

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State
Lighting Products

Test Report Prepared for
Cooper Lighting Solutions
(formerly Eaton)

Brand: io LED

Report Number: P397338

Luminaire Tested: **8VRVT2-LD5-22-DR-W-UNV-LG52-CD2-WL-U**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P397338
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1710-355-14)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: io LED
Catalog Number: 8VRVT2-LD5-22-DR-W-UNV-LG52-CD2-WL-U
Description:
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 15931.2 lumens
Efficiency: N/A
Efficacy: 40.6 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.59 / 1.58
Luminous Opening: Rectangular w/ Sides (W: 0.5' x L: 8.33' x H: 0.17')
CIE Type: Direct

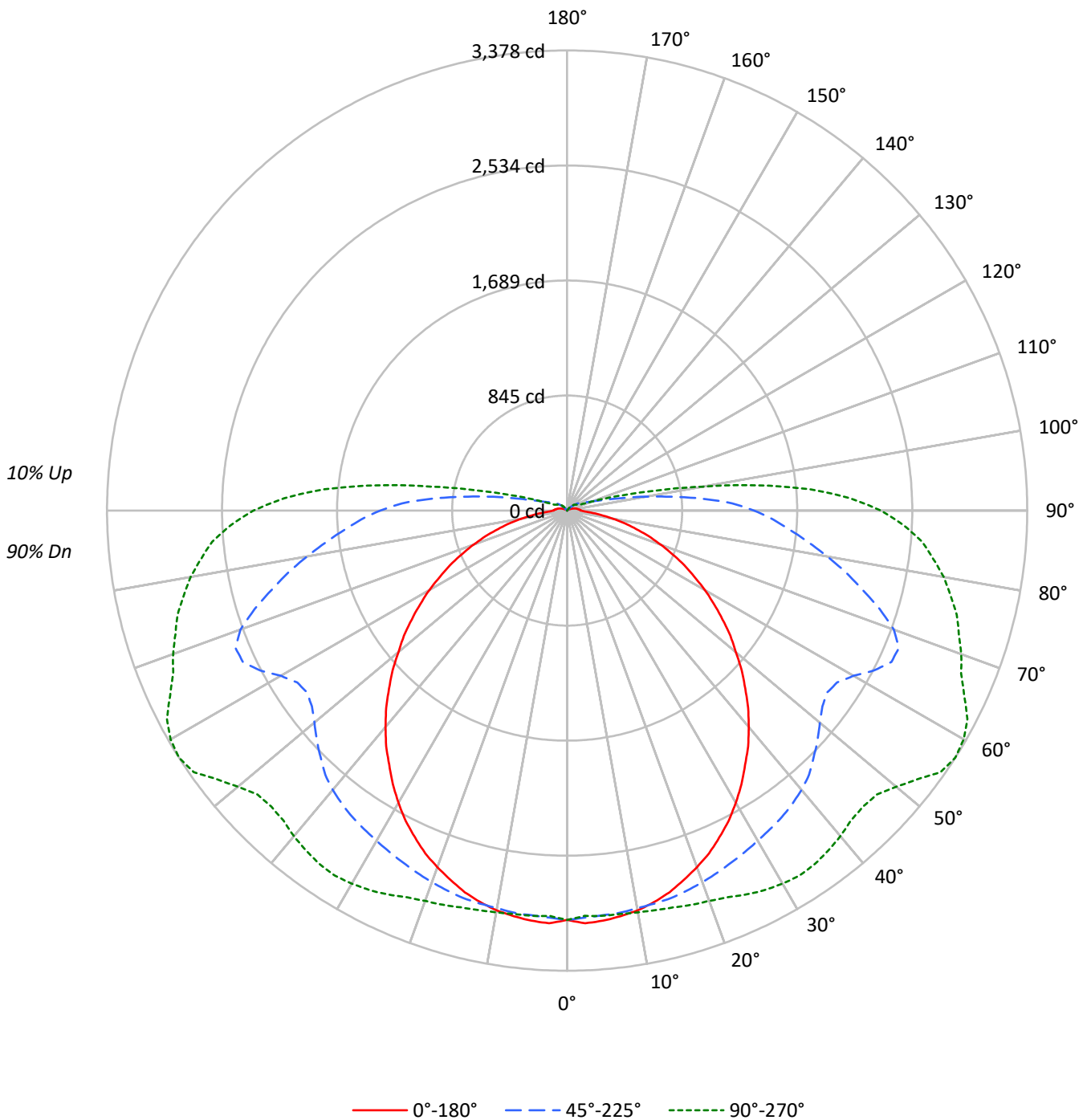
Input Watts (W): 392.5
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR																		
0	117	117	117	117	113	113	113	113	106	106	106	99	99	99	93	93	93	90
1	101	94	88	83	97	91	85	80	85	80	76	79	75	72	74	71	68	65
2	90	79	71	63	86	77	69	62	71	64	59	66	61	56	62	57	53	50
3	81	68	58	50	77	66	57	49	61	53	47	57	50	45	53	47	43	40
4	73	59	49	41	70	57	48	40	53	45	39	50	43	37	46	40	35	33
5	67	52	42	35	64	51	41	34	47	39	33	44	37	31	41	35	30	27
6	62	47	37	30	59	45	36	29	42	34	28	40	32	27	37	31	26	23
7	57	42	33	26	55	41	32	25	38	30	24	36	29	24	34	27	23	20
8	53	38	29	23	51	37	28	22	35	27	22	33	26	21	31	25	20	18
9	49	35	26	20	47	34	26	20	32	24	19	30	23	19	28	22	18	16
10	46	32	24	18	44	31	23	18	30	22	17	28	21	17	26	20	16	14

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7764	7764	7764
5°	7823	7568	7525
10°	7790	7446	7420
15°	7716	7381	7404
20°	7603	7315	7476
25°	7471	7277	7672
30°	7302	7295	7910
35°	7083	7376	8101
40°	6881	7463	8222
45°	6622	7482	8418
50°	6346	7500	9071
55°	6099	7734	10210
60°	5838	8748	11008
65°	5553	10455	11466
70°	5225	11427	12137
75°	4876	11591	13172
80°	4499	11920	14445
85°	4289	12636	16122



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	285.7	1.8
10°-20°	836.2	5.2
20°-30°	1326.8	8.3
30°-40°	1716.8	10.8
40°-50°	1943.3	12.2
50°-60°	2133.7	13.4
60°-70°	2264.2	14.2
70°-80°	2122.6	13.3
80°-90°	1716.8	10.8
90°-100°	1063.7	6.7
100°-110°	333.7	2.1
110°-120°	106.1	0.7
120°-130°	55.1	0.3
130°-140°	23.1	0.1
140°-150°	3.6	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	2448.6	15.4
0°-40°	4165.4	26.1
0°-60°	8242.4	51.7
0°-90°	14346.0	90.0
90°-120°	1503.5	9.4
90°-150°	1585.2	10.0
90°-180°	1585.0	9.9
0°-180°	15931.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3005	3005	3005	3005	3005	
5°	3022	3012	2982	2995	2986	287
15°	2901	2913	2945	3009	3016	817
25°	2646	2706	2850	3041	3110	1219
35°	2277	2424	2748	3074	3168	1427
45°	1849	2079	2560	2928	3072	1428
55°	1393	1698	2330	3106	3346	1246
65°	947	1351	2627	3133	3216	937
75°	525	1315	2244	2748	2961	560
85°	178	889	1644	2363	2616	180
90°	100	663	1372	2050	2305	58
95°	88	460	1000	1564	1790	69
105°	59	163	314	414	450	63
115°	29	75	142	123	105	30
125°	10	25	88	88	75	10
135°	4	0	36	52	50	4
145°	2	0	0	10	10	1
155°	0	0	0	0	0	0
165°	0	0	0	0	0	0
175°	0	0	0	0	0	0
180°	0	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°	3005.3	3005.3	3005.3	3005.3	3005.3	3005.3	3005.3	3005.3	3005.3	3005.3	3005.3
2.5°	3032.4	3028.2	3022.0	3019.9	3017.8	3017.8	3019.9	3015.7	3009.4	2999.0	2990.6
5°	3022.0	3017.8	3011.5	3007.4	3011.5	3011.5	3013.6	3009.4	3001.0	2992.7	2982.2
7.5°	3003.2	2999.0	2992.7	2992.7	2990.6	2992.7	2992.7	2992.7	2988.6	2984.3	2978.1
10°	2980.2	2973.9	2971.8	2969.7	2971.8	2976.0	2976.0	2978.1	2973.9	2967.6	2963.4
12.5°	2944.6	2942.5	2936.2	2938.3	2940.4	2946.7	2950.9	2955.0	2957.1	2955.0	2955.0
15°	2900.7	2896.5	2894.4	2898.6	2911.1	2913.2	2917.4	2927.8	2932.1	2940.4	2944.6
17.5°	2844.2	2844.2	2844.2	2852.6	2867.2	2871.4	2879.8	2890.2	2900.7	2911.1	2925.8
20°	2785.7	2785.7	2785.7	2796.1	2812.9	2825.4	2833.8	2848.4	2865.1	2888.2	2902.8
22.5°	2723.0	2718.7	2718.7	2729.2	2754.3	2760.6	2777.3	2806.6	2831.7	2858.9	2877.7
25°	2645.5	2641.4	2647.6	2662.2	2691.5	2706.2	2725.0	2758.5	2783.6	2821.2	2850.5
27.5°	2568.2	2561.9	2570.2	2589.0	2628.8	2645.5	2668.6	2708.3	2737.6	2779.4	2825.4
30°	2476.2	2476.2	2486.6	2511.7	2551.4	2574.4	2599.5	2647.6	2687.4	2739.7	2798.2
32.5°	2382.0	2377.8	2396.6	2423.8	2476.2	2503.4	2530.5	2584.9	2635.1	2702.0	2773.1
35°	2277.4	2279.5	2298.4	2333.9	2396.6	2423.8	2453.1	2515.8	2582.8	2664.4	2748.0
37.5°	2181.3	2177.1	2202.2	2250.2	2311.0	2342.3	2373.7	2451.0	2526.3	2618.3	2714.6
40°	2074.6	2076.7	2099.7	2154.1	2216.8	2252.4	2287.9	2377.8	2467.8	2566.1	2676.9
42.5°	1965.8	1967.9	1999.3	2057.8	2126.9	2166.6	2210.6	2304.6	2407.1	2515.8	2628.8
45°	1848.7	1853.0	1890.6	1959.6	2028.6	2078.8	2126.9	2229.4	2344.4	2453.1	2559.8
47.5°	1737.9	1744.2	1792.2	1855.0	1934.5	1986.8	2039.0	2156.2	2269.1	2379.9	2492.9
50°	1616.6	1635.4	1677.3	1748.3	1838.3	1888.5	1947.0	2068.3	2187.5	2306.7	2421.8
52.5°	1509.9	1518.3	1570.6	1639.6	1735.8	1794.4	1848.7	1978.4	2103.9	2227.3	2361.1
55°	1392.8	1405.4	1461.8	1533.0	1633.4	1698.2	1758.8	1888.5	2026.5	2164.6	2329.8
57.5°	1277.8	1292.5	1353.1	1426.3	1537.1	1595.7	1666.8	1802.7	1953.3	2131.0	2348.6
60°	1169.0	1179.5	1236.0	1319.6	1434.6	1501.6	1574.8	1731.6	1915.7	2154.1	2425.9
62.5°	1051.9	1070.8	1123.0	1217.1	1348.9	1417.9	1501.6	1685.6	1930.3	2229.4	2541.0
65°	947.4	962.0	1020.6	1125.1	1265.3	1351.0	1447.2	1687.7	1999.3	2329.8	2626.7
67.5°	836.6	861.6	922.2	1037.3	1202.5	1305.0	1428.4	1731.6	2085.0	2403.0	2635.1
70°	729.8	755.0	832.3	968.3	1164.9	1294.6	1443.0	1798.6	2139.4	2392.5	2551.4
72.5°	629.5	654.6	752.9	911.8	1152.3	1305.0	1474.4	1829.9	2108.1	2277.4	2405.0
75°	525.0	560.5	681.8	874.2	1150.2	1315.4	1487.0	1777.6	1980.5	2122.7	2244.0
77.5°	435.0	478.9	619.0	838.6	1133.5	1284.1	1415.8	1641.7	1815.3	1955.4	2095.5
80°	336.7	397.4	562.6	792.6	1056.2	1175.4	1284.1	1468.1	1639.6	1788.1	1936.6
82.5°	251.0	326.2	495.7	717.4	932.7	1033.1	1133.5	1305.0	1466.0	1620.8	1788.1
85°	177.8	255.1	424.6	614.9	801.0	888.8	978.7	1146.1	1305.0	1470.2	1643.8
87.5°	125.5	198.6	349.3	518.6	685.9	759.1	842.8	1001.8	1169.0	1332.2	1514.2
90°	100.4	159.0	290.7	437.1	585.6	663.0	738.2	890.9	1043.6	1202.5	1371.9
92.5°	96.2	131.8	240.5	368.1	497.8	564.6	631.6	769.6	909.8	1051.9	1213.0
95°	87.8	106.6	186.2	294.9	403.6	460.1	518.6	629.5	750.8	870.0	999.7
97.5°	81.6	87.8	144.3	230.1	317.9	357.6	401.5	495.7	581.4	673.4	773.8
100°	73.2	75.3	108.7	171.5	242.6	278.2	315.8	378.6	443.4	516.6	585.6
102.5°	67.0	67.0	85.8	129.7	181.9	209.1	236.3	290.7	336.7	384.8	424.6
105°	58.6	58.6	69.0	98.3	140.1	163.1	184.0	221.7	259.4	290.7	313.7
107.5°	52.3	50.2	54.4	79.4	113.0	129.7	148.5	177.8	205.0	225.8	244.7
110°	43.9	43.9	43.9	64.8	92.0	106.6	121.3	146.4	169.4	184.0	192.4



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
112.5°	35.5	35.5	35.5	52.3	75.3	89.9	102.5	125.5	144.3	156.9	163.1
115°	29.3	29.3	27.2	39.8	62.7	75.3	85.8	108.7	125.5	135.9	142.2
117.5°	23.0	23.0	23.0	29.3	50.2	60.6	73.2	92.0	110.9	121.3	127.6
120°	18.8	18.8	16.7	18.8	37.7	48.1	58.6	79.4	96.2	106.6	113.0
122.5°	14.6	14.6	12.6	12.6	27.2	35.5	46.0	64.8	81.6	92.0	100.4
125°	10.5	10.5	10.5	8.4	16.7	25.1	35.5	52.3	67.0	79.4	87.8
127.5°	8.4	8.4	8.4	6.2	8.4	14.6	23.0	39.8	54.4	64.8	73.2
130°	6.2	6.2	6.2	4.2	4.2	8.4	14.6	27.2	39.8	50.2	60.6
132.5°	6.2	6.2	4.2	4.2	2.1	2.1	6.2	16.7	29.3	37.7	46.0
135°	4.2	4.2	4.2	2.1	2.1	0.0	0.0	8.4	18.8	27.2	35.5
137.5°	4.2	4.2	2.1	2.1	0.0	0.0	0.0	2.1	10.5	16.7	23.0
140°	4.2	2.1	2.1	2.1	0.0	0.0	0.0	0.0	2.1	8.4	14.6
142.5°	2.1	2.1	2.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.2
145°	2.1	2.1	2.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
147.5°	2.1	2.1	2.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
150°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
152.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
155°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
157.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
162.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
167.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180°	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°
0°	3005.3	3005.3	3005.3	3005.3	3005.3	3005.3	3005.3	3005.3	3005.3	3005.3
2.5°	2986.4	2988.6	2992.7	2992.7	2990.6	2990.6	2988.6	2986.4	2982.2	2978.1
5°	2982.2	2986.4	2992.7	2994.8	2994.8	2992.7	2992.7	2992.7	2990.6	2986.4
7.5°	2980.2	2986.4	2992.7	2994.8	2996.9	2996.9	2994.8	2992.7	2988.6	2986.4
10°	2969.7	2982.2	2988.6	2994.8	2999.0	2999.0	3001.0	3001.0	2996.9	2994.8
12.5°	2965.5	2980.2	2990.6	2999.0	3005.3	3005.3	3009.4	3013.6	3001.0	3003.2
15°	2957.1	2978.1	2994.8	3005.3	3009.4	3011.5	3015.7	3017.8	3013.6	3015.7
17.5°	2946.7	2973.9	2990.6	3005.3	3007.4	3013.6	3026.2	3032.4	3032.4	3034.6
20°	2932.1	2963.4	2986.4	3009.4	3017.8	3024.1	3036.6	3049.2	3045.0	3049.2
22.5°	2915.4	2950.9	2984.3	3011.5	3022.0	3034.6	3055.4	3068.0	3074.2	3072.2
25°	2900.7	2946.7	2986.4	3028.2	3040.8	3057.5	3082.6	3099.4	3105.6	3109.8
27.5°	2883.9	2940.4	2994.8	3040.8	3061.7	3082.6	3114.0	3132.8	3139.1	3141.2
30°	2871.4	2942.5	2999.0	3053.4	3076.3	3099.4	3132.8	3151.7	3160.0	3162.1
32.5°	2858.9	2934.2	2999.0	3057.5	3080.6	3101.4	3141.2	3170.5	3176.7	3176.7
35°	2842.2	2917.4	2990.6	3051.3	3074.2	3097.3	3141.2	3164.2	3170.5	3168.4
37.5°	2812.9	2896.5	2971.8	3026.2	3049.2	3070.1	3114.0	3139.1	3149.5	3147.4
40°	2771.0	2856.8	2930.0	2990.6	3011.5	3034.6	3080.6	3101.4	3116.1	3120.2
42.5°	2720.8	2806.6	2879.8	2940.4	2967.6	2994.8	3040.8	3063.8	3080.6	3084.7
45°	2658.1	2745.9	2825.4	2896.5	2927.8	2955.0	3011.5	3051.3	3068.0	3072.2
47.5°	2593.3	2693.7	2783.6	2869.3	2909.0	2950.9	3013.6	3063.8	3086.8	3084.7
50°	2532.6	2653.9	2766.8	2879.8	2932.1	2980.2	3059.6	3114.0	3141.2	3153.8
52.5°	2503.4	2653.9	2804.5	2938.3	2999.0	3051.3	3145.4	3208.1	3239.5	3239.5
55°	2518.0	2712.5	2886.1	3040.8	3105.6	3162.1	3243.7	3304.3	3331.5	3346.2
57.5°	2584.9	2810.7	2996.9	3143.3	3203.9	3252.0	3327.3	3356.6	3385.8	3377.5
60°	2697.8	2913.2	3078.5	3206.0	3247.8	3273.0	3321.0	3346.2	3360.8	3360.8
62.5°	2791.9	2986.4	3101.4	3176.7	3214.4	3235.3	3275.0	3293.8	3312.6	3312.6
65°	2833.8	2961.4	3049.2	3116.1	3132.8	3157.9	3185.1	3203.9	3220.6	3216.5
67.5°	2783.6	2875.6	2944.6	3005.3	3026.2	3051.3	3084.7	3111.9	3126.6	3130.7
70°	2658.1	2745.9	2810.7	2886.1	2917.4	2948.8	3007.4	3047.0	3070.1	3078.5
72.5°	2511.7	2603.7	2704.1	2789.8	2837.9	2873.5	2938.3	2980.2	3011.5	3015.7
75°	2361.1	2476.2	2591.2	2699.9	2748.0	2798.2	2871.4	2919.5	2955.0	2961.4
77.5°	2225.2	2357.0	2499.1	2616.2	2674.8	2718.7	2798.2	2844.2	2881.8	2883.9
80°	2089.3	2244.0	2388.3	2509.6	2568.2	2624.6	2699.9	2760.6	2791.9	2806.6
82.5°	1957.5	2116.4	2271.2	2411.3	2463.6	2518.0	2603.7	2662.2	2697.8	2710.4
85°	1827.8	2001.4	2162.5	2298.4	2363.2	2417.6	2509.6	2564.0	2605.8	2616.2
87.5°	1691.9	1861.3	2022.3	2156.2	2223.1	2271.2	2365.3	2421.8	2463.6	2472.0
90°	1545.5	1704.4	1861.3	1986.8	2049.5	2101.8	2202.2	2254.5	2285.8	2304.6
92.5°	1363.5	1516.2	1660.6	1783.9	1848.7	1886.4	1980.5	2037.0	2070.4	2078.8
95°	1137.7	1267.4	1397.0	1507.8	1564.3	1620.8	1683.5	1737.9	1783.9	1790.2
97.5°	878.4	987.1	1093.8	1202.5	1238.1	1271.5	1323.8	1380.3	1422.1	1420.0
100°	654.6	717.4	792.6	849.1	876.2	913.9	964.1	997.6	1001.8	1014.3
102.5°	470.6	514.5	545.8	587.7	600.2	633.7	650.4	673.4	677.6	688.1
105°	340.9	363.9	386.9	403.6	414.1	416.2	428.7	445.4	449.6	449.6
107.5°	255.1	267.7	269.8	276.1	280.2	282.3	290.7	292.8	294.9	294.9
110°	200.8	202.9	198.6	198.6	196.6	196.6	194.5	192.4	190.3	190.3



TEST NUMBER: P397338

CATALOG NUMBER: 8VRVT2-LD5-22-DR-W-UNV-LG52-CD2-WL-U

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
112.5°	163.1	163.1	159.0	152.6	148.5	146.4	140.1	135.9	133.8	133.8
115°	142.2	138.0	133.8	127.6	123.4	121.3	115.0	110.9	106.6	104.6
117.5°	127.6	125.5	119.2	115.0	110.9	108.7	102.5	96.2	94.1	92.0
120°	115.0	113.0	110.9	104.6	102.5	100.4	94.1	89.9	85.8	85.8
122.5°	102.5	102.5	100.4	96.2	94.1	92.0	87.8	83.7	81.6	79.4
125°	92.0	92.0	92.0	89.9	87.8	85.8	81.6	79.4	77.4	75.3
127.5°	77.4	81.6	81.6	81.6	79.4	79.4	77.4	73.2	71.1	71.1
130°	64.8	69.0	71.1	71.1	71.1	71.1	69.0	67.0	64.8	64.8
132.5°	52.3	58.6	60.6	62.7	62.7	62.7	60.6	60.6	58.6	58.6
135°	41.8	46.0	50.2	52.3	52.3	52.3	52.3	52.3	50.2	50.2
137.5°	31.4	33.4	37.7	39.8	41.8	41.8	41.8	41.8	41.8	41.8
140°	18.8	23.0	27.2	29.3	31.4	31.4	31.4	31.4	31.4	31.4
142.5°	10.5	12.6	16.7	18.8	20.9	20.9	20.9	20.9	20.9	20.9
145°	2.1	4.2	8.4	10.5	10.5	10.5	10.5	10.5	10.5	10.5
147.5°	0.0	0.0	0.0	0.0	2.1	2.1	2.1	2.1	2.1	0.0
150°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
152.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
155°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
157.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
162.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
167.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)