

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: P252306

Luminaire Tested: **LE\_6B50D010R EC6B30509040 6LBSW1H**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P252306  
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 EC6B30509040 6LBSW1H  
Description: PORTFOLIO 6 INCH SINGLE WALLWASH RECESSED DOWNLIGHT, WITH HAZE TRIM  
Light Source: (1) HIGH LUMEN LED 90CRI / 4000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5358.8 lumens  
Efficiency: N/A  
Efficacy: 91.1 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

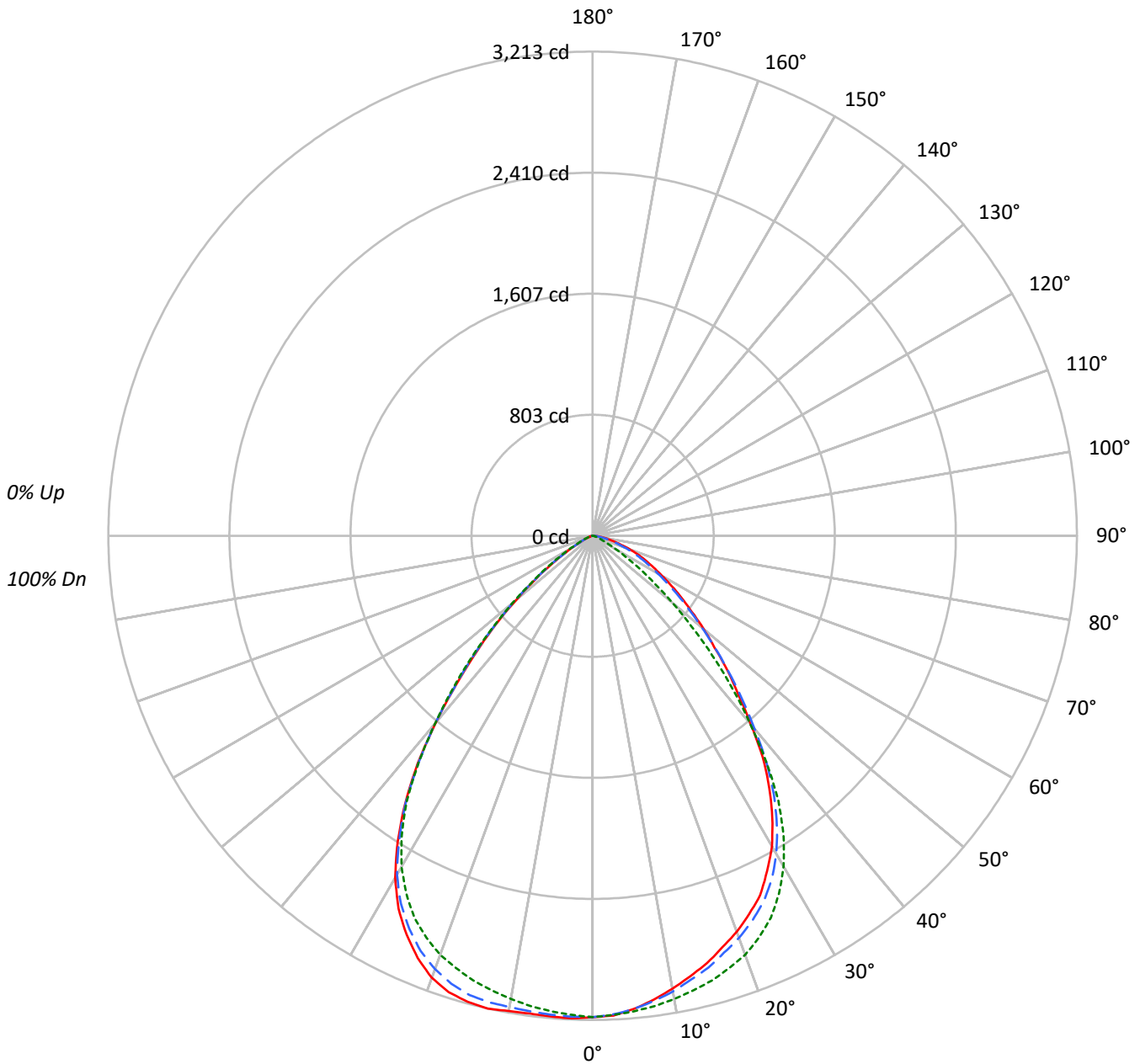
Input Watts (W): 58.8  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Luminous Intensity Polar Plot





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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20				20				20				20				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	108	105	102	109	106	103	101	102	100	98	98	96	95	95	93	92	90				90
2	104	98	93	89	102	96	92	88	93	89	86	90	87	84	87	85	82	80				80
3	97	89	83	78	95	88	82	77	85	80	76	82	78	75	80	77	74	72				72
4	91	81	74	69	89	80	74	69	78	72	68	76	71	67	74	69	66	64				64
5	85	74	67	62	83	73	66	61	71	65	61	70	64	60	68	63	60	58				58
6	79	68	61	55	78	67	60	55	66	59	55	64	59	54	63	58	54	52				52
7	74	63	55	50	73	62	55	50	61	54	50	59	54	49	58	53	49	47				47
8	70	58	51	46	68	57	50	46	56	50	45	55	49	45	54	49	45	43				43
9	65	54	47	42	64	53	46	42	52	46	42	51	46	41	50	45	41	40				40
10	62	50	43	39	61	50	43	38	49	43	38	48	42	38	47	42	38	37				37

**AVERAGE LUMINANCE (cd/sqm):**

	0°	90°	180°
0°	208385	208385	208385
5°	206411	207413	209692
10°	202146	206750	212116
15°	198276	206355	216263
20°	194175	205429	216677
25°	189386	201328	210211
30°	179301	190932	197328
35°	162832	171139	172668
40°	138973	138317	137662
45°	116751	103576	100374
50°	97487	70083	66561
55°	82055	42995	39060
60°	69468	22652	19637
65°	60144	11902	9540
70°	50053	7363	5150
75°	36954	4840	2924
80°	28967	2931	1465
85°	23130	2919	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	301.0	5.6
10°-20°	861.9	16.1
20°-30°	1272.8	23.8
30°-40°	1311.7	24.5
40°-50°	906.0	16.9
50°-60°	446.6	8.3
60°-70°	181.0	3.4
70°-80°	64.5	1.2
80°-90°	13.3	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°	2435.7	45.5
0°-40°	3747.4	69.9
0°-60°	5100.0	95.2
0°-90°	5358.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5358.8	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	3194	3194	3194	3194	3194	
5°	3152	3152	3167	3190	3202	298
15°	2936	2966	3055	3156	3202	827
25°	2631	2681	2797	2878	2920	1203
35°	2044	2095	2149	2160	2168	1267
45°	1265	1273	1123	1107	1088	978
55°	721	694	378	355	343	652
65°	390	351	77	62	62	387
75°	147	124	19	12	12	165
85°	31	23	4	0	0	38
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°	3194.1	3194.1	3194.1	3194.1	3194.1	3194.1	3194.1	3194.1	3194.1	3194.1	3194.1
2.5°	3186.4	3174.9	3182.6	3167.1	3186.4	3167.1	3171.0	3174.9	3171.0	3174.9	3178.8
5°	3151.8	3140.1	3151.8	3132.4	3151.8	3140.1	3140.1	3144.0	3144.0	3147.9	3151.8
7.5°	3105.4	3093.9	3105.4	3086.1	3109.2	3097.8	3097.8	3105.4	3101.5	3105.4	3113.1
10°	3051.4	3036.0	3047.5	3036.0	3059.1	3043.8	3051.4	3051.4	3051.4	3063.0	3070.8
12.5°	2993.5	2978.1	2993.5	2974.2	2997.4	2985.9	2989.8	3001.2	3005.1	3012.9	3016.8
15°	2935.6	2916.4	2924.1	2912.5	2935.6	2924.1	2928.0	2943.4	2943.4	2955.0	2966.5
17.5°	2862.4	2847.0	2862.4	2847.0	2866.2	2858.5	2866.2	2877.9	2877.9	2889.4	2901.0
20°	2796.8	2781.4	2793.0	2781.4	2804.5	2793.0	2796.8	2812.2	2816.1	2827.6	2839.2
22.5°	2715.8	2704.2	2711.9	2700.4	2723.5	2715.8	2719.6	2735.1	2739.0	2746.6	2766.0
25°	2630.9	2607.8	2619.4	2611.6	2634.8	2623.2	2630.9	2646.4	2654.1	2665.6	2681.1
27.5°	2507.5	2495.9	2503.6	2503.6	2522.9	2511.4	2515.2	2530.6	2542.2	2553.8	2573.0
30°	2380.1	2360.9	2368.6	2372.5	2387.9	2380.1	2387.9	2403.4	2407.1	2422.6	2438.0
32.5°	2218.1	2210.5	2225.9	2218.1	2225.9	2225.9	2229.8	2241.2	2249.0	2256.8	2276.0
35°	2044.5	2029.1	2044.5	2036.9	2056.1	2044.5	2056.1	2067.8	2067.8	2083.1	2094.8
37.5°	1855.5	1836.2	1844.0	1844.0	1851.6	1847.9	1847.9	1867.1	1871.0	1882.5	1894.1
40°	1631.8	1624.1	1639.5	1635.6	1639.5	1639.5	1643.4	1654.9	1662.6	1666.5	1670.4
42.5°	1431.2	1435.0	1438.9	1438.9	1438.9	1438.9	1438.9	1454.4	1450.5	1462.0	1465.9
45°	1265.4	1249.9	1257.6	1253.8	1265.4	1253.8	1265.4	1276.9	1269.1	1280.8	1273.0
47.5°	1095.6	1095.6	1095.6	1091.8	1099.4	1095.6	1103.2	1107.1	1107.1	1107.1	1103.2
50°	960.5	949.0	952.9	952.9	956.8	952.9	960.5	964.4	964.4	956.8	941.2
52.5°	829.4	825.5	825.5	833.2	833.2	829.4	829.4	829.4	829.4	817.9	810.1
55°	721.4	713.6	717.5	717.5	717.5	717.5	721.4	717.5	717.5	706.0	694.4
57.5°	625.0	617.2	617.2	617.2	621.1	617.2	617.2	617.2	613.4	601.8	586.4
60°	532.4	528.5	532.4	532.4	536.2	532.4	532.4	532.4	524.6	513.1	497.6
62.5°	455.2	455.2	455.2	459.0	459.0	455.2	455.2	451.4	447.5	432.0	416.6
65°	389.6	385.8	389.6	389.6	393.5	393.5	389.6	385.8	381.9	366.5	351.0
67.5°	324.0	320.1	324.0	324.0	327.9	324.0	324.0	324.0	312.5	304.8	289.4
70°	262.4	258.5	258.5	258.5	262.4	254.6	258.5	258.5	250.8	239.1	223.8
72.5°	200.6	200.6	200.6	200.6	200.6	200.6	196.8	196.8	189.0	177.5	169.8
75°	146.6	146.6	150.5	150.5	146.6	146.6	146.6	142.8	138.9	131.1	123.5
77.5°	108.0	108.0	108.0	108.0	104.1	104.1	104.1	100.2	96.5	92.6	84.9
80°	77.1	77.1	77.1	73.2	77.1	73.2	73.2	73.2	65.6	61.8	57.9
82.5°	54.0	50.1	50.1	50.1	50.1	50.1	50.1	46.2	46.2	42.4	38.6
85°	30.9	30.9	30.9	30.9	30.9	30.9	30.9	30.9	27.0	23.1	23.1
87.5°	15.4	19.2	19.2	19.2	19.2	19.2	19.2	15.4	15.4	15.4	11.6
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°	3194.1	3194.1	3194.1	3194.1	3194.1	3194.1	3194.1	3194.1	3194.1	3194.1	3194.1
2.5°	3178.8	3178.8	3186.4	3174.9	3194.1	3182.6	3178.8	3198.0	3186.4	3182.6	3190.2
5°	3151.8	3155.6	3159.4	3151.8	3171.0	3159.4	3159.4	3178.8	3171.0	3167.1	3178.8
7.5°	3117.0	3120.9	3128.6	3124.8	3140.1	3132.4	3136.2	3155.6	3147.9	3147.9	3159.4
10°	3074.5	3082.2	3090.0	3090.0	3109.2	3101.5	3101.5	3124.8	3117.0	3120.9	3136.2
12.5°	3024.4	3036.0	3047.5	3051.4	3070.8	3059.1	3063.0	3090.0	3086.1	3090.0	3105.4
15°	2970.4	2985.9	2997.4	2997.4	3020.5	3009.0	3020.5	3047.5	3039.9	3055.2	3074.5
17.5°	2908.6	2924.1	2939.5	2943.4	2966.5	2958.9	2974.2	3001.2	3001.2	3009.0	3032.1
20°	2850.9	2870.1	2877.9	2889.4	2912.5	2908.6	2916.4	2947.2	2947.2	2958.9	2982.0
22.5°	2773.6	2793.0	2808.4	2820.0	2839.2	2839.2	2850.9	2877.9	2877.9	2885.5	2908.6
25°	2688.8	2711.9	2723.5	2735.1	2754.4	2750.5	2762.1	2785.2	2789.1	2796.8	2820.0
27.5°	2580.8	2600.1	2615.5	2623.2	2650.2	2634.8	2646.4	2673.4	2669.5	2677.2	2696.5
30°	2445.8	2465.0	2480.5	2480.5	2503.6	2503.6	2515.2	2526.8	2526.8	2534.5	2549.9
32.5°	2287.6	2310.8	2310.8	2322.4	2337.8	2322.4	2337.8	2353.1	2345.5	2357.0	2368.6
35°	2106.2	2117.9	2121.8	2121.8	2133.2	2129.4	2125.6	2137.1	2129.4	2148.8	2160.2
37.5°	1886.4	1901.9	1894.1	1901.9	1898.0	1886.4	1886.4	1905.6	1890.2	1894.1	1905.6
40°	1674.2	1674.2	1670.4	1651.1	1654.9	1643.4	1639.5	1643.4	1627.9	1624.1	1639.5
42.5°	1454.4	1450.5	1438.9	1411.9	1415.8	1396.5	1381.0	1381.0	1373.4	1369.5	1373.4
45°	1257.6	1246.0	1226.8	1195.9	1188.1	1172.8	1141.9	1134.1	1122.6	1122.6	1126.5
47.5°	1076.2	1060.9	1030.0	995.2	976.0	956.8	925.9	914.2	895.0	887.2	895.0
50°	925.9	898.9	860.2	810.1	790.9	767.6	736.9	717.5	698.2	690.5	686.6
52.5°	787.0	748.4	709.8	648.1	632.6	609.5	567.1	547.8	528.5	513.1	513.1
55°	667.4	632.6	578.6	520.8	497.6	474.5	432.0	405.0	385.8	378.0	370.4
57.5°	559.4	520.8	470.6	408.9	385.8	362.6	320.1	293.1	273.9	262.4	254.6
60°	470.6	428.2	378.0	324.0	297.0	273.9	231.5	204.5	185.1	173.6	165.9
62.5°	385.8	351.0	300.9	250.8	227.6	204.5	169.8	142.8	123.5	115.8	104.1
65°	324.0	289.4	243.0	200.6	181.2	158.1	127.2	104.1	88.8	77.1	69.5
67.5°	262.4	235.4	196.8	158.1	138.9	123.5	96.5	77.1	61.8	54.0	50.1
70°	208.4	181.2	150.5	119.6	108.0	92.6	73.2	54.0	46.2	38.6	34.8
72.5°	154.2	135.0	111.9	88.8	77.1	69.5	50.1	42.4	30.9	27.0	23.1
75°	111.9	96.5	81.0	61.8	54.0	50.1	38.6	27.0	23.1	19.2	15.4
77.5°	77.1	69.5	54.0	42.4	38.6	34.8	27.0	19.2	15.4	11.6	11.6
80°	50.1	42.4	34.8	27.0	27.0	23.1	15.4	11.6	11.6	7.8	7.8
82.5°	30.9	27.0	23.1	19.2	15.4	15.4	11.6	7.8	7.8	3.9	3.9
85°	19.2	15.4	11.6	11.6	7.8	7.8	7.8	3.9	3.9	3.9	3.9
87.5°	7.8	7.8	7.8	3.9	3.9	3.9	3.9	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°	3194.1	3194.1	3194.1	3194.1	3194.1	3194.1	3194.1	3194.1	3194.1	3194.1	3194.1
2.5°	3190.2	3190.2	3198.0	3186.4	3194.1	3194.1	3201.9	3186.4	3194.1	3198.0	3205.8
5°	3174.9	3178.8	3186.4	3182.6	3186.4	3186.4	3194.1	3174.9	3190.2	3190.2	3201.9
7.5°	3159.4	3159.4	3167.1	3163.2	3171.0	3174.9	3182.6	3167.1	3182.6	3182.6	3194.1
10°	3140.1	3140.1	3151.8	3147.9	3159.4	3163.2	3174.9	3159.4	3174.9	3178.8	3190.2
12.5°	3113.1	3117.0	3128.6	3128.6	3140.1	3147.9	3159.4	3151.8	3171.0	3174.9	3190.2
15°	3082.2	3090.0	3105.4	3101.5	3113.1	3124.8	3140.1	3128.6	3155.6	3163.2	3178.8
17.5°	3043.8	3051.4	3063.0	3063.0	3074.5	3082.2	3101.5	3093.9	3117.0	3120.9	3140.1
20°	2985.9	2997.4	3012.9	3009.0	3020.5	3028.2	3043.8	3036.0	3059.1	3066.9	3086.1
22.5°	2916.4	2924.1	2935.6	2935.6	2947.2	2955.0	2970.4	2958.9	2982.0	2985.9	3001.2
25°	2823.8	2831.5	2839.2	2843.1	2854.6	2858.5	2866.2	2858.5	2877.9	2881.6	2901.0
27.5°	2704.2	2708.1	2719.6	2719.6	2727.4	2731.2	2742.8	2727.4	2754.4	2754.4	2766.0
30°	2561.5	2557.6	2573.0	2565.4	2573.0	2573.0	2584.6	2576.9	2596.2	2588.5	2600.1
32.5°	2372.5	2380.1	2380.1	2372.5	2387.9	2384.0	2384.0	2376.4	2387.9	2391.8	2399.5
35°	2152.6	2164.1	2164.1	2168.0	2171.9	2160.2	2164.1	2141.0	2160.2	2164.1	2168.0
37.5°	1913.4	1901.9	1909.5	1898.0	1917.2	1894.1	1894.1	1878.6	1894.1	1894.1	1898.0
40°	1639.5	1635.6	1643.4	1635.6	1631.8	1627.9	1620.2	1608.6	1624.1	1616.4	1627.9
42.5°	1381.0	1377.1	1377.1	1369.5	1365.6	1365.6	1357.9	1350.1	1346.4	1346.4	1365.6
45°	1114.9	1122.6	1114.9	1111.0	1118.8	1111.0	1114.9	1099.4	1107.1	1099.4	1107.1
47.5°	891.1	895.0	887.2	879.5	891.1	879.5	879.5	868.0	883.4	883.4	875.8
50°	690.5	686.6	679.0	686.6	682.8	682.8	682.8	671.2	679.0	667.4	675.1
52.5°	509.2	505.4	505.4	501.5	505.4	501.5	501.5	497.6	497.6	493.8	497.6
55°	370.4	366.5	358.8	358.8	358.8	362.6	358.8	354.9	354.9	351.0	354.9
57.5°	250.8	243.0	243.0	243.0	243.0	239.1	239.1	235.4	239.1	235.4	239.1
60°	162.0	162.0	154.2	154.2	154.2	154.2	154.2	150.5	154.2	154.2	154.2
62.5°	100.2	100.2	96.5	92.6	96.5	92.6	92.6	92.6	96.5	92.6	96.5
65°	65.6	61.8	61.8	61.8	61.8	61.8	61.8	61.8	61.8	61.8	61.8
67.5°	46.2	42.4	42.4	42.4	42.4	42.4	42.4	38.6	42.4	42.4	42.4
70°	30.9	30.9	27.0	27.0	27.0	27.0	27.0	27.0	27.0	27.0	27.0
72.5°	19.2	19.2	19.2	19.2	19.2	19.2	19.2	19.2	19.2	19.2	19.2
75°	15.4	11.6	11.6	11.6	11.6	11.6	11.6	11.6	11.6	11.6	11.6
77.5°	11.6	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8
80°	7.8	7.8	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9
82.5°	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9
85°	3.9	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	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9
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: P252306

CATALOG NUMBER: LE\_6B50D010R EC6B30509040 6LBSW1H

**CANDELA DISTRIBUTION (continued):**

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	3194.1	3194.1	3194.1	3194.1	3194.1	3194.1	3194.1	3194.1
2.5°	3194.1	3198.0	3190.2	3194.1	3186.4	3194.1	3198.0	3205.8
5°	3186.4	3190.2	3182.6	3190.2	3182.6	3190.2	3194.1	3201.9
7.5°	3178.8	3186.4	3178.8	3186.4	3178.8	3186.4	3190.2	3198.0
10°	3178.8	3190.2	3182.6	3194.1	3182.6	3190.2	3198.0	3201.9
12.5°	3178.8	3190.2	3186.4	3194.1	3190.2	3198.0	3205.8	3213.4
15°	3171.0	3182.6	3174.9	3186.4	3182.6	3186.4	3201.9	3201.9
17.5°	3128.6	3140.1	3140.1	3147.9	3147.9	3159.4	3167.1	3174.9
20°	3074.5	3086.1	3082.2	3093.9	3093.9	3105.4	3113.1	3120.9
22.5°	2993.5	3009.0	3005.1	3016.8	3012.9	3020.5	3036.0	3032.1
25°	2889.4	2908.6	2904.9	2912.5	2908.6	2908.6	2916.4	2920.2
27.5°	2762.1	2773.6	2769.8	2777.5	2769.8	2777.5	2785.2	2789.1
30°	2596.2	2603.9	2600.1	2603.9	2600.1	2607.8	2611.6	2619.4
32.5°	2395.6	2407.1	2395.6	2403.4	2399.5	2399.5	2414.9	2407.1
35°	2156.4	2160.2	2164.1	2164.1	2156.4	2160.2	2168.0	2168.0
37.5°	1890.2	1909.5	1886.4	1898.0	1894.1	1894.1	1894.1	1905.6
40°	1612.5	1616.4	1608.6	1608.6	1608.6	1604.8	1620.2	1616.4
42.5°	1350.1	1354.0	1350.1	1338.6	1342.5	1342.5	1354.0	1338.6
45°	1095.6	1103.2	1099.4	1099.4	1091.8	1091.8	1095.6	1087.9
47.5°	868.0	875.8	864.1	868.0	860.2	868.0	864.1	871.9
50°	659.6	667.4	663.5	667.4	667.4	659.6	671.2	655.8
52.5°	493.8	497.6	493.8	489.9	486.1	486.1	493.8	489.9
55°	351.0	347.2	347.2	347.2	351.0	351.0	347.2	343.4
57.5°	235.4	235.4	231.5	231.5	235.4	227.6	231.5	227.6
60°	150.5	150.5	150.5	150.5	146.6	150.5	150.5	150.5
62.5°	92.6	92.6	92.6	92.6	92.6	92.6	92.6	92.6
65°	61.8	61.8	61.8	61.8	61.8	61.8	61.8	61.8
67.5°	38.6	42.4	42.4	42.4	38.6	38.6	38.6	38.6
70°	27.0	27.0	27.0	27.0	27.0	27.0	27.0	27.0
72.5°	19.2	19.2	19.2	19.2	19.2	19.2	19.2	19.2
75°	11.6	11.6	11.6	11.6	11.6	11.6	11.6	11.6
77.5°	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8
80°	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9
82.5°	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	3.9	3.9	3.9	3.9	3.9	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)