

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: P252201

Luminaire Tested: **LE\_6B50D010R EC6B30509035 6LBSW1LI**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P252201  
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 EC6B30509035 6LBSW1LI  
Description: PORTFOLIO 6 INCH SINGLE WALLWASH RECESSED DOWNLIGHT, WITH SPECULAR CLEAR TRIM  
Light Source: (1) HIGH LUMEN LED 90CRI / 3500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 7367.5 lumens  
Efficiency: N/A  
Efficacy: 125.3 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

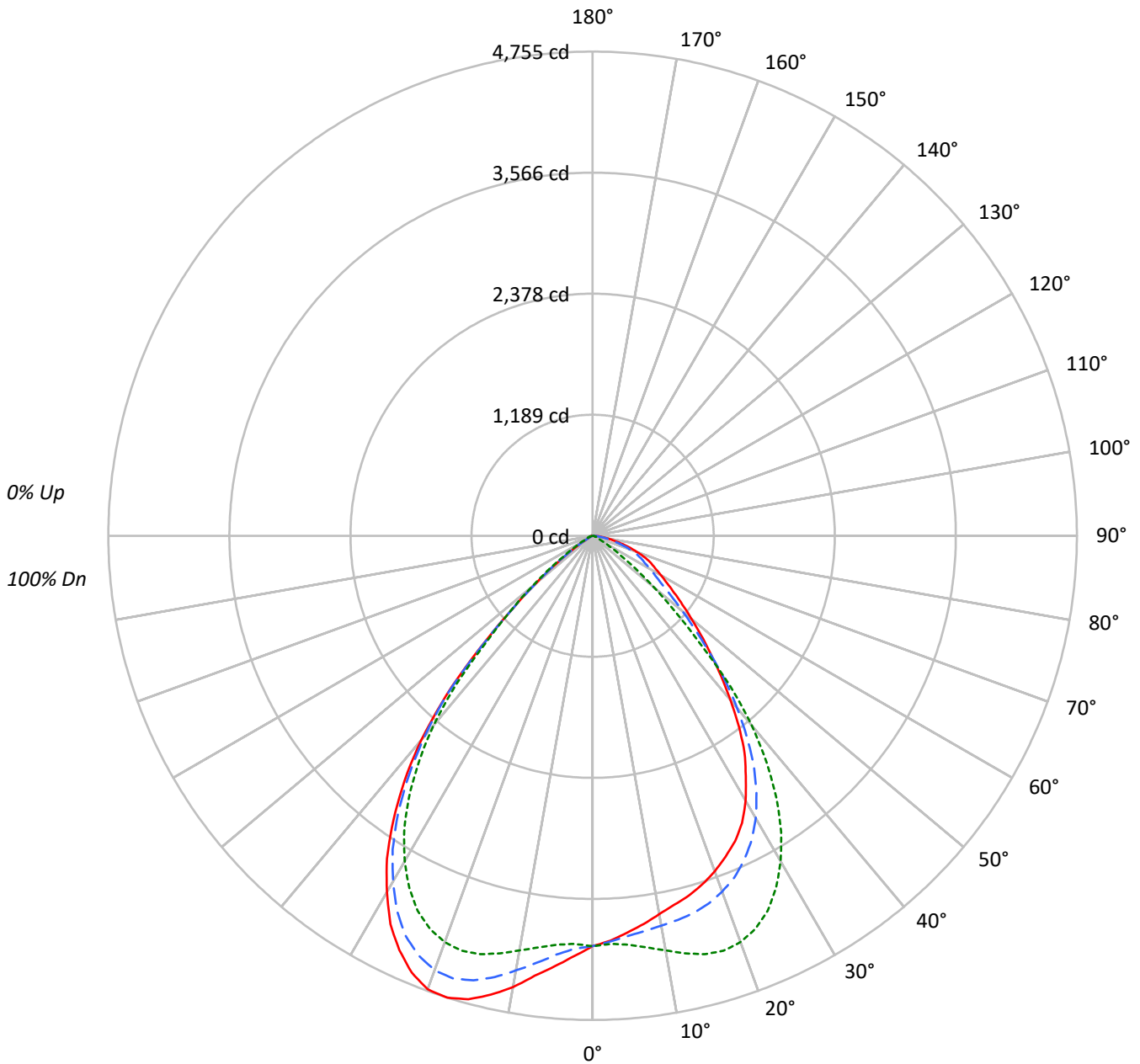
Input Watts (W): 58.8  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Luminous Intensity Polar Plot





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

RF	20				20				20				20				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	103	109	106	103	101	102	100	98	98	96	95	95	93	92	90				90
2	105	98	93	89	102	97	92	88	93	89	86	90	87	84	87	85	82	80				80
3	98	89	83	78	95	88	82	78	85	80	76	83	78	75	80	77	74	72				72
4	91	82	75	69	89	80	74	69	78	72	68	76	71	67	74	70	66	65				65
5	85	75	67	62	83	74	67	62	72	66	61	70	65	61	68	64	60	58				58
6	80	69	61	56	78	68	61	56	66	60	55	64	59	55	63	58	54	53				53
7	74	63	56	51	73	62	55	50	61	55	50	60	54	50	58	53	50	48				48
8	70	58	51	46	69	58	51	46	57	50	46	55	50	46	54	49	45	44				44
9	66	54	47	42	64	54	47	42	53	46	42	52	46	42	51	45	42	40				40
10	62	50	43	39	61	50	43	39	49	43	39	48	43	39	47	42	38	37				37

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

	0°	90°	180°
0°	262959	262959	262959
5°	256137	263963	277841
10°	249910	273905	298165
15°	246995	287331	318299
20°	243448	294817	329059
25°	238271	292634	323148
30°	226422	278093	304211
35°	207154	250728	271602
40°	179180	207080	222827
45°	151092	135813	145768
50°	128281	78609	73910
55°	111332	37695	28493
60°	100549	17602	7046
65°	97563	10111	2377
70°	87459	8088	2194
75°	71865	5823	983
80°	53576	2931	0
85°	46111	0	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	389.3	5.3
10°-20°	1186.5	16.1
20°-30°	1812.9	24.6
30°-40°	1896.1	25.7
40°-50°	1230.0	16.7
50°-60°	488.4	6.6
60°-70°	231.7	3.1
70°-80°	110.2	1.5
80°-90°	22.5	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°	3388.7	46.0
0°-40°	5284.8	71.7
0°-60°	7003.2	95.1
0°-90°	7367.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7367.5	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	4031	4031	4031	4031	4031	
5°	3911	3946	4031	4131	4242	369
15°	3657	3834	4254	4520	4713	1031
25°	3310	3518	4065	4339	4489	1516
35°	2601	2759	3148	3333	3410	1608
45°	1638	1622	1472	1561	1580	1274
55°	979	832	331	258	250	887
65°	632	524	66	15	15	617
75°	285	231	23	8	4	308
85°	62	38	0	0	0	72
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°	4030.6	4030.6	4030.6	4030.6	4030.6	4030.6	4030.6	4030.6	4030.6	4030.6	4030.6
2.5°	3980.5	3988.2	3945.9	3934.2	3965.1	3976.6	3980.5	3969.0	3972.8	3988.2	3988.2
5°	3911.1	3918.9	3880.4	3868.8	3899.6	3907.2	3918.9	3915.0	3926.6	3949.6	3945.9
7.5°	3845.6	3857.2	3814.9	3799.4	3837.9	3857.2	3864.9	3864.9	3880.4	3911.1	3915.0
10°	3772.4	3787.9	3749.2	3741.6	3784.0	3803.2	3807.1	3814.9	3837.9	3880.4	3888.0
12.5°	3710.8	3726.2	3699.2	3687.6	3733.9	3753.1	3760.9	3776.2	3803.2	3857.2	3864.9
15°	3656.9	3668.4	3637.5	3629.9	3676.1	3699.2	3703.1	3726.2	3760.9	3822.5	3834.1
17.5°	3587.5	3595.1	3572.0	3564.4	3610.6	3633.8	3637.5	3664.5	3706.9	3768.6	3787.9
20°	3506.5	3514.2	3491.1	3483.4	3529.6	3556.6	3560.5	3583.6	3633.8	3699.2	3718.5
22.5°	3410.2	3425.6	3398.6	3391.0	3437.2	3460.2	3471.9	3491.1	3541.2	3606.8	3633.8
25°	3310.0	3310.0	3290.8	3286.9	3329.2	3356.2	3352.4	3379.4	3429.5	3495.0	3518.1
27.5°	3179.0	3175.1	3155.9	3152.0	3198.2	3221.4	3213.8	3240.6	3286.9	3352.4	3375.5
30°	3005.6	3013.4	2986.4	2978.6	3017.1	3055.8	3051.9	3078.9	3125.1	3186.8	3202.1
32.5°	2797.5	2805.2	2801.4	2789.9	2824.5	2843.8	2855.4	2874.6	2913.1	2978.6	2994.0
35°	2601.0	2589.5	2574.0	2574.0	2608.8	2639.5	2628.0	2651.1	2689.6	2755.1	2759.0
37.5°	2358.2	2354.4	2346.8	2339.0	2377.5	2385.2	2389.1	2404.5	2439.1	2493.1	2485.4
40°	2103.9	2107.8	2103.9	2088.5	2111.6	2142.5	2138.6	2146.4	2177.1	2215.6	2204.1
42.5°	1865.0	1865.0	1865.0	1849.6	1876.6	1892.0	1899.8	1895.9	1903.5	1938.2	1922.9
45°	1637.6	1641.5	1637.6	1633.9	1637.6	1645.4	1637.6	1633.9	1633.9	1645.4	1622.2
47.5°	1441.1	1441.1	1429.6	1418.0	1429.6	1433.5	1421.9	1410.4	1406.5	1402.6	1364.1
50°	1263.9	1260.0	1256.2	1236.9	1248.5	1252.4	1236.9	1229.2	1213.8	1194.5	1148.2
52.5°	1109.8	1105.9	1102.0	1082.8	1090.5	1094.4	1079.0	1063.5	1044.2	1028.9	971.0
55°	978.8	974.9	974.9	963.4	955.6	963.4	947.9	936.4	909.4	890.1	832.4
57.5°	867.0	867.0	859.2	847.8	851.6	851.6	836.1	820.8	797.6	774.5	728.2
60°	770.6	770.6	770.6	759.1	759.1	759.1	751.4	736.0	716.8	693.6	647.4
62.5°	693.6	693.6	689.8	678.2	682.0	682.0	674.4	658.9	639.6	624.2	578.0
65°	632.0	632.0	632.0	620.4	620.4	624.2	616.5	601.1	585.8	566.5	524.0
67.5°	554.9	551.0	551.0	543.4	547.1	551.0	543.4	531.8	512.5	500.9	462.4
70°	458.5	462.4	466.2	454.8	458.5	458.5	454.8	443.1	431.6	420.0	385.4
72.5°	373.8	373.8	369.9	366.1	366.1	369.9	362.2	350.6	343.0	335.2	308.2
75°	285.1	281.2	285.1	277.5	277.5	277.5	269.8	265.9	262.0	250.5	231.2
77.5°	208.1	204.2	204.2	196.5	200.4	200.4	196.5	188.9	181.1	177.2	161.9
80°	142.6	142.6	142.6	138.8	138.8	134.9	134.9	131.0	123.2	119.5	111.8
82.5°	96.4	96.4	96.4	92.5	92.5	92.5	88.6	84.8	80.9	77.1	69.4
85°	61.6	61.6	61.6	57.8	57.8	57.8	54.0	54.0	50.1	46.2	38.5
87.5°	34.6	34.6	34.6	30.9	30.9	30.9	30.9	30.9	27.0	23.1	19.2
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°	4030.6	4030.6	4030.6	4030.6	4030.6	4030.6	4030.6	4030.6	4030.6	4030.6	4030.6
2.5°	4015.2	3961.2	3995.9	3995.9	3984.4	4015.2	4034.5	4049.9	4046.0	4011.4	4007.5
5°	3984.4	3938.1	3976.6	3980.5	3969.0	4011.4	4038.2	4057.6	4061.4	4030.6	4034.5
7.5°	3961.2	3922.8	3972.8	3988.2	3984.4	4022.9	4053.8	4084.5	4100.0	4076.9	4080.8
10°	3949.6	3918.9	3972.8	3995.9	3999.8	4042.1	4088.4	4130.8	4150.0	4134.6	4146.2
12.5°	3934.2	3915.0	3976.6	4011.4	4026.8	4069.1	4127.0	4177.0	4207.9	4200.1	4223.2
15°	3918.9	3903.5	3976.6	4026.8	4046.0	4084.5	4150.0	4223.2	4258.0	4254.1	4284.9
17.5°	3880.4	3876.5	3953.5	4007.5	4034.5	4080.8	4142.4	4231.0	4265.6	4273.4	4311.9
20°	3818.6	3818.6	3903.5	3961.2	3992.1	4034.5	4111.5	4196.2	4238.6	4246.4	4288.8
22.5°	3733.9	3741.6	3822.5	3880.4	3926.6	3957.4	4038.2	4127.0	4165.5	4177.0	4223.2
25°	3622.1	3629.9	3706.9	3764.8	3814.9	3849.5	3926.6	4007.5	4053.8	4065.2	4100.0
27.5°	3475.8	3491.1	3564.4	3622.1	3664.5	3687.6	3768.6	3853.4	3888.0	3899.6	3934.2
30°	3306.1	3310.0	3383.2	3433.4	3475.8	3495.0	3564.4	3653.0	3680.0	3691.5	3741.6
32.5°	3098.1	3094.2	3163.6	3209.9	3244.5	3267.6	3340.9	3398.6	3425.6	3444.9	3471.9
35°	2847.6	2843.8	2893.9	2947.9	2974.8	2982.5	3055.8	3117.4	3132.8	3148.1	3182.9
37.5°	2566.4	2566.4	2608.8	2635.8	2666.5	2678.1	2712.8	2782.1	2809.1	2805.2	2832.2
40°	2269.6	2254.2	2285.0	2312.0	2319.8	2323.6	2358.2	2412.2	2431.5	2431.5	2450.8
42.5°	1957.5	1934.4	1938.2	1953.6	1961.4	1934.4	1957.5	1992.1	1980.6	1996.0	1999.9
45°	1626.1	1591.4	1576.0	1541.4	1549.0	1522.1	1506.6	1514.4	1510.5	1472.0	1479.6
47.5°	1356.4	1294.8	1267.8	1217.6	1206.1	1175.2	1156.0	1121.4	1090.5	1090.5	1071.2
50°	1129.0	1067.4	1013.4	955.6	936.4	909.4	867.0	820.8	797.6	774.5	755.2
52.5°	947.9	882.4	816.9	755.2	728.2	693.6	635.8	589.6	547.1	524.0	500.9
55°	801.5	728.2	658.9	593.4	558.8	524.0	466.2	412.2	362.2	331.4	312.1
57.5°	689.8	620.4	547.1	477.9	447.0	408.5	346.8	289.0	242.8	208.1	188.9
60°	608.9	539.5	474.0	400.8	369.9	331.4	265.9	211.9	165.8	134.9	111.8
62.5°	539.5	477.9	408.5	343.0	312.1	273.6	211.9	158.0	115.6	84.8	65.5
65°	489.4	427.8	369.9	304.4	277.5	238.9	181.1	131.0	92.5	65.5	46.2
67.5°	431.6	377.6	319.9	265.9	238.9	208.1	154.1	111.8	77.1	54.0	38.5
70°	362.2	319.9	269.8	219.6	200.4	173.4	127.1	92.5	61.6	42.4	30.9
72.5°	289.0	254.4	215.8	177.2	161.9	134.9	104.0	73.2	46.2	30.9	23.1
75°	219.6	192.6	161.9	134.9	119.5	104.0	77.1	54.0	34.6	23.1	15.4
77.5°	150.2	138.8	115.6	92.5	84.8	73.2	50.1	34.6	23.1	15.4	7.8
80°	104.0	92.5	77.1	61.6	54.0	46.2	30.9	23.1	11.5	7.8	3.9
82.5°	65.5	54.0	46.2	38.5	34.6	27.0	19.2	11.5	7.8	3.9	3.9
85°	34.6	30.9	27.0	19.2	19.2	15.4	11.5	7.8	3.9	0.0	0.0
87.5°	19.2	15.4	11.5	7.8	7.8	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	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°	4030.6	4030.6	4030.6	4030.6	4030.6	4030.6	4030.6	4030.6	4030.6	4030.6	4030.6
2.5°	4053.8	4053.8	4049.9	4096.1	4042.1	4096.1	4069.1	4096.1	4057.6	4053.8	4057.6
5°	4084.5	4096.1	4100.0	4142.4	4092.2	4157.8	4134.6	4157.8	4130.8	4138.5	4150.0
7.5°	4146.2	4165.5	4161.6	4215.6	4165.5	4238.6	4223.2	4258.0	4231.0	4238.6	4254.1
10°	4215.6	4238.6	4242.5	4296.5	4250.2	4338.9	4319.6	4358.1	4335.0	4346.6	4365.9
12.5°	4296.5	4323.5	4327.2	4389.0	4338.9	4431.4	4419.8	4458.4	4439.0	4450.6	4473.8
15°	4358.1	4396.6	4404.4	4466.0	4412.1	4508.4	4500.8	4550.8	4520.0	4539.2	4558.5
17.5°	4389.0	4423.6	4439.0	4496.9	4450.6	4547.0	4539.2	4581.6	4558.5	4577.8	4600.9
20°	4369.8	4412.1	4423.6	4481.5	4435.2	4531.5	4520.0	4562.4	4539.2	4554.6	4577.8
22.5°	4300.4	4342.8	4358.1	4412.1	4369.8	4458.4	4454.5	4493.0	4462.1	4481.5	4500.8
25°	4177.0	4223.2	4231.0	4281.1	4234.9	4327.2	4319.6	4362.0	4338.9	4350.4	4377.4
27.5°	3999.8	4053.8	4065.2	4107.6	4073.0	4150.0	4150.0	4184.8	4157.8	4157.8	4184.8
30°	3787.9	3841.8	3849.5	3884.1	3853.4	3922.8	3926.6	3961.2	3918.9	3942.0	3945.9
32.5°	3529.6	3564.4	3587.5	3618.2	3572.0	3660.6	3649.1	3676.1	3653.0	3653.0	3672.2
35°	3217.5	3259.9	3271.5	3310.0	3271.5	3340.9	3340.9	3356.2	3333.1	3333.1	3364.0
37.5°	2878.5	2909.2	2913.1	2951.6	2920.9	2978.6	2974.8	2986.4	2963.2	2978.6	2978.6
40°	2481.5	2504.6	2512.4	2531.6	2527.8	2570.1	2566.4	2574.0	2562.5	2566.4	2574.0
42.5°	2019.1	2050.0	2065.4	2080.8	2057.8	2115.5	2103.9	2115.5	2111.6	2115.5	2127.0
45°	1487.4	1510.5	1522.1	1525.9	1518.2	1552.9	1579.9	1556.8	1560.6	1552.9	1568.4
47.5°	1075.1	1079.0	1071.2	1094.4	1075.1	1090.5	1098.2	1102.0	1079.0	1075.1	1090.5
50°	736.0	755.2	728.2	739.9	736.0	751.4	743.8	747.5	724.4	736.0	728.2
52.5°	489.4	485.5	477.9	481.6	474.0	474.0	474.0	481.6	466.2	458.5	450.9
55°	296.8	289.0	273.6	269.8	269.8	273.6	265.9	258.1	258.1	254.4	254.4
57.5°	173.4	161.9	154.1	150.2	142.6	138.8	134.9	134.9	127.1	127.1	127.1
60°	96.4	84.8	77.1	69.4	69.4	65.5	61.6	57.8	57.8	57.8	54.0
62.5°	50.1	42.4	34.6	30.9	30.9	27.0	23.1	23.1	23.1	23.1	19.2
65°	34.6	27.0	23.1	19.2	19.2	15.4	15.4	15.4	15.4	15.4	15.4
67.5°	27.0	23.1	19.2	15.4	15.4	15.4	11.5	11.5	11.5	11.5	11.5
70°	23.1	15.4	15.4	11.5	11.5	11.5	11.5	11.5	11.5	11.5	11.5
72.5°	15.4	15.4	11.5	11.5	11.5	11.5	11.5	11.5	11.5	11.5	11.5
75°	11.5	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8
77.5°	3.9	3.9	3.9	3.9	3.9	3.9	0.0	0.0	0.0	0.0	0.0
80°	3.9	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: P252201

CATALOG NUMBER: LE\_6B50D010R EC6B30509035 6LBSW1LI

**CANDELA DISTRIBUTION (continued):**

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	4030.6	4030.6	4030.6	4030.6	4030.6	4030.6	4030.6	4030.6
2.5°	4092.2	4088.4	4092.2	4100.0	4084.5	4130.8	4107.6	4130.8
5°	4180.9	4184.8	4188.6	4200.1	4180.9	4238.6	4207.9	4242.5
7.5°	4296.5	4300.4	4304.2	4315.8	4304.2	4362.0	4327.2	4358.1
10°	4416.0	4423.6	4423.6	4442.9	4431.4	4485.2	4462.1	4500.8
12.5°	4527.6	4535.4	4543.1	4554.6	4547.0	4604.8	4585.5	4616.4
15°	4616.4	4631.8	4635.6	4651.0	4643.2	4705.0	4681.9	4712.6
17.5°	4658.8	4674.1	4674.1	4693.4	4685.6	4751.1	4720.4	4755.0
20°	4635.6	4647.1	4651.0	4670.2	4662.5	4728.0	4697.2	4739.6
22.5°	4562.4	4566.2	4570.1	4589.4	4585.5	4643.2	4616.4	4643.2
25°	4427.5	4439.0	4435.2	4450.6	4450.6	4496.9	4466.0	4489.1
27.5°	4234.9	4246.4	4246.4	4265.6	4250.2	4296.5	4265.6	4300.4
30°	3999.8	4011.4	4003.6	4019.0	4003.6	4049.9	4026.8	4038.2
32.5°	3718.5	3718.5	3722.4	3726.2	3718.5	3760.9	3737.8	3760.9
35°	3383.2	3391.0	3394.8	3398.6	3391.0	3421.8	3394.8	3410.2
37.5°	3005.6	3024.9	3021.0	3024.9	3013.4	3051.9	3028.8	3036.5
40°	2601.0	2601.0	2597.1	2604.9	2593.2	2624.1	2608.8	2616.4
42.5°	2130.9	2142.5	2127.0	2146.4	2115.5	2157.9	2142.5	2130.9
45°	1599.1	1583.8	1579.9	1583.8	1572.1	1576.0	1587.6	1579.9
47.5°	1090.5	1090.5	1082.8	1071.2	1086.6	1090.5	1075.1	1075.1
50°	732.1	732.1	724.4	720.6	728.2	724.4	716.8	728.2
52.5°	466.2	450.9	450.9	458.5	450.9	443.1	454.8	447.0
55°	254.4	246.6	246.6	254.4	246.6	246.6	242.8	250.5
57.5°	123.2	127.1	123.2	123.2	123.2	123.2	119.5	123.2
60°	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0
62.5°	23.1	23.1	19.2	19.2	19.2	19.2	19.2	19.2
65°	15.4	15.4	15.4	15.4	15.4	15.4	15.4	15.4
67.5°	11.5	11.5	11.5	11.5	11.5	15.4	11.5	11.5
70°	11.5	11.5	11.5	11.5	11.5	11.5	11.5	11.5
72.5°	11.5	11.5	15.4	15.4	15.4	15.4	15.4	15.4
75°	7.8	7.8	7.8	3.9	3.9	3.9	3.9	3.9
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)