

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: PORTFOLIO

Report Number: P252302

Luminaire Tested: **LE_6B50D010R EC6B30509024 6LBSW1H**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P252302
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-1712-453-7)
Test Lab: INNOVATION CENTER(G1)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: PORTFOLIO
Catalog Number: LE_6B50D010R EC6B30509024 6LBSW1H
Description: PORTFOLIO 6 INCH SINGLE WALLWASH RECESSED DOWNLIGHT, WITH HAZE TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 2400K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4462.5 lumens
Efficiency: N/A
Efficacy: 75.9 lumens/watt
Spacing Criteria (0/90/45): 1.17 / 1.18 / 1.16
Luminous Opening: Circular (Dia: 0.46' x H: 0')
CIE Type: Direct

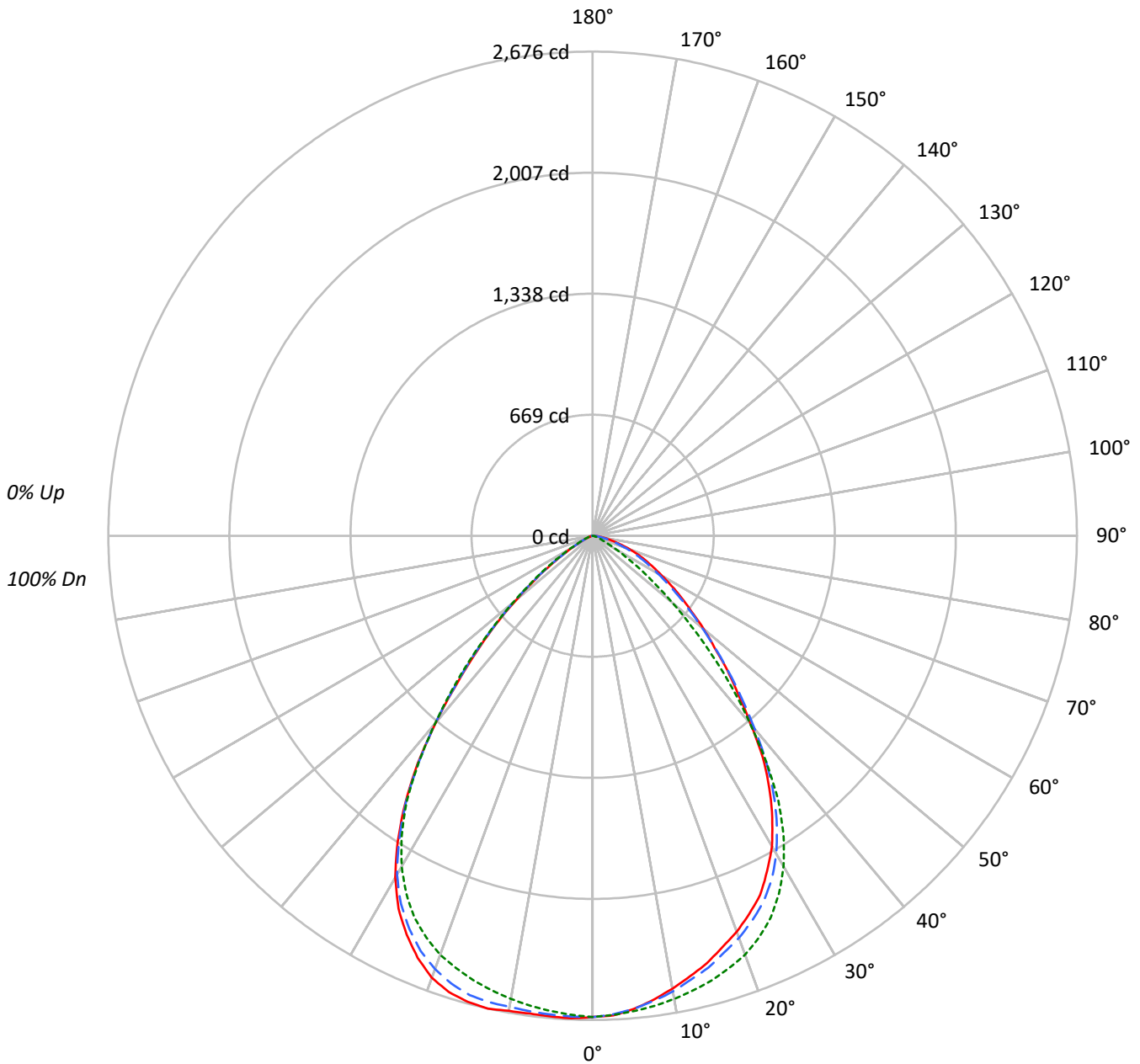
Input Watts (W): 58.8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	98	98	96	95	95	93	92	90																			
2	104	98	93	89	102	96	92	88	93	89	86	90	87	84	87	85	82	80																			
3	97	89	83	78	95	88	82	77	85	80	76	82	78	75	80	77	74	72																			
4	91	81	74	69	89	80	74	69	78	72	68	76	71	67	74	69	66	64																			
5	85	74	67	62	83	73	66	61	71	65	61	70	64	60	68	63	60	58																			
6	79	68	61	55	78	67	60	55	66	59	55	64	59	54	63	58	54	52																			
7	74	63	55	50	73	62	55	50	61	54	50	59	54	49	58	53	49	47																			
8	70	58	51	46	68	57	50	46	56	50	45	55	49	45	54	49	45	43																			
9	65	54	47	42	64	53	46	42	52	46	42	51	46	41	50	45	41	40																			
10	62	50	43	39	61	50	43	38	49	43	38	48	42	38	47	42	38	37																			

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	173534	173534	173534
5°	171885	172723	174622
10°	168340	172170	176641
15°	165127	171841	180094
20°	161697	171070	180435
25°	157712	167653	175060
30°	149318	158999	164317
35°	135602	142515	143789
40°	115732	115186	114633
45°	97228	86258	83582
50°	81187	58360	55427
55°	68337	35818	32519
60°	57855	18855	16336
65°	50094	9911	7935
70°	41679	6123	4292
75°	30778	4033	2420
80°	24120	2405	1202
85°	19313	2395	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	250.7	5.6
10°-20°	717.8	16.1
20°-30°	1059.9	23.8
30°-40°	1092.3	24.5
40°-50°	754.5	16.9
50°-60°	371.9	8.3
60°-70°	150.7	3.4
70°-80°	53.7	1.2
80°-90°	11.1	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°	2028.4	45.5
0°-40°	3120.7	69.9
0°-60°	4247.0	95.2
0°-90°	4462.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4462.5	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	2660	2660	2660	2660	2660	
5°	2625	2625	2637	2657	2666	248
15°	2445	2470	2544	2628	2666	688
25°	2191	2233	2329	2396	2432	1002
35°	1703	1744	1789	1799	1805	1055
45°	1054	1060	935	922	906	815
55°	601	578	315	296	286	543
65°	324	292	64	51	51	322
75°	122	103	16	10	10	137
85°	26	19	3	0	0	32
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	2659.9	2659.9	2659.9	2659.9	2659.9	2659.9	2659.9	2659.9	2659.9	2659.9	2659.9
2.5°	2653.5	2643.9	2650.2	2637.4	2653.5	2637.4	2640.6	2643.9	2640.6	2643.9	2647.1
5°	2624.6	2615.0	2624.6	2608.5	2624.6	2615.0	2615.0	2618.1	2618.1	2621.4	2624.6
7.5°	2586.0	2576.4	2586.0	2570.0	2589.2	2579.6	2579.6	2586.0	2582.9	2586.0	2592.5
10°	2541.1	2528.2	2537.9	2528.2	2547.5	2534.6	2541.1	2541.1	2541.1	2550.8	2557.1
12.5°	2492.9	2480.0	2492.9	2476.9	2496.1	2486.5	2489.6	2499.2	2502.5	2509.0	2512.1
15°	2444.8	2428.6	2435.0	2425.4	2444.8	2435.0	2438.2	2451.1	2451.1	2460.8	2470.4
17.5°	2383.6	2370.8	2383.6	2370.8	2386.9	2380.5	2386.9	2396.5	2396.5	2406.1	2415.8
20°	2329.0	2316.2	2325.9	2316.2	2335.5	2325.9	2329.0	2341.9	2345.1	2354.8	2364.4
22.5°	2261.6	2252.0	2258.4	2248.8	2268.0	2261.6	2264.8	2277.6	2280.9	2287.2	2303.4
25°	2190.9	2171.6	2181.2	2174.9	2194.1	2184.5	2190.9	2203.8	2210.1	2219.9	2232.6
27.5°	2088.1	2078.5	2084.9	2084.9	2101.0	2091.4	2094.5	2107.4	2117.0	2126.6	2142.8
30°	1982.1	1966.0	1972.5	1975.6	1988.5	1982.1	1988.5	2001.4	2004.6	2017.4	2030.2
32.5°	1847.1	1840.8	1853.6	1847.1	1853.6	1853.6	1856.8	1866.5	1872.9	1879.2	1895.4
35°	1702.6	1689.8	1702.6	1696.1	1712.2	1702.6	1712.2	1721.9	1721.9	1734.8	1744.4
37.5°	1545.2	1529.1	1535.5	1535.5	1542.0	1538.8	1538.8	1554.9	1558.0	1567.6	1577.4
40°	1358.9	1352.5	1365.2	1362.1	1365.2	1365.2	1368.5	1378.1	1384.6	1387.8	1391.0
42.5°	1191.9	1195.0	1198.2	1198.2	1198.2	1198.2	1198.2	1211.1	1207.9	1217.5	1220.8
45°	1053.8	1040.9	1047.2	1044.0	1053.8	1044.0	1053.8	1063.4	1056.9	1066.5	1060.1
47.5°	912.4	912.4	912.4	909.1	915.5	912.4	918.8	922.0	922.0	922.0	918.8
50°	799.9	790.2	793.5	793.5	796.8	793.5	799.9	803.1	803.1	796.8	783.9
52.5°	690.6	687.5	687.5	693.9	693.9	690.6	690.6	690.6	690.6	681.0	674.6
55°	600.8	594.2	597.5	597.5	597.5	597.5	600.8	597.5	597.5	587.9	578.2
57.5°	520.4	514.0	514.0	514.0	517.2	514.0	514.0	514.0	510.8	501.1	488.2
60°	443.4	440.1	443.4	443.4	446.5	443.4	443.4	443.4	436.9	427.2	414.4
62.5°	379.1	379.1	379.1	382.2	382.2	379.1	379.1	375.9	372.6	359.8	347.0
65°	324.5	321.2	324.5	324.5	327.6	327.6	324.5	321.2	318.0	305.1	292.4
67.5°	269.9	266.6	269.9	269.9	273.0	269.9	269.9	269.9	260.2	253.8	240.9
70°	218.5	215.2	215.2	215.2	218.5	212.0	215.2	215.2	208.8	199.1	186.4
72.5°	167.0	167.0	167.0	167.0	167.0	167.0	163.9	163.9	157.4	147.8	141.4
75°	122.1	122.1	125.2	125.2	122.1	122.1	122.1	118.9	115.6	109.2	102.8
77.5°	90.0	90.0	90.0	90.0	86.8	86.8	86.8	83.5	80.2	77.1	70.6
80°	64.2	64.2	64.2	61.0	64.2	61.0	61.0	61.0	54.6	51.4	48.1
82.5°	45.0	41.8	41.8	41.8	41.8	41.8	41.8	38.5	38.5	35.4	32.1
85°	25.8	25.8	25.8	25.8	25.8	25.8	25.8	25.8	22.5	19.2	19.2
87.5°	12.9	16.0	16.0	16.0	16.0	16.0	16.0	12.9	12.9	12.9	9.6
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):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	2659.9	2659.9	2659.9	2659.9	2659.9	2659.9	2659.9	2659.9	2659.9	2659.9	2659.9
2.5°	2647.1	2647.1	2653.5	2643.9	2659.9	2650.2	2647.1	2663.1	2653.5	2650.2	2656.8
5°	2624.6	2627.8	2631.0	2624.6	2640.6	2631.0	2631.0	2647.1	2640.6	2637.4	2647.1
7.5°	2595.6	2598.9	2605.4	2602.1	2615.0	2608.5	2611.8	2627.8	2621.4	2621.4	2631.0
10°	2560.4	2566.8	2573.2	2573.2	2589.2	2582.9	2582.9	2602.1	2595.6	2598.9	2611.8
12.5°	2518.6	2528.2	2537.9	2541.1	2557.1	2547.5	2550.8	2573.2	2570.0	2573.2	2586.0
15°	2473.6	2486.5	2496.1	2496.1	2515.4	2505.8	2515.4	2537.9	2531.4	2544.2	2560.4
17.5°	2422.2	2435.0	2447.9	2451.1	2470.4	2464.0	2476.9	2499.2	2499.2	2505.8	2525.0
20°	2374.0	2390.1	2396.5	2406.1	2425.4	2422.2	2428.6	2454.4	2454.4	2464.0	2483.2
22.5°	2309.8	2325.9	2338.6	2348.4	2364.4	2364.4	2374.0	2396.5	2396.5	2402.9	2422.2
25°	2239.1	2258.4	2268.0	2277.6	2293.8	2290.5	2300.1	2319.4	2322.6	2329.0	2348.4
27.5°	2149.1	2165.2	2178.0	2184.5	2207.0	2194.1	2203.8	2226.2	2223.0	2229.5	2245.5
30°	2036.8	2052.8	2065.6	2065.6	2084.9	2084.9	2094.5	2104.1	2104.1	2110.6	2123.5
32.5°	1905.0	1924.2	1924.2	1933.9	1946.8	1933.9	1946.8	1959.6	1953.1	1962.9	1972.5
35°	1754.0	1763.6	1766.9	1766.9	1776.5	1773.2	1770.1	1779.8	1773.2	1789.4	1799.0
37.5°	1570.9	1583.8	1577.4	1583.8	1580.5	1570.9	1570.9	1587.0	1574.1	1577.4	1587.0
40°	1394.2	1394.2	1391.0	1374.9	1378.1	1368.5	1365.2	1368.5	1355.6	1352.5	1365.2
42.5°	1211.1	1207.9	1198.2	1175.8	1179.0	1162.9	1150.1	1150.1	1143.6	1140.4	1143.6
45°	1047.2	1037.6	1021.6	995.9	989.5	976.6	950.9	944.5	934.9	934.9	938.0
47.5°	896.2	883.4	857.8	828.9	812.8	796.8	771.0	761.4	745.2	738.9	745.2
50°	771.0	748.5	716.4	674.6	658.5	639.2	613.6	597.5	581.5	575.0	571.9
52.5°	655.4	623.2	591.1	539.8	526.9	507.6	472.2	456.1	440.1	427.2	427.2
55°	555.8	526.9	481.9	433.6	414.4	395.1	359.8	337.2	321.2	314.9	308.4
57.5°	465.8	433.6	391.9	340.5	321.2	302.0	266.6	244.1	228.1	218.5	212.0
60°	391.9	356.6	314.9	269.9	247.4	228.1	192.8	170.2	154.2	144.5	138.1
62.5°	321.2	292.4	250.6	208.8	189.5	170.2	141.4	118.9	102.8	96.4	86.8
65°	269.9	240.9	202.4	167.0	151.0	131.8	106.0	86.8	73.9	64.2	57.9
67.5°	218.5	196.0	163.9	131.8	115.6	102.8	80.2	64.2	51.4	45.0	41.8
70°	173.5	151.0	125.2	99.6	90.0	77.1	61.0	45.0	38.5	32.1	28.9
72.5°	128.5	112.4	93.1	73.9	64.2	57.9	41.8	35.4	25.8	22.5	19.2
75°	93.1	80.2	67.5	51.4	45.0	41.8	32.1	22.5	19.2	16.0	12.9
77.5°	64.2	57.9	45.0	35.4	32.1	28.9	22.5	16.0	12.9	9.6	9.6
80°	41.8	35.4	28.9	22.5	22.5	19.2	12.9	9.6	9.6	6.4	6.4
82.5°	25.8	22.5	19.2	16.0	12.9	12.9	9.6	6.4	6.4	3.2	3.2
85°	16.0	12.9	9.6	9.6	6.4	6.4	6.4	3.2	3.2	3.2	3.2
87.5°	6.4	6.4	6.4	3.2	3.2	3.2	3.2	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):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	2659.9	2659.9	2659.9	2659.9	2659.9	2659.9	2659.9	2659.9	2659.9	2659.9	2659.9
2.5°	2656.8	2656.8	2663.1	2653.5	2659.9	2659.9	2666.4	2653.5	2659.9	2663.1	2669.5
5°	2643.9	2647.1	2653.5	2650.2	2653.5	2653.5	2659.9	2643.9	2656.8	2656.8	2666.4
7.5°	2631.0	2631.0	2637.4	2634.2	2640.6	2643.9	2650.2	2637.4	2650.2	2650.2	2659.9
10°	2615.0	2615.0	2624.6	2621.4	2631.0	2634.2	2643.9	2631.0	2643.9	2647.1	2656.8
12.5°	2592.5	2595.6	2605.4	2605.4	2615.0	2621.4	2631.0	2624.6	2640.6	2643.9	2656.8
15°	2566.8	2573.2	2586.0	2582.9	2592.5	2602.1	2615.0	2605.4	2627.8	2634.2	2647.1
17.5°	2534.6	2541.1	2550.8	2550.8	2560.4	2566.8	2582.9	2576.4	2595.6	2598.9	2615.0
20°	2486.5	2496.1	2509.0	2505.8	2515.4	2521.8	2534.6	2528.2	2547.5	2553.9	2570.0
22.5°	2428.6	2435.0	2444.8	2444.8	2454.4	2460.8	2473.6	2464.0	2483.2	2486.5	2499.2
25°	2351.5	2358.0	2364.4	2367.6	2377.2	2380.5	2386.9	2380.5	2396.5	2399.8	2415.8
27.5°	2252.0	2255.1	2264.8	2264.8	2271.2	2274.4	2284.1	2271.2	2293.8	2293.8	2303.4
30°	2133.1	2129.9	2142.8	2136.2	2142.8	2142.8	2152.4	2145.9	2162.0	2155.6	2165.2
32.5°	1975.6	1982.1	1982.1	1975.6	1988.5	1985.2	1985.2	1978.9	1988.5	1991.8	1998.1
35°	1792.5	1802.2	1802.2	1805.4	1808.6	1799.0	1802.2	1782.9	1799.0	1802.2	1805.4
37.5°	1593.4	1583.8	1590.1	1580.5	1596.6	1577.4	1577.4	1564.5	1577.4	1577.4	1580.5
40°	1365.2	1362.1	1368.5	1362.1	1358.9	1355.6	1349.2	1339.6	1352.5	1346.0	1355.6
42.5°	1150.1	1146.9	1146.9	1140.4	1137.2	1137.2	1130.8	1124.4	1121.1	1121.1	1137.2
45°	928.4	934.9	928.4	925.2	931.6	925.2	928.4	915.5	922.0	915.5	922.0
47.5°	742.1	745.2	738.9	732.5	742.1	732.5	732.5	722.8	735.6	735.6	729.2
50°	575.0	571.9	565.4	571.9	568.6	568.6	568.6	559.0	565.4	555.8	562.1
52.5°	424.0	420.9	420.9	417.6	420.9	417.6	417.6	414.4	414.4	411.2	414.4
55°	308.4	305.1	298.8	298.8	298.8	302.0	298.8	295.5	295.5	292.4	295.5
57.5°	208.8	202.4	202.4	202.4	202.4	199.1	199.1	196.0	199.1	196.0	199.1
60°	134.9	134.9	128.5	128.5	128.5	128.5	128.5	125.2	128.5	128.5	128.5
62.5°	83.5	83.5	80.2	77.1	80.2	77.1	77.1	77.1	80.2	77.1	80.2
65°	54.6	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4
67.5°	38.5	35.4	35.4	35.4	35.4	35.4	35.4	32.1	35.4	35.4	35.4
70°	25.8	25.8	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
72.5°	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0
75°	12.9	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6
77.5°	9.6	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4
80°	6.4	6.4	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
82.5°	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
85°	3.2	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	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
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: P252302

CATALOG NUMBER: LE_6B50D010R EC6B30509024 6LBSW1H

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	2659.9	2659.9	2659.9	2659.9	2659.9	2659.9	2659.9	2659.9
2.5°	2659.9	2663.1	2656.8	2659.9	2653.5	2659.9	2663.1	2669.5
5°	2653.5	2656.8	2650.2	2656.8	2650.2	2656.8	2659.9	2666.4
7.5°	2647.1	2653.5	2647.1	2653.5	2647.1	2653.5	2656.8	2663.1
10°	2647.1	2656.8	2650.2	2659.9	2650.2	2656.8	2663.1	2666.4
12.5°	2647.1	2656.8	2653.5	2659.9	2656.8	2663.1	2669.5	2676.0
15°	2640.6	2650.2	2643.9	2653.5	2650.2	2653.5	2666.4	2666.4
17.5°	2605.4	2615.0	2615.0	2621.4	2621.4	2631.0	2637.4	2643.9
20°	2560.4	2570.0	2566.8	2576.4	2576.4	2586.0	2592.5	2598.9
22.5°	2492.9	2505.8	2502.5	2512.1	2509.0	2515.4	2528.2	2525.0
25°	2406.1	2422.2	2419.0	2425.4	2422.2	2422.2	2428.6	2431.9
27.5°	2300.1	2309.8	2306.5	2313.0	2306.5	2313.0	2319.4	2322.6
30°	2162.0	2168.4	2165.2	2168.4	2165.2	2171.6	2174.9	2181.2
32.5°	1995.0	2004.6	1995.0	2001.4	1998.1	1998.1	2011.0	2004.6
35°	1795.8	1799.0	1802.2	1802.2	1795.8	1799.0	1805.4	1805.4
37.5°	1574.1	1590.1	1570.9	1580.5	1577.4	1577.4	1577.4	1587.0
40°	1342.8	1346.0	1339.6	1339.6	1339.6	1336.4	1349.2	1346.0
42.5°	1124.4	1127.6	1124.4	1114.8	1118.0	1118.0	1127.6	1114.8
45°	912.4	918.8	915.5	915.5	909.1	909.1	912.4	905.9
47.5°	722.8	729.2	719.6	722.8	716.4	722.8	719.6	726.0
50°	549.4	555.8	552.5	555.8	555.8	549.4	559.0	546.1
52.5°	411.2	414.4	411.2	408.0	404.8	404.8	411.2	408.0
55°	292.4	289.1	289.1	289.1	292.4	292.4	289.1	285.9
57.5°	196.0	196.0	192.8	192.8	196.0	189.5	192.8	189.5
60°	125.2	125.2	125.2	125.2	122.1	125.2	125.2	125.2
62.5°	77.1	77.1	77.1	77.1	77.1	77.1	77.1	77.1
65°	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4
67.5°	32.1	35.4	35.4	35.4	32.1	32.1	32.1	32.1
70°	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
72.5°	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0
75°	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6
77.5°	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4
80°	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
82.5°	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	3.2	3.2	3.2	3.2	3.2	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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













(END OF REPORT)