

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: P252322

Luminaire Tested: **LE\_6B60D010R EC6B60709730 6LBSW1H**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P252322  
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\_6B60D010R EC6B60709730 6LBSW1H  
Description: PORTFOLIO 6 INCH SINGLE WALLWASH RECESSED DOWNLIGHT, WITH HAZE TRIM  
Light Source: (1) HIGH LUMEN LED 97CRI / 3000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5150.1 lumens  
Efficiency: N/A  
Efficacy: 82.4 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

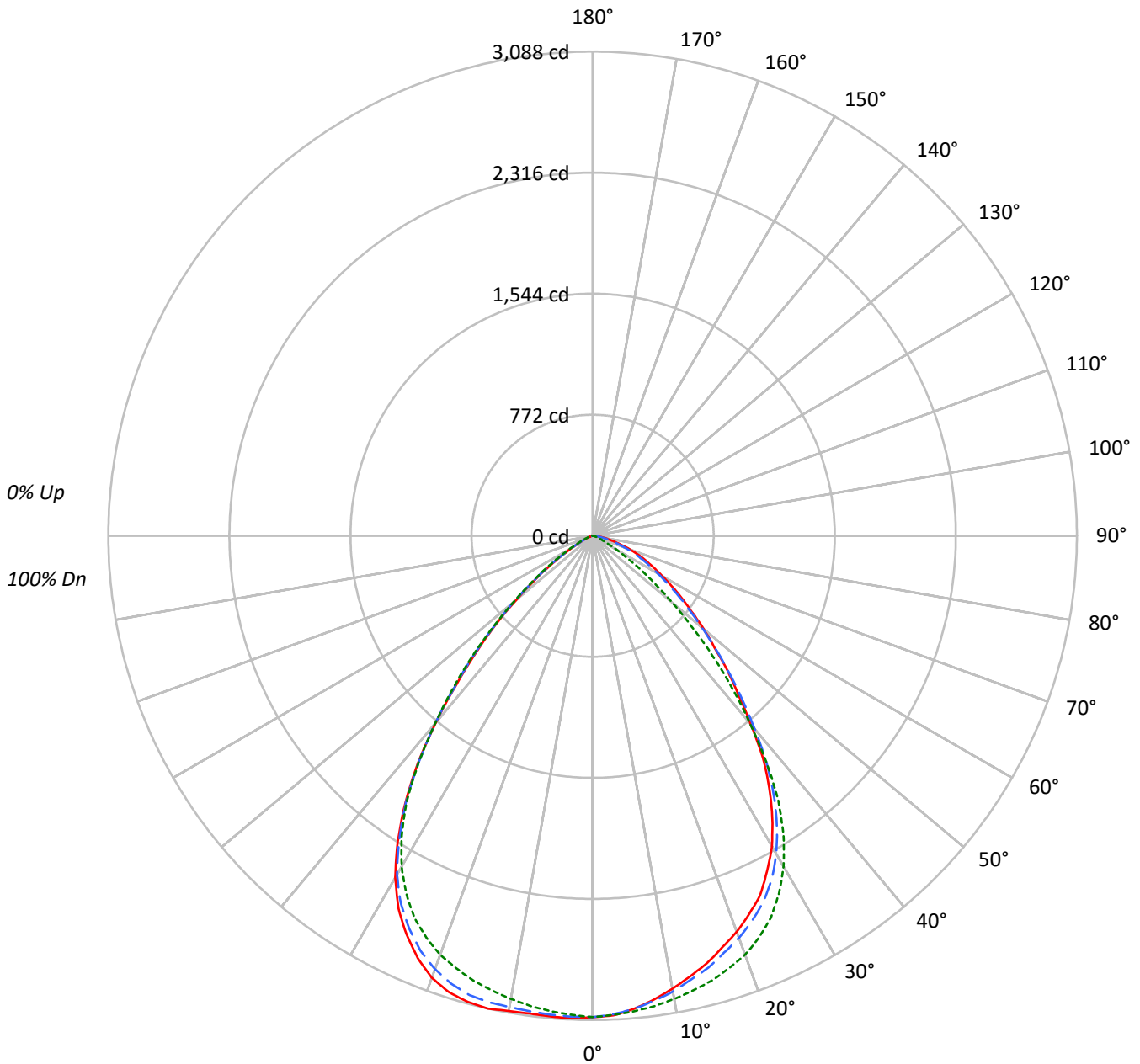
Input Watts (W): 62.5  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P252322

CATALOG NUMBER: LE\_6B60D010R EC6B60709730 6LBSW1H

### Luminous Intensity Polar Plot





TEST NUMBER: P252322

CATALOG NUMBER: LE\_6B60D010R EC6B60709730 6LBSW1H

**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°	200276	200276	200276
5°	198362	199338	201519
10°	194270	198688	203849
15°	190563	198317	207834
20°	186615	197424	208227
25°	182014	193489	202026
30°	172325	183497	189644
35°	156493	164465	165938
40°	133557	132926	132296
45°	112193	99544	96462
50°	93691	67353	63963
55°	78847	41334	37535
60°	66754	21777	18868
65°	57812	11439	9170
70°	48088	7077	4960
75°	35517	4663	2798
80°	27840	2780	1428
85°	22157	2844	0



TEST NUMBER: P252322

CATALOG NUMBER: LE\_6B60D010R EC6B60709730 6LBSW1H

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	289.3	5.6
10°-20°	828.4	16.1
20°-30°	1223.2	23.8
30°-40°	1260.6	24.5
40°-50°	870.7	16.9
50°-60°	429.2	8.3
60°-70°	173.9	3.4
70°-80°	62.0	1.2
80°-90°	12.8	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°	2340.9	45.5
0°-40°	3601.5	69.9
0°-60°	4901.3	95.2
0°-90°	5150.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5150.1	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	3070	3070	3070	3070	3070	
5°	3029	3029	3044	3066	3077	286
15°	2821	2851	2936	3033	3077	794
25°	2528	2577	2688	2766	2806	1156
35°	1965	2013	2065	2076	2084	1218
45°	1216	1224	1079	1064	1046	940
55°	693	667	363	341	330	626
65°	374	337	74	59	59	372
75°	141	119	18	11	11	158
85°	30	22	4	0	0	36
90°	0	0	0	0	0	



TEST NUMBER: P252322

CATALOG NUMBER: LE\_6B60D010R EC6B60709730 6LBSW1H

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	3069.8	3069.8	3069.8	3069.8	3069.8	3069.8	3069.8	3069.8	3069.8	3069.8	3069.8
2.5°	3062.2	3051.1	3058.6	3043.8	3062.2	3043.8	3047.5	3051.1	3047.5	3051.1	3054.9
5°	3028.9	3017.9	3028.9	3010.4	3028.9	3017.9	3017.9	3021.5	3021.5	3025.2	3028.9
7.5°	2984.5	2973.4	2984.5	2965.9	2988.1	2977.0	2977.0	2984.5	2980.8	2984.5	2991.9
10°	2932.5	2917.8	2928.9	2917.8	2940.0	2925.1	2932.5	2932.5	2932.5	2943.6	2951.1
12.5°	2876.9	2862.1	2876.9	2858.4	2880.6	2869.5	2873.2	2884.4	2888.0	2895.5	2899.1
15°	2821.4	2802.8	2810.2	2799.1	2821.4	2810.2	2813.9	2828.8	2828.8	2839.9	2851.0
17.5°	2750.9	2736.0	2750.9	2736.0	2754.6	2747.1	2754.6	2765.8	2765.8	2776.9	2788.0
20°	2687.9	2673.0	2684.1	2673.0	2695.2	2684.1	2687.9	2702.6	2706.4	2717.5	2728.6
22.5°	2610.0	2598.9	2606.2	2595.1	2617.4	2610.0	2613.8	2628.5	2632.2	2639.6	2658.2
25°	2528.5	2506.2	2517.4	2509.9	2532.1	2521.0	2528.5	2543.2	2550.6	2561.8	2576.6
27.5°	2409.8	2398.6	2406.1	2406.1	2424.6	2413.5	2417.2	2432.0	2443.1	2454.2	2472.9
30°	2287.5	2268.9	2276.4	2280.0	2294.9	2287.5	2294.9	2309.8	2313.4	2328.2	2343.1
32.5°	2131.8	2124.4	2139.1	2131.8	2139.1	2139.1	2142.9	2154.0	2161.4	2168.9	2187.4
35°	1964.9	1950.1	1964.9	1957.5	1976.0	1964.9	1976.0	1987.1	1987.1	2002.0	2013.1
37.5°	1783.2	1764.8	1772.1	1772.1	1779.5	1775.9	1775.9	1794.4	1798.1	1809.2	1820.4
40°	1568.2	1560.8	1575.6	1571.9	1575.6	1575.6	1579.4	1590.5	1597.9	1601.6	1605.2
42.5°	1375.5	1379.1	1382.9	1382.9	1382.9	1382.9	1382.9	1397.6	1394.0	1405.1	1408.8
45°	1216.0	1201.2	1208.6	1204.9	1216.0	1204.9	1216.0	1227.1	1219.8	1230.9	1223.5
47.5°	1052.9	1052.9	1052.9	1049.2	1056.6	1052.9	1060.4	1064.0	1064.0	1064.0	1060.4
50°	923.1	912.0	915.8	915.8	919.4	915.8	923.1	926.9	926.9	919.4	904.6
52.5°	797.1	793.4	793.4	800.8	800.8	797.1	797.1	797.1	797.1	786.0	778.5
55°	693.2	685.9	689.6	689.6	689.6	689.6	693.2	689.6	689.6	678.5	667.4
57.5°	600.6	593.1	593.1	593.1	596.9	593.1	593.1	593.1	589.5	578.4	563.5
60°	511.6	507.9	511.6	511.6	515.4	511.6	511.6	511.6	504.2	493.1	478.2
62.5°	437.5	437.5	437.5	441.1	441.1	437.5	437.5	433.8	430.0	415.2	400.4
65°	374.5	370.8	374.5	374.5	378.1	378.1	374.5	370.8	367.0	352.2	337.4
67.5°	311.4	307.8	311.4	311.4	315.1	311.4	311.4	311.4	300.2	292.9	278.0
70°	252.1	248.4	248.4	248.4	252.1	244.8	248.4	248.4	241.0	229.9	215.0
72.5°	192.8	192.8	192.8	192.8	192.8	192.8	189.1	189.1	181.6	170.5	163.1
75°	140.9	140.9	144.6	144.6	140.9	140.9	140.9	137.1	133.5	126.0	118.6
77.5°	103.8	103.8	103.8	103.8	100.1	100.1	100.1	96.4	92.6	89.0	81.6
80°	74.1	74.1	74.1	70.5	74.1	70.5	70.5	70.5	63.0	59.4	55.6
82.5°	51.9	48.2	48.2	48.2	48.2	48.2	48.2	44.5	44.5	40.8	37.1
85°	29.6	29.6	29.6	29.6	29.6	29.6	29.6	29.6	26.0	22.2	22.2
87.5°	14.9	18.5	18.5	18.5	18.5	18.5	18.5	14.9	14.9	14.9	11.1
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: P252322

CATALOG NUMBER: LE\_6B60D010R EC6B60709730 6LBSW1H

**CANDELA DISTRIBUTION (continued):**

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	3069.8	3069.8	3069.8	3069.8	3069.8	3069.8	3069.8	3069.8	3069.8	3069.8	3069.8
2.5°	3054.9	3054.9	3062.2	3051.1	3069.8	3058.6	3054.9	3073.4	3062.2	3058.6	3066.0
5°	3028.9	3032.6	3036.4	3028.9	3047.5	3036.4	3036.4	3054.9	3047.5	3043.8	3054.9
7.5°	2995.6	2999.2	3006.8	3003.0	3017.9	3010.4	3014.1	3032.6	3025.2	3025.2	3036.4
10°	2954.8	2962.2	2969.6	2969.6	2988.1	2980.8	2980.8	3003.0	2995.6	2999.2	3014.1
12.5°	2906.6	2917.8	2928.9	2932.5	2951.1	2940.0	2943.6	2969.6	2965.9	2969.6	2984.5
15°	2854.8	2869.5	2880.6	2880.6	2902.9	2891.8	2902.9	2928.9	2921.4	2936.2	2954.8
17.5°	2795.4	2810.2	2825.0	2828.8	2851.0	2843.6	2858.4	2884.4	2884.4	2891.8	2914.0
20°	2739.8	2758.2	2765.8	2776.9	2799.1	2795.4	2802.8	2832.5	2832.5	2843.6	2865.8
22.5°	2665.6	2684.1	2699.0	2710.1	2728.6	2728.6	2739.8	2765.8	2765.8	2773.1	2795.4
25°	2584.0	2606.2	2617.4	2628.5	2647.1	2643.4	2654.5	2676.8	2680.5	2687.9	2710.1
27.5°	2480.2	2498.8	2513.6	2521.0	2547.0	2532.1	2543.2	2569.2	2565.5	2572.9	2591.5
30°	2350.5	2369.0	2383.9	2383.9	2406.1	2406.1	2417.2	2428.4	2428.4	2435.8	2450.6
32.5°	2198.5	2220.8	2220.8	2231.9	2246.6	2231.9	2246.6	2261.5	2254.1	2265.2	2276.4
35°	2024.2	2035.4	2039.1	2039.1	2050.1	2046.5	2042.8	2053.9	2046.5	2065.0	2076.1
37.5°	1812.9	1827.8	1820.4	1827.8	1824.0	1812.9	1812.9	1831.5	1816.6	1820.4	1831.5
40°	1609.0	1609.0	1605.2	1586.8	1590.5	1579.4	1575.6	1579.4	1564.5	1560.8	1575.6
42.5°	1397.6	1394.0	1382.9	1356.9	1360.6	1342.1	1327.2	1327.2	1319.9	1316.1	1319.9
45°	1208.6	1197.5	1179.0	1149.2	1141.9	1127.0	1097.4	1090.0	1078.9	1078.9	1082.5
47.5°	1034.4	1019.5	989.9	956.5	938.0	919.4	889.8	878.6	860.1	852.8	860.1
50°	889.8	863.9	826.8	778.5	760.0	737.8	708.1	689.6	671.0	663.6	659.9
52.5°	756.2	719.2	682.1	622.9	608.0	585.8	545.0	526.5	507.9	493.1	493.1
55°	641.4	608.0	556.1	500.5	478.2	456.0	415.2	389.2	370.8	363.4	355.9
57.5°	537.6	500.5	452.2	393.0	370.8	348.5	307.8	281.8	263.2	252.1	244.8
60°	452.2	411.5	363.4	311.4	285.5	263.2	222.5	196.5	178.0	166.9	159.4
62.5°	370.8	337.4	289.1	241.0	218.8	196.5	163.1	137.1	118.6	111.2	100.1
65°	311.4	278.0	233.6	192.8	174.2	152.0	122.4	100.1	85.2	74.1	66.8
67.5°	252.1	226.1	189.1	152.0	133.5	118.6	92.6	74.1	59.4	51.9	48.2
70°	200.2	174.2	144.6	114.9	103.8	89.0	70.5	51.9	44.5	37.1	33.4
72.5°	148.2	129.8	107.5	85.2	74.1	66.8	48.2	40.8	29.6	26.0	22.2
75°	107.5	92.6	77.9	59.4	51.9	48.2	37.1	26.0	22.2	18.5	14.9
77.5°	74.1	66.8	51.9	40.8	37.1	33.4	26.0	18.5	14.9	11.1	11.1
80°	48.2	40.8	33.4	26.0	26.0	22.2	14.9	11.1	11.1	7.4	7.4
82.5°	29.6	26.0	22.2	18.5	14.9	14.9	11.1	7.4	7.4	3.8	3.8
85°	18.5	14.9	11.1	11.1	7.4	7.4	7.4	3.8	3.8	3.8	3.8
87.5°	7.4	7.4	7.4	3.8	3.8	3.8	3.8	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: P252322

CATALOG NUMBER: LE\_6B60D010R EC6B60709730 6LBSW1H

**CANDELA DISTRIBUTION (continued):**

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	3069.8	3069.8	3069.8	3069.8	3069.8	3069.8	3069.8	3069.8	3069.8	3069.8	3069.8
2.5°	3066.0	3066.0	3073.4	3062.2	3069.8	3069.8	3077.1	3062.2	3069.8	3073.4	3080.9
5°	3051.1	3054.9	3062.2	3058.6	3062.2	3062.2	3069.8	3051.1	3066.0	3066.0	3077.1
7.5°	3036.4	3036.4	3043.8	3040.0	3047.5	3051.1	3058.6	3043.8	3058.6	3058.6	3069.8
10°	3017.9	3017.9	3028.9	3025.2	3036.4	3040.0	3051.1	3036.4	3051.1	3054.9	3066.0
12.5°	2991.9	2995.6	3006.8	3006.8	3017.9	3025.2	3036.4	3028.9	3047.5	3051.1	3066.0
15°	2962.2	2969.6	2984.5	2980.8	2991.9	3003.0	3017.9	3006.8	3032.6	3040.0	3054.9
17.5°	2925.1	2932.5	2943.6	2943.6	2954.8	2962.2	2980.8	2973.4	2995.6	2999.2	3017.9
20°	2869.5	2880.6	2895.5	2891.8	2902.9	2910.2	2925.1	2917.8	2940.0	2947.4	2965.9
22.5°	2802.8	2810.2	2821.4	2821.4	2832.5	2839.9	2854.8	2843.6	2865.8	2869.5	2884.4
25°	2713.8	2721.2	2728.6	2732.4	2743.5	2747.1	2754.6	2747.1	2765.8	2769.4	2788.0
27.5°	2598.9	2602.6	2613.8	2613.8	2621.1	2624.9	2636.0	2621.1	2647.1	2647.1	2658.2
30°	2461.8	2458.0	2472.9	2465.4	2472.9	2472.9	2484.0	2476.5	2495.1	2487.6	2498.8
32.5°	2280.0	2287.5	2287.5	2280.0	2294.9	2291.1	2291.1	2283.8	2294.9	2298.6	2306.0
35°	2068.8	2079.9	2079.9	2083.5	2087.2	2076.1	2079.9	2057.6	2076.1	2079.9	2083.5
37.5°	1838.9	1827.8	1835.1	1824.0	1842.6	1820.4	1820.4	1805.5	1820.4	1820.4	1824.0
40°	1575.6	1571.9	1579.4	1571.9	1568.2	1564.5	1557.1	1546.0	1560.8	1553.4	1564.5
42.5°	1327.2	1323.5	1323.5	1316.1	1312.4	1312.4	1305.0	1297.6	1293.9	1293.9	1312.4
45°	1071.4	1078.9	1071.4	1067.8	1075.1	1067.8	1071.4	1056.6	1064.0	1056.6	1064.0
47.5°	856.4	860.1	852.8	845.2	856.4	845.2	845.2	834.1	849.0	849.0	841.6
50°	663.6	659.9	652.5	659.9	656.2	656.2	656.2	645.1	652.5	641.4	648.8
52.5°	489.4	485.6	485.6	482.0	485.6	482.0	482.0	478.2	478.2	474.5	478.2
55°	355.9	352.2	344.8	344.8	344.8	348.5	344.8	341.1	341.1	337.4	341.1
57.5°	241.0	233.6	233.6	233.6	233.6	229.9	229.9	226.1	229.9	226.1	229.9
60°	155.8	155.8	148.2	148.2	148.2	148.2	148.2	144.6	148.2	148.2	148.2
62.5°	96.4	96.4	92.6	89.0	92.6	89.0	89.0	89.0	92.6	89.0	92.6
65°	63.0	59.4	59.4	59.4	59.4	59.4	59.4	59.4	59.4	59.4	59.4
67.5°	44.5	40.8	40.8	40.8	40.8	40.8	40.8	37.1	40.8	40.8	40.8
70°	29.6	29.6	26.0	26.0	26.0	26.0	26.0	26.0	26.0	26.0	26.0
72.5°	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5
75°	14.9	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.1
77.5°	11.1	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4
80°	7.4	7.4	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8
82.5°	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8
85°	3.8	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	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8
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: P252322

CATALOG NUMBER: LE\_6B60D010R EC6B60709730 6LBSW1H

**CANDELA DISTRIBUTION (continued):**

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	3069.8	3069.8	3069.8	3069.8	3069.8	3069.8	3069.8	3069.8
2.5°	3069.8	3073.4	3066.0	3069.8	3062.2	3069.8	3073.4	3080.9
5°	3062.2	3066.0	3058.6	3066.0	3058.6	3066.0	3069.8	3077.1
7.5°	3054.9	3062.2	3054.9	3062.2	3054.9	3062.2	3066.0	3073.4
10°	3054.9	3066.0	3058.6	3069.8	3058.6	3066.0	3073.4	3077.1
12.5°	3054.9	3066.0	3062.2	3069.8	3066.0	3073.4	3080.9	3088.2
15°	3047.5	3058.6	3051.1	3062.2	3058.6	3062.2	3077.1	3077.1
17.5°	3006.8	3017.9	3017.9	3025.2	3025.2	3036.4	3043.8	3051.1
20°	2954.8	2965.9	2962.2	2973.4	2973.4	2984.5	2991.9	2999.2
22.5°	2876.9	2891.8	2888.0	2899.1	2895.5	2902.9	2917.8	2914.0
25°	2776.9	2795.4	2791.6	2799.1	2795.4	2795.4	2802.8	2806.5
27.5°	2654.5	2665.6	2661.9	2669.4	2661.9	2669.4	2676.8	2680.5
30°	2495.1	2502.5	2498.8	2502.5	2498.8	2506.2	2509.9	2517.4
32.5°	2302.2	2313.4	2302.2	2309.8	2306.0	2306.0	2320.9	2313.4
35°	2072.4	2076.1	2079.9	2079.9	2072.4	2076.1	2083.5	2083.5
37.5°	1816.6	1835.1	1812.9	1824.0	1820.4	1820.4	1820.4	1831.5
40°	1549.8	1553.4	1546.0	1546.0	1546.0	1542.2	1557.1	1553.4
42.5°	1297.6	1301.2	1297.6	1286.5	1290.1	1290.1	1301.2	1286.5
45°	1052.9	1060.4	1056.6	1056.6	1049.2	1049.2	1052.9	1045.5
47.5°	834.1	841.6	830.5	834.1	826.8	834.1	830.5	837.9
50°	634.0	641.4	637.6	641.4	641.4	634.0	645.1	630.2
52.5°	474.5	478.2	474.5	470.9	467.1	467.1	474.5	470.9
55°	337.4	333.6	333.6	333.6	337.4	337.4	333.6	330.0
57.5°	226.1	226.1	222.5	222.5	226.1	218.8	222.5	218.8
60°	144.6	144.6	144.6	144.6	140.9	144.6	144.6	144.6
62.5°	89.0	89.0	89.0	89.0	89.0	89.0	89.0	89.0
65°	59.4	59.4	59.4	59.4	59.4	59.4	59.4	59.4
67.5°	37.1	40.8	40.8	40.8	37.1	37.1	37.1	37.1
70°	26.0	26.0	26.0	26.0	26.0	26.0	26.0	26.0
72.5°	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5
75°	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.1
77.5°	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4
80°	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8
82.5°	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	3.8	3.8	3.8	3.8	3.8	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



Report Generated By E9808895 / USPTCWHP6082093





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















(END OF REPORT)