

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: P252190

Luminaire Tested: **LE_6B40D010 EC6B30509050 6LBSW1LI**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P252190
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_6B40D010 EC6B30509050 6LBSW1LI
Description: PORTFOLIO 6 INCH SINGLE WALLWASH RECESSED DOWNLIGHT, WITH SPECULAR CLEAR TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 5000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5793.7 lumens
Efficiency: N/A
Efficacy: 134.7 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

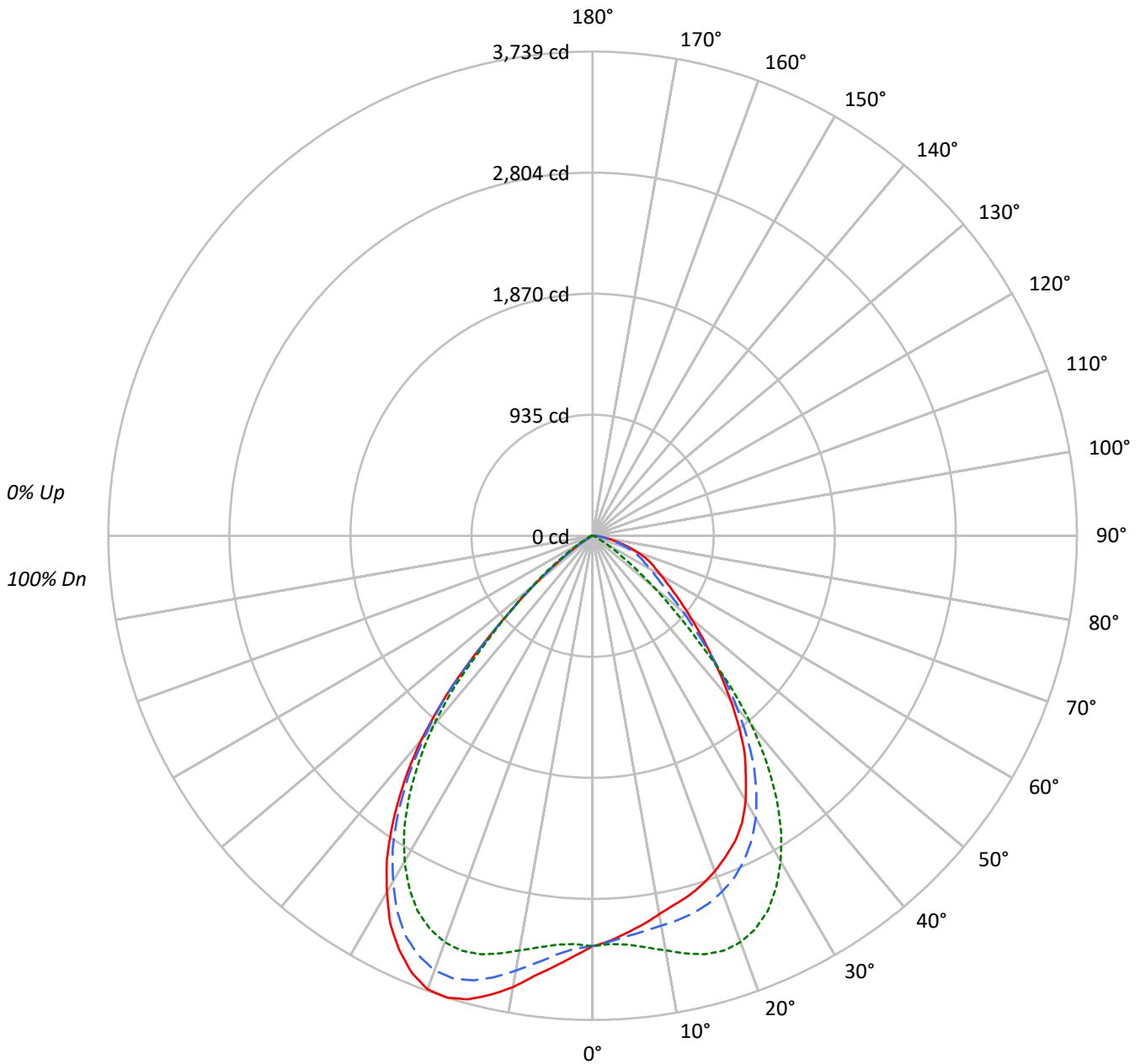
Input Watts (W): 43
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P252190

CATALOG NUMBER: LE_6B40D010 EC6B30509050 6LBSW1LI

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°	206787	206787	206787
5°	201434	207577	218487
10°	196529	215402	234475
15°	194237	225955	250311
20°	191447	231847	258771
25°	187377	230129	254122
30°	178058	218693	239244
35°	162904	197183	213590
40°	140906	162845	175228
45°	118827	106796	114629
50°	100877	61821	58137
55°	87537	29642	22407
60°	79072	13831	5532
65°	76723	7950	1868
70°	68785	6371	1736
75°	56514	4562	756
80°	42117	2254	0
85°	36305	0	0



TEST NUMBER: P252190

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	306.2	5.3
10°-20°	933.1	16.1
20°-30°	1425.6	24.6
30°-40°	1491.1	25.7
40°-50°	967.3	16.7
50°-60°	384.1	6.6
60°-70°	182.2	3.1
70°-80°	86.6	1.5
80°-90°	17.7	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°	2664.8	46.0
0°-40°	4155.9	71.7
0°-60°	5507.2	95.1
0°-90°	5793.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5793.7	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	3170	3170	3170	3170	3170	
5°	3076	3103	3170	3248	3336	290
15°	2876	3015	3345	3554	3706	810
25°	2603	2767	3197	3412	3530	1192
35°	2045	2170	2476	2621	2682	1265
45°	1288	1276	1158	1227	1242	1002
55°	770	654	261	203	197	697
65°	497	412	52	12	12	485
75°	224	182	18	6	3	242
85°	48	30	0	0	0	56
90°	0	0	0	0	0	



TEST NUMBER: P252190

CATALOG NUMBER: LE_6B40D010 EC6B30509050 6LBSW1LI

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	3169.6	3169.6	3169.6	3169.6	3169.6	3169.6	3169.6	3169.6	3169.6	3169.6	3169.6
2.5°	3130.2	3136.2	3103.0	3093.9	3118.1	3127.2	3130.2	3121.1	3124.1	3136.2	3136.2
5°	3075.8	3081.8	3051.5	3042.4	3066.6	3072.6	3081.8	3078.8	3087.9	3106.0	3103.0
7.5°	3024.1	3033.2	3000.0	2987.9	3018.1	3033.2	3039.4	3039.4	3051.5	3075.8	3078.8
10°	2966.6	2978.8	2948.4	2942.4	2975.8	2990.9	2993.9	3000.0	3018.1	3051.5	3057.5
12.5°	2918.1	2930.2	2909.0	2900.0	2936.2	2951.5	2957.5	2969.6	2990.9	3033.2	3039.4
15°	2875.8	2884.8	2860.5	2854.5	2890.9	2909.0	2912.1	2930.2	2957.5	3006.0	3015.1
17.5°	2821.1	2827.2	2809.0	2803.0	2839.4	2857.5	2860.5	2881.8	2915.1	2963.6	2978.8
20°	2757.5	2763.6	2745.4	2739.4	2775.8	2796.9	2800.0	2818.1	2857.5	2909.0	2924.2
22.5°	2681.8	2693.9	2672.6	2666.6	2703.0	2721.1	2730.2	2745.4	2784.8	2836.2	2857.5
25°	2603.0	2603.0	2587.9	2584.8	2618.1	2639.4	2636.4	2657.5	2696.9	2748.4	2766.6
27.5°	2500.0	2496.9	2481.8	2478.8	2515.1	2533.2	2527.2	2548.5	2584.8	2636.4	2654.5
30°	2363.6	2369.6	2348.5	2342.4	2372.6	2403.0	2400.0	2421.1	2457.5	2506.0	2518.1
32.5°	2200.0	2206.0	2203.0	2193.9	2221.1	2236.4	2245.4	2260.6	2290.9	2342.4	2354.5
35°	2045.4	2036.4	2024.2	2024.2	2051.5	2075.8	2066.6	2084.8	2115.1	2166.6	2169.6
37.5°	1854.5	1851.5	1845.4	1839.4	1869.6	1875.8	1878.8	1890.9	1918.1	1960.6	1954.5
40°	1654.5	1657.5	1654.5	1642.4	1660.6	1684.9	1681.8	1687.9	1712.1	1742.4	1733.2
42.5°	1466.6	1466.6	1466.6	1454.5	1475.8	1487.9	1493.9	1490.9	1497.0	1524.2	1512.1
45°	1287.9	1290.9	1287.9	1284.9	1287.9	1293.9	1287.9	1284.9	1284.9	1293.9	1275.8
47.5°	1133.2	1133.2	1124.2	1115.1	1124.2	1127.2	1118.1	1109.1	1106.0	1103.0	1072.8
50°	993.9	990.9	987.9	972.8	981.8	984.9	972.8	966.6	954.5	939.4	903.0
52.5°	872.8	869.6	866.6	851.5	857.5	860.6	848.5	836.4	821.2	809.1	763.6
55°	769.6	766.6	766.6	757.5	751.5	757.5	745.5	736.4	715.1	700.0	654.5
57.5°	681.8	681.8	675.8	666.6	669.6	669.6	657.6	645.5	627.2	609.1	572.8
60°	606.0	606.0	606.0	597.0	597.0	597.0	590.9	578.8	563.6	545.5	509.1
62.5°	545.5	545.5	542.4	533.4	536.4	536.4	530.2	518.1	503.0	490.9	454.5
65°	497.0	497.0	497.0	487.9	487.9	490.9	484.9	472.8	460.6	445.5	412.1
67.5°	436.4	433.4	433.4	427.2	430.2	433.4	427.2	418.1	403.0	393.9	363.6
70°	360.6	363.6	366.6	357.6	360.6	360.6	357.6	348.5	339.4	330.2	303.0
72.5°	293.9	293.9	290.9	287.9	287.9	290.9	284.9	275.8	269.8	263.6	242.4
75°	224.2	221.2	224.2	218.1	218.1	218.1	212.1	209.1	206.0	197.0	181.9
77.5°	163.6	160.6	160.6	154.5	157.6	157.6	154.5	148.5	142.4	139.4	127.2
80°	112.1	112.1	112.1	109.1	109.1	106.0	106.0	103.0	97.0	94.0	87.9
82.5°	75.8	75.8	75.8	72.8	72.8	72.8	69.8	66.6	63.6	60.6	54.5
85°	48.5	48.5	48.5	45.5	45.5	45.5	42.4	42.4	39.4	36.4	30.2
87.5°	27.2	27.2	27.2	24.2	24.2	24.2	24.2	24.2	21.2	18.1	15.1
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: P252190

CATALOG NUMBER: LE_6B40D010 EC6B30509050 6LBSW1LI

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	3169.6	3169.6	3169.6	3169.6	3169.6	3169.6	3169.6	3169.6	3169.6	3169.6	3169.6
2.5°	3157.5	3115.1	3142.4	3142.4	3133.2	3157.5	3172.6	3184.8	3181.8	3154.5	3151.5
5°	3133.2	3096.9	3127.2	3130.2	3121.1	3154.5	3175.8	3190.9	3193.9	3169.6	3172.6
7.5°	3115.1	3084.8	3124.1	3136.2	3133.2	3163.6	3187.9	3212.0	3224.1	3206.0	3209.0
10°	3106.0	3081.8	3124.1	3142.4	3145.4	3178.8	3215.1	3248.4	3263.6	3251.5	3260.5
12.5°	3093.9	3078.8	3127.2	3154.5	3166.6	3200.0	3245.4	3284.8	3309.0	3303.0	3321.1
15°	3081.8	3069.6	3127.2	3166.6	3181.8	3212.0	3263.6	3321.1	3348.4	3345.4	3369.6
17.5°	3051.5	3048.4	3109.0	3151.5	3172.6	3209.0	3257.5	3327.2	3354.5	3360.5	3390.9
20°	3003.0	3003.0	3069.6	3115.1	3139.4	3172.6	3233.2	3300.0	3333.2	3339.4	3372.6
22.5°	2936.2	2942.4	3006.0	3051.5	3087.9	3112.1	3175.8	3245.4	3275.8	3284.8	3321.1
25°	2848.4	2854.5	2915.1	2960.5	3000.0	3027.2	3087.9	3151.5	3187.9	3196.9	3224.1
27.5°	2733.2	2745.4	2803.0	2848.4	2881.8	2900.0	2963.6	3030.2	3057.5	3066.6	3093.9
30°	2600.0	2603.0	2660.5	2700.0	2733.2	2748.4	2803.0	2872.6	2893.9	2903.0	2942.4
32.5°	2436.4	2433.2	2487.9	2524.2	2551.5	2569.6	2627.2	2672.6	2693.9	2709.0	2730.2
35°	2239.4	2236.4	2275.8	2318.1	2339.4	2345.4	2403.0	2451.5	2463.6	2475.8	2503.0
37.5°	2018.1	2018.1	2051.5	2072.8	2096.9	2106.0	2133.2	2187.9	2209.0	2206.0	2227.2
40°	1784.9	1772.8	1796.9	1818.1	1824.2	1827.2	1854.5	1896.9	1912.1	1912.1	1927.2
42.5°	1539.4	1521.1	1524.2	1536.4	1542.4	1521.1	1539.4	1566.6	1557.5	1569.6	1572.8
45°	1278.8	1251.5	1239.4	1212.1	1218.1	1197.0	1184.9	1190.9	1187.9	1157.5	1163.6
47.5°	1066.6	1018.1	997.0	957.5	948.5	924.2	909.1	881.8	857.5	857.5	842.4
50°	887.9	839.4	797.0	751.5	736.4	715.1	681.8	645.5	627.2	609.1	593.9
52.5°	745.5	693.9	642.4	593.9	572.8	545.5	500.0	463.6	430.2	412.1	393.9
55°	630.2	572.8	518.1	466.6	439.4	412.1	366.6	324.2	284.9	260.6	245.5
57.5°	542.4	487.9	430.2	375.8	351.5	321.2	272.8	227.2	190.9	163.6	148.5
60°	478.8	424.2	372.8	315.1	290.9	260.6	209.1	166.6	130.2	106.0	87.9
62.5°	424.2	375.8	321.2	269.8	245.5	215.1	166.6	124.2	90.9	66.6	51.5
65°	384.9	336.4	290.9	239.4	218.1	187.9	142.4	103.0	72.8	51.5	36.4
67.5°	339.4	297.0	251.5	209.1	187.9	163.6	121.2	87.9	60.6	42.4	30.2
70°	284.9	251.5	212.1	172.8	157.6	136.4	100.0	72.8	48.5	33.4	24.2
72.5°	227.2	200.0	169.8	139.4	127.2	106.0	81.9	57.6	36.4	24.2	18.1
75°	172.8	151.5	127.2	106.0	94.0	81.9	60.6	42.4	27.2	18.1	12.1
77.5°	118.1	109.1	90.9	72.8	66.6	57.6	39.4	27.2	18.1	12.1	6.0
80°	81.9	72.8	60.6	48.5	42.4	36.4	24.2	18.1	9.1	6.0	3.0
82.5°	51.5	42.4	36.4	30.2	27.2	21.2	15.1	9.1	6.0	3.0	3.0
85°	27.2	24.2	21.2	15.1	15.1	12.1	9.1	6.0	3.0	0.0	0.0
87.5°	15.1	12.1	9.1	6.0	6.0	3.0	3.0	3.0	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: P252190

CATALOG NUMBER: LE_6B40D010 EC6B30509050 6LBSW1LI

CANDELA DISTRIBUTION (continued):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	3169.6	3169.6	3169.6	3169.6	3169.6	3169.6	3169.6	3169.6	3169.6	3169.6	3169.6
2.5°	3187.9	3187.9	3184.8	3221.1	3178.8	3221.1	3200.0	3221.1	3190.9	3187.9	3190.9
5°	3212.0	3221.1	3224.1	3257.5	3218.1	3269.6	3251.5	3269.6	3248.4	3254.5	3263.6
7.5°	3260.5	3275.8	3272.6	3315.1	3275.8	3333.2	3321.1	3348.4	3327.2	3333.2	3345.4
10°	3315.1	3333.2	3336.2	3378.8	3342.4	3412.0	3396.9	3427.2	3409.0	3418.1	3433.2
12.5°	3378.8	3399.9	3403.0	3451.5	3412.0	3484.8	3475.8	3506.0	3490.9	3499.9	3518.1
15°	3427.2	3457.5	3463.6	3512.0	3469.6	3545.4	3539.4	3578.8	3554.5	3569.6	3584.8
17.5°	3451.5	3478.8	3490.9	3536.2	3499.9	3575.8	3569.6	3603.0	3584.8	3599.9	3618.1
20°	3436.2	3469.6	3478.8	3524.1	3487.9	3563.6	3554.5	3587.9	3569.6	3581.8	3599.9
22.5°	3381.8	3415.1	3427.2	3469.6	3436.2	3506.0	3503.0	3533.2	3509.0	3524.1	3539.4
25°	3284.8	3321.1	3327.2	3366.6	3330.2	3403.0	3396.9	3430.2	3412.0	3421.1	3442.4
27.5°	3145.4	3187.9	3196.9	3230.2	3203.0	3263.6	3263.6	3290.9	3269.6	3269.6	3290.9
30°	2978.8	3021.1	3027.2	3054.5	3030.2	3084.8	3087.9	3115.1	3081.8	3100.0	3103.0
32.5°	2775.8	2803.0	2821.1	2845.4	2809.0	2878.8	2869.6	2890.9	2872.6	2872.6	2887.9
35°	2530.2	2563.6	2572.6	2603.0	2572.6	2627.2	2627.2	2639.4	2621.1	2621.1	2645.4
37.5°	2263.6	2287.9	2290.9	2321.1	2296.9	2342.4	2339.4	2348.5	2330.2	2342.4	2342.4
40°	1951.5	1969.6	1975.8	1990.9	1987.9	2021.1	2018.1	2024.2	2015.1	2018.1	2024.2
42.5°	1587.9	1612.1	1624.2	1636.4	1618.1	1663.6	1654.5	1663.6	1660.6	1663.6	1672.8
45°	1169.6	1187.9	1197.0	1200.0	1193.9	1221.2	1242.4	1224.2	1227.2	1221.2	1233.2
47.5°	845.5	848.5	842.4	860.6	845.5	857.5	863.6	866.6	848.5	845.5	857.5
50°	578.8	593.9	572.8	581.8	578.8	590.9	584.9	587.9	569.6	578.8	572.8
52.5°	384.9	381.8	375.8	378.8	372.8	372.8	372.8	378.8	366.6	360.6	354.5
55°	233.4	227.2	215.1	212.1	212.1	215.1	209.1	203.0	203.0	200.0	200.0
57.5°	136.4	127.2	121.2	118.1	112.1	109.1	106.0	106.0	100.0	100.0	100.0
60°	75.8	66.6	60.6	54.5	54.5	51.5	48.5	45.5	45.5	45.5	42.4
62.5°	39.4	33.4	27.2	24.2	24.2	21.2	18.1	18.1	18.1	18.1	15.1
65°	27.2	21.2	18.1	15.1	15.1	12.1	12.1	12.1	12.1	12.1	12.1
67.5°	21.2	18.1	15.1	12.1	12.1	12.1	9.1	9.1	9.1	9.1	9.1
70°	18.1	12.1	12.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1
72.5°	12.1	12.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1
75°	9.1	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
77.5°	3.0	3.0	3.0	3.0	3.0	3.0	0.0	0.0	0.0	0.0	0.0
80°	3.0	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: P252190

CATALOG NUMBER: LE_6B40D010 EC6B30509050 6LBSW1LI

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	3169.6	3169.6	3169.6	3169.6	3169.6	3169.6	3169.6	3169.6
2.5°	3218.1	3215.1	3218.1	3224.1	3212.0	3248.4	3230.2	3248.4
5°	3287.9	3290.9	3293.9	3303.0	3287.9	3333.2	3309.0	3336.2
7.5°	3378.8	3381.8	3384.8	3393.9	3384.8	3430.2	3403.0	3427.2
10°	3472.6	3478.8	3478.8	3493.9	3484.8	3527.2	3509.0	3539.4
12.5°	3560.5	3566.6	3572.6	3581.8	3575.8	3621.1	3606.0	3630.2
15°	3630.2	3642.4	3645.4	3657.5	3651.5	3699.9	3681.8	3706.0
17.5°	3663.6	3675.8	3675.8	3690.9	3684.8	3736.2	3712.0	3739.4
20°	3645.4	3654.5	3657.5	3672.6	3666.6	3718.1	3693.9	3727.2
22.5°	3587.9	3590.9	3593.9	3609.0	3606.0	3651.5	3630.2	3651.5
25°	3481.8	3490.9	3487.9	3499.9	3499.9	3536.2	3512.0	3530.2
27.5°	3330.2	3339.4	3339.4	3354.5	3342.4	3378.8	3354.5	3381.8
30°	3145.4	3154.5	3148.4	3160.5	3148.4	3184.8	3166.6	3175.8
32.5°	2924.2	2924.2	2927.2	2930.2	2924.2	2957.5	2939.4	2957.5
35°	2660.5	2666.6	2669.6	2672.6	2666.6	2690.9	2669.6	2681.8
37.5°	2363.6	2378.8	2375.8	2378.8	2369.6	2400.0	2381.8	2387.9
40°	2045.4	2045.4	2042.4	2048.5	2039.4	2063.6	2051.5	2057.5
42.5°	1675.8	1684.9	1672.8	1687.9	1663.6	1697.0	1684.9	1675.8
45°	1257.5	1245.4	1242.4	1245.4	1236.4	1239.4	1248.5	1242.4
47.5°	857.5	857.5	851.5	842.4	854.5	857.5	845.5	845.5
50°	575.8	575.8	569.6	566.6	572.8	569.6	563.6	572.8
52.5°	366.6	354.5	354.5	360.6	354.5	348.5	357.6	351.5
55°	200.0	193.9	193.9	200.0	193.9	193.9	190.9	197.0
57.5°	97.0	100.0	97.0	97.0	97.0	97.0	94.0	97.0
60°	42.4	42.4	42.4	42.4	42.4	42.4	42.4	42.4
62.5°	18.1	18.1	15.1	15.1	15.1	15.1	15.1	15.1
65°	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1
67.5°	9.1	9.1	9.1	9.1	9.1	12.1	9.1	9.1
70°	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1
72.5°	9.1	9.1	12.1	12.1	12.1	12.1	12.1	12.1
75°	6.0	6.0	6.0	3.0	3.0	3.0	3.0	3.0
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)