

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: P252231

Luminaire Tested: **LD6B70D010TE EU6B60709730 6LBSW1LI**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P252231
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: LD6B70D010TE EU6B60709730 6LBSW1LI
Description: PORTFOLIO 6 INCH SINGLE WALLWASH RECESSED DOWNLIGHT, WITH SPECULAR CLEAR TRIM
Light Source: (1) HIGH LUMEN LED 97CRI / 3000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6735.0 lumens
Efficiency: N/A
Efficacy: 84.8 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

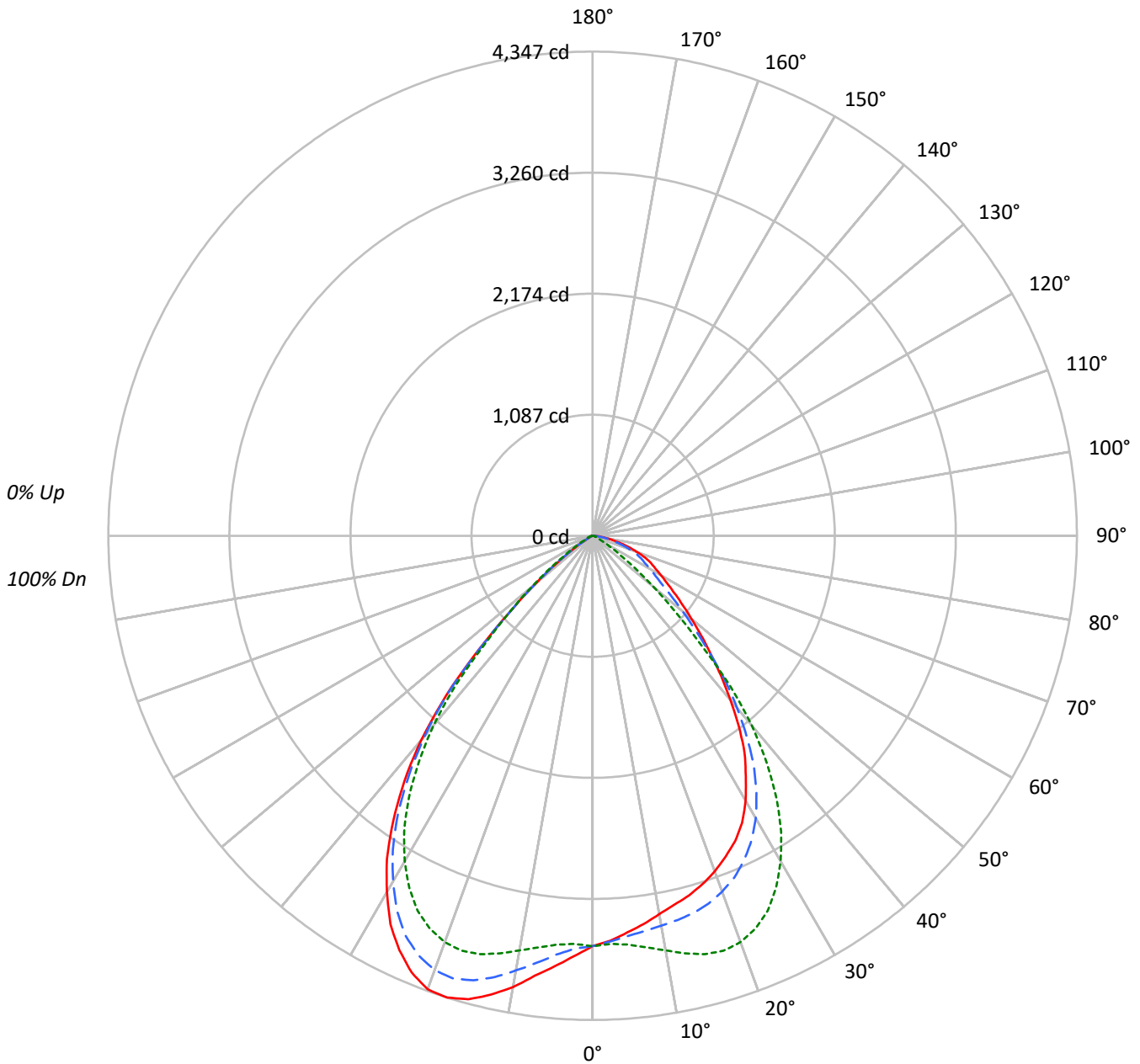
Input Watts (W): 79.45
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	240386	240386	240386
5°	234152	241304	253989
10°	228460	250394	272560
15°	225786	262664	290978
20°	222550	269504	300809
25°	217820	267518	295412
30°	206986	254220	278101
35°	189370	229208	248283
40°	163799	189298	203699
45°	138129	124151	133248
50°	117269	71859	67576
55°	101766	34453	26047
60°	91924	16088	6433
65°	89181	9247	2177
70°	79963	7382	2022
75°	65715	5319	882
80°	48954	2630	0
85°	42218	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	355.9	5.3
10°-20°	1084.6	16.1
20°-30°	1657.2	24.6
30°-40°	1733.3	25.7
40°-50°	1124.4	16.7
50°-60°	446.4	6.6
60°-70°	211.8	3.1
70°-80°	100.7	1.5
80°-90°	20.5	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°	3097.8	46.0
0°-40°	4831.1	71.7
0°-60°	6401.9	95.1
0°-90°	6735.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6735.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	3685	3685	3685	3685	3685	
5°	3575	3607	3685	3776	3878	338
15°	3343	3505	3889	4132	4308	942
25°	3026	3216	3716	3966	4104	1386
35°	2378	2522	2878	3047	3117	1470
45°	1497	1483	1346	1427	1444	1165
55°	895	761	303	236	229	811
65°	578	479	60	14	14	564
75°	261	211	21	7	4	281
85°	56	35	0	0	0	66
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°	3684.6	3684.6	3684.6	3684.6	3684.6	3684.6	3684.6	3684.6	3684.6	3684.6	3684.6
2.5°	3638.8	3645.8	3607.1	3596.5	3624.7	3635.3	3638.8	3628.2	3631.7	3645.8	3645.8
5°	3575.4	3582.4	3547.2	3536.6	3564.8	3571.9	3582.4	3578.9	3589.5	3610.6	3607.1
7.5°	3515.5	3526.1	3487.3	3473.2	3508.4	3526.1	3533.1	3533.1	3547.2	3575.4	3578.9
10°	3448.6	3462.7	3427.4	3420.4	3459.1	3476.7	3480.3	3487.3	3508.4	3547.2	3554.2
12.5°	3392.2	3406.3	3381.6	3371.1	3413.3	3431.0	3438.0	3452.1	3476.7	3526.1	3533.1
15°	3342.9	3353.5	3325.3	3318.2	3360.5	3381.6	3385.2	3406.3	3438.0	3494.4	3504.9
17.5°	3279.5	3286.5	3265.4	3258.3	3300.6	3321.8	3325.3	3349.9	3388.7	3445.0	3462.7
20°	3205.5	3212.6	3191.4	3184.4	3226.6	3251.3	3254.8	3276.0	3321.8	3381.6	3399.3
22.5°	3117.4	3131.5	3106.9	3099.8	3142.1	3163.2	3173.8	3191.4	3237.2	3297.1	3321.8
25°	3025.9	3025.9	3008.2	3004.7	3043.5	3068.1	3064.6	3089.3	3135.1	3194.9	3216.1
27.5°	2906.1	2902.6	2885.0	2881.4	2923.7	2944.8	2937.8	2962.5	3004.7	3064.6	3085.7
30°	2747.6	2754.6	2730.0	2722.9	2758.1	2793.4	2789.9	2814.5	2856.8	2913.1	2927.2
32.5°	2557.4	2564.4	2560.9	2550.3	2582.0	2599.6	2610.2	2627.8	2663.0	2722.9	2737.0
35°	2377.7	2367.1	2353.1	2353.1	2384.8	2412.9	2402.4	2423.5	2458.7	2518.6	2522.1
37.5°	2155.8	2152.3	2145.2	2138.2	2173.4	2180.5	2184.0	2198.1	2229.8	2279.1	2272.0
40°	1923.3	1926.8	1923.3	1909.2	1930.4	1958.5	1955.0	1962.1	1990.2	2025.5	2014.9
42.5°	1704.9	1704.9	1704.9	1690.8	1715.5	1729.6	1736.6	1733.1	1740.1	1771.8	1757.7
45°	1497.1	1500.6	1497.1	1493.6	1497.1	1504.1	1497.1	1493.6	1493.6	1504.1	1483.0
47.5°	1317.4	1317.4	1306.9	1296.3	1306.9	1310.4	1299.8	1289.2	1285.7	1282.2	1247.0
50°	1155.4	1151.9	1148.3	1130.7	1141.3	1144.8	1130.7	1123.7	1109.6	1092.0	1049.7
52.5°	1014.5	1011.0	1007.4	989.8	996.9	1000.4	986.3	972.2	954.6	940.5	887.7
55°	894.7	891.2	891.2	880.6	873.6	880.6	866.5	856.0	831.3	813.7	760.9
57.5°	792.6	792.6	785.5	775.0	778.5	778.5	764.4	750.3	729.2	708.0	665.8
60°	704.5	704.5	704.5	693.9	693.9	693.9	686.9	672.8	655.2	634.1	591.8
62.5°	634.1	634.1	630.5	620.0	623.5	623.5	616.4	602.4	584.7	570.7	528.4
65°	577.7	577.7	577.7	567.1	567.1	570.7	563.6	549.5	535.4	517.8	479.1
67.5°	507.2	503.7	503.7	496.7	500.2	503.7	496.7	486.1	468.5	457.9	422.7
70°	419.2	422.7	426.2	415.7	419.2	419.2	415.7	405.1	394.5	384.0	352.3
72.5°	341.7	341.7	338.2	334.6	334.6	338.2	331.1	320.6	313.5	306.5	281.8
75°	260.7	257.1	260.7	253.6	253.6	253.6	246.6	243.1	239.5	229.0	211.4
77.5°	190.2	186.7	186.7	179.6	183.2	183.2	179.6	172.6	165.6	162.0	147.9
80°	130.3	130.3	130.3	126.8	126.8	123.3	123.3	119.8	112.7	109.2	102.2
82.5°	88.1	88.1	88.1	84.5	84.5	84.5	81.0	77.5	74.0	70.5	63.4
85°	56.4	56.4	56.4	52.8	52.8	52.8	49.3	49.3	45.8	42.3	35.2
87.5°	31.7	31.7	31.7	28.2	28.2	28.2	28.2	28.2	24.7	21.1	17.6
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°	3684.6	3684.6	3684.6	3684.6	3684.6	3684.6	3684.6	3684.6	3684.6	3684.6	3684.6
2.5°	3670.5	3621.2	3652.9	3652.9	3642.3	3670.5	3688.1	3702.2	3698.7	3667.0	3663.4
5°	3642.3	3600.0	3635.3	3638.8	3628.2	3667.0	3691.6	3709.2	3712.8	3684.6	3688.1
7.5°	3621.2	3585.9	3631.7	3645.8	3642.3	3677.5	3705.7	3733.9	3748.0	3726.8	3730.4
10°	3610.6	3582.4	3631.7	3652.9	3656.4	3695.1	3737.4	3776.2	3793.8	3779.7	3790.3
12.5°	3596.5	3578.9	3635.3	3667.0	3681.1	3719.8	3772.6	3818.4	3846.6	3839.6	3860.7
15°	3582.4	3568.3	3635.3	3681.1	3698.7	3733.9	3793.8	3860.7	3892.4	3888.9	3917.1
17.5°	3547.2	3543.7	3614.1	3663.4	3688.1	3730.4	3786.7	3867.7	3899.5	3906.5	3941.7
20°	3490.8	3490.8	3568.3	3621.2	3649.4	3688.1	3758.5	3836.0	3874.8	3881.8	3920.6
22.5°	3413.3	3420.4	3494.4	3547.2	3589.5	3617.6	3691.6	3772.6	3807.9	3818.4	3860.7
25°	3311.2	3318.2	3388.7	3441.5	3487.3	3519.0	3589.5	3663.4	3705.7	3716.3	3748.0
27.5°	3177.3	3191.4	3258.3	3311.2	3349.9	3371.1	3445.0	3522.5	3554.2	3564.8	3596.5
30°	3022.3	3025.9	3092.8	3138.6	3177.3	3194.9	3258.3	3339.4	3364.0	3374.6	3420.4
32.5°	2832.1	2828.6	2892.0	2934.3	2966.0	2987.1	3054.0	3106.9	3131.5	3149.2	3173.8
35°	2603.2	2599.6	2645.4	2694.7	2719.4	2726.4	2793.4	2849.7	2863.8	2877.9	2909.6
37.5°	2346.0	2346.0	2384.8	2409.4	2437.6	2448.2	2479.9	2543.3	2567.9	2564.4	2589.1
40°	2074.8	2060.7	2088.9	2113.5	2120.6	2124.1	2155.8	2205.1	2222.7	2222.7	2240.3
42.5°	1789.5	1768.3	1771.8	1785.9	1793.0	1768.3	1789.5	1821.2	1810.6	1824.7	1828.2
45°	1486.5	1454.8	1440.7	1409.0	1416.1	1391.4	1377.3	1384.4	1380.8	1345.6	1352.7
47.5°	1239.9	1183.6	1158.9	1113.1	1102.6	1074.4	1056.8	1025.1	996.9	996.9	979.3
50°	1032.1	975.7	926.4	873.6	856.0	831.3	792.6	750.3	729.2	708.0	690.4
52.5°	866.5	806.7	746.8	690.4	665.8	634.1	581.2	538.9	500.2	479.1	457.9
55°	732.7	665.8	602.4	542.5	510.8	479.1	426.2	376.9	331.1	302.9	285.3
57.5°	630.5	567.1	500.2	436.8	408.6	373.4	317.0	264.2	221.9	190.2	172.6
60°	556.6	493.2	433.3	366.3	338.2	302.9	243.1	193.7	151.5	123.3	102.2
62.5°	493.2	436.8	373.4	313.5	285.3	250.1	193.7	144.4	105.7	77.5	59.9
65°	447.4	391.0	338.2	278.3	253.6	218.4	165.6	119.8	84.5	59.9	42.3
67.5°	394.5	345.2	292.4	243.1	218.4	190.2	140.9	102.2	70.5	49.3	35.2
70°	331.1	292.4	246.6	200.8	183.2	158.5	116.2	84.5	56.4	38.7	28.2
72.5°	264.2	232.5	197.3	162.0	147.9	123.3	95.1	66.9	42.3	28.2	21.1
75°	200.8	176.1	147.9	123.3	109.2	95.1	70.5	49.3	31.7	21.1	14.1
77.5°	137.4	126.8	105.7	84.5	77.5	66.9	45.8	31.7	21.1	14.1	7.0
80°	95.1	84.5	70.5	56.4	49.3	42.3	28.2	21.1	10.6	7.0	3.5
82.5°	59.9	49.3	42.3	35.2	31.7	24.7	17.6	10.6	7.0	3.5	3.5
85°	31.7	28.2	24.7	17.6	17.6	14.1	10.6	7.0	3.5	0.0	0.0
87.5°	17.6	14.1	10.6	7.0	7.0	3.5	3.5	3.5	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°	3684.6	3684.6	3684.6	3684.6	3684.6	3684.6	3684.6	3684.6	3684.6	3684.6	3684.6
2.5°	3705.7	3705.7	3702.2	3744.5	3695.1	3744.5	3719.8	3744.5	3709.2	3705.7	3709.2
5°	3733.9	3744.5	3748.0	3786.7	3740.9	3800.8	3779.7	3800.8	3776.2	3783.2	3793.8
7.5°	3790.3	3807.9	3804.3	3853.7	3807.9	3874.8	3860.7	3892.4	3867.7	3874.8	3888.9
10°	3853.7	3874.8	3878.3	3927.6	3885.4	3966.4	3948.8	3984.0	3962.9	3973.4	3991.0
12.5°	3927.6	3952.3	3955.8	4012.2	3966.4	4050.9	4040.4	4075.6	4058.0	4068.5	4089.7
15°	3984.0	4019.2	4026.3	4082.6	4033.3	4121.4	4114.3	4160.1	4131.9	4149.6	4167.2
17.5°	4012.2	4043.9	4058.0	4110.8	4068.5	4156.6	4149.6	4188.3	4167.2	4184.8	4205.9
20°	3994.6	4033.3	4043.9	4096.7	4054.4	4142.5	4131.9	4170.7	4149.6	4163.6	4184.8
22.5°	3931.2	3969.9	3984.0	4033.3	3994.6	4075.6	4072.1	4107.3	4079.1	4096.7	4114.3
25°	3818.4	3860.7	3867.7	3913.5	3871.3	3955.8	3948.8	3987.5	3966.4	3976.9	4001.6
27.5°	3656.4	3705.7	3716.3	3755.0	3723.3	3793.8	3793.8	3825.5	3800.8	3800.8	3825.5
30°	3462.7	3512.0	3519.0	3550.7	3522.5	3585.9	3589.5	3621.2	3582.4	3603.6	3607.1
32.5°	3226.6	3258.3	3279.5	3307.7	3265.4	3346.4	3335.8	3360.5	3339.4	3339.4	3357.0
35°	2941.3	2980.1	2990.6	3025.9	2990.6	3054.0	3054.0	3068.1	3047.0	3047.0	3075.2
37.5°	2631.3	2659.5	2663.0	2698.3	2670.1	2722.9	2719.4	2730.0	2708.8	2722.9	2722.9
40°	2268.5	2289.7	2296.7	2314.3	2310.8	2349.5	2346.0	2353.1	2342.5	2346.0	2353.1
42.5°	1845.8	1874.0	1888.1	1902.2	1881.0	1933.9	1923.3	1933.9	1930.4	1933.9	1944.4
45°	1359.7	1380.8	1391.4	1394.9	1387.9	1419.6	1444.2	1423.1	1426.6	1419.6	1433.7
47.5°	982.8	986.3	979.3	1000.4	982.8	996.9	1003.9	1007.4	986.3	982.8	996.9
50°	672.8	690.4	665.8	676.3	672.8	686.9	679.9	683.4	662.2	672.8	665.8
52.5°	447.4	443.8	436.8	440.3	433.3	433.3	433.3	440.3	426.2	419.2	412.1
55°	271.2	264.2	250.1	246.6	246.6	250.1	243.1	236.0	236.0	232.5	232.5
57.5°	158.5	147.9	140.9	137.4	130.3	126.8	123.3	123.3	116.2	116.2	116.2
60°	88.1	77.5	70.5	63.4	63.4	59.9	56.4	52.8	52.8	52.8	49.3
62.5°	45.8	38.7	31.7	28.2	28.2	24.7	21.1	21.1	21.1	21.1	17.6
65°	31.7	24.7	21.1	17.6	17.6	14.1	14.1	14.1	14.1	14.1	14.1
67.5°	24.7	21.1	17.6	14.1	14.1	14.1	10.6	10.6	10.6	10.6	10.6
70°	21.1	14.1	14.1	10.6	10.6	10.6	10.6	10.6	10.6	10.6	10.6
72.5°	14.1	14.1	10.6	10.6	10.6	10.6	10.6	10.6	10.6	10.6	10.6
75°	10.6	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
77.5°	3.5	3.5	3.5	3.5	3.5	3.5	0.0	0.0	0.0	0.0	0.0
80°	3.5	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: P252231

CATALOG NUMBER: LD6B70D010TE EU6B60709730 6LBSW1LI

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	3684.6	3684.6	3684.6	3684.6	3684.6	3684.6	3684.6	3684.6
2.5°	3740.9	3737.4	3740.9	3748.0	3733.9	3776.2	3755.0	3776.2
5°	3822.0	3825.5	3829.0	3839.6	3822.0	3874.8	3846.6	3878.3
7.5°	3927.6	3931.2	3934.7	3945.2	3934.7	3987.5	3955.8	3984.0
10°	4036.8	4043.9	4043.9	4061.5	4050.9	4100.2	4079.1	4114.3
12.5°	4139.0	4146.0	4153.1	4163.6	4156.6	4209.4	4191.8	4220.0
15°	4220.0	4234.1	4237.6	4251.7	4244.7	4301.0	4279.9	4308.1
17.5°	4258.8	4272.8	4272.8	4290.5	4283.4	4343.3	4315.1	4346.8
20°	4237.6	4248.2	4251.7	4269.3	4262.3	4322.2	4294.0	4332.7
22.5°	4170.7	4174.2	4177.7	4195.3	4191.8	4244.7	4220.0	4244.7
25°	4047.4	4058.0	4054.4	4068.5	4068.5	4110.8	4082.6	4103.8
27.5°	3871.3	3881.8	3881.8	3899.5	3885.4	3927.6	3899.5	3931.2
30°	3656.4	3667.0	3659.9	3674.0	3659.9	3702.2	3681.1	3691.6
32.5°	3399.3	3399.3	3402.8	3406.3	3399.3	3438.0	3416.9	3438.0
35°	3092.8	3099.8	3103.4	3106.9	3099.8	3128.0	3103.4	3117.4
37.5°	2747.6	2765.2	2761.7	2765.2	2754.6	2789.9	2768.7	2775.8
40°	2377.7	2377.7	2374.2	2381.2	2370.7	2398.8	2384.8	2391.8
42.5°	1948.0	1958.5	1944.4	1962.1	1933.9	1972.6	1958.5	1948.0
45°	1461.9	1447.8	1444.2	1447.8	1437.2	1440.7	1451.3	1444.2
47.5°	996.9	996.9	989.8	979.3	993.4	996.9	982.8	982.8
50°	669.3	669.3	662.2	658.7	665.8	662.2	655.2	665.8
52.5°	426.2	412.1	412.1	419.2	412.1	405.1	415.7	408.6
55°	232.5	225.4	225.4	232.5	225.4	225.4	221.9	229.0
57.5°	112.7	116.2	112.7	112.7	112.7	112.7	109.2	112.7
60°	49.3	49.3	49.3	49.3	49.3	49.3	49.3	49.3
62.5°	21.1	21.1	17.6	17.6	17.6	17.6	17.6	17.6
65°	14.1	14.1	14.1	14.1	14.1	14.1	14.1	14.1
67.5°	10.6	10.6	10.6	10.6	10.6	14.1	10.6	10.6
70°	10.6	10.6	10.6	10.6	10.6	10.6	10.6	10.6
72.5°	10.6	10.6	14.1	14.1	14.1	14.1	14.1	14.1
75°	7.0	7.0	7.0	3.5	3.5	3.5	3.5	3.5
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



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— 0°-180° - - 45°-225° - - - - 90°-270°













(END OF REPORT)