

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: P252212

Luminaire Tested: **LD6B60D010TE EU6B60709027 6LBSW1LI**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P252212
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 EU6B60709027 6LBSW1LI
Description: PORTFOLIO 6 INCH SINGLE WALLWASH RECESSED DOWNLIGHT, WITH SPECULAR CLEAR TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 2700K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6244.0 lumens
Efficiency: N/A
Efficacy: 99.9 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

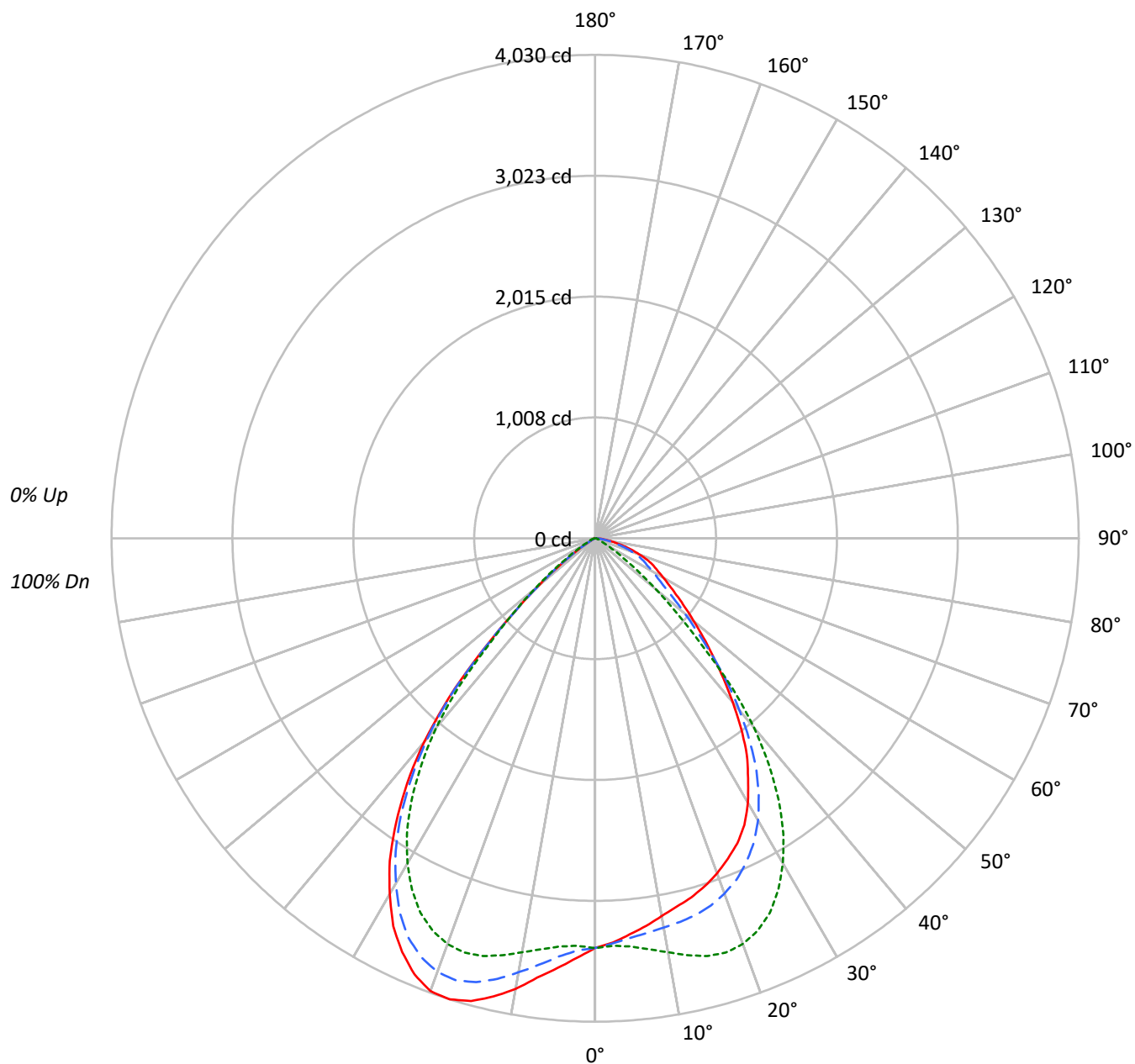
Input Watts (W): 62.48
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	222862	222862	222862
5°	217079	223713	235475
10°	211805	232136	252693
15°	209326	243516	269763
20°	206325	249856	278884
25°	201940	248017	273874
30°	191897	235688	257829
35°	175567	212498	230187
40°	151859	175501	188846
45°	128053	115100	123542
50°	108723	66622	62644
55°	94350	31951	24148
60°	85217	14914	5963
65°	82682	8568	2022
70°	74126	6848	1869
75°	60925	4941	832
80°	45385	2442	0
85°	39149	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	330.0	5.3
10°-20°	1005.6	16.1
20°-30°	1536.4	24.6
30°-40°	1607.0	25.7
40°-50°	1042.4	16.7
50°-60°	413.9	6.6
60°-70°	196.3	3.1
70°-80°	93.4	1.5
80°-90°	19.0	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°	2871.9	46.0
0°-40°	4478.9	71.7
0°-60°	5935.2	95.1
0°-90°	6244.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6244.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	3416	3416	3416	3416	3416	
5°	3315	3344	3416	3501	3596	313
15°	3099	3249	3605	3831	3994	873
25°	2805	2982	3445	3677	3805	1285
35°	2204	2338	2668	2825	2890	1363
45°	1388	1375	1248	1323	1339	1080
55°	830	705	281	219	212	752
65°	536	444	56	13	13	523
75°	242	196	20	6	3	261
85°	52	33	0	0	0	61
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°	3416.0	3416.0	3416.0	3416.0	3416.0	3416.0	3416.0	3416.0	3416.0	3416.0	3416.0
2.5°	3373.5	3380.0	3344.1	3334.3	3360.4	3370.2	3373.5	3363.7	3367.0	3380.0	3380.0
5°	3314.7	3321.3	3288.6	3278.8	3304.9	3311.5	3321.3	3318.0	3327.8	3347.4	3344.1
7.5°	3259.2	3269.0	3233.1	3220.0	3252.7	3269.0	3275.5	3275.5	3288.6	3314.7	3318.0
10°	3197.2	3210.2	3177.6	3171.0	3207.0	3223.3	3226.5	3233.1	3252.7	3288.6	3295.1
12.5°	3144.9	3158.0	3135.1	3125.3	3164.5	3180.8	3187.4	3200.4	3223.3	3269.0	3275.5
15°	3099.2	3109.0	3082.9	3076.3	3115.5	3135.1	3138.4	3158.0	3187.4	3239.6	3249.4
17.5°	3040.4	3046.9	3027.3	3020.8	3060.0	3079.6	3082.9	3105.7	3141.6	3193.9	3210.2
20°	2971.8	2978.4	2958.8	2952.2	2991.4	3014.3	3017.5	3037.1	3079.6	3135.1	3151.4
22.5°	2890.2	2903.2	2880.4	2873.8	2913.0	2932.6	2942.4	2958.8	3001.2	3056.7	3079.6
25°	2805.3	2805.3	2788.9	2785.7	2821.6	2844.5	2841.2	2864.1	2906.5	2962.0	2981.6
27.5°	2694.2	2691.0	2674.6	2671.4	2710.6	2730.2	2723.6	2746.5	2785.7	2841.2	2860.8
30°	2547.3	2553.8	2530.9	2524.4	2557.1	2589.7	2586.5	2609.3	2648.5	2700.8	2713.8
32.5°	2370.9	2377.5	2374.2	2364.4	2393.8	2410.1	2419.9	2436.2	2468.9	2524.4	2537.5
35°	2204.4	2194.6	2181.5	2181.5	2210.9	2237.0	2227.2	2246.8	2279.5	2335.0	2338.3
37.5°	1998.6	1995.4	1988.8	1982.3	2015.0	2021.5	2024.8	2037.8	2067.2	2112.9	2106.4
40°	1783.1	1786.4	1783.1	1770.0	1789.6	1815.7	1812.5	1819.0	1845.1	1877.8	1868.0
42.5°	1580.6	1580.6	1580.6	1567.6	1590.4	1603.5	1610.0	1606.7	1613.3	1642.7	1629.6
45°	1387.9	1391.2	1387.9	1384.7	1387.9	1394.5	1387.9	1384.7	1384.7	1394.5	1374.9
47.5°	1221.4	1221.4	1211.6	1201.8	1211.6	1214.9	1205.1	1195.3	1192.0	1188.7	1156.1
50°	1071.2	1067.9	1064.6	1048.3	1058.1	1061.4	1048.3	1041.8	1028.7	1012.4	973.2
52.5°	940.5	937.3	934.0	917.7	924.2	927.5	914.4	901.3	885.0	872.0	823.0
55°	829.5	826.2	826.2	816.4	809.9	816.4	803.4	793.6	770.7	754.4	705.4
57.5°	734.8	734.8	728.3	718.5	721.7	721.7	708.7	695.6	676.0	656.4	617.2
60°	653.1	653.1	653.1	643.4	643.4	643.4	636.8	623.8	607.4	587.8	548.6
62.5°	587.8	587.8	584.6	574.8	578.0	578.0	571.5	558.4	542.1	529.0	489.9
65°	535.6	535.6	535.6	525.8	525.8	529.0	522.5	509.5	496.4	480.1	444.1
67.5°	470.3	467.0	467.0	460.5	463.7	467.0	460.5	450.7	434.3	424.5	391.9
70°	388.6	391.9	395.2	385.4	388.6	388.6	385.4	375.6	365.8	356.0	326.6
72.5°	316.8	316.8	313.5	310.2	310.2	313.5	307.0	297.2	290.7	284.1	261.3
75°	241.7	238.4	241.7	235.1	235.1	235.1	228.6	225.3	222.1	212.3	195.9
77.5°	176.3	173.1	173.1	166.6	169.8	169.8	166.6	160.0	153.5	150.2	137.2
80°	120.8	120.8	120.8	117.6	117.6	114.3	114.3	111.0	104.5	101.2	94.7
82.5°	81.6	81.6	81.6	78.4	78.4	78.4	75.1	71.8	68.6	65.3	58.8
85°	52.3	52.3	52.3	49.0	49.0	49.0	45.7	45.7	42.5	39.2	32.7
87.5°	29.4	29.4	29.4	26.1	26.1	26.1	26.1	26.1	22.9	19.6	16.3
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°	3416.0	3416.0	3416.0	3416.0	3416.0	3416.0	3416.0	3416.0	3416.0	3416.0	3416.0
2.5°	3402.9	3357.2	3386.6	3386.6	3376.8	3402.9	3419.2	3432.3	3429.0	3399.6	3396.4
5°	3376.8	3337.6	3370.2	3373.5	3363.7	3399.6	3422.5	3438.8	3442.1	3416.0	3419.2
7.5°	3357.2	3324.5	3367.0	3380.0	3376.8	3409.4	3435.6	3461.7	3474.7	3455.1	3458.4
10°	3347.4	3321.3	3367.0	3386.6	3389.8	3425.8	3464.9	3500.9	3517.2	3504.1	3513.9
12.5°	3334.3	3318.0	3370.2	3399.6	3412.7	3448.6	3497.6	3540.1	3566.2	3559.7	3579.2
15°	3321.3	3308.2	3370.2	3412.7	3429.0	3461.7	3517.2	3579.2	3608.6	3605.4	3631.5
17.5°	3288.6	3285.3	3350.6	3396.4	3419.2	3458.4	3510.7	3585.8	3615.2	3621.7	3654.4
20°	3236.3	3236.3	3308.2	3357.2	3383.3	3419.2	3484.5	3556.4	3592.3	3598.8	3634.8
22.5°	3164.5	3171.0	3239.6	3288.6	3327.8	3353.9	3422.5	3497.6	3530.3	3540.1	3579.2
25°	3069.8	3076.3	3141.6	3190.6	3233.1	3262.5	3327.8	3396.4	3435.6	3445.4	3474.7
27.5°	2945.7	2958.8	3020.8	3069.8	3105.7	3125.3	3193.9	3265.7	3295.1	3304.9	3334.3
30°	2802.0	2805.3	2867.3	2909.8	2945.7	2962.0	3020.8	3095.9	3118.8	3128.6	3171.0
32.5°	2625.7	2622.4	2681.2	2720.4	2749.8	2769.3	2831.4	2880.4	2903.2	2919.6	2942.4
35°	2413.4	2410.1	2452.6	2498.3	2521.1	2527.7	2589.7	2642.0	2655.0	2668.1	2697.5
37.5°	2175.0	2175.0	2210.9	2233.8	2259.9	2269.7	2299.1	2357.9	2380.7	2377.5	2400.3
40°	1923.5	1910.5	1936.6	1959.4	1966.0	1969.2	1998.6	2044.4	2060.7	2060.7	2077.0
42.5°	1659.0	1639.4	1642.7	1655.7	1662.3	1639.4	1659.0	1688.4	1678.6	1691.7	1694.9
45°	1378.1	1348.7	1335.7	1306.3	1312.8	1290.0	1276.9	1283.4	1280.2	1247.5	1254.0
47.5°	1149.5	1097.3	1074.4	1032.0	1022.2	996.0	979.7	950.3	924.2	924.2	907.9
50°	956.9	904.6	858.9	809.9	793.6	770.7	734.8	695.6	676.0	656.4	640.1
52.5°	803.4	747.9	692.3	640.1	617.2	587.8	538.8	499.7	463.7	444.1	424.5
55°	679.3	617.2	558.4	502.9	473.5	444.1	395.2	349.4	307.0	280.9	264.5
57.5°	584.6	525.8	463.7	405.0	378.8	346.2	293.9	244.9	205.7	176.3	160.0
60°	516.0	457.2	401.7	339.6	313.5	280.9	225.3	179.6	140.4	114.3	94.7
62.5°	457.2	405.0	346.2	290.7	264.5	231.9	179.6	133.9	98.0	71.8	55.5
65°	414.7	362.5	313.5	258.0	235.1	202.5	153.5	111.0	78.4	55.5	39.2
67.5°	365.8	320.0	271.1	225.3	202.5	176.3	130.6	94.7	65.3	45.7	32.7
70°	307.0	271.1	228.6	186.1	169.8	147.0	107.8	78.4	52.3	35.9	26.1
72.5°	244.9	215.5	182.9	150.2	137.2	114.3	88.2	62.0	39.2	26.1	19.6
75°	186.1	163.3	137.2	114.3	101.2	88.2	65.3	45.7	29.4	19.6	13.1
77.5°	127.4	117.6	98.0	78.4	71.8	62.0	42.5	29.4	19.6	13.1	6.5
80°	88.2	78.4	65.3	52.3	45.7	39.2	26.1	19.6	9.8	6.5	3.3
82.5°	55.5	45.7	39.2	32.7	29.4	22.9	16.3	9.8	6.5	3.3	3.3
85°	29.4	26.1	22.9	16.3	16.3	13.1	9.8	6.5	3.3	0.0	0.0
87.5°	16.3	13.1	9.8	6.5	6.5	3.3	3.3	3.3	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°	3416.0	3416.0	3416.0	3416.0	3416.0	3416.0	3416.0	3416.0	3416.0	3416.0	3416.0
2.5°	3435.6	3435.6	3432.3	3471.5	3425.8	3471.5	3448.6	3471.5	3438.8	3435.6	3438.8
5°	3461.7	3471.5	3474.7	3510.7	3468.2	3523.7	3504.1	3523.7	3500.9	3507.4	3517.2
7.5°	3513.9	3530.3	3527.0	3572.7	3530.3	3592.3	3579.2	3608.6	3585.8	3592.3	3605.4
10°	3572.7	3592.3	3595.6	3641.3	3602.1	3677.2	3660.9	3693.5	3674.0	3683.8	3700.1
12.5°	3641.3	3664.2	3667.4	3719.7	3677.2	3755.6	3745.8	3778.5	3762.1	3771.9	3791.5
15°	3693.5	3726.2	3732.7	3785.0	3739.3	3820.9	3814.4	3856.8	3830.7	3847.0	3863.4
17.5°	3719.7	3749.1	3762.1	3811.1	3771.9	3853.6	3847.0	3883.0	3863.4	3879.7	3899.3
20°	3703.3	3739.3	3749.1	3798.1	3758.9	3840.5	3830.7	3866.6	3847.0	3860.1	3879.7
22.5°	3644.6	3680.5	3693.5	3739.3	3703.3	3778.5	3775.2	3807.8	3781.7	3798.1	3814.4
25°	3540.1	3579.2	3585.8	3628.2	3589.0	3667.4	3660.9	3696.8	3677.2	3687.0	3709.9
27.5°	3389.8	3435.6	3445.4	3481.3	3451.9	3517.2	3517.2	3546.6	3523.7	3523.7	3546.6
30°	3210.2	3255.9	3262.5	3291.9	3265.7	3324.5	3327.8	3357.2	3321.3	3340.8	3344.1
32.5°	2991.4	3020.8	3040.4	3066.5	3027.3	3102.4	3092.7	3115.5	3095.9	3095.9	3112.2
35°	2726.9	2762.8	2772.6	2805.3	2772.6	2831.4	2831.4	2844.5	2824.9	2824.9	2851.0
37.5°	2439.5	2465.6	2468.9	2501.6	2475.4	2524.4	2521.1	2530.9	2511.4	2524.4	2524.4
40°	2103.1	2122.7	2129.3	2145.6	2142.3	2178.2	2175.0	2181.5	2171.7	2175.0	2181.5
42.5°	1711.2	1737.4	1750.4	1763.5	1743.9	1792.9	1783.1	1792.9	1789.6	1792.9	1802.7
45°	1260.6	1280.2	1290.0	1293.2	1286.7	1316.1	1339.0	1319.4	1322.6	1316.1	1329.2
47.5°	911.1	914.4	907.9	927.5	911.1	924.2	930.7	934.0	914.4	911.1	924.2
50°	623.8	640.1	617.2	627.0	623.8	636.8	630.3	633.6	614.0	623.8	617.2
52.5°	414.7	411.5	405.0	408.2	401.7	401.7	401.7	408.2	395.2	388.6	382.1
55°	251.5	244.9	231.9	228.6	228.6	231.9	225.3	218.8	218.8	215.5	215.5
57.5°	147.0	137.2	130.6	127.4	120.8	117.6	114.3	114.3	107.8	107.8	107.8
60°	81.6	71.8	65.3	58.8	58.8	55.5	52.3	49.0	49.0	49.0	45.7
62.5°	42.5	35.9	29.4	26.1	26.1	22.9	19.6	19.6	19.6	19.6	16.3
65°	29.4	22.9	19.6	16.3	16.3	13.1	13.1	13.1	13.1	13.1	13.1
67.5°	22.9	19.6	16.3	13.1	13.1	13.1	9.8	9.8	9.8	9.8	9.8
70°	19.6	13.1	13.1	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8
72.5°	13.1	13.1	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8
75°	9.8	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5
77.5°	3.3	3.3	3.3	3.3	3.3	3.3	0.0	0.0	0.0	0.0	0.0
80°	3.3	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: P252212

CATALOG NUMBER: LD6B60D010TE EU6B60709027 6LBSW1LI

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	3416.0	3416.0	3416.0	3416.0	3416.0	3416.0	3416.0	3416.0
2.5°	3468.2	3464.9	3468.2	3474.7	3461.7	3500.9	3481.3	3500.9
5°	3543.3	3546.6	3549.9	3559.7	3543.3	3592.3	3566.2	3595.6
7.5°	3641.3	3644.6	3647.8	3657.6	3647.8	3696.8	3667.4	3693.5
10°	3742.5	3749.1	3749.1	3765.4	3755.6	3801.3	3781.7	3814.4
12.5°	3837.2	3843.8	3850.3	3860.1	3853.6	3902.6	3886.2	3912.4
15°	3912.4	3925.4	3928.7	3941.7	3935.2	3987.5	3967.9	3994.0
17.5°	3948.3	3961.3	3961.3	3977.7	3971.1	4026.7	4000.5	4029.9
20°	3928.7	3938.5	3941.7	3958.1	3951.5	4007.1	3980.9	4016.9
22.5°	3866.6	3869.9	3873.2	3889.5	3886.2	3935.2	3912.4	3935.2
25°	3752.3	3762.1	3758.9	3771.9	3771.9	3811.1	3785.0	3804.6
27.5°	3589.0	3598.8	3598.8	3615.2	3602.1	3641.3	3615.2	3644.6
30°	3389.8	3399.6	3393.1	3406.2	3393.1	3432.3	3412.7	3422.5
32.5°	3151.4	3151.4	3154.7	3158.0	3151.4	3187.4	3167.8	3187.4
35°	2867.3	2873.8	2877.1	2880.4	2873.8	2900.0	2877.1	2890.2
37.5°	2547.3	2563.6	2560.3	2563.6	2553.8	2586.5	2566.9	2573.4
40°	2204.4	2204.4	2201.1	2207.6	2197.8	2224.0	2210.9	2217.4
42.5°	1806.0	1815.7	1802.7	1819.0	1792.9	1828.8	1815.7	1806.0
45°	1355.3	1342.2	1339.0	1342.2	1332.4	1335.7	1345.5	1339.0
47.5°	924.2	924.2	917.7	907.9	920.9	924.2	911.1	911.1
50°	620.5	620.5	614.0	610.7	617.2	614.0	607.4	617.2
52.5°	395.2	382.1	382.1	388.6	382.1	375.6	385.4	378.8
55°	215.5	209.0	209.0	215.5	209.0	209.0	205.7	212.3
57.5°	104.5	107.8	104.5	104.5	104.5	104.5	101.2	104.5
60°	45.7	45.7	45.7	45.7	45.7	45.7	45.7	45.7
62.5°	19.6	19.6	16.3	16.3	16.3	16.3	16.3	16.3
65°	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1
67.5°	9.8	9.8	9.8	9.8	9.8	13.1	9.8	9.8
70°	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8
72.5°	9.8	9.8	13.1	13.1	13.1	13.1	13.1	13.1
75°	6.5	6.5	6.5	3.3	3.3	3.3	3.3	3.3
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)