

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: P252645

Luminaire Tested: **LD6B70D010TE EU6B60709050 6LBDW1LI**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P252645
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-1712-453-8)
Test Lab: INNOVATION CENTER(G1)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: io LED
Catalog Number: LD6B70D010TE EU6B60709050 6LBDW1LI
Description: PORTFOLIO 6 INCH DOUBLE WALLWASH RECESSED DOWNLIGHT, WITH SPECULAR CLEAR TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 5000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6157.0 lumens
Efficiency: N/A
Efficacy: 77.5 lumens/watt
Spacing Criteria (0/90/45): 1.11 / 1.22 / 1.15
Luminous Opening: Circular (Dia: 0.46' x H: 0')
CIE Type: Direct

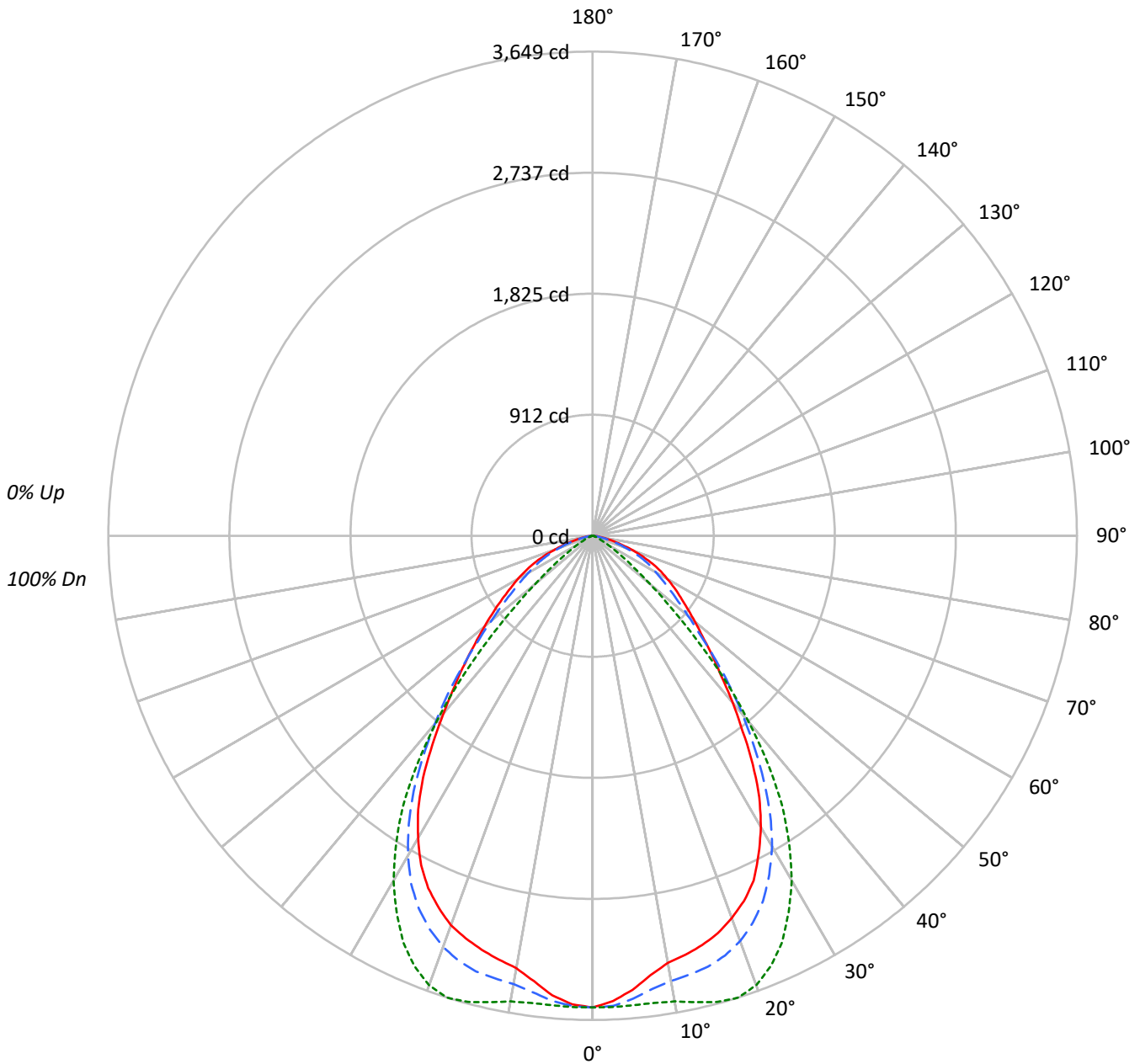
Input Watts (W): 79.45
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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			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	111	108	105	102	109	106	103	100	102	99	97	98	96	94	94	93	91	89			89
2	104	97	92	87	101	95	91	86	92	88	84	89	86	83	86	83	81	79			79
3	96	88	81	76	94	86	80	76	84	79	74	81	77	73	79	75	72	70			70
4	90	80	73	67	88	79	72	67	76	70	66	74	69	65	72	68	64	62			62
5	84	73	65	60	82	72	65	59	70	64	59	68	63	58	66	62	58	56			56
6	78	67	59	54	76	66	59	53	64	58	53	63	57	53	61	56	52	50			50
7	73	61	54	49	72	61	53	48	59	53	48	58	52	48	57	51	48	46			46
8	69	57	49	44	67	56	49	44	55	48	44	54	48	44	53	47	43	42			42
9	64	53	45	40	63	52	45	40	51	45	40	50	44	40	49	44	40	38			38
10	61	49	42	37	60	48	42	37	48	41	37	47	41	37	46	41	37	35			35

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	231911	231911	231911
5°	224997	232528	227689
10°	216436	236038	219159
15°	215669	245644	218168
20°	212844	250224	216836
25°	206489	243166	210923
30°	191015	226000	198134
35°	167579	198672	177399
40°	139646	155742	148742
45°	117545	102755	125507
50°	101770	56310	108033
55°	92087	29915	94419
60°	84721	15553	84721
65°	76769	8243	74855
70°	61937	4712	57225
75°	42474	3100	39373
80°	27802	1540	24721
85°	18489	3069	15345



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	331.5	5.4
10°-20°	958.5	15.6
20°-30°	1416.2	23.0
30°-40°	1430.4	23.2
40°-50°	985.9	16.0
50°-60°	566.3	9.2
60°-70°	329.6	5.4
70°-80°	120.2	2.0
80°-90°	18.4	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°	2706.2	44.0
0°-40°	4136.6	67.2
0°-60°	5688.8	92.4
0°-90°	6157.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6157.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	3555	3555	3555	3555	3555	
5°	3436	3501	3551	3518	3477	322
15°	3193	3362	3637	3399	3230	900
25°	2868	3037	3378	3099	2930	1307
35°	2104	2248	2494	2351	2227	1306
45°	1274	1290	1114	1373	1360	991
55°	810	711	263	740	830	729
65°	497	419	53	415	485	487
75°	168	136	12	132	156	190
85°	25	12	4	16	20	31
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°	3554.7	3554.7	3554.7	3554.7	3554.7	3554.7	3554.7	3554.7	3554.7	3554.7	3554.7
2.5°	3509.5	3513.6	3517.8	3513.6	3517.8	3534.2	3521.9	3530.1	3530.1	3534.2	3546.5
5°	3435.6	3435.6	3443.8	3439.7	3452.0	3468.4	3456.1	3468.4	3472.6	3480.8	3501.3
7.5°	3341.0	3341.0	3345.2	3345.2	3361.6	3378.0	3369.8	3386.3	3402.7	3419.1	3443.8
10°	3267.1	3275.3	3275.3	3279.4	3295.8	3316.4	3312.3	3332.8	3349.3	3373.9	3406.8
12.5°	3234.2	3238.3	3238.3	3246.5	3263.0	3283.5	3279.4	3300.0	3324.6	3353.4	3386.3
15°	3193.1	3201.3	3197.2	3205.4	3221.9	3242.4	3238.3	3258.9	3287.6	3316.4	3361.6
17.5°	3139.7	3143.8	3147.9	3147.9	3164.3	3180.8	3180.8	3201.3	3234.2	3267.1	3316.4
20°	3065.7	3073.9	3073.9	3078.0	3090.4	3115.0	3110.9	3131.5	3164.3	3197.2	3250.6
22.5°	2979.4	2983.5	2983.5	2987.6	3008.2	3020.5	3024.6	3041.1	3069.8	3106.8	3156.1
25°	2868.5	2872.6	2868.5	2880.8	2889.0	2913.7	2905.4	2926.0	2958.9	2987.6	3036.9
27.5°	2708.2	2716.4	2716.4	2720.5	2741.1	2761.6	2761.6	2782.2	2810.9	2831.5	2880.8
30°	2535.6	2547.9	2535.6	2556.1	2564.3	2580.8	2593.1	2605.4	2630.1	2658.9	2704.1
32.5°	2338.3	2334.2	2338.3	2346.5	2371.2	2383.5	2391.7	2404.1	2428.7	2453.4	2490.4
35°	2104.1	2112.3	2116.4	2132.8	2132.8	2153.4	2157.5	2165.7	2202.7	2219.1	2247.9
37.5°	1857.5	1865.7	1869.8	1878.1	1894.5	1902.7	1915.0	1927.4	1952.0	1980.8	1997.2
40°	1639.7	1639.7	1643.8	1652.0	1664.4	1668.5	1680.8	1697.2	1713.7	1738.3	1754.8
42.5°	1434.2	1438.3	1434.2	1442.4	1454.8	1471.2	1467.1	1487.6	1491.8	1508.2	1520.5
45°	1274.0	1274.0	1265.7	1274.0	1274.0	1290.4	1286.3	1294.5	1290.4	1298.6	1290.4
47.5°	1121.9	1126.0	1121.9	1126.0	1126.0	1126.0	1130.1	1121.9	1126.0	1113.7	1089.0
50°	1002.7	1006.8	998.6	1002.7	998.6	994.5	998.6	986.3	982.2	965.7	941.1
52.5°	900.0	895.9	891.8	891.8	891.8	887.7	883.5	871.2	858.9	842.5	813.7
55°	809.6	805.5	801.4	801.4	793.1	789.0	789.0	776.7	764.4	743.8	710.9
57.5°	727.4	723.3	719.2	719.2	715.1	706.8	706.8	694.5	678.1	653.4	624.6
60°	649.3	649.3	649.3	645.2	645.2	637.0	637.0	624.6	608.2	583.6	550.7
62.5°	579.4	575.3	575.3	575.3	575.3	571.2	567.1	558.9	542.5	517.8	489.0
65°	497.3	497.3	497.3	497.3	493.1	493.1	493.1	480.8	472.6	447.9	419.2
67.5°	406.8	406.8	406.8	406.8	402.7	406.8	406.8	398.6	390.4	365.7	341.1
70°	324.7	320.5	316.4	320.5	316.4	316.4	320.5	312.3	308.2	287.7	263.0
72.5°	238.4	242.5	238.4	238.4	238.4	234.2	238.4	234.2	226.0	209.6	193.1
75°	168.5	172.6	172.6	168.5	168.5	168.5	164.4	164.4	156.2	143.8	135.6
77.5°	115.1	115.1	115.1	115.1	111.0	111.0	111.0	106.8	102.7	94.5	86.3
80°	74.0	74.0	74.0	74.0	69.9	69.9	69.9	65.8	65.8	57.5	49.3
82.5°	45.2	45.2	45.2	45.2	45.2	45.2	41.1	41.1	37.0	32.9	28.8
85°	24.7	24.7	24.7	24.7	24.7	24.7	24.7	20.5	20.5	16.4	12.3
87.5°	8.2	8.2	12.3	12.3	12.3	12.3	12.3	12.3	8.2	8.2	8.2
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°	3554.7	3554.7	3554.7	3554.7	3554.7	3554.7	3554.7	3554.7	3554.7	3554.7	3554.7
2.5°	3538.3	3542.4	3542.4	3542.4	3554.7	3558.9	3546.5	3534.2	3558.9	3554.7	3563.0
5°	3497.2	3509.5	3517.8	3521.9	3534.2	3542.4	3530.1	3526.0	3546.5	3550.6	3554.7
7.5°	3447.9	3468.4	3489.0	3497.2	3513.6	3521.9	3517.8	3517.8	3542.4	3550.6	3550.6
10°	3415.0	3443.8	3468.4	3489.0	3509.5	3521.9	3521.9	3526.0	3554.7	3563.0	3571.2
12.5°	3406.8	3443.8	3476.7	3505.4	3521.9	3542.4	3546.5	3558.9	3587.6	3599.9	3599.9
15°	3386.3	3435.6	3476.7	3513.6	3538.3	3563.0	3571.2	3595.8	3628.7	3636.9	3645.2
17.5°	3349.3	3398.6	3447.9	3493.1	3526.0	3546.5	3571.2	3595.8	3636.9	3649.3	3653.4
20°	3283.5	3341.0	3390.4	3435.6	3468.4	3497.2	3521.9	3550.6	3587.6	3604.1	3608.2
22.5°	3184.9	3242.4	3291.7	3341.0	3373.9	3398.6	3423.2	3456.1	3493.1	3509.5	3509.5
25°	3065.7	3119.1	3172.6	3209.5	3242.4	3271.2	3283.5	3320.5	3357.5	3378.0	3378.0
27.5°	2913.7	2963.0	3012.3	3053.4	3073.9	3098.6	3119.1	3152.0	3180.8	3197.2	3213.7
30°	2720.5	2769.8	2815.0	2856.1	2880.8	2905.4	2926.0	2950.6	2979.4	3000.0	3004.1
32.5°	2510.9	2552.0	2597.2	2638.3	2663.0	2671.2	2691.7	2716.4	2741.1	2757.5	2761.6
35°	2280.8	2309.6	2338.3	2375.3	2400.0	2400.0	2420.5	2437.0	2457.5	2494.5	2486.3
37.5°	2009.6	2050.7	2071.2	2083.5	2100.0	2116.4	2120.5	2141.1	2165.7	2173.9	2186.3
40°	1754.8	1767.1	1779.4	1779.4	1795.9	1795.9	1795.9	1800.0	1824.6	1828.7	1845.2
42.5°	1500.0	1500.0	1487.6	1475.3	1479.4	1475.3	1454.8	1454.8	1467.1	1483.5	1483.5
45°	1261.6	1232.9	1195.9	1167.1	1146.6	1138.3	1113.7	1113.7	1109.6	1113.7	1130.1
47.5°	1060.3	1010.9	949.3	891.8	871.2	854.8	817.8	801.4	793.1	797.2	805.5
50°	891.8	838.3	768.5	698.6	661.6	641.1	595.9	567.1	563.0	554.8	571.2
52.5°	768.5	702.7	628.8	546.6	509.6	476.7	427.4	402.7	386.3	386.3	390.4
55°	661.6	591.8	509.6	427.4	390.4	365.7	316.4	283.6	267.1	263.0	275.3
57.5°	571.2	505.5	423.3	341.1	304.1	275.3	226.0	197.3	184.9	176.7	180.8
60°	501.4	435.6	353.4	275.3	242.5	209.6	168.5	135.6	119.2	119.2	123.3
62.5°	435.6	374.0	300.0	226.0	197.3	168.5	123.3	94.5	82.2	78.1	82.2
65°	369.9	312.3	250.7	189.0	160.3	135.6	98.6	74.0	57.5	53.4	57.5
67.5°	300.0	254.8	201.4	152.1	127.4	106.8	74.0	53.4	41.1	37.0	41.1
70°	234.2	193.1	152.1	111.0	94.5	78.1	53.4	41.1	28.8	24.7	28.8
72.5°	168.5	139.7	106.8	78.1	65.8	53.4	37.0	28.8	20.5	16.4	20.5
75°	115.1	94.5	69.9	49.3	41.1	37.0	24.7	16.4	12.3	12.3	12.3
77.5°	74.0	57.5	45.2	32.9	24.7	20.5	12.3	8.2	8.2	8.2	8.2
80°	41.1	32.9	24.7	16.4	12.3	12.3	8.2	8.2	4.1	4.1	4.1
82.5°	24.7	16.4	12.3	8.2	8.2	4.1	4.1	4.1	4.1	4.1	4.1
85°	12.3	8.2	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1
87.5°	4.1	4.1	4.1	4.1	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



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CANDELA DISTRIBUTION (continued):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	3554.7	3554.7	3554.7	3554.7	3554.7	3554.7	3554.7	3554.7	3554.7	3554.7	3554.7
2.5°	3546.5	3550.6	3538.3	3554.7	3542.4	3558.9	3558.9	3542.4	3546.5	3538.3	3554.7
5°	3538.3	3538.3	3530.1	3542.4	3526.0	3542.4	3538.3	3509.5	3517.8	3501.3	3517.8
7.5°	3538.3	3530.1	3517.8	3530.1	3509.5	3521.9	3505.4	3476.7	3468.4	3447.9	3447.9
10°	3550.6	3538.3	3521.9	3526.0	3505.4	3509.5	3484.9	3443.8	3431.5	3406.8	3398.6
12.5°	3579.4	3567.1	3542.4	3550.6	3521.9	3521.9	3489.0	3439.7	3415.0	3382.1	3373.9
15°	3620.5	3599.9	3571.2	3575.3	3546.5	3530.1	3489.0	3431.5	3398.6	3353.4	3341.0
17.5°	3628.7	3608.2	3571.2	3571.2	3534.2	3513.6	3464.3	3398.6	3357.5	3312.3	3287.6
20°	3583.5	3563.0	3521.9	3517.8	3484.9	3456.1	3402.7	3336.9	3295.8	3246.5	3226.0
22.5°	3489.0	3464.3	3427.3	3423.2	3390.4	3373.9	3316.4	3250.6	3209.5	3160.2	3143.8
25°	3349.3	3336.9	3300.0	3295.8	3267.1	3246.5	3197.2	3135.6	3098.6	3049.3	3032.8
27.5°	3184.9	3172.6	3135.6	3135.6	3102.7	3090.4	3045.2	2987.6	2958.9	2913.7	2893.1
30°	2987.6	2971.2	2950.6	2946.5	2917.8	2905.4	2864.3	2810.9	2782.2	2745.2	2736.9
32.5°	2753.4	2741.1	2728.7	2724.6	2695.9	2683.5	2654.8	2601.3	2576.7	2543.8	2531.5
35°	2482.2	2473.9	2461.6	2457.5	2445.2	2432.8	2404.1	2363.0	2350.7	2326.0	2313.7
37.5°	2169.8	2178.1	2169.8	2169.8	2157.5	2161.6	2137.0	2112.3	2100.0	2083.5	2075.3
40°	1832.9	1849.3	1861.6	1861.6	1857.5	1873.9	1869.8	1849.3	1845.2	1837.0	1832.9
42.5°	1491.8	1500.0	1524.6	1541.1	1537.0	1578.1	1582.2	1598.6	1610.9	1602.7	1606.8
45°	1134.2	1158.9	1191.8	1208.2	1228.7	1282.2	1310.9	1343.8	1372.6	1389.0	1384.9
47.5°	817.8	846.6	883.5	908.2	945.2	1010.9	1084.9	1126.0	1167.1	1187.7	1208.2
50°	591.8	620.5	665.7	702.7	727.4	817.8	895.9	949.3	994.5	1023.3	1043.8
52.5°	415.1	447.9	497.3	530.1	567.1	653.4	743.8	805.5	854.8	891.8	912.3
55°	287.7	324.7	369.9	402.7	443.8	534.2	620.5	686.3	739.7	772.6	797.2
57.5°	201.4	234.2	279.4	308.2	349.3	435.6	521.9	587.7	641.1	674.0	702.7
60°	135.6	168.5	213.7	242.5	275.3	361.6	439.7	509.6	558.9	591.8	620.5
62.5°	94.5	123.3	168.5	197.3	226.0	300.0	374.0	435.6	484.9	521.9	546.6
65°	74.0	98.6	135.6	160.3	189.0	250.7	312.3	365.7	415.1	452.0	468.5
67.5°	53.4	78.1	106.8	127.4	147.9	201.4	254.8	295.9	341.1	369.9	390.4
70°	37.0	53.4	78.1	94.5	111.0	152.1	193.1	230.1	263.0	283.6	300.0
72.5°	28.8	37.0	53.4	65.8	78.1	106.8	139.7	168.5	193.1	209.6	226.0
75°	16.4	24.7	37.0	45.2	53.4	74.0	94.5	115.1	131.5	143.8	152.1
77.5°	8.2	12.3	20.5	24.7	32.9	45.2	61.6	74.0	86.3	94.5	102.7
80°	8.2	8.2	12.3	12.3	16.4	24.7	32.9	41.1	49.3	57.5	61.6
82.5°	4.1	4.1	8.2	8.2	8.2	12.3	16.4	24.7	28.8	32.9	37.0
85°	4.1	4.1	4.1	4.1	4.1	8.2	8.2	12.3	16.4	20.5	20.5
87.5°	0.0	0.0	4.1	4.1	4.1	4.1	4.1	8.2	8.2	8.2	12.3
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: P252645

CATALOG NUMBER: LD6B70D010TE EU6B60709050 6LBDW1LI

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	3554.7	3554.7	3554.7	3554.7	3554.7	3554.7	3554.7	3554.7
2.5°	3542.4	3550.6	3546.5	3554.7	3542.4	3538.3	3546.5	3534.2
5°	3497.2	3501.3	3497.2	3497.2	3489.0	3480.8	3489.0	3476.7
7.5°	3427.3	3427.3	3415.0	3415.0	3398.6	3390.4	3390.4	3386.3
10°	3369.8	3357.5	3345.2	3349.3	3324.6	3316.4	3312.3	3308.2
12.5°	3341.0	3332.8	3312.3	3312.3	3287.6	3279.4	3275.3	3271.2
15°	3308.2	3291.7	3275.3	3271.2	3250.6	3242.4	3238.3	3230.1
17.5°	3250.6	3238.3	3217.8	3217.8	3197.2	3193.1	3184.9	3180.8
20°	3189.0	3172.6	3156.1	3156.1	3131.5	3131.5	3119.1	3123.2
22.5°	3102.7	3090.4	3073.9	3073.9	3053.4	3049.3	3036.9	3032.8
25°	3000.0	2983.5	2971.2	2967.1	2950.6	2942.4	2938.3	2930.1
27.5°	2864.3	2852.0	2839.7	2831.5	2810.9	2806.8	2794.5	2798.6
30°	2695.9	2687.6	2683.5	2675.3	2650.6	2642.4	2642.4	2630.1
32.5°	2510.9	2498.6	2490.4	2478.0	2457.5	2453.4	2441.1	2445.2
35°	2284.9	2268.5	2256.1	2260.2	2235.6	2231.5	2223.3	2227.4
37.5°	2050.7	2034.2	2017.8	2013.7	1993.1	1993.1	1980.8	1980.8
40°	1808.2	1791.8	1783.5	1783.5	1758.9	1763.0	1750.7	1746.5
42.5°	1590.4	1573.9	1569.8	1565.7	1553.4	1549.3	1537.0	1541.1
45°	1384.9	1380.8	1380.8	1372.6	1360.3	1356.1	1360.3	1360.3
47.5°	1204.1	1208.2	1204.1	1204.1	1195.9	1204.1	1195.9	1200.0
50°	1052.0	1060.3	1060.3	1060.3	1056.1	1060.3	1060.3	1064.4
52.5°	924.6	937.0	932.9	937.0	932.9	941.1	937.0	941.1
55°	813.7	821.9	826.0	830.1	830.1	830.1	830.1	830.1
57.5°	710.9	723.3	727.4	731.5	731.5	739.7	731.5	731.5
60°	628.8	641.1	645.2	649.3	649.3	653.4	645.2	649.3
62.5°	554.8	567.1	567.1	571.2	571.2	571.2	563.0	567.1
65°	480.8	484.9	489.0	489.0	484.9	484.9	480.8	484.9
67.5°	398.6	402.7	398.6	398.6	394.5	394.5	386.3	390.4
70°	308.2	308.2	312.3	308.2	304.1	308.2	304.1	300.0
72.5°	230.1	230.1	230.1	226.0	226.0	221.9	226.0	226.0
75°	156.2	156.2	160.3	160.3	160.3	160.3	156.2	156.2
77.5°	102.7	102.7	102.7	102.7	106.8	102.7	102.7	102.7
80°	65.8	65.8	69.9	69.9	65.8	65.8	65.8	65.8
82.5°	41.1	41.1	41.1	41.1	41.1	41.1	41.1	41.1
85°	24.7	24.7	24.7	24.7	20.5	20.5	20.5	20.5
87.5°	12.3	12.3	12.3	12.3	12.3	12.3	8.2	8.2
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)