

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: io LED

Report Number: P252215

Luminaire Tested: **LD6B60D010TE EU6B60709040 6LBSW1LI**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P252215
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: io LED
Catalog Number: LD6B60D010TE EU6B60709040 6LBSW1LI
Description: PORTFOLIO 6 INCH SINGLE WALLWASH RECESSED DOWNLIGHT, WITH SPECULAR CLEAR TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 4000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6595.9 lumens
Efficiency: N/A
Efficacy: 105.6 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

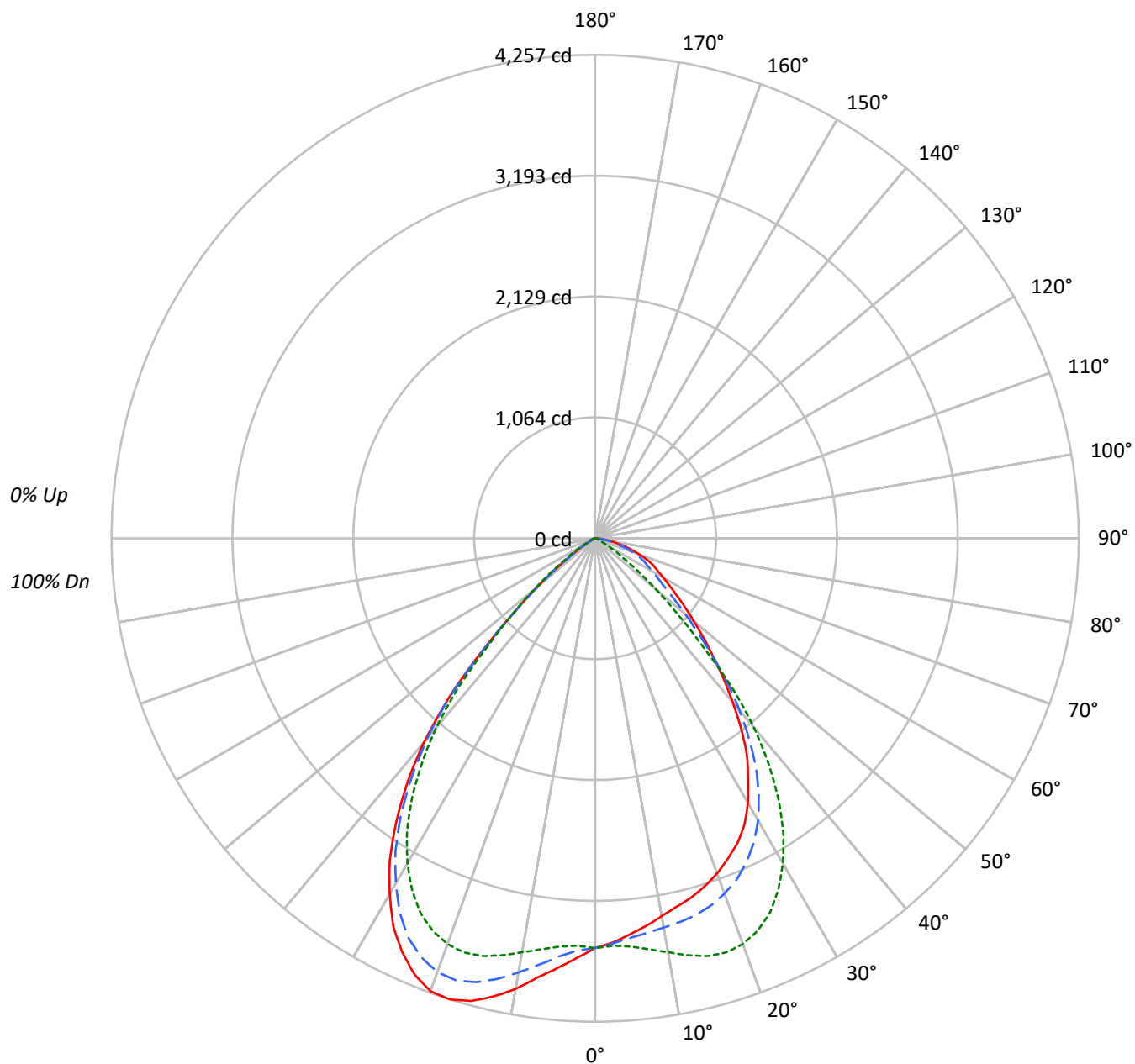
Input Watts (W): 62.48
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20					20					20					20					20
RC	80					70					50					30					10
RW	70	50	30	10		70	50	30	10		50	30	10		50	30	10		50	30	10
RCR																					
0	119	119	119	119		116	116	116	116		111	111	111		106	106	106		102	102	102
1	112	108	105	103		109	106	103	101		102	100	98		98	96	95		95	93	92
2	105	98	93	89		102	97	92	88		93	89	86		90	87	84		87	85	82
3	98	89	83	78		95	88	82	78		85	80	76		83	78	75		80	77	74
4	91	82	75	69		89	80	74	69		78	72	68		76	71	67		74	70	66
5	85	75	67	62		83	74	67	62		72	66	61		70	65	61		68	64	60
6	80	69	61	56		78	68	61	56		66	60	55		64	59	55		63	58	54
7	74	63	56	51		73	62	55	50		61	55	50		60	54	50		58	53	50
8	70	58	51	46		69	58	51	46		57	50	46		55	50	46		54	49	45
9	66	54	47	42		64	54	47	42		53	46	42		52	46	42		51	45	42
10	62	50	43	39		61	50	43	39		49	43	39		48	43	39		47	42	38

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	235421	235421	235421
5°	229319	236320	248750
10°	223743	245227	266936
15°	221126	257241	284973
20°	217961	263943	294602
25°	213321	261997	289315
30°	202715	248969	272360
35°	185459	224477	243161
40°	160418	185388	199492
45°	135278	121586	130498
50°	114843	70378	66176
55°	99673	33748	25501
60°	90032	15749	6302
65°	87344	9046	2130
70°	78303	7229	1965
75°	64354	5218	857
80°	47940	2592	0
85°	41320	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	348.6	5.3
10°-20°	1062.3	16.1
20°-30°	1623.0	24.6
30°-40°	1697.5	25.7
40°-50°	1101.2	16.7
50°-60°	437.2	6.6
60°-70°	207.4	3.1
70°-80°	98.6	1.5
80°-90°	20.1	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°	3033.8	46.0
0°-40°	4731.4	71.7
0°-60°	6269.8	95.1
0°-90°	6595.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6595.9	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	3608	3608	3608	3608	3608	
5°	3502	3533	3608	3698	3798	331
15°	3274	3433	3809	4047	4219	923
25°	2963	3150	3640	3884	4019	1357
35°	2329	2470	2818	2984	3053	1440
45°	1466	1452	1318	1397	1414	1141
55°	876	745	297	231	224	794
65°	566	469	59	14	14	553
75°	255	207	21	7	3	275
85°	55	34	0	0	0	64
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°	3608.5	3608.5	3608.5	3608.5	3608.5	3608.5	3608.5	3608.5	3608.5	3608.5	3608.5
2.5°	3563.7	3570.6	3532.6	3522.3	3549.9	3560.2	3563.7	3553.3	3556.8	3570.6	3570.6
5°	3501.6	3508.5	3474.0	3463.6	3491.2	3498.1	3508.5	3505.0	3515.4	3536.1	3532.6
7.5°	3442.9	3453.3	3415.3	3401.5	3436.0	3453.3	3460.2	3460.2	3474.0	3501.6	3505.0
10°	3377.4	3391.2	3356.7	3349.8	3387.7	3405.0	3408.4	3415.3	3436.0	3474.0	3480.9
12.5°	3322.2	3336.0	3311.8	3301.5	3342.9	3360.1	3367.0	3380.8	3405.0	3453.3	3460.2
15°	3273.9	3284.2	3256.6	3249.7	3291.1	3311.8	3315.3	3336.0	3367.0	3422.2	3432.6
17.5°	3211.8	3218.7	3198.0	3191.1	3232.5	3253.2	3256.6	3280.8	3318.7	3373.9	3391.2
20°	3139.4	3146.3	3125.6	3118.7	3160.1	3184.2	3187.7	3208.4	3253.2	3311.8	3329.1
22.5°	3053.1	3066.9	3042.8	3035.9	3077.3	3098.0	3108.3	3125.6	3170.4	3229.1	3253.2
25°	2963.4	2963.4	2946.2	2942.7	2980.7	3004.8	3001.4	3025.5	3070.4	3129.0	3149.7
27.5°	2846.1	2842.7	2825.4	2822.0	2863.4	2884.1	2877.2	2901.3	2942.7	3001.4	3022.1
30°	2690.9	2697.8	2673.6	2666.7	2701.2	2735.7	2732.3	2756.4	2797.8	2853.0	2866.8
32.5°	2504.6	2511.5	2508.0	2497.7	2528.7	2546.0	2556.3	2573.6	2608.1	2666.7	2680.5
35°	2328.6	2318.3	2304.5	2304.5	2335.5	2363.1	2352.8	2373.5	2408.0	2466.6	2470.1
37.5°	2111.3	2107.9	2101.0	2094.1	2128.6	2135.5	2138.9	2152.7	2183.7	2232.0	2225.1
40°	1883.6	1887.1	1883.6	1869.8	1890.5	1918.1	1914.7	1921.6	1949.2	1983.7	1973.3
42.5°	1669.7	1669.7	1669.7	1655.9	1680.1	1693.9	1700.8	1697.3	1704.2	1735.3	1721.5
45°	1466.2	1469.6	1466.2	1462.7	1466.2	1473.1	1466.2	1462.7	1462.7	1473.1	1452.4
47.5°	1290.2	1290.2	1279.9	1269.5	1279.9	1283.3	1273.0	1262.6	1259.2	1255.7	1221.2
50°	1131.5	1128.1	1124.6	1107.4	1117.7	1121.2	1107.4	1100.5	1086.7	1069.5	1028.1
52.5°	993.6	990.1	986.7	969.4	976.3	979.8	966.0	952.2	934.9	921.1	869.4
55°	876.3	872.8	872.8	862.5	855.6	862.5	848.7	838.3	814.2	796.9	745.2
57.5°	776.2	776.2	769.3	759.0	762.4	762.4	748.6	734.8	714.1	693.4	652.0
60°	690.0	690.0	690.0	679.6	679.6	679.6	672.7	658.9	641.7	621.0	579.6
62.5°	621.0	621.0	617.5	607.2	610.6	610.6	603.7	589.9	572.7	558.9	517.5
65°	565.8	565.8	565.8	555.4	555.4	558.9	552.0	538.2	524.4	507.1	469.2
67.5°	496.8	493.3	493.3	486.4	489.9	493.3	486.4	476.1	458.8	448.5	414.0
70°	410.5	414.0	417.4	407.1	410.5	410.5	407.1	396.7	386.4	376.0	345.0
72.5°	334.6	334.6	331.2	327.7	327.7	331.2	324.3	313.9	307.0	300.1	276.0
75°	255.3	251.8	255.3	248.4	248.4	248.4	241.5	238.0	234.6	224.2	207.0
77.5°	186.3	182.8	182.8	175.9	179.4	179.4	175.9	169.0	162.1	158.7	144.9
80°	127.6	127.6	127.6	124.2	124.2	120.7	120.7	117.3	110.4	106.9	100.0
82.5°	86.2	86.2	86.2	82.8	82.8	82.8	79.3	75.9	72.4	69.0	62.1
85°	55.2	55.2	55.2	51.7	51.7	51.7	48.3	48.3	44.8	41.4	34.5
87.5°	31.0	31.0	31.0	27.6	27.6	27.6	27.6	27.6	24.1	20.7	17.2
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°	3608.5	3608.5	3608.5	3608.5	3608.5	3608.5	3608.5	3608.5	3608.5	3608.5	3608.5
2.5°	3594.7	3546.4	3577.5	3577.5	3567.1	3594.7	3612.0	3625.8	3622.3	3591.3	3587.8
5°	3567.1	3525.7	3560.2	3563.7	3553.3	3591.3	3615.4	3632.7	3636.1	3608.5	3612.0
7.5°	3546.4	3511.9	3556.8	3570.6	3567.1	3601.6	3629.2	3656.8	3670.6	3649.9	3653.4
10°	3536.1	3508.5	3556.8	3577.5	3580.9	3618.9	3660.3	3698.2	3715.5	3701.7	3712.0
12.5°	3522.3	3505.0	3560.2	3591.3	3605.1	3643.0	3694.8	3739.6	3767.2	3760.3	3781.0
15°	3508.5	3494.7	3560.2	3605.1	3622.3	3656.8	3715.5	3781.0	3812.1	3808.6	3836.2
17.5°	3474.0	3470.5	3539.5	3587.8	3612.0	3653.4	3708.6	3787.9	3819.0	3825.9	3860.4
20°	3418.8	3418.8	3494.7	3546.4	3574.0	3612.0	3681.0	3756.9	3794.8	3801.7	3839.7
22.5°	3342.9	3349.8	3422.2	3474.0	3515.4	3543.0	3615.4	3694.8	3729.3	3739.6	3781.0
25°	3242.8	3249.7	3318.7	3370.5	3415.3	3446.4	3515.4	3587.8	3629.2	3639.6	3670.6
27.5°	3111.8	3125.6	3191.1	3242.8	3280.8	3301.5	3373.9	3449.8	3480.9	3491.2	3522.3
30°	2960.0	2963.4	3029.0	3073.8	3111.8	3129.0	3191.1	3270.4	3294.6	3304.9	3349.8
32.5°	2773.7	2770.2	2832.3	2873.7	2904.8	2925.5	2991.0	3042.8	3066.9	3084.2	3108.3
35°	2549.4	2546.0	2590.8	2639.1	2663.3	2670.2	2735.7	2790.9	2804.7	2818.5	2849.6
37.5°	2297.6	2297.6	2335.5	2359.7	2387.3	2397.6	2428.7	2490.8	2514.9	2511.5	2535.6
40°	2032.0	2018.2	2045.8	2069.9	2076.8	2080.3	2111.3	2159.6	2176.8	2176.8	2194.1
42.5°	1752.5	1731.8	1735.3	1749.1	1756.0	1731.8	1752.5	1783.6	1773.2	1787.0	1790.5
45°	1455.8	1424.8	1411.0	1379.9	1386.8	1362.7	1348.9	1355.8	1352.3	1317.8	1324.7
47.5°	1214.3	1159.1	1135.0	1090.1	1079.8	1052.2	1035.0	1003.9	976.3	976.3	959.1
50°	1010.8	955.6	907.3	855.6	838.3	814.2	776.2	734.8	714.1	693.4	676.2
52.5°	848.7	790.0	731.4	676.2	652.0	621.0	569.2	527.8	489.9	469.2	448.5
55°	717.6	652.0	589.9	531.3	500.2	469.2	417.4	369.1	324.3	296.7	279.4
57.5°	617.5	555.4	489.9	427.8	400.2	365.7	310.5	258.7	217.3	186.3	169.0
60°	545.1	483.0	424.3	358.8	331.2	296.7	238.0	189.7	148.3	120.7	100.0
62.5°	483.0	427.8	365.7	307.0	279.4	244.9	189.7	141.4	103.5	75.9	58.6
65°	438.1	382.9	331.2	272.5	248.4	213.9	162.1	117.3	82.8	58.6	41.4
67.5°	386.4	338.1	286.3	238.0	213.9	186.3	138.0	100.0	69.0	48.3	34.5
70°	324.3	286.3	241.5	196.6	179.4	155.2	113.8	82.8	55.2	37.9	27.6
72.5°	258.7	227.7	193.2	158.7	144.9	120.7	93.1	65.5	41.4	27.6	20.7
75°	196.6	172.5	144.9	120.7	106.9	93.1	69.0	48.3	31.0	20.7	13.8
77.5°	134.5	124.2	103.5	82.8	75.9	65.5	44.8	31.0	20.7	13.8	6.9
80°	93.1	82.8	69.0	55.2	48.3	41.4	27.6	20.7	10.3	6.9	3.4
82.5°	58.6	48.3	41.4	34.5	31.0	24.1	17.2	10.3	6.9	3.4	3.4
85°	31.0	27.6	24.1	17.2	17.2	13.8	10.3	6.9	3.4	0.0	0.0
87.5°	17.2	13.8	10.3	6.9	6.9	3.4	3.4	3.4	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°	3608.5	3608.5	3608.5	3608.5	3608.5	3608.5	3608.5	3608.5	3608.5	3608.5	3608.5
2.5°	3629.2	3629.2	3625.8	3667.2	3618.9	3667.2	3643.0	3667.2	3632.7	3629.2	3632.7
5°	3656.8	3667.2	3670.6	3708.6	3663.7	3722.4	3701.7	3722.4	3698.2	3705.1	3715.5
7.5°	3712.0	3729.3	3725.8	3774.1	3729.3	3794.8	3781.0	3812.1	3787.9	3794.8	3808.6
10°	3774.1	3794.8	3798.3	3846.6	3805.2	3884.5	3867.3	3901.8	3881.1	3891.4	3908.7
12.5°	3846.6	3870.7	3874.2	3929.4	3884.5	3967.3	3957.0	3991.5	3974.2	3984.6	4005.3
15°	3901.8	3936.3	3943.2	3998.4	3950.1	4036.3	4029.4	4074.3	4046.7	4063.9	4081.2
17.5°	3929.4	3960.4	3974.2	4026.0	3984.6	4070.8	4063.9	4101.9	4081.2	4098.4	4119.1
20°	3912.1	3950.1	3960.4	4012.2	3970.8	4057.0	4046.7	4084.6	4063.9	4077.7	4098.4
22.5°	3850.0	3888.0	3901.8	3950.1	3912.1	3991.5	3988.0	4022.5	3994.9	4012.2	4029.4
25°	3739.6	3781.0	3787.9	3832.8	3791.4	3874.2	3867.3	3905.2	3884.5	3894.9	3919.0
27.5°	3580.9	3629.2	3639.6	3677.5	3646.5	3715.5	3715.5	3746.5	3722.4	3722.4	3746.5
30°	3391.2	3439.5	3446.4	3477.4	3449.8	3511.9	3515.4	3546.4	3508.5	3529.2	3532.6
32.5°	3160.1	3191.1	3211.8	3239.4	3198.0	3277.3	3267.0	3291.1	3270.4	3270.4	3287.7
35°	2880.6	2918.6	2928.9	2963.4	2928.9	2991.0	2991.0	3004.8	2984.1	2984.1	3011.7
37.5°	2577.0	2604.6	2608.1	2642.6	2615.0	2666.7	2663.3	2673.6	2652.9	2666.7	2666.7
40°	2221.7	2242.4	2249.3	2266.5	2263.1	2301.0	2297.6	2304.5	2294.1	2297.6	2304.5
42.5°	1807.7	1835.3	1849.1	1862.9	1842.2	1894.0	1883.6	1894.0	1890.5	1894.0	1904.3
45°	1331.6	1352.3	1362.7	1366.1	1359.2	1390.3	1414.4	1393.7	1397.2	1390.3	1404.1
47.5°	962.5	966.0	959.1	979.8	962.5	976.3	983.2	986.7	966.0	962.5	976.3
50°	658.9	676.2	652.0	662.4	658.9	672.7	665.8	669.3	648.6	658.9	652.0
52.5°	438.1	434.7	427.8	431.2	424.3	424.3	424.3	431.2	417.4	410.5	403.6
55°	265.6	258.7	244.9	241.5	241.5	244.9	238.0	231.1	231.1	227.7	227.7
57.5°	155.2	144.9	138.0	134.5	127.6	124.2	120.7	120.7	113.8	113.8	113.8
60°	86.2	75.9	69.0	62.1	62.1	58.6	55.2	51.7	51.7	51.7	48.3
62.5°	44.8	37.9	31.0	27.6	27.6	24.1	20.7	20.7	20.7	20.7	17.2
65°	31.0	24.1	20.7	17.2	17.2	13.8	13.8	13.8	13.8	13.8	13.8
67.5°	24.1	20.7	17.2	13.8	13.8	13.8	10.3	10.3	10.3	10.3	10.3
70°	20.7	13.8	13.8	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3
72.5°	13.8	13.8	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3
75°	10.3	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9
77.5°	3.4	3.4	3.4	3.4	3.4	3.4	0.0	0.0	0.0	0.0	0.0
80°	3.4	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: P252215

CATALOG NUMBER: LD6B60D010TE EU6B60709040 6LBSW1LI

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	3608.5	3608.5	3608.5	3608.5	3608.5	3608.5	3608.5	3608.5
2.5°	3663.7	3660.3	3663.7	3670.6	3656.8	3698.2	3677.5	3698.2
5°	3743.1	3746.5	3750.0	3760.3	3743.1	3794.8	3767.2	3798.3
7.5°	3846.6	3850.0	3853.5	3863.8	3853.5	3905.2	3874.2	3901.8
10°	3953.5	3960.4	3960.4	3977.7	3967.3	4015.6	3994.9	4029.4
12.5°	4053.6	4060.5	4067.4	4077.7	4070.8	4122.6	4105.3	4132.9
15°	4132.9	4146.7	4150.2	4164.0	4157.1	4212.3	4191.6	4219.2
17.5°	4170.9	4184.7	4184.7	4201.9	4195.0	4253.7	4226.1	4257.1
20°	4150.2	4160.5	4164.0	4181.2	4174.3	4233.0	4205.4	4243.3
22.5°	4084.6	4088.1	4091.5	4108.8	4105.3	4157.1	4132.9	4157.1
25°	3963.9	3974.2	3970.8	3984.6	3984.6	4026.0	3998.4	4019.1
27.5°	3791.4	3801.7	3801.7	3819.0	3805.2	3846.6	3819.0	3850.0
30°	3580.9	3591.3	3584.4	3598.2	3584.4	3625.8	3605.1	3615.4
32.5°	3329.1	3329.1	3332.5	3336.0	3329.1	3367.0	3346.3	3367.0
35°	3029.0	3035.9	3039.3	3042.8	3035.9	3063.5	3039.3	3053.1
37.5°	2690.9	2708.1	2704.7	2708.1	2697.8	2732.3	2711.6	2718.5
40°	2328.6	2328.6	2325.2	2332.1	2321.7	2349.3	2335.5	2342.4
42.5°	1907.8	1918.1	1904.3	1921.6	1894.0	1931.9	1918.1	1907.8
45°	1431.7	1417.9	1414.4	1417.9	1407.5	1411.0	1421.3	1414.4
47.5°	976.3	976.3	969.4	959.1	972.9	976.3	962.5	962.5
50°	655.5	655.5	648.6	645.1	652.0	648.6	641.7	652.0
52.5°	417.4	403.6	403.6	410.5	403.6	396.7	407.1	400.2
55°	227.7	220.8	220.8	227.7	220.8	220.8	217.3	224.2
57.5°	110.4	113.8	110.4	110.4	110.4	110.4	106.9	110.4
60°	48.3	48.3	48.3	48.3	48.3	48.3	48.3	48.3
62.5°	20.7	20.7	17.2	17.2	17.2	17.2	17.2	17.2
65°	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8
67.5°	10.3	10.3	10.3	10.3	10.3	13.8	10.3	10.3
70°	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3
72.5°	10.3	10.3	13.8	13.8	13.8	13.8	13.8	13.8
75°	6.9	6.9	6.9	3.4	3.4	3.4	3.4	3.4
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)