

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: P135730

Luminaire Tested: **LD6A30D010TE ERM6A30835 6LM111H**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P135730
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 ERM6A30835 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: 2780.0 lumens
Efficiency: N/A
Efficacy: 61.2 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

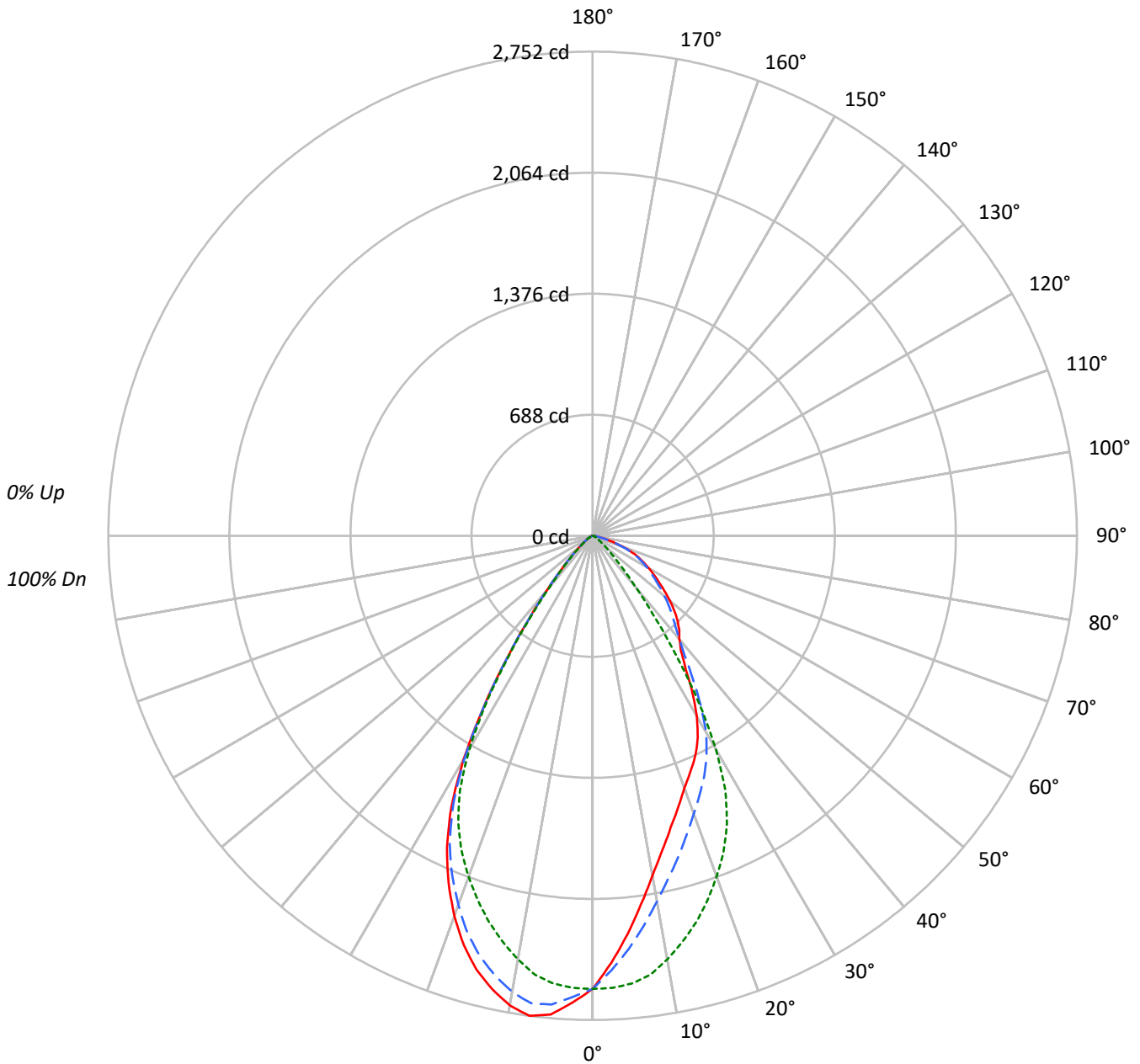
Input Watts (W): 45.4
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	168034	168034	168034
5°	148865	167307	178879
10°	129758	161901	179556
15°	115909	153530	172347
20°	105835	143056	159482
25°	99390	129998	140997
30°	89119	105587	110326
35°	73225	65356	67028
40°	65296	32141	33921
45°	62998	16026	17133
50°	58056	8516	9114
55°	52459	5107	5448
60°	48069	3523	3523
65°	43919	2779	2316
70°	35422	2289	1717
75°	21905	1512	756
80°	12361	1127	0
85°	6737	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	236.2	8.5
10°-20°	613.4	22.1
20°-30°	780.6	28.1
30°-40°	559.3	20.1
40°-50°	279.0	10.0
50°-60°	168.9	6.1
60°-70°	103.3	3.7
70°-80°	35.6	1.3
80°-90°	3.8	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°	1630.2	58.6
0°-40°	2189.5	78.8
0°-60°	2637.3	94.9
0°-90°	2780.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2780.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	2576	2576	2576	2576	2576	
5°	2273	2357	2555	2674	2731	207
15°	1716	1887	2273	2474	2552	483
25°	1381	1503	1806	1923	1959	630
35°	919	991	821	842	842	587
45°	683	638	174	192	186	522
55°	461	434	45	48	48	415
65°	284	276	18	15	15	278
75°	87	78	6	3	3	100
85°	9	6	0	0	0	13
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°	2575.6	2575.6	2575.6	2575.6	2575.6	2575.6	2575.6	2575.6	2575.6	2575.6	2575.6
2.5°	2428.9	2431.9	2437.9	2431.9	2434.9	2449.8	2443.9	2446.8	2455.8	2470.8	2461.8
5°	2273.1	2276.1	2291.1	2282.1	2288.1	2306.1	2306.1	2318.1	2336.0	2357.0	2357.0
7.5°	2111.4	2117.4	2132.4	2126.4	2135.4	2159.3	2162.3	2180.3	2204.3	2234.2	2249.2
10°	1958.7	1964.7	1979.6	1976.6	1988.6	2012.6	2024.6	2042.5	2072.5	2108.4	2126.4
12.5°	1829.9	1835.9	1847.9	1847.9	1862.8	1886.8	1898.8	1922.7	1952.7	1991.6	2015.6
15°	1716.1	1725.1	1737.1	1737.1	1752.0	1776.0	1791.0	1811.9	1844.9	1886.8	1913.8
17.5°	1617.3	1620.2	1632.2	1632.2	1647.2	1671.2	1686.1	1707.1	1740.0	1779.0	1808.9
20°	1524.4	1527.4	1539.4	1542.4	1554.4	1575.3	1590.3	1611.3	1641.2	1680.1	1707.1
22.5°	1452.5	1458.5	1467.5	1470.5	1476.5	1497.5	1515.4	1530.4	1557.4	1590.3	1617.3
25°	1380.7	1383.7	1392.6	1395.6	1404.6	1419.6	1431.6	1446.5	1470.5	1503.4	1524.4
27.5°	1293.8	1302.8	1305.8	1308.8	1317.8	1329.7	1341.7	1353.7	1374.7	1401.6	1419.6
30°	1183.0	1186.0	1195.0	1201.0	1209.9	1221.9	1236.9	1248.9	1266.8	1287.8	1299.8
32.5°	1054.2	1057.2	1066.2	1072.2	1087.2	1099.1	1111.1	1120.1	1132.1	1144.1	1144.1
35°	919.4	928.4	931.4	940.4	955.4	967.4	976.3	979.3	985.3	991.3	970.4
37.5°	823.6	829.6	835.6	841.6	853.6	862.5	868.5	868.5	865.5	859.5	832.6
40°	766.7	769.7	775.7	778.7	790.7	796.6	796.6	790.7	778.7	763.7	721.8
42.5°	727.8	730.8	733.8	736.7	742.7	745.7	742.7	730.8	715.8	694.8	646.9
45°	682.8	685.8	688.8	688.8	694.8	694.8	691.8	679.8	661.9	637.9	587.0
47.5°	628.9	631.9	634.9	637.9	640.9	640.9	637.9	625.9	608.0	587.0	533.1
50°	572.0	575.0	578.0	578.0	584.0	584.0	581.0	569.0	554.1	533.1	485.2
52.5°	515.1	518.1	518.1	524.1	524.1	524.1	521.1	509.1	497.2	482.2	437.3
55°	461.2	464.2	464.2	470.2	473.2	470.2	467.2	458.2	446.2	434.3	398.3
57.5°	413.3	416.3	416.3	419.3	422.3	419.3	416.3	410.3	404.3	392.3	362.4
60°	368.4	371.4	371.4	374.4	374.4	371.4	371.4	365.4	359.4	353.4	326.4
62.5°	326.4	326.4	326.4	329.4	329.4	326.4	326.4	320.5	317.5	314.5	293.5
65°	284.5	284.5	284.5	284.5	284.5	278.5	278.5	275.5	272.5	275.5	257.6
67.5°	236.6	236.6	233.6	233.6	233.6	227.6	227.6	227.6	224.6	227.6	212.6
70°	185.7	185.7	182.7	182.7	179.7	173.7	173.7	173.7	170.7	173.7	164.7
72.5°	131.8	134.8	128.8	128.8	125.8	119.8	122.8	119.8	122.8	122.8	116.8
75°	86.9	89.8	83.9	83.9	80.9	77.9	77.9	77.9	80.9	77.9	74.9
77.5°	53.9	56.9	53.9	53.9	50.9	47.9	47.9	47.9	47.9	47.9	44.9
80°	32.9	32.9	32.9	29.9	29.9	27.0	27.0	27.0	27.0	27.0	24.0
82.5°	18.0	18.0	18.0	18.0	18.0	15.0	15.0	15.0	15.0	15.0	12.0
85°	9.0	9.0	9.0	9.0	9.0	6.0	6.0	6.0	6.0	6.0	6.0
87.5°	3.0	3.0	3.0	3.0	3.0	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°	2575.6	2575.6	2575.6	2575.6	2575.6	2575.6	2575.6	2575.6	2575.6	2575.6	2575.6
2.5°	2488.8	2500.8	2491.8	2527.7	2521.7	2548.7	2545.7	2572.6	2569.6	2572.6	2578.6
5°	2392.9	2416.9	2419.9	2464.8	2467.8	2509.7	2518.7	2554.7	2560.7	2572.6	2587.6
7.5°	2288.1	2324.1	2336.0	2386.9	2404.9	2449.8	2467.8	2515.7	2527.7	2548.7	2566.6
10°	2174.3	2216.2	2234.2	2294.1	2318.1	2369.0	2392.9	2443.9	2461.8	2485.8	2506.7
12.5°	2066.5	2111.4	2135.4	2198.3	2231.2	2282.1	2309.1	2363.0	2381.0	2410.9	2431.9
15°	1964.7	2012.6	2039.5	2102.4	2135.4	2192.3	2219.2	2273.1	2294.1	2324.1	2345.0
17.5°	1859.8	1907.8	1937.7	1997.6	2039.5	2087.5	2117.4	2171.3	2192.3	2219.2	2240.2
20°	1758.0	1805.9	1832.9	1892.8	1931.7	1979.6	2006.6	2060.5	2075.5	2102.4	2120.4
22.5°	1662.2	1707.1	1731.1	1794.0	1826.9	1868.8	1895.8	1943.7	1961.7	1982.6	1994.6
25°	1566.3	1605.3	1623.2	1677.2	1704.1	1743.0	1764.0	1805.9	1823.9	1841.9	1856.8
27.5°	1458.5	1479.5	1485.5	1527.4	1548.4	1584.3	1593.3	1632.2	1647.2	1659.2	1671.2
30°	1323.8	1326.7	1308.8	1329.7	1338.7	1365.7	1365.7	1401.6	1413.6	1422.6	1434.6
32.5°	1153.0	1135.1	1093.1	1087.2	1081.2	1096.1	1090.1	1120.1	1132.1	1138.1	1147.1
35°	964.4	925.4	856.5	829.6	811.6	808.6	799.6	820.6	829.6	835.6	841.6
37.5°	799.6	742.7	655.9	608.0	578.0	566.0	554.1	566.0	572.0	578.0	584.0
40°	679.8	608.0	506.1	446.2	404.3	386.3	371.4	377.4	383.3	389.3	392.3
42.5°	593.0	512.1	401.3	329.4	287.5	266.5	251.6	254.6	257.6	260.6	266.5
45°	527.1	440.3	326.4	248.6	206.6	185.7	173.7	173.7	176.7	179.7	182.7
47.5°	473.2	380.4	266.5	191.7	152.7	131.8	119.8	119.8	122.8	122.8	125.8
50°	422.3	329.4	218.6	149.7	113.8	95.8	86.9	83.9	86.9	86.9	89.8
52.5°	380.4	290.5	182.7	119.8	86.9	71.9	62.9	62.9	62.9	62.9	62.9
55°	341.4	254.6	152.7	95.8	68.9	56.9	47.9	44.9	44.9	44.9	44.9
57.5°	311.5	227.6	131.8	80.9	56.9	44.9	38.9	35.9	35.9	35.9	35.9
60°	281.5	200.7	113.8	65.9	44.9	38.9	32.9	27.0	27.0	27.0	27.0
62.5°	251.6	173.7	95.8	56.9	38.9	29.9	27.0	21.0	21.0	21.0	21.0
65°	218.6	149.7	80.9	44.9	29.9	24.0	21.0	18.0	18.0	15.0	15.0
67.5°	179.7	119.8	65.9	38.9	27.0	21.0	18.0	15.0	12.0	12.0	12.0
70°	137.8	89.8	50.9	29.9	21.0	18.0	12.0	12.0	9.0	9.0	9.0
72.5°	98.8	62.9	35.9	24.0	15.0	12.0	12.0	9.0	9.0	9.0	6.0
75°	62.9	41.9	24.0	15.0	12.0	9.0	9.0	6.0	6.0	6.0	6.0
77.5°	38.9	27.0	18.0	12.0	9.0	6.0	6.0	6.0	3.0	3.0	3.0
80°	21.0	15.0	9.0	6.0	6.0	3.0	3.0	3.0	3.0	3.0	3.0
82.5°	12.0	9.0	6.0	3.0	3.0	3.0	3.0	3.0	0.0	0.0	0.0
85°	6.0	3.0	3.0	3.0	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°	2575.6	2575.6	2575.6	2575.6	2575.6	2575.6	2575.6	2575.6	2575.6	2575.6	2575.6
2.5°	2596.6	2611.6	2602.6	2608.6	2635.5	2623.5	2644.5	2644.5	2668.5	2668.5	2650.5
5°	2614.6	2632.5	2635.5	2644.5	2680.4	2674.5	2698.4	2704.4	2731.4	2737.4	2722.4
7.5°	2602.6	2623.5	2632.5	2647.5	2683.4	2680.4	2707.4	2719.4	2743.3	2752.3	2740.3
10°	2545.7	2569.6	2581.6	2596.6	2635.5	2632.5	2662.5	2677.5	2698.4	2707.4	2698.4
12.5°	2470.8	2497.8	2509.7	2524.7	2563.6	2560.7	2590.6	2605.6	2623.5	2635.5	2626.5
15°	2386.9	2404.9	2425.9	2440.9	2476.8	2473.8	2503.7	2518.7	2533.7	2548.7	2539.7
17.5°	2279.1	2297.1	2318.1	2330.0	2366.0	2366.0	2389.9	2401.9	2422.9	2434.9	2422.9
20°	2156.3	2177.3	2192.3	2201.3	2234.2	2231.2	2255.2	2267.2	2285.1	2294.1	2285.1
22.5°	2027.6	2045.5	2057.5	2063.5	2090.5	2087.5	2105.4	2117.4	2132.4	2141.4	2132.4
25°	1880.8	1892.8	1901.8	1904.8	1928.7	1922.7	1946.7	1946.7	1958.7	1967.7	1958.7
27.5°	1692.1	1701.1	1707.1	1704.1	1722.1	1713.1	1734.1	1719.1	1743.0	1749.0	1740.0
30°	1449.5	1455.5	1461.5	1449.5	1461.5	1449.5	1467.5	1446.5	1467.5	1476.5	1467.5
32.5°	1162.0	1162.0	1168.0	1153.0	1159.0	1147.1	1156.0	1150.0	1156.0	1165.0	1156.0
35°	853.6	853.6	859.5	850.6	853.6	841.6	847.6	841.6	844.6	850.6	847.6
37.5°	593.0	590.0	599.0	593.0	596.0	590.0	593.0	587.0	590.0	593.0	590.0
40°	401.3	401.3	407.3	404.3	407.3	404.3	407.3	404.3	404.3	404.3	401.3
42.5°	269.5	272.5	275.5	275.5	278.5	275.5	278.5	275.5	275.5	275.5	272.5
45°	185.7	185.7	188.7	188.7	191.7	191.7	191.7	188.7	188.7	188.7	188.7
47.5°	128.8	131.8	131.8	131.8	131.8	131.8	131.8	131.8	131.8	131.8	128.8
50°	89.8	92.8	92.8	92.8	92.8	92.8	92.8	89.8	89.8	89.8	89.8
52.5°	65.9	65.9	65.9	65.9	65.9	65.9	65.9	65.9	65.9	62.9	62.9
55°	47.9	47.9	47.9	47.9	47.9	47.9	47.9	47.9	47.9	47.9	47.9
57.5°	35.9	35.9	35.9	35.9	35.9	35.9	35.9	35.9	35.9	35.9	35.9
60°	27.0	27.0	27.0	27.0	27.0	27.0	27.0	27.0	27.0	27.0	27.0
62.5°	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0
65°	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0
67.5°	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0
70°	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0
72.5°	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
75°	6.0	6.0	6.0	6.0	6.0	3.0	3.0	3.0	3.0	3.0	3.0
77.5°	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
80°	0.0	3.0	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: P135730

CATALOG NUMBER: LD6A30D010TE ERM6A30835 6LM111H

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	2575.6	2575.6	2575.6	2575.6
2.5°	2641.5	2665.5	2656.5	2656.5
5°	2713.4	2740.3	2734.4	2731.4
7.5°	2734.4	2758.3	2752.3	2752.3
10°	2692.4	2716.4	2710.4	2710.4
12.5°	2623.5	2644.5	2641.5	2638.5
15°	2536.7	2557.7	2554.7	2551.7
17.5°	2419.9	2443.9	2440.9	2437.9
20°	2279.1	2300.1	2300.1	2297.1
22.5°	2126.4	2141.4	2144.4	2138.4
25°	1952.7	1964.7	1964.7	1958.7
27.5°	1734.1	1743.0	1743.0	1740.0
30°	1464.5	1467.5	1470.5	1464.5
32.5°	1150.0	1150.0	1156.0	1150.0
35°	838.6	838.6	844.6	841.6
37.5°	584.0	584.0	587.0	584.0
40°	398.3	398.3	401.3	398.3
42.5°	272.5	269.5	272.5	272.5
45°	185.7	185.7	188.7	185.7
47.5°	128.8	128.8	128.8	128.8
50°	89.8	89.8	89.8	89.8
52.5°	62.9	62.9	62.9	62.9
55°	44.9	47.9	47.9	47.9
57.5°	32.9	35.9	35.9	35.9
60°	27.0	27.0	27.0	27.0
62.5°	21.0	21.0	21.0	21.0
65°	15.0	15.0	15.0	15.0
67.5°	12.0	12.0	12.0	12.0
70°	9.0	9.0	9.0	9.0
72.5°	6.0	6.0	6.0	6.0
75°	3.0	3.0	3.0	3.0
77.5°	3.0	3.0	3.0	3.0
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)