

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: P252204

Luminaire Tested: **LE_6B50D010R EC6B30509727 6LBSW1LI**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P252204
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-1712-453-1)
Test Lab: INNOVATION CENTER(G1)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: PORTFOLIO
Catalog Number: LE_6B50D010R EC6B30509727 6LBSW1LI
Description: PORTFOLIO 6 INCH SINGLE WALLWASH RECESSED DOWNLIGHT, WITH SPECULAR CLEAR TRIM
Light Source: (1) HIGH LUMEN LED 97CRI / 2700K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6075.0 lumens
Efficiency: N/A
Efficacy: 103.3 lumens/watt
Spacing Criteria (0/90/45): 1.26 / 1.29 / 1.21
Luminous Opening: Circular (Dia: 0.46' x H: 0')
CIE Type: Direct

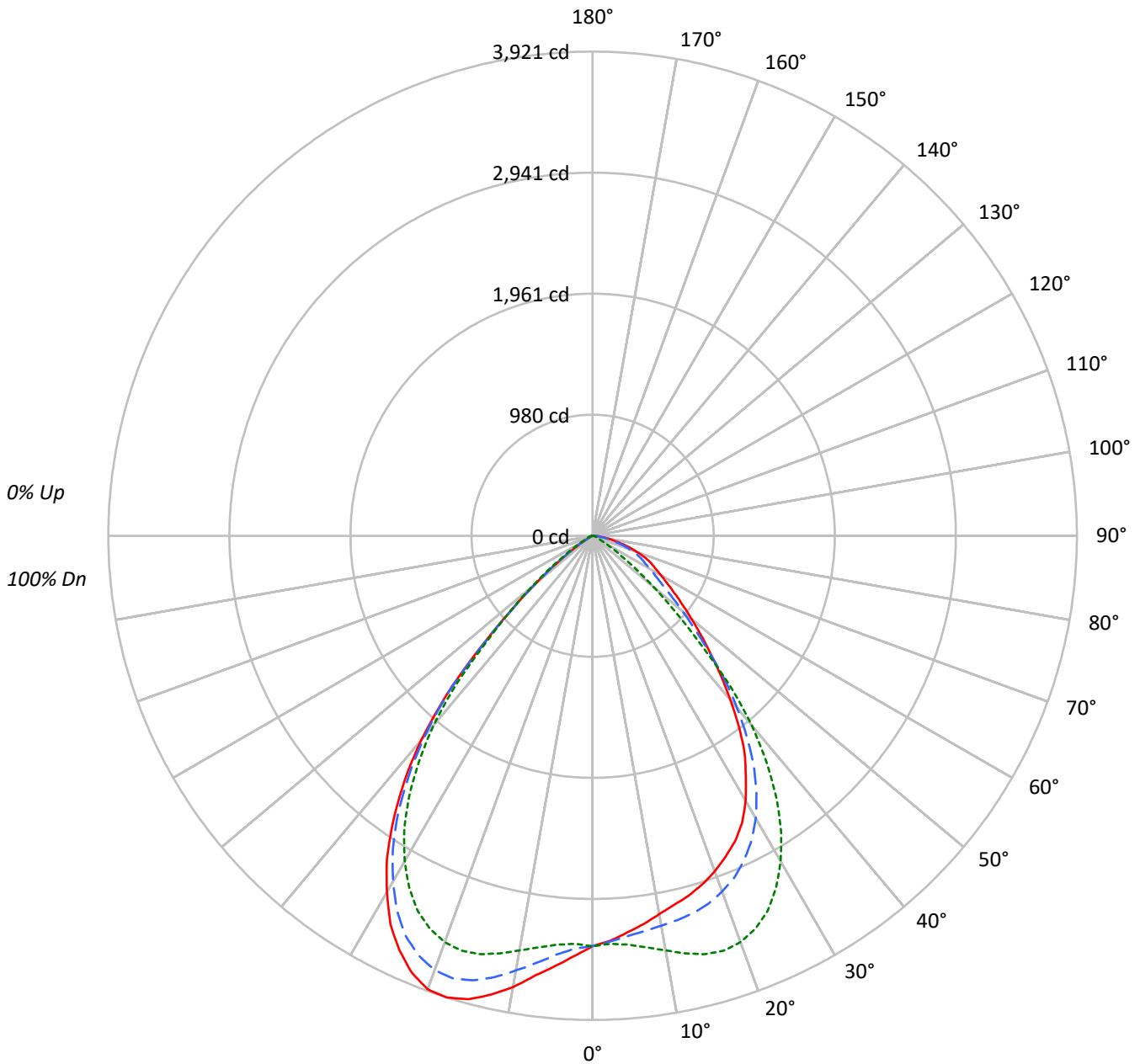
Input Watts (W): 58.8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	103	109	106	103	101	102	100	98	98	96	95	95	93	92	90																			
2	105	98	93	89	102	97	92	88	93	89	86	90	87	84	87	85	82	80																			
3	98	89	83	78	95	88	82	78	85	80	76	83	78	75	80	77	74	72																			
4	91	82	75	69	89	80	74	69	78	72	68	76	71	67	74	70	66	65																			
5	85	75	67	62	83	74	67	62	72	66	61	70	65	61	68	64	60	58																			
6	80	69	61	56	78	68	61	56	66	60	55	64	59	55	63	58	54	53																			
7	74	63	56	51	73	62	55	50	61	55	50	60	54	50	58	53	50	48																			
8	70	58	51	46	69	58	51	46	57	50	46	55	50	46	54	49	45	44																			
9	66	54	47	42	64	54	47	42	53	46	42	52	46	42	51	45	42	40																			
10	62	50	43	39	61	50	43	39	49	43	39	48	43	39	47	42	38	37																			

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	216827	216827	216827
5°	211205	217655	229097
10°	206068	225850	245849
15°	203653	236924	262462
20°	200743	243094	271330
25°	196476	241301	266460
30°	186706	229307	250853
35°	170821	206748	223959
40°	147754	170748	183736
45°	124594	111990	120202
50°	105769	64816	60949
55°	91791	31075	23488
60°	82921	14510	5806
65°	80443	8336	1976
70°	72123	6676	1812
75°	59262	4815	781
80°	44145	2405	0
85°	38101	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	321.0	5.3
10°-20°	978.4	16.1
20°-30°	1494.8	24.6
30°-40°	1563.5	25.7
40°-50°	1014.2	16.7
50°-60°	402.7	6.6
60°-70°	191.0	3.1
70°-80°	90.9	1.5
80°-90°	18.5	0.3
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°	2794.2	46.0
0°-40°	4357.7	71.7
0°-60°	5774.6	95.1
0°-90°	6075.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6075.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	3324	3324	3324	3324	3324	
5°	3225	3254	3324	3406	3498	305
15°	3015	3162	3508	3727	3886	850
25°	2729	2901	3352	3578	3702	1250
35°	2145	2275	2596	2748	2812	1326
45°	1350	1338	1214	1287	1303	1051
55°	807	686	273	213	206	731
65°	521	432	54	13	13	509
75°	235	191	19	6	3	254
85°	51	32	0	0	0	59
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°	3323.5	3323.5	3323.5	3323.5	3323.5	3323.5	3323.5	3323.5	3323.5	3323.5	3323.5
2.5°	3282.2	3288.5	3253.6	3244.1	3269.5	3279.0	3282.2	3272.6	3275.9	3288.5	3288.5
5°	3225.0	3231.4	3199.6	3190.0	3215.5	3221.9	3231.4	3228.1	3237.8	3256.8	3253.6
7.5°	3171.0	3180.5	3145.6	3132.9	3164.6	3180.5	3186.9	3186.9	3199.6	3225.0	3228.1
10°	3110.6	3123.4	3091.5	3085.2	3120.1	3136.0	3139.2	3145.6	3164.6	3199.6	3206.0
12.5°	3059.8	3072.5	3050.2	3040.8	3078.9	3094.8	3101.1	3113.8	3136.0	3180.5	3186.9
15°	3015.2	3024.9	2999.4	2993.0	3031.2	3050.2	3053.4	3072.5	3101.1	3151.9	3161.5
17.5°	2958.1	2964.5	2945.4	2939.0	2977.1	2996.2	2999.4	3021.6	3056.6	3107.5	3123.4
20°	2891.4	2897.8	2878.6	2872.4	2910.5	2932.8	2935.9	2954.9	2996.2	3050.2	3066.1
22.5°	2812.0	2824.6	2802.4	2796.1	2834.2	2853.2	2862.8	2878.6	2920.0	2974.0	2996.2
25°	2729.4	2729.4	2713.5	2710.2	2745.2	2767.5	2764.2	2786.5	2827.9	2881.9	2900.9
27.5°	2621.2	2618.1	2602.2	2599.1	2637.2	2656.2	2649.9	2672.1	2710.2	2764.2	2783.4
30°	2478.4	2484.6	2462.5	2456.1	2487.9	2519.6	2516.5	2538.8	2576.9	2627.6	2640.4
32.5°	2306.8	2313.1	2309.9	2300.4	2329.0	2344.9	2354.4	2370.2	2402.1	2456.1	2468.8
35°	2144.8	2135.1	2122.5	2122.5	2151.1	2176.5	2167.0	2186.0	2217.8	2271.8	2275.0
37.5°	1944.5	1941.4	1935.0	1928.6	1960.4	1966.8	1970.0	1982.6	2011.2	2055.8	2049.4
40°	1734.9	1738.0	1734.9	1722.1	1741.1	1766.6	1763.4	1769.8	1795.2	1827.0	1817.5
42.5°	1537.9	1537.9	1537.9	1525.1	1547.4	1560.1	1566.4	1563.2	1569.6	1598.2	1585.5
45°	1350.4	1353.5	1350.4	1347.2	1350.4	1356.8	1350.4	1347.2	1347.2	1356.8	1337.6
47.5°	1188.4	1188.4	1178.8	1169.2	1178.8	1182.0	1172.5	1162.9	1159.8	1156.5	1124.8
50°	1042.1	1039.0	1035.9	1019.9	1029.5	1032.6	1019.9	1013.6	1000.9	985.0	946.9
52.5°	915.1	911.9	908.8	892.9	899.2	902.4	889.6	877.0	861.0	848.4	800.8
55°	807.0	803.9	803.9	794.4	788.0	794.4	781.6	772.1	749.9	734.0	686.2
57.5°	714.9	714.9	708.5	699.0	702.2	702.2	689.5	676.8	657.8	638.6	600.5
60°	635.5	635.5	635.5	625.9	625.9	625.9	619.6	606.9	591.0	571.9	533.8
62.5°	571.9	571.9	568.8	559.2	562.4	562.4	556.0	543.4	527.5	514.8	476.6
65°	521.1	521.1	521.1	511.5	511.5	514.8	508.4	495.6	483.0	467.1	432.1
67.5°	457.5	454.4	454.4	448.0	451.1	454.4	448.0	438.5	422.6	413.0	381.2
70°	378.1	381.2	384.5	374.9	378.1	378.1	374.9	365.4	355.9	346.4	317.8
72.5°	308.2	308.2	305.0	301.9	301.9	305.0	298.6	289.1	282.8	276.4	254.2
75°	235.1	232.0	235.1	228.8	228.8	228.8	222.4	219.2	216.0	206.5	190.6
77.5°	171.6	168.4	168.4	162.0	165.2	165.2	162.0	155.8	149.4	146.1	133.5
80°	117.5	117.5	117.5	114.4	114.4	111.2	111.2	108.0	101.6	98.5	92.1
82.5°	79.4	79.4	79.4	76.2	76.2	76.2	73.1	69.9	66.8	63.5	57.2
85°	50.9	50.9	50.9	47.6	47.6	47.6	44.5	44.5	41.2	38.1	31.8
87.5°	28.6	28.6	28.6	25.4	25.4	25.4	25.4	25.4	22.2	19.1	15.9
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°	3323.5	3323.5	3323.5	3323.5	3323.5	3323.5	3323.5	3323.5	3323.5	3323.5	3323.5
2.5°	3310.8	3266.2	3294.9	3294.9	3285.4	3310.8	3326.6	3339.4	3336.2	3307.6	3304.5
5°	3285.4	3247.2	3279.0	3282.2	3272.6	3307.6	3329.9	3345.8	3348.9	3323.5	3326.6
7.5°	3266.2	3234.5	3275.9	3288.5	3285.4	3317.1	3342.6	3368.0	3380.8	3361.6	3364.8
10°	3256.8	3231.4	3275.9	3294.9	3298.1	3333.0	3371.1	3406.1	3422.0	3409.2	3418.9
12.5°	3244.1	3228.1	3279.0	3307.6	3320.4	3355.2	3403.0	3444.2	3469.6	3463.2	3482.4
15°	3231.4	3218.6	3279.0	3320.4	3336.2	3368.0	3422.0	3482.4	3511.0	3507.8	3533.2
17.5°	3199.6	3196.4	3260.0	3304.5	3326.6	3364.8	3415.6	3488.8	3517.4	3523.6	3555.5
20°	3148.8	3148.8	3218.6	3266.2	3291.8	3326.6	3390.2	3460.1	3495.1	3501.4	3536.4
22.5°	3078.9	3085.2	3151.9	3199.6	3237.8	3263.1	3329.9	3403.0	3434.8	3444.2	3482.4
25°	2986.8	2993.0	3056.6	3104.2	3145.6	3174.1	3237.8	3304.5	3342.6	3352.1	3380.8
27.5°	2866.0	2878.6	2939.0	2986.8	3021.6	3040.8	3107.5	3177.4	3206.0	3215.5	3244.1
30°	2726.1	2729.4	2789.8	2831.0	2866.0	2881.9	2939.0	3012.1	3034.4	3043.9	3085.2
32.5°	2554.6	2551.4	2608.6	2646.8	2675.4	2694.4	2754.8	2802.4	2824.6	2840.5	2862.8
35°	2348.0	2344.9	2386.1	2430.6	2452.9	2459.2	2519.6	2570.5	2583.1	2595.9	2624.5
37.5°	2116.1	2116.1	2151.1	2173.2	2198.8	2208.2	2236.9	2294.0	2316.2	2313.1	2335.4
40°	1871.5	1858.8	1884.1	1906.4	1912.8	1916.0	1944.5	1989.0	2004.9	2004.9	2020.8
42.5°	1614.1	1595.0	1598.2	1610.9	1617.2	1595.0	1614.1	1642.8	1633.1	1645.9	1649.0
45°	1340.9	1312.2	1299.5	1271.0	1277.2	1255.0	1242.4	1248.8	1245.5	1213.8	1220.1
47.5°	1118.4	1067.6	1045.4	1004.0	994.5	969.1	953.2	924.6	899.2	899.2	883.2
50°	931.0	880.1	835.6	788.0	772.1	749.9	714.9	676.8	657.8	638.6	622.8
52.5°	781.6	727.6	673.6	622.8	600.5	571.9	524.2	486.1	451.1	432.1	413.0
55°	660.9	600.5	543.4	489.2	460.8	432.1	384.5	340.0	298.6	273.2	257.4
57.5°	568.8	511.5	451.1	394.0	368.6	336.8	286.0	238.2	200.1	171.6	155.8
60°	502.0	444.9	390.9	330.5	305.0	273.2	219.2	174.8	136.6	111.2	92.1
62.5°	444.9	394.0	336.8	282.8	257.4	225.6	174.8	130.2	95.4	69.9	54.0
65°	403.5	352.6	305.0	251.0	228.8	197.0	149.4	108.0	76.2	54.0	38.1
67.5°	355.9	311.4	263.8	219.2	197.0	171.6	127.1	92.1	63.5	44.5	31.8
70°	298.6	263.8	222.4	181.1	165.2	143.0	104.9	76.2	50.9	35.0	25.4
72.5°	238.2	209.8	177.9	146.1	133.5	111.2	85.8	60.4	38.1	25.4	19.1
75°	181.1	158.9	133.5	111.2	98.5	85.8	63.5	44.5	28.6	19.1	12.8
77.5°	123.9	114.4	95.4	76.2	69.9	60.4	41.2	28.6	19.1	12.8	6.4
80°	85.8	76.2	63.5	50.9	44.5	38.1	25.4	19.1	9.5	6.4	3.1
82.5°	54.0	44.5	38.1	31.8	28.6	22.2	15.9	9.5	6.4	3.1	3.1
85°	28.6	25.4	22.2	15.9	15.9	12.8	9.5	6.4	3.1	0.0	0.0
87.5°	15.9	12.8	9.5	6.4	6.4	3.1	3.1	3.1	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°	3323.5	3323.5	3323.5	3323.5	3323.5	3323.5	3323.5	3323.5	3323.5	3323.5	3323.5
2.5°	3342.6	3342.6	3339.4	3377.5	3333.0	3377.5	3355.2	3377.5	3345.8	3342.6	3345.8
5°	3368.0	3377.5	3380.8	3415.6	3374.4	3428.4	3409.2	3428.4	3406.1	3412.5	3422.0
7.5°	3418.9	3434.8	3431.5	3476.0	3434.8	3495.1	3482.4	3511.0	3488.8	3495.1	3507.8
10°	3476.0	3495.1	3498.2	3542.8	3504.6	3577.8	3561.8	3593.6	3574.5	3584.0	3599.9
12.5°	3542.8	3565.0	3568.1	3619.0	3577.8	3654.0	3644.4	3676.2	3660.2	3669.9	3688.9
15°	3593.6	3625.4	3631.8	3682.5	3638.0	3717.5	3711.1	3752.5	3727.0	3742.9	3758.8
17.5°	3619.0	3647.6	3660.2	3708.0	3669.9	3749.2	3742.9	3777.9	3758.8	3774.8	3793.8
20°	3603.1	3638.0	3647.6	3695.2	3657.1	3736.5	3727.0	3762.0	3742.9	3755.6	3774.8
22.5°	3545.9	3580.9	3593.6	3638.0	3603.1	3676.2	3673.0	3704.8	3679.4	3695.2	3711.1
25°	3444.2	3482.4	3488.8	3530.0	3491.9	3568.1	3561.8	3596.8	3577.8	3587.2	3609.5
27.5°	3298.1	3342.6	3352.1	3387.0	3358.5	3422.0	3422.0	3450.6	3428.4	3428.4	3450.6
30°	3123.4	3167.9	3174.1	3202.8	3177.4	3234.5	3237.8	3266.2	3231.4	3250.4	3253.6
32.5°	2910.5	2939.0	2958.1	2983.5	2945.4	3018.5	3009.0	3031.2	3012.1	3012.1	3028.0
35°	2653.1	2688.0	2697.6	2729.4	2697.6	2754.8	2754.8	2767.5	2748.4	2748.4	2773.9
37.5°	2373.5	2398.9	2402.1	2433.9	2408.4	2456.1	2452.9	2462.5	2443.4	2456.1	2456.1
40°	2046.2	2065.2	2071.6	2087.5	2084.4	2119.2	2116.1	2122.5	2112.9	2116.1	2122.5
42.5°	1664.9	1690.4	1703.0	1715.8	1696.8	1744.4	1734.9	1744.4	1741.1	1744.4	1753.9
45°	1226.5	1245.5	1255.0	1258.2	1251.9	1280.5	1302.8	1283.6	1286.9	1280.5	1293.1
47.5°	886.5	889.6	883.2	902.4	886.5	899.2	905.5	908.8	889.6	886.5	899.2
50°	606.9	622.8	600.5	610.0	606.9	619.6	613.2	616.4	597.4	606.9	600.5
52.5°	403.5	400.4	394.0	397.1	390.9	390.9	390.9	397.1	384.5	378.1	371.8
55°	244.6	238.2	225.6	222.4	222.4	225.6	219.2	212.9	212.9	209.8	209.8
57.5°	143.0	133.5	127.1	123.9	117.5	114.4	111.2	111.2	104.9	104.9	104.9
60°	79.4	69.9	63.5	57.2	57.2	54.0	50.9	47.6	47.6	47.6	44.5
62.5°	41.2	35.0	28.6	25.4	25.4	22.2	19.1	19.1	19.1	19.1	15.9
65°	28.6	22.2	19.1	15.9	15.9	12.8	12.8	12.8	12.8	12.8	12.8
67.5°	22.2	19.1	15.9	12.8	12.8	12.8	9.5	9.5	9.5	9.5	9.5
70°	19.1	12.8	12.8	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5
72.5°	12.8	12.8	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5
75°	9.5	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4
77.5°	3.1	3.1	3.1	3.1	3.1	3.1	0.0	0.0	0.0	0.0	0.0
80°	3.1	0.0	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: P252204

CATALOG NUMBER: LE_6B50D010R EC6B30509727 6LBSW1LI

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	3323.5	3323.5	3323.5	3323.5	3323.5	3323.5	3323.5	3323.5
2.5°	3374.4	3371.1	3374.4	3380.8	3368.0	3406.1	3387.0	3406.1
5°	3447.4	3450.6	3453.8	3463.2	3447.4	3495.1	3469.6	3498.2
7.5°	3542.8	3545.9	3549.1	3558.6	3549.1	3596.8	3568.1	3593.6
10°	3641.2	3647.6	3647.6	3663.5	3654.0	3698.4	3679.4	3711.1
12.5°	3733.4	3739.8	3746.1	3755.6	3749.2	3796.9	3781.0	3806.5
15°	3806.5	3819.1	3822.4	3835.0	3828.8	3879.5	3860.5	3885.9
17.5°	3841.4	3854.1	3854.1	3870.0	3863.6	3917.6	3892.2	3920.9
20°	3822.4	3831.9	3835.0	3851.0	3844.6	3898.6	3873.1	3908.1
22.5°	3762.0	3765.1	3768.4	3784.2	3781.0	3828.8	3806.5	3828.8
25°	3650.8	3660.2	3657.1	3669.9	3669.9	3708.0	3682.5	3701.6
27.5°	3491.9	3501.4	3501.4	3517.4	3504.6	3542.8	3517.4	3545.9
30°	3298.1	3307.6	3301.2	3314.0	3301.2	3339.4	3320.4	3329.9
32.5°	3066.1	3066.1	3069.4	3072.5	3066.1	3101.1	3082.0	3101.1
35°	2789.8	2796.1	2799.2	2802.4	2796.1	2821.5	2799.2	2812.0
37.5°	2478.4	2494.2	2491.0	2494.2	2484.6	2516.5	2497.4	2503.8
40°	2144.8	2144.8	2141.5	2147.9	2138.4	2163.8	2151.1	2157.4
42.5°	1757.1	1766.6	1753.9	1769.8	1744.4	1779.4	1766.6	1757.1
45°	1318.6	1305.9	1302.8	1305.9	1296.4	1299.5	1309.1	1302.8
47.5°	899.2	899.2	892.9	883.2	896.0	899.2	886.5	886.5
50°	603.8	603.8	597.4	594.1	600.5	597.4	591.0	600.5
52.5°	384.5	371.8	371.8	378.1	371.8	365.4	374.9	368.6
55°	209.8	203.4	203.4	209.8	203.4	203.4	200.1	206.5
57.5°	101.6	104.9	101.6	101.6	101.6	101.6	98.5	101.6
60°	44.5	44.5	44.5	44.5	44.5	44.5	44.5	44.5
62.5°	19.1	19.1	15.9	15.9	15.9	15.9	15.9	15.9
65°	12.8	12.8	12.8	12.8	12.8	12.8	12.8	12.8
67.5°	9.5	9.5	9.5	9.5	9.5	12.8	9.5	9.5
70°	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5
72.5°	9.5	9.5	12.8	12.8	12.8	12.8	12.8	12.8
75°	6.4	6.4	6.4	3.1	3.1	3.1	3.1	3.1
77.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	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
85°	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
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)