

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: P252230

Luminaire Tested: **LD6B70D010TE EU6B60709727 6LBSW1LI**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P252230
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 EU6B60709727 6LBSW1LI
Description: PORTFOLIO 6 INCH SINGLE WALLWASH RECESSED DOWNLIGHT, WITH SPECULAR CLEAR TRIM
Light Source: (1) HIGH LUMEN LED 97CRI / 2700K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6444.0 lumens
Efficiency: N/A
Efficacy: 81.1 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

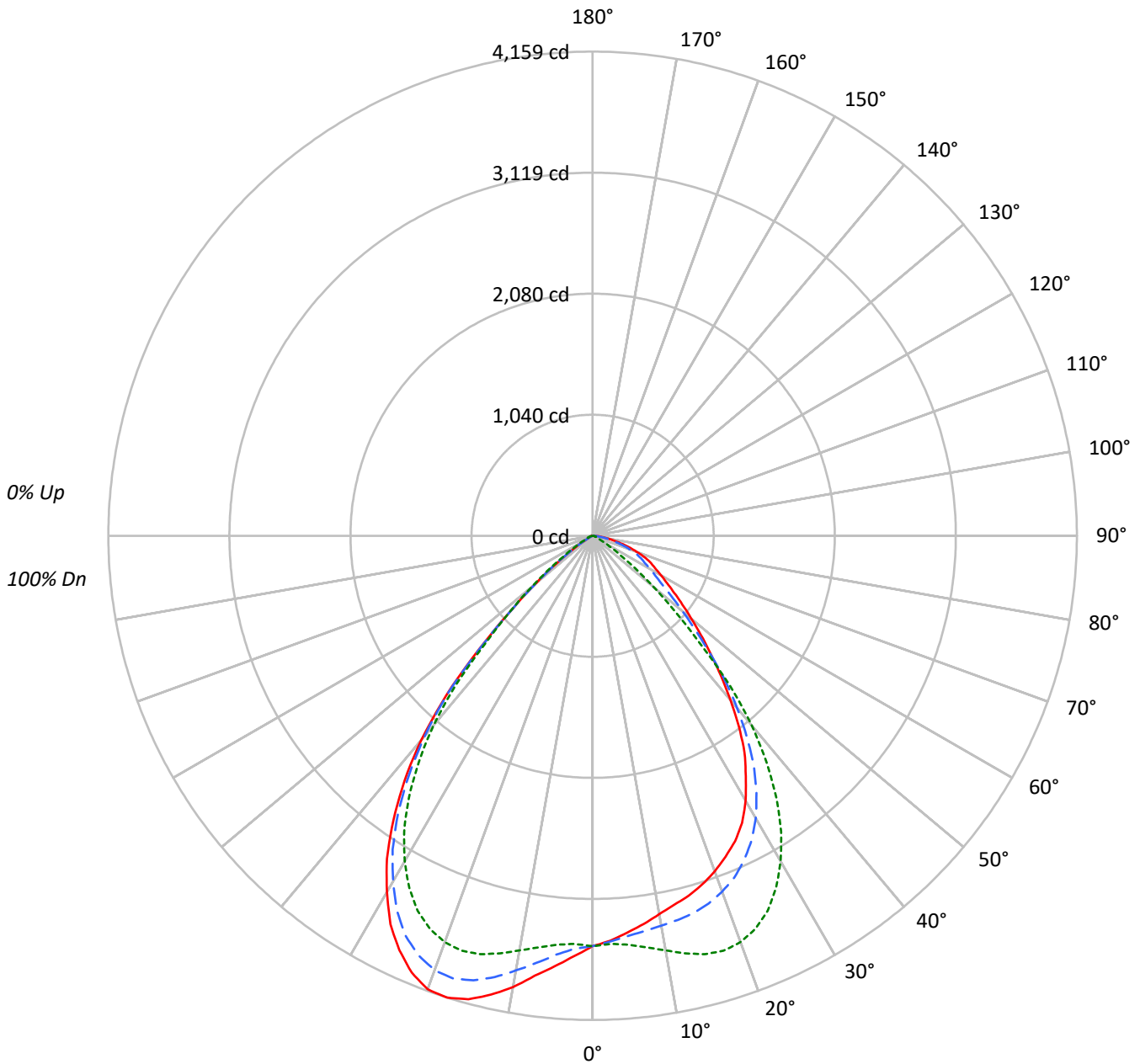
Input Watts (W): 79.45
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20									20									20									20									
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°	229999	229999	229999
5°	224034	230878	243013
10°	218589	239576	260788
15°	216033	251317	278402
20°	212935	257861	287812
25°	208404	255957	282642
30°	198044	243236	266085
35°	181190	219308	237562
40°	156722	181122	194901
45°	132159	118790	127491
50°	112204	68754	64653
55°	97376	32963	24921
60°	87957	15397	6159
65°	85322	8846	2084
70°	76510	7077	1927
75°	62866	5092	857
80°	46851	2517	0
85°	40347	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	340.5	5.3
10°-20°	1037.8	16.1
20°-30°	1585.6	24.6
30°-40°	1658.4	25.7
40°-50°	1075.8	16.7
50°-60°	427.2	6.6
60°-70°	202.6	3.1
70°-80°	96.4	1.5
80°-90°	19.7	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°	2963.9	46.0
0°-40°	4622.4	71.7
0°-60°	6125.3	95.1
0°-90°	6444.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6444.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	3525	3525	3525	3525	3525	
5°	3421	3451	3525	3613	3711	323
15°	3198	3354	3721	3953	4122	901
25°	2895	3077	3556	3795	3926	1326
35°	2275	2413	2754	2915	2983	1407
45°	1432	1419	1288	1365	1382	1115
55°	856	728	290	226	219	776
65°	553	458	57	14	14	540
75°	249	202	20	7	3	269
85°	54	34	0	0	0	63
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°	3525.4	3525.4	3525.4	3525.4	3525.4	3525.4	3525.4	3525.4	3525.4	3525.4	3525.4
2.5°	3481.6	3488.3	3451.2	3441.1	3468.1	3478.2	3481.6	3471.5	3474.8	3488.3	3488.3
5°	3420.9	3427.6	3393.9	3383.8	3410.8	3417.5	3427.6	3424.3	3434.4	3454.6	3451.2
7.5°	3363.6	3373.7	3336.6	3323.2	3356.9	3373.7	3380.5	3380.5	3393.9	3420.9	3424.3
10°	3299.6	3313.0	3279.3	3272.6	3309.7	3326.5	3329.9	3336.6	3356.9	3393.9	3400.7
12.5°	3245.6	3259.1	3235.5	3225.4	3265.9	3282.7	3289.5	3302.9	3326.5	3373.7	3380.5
15°	3198.5	3208.6	3181.6	3174.9	3215.3	3235.5	3238.9	3259.1	3289.5	3343.4	3353.5
17.5°	3137.8	3144.5	3124.3	3117.6	3158.0	3178.2	3181.6	3205.2	3242.3	3296.2	3313.0
20°	3067.0	3073.8	3053.5	3046.8	3087.2	3110.8	3114.2	3134.4	3178.2	3235.5	3252.4
22.5°	2982.8	2996.2	2972.6	2965.9	3006.3	3026.6	3036.7	3053.5	3097.3	3154.6	3178.2
25°	2895.1	2895.1	2878.3	2874.9	2912.0	2935.6	2932.2	2955.8	2999.6	3056.9	3077.1
27.5°	2780.5	2777.2	2760.3	2756.9	2797.4	2817.6	2810.9	2834.5	2874.9	2932.2	2952.4
30°	2628.9	2635.6	2612.0	2605.3	2639.0	2672.7	2669.3	2692.9	2733.3	2787.3	2800.8
32.5°	2446.9	2453.6	2450.2	2440.1	2470.5	2487.3	2497.4	2514.3	2548.0	2605.3	2618.8
35°	2275.0	2264.9	2251.4	2251.4	2281.7	2308.7	2298.6	2318.8	2352.5	2409.8	2413.2
37.5°	2062.6	2059.3	2052.5	2045.8	2079.5	2086.2	2089.6	2103.1	2133.4	2180.6	2173.9
40°	1840.2	1843.6	1840.2	1826.7	1846.9	1873.9	1870.5	1877.3	1904.2	1937.9	1927.8
42.5°	1631.2	1631.2	1631.2	1617.8	1641.4	1654.8	1661.6	1658.2	1664.9	1695.3	1681.8
45°	1432.4	1435.8	1432.4	1429.0	1432.4	1439.1	1432.4	1429.0	1429.0	1439.1	1418.9
47.5°	1260.5	1260.5	1250.4	1240.3	1250.4	1253.8	1243.7	1233.5	1230.2	1226.8	1193.1
50°	1105.5	1102.1	1098.7	1081.9	1092.0	1095.4	1081.9	1075.1	1061.7	1044.8	1004.4
52.5°	970.7	967.3	963.9	947.1	953.8	957.2	943.7	930.2	913.4	899.9	849.3
55°	856.1	852.7	852.7	842.6	835.8	842.6	829.1	819.0	795.4	778.5	728.0
57.5°	758.3	758.3	751.6	741.5	744.8	744.8	731.4	717.9	697.7	677.4	637.0
60°	674.1	674.1	674.1	664.0	664.0	664.0	657.2	643.7	626.9	606.7	566.2
62.5°	606.7	606.7	603.3	593.2	596.6	596.6	589.8	576.3	559.5	546.0	505.6
65°	552.7	552.7	552.7	542.6	542.6	546.0	539.3	525.8	512.3	495.4	458.4
67.5°	485.3	482.0	482.0	475.2	478.6	482.0	475.2	465.1	448.3	438.1	404.4
70°	401.1	404.4	407.8	397.7	401.1	401.1	397.7	387.6	377.5	367.4	337.0
72.5°	326.9	326.9	323.6	320.2	320.2	323.6	316.8	306.7	300.0	293.2	269.6
75°	249.4	246.0	249.4	242.7	242.7	242.7	235.9	232.6	229.2	219.1	202.2
77.5°	182.0	178.6	178.6	171.9	175.3	175.3	171.9	165.1	158.4	155.0	141.6
80°	124.7	124.7	124.7	121.3	121.3	118.0	118.0	114.6	107.9	104.5	97.7
82.5°	84.3	84.3	84.3	80.9	80.9	80.9	77.5	74.1	70.8	67.4	60.7
85°	53.9	53.9	53.9	50.6	50.6	50.6	47.2	47.2	43.8	40.4	33.7
87.5°	30.3	30.3	30.3	27.0	27.0	27.0	27.0	27.0	23.6	20.2	16.9
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°	3525.4	3525.4	3525.4	3525.4	3525.4	3525.4	3525.4	3525.4	3525.4	3525.4	3525.4
2.5°	3511.9	3464.7	3495.0	3495.0	3484.9	3511.9	3528.7	3542.2	3538.9	3508.5	3505.2
5°	3484.9	3444.5	3478.2	3481.6	3471.5	3508.5	3532.1	3549.0	3552.3	3525.4	3528.7
7.5°	3464.7	3431.0	3474.8	3488.3	3484.9	3518.6	3545.6	3572.6	3586.0	3565.8	3569.2
10°	3454.6	3427.6	3474.8	3495.0	3498.4	3535.5	3575.9	3613.0	3629.9	3616.4	3626.5
12.5°	3441.1	3424.3	3478.2	3508.5	3522.0	3559.1	3609.6	3653.4	3680.4	3673.7	3693.9
15°	3427.6	3414.2	3478.2	3522.0	3538.9	3572.6	3629.9	3693.9	3724.2	3720.9	3747.8
17.5°	3393.9	3390.6	3458.0	3505.2	3528.7	3569.2	3623.1	3700.6	3731.0	3737.7	3771.4
20°	3340.0	3340.0	3414.2	3464.7	3491.7	3528.7	3596.2	3670.3	3707.4	3714.1	3751.2
22.5°	3265.9	3272.6	3343.4	3393.9	3434.4	3461.3	3532.1	3609.6	3643.3	3653.4	3693.9
25°	3168.1	3174.9	3242.3	3292.8	3336.6	3367.0	3434.4	3505.2	3545.6	3555.7	3586.0
27.5°	3040.0	3053.5	3117.6	3168.1	3205.2	3225.4	3296.2	3370.3	3400.7	3410.8	3441.1
30°	2891.8	2895.1	2959.2	3003.0	3040.0	3056.9	3117.6	3195.1	3218.7	3228.8	3272.6
32.5°	2709.8	2706.4	2767.0	2807.5	2837.8	2858.0	2922.1	2972.6	2996.2	3013.1	3036.7
35°	2490.7	2487.3	2531.1	2578.3	2601.9	2608.6	2672.7	2726.6	2740.1	2753.6	2783.9
37.5°	2244.6	2244.6	2281.7	2305.3	2332.3	2342.4	2372.7	2433.4	2457.0	2453.6	2477.2
40°	1985.1	1971.6	1998.6	2022.2	2028.9	2032.3	2062.6	2109.8	2126.7	2126.7	2143.5
42.5°	1712.1	1691.9	1695.3	1708.8	1715.5	1691.9	1712.1	1742.5	1732.4	1745.8	1749.2
45°	1422.3	1392.0	1378.5	1348.1	1354.9	1331.3	1317.8	1324.5	1321.2	1287.5	1294.2
47.5°	1186.4	1132.4	1108.8	1065.0	1054.9	1028.0	1011.1	980.8	953.8	953.8	937.0
50°	987.5	933.6	886.4	835.8	819.0	795.4	758.3	717.9	697.7	677.4	660.6
52.5°	829.1	771.8	714.5	660.6	637.0	606.7	556.1	515.7	478.6	458.4	438.1
55°	701.0	637.0	576.3	519.0	488.7	458.4	407.8	360.6	316.8	289.8	273.0
57.5°	603.3	542.6	478.6	417.9	391.0	357.3	303.3	252.8	212.3	182.0	165.1
60°	532.5	471.8	414.6	350.5	323.6	289.8	232.6	185.4	144.9	118.0	97.7
62.5°	471.8	417.9	357.3	300.0	273.0	239.3	185.4	138.2	101.1	74.1	57.3
65°	428.0	374.1	323.6	266.3	242.7	209.0	158.4	114.6	80.9	57.3	40.4
67.5°	377.5	330.3	279.7	232.6	209.0	182.0	134.8	97.7	67.4	47.2	33.7
70°	316.8	279.7	235.9	192.1	175.3	151.7	111.2	80.9	53.9	37.1	27.0
72.5°	252.8	222.4	188.7	155.0	141.6	118.0	91.0	64.0	40.4	27.0	20.2
75°	192.1	168.5	141.6	118.0	104.5	91.0	67.4	47.2	30.3	20.2	13.5
77.5°	131.4	121.3	101.1	80.9	74.1	64.0	43.8	30.3	20.2	13.5	6.7
80°	91.0	80.9	67.4	53.9	47.2	40.4	27.0	20.2	10.1	6.7	3.4
82.5°	57.3	47.2	40.4	33.7	30.3	23.6	16.9	10.1	6.7	3.4	3.4
85°	30.3	27.0	23.6	16.9	16.9	13.5	10.1	6.7	3.4	0.0	0.0
87.5°	16.9	13.5	10.1	6.7	6.7	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°	3525.4	3525.4	3525.4	3525.4	3525.4	3525.4	3525.4	3525.4	3525.4	3525.4	3525.4
2.5°	3545.6	3545.6	3542.2	3582.7	3535.5	3582.7	3559.1	3582.7	3549.0	3545.6	3549.0
5°	3572.6	3582.7	3586.0	3623.1	3579.3	3636.6	3616.4	3636.6	3613.0	3619.7	3629.9
7.5°	3626.5	3643.3	3640.0	3687.2	3643.3	3707.4	3693.9	3724.2	3700.6	3707.4	3720.9
10°	3687.2	3707.4	3710.7	3757.9	3717.5	3795.0	3778.2	3811.9	3791.6	3801.7	3818.6
12.5°	3757.9	3781.5	3784.9	3838.8	3795.0	3875.9	3865.8	3899.5	3882.6	3892.7	3913.0
15°	3811.9	3845.6	3852.3	3906.2	3859.0	3943.3	3936.6	3980.4	3953.4	3970.3	3987.1
17.5°	3838.8	3869.2	3882.6	3933.2	3892.7	3977.0	3970.3	4007.3	3987.1	4004.0	4024.2
20°	3822.0	3859.0	3869.2	3919.7	3879.3	3963.5	3953.4	3990.5	3970.3	3983.7	4004.0
22.5°	3761.3	3798.4	3811.9	3859.0	3822.0	3899.5	3896.1	3929.8	3902.9	3919.7	3936.6
25°	3653.4	3693.9	3700.6	3744.4	3704.0	3784.9	3778.2	3815.2	3795.0	3805.1	3828.7
27.5°	3498.4	3545.6	3555.7	3592.8	3562.5	3629.9	3629.9	3660.2	3636.6	3636.6	3660.2
30°	3313.0	3360.2	3367.0	3397.3	3370.3	3431.0	3434.4	3464.7	3427.6	3447.9	3451.2
32.5°	3087.2	3117.6	3137.8	3164.8	3124.3	3201.8	3191.7	3215.3	3195.1	3195.1	3211.9
35°	2814.2	2851.3	2861.4	2895.1	2861.4	2922.1	2922.1	2935.6	2915.3	2915.3	2942.3
37.5°	2517.6	2544.6	2548.0	2581.7	2554.7	2605.3	2601.9	2612.0	2591.8	2605.3	2605.3
40°	2170.5	2190.7	2197.5	2214.3	2210.9	2248.0	2244.6	2251.4	2241.3	2244.6	2251.4
42.5°	1766.1	1793.0	1806.5	1820.0	1799.8	1850.3	1840.2	1850.3	1846.9	1850.3	1860.4
45°	1301.0	1321.2	1331.3	1334.7	1327.9	1358.2	1381.8	1361.6	1365.0	1358.2	1371.7
47.5°	940.3	943.7	937.0	957.2	940.3	953.8	960.5	963.9	943.7	940.3	953.8
50°	643.7	660.6	637.0	647.1	643.7	657.2	650.5	653.8	633.6	643.7	637.0
52.5°	428.0	424.7	417.9	421.3	414.6	414.6	414.6	421.3	407.8	401.1	394.3
55°	259.5	252.8	239.3	235.9	235.9	239.3	232.6	225.8	225.8	222.4	222.4
57.5°	151.7	141.6	134.8	131.4	124.7	121.3	118.0	118.0	111.2	111.2	111.2
60°	84.3	74.1	67.4	60.7	60.7	57.3	53.9	50.6	50.6	50.6	47.2
62.5°	43.8	37.1	30.3	27.0	27.0	23.6	20.2	20.2	20.2	20.2	16.9
65°	30.3	23.6	20.2	16.9	16.9	13.5	13.5	13.5	13.5	13.5	13.5
67.5°	23.6	20.2	16.9	13.5	13.5	13.5	10.1	10.1	10.1	10.1	10.1
70°	20.2	13.5	13.5	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1
72.5°	13.5	13.5	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1
75°	10.1	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7
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: P252230

CATALOG NUMBER: LD6B70D010TE EU6B60709727 6LBSW1LI

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	3525.4	3525.4	3525.4	3525.4	3525.4	3525.4	3525.4	3525.4
2.5°	3579.3	3575.9	3579.3	3586.0	3572.6	3613.0	3592.8	3613.0
5°	3656.8	3660.2	3663.6	3673.7	3656.8	3707.4	3680.4	3710.7
7.5°	3757.9	3761.3	3764.7	3774.8	3764.7	3815.2	3784.9	3811.9
10°	3862.4	3869.2	3869.2	3886.0	3875.9	3923.1	3902.9	3936.6
12.5°	3960.2	3966.9	3973.6	3983.7	3977.0	4027.6	4010.7	4037.7
15°	4037.7	4051.1	4054.5	4068.0	4061.3	4115.2	4095.0	4121.9
17.5°	4074.7	4088.2	4088.2	4105.1	4098.3	4155.6	4128.7	4159.0
20°	4054.5	4064.6	4068.0	4084.9	4078.1	4135.4	4108.4	4145.5
22.5°	3990.5	3993.9	3997.2	4014.1	4010.7	4061.3	4037.7	4061.3
25°	3872.5	3882.6	3879.3	3892.7	3892.7	3933.2	3906.2	3926.4
27.5°	3704.0	3714.1	3714.1	3731.0	3717.5	3757.9	3731.0	3761.3
30°	3498.4	3508.5	3501.8	3515.3	3501.8	3542.2	3522.0	3532.1
32.5°	3252.4	3252.4	3255.7	3259.1	3252.4	3289.5	3269.2	3289.5
35°	2959.2	2965.9	2969.3	2972.6	2965.9	2992.9	2969.3	2982.8
37.5°	2628.9	2645.7	2642.3	2645.7	2635.6	2669.3	2649.1	2655.8
40°	2275.0	2275.0	2271.6	2278.4	2268.2	2295.2	2281.7	2288.5
42.5°	1863.8	1873.9	1860.4	1877.3	1850.3	1887.4	1873.9	1863.8
45°	1398.7	1385.2	1381.8	1385.2	1375.1	1378.5	1388.6	1381.8
47.5°	953.8	953.8	947.1	937.0	950.4	953.8	940.3	940.3
50°	640.4	640.4	633.6	630.3	637.0	633.6	626.9	637.0
52.5°	407.8	394.3	394.3	401.1	394.3	387.6	397.7	391.0
55°	222.4	215.7	215.7	222.4	215.7	215.7	212.3	219.1
57.5°	107.9	111.2	107.9	107.9	107.9	107.9	104.5	107.9
60°	47.2	47.2	47.2	47.2	47.2	47.2	47.2	47.2
62.5°	20.2	20.2	16.9	16.9	16.9	16.9	16.9	16.9
65°	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5
67.5°	10.1	10.1	10.1	10.1	10.1	13.5	10.1	10.1
70°	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1
72.5°	10.1	10.1	13.5	13.5	13.5	13.5	13.5	13.5
75°	6.7	6.7	6.7	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



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













(END OF REPORT)