

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: P252647

Luminaire Tested: **LD6B70D010TE EU6B60709730 6LBDW1LI**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P252647  
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 EU6B60709730 6LBDW1LI  
Description: PORTFOLIO 6 INCH DOUBLE 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: 5274.0 lumens  
Efficiency: N/A  
Efficacy: 66.4 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

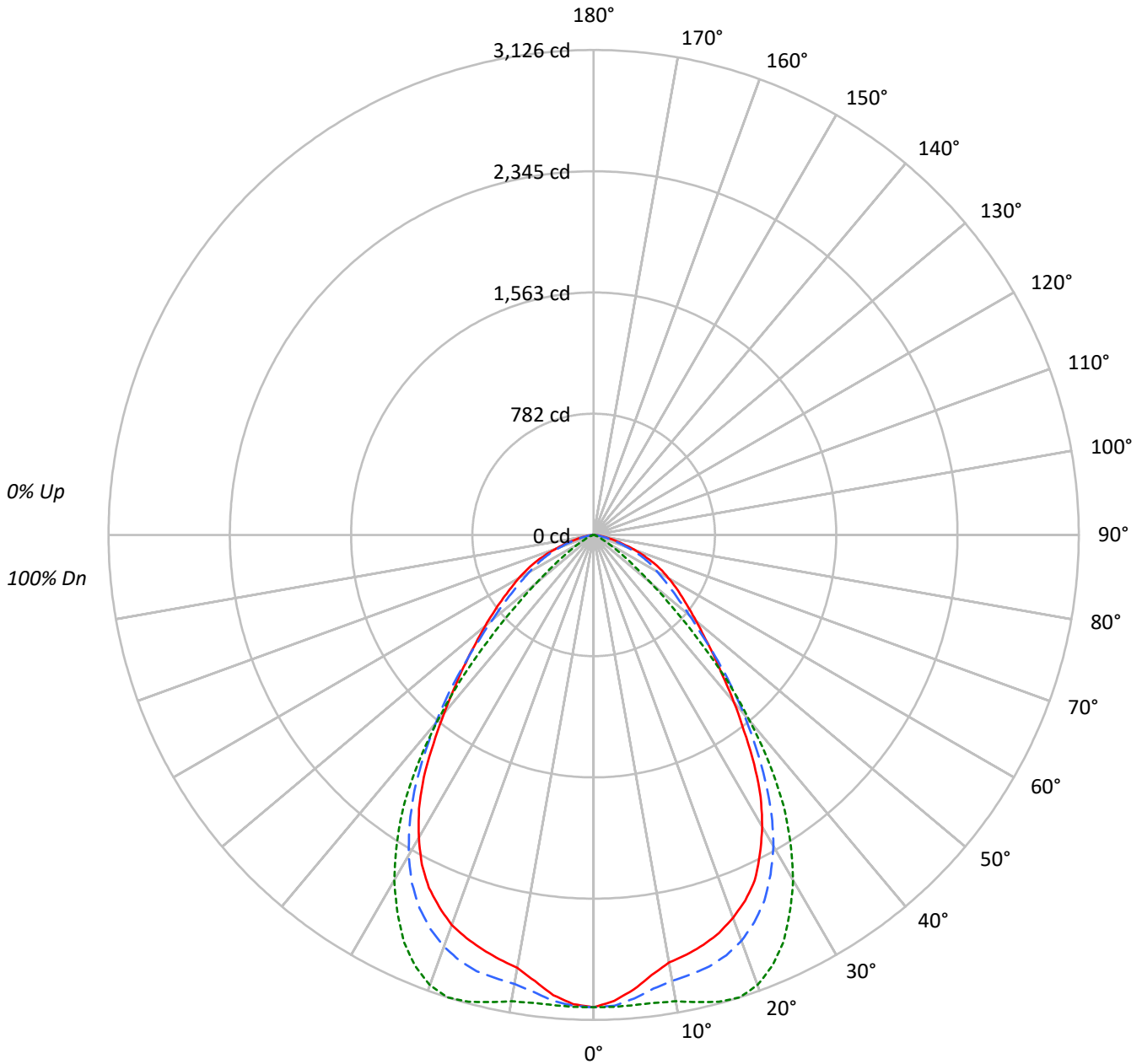
Input Watts (W): 79.45  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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

**AVERAGE LUMINANCE (cd/sqm):**

	0°	90°	180°
0°	198651	198651	198651
5°	192730	199181	195035
10°	185392	202186	187724
15°	184741	210414	186875
20°	182317	214337	185740
25°	176875	208296	180675
30°	163617	193584	169719
35°	143543	170176	151953
40°	119615	133412	127416
45°	100688	88020	107506
50°	87175	48231	92534
55°	78881	25626	80883
60°	72574	13322	72574
65°	65747	7070	64126
70°	53048	4025	49023
75°	36374	2672	33727
80°	23820	1315	21152
85°	15794	2620	13175



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	283.9	5.4
10°-20°	821.0	15.6
20°-30°	1213.1	23.0
30°-40°	1225.3	23.2
40°-50°	844.5	16.0
50°-60°	485.1	9.2
60°-70°	282.3	5.4
70°-80°	103.0	2.0
80°-90°	15.7	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°	2318.1	44.0
0°-40°	3543.4	67.2
0°-60°	4872.9	92.4
0°-90°	5274.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5274.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	3045	3045	3045	3045	3045	
5°	2943	2999	3041	3013	2978	276
15°	2735	2880	3115	2911	2767	771
25°	2457	2601	2894	2654	2510	1119
35°	1802	1926	2137	2014	1908	1119
45°	1091	1105	954	1176	1165	849
55°	694	609	225	634	711	624
65°	426	359	46	356	415	417
75°	144	116	11	113	134	163
85°	21	11	4	14	18	27
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°	3044.9	3044.9	3044.9	3044.9	3044.9	3044.9	3044.9	3044.9	3044.9	3044.9	3044.9
2.5°	3006.2	3009.7	3013.3	3009.7	3013.3	3027.3	3016.8	3023.8	3023.8	3027.3	3037.9
5°	2942.9	2942.9	2949.9	2946.4	2956.9	2971.0	2960.5	2971.0	2974.5	2981.6	2999.2
7.5°	2861.9	2861.9	2865.4	2865.4	2879.5	2893.6	2886.5	2900.6	2914.7	2928.8	2949.9
10°	2798.5	2805.6	2805.6	2809.1	2823.2	2840.8	2837.3	2854.9	2868.9	2890.1	2918.2
12.5°	2770.4	2773.9	2773.9	2780.9	2795.0	2812.6	2809.1	2826.7	2847.8	2872.5	2900.6
15°	2735.2	2742.2	2738.7	2745.7	2759.8	2777.4	2773.9	2791.5	2816.1	2840.8	2879.5
17.5°	2689.4	2692.9	2696.4	2696.4	2710.5	2724.6	2724.6	2742.2	2770.4	2798.5	2840.8
20°	2626.0	2633.1	2633.1	2636.6	2647.2	2668.3	2664.8	2682.4	2710.5	2738.7	2784.5
22.5°	2552.1	2555.6	2555.6	2559.2	2576.8	2587.3	2590.8	2604.9	2629.6	2661.2	2703.5
25°	2457.1	2460.6	2457.1	2467.6	2474.7	2495.8	2488.8	2506.4	2534.5	2559.2	2601.4
27.5°	2319.8	2326.8	2326.8	2330.3	2348.0	2365.6	2365.6	2383.2	2407.8	2425.4	2467.6
30°	2171.9	2182.5	2171.9	2189.5	2196.6	2210.7	2221.2	2231.8	2252.9	2277.5	2316.3
32.5°	2003.0	1999.5	2003.0	2010.0	2031.1	2041.7	2048.7	2059.3	2080.4	2101.5	2133.2
35°	1802.3	1809.4	1812.9	1827.0	1827.0	1844.6	1848.1	1855.1	1886.8	1900.9	1925.5
37.5°	1591.1	1598.2	1601.7	1608.7	1622.8	1629.8	1640.4	1651.0	1672.1	1696.7	1710.8
40°	1404.5	1404.5	1408.1	1415.1	1425.7	1429.2	1439.7	1453.8	1467.9	1489.0	1503.1
42.5°	1228.5	1232.1	1228.5	1235.6	1246.1	1260.2	1256.7	1274.3	1277.8	1291.9	1302.5
45°	1091.3	1091.3	1084.2	1091.3	1091.3	1105.3	1101.8	1108.9	1105.3	1112.4	1105.3
47.5°	961.0	964.5	961.0	964.5	964.5	964.5	968.0	961.0	964.5	954.0	932.8
50°	858.9	862.4	855.4	858.9	855.4	851.9	855.4	844.8	841.3	827.2	806.1
52.5°	770.9	767.4	763.9	763.9	763.9	760.4	756.8	746.3	735.7	721.6	697.0
55°	693.5	690.0	686.4	686.4	679.4	675.9	675.9	665.3	654.8	637.1	609.0
57.5°	623.1	619.5	616.0	616.0	612.5	605.5	605.5	594.9	580.8	559.7	535.1
60°	556.2	556.2	556.2	552.7	552.7	545.6	545.6	535.1	521.0	499.9	471.7
62.5°	496.3	492.8	492.8	492.8	492.8	489.3	485.8	478.7	464.7	443.5	418.9
65°	425.9	425.9	425.9	425.9	422.4	422.4	422.4	411.9	404.8	383.7	359.1
67.5°	348.5	348.5	348.5	348.5	345.0	348.5	348.5	341.5	334.4	313.3	292.2
70°	278.1	274.6	271.1	274.6	271.1	271.1	274.6	267.5	264.0	246.4	225.3
72.5°	204.2	207.7	204.2	204.2	204.2	200.6	204.2	200.6	193.6	179.5	165.4
75°	144.3	147.8	147.8	144.3	144.3	144.3	140.8	140.8	133.8	123.2	116.2
77.5°	98.6	98.6	98.6	98.6	95.0	95.0	95.0	91.5	88.0	81.0	73.9
80°	63.4	63.4	63.4	63.4	59.8	59.8	59.8	56.3	56.3	49.3	42.2
82.5°	38.7	38.7	38.7	38.7	38.7	38.7	35.2	35.2	31.7	28.2	24.6
85°	21.1	21.1	21.1	21.1	21.1	21.1	21.1	17.6	17.6	14.1	10.6
87.5°	7.0	7.0	10.6	10.6	10.6	10.6	10.6	10.6	7.0	7.0	7.0
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):**

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	3044.9	3044.9	3044.9	3044.9	3044.9	3044.9	3044.9	3044.9	3044.9	3044.9	3044.9
2.5°	3030.9	3034.4	3034.4	3034.4	3044.9	3048.5	3037.9	3027.3	3048.5	3044.9	3052.0
5°	2995.7	3006.2	3013.3	3016.8	3027.3	3034.4	3023.8	3020.3	3037.9	3041.4	3044.9
7.5°	2953.4	2971.0	2988.6	2995.7	3009.7	3016.8	3013.3	3013.3	3034.4	3041.4	3041.4
10°	2925.3	2949.9	2971.0	2988.6	3006.2	3016.8	3016.8	3020.3	3044.9	3052.0	3059.0
12.5°	2918.2	2949.9	2978.1	3002.7	3016.8	3034.4	3037.9	3048.5	3073.1	3083.7	3083.7
15°	2900.6	2942.9	2978.1	3009.7	3030.9	3052.0	3059.0	3080.1	3108.3	3115.3	3122.4
17.5°	2868.9	2911.2	2953.4	2992.1	3020.3	3037.9	3059.0	3080.1	3115.3	3125.9	3129.4
20°	2812.6	2861.9	2904.1	2942.9	2971.0	2995.7	3016.8	3041.4	3073.1	3087.2	3090.7
22.5°	2728.1	2777.4	2819.7	2861.9	2890.1	2911.2	2932.3	2960.5	2992.1	3006.2	3006.2
25°	2626.0	2671.8	2717.6	2749.2	2777.4	2802.1	2812.6	2844.3	2876.0	2893.6	2893.6
27.5°	2495.8	2538.0	2580.3	2615.5	2633.1	2654.2	2671.8	2700.0	2724.6	2738.7	2752.8
30°	2330.3	2372.6	2411.3	2446.5	2467.6	2488.8	2506.4	2527.5	2552.1	2569.7	2573.2
32.5°	2150.8	2186.0	2224.7	2259.9	2281.1	2288.1	2305.7	2326.8	2348.0	2362.0	2365.6
35°	1953.7	1978.3	2003.0	2034.7	2055.8	2055.8	2073.4	2087.5	2105.1	2136.7	2129.7
37.5°	1721.4	1756.6	1774.2	1784.7	1798.8	1812.9	1816.4	1834.0	1855.1	1862.2	1872.7
40°	1503.1	1513.7	1524.2	1524.2	1538.3	1538.3	1538.3	1541.8	1563.0	1566.5	1580.6
42.5°	1284.9	1284.9	1274.3	1263.7	1267.3	1263.7	1246.1	1246.1	1256.7	1270.8	1270.8
45°	1080.7	1056.0	1024.4	999.7	982.1	975.1	954.0	954.0	950.4	954.0	968.0
47.5°	908.2	866.0	813.2	763.9	746.3	732.2	700.5	686.4	679.4	682.9	690.0
50°	763.9	718.1	658.3	598.4	566.7	549.1	510.4	485.8	482.3	475.2	489.3
52.5°	658.3	601.9	538.6	468.2	436.5	408.3	366.1	345.0	330.9	330.9	334.4
55°	566.7	506.9	436.5	366.1	334.4	313.3	271.1	242.9	228.8	225.3	235.9
57.5°	489.3	433.0	362.6	292.2	260.5	235.9	193.6	169.0	158.4	151.4	154.9
60°	429.5	373.1	302.7	235.9	207.7	179.5	144.3	116.2	102.1	102.1	105.6
62.5°	373.1	320.3	257.0	193.6	169.0	144.3	105.6	81.0	70.4	66.9	70.4
65°	316.8	267.5	214.7	161.9	137.3	116.2	84.5	63.4	49.3	45.8	49.3
67.5°	257.0	218.3	172.5	130.2	109.1	91.5	63.4	45.8	35.2	31.7	35.2
70°	200.6	165.4	130.2	95.0	81.0	66.9	45.8	35.2	24.6	21.1	24.6
72.5°	144.3	119.7	91.5	66.9	56.3	45.8	31.7	24.6	17.6	14.1	17.6
75°	98.6	81.0	59.8	42.2	35.2	31.7	21.1	14.1	10.6	10.6	10.6
77.5°	63.4	49.3	38.7	28.2	21.1	17.6	10.6	7.0	7.0	7.0	7.0
80°	35.2	28.2	21.1	14.1	10.6	10.6	7.0	7.0	3.5	3.5	3.5
82.5°	21.1	14.1	10.6	7.0	7.0	3.5	3.5	3.5	3.5	3.5	3.5
85°	10.6	7.0	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
87.5°	3.5	3.5	3.5	3.5	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°	3044.9	3044.9	3044.9	3044.9	3044.9	3044.9	3044.9	3044.9	3044.9	3044.9	3044.9
2.5°	3037.9	3041.4	3030.9	3044.9	3034.4	3048.5	3048.5	3034.4	3037.9	3030.9	3044.9
5°	3030.9	3030.9	3023.8	3034.4	3020.3	3034.4	3030.9	3006.2	3013.3	2999.2	3013.3
7.5°	3030.9	3023.8	3013.3	3023.8	3006.2	3016.8	3002.7	2978.1	2971.0	2953.4	2953.4
10°	3041.4	3030.9	3016.8	3020.3	3002.7	3006.2	2985.1	2949.9	2939.3	2918.2	2911.2
12.5°	3066.1	3055.5	3034.4	3041.4	3016.8	3016.8	2988.6	2946.4	2925.3	2897.1	2890.1
15°	3101.3	3083.7	3059.0	3062.5	3037.9	3023.8	2988.6	2939.3	2911.2	2872.5	2861.9
17.5°	3108.3	3090.7	3059.0	3059.0	3027.3	3009.7	2967.5	2911.2	2876.0	2837.3	2816.1
20°	3069.6	3052.0	3016.8	3013.3	2985.1	2960.5	2914.7	2858.4	2823.2	2780.9	2763.3
22.5°	2988.6	2967.5	2935.8	2932.3	2904.1	2890.1	2840.8	2784.5	2749.2	2707.0	2692.9
25°	2868.9	2858.4	2826.7	2823.2	2798.5	2780.9	2738.7	2685.9	2654.2	2612.0	2597.9
27.5°	2728.1	2717.6	2685.9	2685.9	2657.7	2647.2	2608.4	2559.2	2534.5	2495.8	2478.2
30°	2559.2	2545.1	2527.5	2524.0	2499.3	2488.8	2453.6	2407.8	2383.2	2351.5	2344.4
32.5°	2358.5	2348.0	2337.4	2333.9	2309.2	2298.7	2274.0	2228.3	2207.1	2179.0	2168.4
35°	2126.2	2119.1	2108.6	2105.1	2094.5	2083.9	2059.3	2024.1	2013.5	1992.4	1981.9
37.5°	1858.6	1865.7	1858.6	1858.6	1848.1	1851.6	1830.5	1809.4	1798.8	1784.7	1777.7
40°	1570.0	1584.1	1594.6	1594.6	1591.1	1605.2	1601.7	1584.1	1580.6	1573.5	1570.0
42.5°	1277.8	1284.9	1306.0	1320.1	1316.5	1351.7	1355.3	1369.3	1379.9	1372.9	1376.4
45°	971.6	992.7	1020.8	1034.9	1052.5	1098.3	1122.9	1151.1	1175.7	1189.8	1186.3
47.5°	700.5	725.2	756.8	778.0	809.6	866.0	929.3	964.5	999.7	1017.3	1034.9
50°	506.9	531.5	570.3	601.9	623.1	700.5	767.4	813.2	851.9	876.5	894.1
52.5°	355.5	383.7	425.9	454.1	485.8	559.7	637.1	690.0	732.2	763.9	781.5
55°	246.4	278.1	316.8	345.0	380.2	457.6	531.5	587.9	633.6	661.8	682.9
57.5°	172.5	200.6	239.4	264.0	299.2	373.1	447.1	503.4	549.1	577.3	601.9
60°	116.2	144.3	183.0	207.7	235.9	309.8	376.7	436.5	478.7	506.9	531.5
62.5°	81.0	105.6	144.3	169.0	193.6	257.0	320.3	373.1	415.4	447.1	468.2
65°	63.4	84.5	116.2	137.3	161.9	214.7	267.5	313.3	355.5	387.2	401.3
67.5°	45.8	66.9	91.5	109.1	126.7	172.5	218.3	253.5	292.2	316.8	334.4
70°	31.7	45.8	66.9	81.0	95.0	130.2	165.4	197.1	225.3	242.9	257.0
72.5°	24.6	31.7	45.8	56.3	66.9	91.5	119.7	144.3	165.4	179.5	193.6
75°	14.1	21.1	31.7	38.7	45.8	63.4	81.0	98.6	112.6	123.2	130.2
77.5°	7.0	10.6	17.6	21.1	28.2	38.7	52.8	63.4	73.9	81.0	88.0
80°	7.0	7.0	10.6	10.6	14.1	21.1	28.2	35.2	42.2	49.3	52.8
82.5°	3.5	3.5	7.0	7.0	7.0	10.6	14.1	21.1	24.6	28.2	31.7
85°	3.5	3.5	3.5	3.5	3.5	7.0	7.0	10.6	14.1	17.6	17.6
87.5°	0.0	0.0	3.5	3.5	3.5	3.5	3.5	7.0	7.0	7.0	10.6
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: P252647

CATALOG NUMBER: LD6B70D010TE EU6B60709730 6LBDW1LI

**CANDELA DISTRIBUTION (continued):**

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	3044.9	3044.9	3044.9	3044.9	3044.9	3044.9	3044.9	3044.9
2.5°	3034.4	3041.4	3037.9	3044.9	3034.4	3030.9	3037.9	3027.3
5°	2995.7	2999.2	2995.7	2995.7	2988.6	2981.6	2988.6	2978.1
7.5°	2935.8	2935.8	2925.3	2925.3	2911.2	2904.1	2904.1	2900.6
10°	2886.5	2876.0	2865.4	2868.9	2847.8	2840.8	2837.3	2833.7
12.5°	2861.9	2854.9	2837.3	2837.3	2816.1	2809.1	2805.6	2802.1
15°	2833.7	2819.7	2805.6	2802.1	2784.5	2777.4	2773.9	2766.8
17.5°	2784.5	2773.9	2756.3	2756.3	2738.7	2735.2	2728.1	2724.6
20°	2731.6	2717.6	2703.5	2703.5	2682.4	2682.4	2671.8	2675.3
22.5°	2657.7	2647.2	2633.1	2633.1	2615.5	2612.0	2601.4	2597.9
25°	2569.7	2555.6	2545.1	2541.6	2527.5	2520.4	2516.9	2509.9
27.5°	2453.6	2443.0	2432.4	2425.4	2407.8	2404.3	2393.7	2397.2
30°	2309.2	2302.2	2298.7	2291.6	2270.5	2263.5	2263.5	2252.9
32.5°	2150.8	2140.3	2133.2	2122.7	2105.1	2101.5	2091.0	2094.5
35°	1957.2	1943.1	1932.6	1936.1	1915.0	1911.4	1904.4	1907.9
37.5°	1756.6	1742.5	1728.4	1724.9	1707.3	1707.3	1696.7	1696.7
40°	1548.9	1534.8	1527.8	1527.8	1506.6	1510.2	1499.6	1496.1
42.5°	1362.3	1348.2	1344.7	1341.2	1330.6	1327.1	1316.5	1320.1
45°	1186.3	1182.8	1182.8	1175.7	1165.2	1161.7	1165.2	1165.2
47.5°	1031.4	1034.9	1031.4	1031.4	1024.4	1031.4	1024.4	1027.9
50°	901.2	908.2	908.2	908.2	904.7	908.2	908.2	911.7
52.5°	792.0	802.6	799.1	802.6	799.1	806.1	802.6	806.1
55°	697.0	704.0	707.6	711.1	711.1	711.1	711.1	711.1
57.5°	609.0	619.5	623.1	626.6	626.6	633.6	626.6	626.6
60°	538.6	549.1	552.7	556.2	556.2	559.7	552.7	556.2
62.5°	475.2	485.8	485.8	489.3	489.3	489.3	482.3	485.8
65°	411.9	415.4	418.9	418.9	415.4	415.4	411.9	415.4
67.5°	341.5	345.0	341.5	341.5	337.9	337.9	330.9	334.4
70°	264.0	264.0	267.5	264.0	260.5	264.0	260.5	257.0
72.5°	197.1	197.1	197.1	193.6	193.6	190.1	193.6	193.6
75°	133.8	133.8	137.3	137.3	137.3	137.3	133.8	133.8
77.5°	88.0	88.0	88.0	88.0	91.5	88.0	88.0	88.0
80°	56.3	56.3	59.8	59.8	56.3	56.3	56.3	56.3
82.5°	35.2	35.2	35.2	35.2	35.2	35.2	35.2	35.2
85°	21.1	21.1	21.1	21.1	17.6	17.6	17.6	17.6
87.5°	10.6	10.6	10.6	10.6	10.6	10.6	7.0	7.0
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)