

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: P252184

Luminaire Tested: **LE_6B40D010 EC6B30508050 6LBSW1LI**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P252184
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 EC6B30508050 6LBSW1LI
Description: PORTFOLIO 6 INCH SINGLE WALLWASH RECESSED DOWNLIGHT, WITH SPECULAR CLEAR TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 5000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6881.2 lumens
Efficiency: N/A
Efficacy: 160.0 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

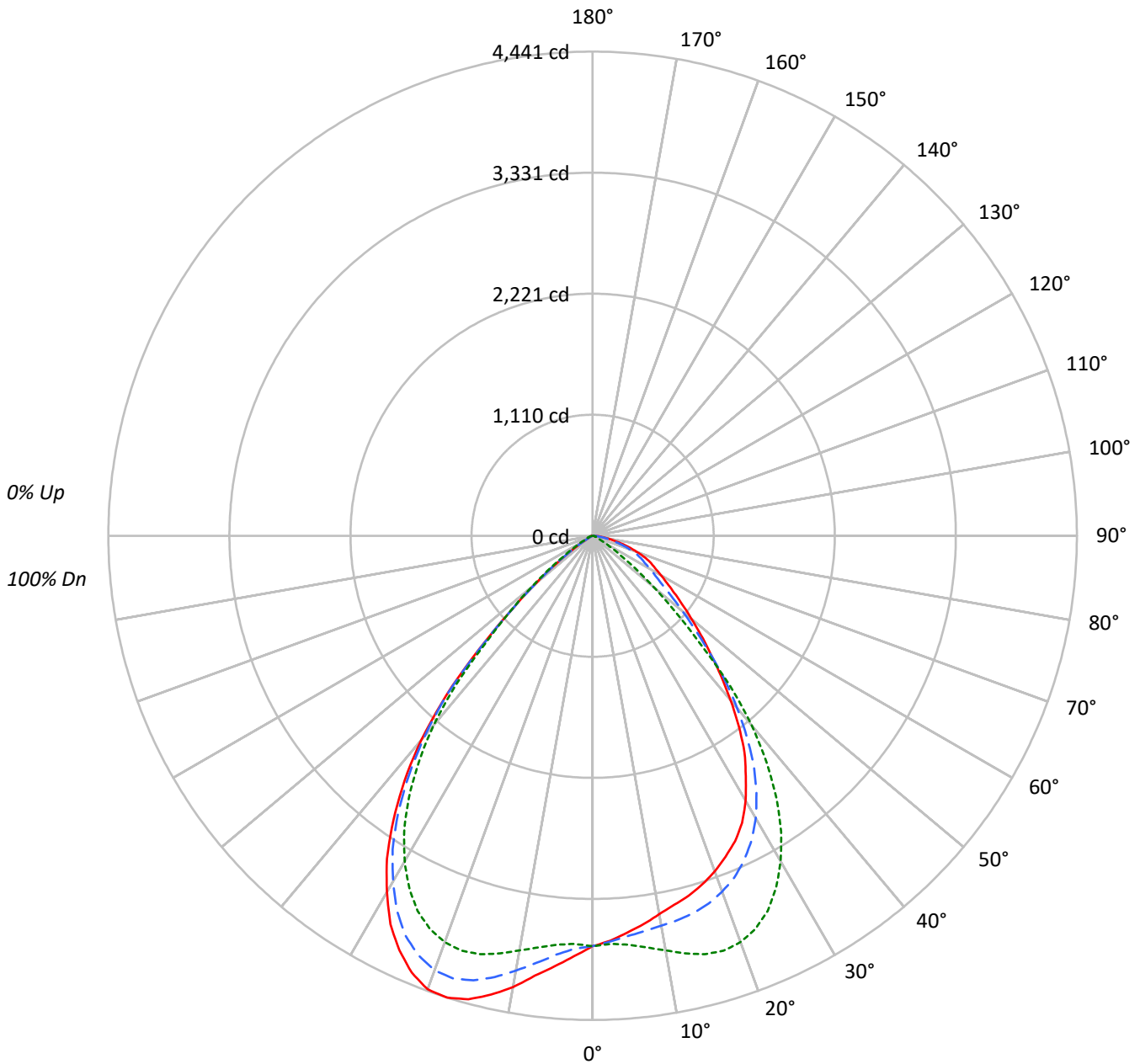
Input Watts (W): 43
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P252184

CATALOG NUMBER: LE_6B40D010 EC6B30508050 6LBSW1LI

Luminous Intensity Polar Plot





TEST NUMBER: P252184

CATALOG NUMBER: LE_6B40D010 EC6B30508050 6LBSW1LI

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°	245605	245605	245605
5°	239234	246543	259503
10°	233422	255833	278476
15°	230690	268372	297293
20°	227382	275357	307342
25°	222549	273327	301826
30°	211476	259742	284142
35°	193487	234186	253674
40°	167359	193411	208128
45°	141127	126854	136145
50°	119816	73422	69038
55°	103973	35204	26605
60°	93920	16441	6576
65°	91111	9432	2223
70°	81680	7554	2060
75°	67152	5445	907
80°	50006	2705	0
85°	43117	0	0



TEST NUMBER: P252184

CATALOG NUMBER: LE_6B40D010 EC6B30508050 6LBSW1LI

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	363.6	5.3
10°-20°	1108.2	16.1
20°-30°	1693.2	24.6
30°-40°	1771.0	25.7
40°-50°	1148.8	16.7
50°-60°	456.1	6.6
60°-70°	216.4	3.1
70°-80°	102.9	1.5
80°-90°	21.0	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°	3165.0	46.0
0°-40°	4936.0	71.7
0°-60°	6541.0	95.1
0°-90°	6881.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6881.2	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	3765	3765	3765	3765	3765	
5°	3653	3685	3765	3858	3962	345
15°	3416	3581	3973	4222	4402	963
25°	3092	3286	3797	4052	4193	1416
35°	2429	2577	2940	3113	3185	1502
45°	1530	1515	1375	1458	1476	1190
55°	914	777	310	241	234	828
65°	590	490	61	14	14	577
75°	266	216	22	7	4	287
85°	58	36	0	0	0	67
90°	0	0	0	0	0	



TEST NUMBER: P252184

CATALOG NUMBER: LE_6B40D010 EC6B30508050 6LBSW1LI

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	3764.6	3764.6	3764.6	3764.6	3764.6	3764.6	3764.6	3764.6	3764.6	3764.6	3764.6
2.5°	3717.8	3725.0	3685.4	3674.6	3703.4	3714.2	3717.8	3707.0	3710.6	3725.0	3725.0
5°	3653.0	3660.2	3624.2	3613.4	3642.2	3649.4	3660.2	3656.6	3667.4	3689.0	3685.4
7.5°	3591.9	3602.6	3563.0	3548.6	3584.6	3602.6	3609.9	3609.9	3624.2	3653.0	3656.6
10°	3523.5	3537.9	3501.9	3494.6	3534.2	3552.2	3555.9	3563.0	3584.6	3624.2	3631.4
12.5°	3465.9	3480.2	3455.1	3444.2	3487.5	3505.5	3512.6	3527.0	3552.2	3602.6	3609.9
15°	3415.5	3426.2	3397.5	3390.2	3433.5	3455.1	3458.6	3480.2	3512.6	3570.2	3581.0
17.5°	3350.8	3357.9	3336.2	3329.1	3372.2	3393.9	3397.5	3422.6	3462.2	3519.9	3537.9
20°	3275.1	3282.4	3260.8	3253.5	3296.8	3321.9	3325.5	3347.1	3393.9	3455.1	3473.1
22.5°	3185.1	3199.5	3174.4	3167.1	3210.4	3231.9	3242.8	3260.8	3307.5	3368.8	3393.9
25°	3091.6	3091.6	3073.6	3070.0	3109.6	3134.8	3131.1	3156.4	3203.1	3264.4	3285.9
27.5°	2969.2	2965.6	2947.6	2944.0	2987.2	3008.8	3001.6	3026.8	3070.0	3131.1	3152.8
30°	2807.2	2814.5	2789.2	2782.0	2818.0	2854.0	2850.4	2875.6	2918.9	2976.4	2990.8
32.5°	2612.9	2620.1	2616.5	2605.8	2638.1	2656.1	2666.9	2684.9	2720.9	2782.0	2796.5
35°	2429.4	2418.5	2404.1	2404.1	2436.5	2465.4	2454.5	2476.1	2512.1	2573.2	2576.9
37.5°	2202.6	2199.0	2191.8	2184.6	2220.6	2227.8	2231.4	2245.8	2278.1	2328.6	2321.4
40°	1965.1	1968.6	1965.1	1950.6	1972.2	2001.0	1997.5	2004.6	2033.5	2069.5	2058.6
42.5°	1741.9	1741.9	1741.9	1727.5	1752.8	1767.1	1774.4	1770.8	1777.9	1810.4	1795.9
45°	1529.6	1533.1	1529.6	1526.0	1529.6	1536.8	1529.6	1526.0	1526.0	1536.8	1515.2
47.5°	1346.0	1346.0	1335.2	1324.5	1335.2	1338.9	1328.0	1317.2	1313.6	1310.0	1274.0
50°	1180.5	1176.9	1173.2	1155.2	1166.1	1169.6	1155.2	1148.1	1133.8	1115.8	1072.5
52.5°	1036.5	1032.9	1029.4	1011.4	1018.5	1022.1	1007.8	993.4	975.4	961.0	907.0
55°	914.1	910.5	910.5	899.8	892.5	899.8	885.4	874.6	849.4	831.4	777.4
57.5°	809.8	809.8	802.6	791.8	795.4	795.4	781.0	766.6	745.0	723.4	680.2
60°	719.8	719.8	719.8	709.0	709.0	709.0	701.8	687.4	669.4	647.9	604.6
62.5°	647.9	647.9	644.2	633.4	637.0	637.0	629.9	615.4	597.5	583.0	539.9
65°	590.2	590.2	590.2	579.5	579.5	583.0	575.9	561.5	547.0	529.0	489.5
67.5°	518.2	514.6	514.6	507.5	511.0	514.6	507.5	496.6	478.6	467.9	431.9
70°	428.2	431.9	435.5	424.6	428.2	428.2	424.6	413.9	403.1	392.2	359.9
72.5°	349.1	349.1	345.5	341.9	341.9	345.5	338.2	327.5	320.4	313.1	287.9
75°	266.4	262.8	266.4	259.1	259.1	259.1	251.9	248.4	244.8	233.9	216.0
77.5°	194.4	190.8	190.8	183.5	187.1	187.1	183.5	176.4	169.1	165.5	151.1
80°	133.1	133.1	133.1	129.6	129.6	126.0	126.0	122.4	115.1	111.6	104.4
82.5°	90.0	90.0	90.0	86.4	86.4	86.4	82.8	79.1	75.6	72.0	64.8
85°	57.6	57.6	57.6	54.0	54.0	54.0	50.4	50.4	46.8	43.2	36.0
87.5°	32.4	32.4	32.4	28.8	28.8	28.8	28.8	28.8	25.2	21.6	18.0
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: P252184

CATALOG NUMBER: LE_6B40D010 EC6B30508050 6LBSW1LI

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	3764.6	3764.6	3764.6	3764.6	3764.6	3764.6	3764.6	3764.6	3764.6	3764.6	3764.6
2.5°	3750.2	3699.8	3732.2	3732.2	3721.4	3750.2	3768.1	3782.6	3779.0	3746.6	3743.0
5°	3721.4	3678.2	3714.2	3717.8	3707.0	3746.6	3771.8	3789.8	3793.4	3764.6	3768.1
7.5°	3699.8	3663.9	3710.6	3725.0	3721.4	3757.4	3786.1	3815.0	3829.4	3807.8	3811.4
10°	3689.0	3660.2	3710.6	3732.2	3735.8	3775.4	3818.6	3858.1	3876.1	3861.8	3872.5
12.5°	3674.6	3656.6	3714.2	3746.6	3761.0	3800.6	3854.6	3901.4	3930.1	3923.0	3944.5
15°	3660.2	3645.9	3714.2	3761.0	3779.0	3815.0	3876.1	3944.5	3976.9	3973.4	4002.1
17.5°	3624.2	3620.6	3692.6	3743.0	3768.1	3811.4	3869.0	3951.8	3984.1	3991.4	4027.4
20°	3566.6	3566.6	3645.9	3699.8	3728.6	3768.1	3840.1	3919.4	3958.9	3966.1	4005.8
22.5°	3487.5	3494.6	3570.2	3624.2	3667.4	3696.2	3771.8	3854.6	3890.5	3901.4	3944.5
25°	3383.1	3390.2	3462.2	3516.2	3563.0	3595.4	3667.4	3743.0	3786.1	3797.0	3829.4
27.5°	3246.4	3260.8	3329.1	3383.1	3422.6	3444.2	3519.9	3599.0	3631.4	3642.2	3674.6
30°	3088.0	3091.6	3160.0	3206.8	3246.4	3264.4	3329.1	3411.9	3437.1	3447.9	3494.6
32.5°	2893.6	2890.0	2954.8	2998.0	3030.4	3052.0	3120.4	3174.4	3199.5	3217.5	3242.8
35°	2659.6	2656.1	2702.9	2753.2	2778.5	2785.6	2854.0	2911.6	2926.0	2940.4	2972.8
37.5°	2397.0	2397.0	2436.5	2461.8	2490.5	2501.4	2533.8	2598.5	2623.8	2620.1	2645.2
40°	2119.9	2105.4	2134.2	2159.4	2166.6	2170.2	2202.6	2253.0	2271.0	2271.0	2289.0
42.5°	1828.2	1806.8	1810.4	1824.8	1831.9	1806.8	1828.2	1860.8	1849.9	1864.2	1867.9
45°	1518.8	1486.4	1472.0	1439.6	1446.8	1421.6	1407.2	1414.4	1410.9	1374.9	1382.0
47.5°	1266.9	1209.2	1184.1	1137.2	1126.5	1097.8	1079.8	1047.4	1018.5	1018.5	1000.5
50°	1054.5	996.9	946.5	892.5	874.6	849.4	809.8	766.6	745.0	723.4	705.4
52.5°	885.4	824.1	763.0	705.4	680.2	647.9	593.9	550.6	511.0	489.5	467.9
55°	748.6	680.2	615.4	554.2	521.9	489.5	435.5	385.1	338.2	309.5	291.5
57.5°	644.2	579.5	511.0	446.2	417.5	381.5	323.9	269.9	226.8	194.4	176.4
60°	568.6	503.9	442.6	374.2	345.5	309.5	248.4	198.0	154.8	126.0	104.4
62.5°	503.9	446.2	381.5	320.4	291.5	255.5	198.0	147.5	108.0	79.1	61.1
65°	457.1	399.5	345.5	284.4	259.1	223.1	169.1	122.4	86.4	61.1	43.2
67.5°	403.1	352.8	298.8	248.4	223.1	194.4	144.0	104.4	72.0	50.4	36.0
70°	338.2	298.8	251.9	205.1	187.1	162.0	118.8	86.4	57.6	39.6	28.8
72.5°	269.9	237.5	201.5	165.5	151.1	126.0	97.1	68.4	43.2	28.8	21.6
75°	205.1	180.0	151.1	126.0	111.6	97.1	72.0	50.4	32.4	21.6	14.4
77.5°	140.4	129.6	108.0	86.4	79.1	68.4	46.8	32.4	21.6	14.4	7.2
80°	97.1	86.4	72.0	57.6	50.4	43.2	28.8	21.6	10.8	7.2	3.6
82.5°	61.1	50.4	43.2	36.0	32.4	25.2	18.0	10.8	7.2	3.6	3.6
85°	32.4	28.8	25.2	18.0	18.0	14.4	10.8	7.2	3.6	0.0	0.0
87.5°	18.0	14.4	10.8	7.2	7.2	3.6	3.6	3.6	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: P252184

CATALOG NUMBER: LE_6B40D010 EC6B30508050 6LBSW1LI

CANDELA DISTRIBUTION (continued):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	3764.6	3764.6	3764.6	3764.6	3764.6	3764.6	3764.6	3764.6	3764.6	3764.6	3764.6
2.5°	3786.1	3786.1	3782.6	3825.8	3775.4	3825.8	3800.6	3825.8	3789.8	3786.1	3789.8
5°	3815.0	3825.8	3829.4	3869.0	3822.1	3883.4	3861.8	3883.4	3858.1	3865.4	3876.1
7.5°	3872.5	3890.5	3887.0	3937.4	3890.5	3958.9	3944.5	3976.9	3951.8	3958.9	3973.4
10°	3937.4	3958.9	3962.5	4012.9	3969.8	4052.5	4034.5	4070.5	4048.9	4059.8	4077.8
12.5°	4012.9	4038.1	4041.8	4099.2	4052.5	4138.9	4128.1	4164.1	4146.1	4156.9	4178.5
15°	4070.5	4106.5	4113.8	4171.2	4120.9	4210.9	4203.6	4250.5	4221.6	4239.6	4257.6
17.5°	4099.2	4131.8	4146.1	4200.1	4156.9	4246.9	4239.6	4279.2	4257.6	4275.6	4297.2
20°	4081.2	4120.9	4131.8	4185.6	4142.5	4232.5	4221.6	4261.2	4239.6	4254.0	4275.6
22.5°	4016.5	4056.1	4070.5	4120.9	4081.2	4164.1	4160.5	4196.5	4167.6	4185.6	4203.6
25°	3901.4	3944.5	3951.8	3998.5	3955.4	4041.8	4034.5	4074.1	4052.5	4063.2	4088.5
27.5°	3735.8	3786.1	3797.0	3836.6	3804.1	3876.1	3876.1	3908.5	3883.4	3883.4	3908.5
30°	3537.9	3588.2	3595.4	3627.9	3599.0	3663.9	3667.4	3699.8	3660.2	3681.8	3685.4
32.5°	3296.8	3329.1	3350.8	3379.5	3336.2	3419.1	3408.2	3433.5	3411.9	3411.9	3429.9
35°	3005.2	3044.8	3055.6	3091.6	3055.6	3120.4	3120.4	3134.8	3113.1	3113.1	3142.0
37.5°	2688.5	2717.2	2720.9	2756.9	2728.1	2782.0	2778.5	2789.2	2767.6	2782.0	2782.0
40°	2317.8	2339.4	2346.6	2364.6	2361.0	2400.5	2397.0	2404.1	2393.4	2397.0	2404.1
42.5°	1885.9	1914.6	1929.1	1943.5	1921.9	1975.9	1965.1	1975.9	1972.2	1975.9	1986.6
45°	1389.2	1410.9	1421.6	1425.2	1418.0	1450.4	1475.6	1454.0	1457.6	1450.4	1464.8
47.5°	1004.1	1007.8	1000.5	1022.1	1004.1	1018.5	1025.8	1029.4	1007.8	1004.1	1018.5
50°	687.4	705.4	680.2	691.0	687.4	701.8	694.6	698.2	676.6	687.4	680.2
52.5°	457.1	453.5	446.2	449.9	442.6	442.6	442.6	449.9	435.5	428.2	421.1
55°	277.1	269.9	255.5	251.9	251.9	255.5	248.4	241.1	241.1	237.5	237.5
57.5°	162.0	151.1	144.0	140.4	133.1	129.6	126.0	126.0	118.8	118.8	118.8
60°	90.0	79.1	72.0	64.8	64.8	61.1	57.6	54.0	54.0	54.0	50.4
62.5°	46.8	39.6	32.4	28.8	28.8	25.2	21.6	21.6	21.6	21.6	18.0
65°	32.4	25.2	21.6	18.0	18.0	14.4	14.4	14.4	14.4	14.4	14.4
67.5°	25.2	21.6	18.0	14.4	14.4	14.4	10.8	10.8	10.8	10.8	10.8
70°	21.6	14.4	14.4	10.8	10.8	10.8	10.8	10.8	10.8	10.8	10.8
72.5°	14.4	14.4	10.8	10.8	10.8	10.8	10.8	10.8	10.8	10.8	10.8
75°	10.8	7.2	7.2	7.2	7.2	7.2	7.2	7.2	7.2	7.2	7.2
77.5°	3.6	3.6	3.6	3.6	3.6	3.6	0.0	0.0	0.0	0.0	0.0
80°	3.6	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: P252184

CATALOG NUMBER: LE_6B40D010 EC6B30508050 6LBSW1LI

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	3764.6	3764.6	3764.6	3764.6	3764.6	3764.6	3764.6	3764.6
2.5°	3822.1	3818.6	3822.1	3829.4	3815.0	3858.1	3836.6	3858.1
5°	3905.0	3908.5	3912.1	3923.0	3905.0	3958.9	3930.1	3962.5
7.5°	4012.9	4016.5	4020.1	4030.9	4020.1	4074.1	4041.8	4070.5
10°	4124.5	4131.8	4131.8	4149.6	4138.9	4189.2	4167.6	4203.6
12.5°	4228.9	4236.0	4243.2	4254.0	4246.9	4300.9	4282.9	4311.6
15°	4311.6	4326.0	4329.6	4344.0	4336.9	4394.4	4372.9	4401.6
17.5°	4351.2	4365.6	4365.6	4383.6	4376.4	4437.6	4408.9	4441.2
20°	4329.6	4340.4	4344.0	4362.0	4354.9	4416.0	4387.2	4426.8
22.5°	4261.2	4264.9	4268.5	4286.5	4282.9	4336.9	4311.6	4336.9
25°	4135.2	4146.1	4142.5	4156.9	4156.9	4200.1	4171.2	4192.9
27.5°	3955.4	3966.1	3966.1	3984.1	3969.8	4012.9	3984.1	4016.5
30°	3735.8	3746.6	3739.4	3753.8	3739.4	3782.6	3761.0	3771.8
32.5°	3473.1	3473.1	3476.6	3480.2	3473.1	3512.6	3491.0	3512.6
35°	3160.0	3167.1	3170.8	3174.4	3167.1	3196.0	3170.8	3185.1
37.5°	2807.2	2825.2	2821.6	2825.2	2814.5	2850.4	2828.9	2836.0
40°	2429.4	2429.4	2425.8	2433.0	2422.1	2451.0	2436.5	2443.8
42.5°	1990.2	2001.0	1986.6	2004.6	1975.9	2015.5	2001.0	1990.2
45°	1493.6	1479.2	1475.6	1479.2	1468.4	1472.0	1482.8	1475.6
47.5°	1018.5	1018.5	1011.4	1000.5	1014.9	1018.5	1004.1	1004.1
50°	683.9	683.9	676.6	673.0	680.2	676.6	669.4	680.2
52.5°	435.5	421.1	421.1	428.2	421.1	413.9	424.6	417.5
55°	237.5	230.4	230.4	237.5	230.4	230.4	226.8	233.9
57.5°	115.1	118.8	115.1	115.1	115.1	115.1	111.6	115.1
60°	50.4	50.4	50.4	50.4	50.4	50.4	50.4	50.4
62.5°	21.6	21.6	18.0	18.0	18.0	18.0	18.0	18.0
65°	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4
67.5°	10.8	10.8	10.8	10.8	10.8	14.4	10.8	10.8
70°	10.8	10.8	10.8	10.8	10.8	10.8	10.8	10.8
72.5°	10.8	10.8	14.4	14.4	14.4	14.4	14.4	14.4
75°	7.2	7.2	7.2	3.6	3.6	3.6	3.6	3.6
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)