.1	2.6	2.6	2.6	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°	2189.1	2189.1	2189.1	2189.1	2189.1	2189.1	2189.1	2189.1	2189.1	2189.1	2189.1
2.5°	2207.0	2219.7	2212.0	2217.1	2240.0	2229.9	2247.7	2247.7	2268.1	2268.1	2252.7
5°	2222.2	2237.5	2240.0	2247.7	2278.2	2273.1	2293.5	2298.6	2321.5	2326.6	2313.9
7.5°	2212.0	2229.9	2237.5	2250.3	2280.8	2278.2	2301.1	2311.4	2331.7	2339.3	2329.2
10°	2163.7	2184.1	2194.2	2207.0	2240.0	2237.5	2263.0	2275.7	2293.5	2301.1	2293.5
12.5°	2100.1	2123.0	2133.1	2145.8	2179.0	2176.4	2201.9	2214.6	2229.9	2240.0	2232.4
15°	2028.8	2044.0	2061.8	2074.6	2105.1	2102.5	2128.0	2140.8	2153.5	2166.2	2158.6
17.5°	1937.1	1952.5	1970.3	1980.4	2011.0	2011.0	2031.3	2041.5	2059.3	2069.5	2059.3
20°	1832.8	1850.6	1863.3	1870.9	1898.9	1896.4	1916.8	1927.0	1942.2	1949.9	1942.2
22.5°	1723.3	1738.6	1748.8	1753.9	1776.8	1774.2	1789.5	1799.7	1812.4	1820.1	1812.4
25°	1598.6	1608.8	1616.4	1618.9	1639.3	1634.2	1654.5	1654.5	1664.8	1672.4	1664.8
27.5°	1438.2	1445.8	1450.9	1448.4	1463.6	1456.1	1473.9	1461.2	1481.5	1486.5	1479.0
30°	1232.0	1237.1	1242.2	1232.0	1242.2	1232.0	1247.3	1229.4	1247.3	1254.9	1247.3
32.5°	987.7	987.7	992.7	980.0	985.1	974.9	982.6	977.5	982.6	990.2	982.6
35°	725.5	725.5	730.6	722.9	725.5	715.2	720.4	715.2	717.8	722.9	720.4
37.5°	504.0	501.5	509.1	504.0	506.5	501.5	504.0	499.0	501.5	504.0	501.5
40°	341.1	341.1	346.2	343.7	346.2	343.7	346.2	343.7	343.7	343.7	341.1
42.5°	229.1	231.6	234.2	234.2	236.7	234.2	236.7	234.2	234.2	234.2	231.6
45°	157.9	157.9	160.3	160.3	162.9	162.9	162.9	160.3	160.3	160.3	160.3
47.5°	109.5	112.0	112.0	112.0	112.0	112.0	112.0	112.0	112.0	112.0	109.5
50°	76.3	78.9	78.9	78.9	78.9	78.9	78.9	76.3	76.3	76.3	76.3
52.5°	56.0	56.0	56.0	56.0	56.0	56.0	56.0	56.0	56.0	53.4	53.4
55°	40.7	40.7	40.7	40.7	40.7	40.7	40.7	40.7	40.7	40.7	40.7
57.5°	30.6	30.6	30.6	30.6	30.6	30.6	30.6	30.6	30.6	30.6	30.6
60°	22.9	22.9	22.9	22.9	22.9	22.9	22.9	22.9	22.9	22.9	22.9
62.5°	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8
65°	12.7	12.7	12.7	12.7	12.7	12.7	12.7	12.7	12.7	12.7	12.7
67.5°	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2
70°	7.7	7.7	7.7	7.7	7.7	7.7	7.7	7.7	7.7	7.7	7.7
72.5°	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1
75°	5.1	5.1	5.1	5.1	5.1	2.6	2.6	2.6	2.6	2.6	2.6
77.5°	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6
80°	0.0	2.6	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: P135732

CATALOG NUMBER: LD6A30D010TE ERM6A30927 6LM111H

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	2189.1	2189.1	2189.1	2189.1
2.5°	2245.2	2265.5	2257.8	2257.8
5°	2306.2	2329.2	2324.0	2321.5
7.5°	2324.0	2344.4	2339.3	2339.3
10°	2288.4	2308.8	2303.7	2303.7
12.5°	2229.9	2247.7	2245.2	2242.6
15°	2156.0	2173.9	2171.3	2168.7
17.5°	2056.8	2077.2	2074.6	2072.1
20°	1937.1	1954.9	1954.9	1952.5
22.5°	1807.3	1820.1	1822.6	1817.5
25°	1659.7	1669.9	1669.9	1664.8
27.5°	1473.9	1481.5	1481.5	1479.0
30°	1244.8	1247.3	1249.8	1244.8
32.5°	977.5	977.5	982.6	977.5
35°	712.8	712.8	717.8	715.2
37.5°	496.4	496.4	499.0	496.4
40°	338.5	338.5	341.1	338.5
42.5°	231.6	229.1	231.6	231.6
45°	157.9	157.9	160.3	157.9
47.5°	109.5	109.5	109.5	109.5
50°	76.3	76.3	76.3	76.3
52.5°	53.4	53.4	53.4	53.4
55°	38.2	40.7	40.7	40.7
57.5°	28.0	30.6	30.6	30.6
60°	22.9	22.9	22.9	22.9
62.5°	17.8	17.8	17.8	17.8
65°	12.7	12.7	12.7	12.7
67.5°	10.2	10.2	10.2	10.2
70°	7.7	7.7	7.7	7.7
72.5°	5.1	5.1	5.1	5.1
75°	2.6	2.6	2.6	2.6
77.5°	2.6	2.6	2.6	2.6
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)