

Scaled data based on original data using
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: METALUX

Report Number: P1213513

Luminaire Tested: 4SNLED-LD5-67HL-RW-UNV-L935-CD1-U

Issue Date: 3/29/2018

Test Information

Test Method: LM-79-2019
Report Number: P1213513
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P33525)
Test Lab: INNOVATIONS CENTER-P3
Issue Date: 3/29/2018
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: METALUX
Catalog Number: 4SNLED-LD5-67HL-RW-UNV-L935-CD1-U
Description: 4FT LINEAR SNLED LED FIXTURE
WHITE REFLECTOR
Light Source: -
Ballast/Driver: -

Summary

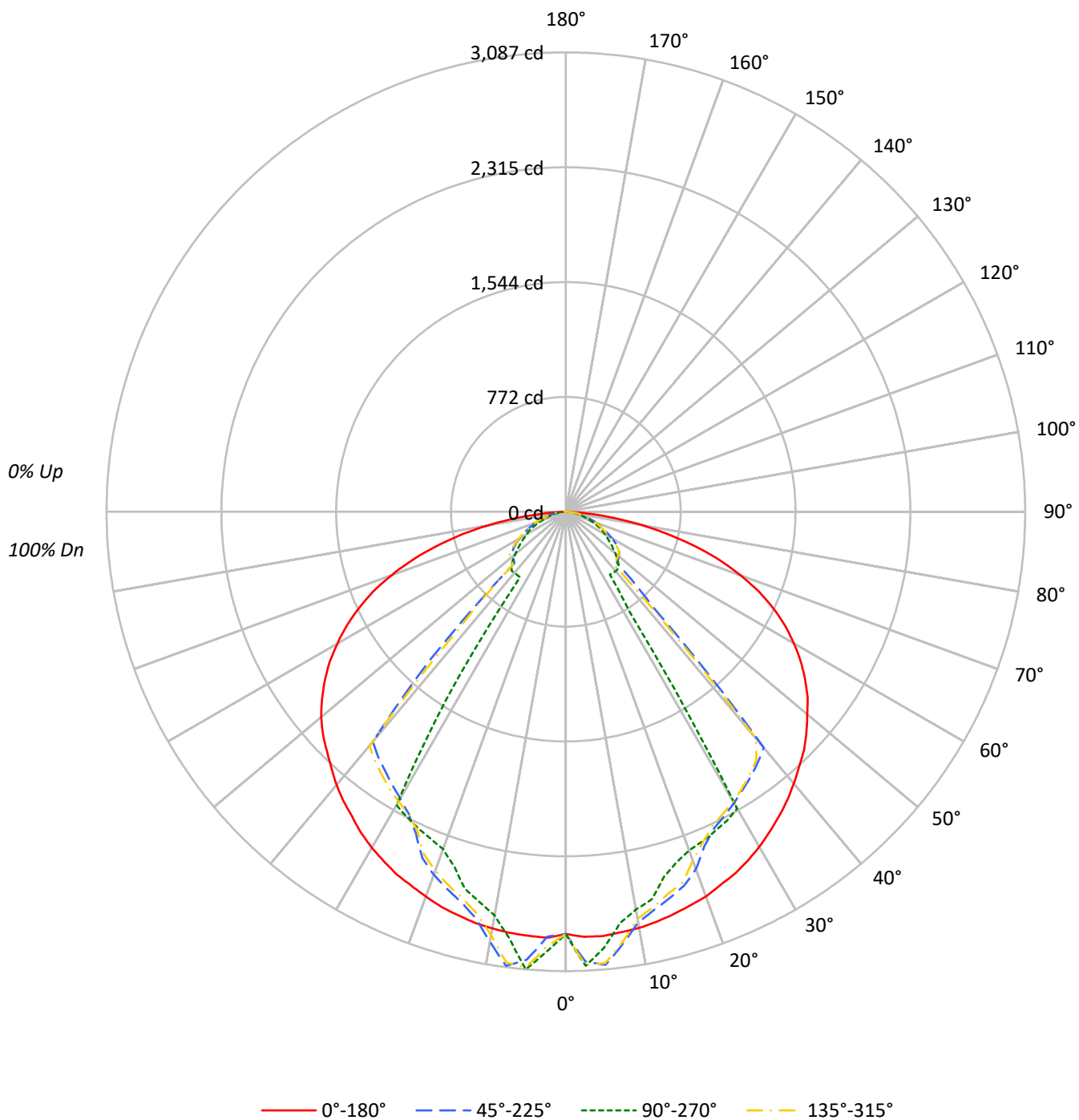
Lumens per Lamp: N/A
Luminaire Lumens: 5681.0 lumens
Efficiency: N/A
Efficacy: 91.6 lumens/watt
Spacing Criteria (0/90/45): 1.36 / 1.16 / 1.2
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.12')
CIE Type: Direct

Input Watts (W): 62
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: 24 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	50	30	10
RCR																				
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100		
1	110	106	102	99	108	104	101	98	100	97	94	96	94	92	92	91	89	87		
2	102	94	88	83	99	93	87	82	89	85	81	86	82	79	83	80	77	75		
3	94	84	77	72	91	83	76	71	80	74	70	77	73	69	75	71	67	65		
4	87	76	68	62	85	75	67	62	72	66	61	70	65	60	68	63	59	57		
5	81	69	61	55	79	68	60	55	66	59	54	64	58	53	62	57	53	51		
6	75	63	55	49	73	62	54	49	60	53	48	59	53	48	57	52	47	46		
7	70	58	50	44	68	57	49	44	55	48	43	54	48	43	53	47	43	41		
8	66	53	45	40	64	52	45	40	51	44	39	50	44	39	49	43	39	37		
9	62	49	41	36	60	48	41	36	47	41	36	46	40	36	45	40	36	34		
10	58	46	38	33	57	45	38	33	44	38	33	43	37	33	42	37	33	31		

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	22925	22925	22925	22925
5°	23150	23098	23139	24242
10°	23172	20883	23204	21203
15°	23224	19322	23278	19934
20°	23392	18326	23392	18257
25°	23595	17976	23629	17808
30°	23834	17659	23893	17449
35°	24111	4022	24162	4195
40°	24498	4183	24645	4318
45°	25085	4160	25172	4311
50°	25671	3761	26018	3863
55°	26460	3339	26670	3386
60°	27130	2967	27190	3005
65°	27610	2589	27540	2548
70°	27216	2087	27131	2011
75°	25266	1606	25448	1538
80°	20509	1141	21331	1044
85°	11102	683	11723	524

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 357.5°

Vertical Angle: 60°

Luminance: 27799 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	279.1	4.9
10°-20°	767.4	13.5
20°-30°	1136.7	20.0
30°-40°	1145.4	20.2
40°-50°	894.7	15.7
50°-60°	691.1	12.2
60°-70°	464.0	8.2
70°-80°	236.7	4.2
80°-90°	65.8	1.2
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°	2183.3	38.4
0°-40°	3328.7	58.6
0°-60°	4914.5	86.5
0°-90°	5681.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5681.0	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	2837	2837	2837	2837	2837	
5°	2862	2941	2860	3087	2862	272
15°	2799	2542	2806	2622	2799	792
25°	2685	2369	2689	2347	2685	1238
35°	2498	515	2503	537	2498	1565
45°	2264	501	2271	519	2264	1745
55°	1962	364	1978	369	1962	1752
65°	1541	244	1537	240	1541	1515
75°	904	124	910	118	904	945
85°	162	39	172	30	162	224
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	2.5°	5°	7.5°	10°	12.5°	15°	17.5°	20°	22.5°	25°
0°	2836.9	2836.9	2836.9	2836.9	2836.9	2836.9	2836.9	2836.9	2836.9	2836.9	2836.9
2.5°	2859.0	2869.4	2877.3	2882.5	2885.1	2885.1	2886.4	2887.7	2904.6	2912.4	2917.6
5°	2861.6	2872.0	2887.7	2908.5	2926.7	2942.3	2955.3	2973.5	2991.7	3011.2	3017.7
7.5°	2849.9	2862.9	2894.2	2931.9	2967.0	2991.7	3008.6	3020.3	3029.4	3030.7	3037.2
10°	2839.5	2862.9	2905.9	2955.3	2999.5	3029.4	3029.4	3022.9	3032.0	2996.9	2961.8
12.5°	2821.3	2847.3	2905.9	2970.9	3012.5	3024.2	3019.0	2993.0	2939.7	2896.8	2877.3
15°	2799.2	2834.3	2907.2	2980.0	3015.1	3019.0	2969.6	2903.3	2862.9	2836.9	2804.4
17.5°	2774.5	2821.3	2908.5	2981.3	2994.3	2976.1	2882.5	2840.8	2799.2	2738.1	2693.9
20°	2751.1	2796.6	2898.1	2963.1	2970.9	2889.0	2816.1	2771.9	2701.7	2648.4	2628.9
22.5°	2714.7	2768.0	2889.0	2938.4	2908.5	2813.5	2743.3	2673.1	2609.4	2593.8	2570.4
25°	2684.8	2740.7	2868.1	2908.5	2829.1	2744.6	2662.7	2580.8	2550.9	2528.8	2508.0
27.5°	2644.5	2713.4	2840.8	2853.8	2744.6	2670.5	2550.9	2514.5	2487.2	2462.5	2453.4
30°	2600.3	2684.8	2803.1	2778.4	2674.4	2565.2	2476.8	2443.0	2423.5	2397.5	2387.1
32.5°	2549.6	2641.9	2761.5	2691.3	2599.0	2462.5	2405.3	2379.3	2353.3	2333.8	2268.8
35°	2497.6	2604.2	2712.1	2608.1	2508.0	2384.5	2333.8	2310.4	2285.7	2214.2	2146.6
37.5°	2444.3	2562.6	2652.3	2518.4	2387.1	2303.9	2261.0	2235.0	2179.1	2088.1	2054.2
40°	2383.2	2511.9	2575.6	2426.1	2281.8	2222.0	2181.7	2155.7	2029.5	1989.2	1978.8
42.5°	2322.1	2462.5	2482.0	2336.4	2194.7	2134.9	2101.1	2015.2	1929.4	1908.6	1912.5
45°	2263.6	2409.2	2379.3	2209.0	2103.7	2054.2	1997.0	1878.7	1833.2	1843.6	1846.2
47.5°	2193.4	2345.5	2271.4	2081.6	2010.0	1960.6	1833.2	1761.7	1755.2	1769.5	1777.3
50°	2118.0	2274.0	2157.0	1965.8	1908.6	1850.1	1705.8	1669.4	1677.2	1691.5	1700.6
52.5°	2047.7	2193.4	2038.6	1857.9	1808.5	1674.6	1577.1	1583.6	1596.6	1613.5	1618.7
55°	1961.9	2095.9	1912.5	1748.7	1701.9	1526.4	1482.2	1497.8	1510.8	1525.1	1535.5
57.5°	1872.2	1984.0	1763.0	1626.5	1551.1	1395.1	1399.0	1409.4	1418.5	1435.4	592.9
60°	1769.5	1856.6	1599.2	1513.4	1363.9	1291.1	1295.0	1313.2	1322.3	738.5	408.2
62.5°	1662.9	1708.4	1451.0	1384.7	1192.2	1187.0	1205.2	1213.0	825.6	390.0	382.2
65°	1540.7	1531.6	1305.4	1200.0	1075.2	1080.4	1099.9	1060.9	365.3	365.3	362.7
67.5°	1405.5	1350.9	1163.6	993.3	962.1	973.8	994.6	347.1	338.0	340.6	331.5
70°	1250.8	1174.0	1016.7	841.2	851.6	863.3	335.4	314.6	310.7	304.2	286.0
72.5°	1086.9	981.6	832.1	730.7	737.2	462.9	293.8	283.4	270.4	257.4	237.9
75°	903.6	767.1	611.1	611.1	620.2	263.9	256.1	239.2	224.9	208.0	196.3
77.5°	708.6	590.3	474.6	492.8	240.5	221.0	206.7	188.5	176.8	166.4	159.9
80°	518.8	412.2	357.5	319.8	187.2	167.7	153.4	143.0	137.8	131.3	123.5
82.5°	340.6	248.3	248.3	150.8	131.3	115.7	111.8	104.0	98.8	94.9	91.0
85°	162.5	144.3	109.2	92.3	81.9	74.1	71.5	67.6	67.6	66.3	65.0
87.5°	59.8	65.0	48.1	46.8	44.2	42.9	44.2	44.2	45.5	44.2	42.9
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):

	27.5°	30°	32.5°	35°	37.5°	40°	42.5°	45°	47.5°	50°	52.5°
0°	2836.9	2836.9	2836.9	2836.9	2836.9	2836.9	2836.9	2836.9	2836.9	2836.9	2836.9
2.5°	2930.6	2941.0	2948.8	2961.8	2978.7	2993.0	3006.0	3024.2	3052.8	3060.6	3067.1
5°	3017.7	3021.6	3030.7	3041.1	3043.7	3050.2	3048.9	3056.7	3060.6	3069.7	3050.2
7.5°	3022.9	3002.1	2977.4	2955.3	2939.7	2925.4	2916.3	2930.6	2938.4	2944.9	2925.4
10°	2913.7	2889.0	2874.6	2861.6	2846.0	2823.9	2794.0	2800.5	2797.9	2797.9	2791.4
12.5°	2844.7	2809.6	2773.2	2740.7	2726.4	2725.1	2726.4	2740.7	2740.7	2739.4	2731.6
15°	2736.8	2703.0	2684.8	2677.0	2677.0	2673.1	2673.1	2688.7	2684.8	2684.8	2680.9
17.5°	2665.3	2641.9	2628.9	2619.8	2615.9	2622.4	2630.2	2636.7	2638.0	2632.8	2612.0
20°	2606.8	2584.7	2569.1	2571.7	2570.4	2574.3	2578.2	2556.1	2528.8	2492.4	2475.5
22.5°	2545.7	2528.8	2517.1	2517.1	2501.5	2476.8	2440.4	2432.6	2428.7	2411.8	2397.5
25°	2487.2	2467.7	2450.8	2398.8	2366.3	2370.2	2363.7	2350.7	2349.4	2348.1	2353.3
27.5°	2428.7	2378.0	2313.0	2305.2	2292.2	2290.9	2298.7	2305.2	2305.2	2310.4	2316.9
30°	2307.8	2249.3	2237.6	2223.3	2228.5	2246.7	2250.6	2259.7	2262.3	2271.4	2276.6
32.5°	2197.3	2171.3	2160.9	2167.4	2184.3	2199.9	2209.0	2212.9	2219.4	2227.2	2233.7
35°	2107.6	2099.8	2108.9	2123.2	2140.1	2153.1	2160.9	2168.7	2175.2	2181.7	2186.9
37.5°	2041.2	2046.4	2059.5	2077.7	2094.6	2105.0	2111.5	2120.6	2129.7	2137.5	2106.3
40°	1978.8	1991.8	2006.1	2025.6	2039.9	2050.3	2056.9	2068.6	1990.5	901.0	494.1
42.5°	1924.2	1938.5	1948.9	1964.5	1980.1	1987.9	1930.7	862.0	487.6	485.0	491.5
45°	1857.9	1869.6	1886.5	1898.2	1912.5	1256.0	479.8	485.0	477.2	482.4	485.0
47.5°	1790.3	1808.5	1817.6	1734.4	516.2	477.2	472.0	477.2	472.0	478.5	474.6
50°	1713.6	1735.7	1235.2	466.8	462.9	460.3	465.5	462.9	466.8	472.0	461.6
52.5°	1635.6	1012.8	452.5	449.9	452.5	449.9	459.0	452.5	453.8	448.6	435.6
55°	553.9	438.2	434.3	433.0	440.8	440.8	440.8	430.4	423.9	410.8	401.7
57.5°	423.9	423.9	422.6	423.9	421.3	418.7	406.9	397.8	388.7	370.5	365.3
60°	401.7	401.7	401.7	401.7	390.0	384.8	366.6	358.8	343.2	334.1	328.9
62.5°	383.5	380.9	369.2	365.3	352.3	338.0	327.6	319.8	304.2	299.0	295.1
65°	357.5	348.4	334.1	318.5	312.0	296.4	291.2	279.5	271.7	267.8	265.2
67.5°	314.6	301.6	289.9	279.5	267.8	262.6	256.1	247.0	241.8	239.2	236.6
70°	269.1	260.0	248.3	241.8	234.0	230.1	221.0	218.4	214.5	210.6	206.7
72.5°	224.9	219.7	214.5	205.4	202.8	200.2	191.1	185.9	180.7	175.5	172.9
75°	188.5	184.6	182.0	174.2	170.3	162.5	156.0	152.1	148.2	144.3	141.7
77.5°	154.7	152.1	144.3	139.1	136.5	130.0	127.4	128.7	126.1	120.9	118.3
80°	120.9	118.3	111.8	111.8	109.2	106.6	104.0	101.4	98.8	94.9	92.3
82.5°	92.3	89.7	87.1	84.5	81.9	80.6	79.3	76.7	74.1	71.5	70.2
85°	65.0	63.7	62.4	61.1	59.8	58.5	57.2	54.6	52.0	50.7	49.4
87.5°	44.2	42.9	41.6	40.3	39.0	37.7	36.4	35.1	32.5	31.2	29.9
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):

	55°	57.5°	60°	62.5°	65°	67.5°	70°	72.5°	75°	77.5°	80°
0°	2836.9	2836.9	2836.9	2836.9	2836.9	2836.9	2836.9	2836.9	2836.9	2836.9	2836.9
2.5°	3067.1	3073.6	3067.1	3052.8	3043.7	3039.8	3047.6	3047.6	3052.8	3059.3	3060.6
5°	3019.0	3003.4	2985.2	2967.0	2957.9	2952.7	2938.4	2941.0	2944.9	2947.5	2950.1
7.5°	2899.4	2878.6	2853.8	2830.4	2821.3	2813.5	2796.6	2796.6	2796.6	2797.9	2805.7
10°	2777.1	2768.0	2757.6	2742.0	2730.3	2726.4	2712.1	2716.0	2713.4	2717.3	2726.4
12.5°	2719.9	2709.5	2700.4	2684.8	2671.8	2666.6	2660.1	2664.0	2662.7	2669.2	2677.0
15°	2667.9	2662.7	2652.3	2640.6	2628.9	2618.5	2595.1	2587.3	2582.1	2575.6	2584.7
17.5°	2582.1	2545.7	2521.0	2502.8	2489.8	2480.7	2474.2	2474.2	2478.1	2482.0	2489.8
20°	2465.1	2454.7	2443.0	2423.5	2410.5	2405.3	2401.4	2401.4	2407.9	2413.1	2427.4
22.5°	2384.5	2383.2	2379.3	2370.2	2363.7	2363.7	2365.0	2367.6	2376.7	2384.5	2398.8
25°	2346.8	2352.0	2349.4	2344.2	2340.3	2341.6	2339.0	2341.6	2350.7	2358.5	2370.2
27.5°	2316.9	2324.7	2322.1	2314.3	2307.8	2310.4	2314.3	2311.7	2319.5	2328.6	2337.7
30°	2276.6	2277.9	2283.1	2274.0	2271.4	2275.3	2276.6	2279.2	2287.0	2293.5	2301.3
32.5°	2231.1	2241.5	2240.2	2231.1	2231.1	2235.0	2236.3	2149.2	1986.6	1711.0	1635.6
35°	2186.9	2198.6	2179.1	1837.1	1271.6	678.7	524.0	505.8	509.7	512.3	514.9
37.5°	1617.4	767.1	488.9	492.8	496.7	500.6	504.5	508.4	512.3	516.2	517.5
40°	486.3	485.0	488.9	494.1	498.0	500.6	505.8	509.7	513.6	517.5	518.8
42.5°	481.1	483.7	487.6	492.8	498.0	503.2	507.1	512.3	514.9	517.5	518.8
45°	478.5	483.7	488.9	492.8	496.7	499.3	501.9	503.2	501.9	501.9	504.5
47.5°	474.6	479.8	481.1	479.8	481.1	479.8	479.8	479.8	475.9	474.6	474.6
50°	460.3	460.3	457.7	452.5	451.2	449.9	447.3	446.0	440.8	439.5	439.5
52.5°	430.4	429.1	425.2	418.7	416.1	413.5	412.2	410.8	405.6	403.0	404.3
55°	395.2	392.6	388.7	380.9	379.6	377.0	375.7	374.4	369.2	371.8	367.9
57.5°	362.7	357.5	352.3	351.0	345.8	344.5	343.2	341.9	338.0	339.3	336.7
60°	323.7	322.4	319.8	314.6	314.6	313.3	313.3	310.7	308.1	306.8	306.8
62.5°	295.1	291.2	288.6	288.6	284.7	284.7	284.7	282.1	279.5	280.8	279.5
65°	263.9	262.6	261.3	258.7	258.7	257.4	257.4	254.8	250.9	252.2	249.6
67.5°	237.9	235.3	232.7	231.4	226.2	223.6	222.3	221.0	215.8	217.1	214.5
70°	205.4	201.5	198.9	196.3	192.4	189.8	189.8	187.2	183.3	184.6	182.0
72.5°	171.6	169.0	166.4	165.1	161.2	159.9	158.6	157.3	153.4	154.7	153.4
75°	143.0	143.0	141.7	140.4	136.5	132.6	130.0	128.7	126.1	127.4	124.8
77.5°	118.3	115.7	113.1	113.1	109.2	106.6	104.0	104.0	104.0	102.7	101.4
80°	92.3	89.7	89.7	88.4	85.8	83.2	81.9	81.9	80.6	80.6	79.3
82.5°	70.2	67.6	66.3	66.3	63.7	62.4	61.1	59.8	59.8	59.8	58.5
85°	49.4	46.8	45.5	45.5	42.9	41.6	41.6	40.3	40.3	39.0	39.0
87.5°	29.9	28.6	27.3	27.3	24.7	23.4	23.4	23.4	22.1	22.1	20.8
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: P1213513

CATALOG NUMBER: 4SNLED-LD5-67HL-RW-UNV-L935-CD1-U

CANDELA DISTRIBUTION (continued):

	82.5°	85°	87.5°	90°	92.5°	95°	97.5°	100°	102.5°	105°	107.5°
0°	2836.9	2836.9	2836.9	2836.9	2836.9	2836.9	2836.9	2836.9	2836.9	2836.9	2836.9
2.5°	3060.6	3060.6	3051.5	3054.1	3050.2	3055.4	3048.9	3048.9	3056.7	3056.7	3061.9
5°	2951.4	2944.9	2943.6	2941.0	2928.0	2933.2	2926.7	2920.2	2929.3	2929.3	2941.0
7.5°	2801.8	2790.1	2795.3	2787.5	2779.7	2768.0	2771.9	2766.7	2773.2	2782.3	2794.0
10°	2725.1	2714.7	2721.2	2713.4	2717.3	2700.4	2701.7	2703.0	2709.5	2712.1	2722.5
12.5°	2675.7	2673.1	2670.5	2667.9	2670.5	2661.4	2656.2	2657.5	2660.1	2661.4	2669.2
15°	2571.7	2554.8	2560.0	2541.8	2543.1	2544.4	2534.0	2544.4	2543.1	2560.0	2575.6
17.5°	2487.2	2487.2	2478.1	2470.3	2465.1	2463.8	2456.0	2461.2	2456.0	2466.4	2470.3
20°	2428.7	2427.4	2426.1	2422.2	2409.2	2410.5	2414.4	2402.7	2401.4	2400.1	2407.9
22.5°	2401.4	2402.7	2397.5	2397.5	2385.8	2388.4	2389.7	2376.7	2378.0	2374.1	2378.0
25°	2372.8	2375.4	2368.9	2368.9	2366.3	2365.0	2358.5	2361.1	2353.3	2346.8	2353.3
27.5°	2339.0	2344.2	2339.0	2341.6	2336.4	2333.8	2329.9	2327.3	2319.5	2318.2	2322.1
30°	2307.8	2310.4	2309.1	2302.6	2301.3	2293.5	2297.4	2289.6	2281.8	2283.1	2285.7
32.5°	1183.1	1129.8	871.1	786.6	778.8	807.4	956.9	1164.9	1509.5	1843.6	2084.2
35°	516.2	516.2	516.2	514.9	514.9	513.6	512.3	511.0	509.7	508.4	507.1
37.5°	518.8	518.8	518.8	518.8	517.5	516.2	516.2	513.6	512.3	511.0	509.7
40°	520.1	521.4	521.4	521.4	520.1	520.1	518.8	516.2	514.9	512.3	509.7
42.5°	518.8	520.1	520.1	518.8	518.8	517.5	517.5	516.2	514.9	513.6	512.3
45°	501.9	503.2	500.6	500.6	499.3	499.3	499.3	499.3	499.3	500.6	500.6
47.5°	472.0	472.0	470.7	469.4	469.4	468.1	469.4	468.1	470.7	472.0	474.6
50°	436.9	436.9	434.3	433.0	433.0	433.0	433.0	434.3	435.6	438.2	440.8
52.5°	400.4	400.4	399.1	397.8	396.5	396.5	400.4	399.1	400.4	401.7	405.6
55°	365.3	366.6	364.0	364.0	362.7	362.7	362.7	364.0	365.3	366.6	370.5
57.5°	335.4	335.4	332.8	332.8	332.8	331.5	335.4	332.8	334.1	335.4	338.0
60°	305.5	304.2	304.2	302.9	302.9	302.9	305.5	304.2	304.2	305.5	308.1
62.5°	278.2	278.2	276.9	276.9	275.6	275.6	278.2	276.9	276.9	278.2	279.5
65°	247.0	247.0	245.7	244.4	248.3	244.4	248.3	245.7	248.3	249.6	252.2
67.5°	211.9	211.9	211.9	210.6	210.6	213.2	214.5	211.9	213.2	215.8	217.1
70°	180.7	180.7	179.4	179.4	179.4	182.0	183.3	180.7	182.0	183.3	185.9
72.5°	153.4	150.8	150.8	149.5	152.1	152.1	153.4	152.1	153.4	153.4	156.0
75°	126.1	123.5	123.5	123.5	126.1	124.8	126.1	124.8	126.1	126.1	127.4
77.5°	101.4	100.1	98.8	98.8	101.4	101.4	101.4	100.1	101.4	102.7	104.0
80°	79.3	78.0	76.7	76.7	79.3	79.3	79.3	80.6	79.3	80.6	81.9
82.5°	58.5	57.2	55.9	58.5	58.5	58.5	58.5	59.8	58.5	59.8	61.1
85°	39.0	37.7	36.4	39.0	39.0	39.0	39.0	40.3	39.0	40.3	41.6
87.5°	20.8	19.5	19.5	20.8	20.8	20.8	22.1	22.1	22.1	23.4	23.4
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: P1213513

CATALOG NUMBER: 4SNLED-LD5-67HL-RW-UNV-L935-CD1-U

CANDELA DISTRIBUTION (continued):

	110°	112.5°	115°	117.5°	120°	122.5°	125°	127.5°	130°	132.5°	135°
0°	2836.9	2836.9	2836.9	2836.9	2836.9	2836.9	2836.9	2836.9	2836.9	2836.9	2836.9
2.5°	3069.7	3073.6	3072.3	3064.5	3056.7	3047.6	3041.1	3042.4	3055.4	3059.3	3047.6
5°	2941.0	2965.7	2965.7	2982.6	2973.5	2965.7	2970.9	2999.5	3013.8	3035.9	3043.7
7.5°	2808.3	2820.0	2818.7	2835.6	2833.0	2833.0	2836.9	2874.6	2892.9	2911.1	2916.3
10°	2734.2	2745.9	2744.6	2745.9	2742.0	2732.9	2732.9	2749.8	2765.4	2774.5	2777.1
12.5°	2680.9	2687.4	2686.1	2686.1	2683.5	2675.7	2674.4	2688.7	2705.6	2717.3	2718.6
15°	2601.6	2619.8	2623.7	2640.6	2636.7	2626.3	2628.9	2640.6	2651.0	2661.4	2657.5
17.5°	2483.3	2492.4	2493.7	2500.2	2497.6	2497.6	2513.2	2556.1	2584.7	2609.4	2612.0
20°	2415.7	2422.2	2419.6	2433.9	2427.4	2426.1	2430.0	2448.2	2461.2	2472.9	2493.7
22.5°	2383.2	2388.4	2384.5	2385.8	2374.1	2363.7	2361.1	2375.4	2389.7	2405.3	2405.3
25°	2355.9	2359.8	2358.5	2355.9	2346.8	2332.5	2329.9	2332.5	2337.7	2339.0	2329.9
27.5°	2323.4	2326.0	2326.0	2327.3	2315.6	2302.6	2300.0	2297.4	2302.6	2301.3	2287.0
30°	2289.6	2285.7	2287.0	2288.3	2277.9	2266.2	2261.0	2259.7	2264.9	2263.6	2249.3
32.5°	2209.0	2238.9	2241.5	2244.1	2235.0	2224.6	2219.4	2215.5	2218.1	2216.8	2203.8
35°	505.8	514.9	630.6	1427.6	1938.5	2146.6	2168.7	2163.5	2164.8	2164.8	2154.4
37.5°	507.1	505.8	504.5	500.6	496.7	494.1	854.2	1821.5	2110.2	2111.5	2102.4
40°	507.1	505.8	504.5	501.9	496.7	492.8	486.3	481.1	492.8	1084.3	1984.0
42.5°	509.7	507.1	504.5	501.9	496.7	491.5	486.3	479.8	483.7	481.1	474.6
45°	501.9	500.6	500.6	499.3	496.7	491.5	485.0	477.2	473.3	477.2	470.7
47.5°	477.2	478.5	482.4	483.7	483.7	485.0	481.1	475.9	469.4	473.3	465.5
50°	443.4	446.0	447.3	453.8	456.4	461.6	462.9	462.9	461.6	466.8	461.6
52.5°	406.9	409.5	416.1	418.7	421.3	429.1	431.7	435.6	438.2	446.0	451.2
55°	371.8	373.1	375.7	380.9	384.8	391.3	395.2	399.1	405.6	409.5	425.2
57.5°	339.3	340.6	345.8	347.1	349.7	354.9	358.8	364.0	369.2	371.8	390.0
60°	308.1	309.4	313.3	314.6	315.9	321.1	325.0	328.9	332.8	335.4	348.4
62.5°	280.8	280.8	284.7	284.7	286.0	289.9	292.5	295.1	299.0	300.3	306.8
65°	253.5	254.8	257.4	257.4	258.7	261.3	262.6	263.9	267.8	267.8	273.0
67.5°	219.7	221.0	224.9	227.5	228.8	234.0	235.3	236.6	239.2	240.5	243.1
70°	187.2	188.5	192.4	193.7	195.0	198.9	201.5	205.4	209.3	213.2	215.8
72.5°	157.3	158.6	162.5	162.5	166.4	167.7	170.3	171.6	175.5	178.1	182.0
75°	128.7	130.0	133.9	133.9	137.8	139.1	140.4	141.7	144.3	146.9	149.5
77.5°	105.3	105.3	110.5	113.1	115.7	115.7	117.0	117.0	117.0	118.3	120.9
80°	83.2	83.2	87.1	89.7	92.3	92.3	93.6	94.9	96.2	96.2	97.5
82.5°	62.4	62.4	66.3	67.6	70.2	70.2	70.2	71.5	72.8	71.5	74.1
85°	42.9	42.9	45.5	46.8	49.4	49.4	49.4	50.7	52.0	50.7	52.0
87.5°	24.7	26.0	27.3	28.6	29.9	31.2	31.2	31.2	32.5	32.5	33.8
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: P1213513

CATALOG NUMBER: 4SNLED-LD5-67HL-RW-UNV-L935-CD1-U

CANDELA DISTRIBUTION (continued):

	137.5°	140°	142.5°	145°	147.5°	150°	152.5°	155°	157.5°	160°	162.5°
0°	2836.9	2836.9	2836.9	2836.9	2836.9	2836.9	2836.9	2836.9	2836.9	2836.9	2836.9
2.5°	3034.6	3019.0	3017.7	2999.5	2994.3	2995.6	2981.3	2976.1	2952.7	2947.5	2922.8
5°	3046.3	3054.1	3050.2	3048.9	3052.8	3050.2	3039.8	3034.6	3030.7	3020.3	2999.5
7.5°	2917.6	2922.8	2926.7	2943.6	2957.9	2982.6	3008.6	3025.5	3038.5	3041.1	3024.2
10°	2786.2	2810.9	2827.8	2853.8	2874.6	2889.0	2904.6	2918.9	2956.6	2994.3	3016.4
12.5°	2718.6	2725.1	2723.8	2738.1	2752.4	2790.1	2826.5	2847.3	2875.9	2892.9	2933.2
15°	2661.4	2662.7	2666.6	2677.0	2684.8	2697.8	2714.7	2745.9	2803.1	2829.1	2851.2
17.5°	2609.4	2609.4	2612.0	2621.1	2631.5	2643.2	2653.6	2666.6	2695.2	2738.1	2792.7
20°	2526.2	2562.6	2566.5	2565.2	2570.4	2592.5	2595.1	2618.5	2632.8	2649.7	2703.0
22.5°	2402.7	2424.8	2456.0	2504.1	2522.3	2532.7	2540.5	2550.9	2573.0	2592.5	2614.6
25°	2335.1	2349.4	2358.5	2372.8	2410.5	2471.6	2483.3	2495.0	2509.3	2523.6	2550.9
27.5°	2275.3	2274.0	2280.5	2293.5	2303.9	2336.4	2393.6	2439.1	2441.7	2462.5	2485.9
30°	2232.4	2224.6	2215.5	2212.9	2227.2	2244.1	2261.0	2332.5	2381.9	2392.3	2417.0
32.5°	2192.1	2179.1	2166.1	2155.7	2146.6	2160.9	2171.3	2202.5	2266.2	2326.0	2339.0
35°	2142.7	2129.7	2114.1	2102.4	2088.1	2086.8	2085.5	2115.4	2136.2	2207.7	2270.1
37.5°	2092.0	2077.7	2064.7	2051.6	2037.3	2026.9	2020.4	2028.2	2047.7	2079.0	2183.0
40°	2038.6	2021.7	2008.7	1998.3	1978.8	1971.0	1958.0	1952.8	1954.1	1981.4	2036.0
42.5°	1218.2	1942.4	1948.9	1937.2	1920.3	1909.9	1895.6	1889.1	1876.1	1889.1	1920.3
45°	469.4	474.6	1421.1	1877.4	1856.6	1843.6	1830.6	1824.1	1809.8	1799.4	1828.0
47.5°	460.3	465.5	455.1	644.9	1772.1	1776.0	1760.4	1753.9	1739.6	1731.8	1724.0
50°	453.8	457.7	449.9	452.5	443.4	1623.9	1688.9	1681.1	1665.5	1656.4	1640.8
52.5°	447.3	447.3	442.1	435.6	433.0	434.3	1366.5	1607.0	1588.8	1579.7	1558.9
55°	426.5	429.1	434.3	423.9	421.3	420.0	416.1	1301.5	1504.3	1493.9	1475.7
57.5°	395.2	400.4	414.8	412.2	412.2	401.7	399.1	399.1	1207.8	1406.8	1388.6
60°	358.8	364.0	379.6	384.8	388.7	386.1	383.5	382.2	377.0	1272.9	1296.3
62.5°	321.1	326.3	331.5	348.4	353.6	360.1	367.9	364.0	358.8	358.8	1198.7
65°	280.8	288.6	291.2	306.8	313.3	325.0	331.5	340.6	338.0	336.7	343.2
67.5°	245.7	254.8	256.1	262.6	274.3	279.5	287.3	304.2	312.0	314.6	317.2
70°	215.8	221.0	224.9	227.5	235.3	236.6	250.9	262.6	274.3	287.3	291.2
72.5°	185.9	189.8	197.6	195.0	197.6	202.8	210.6	218.4	230.1	248.3	260.0
75°	152.1	154.7	159.9	162.5	167.7	171.6	176.8	183.3	193.7	202.8	218.4
77.5°	122.2	123.5	127.4	128.7	133.9	137.8	146.9	150.8	157.3	163.8	172.9
80°	98.8	98.8	100.1	100.1	104.0	107.9	114.4	118.3	126.1	131.3	131.3
82.5°	75.4	75.4	79.3	79.3	81.9	81.9	85.8	85.8	89.7	92.3	94.9
85°	53.3	54.6	57.2	55.9	58.5	57.2	59.8	62.4	63.7	62.4	61.1
87.5°	35.1	35.1	37.7	36.4	37.7	37.7	40.3	40.3	41.6	41.6	40.3
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: P1213513

CATALOG NUMBER: 4SNLED-LD5-67HL-RW-UNV-L935-CD1-U

CANDELA DISTRIBUTION (continued):

	165°	167.5°	170°	172.5°	175°	177.5°	180°	182.5°	185°	187.5°	190°
0°	2836.9	2836.9	2836.9	2836.9	2836.9	2836.9	2836.9	2836.9	2836.9	2836.9	2836.9
2.5°	2913.7	2894.2	2882.5	2868.1	2864.2	2860.3	2865.5	2865.5	2857.7	2851.2	2839.5
5°	2981.3	2960.5	2938.4	2915.0	2892.9	2869.4	2860.3	2859.0	2844.7	2836.9	2833.0
7.5°	3016.4	3006.0	2981.3	2948.8	2915.0	2873.3	2855.1	2844.7	2830.4	2827.8	2827.8
10°	3020.3	3008.6	2995.6	2972.2	2933.2	2878.6	2843.4	2822.6	2809.6	2818.7	2835.6
12.5°	2982.6	3004.7	2993.0	2977.4	2946.2	2879.9	2829.1	2797.9	2794.0	2817.4	2861.6
15°	2886.4	2951.4	2983.9	2968.3	2943.6	2877.3	2805.7	2769.3	2769.3	2817.4	2874.6
17.5°	2813.5	2864.2	2943.6	2956.6	2928.0	2872.0	2783.6	2740.7	2752.4	2822.6	2883.8
20°	2753.7	2784.9	2861.6	2934.5	2907.2	2860.3	2751.1	2706.9	2730.3	2814.8	2896.8
22.5°	2660.1	2722.5	2769.3	2877.3	2886.4	2838.2	2718.6	2665.3	2712.1	2814.8	2890.3
25°	2569.1	2644.5	2693.9	2799.2	2855.1	2810.9	2688.7	2621.1	2692.6	2810.9	2885.1
27.5°	2505.4	2540.5	2630.2	2705.6	2808.3	2774.5	2648.4	2573.0	2667.9	2790.1	2855.1
30°	2437.8	2461.2	2549.6	2621.1	2745.9	2732.9	2606.8	2519.7	2636.7	2770.6	2777.1
32.5°	2363.7	2389.7	2435.2	2539.2	2658.8	2693.9	2560.0	2466.4	2602.9	2740.7	2686.1
35°	2288.3	2307.8	2344.2	2456.0	2557.4	2635.4	2502.8	2405.3	2579.5	2695.2	2599.0
37.5°	2212.9	2233.7	2264.9	2358.5	2450.8	2580.8	2453.4	2344.2	2536.6	2614.6	2508.0
40°	2141.4	2153.1	2185.6	2244.1	2362.4	2524.9	2397.5	2280.5	2492.4	2511.9	2384.5
42.5°	2010.0	2068.6	2098.5	2145.3	2262.3	2448.2	2332.5	2212.9	2443.0	2409.2	2261.0
45°	1868.3	1995.7	2008.7	2055.6	2173.9	2366.3	2271.4	2146.6	2396.2	2320.8	2144.0
47.5°	1752.6	1844.9	1920.3	1959.3	2068.6	2270.1	2214.2	2090.7	2326.0	2209.0	2029.5
50°	1649.9	1699.3	1835.8	1864.4	1942.4	2154.4	2146.6	2025.6	2228.5	2068.6	1917.7
52.5°	1549.8	1584.9	1708.4	1769.5	1833.2	2029.5	2066.0	1961.9	2121.9	1928.1	1804.6
55°	1462.7	1474.4	1542.0	1670.7	1727.9	1903.4	1977.5	1887.8	1986.6	1794.2	1695.4
57.5°	1373.0	1362.6	1412.0	1577.1	1618.7	1774.7	1883.9	1812.4	1877.4	1657.7	1582.3
60°	1279.4	1265.1	1285.9	1395.1	1503.0	1647.3	1773.4	1729.2	1744.8	1522.5	1456.2
62.5°	1181.8	1167.5	1161.0	1229.9	1389.9	1516.0	1661.6	1636.9	1582.3	1399.0	1300.2
65°	1080.4	1066.1	1055.7	1083.0	1265.1	1345.7	1536.8	1530.3	1404.2	1269.0	1094.7
67.5°	328.9	969.9	947.8	946.5	1066.1	1190.9	1401.6	1391.2	1224.7	1129.8	942.6
70°	296.4	786.6	836.0	824.3	876.3	1033.6	1246.9	1239.1	1050.5	906.2	833.4
72.5°	271.7	278.2	738.5	725.5	737.2	878.9	1085.6	1064.8	890.6	715.1	720.3
75°	232.7	244.4	254.8	612.4	596.8	728.1	910.1	877.6	734.6	590.3	602.0
77.5°	189.8	204.1	211.9	446.0	482.4	518.8	726.8	683.9	505.8	472.0	224.9
80°	141.7	153.4	166.4	178.1	366.6	362.7	539.6	496.7	352.3	293.8	175.5
82.5°	104.0	107.9	115.7	128.7	145.6	243.1	347.1	305.5	244.4	133.9	120.9
85°	65.0	70.2	74.1	78.0	88.4	145.6	171.6	136.5	102.7	81.9	76.7
87.5°	41.6	41.6	40.3	41.6	42.9	52.0	58.5	55.9	44.2	41.6	41.6
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: P1213513

CATALOG NUMBER: 4SNLED-LD5-67HL-RW-UNV-L935-CD1-U

CANDELA DISTRIBUTION (continued):

	192.5°	195°	197.5°	200°	202.5°	205°	207.5°	210°	212.5°	215°	217.5°
0°	2836.9	2836.9	2836.9	2836.9	2836.9	2836.9	2836.9	2836.9	2836.9	2836.9	2836.9
2.5°	2826.5	2808.3	2808.3	2803.1	2807.0	2807.0	2805.7	2807.0	2816.1	2821.3	2830.4
5°	2825.2	2820.0	2831.7	2846.0	2862.9	2883.8	2889.0	2907.2	2924.1	2946.2	2969.6
7.5°	2842.1	2860.3	2882.5	2905.9	2939.7	2964.4	2986.5	3008.6	3024.2	3045.0	3058.0
10°	2866.8	2903.3	2941.0	2970.9	3007.3	3028.1	3042.4	3045.0	3022.9	2987.8	2959.2
12.5°	2902.0	2944.9	2980.0	3008.6	3025.5	3017.7	2976.1	2933.2	2908.5	2872.0	2821.3
15°	2931.9	2970.9	3007.3	2995.6	2950.1	2907.2	2874.6	2823.9	2774.5	2740.7	2718.6
17.5°	2944.9	2982.6	2969.6	2908.5	2865.5	2816.1	2749.8	2710.8	2678.3	2652.3	2639.3
20°	2952.7	2946.2	2875.9	2831.7	2748.5	2703.0	2660.1	2623.7	2599.0	2586.0	2583.4
22.5°	2931.9	2852.5	2792.7	2713.4	2652.3	2614.6	2580.8	2550.9	2534.0	2523.6	2517.1
25°	2862.9	2770.6	2682.2	2619.8	2567.8	2535.3	2509.3	2484.6	2463.8	2458.6	2445.6
27.5°	2766.7	2691.3	2574.3	2526.2	2480.7	2465.1	2436.5	2411.8	2393.6	2378.0	2336.4
30°	2687.4	2567.8	2483.3	2439.1	2411.8	2393.6	2361.1	2335.1	2303.9	2246.7	2223.3
32.5°	2589.9	2471.6	2391.0	2366.3	2332.5	2316.9	2280.5	2223.3	2175.2	2151.8	2150.5
35°	2463.8	2366.3	2307.8	2285.7	2258.4	2232.4	2157.0	2105.0	2081.6	2084.2	2103.7
37.5°	2358.5	2271.4	2233.7	2202.5	2171.3	2105.0	2041.2	2016.5	2023.0	2036.0	2045.1
40°	2251.9	2185.6	2142.7	2118.0	2047.7	1982.7	1948.9	1958.0	1969.7	1978.8	1990.5
42.5°	2147.9	2101.1	2058.2	2010.0	1913.8	1878.7	1886.5	1898.2	1908.6	1921.6	1933.3
45°	2049.0	2007.4	1958.0	1848.8	1800.7	1809.8	1821.5	1830.6	1846.2	1855.3	1867.0
47.5°	1955.4	1911.2	1824.1	1727.9	1722.7	1740.9	1751.3	1763.0	1774.7	1751.3	966.0
50°	1850.1	1804.6	1672.0	1635.6	1647.3	1664.2	1677.2	1688.9	1504.3	598.1	460.3
52.5°	1746.1	1630.4	1545.9	1556.3	1568.0	1587.5	1596.6	1185.7	472.0	449.9	451.2
55°	1630.4	1482.2	1457.5	1470.5	1480.9	1500.4	994.6	435.6	433.0	431.7	442.1
57.5°	1448.4	1358.7	1369.1	1382.1	1392.5	982.9	423.9	421.3	422.6	423.9	425.2
60°	1285.9	1266.4	1278.1	1289.8	912.7	409.5	401.7	403.0	408.2	404.3	393.9
62.5°	1157.1	1172.7	1184.4	1037.5	388.7	384.8	388.7	384.8	375.7	369.2	356.2
65°	1058.3	1073.9	1083.0	365.3	364.0	369.2	365.3	352.3	338.0	319.8	315.9
67.5°	954.3	969.9	347.1	338.0	343.2	336.7	321.1	305.5	295.1	279.5	273.0
70°	846.4	362.7	314.6	313.3	304.2	293.8	276.9	261.3	248.3	241.8	235.3
72.5°	611.1	287.3	283.4	273.0	257.4	243.1	228.8	219.7	213.2	209.3	205.4
75°	254.8	249.6	237.9	219.7	204.1	197.6	187.2	180.7	178.1	170.3	167.7
77.5°	213.2	202.8	185.9	172.9	163.8	159.9	152.1	144.3	140.4	139.1	133.9
80°	163.8	149.5	141.7	135.2	132.6	123.5	114.4	110.5	107.9	106.6	102.7
82.5°	111.8	106.6	101.4	92.3	92.3	88.4	84.5	81.9	79.3	79.3	76.7
85°	72.8	68.9	67.6	63.7	63.7	61.1	59.8	58.5	57.2	55.9	54.6
87.5°	41.6	41.6	42.9	41.6	41.6	40.3	39.0	37.7	36.4	36.4	33.8
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: P1213513

CATALOG NUMBER: 4SNLED-LD5-67HL-RW-UNV-L935-CD1-U

CANDELA DISTRIBUTION (continued):

	220°	222.5°	225°	227.5°	230°	232.5°	235°	237.5°	240°	242.5°	245°
0°	2836.9	2836.9	2836.9	2836.9	2836.9	2836.9	2836.9	2836.9	2836.9	2836.9	2836.9
2.5°	2842.1	2855.1	2857.7	2902.0	2926.7	2925.4	2917.6	2941.0	2926.7	2918.9	2926.7
5°	2993.0	3008.6	3021.6	3069.7	3086.6	3094.4	3093.1	3106.1	3095.7	3086.6	3086.6
7.5°	3067.1	3072.3	3077.5	3065.8	3058.0	3045.0	3025.5	2996.9	2982.6	2967.0	2947.5
10°	2944.9	2928.0	2934.5	2911.1	2891.6	2877.3	2859.0	2835.6	2816.1	2801.8	2779.7
12.5°	2795.3	2794.0	2796.6	2800.5	2781.0	2769.3	2755.0	2738.1	2723.8	2708.2	2690.0
15°	2704.3	2705.6	2716.0	2712.1	2705.6	2699.1	2683.5	2678.3	2665.3	2648.4	2638.0
17.5°	2639.3	2645.8	2656.2	2651.0	2640.6	2634.1	2622.4	2610.7	2599.0	2586.0	2570.4
20°	2582.1	2588.6	2595.1	2588.6	2569.1	2560.0	2544.4	2508.0	2482.0	2456.0	2432.6
22.5°	2519.7	2523.6	2518.4	2497.6	2448.2	2424.8	2406.6	2396.2	2374.1	2359.8	2345.5
25°	2441.7	2419.6	2385.8	2362.4	2342.9	2332.5	2324.7	2323.4	2320.8	2318.2	2311.7
27.5°	2314.3	2306.5	2288.3	2279.2	2280.5	2284.4	2285.7	2289.6	2285.7	2280.5	2275.3
30°	2219.4	2223.3	2224.6	2227.2	2233.7	2237.6	2238.9	2244.1	2241.5	2237.6	2235.0
32.5°	2159.6	2168.7	2173.9	2181.7	2185.6	2192.1	2192.1	2199.9	2192.1	2190.8	2188.2
35°	2110.2	2118.0	2120.6	2132.3	2136.2	2142.7	2142.7	2149.2	2142.7	2076.4	1639.5
37.5°	2060.8	2068.6	2073.8	2084.2	2085.5	2089.4	1928.1	1410.7	910.1	704.7	538.3
40°	2002.2	2011.3	2016.5	2020.4	1419.8	901.0	620.2	504.5	504.5	508.4	512.3
42.5°	1939.8	1946.3	1356.1	789.2	491.5	490.2	494.1	498.0	501.9	507.1	512.3
45°	1525.1	769.7	488.9	477.2	481.1	486.3	491.5	496.7	503.2	508.4	511.0
47.5°	500.6	469.4	475.9	470.7	477.2	483.7	488.9	494.1	495.4	496.7	495.4
50°	462.9	462.9	466.8	466.8	472.0	474.6	474.6	474.6	469.4	468.1	464.2
52.5°	447.3	457.7	452.5	455.1	452.5	448.6	444.7	440.8	433.0	430.4	425.2
55°	439.5	443.4	430.4	426.5	421.3	410.8	405.6	400.4	393.9	391.3	384.8
57.5°	421.3	412.2	397.8	391.3	382.2	371.8	366.6	362.7	356.2	353.6	349.7
60°	387.4	369.2	360.1	352.3	341.9	332.8	328.9	326.3	321.1	319.8	315.9
62.5°	345.8	330.2	322.4	312.0	304.2	299.0	295.1	293.8	288.6	288.6	286.0
65°	300.3	292.5	286.0	275.6	271.7	266.5	265.2	263.9	261.3	260.0	257.4
67.5°	263.9	258.7	249.6	244.4	241.8	237.9	235.3	232.7	227.5	224.9	221.0
70°	231.4	227.5	218.4	214.5	209.3	202.8	198.9	196.3	192.4	189.8	185.9
72.5°	200.2	188.5	182.0	178.1	174.2	167.7	166.4	163.8	159.9	158.6	154.7
75°	161.2	152.1	148.2	145.6	141.7	137.8	137.8	137.8	133.9	132.6	131.3
77.5°	128.7	123.5	120.9	118.3	117.0	114.4	110.5	109.2	105.3	105.3	104.0
80°	98.8	96.2	93.6	92.3	91.0	88.4	85.8	84.5	80.6	80.6	79.3
82.5°	72.8	71.5	70.2	68.9	67.6	66.3	62.4	61.1	58.5	58.5	57.2
85°	52.0	50.7	48.1	46.8	46.8	45.5	41.6	40.3	37.7	37.7	37.7
87.5°	32.5	31.2	29.9	28.6	27.3	26.0	23.4	22.1	22.1	19.5	18.2
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: P1213513

CATALOG NUMBER: 4SNLED-LD5-67HL-RW-UNV-L935-CD1-U

CANDELA DISTRIBUTION (continued):

	247.5°	250°	252.5°	255°	257.5°	260°	262.5°	265°	267.5°	270°	272.5°
0°	2836.9	2836.9	2836.9	2836.9	2836.9	2836.9	2836.9	2836.9	2836.9	2836.9	2836.9
2.5°	2911.1	2933.2	2930.6	2946.2	2950.1	2957.9	2960.5	2961.8	2942.3	2957.9	2959.2
5°	3082.7	3086.6	3089.2	3095.7	3102.2	3103.5	3097.0	3089.2	3091.8	3086.6	3073.6
7.5°	2944.9	2925.4	2921.5	2916.3	2913.7	2911.1	2899.4	2909.8	2898.1	2892.9	2874.6
10°	2775.8	2757.6	2756.3	2756.3	2760.2	2758.9	2756.3	2751.1	2761.5	2755.0	2751.1
12.5°	2687.4	2680.9	2684.8	2682.2	2692.6	2695.2	2692.6	2692.6	2690.0	2684.8	2687.4
15°	2634.1	2628.9	2632.8	2628.9	2636.7	2638.0	2631.5	2635.4	2628.9	2622.4	2619.8
17.5°	2563.9	2552.2	2543.1	2530.1	2531.4	2528.8	2521.0	2521.0	2514.5	2497.6	2498.9
20°	2428.7	2417.0	2411.8	2411.8	2418.3	2420.9	2419.6	2422.2	2415.7	2413.1	2402.7
22.5°	2344.2	2342.9	2345.5	2352.0	2362.4	2376.7	2378.0	2378.0	2378.0	2376.7	2363.7
25°	2314.3	2314.3	2316.9	2326.0	2333.8	2344.2	2346.8	2349.4	2346.8	2346.8	2335.1
27.5°	2280.5	2277.9	2283.1	2292.2	2301.3	2309.1	2315.6	2316.9	2313.0	2313.0	2316.9
30°	2238.9	2237.6	2244.1	2253.2	2261.0	2268.8	2275.3	2280.5	2275.3	2275.3	2271.4
32.5°	2196.0	2196.0	2198.6	2144.0	1987.9	1790.3	1794.2	1679.8	1600.5	1500.4	1633.0
35°	1370.4	997.2	856.8	725.5	633.2	573.4	572.1	552.6	543.5	537.0	535.7
37.5°	517.5	520.1	525.3	527.9	531.8	534.4	535.7	535.7	535.7	535.7	534.4
40°	516.2	521.4	525.3	529.2	533.1	535.7	535.7	537.0	538.3	538.3	538.3
42.5°	517.5	522.7	527.9	531.8	534.4	535.7	537.0	538.3	538.3	538.3	538.3
45°	516.2	518.8	518.8	520.1	520.1	520.1	521.4	521.4	520.1	518.8	521.4
47.5°	496.7	496.7	492.8	491.5	490.2	487.6	488.9	487.6	486.3	485.0	487.6
50°	462.9	457.7	455.1	452.5	451.2	448.6	449.9	448.6	447.3	444.7	448.6
52.5°	422.6	421.3	416.1	413.5	412.2	413.5	410.8	409.5	408.2	406.9	408.2
55°	383.5	378.3	377.0	374.4	373.1	374.4	373.1	371.8	370.5	369.2	370.5
57.5°	348.4	344.5	343.2	340.6	340.6	340.6	340.6	339.3	338.0	336.7	338.0
60°	314.6	312.0	310.7	310.7	309.4	309.4	309.4	308.1	306.8	306.8	308.1
62.5°	286.0	286.0	282.1	280.8	280.8	282.1	280.8	279.5	278.2	276.9	279.5
65°	256.1	250.9	249.6	247.0	244.4	245.7	244.4	243.1	241.8	240.5	243.1
67.5°	219.7	218.4	213.2	210.6	209.3	210.6	209.3	208.0	206.7	205.4	208.0
70°	184.6	184.6	179.4	178.1	176.8	176.8	175.5	175.5	174.2	172.9	175.5
72.5°	153.4	153.4	152.1	149.5	148.2	146.9	145.6	144.3	144.3	145.6	145.6
75°	127.4	124.8	119.6	120.9	119.6	118.3	118.3	117.0	115.7	118.3	117.0
77.5°	100.1	98.8	94.9	96.2	94.9	93.6	93.6	92.3	91.0	92.3	92.3
80°	75.4	75.4	74.1	72.8	72.8	71.5	70.2	70.2	68.9	70.2	70.2
82.5°	54.6	54.6	53.3	52.0	50.7	50.7	49.4	49.4	49.4	49.4	49.4
85°	35.1	33.8	33.8	31.2	31.2	31.2	29.9	29.9	29.9	29.9	29.9
87.5°	16.9	16.9	15.6	15.6	14.3	13.0	13.0	11.7	11.7	13.0	13.0
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: P1213513

CATALOG NUMBER: 4SNLED-LD5-67HL-RW-UNV-L935-CD1-U

CANDELA DISTRIBUTION (continued):

	275°	277.5°	280°	282.5°	285°	287.5°	290°	292.5°	295°	297.5°	300°
0°	2836.9	2836.9	2836.9	2836.9	2836.9	2836.9	2836.9	2836.9	2836.9	2836.9	2836.9
2.5°	2935.8	2952.7	2938.4	2944.9	2946.2	2968.3	2967.0	2972.2	2963.1	2952.7	2938.4
5°	3085.3	3077.5	3067.1	3091.8	3078.8	3094.4	3099.6	3110.0	3110.0	3108.7	3097.0
7.5°	2894.2	2877.3	2890.3	2899.4	2903.3	2892.9	2913.7	2937.1	2956.6	2968.3	2969.6
10°	2744.6	2749.8	2748.5	2752.4	2761.5	2760.2	2773.2	2786.2	2791.4	2799.2	2801.8
12.5°	2674.4	2673.1	2675.7	2684.8	2690.0	2688.7	2701.7	2709.5	2712.1	2713.4	2712.1
15°	2618.5	2609.4	2615.9	2617.2	2621.1	2621.1	2636.7	2648.4	2653.6	2656.2	2653.6
17.5°	2513.2	2491.1	2511.9	2511.9	2526.2	2523.6	2548.3	2567.8	2578.2	2586.0	2586.0
20°	2409.2	2398.8	2406.6	2404.0	2414.4	2413.1	2428.7	2441.7	2450.8	2457.3	2465.1
22.5°	2367.6	2370.2	2358.5	2359.8	2359.8	2358.5	2366.3	2372.8	2375.4	2379.3	2376.7
25°	2340.3	2342.9	2339.0	2332.5	2329.9	2332.5	2336.4	2344.2	2345.5	2342.9	2333.8
27.5°	2313.0	2305.2	2311.7	2300.0	2297.4	2302.6	2307.8	2309.1	2310.4	2310.4	2302.6
30°	2271.4	2264.9	2271.4	2266.2	2261.0	2266.2	2270.1	2270.1	2272.7	2274.0	2264.9
32.5°	1587.5	1600.5	1811.1	1938.5	2118.0	2209.0	2225.9	2225.9	2228.5	2228.5	2220.7
35°	540.9	542.2	586.4	635.8	741.1	871.1	1041.4	1129.8	1428.9	1786.4	2132.3
37.5°	534.4	533.1	531.8	530.5	529.2	527.9	525.3	524.0	531.8	630.6	855.5
40°	537.0	535.7	533.1	531.8	530.5	527.9	526.6	524.0	521.4	518.8	516.2
42.5°	537.0	535.7	534.4	533.1	531.8	530.5	527.9	525.3	522.7	518.8	514.9
45°	518.8	518.8	520.1	520.1	521.4	521.4	521.4	520.1	520.1	518.8	513.6
47.5°	485.0	485.0	488.9	488.9	491.5	494.1	494.1	496.7	500.6	503.2	504.5
50°	446.0	446.0	449.9	451.2	453.8	457.7	461.6	462.9	466.8	472.0	477.2
52.5°	406.9	406.9	410.8	410.8	413.5	417.4	421.3	422.6	427.8	433.0	439.5
55°	370.5	370.5	373.1	374.4	375.7	378.3	382.2	382.2	387.4	391.3	397.8
57.5°	338.0	340.6	340.6	340.6	341.9	344.5	347.1	347.1	351.0	354.9	360.1
60°	306.8	309.4	309.4	309.4	310.7	312.0	314.6	314.6	317.2	319.8	325.0
62.5°	278.2	280.8	280.8	282.1	282.1	283.4	286.0	284.7	287.3	288.6	292.5
65°	241.8	244.4	245.7	247.0	248.3	250.9	254.8	253.5	257.4	260.0	263.9
67.5°	206.7	209.3	209.3	210.6	211.9	214.5	217.1	217.1	221.0	223.6	228.8
70°	174.2	176.8	176.8	178.1	179.4	182.0	184.6	183.3	187.2	189.8	193.7
72.5°	144.3	146.9	146.9	148.2	148.2	150.8	153.4	156.0	156.0	158.6	161.2
75°	117.0	118.3	119.6	119.6	120.9	122.2	124.8	127.4	128.7	130.0	132.6
77.5°	92.3	93.6	94.9	94.9	96.2	97.5	98.8	104.0	106.6	107.9	107.9
80°	70.2	71.5	71.5	71.5	72.8	74.1	76.7	76.7	81.9	81.9	83.2
82.5°	49.4	50.7	50.7	50.7	52.0	54.6	55.9	57.2	59.8	61.1	61.1
85°	29.9	31.2	31.2	31.2	32.5	33.8	36.4	37.7	39.0	39.0	40.3
87.5°	11.7	13.0	14.3	14.3	15.6	16.9	18.2	19.5	20.8	20.8	22.1
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):

	302.5°	305°	307.5°	310°	312.5°	315°	317.5°	320°	322.5°	325°	327.5°
0°	2836.9	2836.9	2836.9	2836.9	2836.9	2836.9	2836.9	2836.9	2836.9	2836.9	2836.9
2.5°	2922.8	2931.9	2922.8	2928.0	2934.5	2922.8	2895.5	2885.1	2881.2	2865.5	2855.1
5°	3085.3	3085.3	3081.4	3091.8	3090.5	3072.3	3043.7	3030.7	3017.7	3000.8	2987.8
7.5°	2969.6	2980.0	2986.5	3026.8	3052.8	3055.4	3073.6	3077.5	3082.7	3077.5	3069.7
10°	2803.1	2799.2	2817.4	2855.1	2877.3	2889.0	2924.1	2941.0	2955.3	2983.9	3013.8
12.5°	2709.5	2714.7	2722.5	2749.8	2770.6	2765.4	2779.7	2791.4	2808.3	2836.9	2879.9
15°	2647.1	2652.3	2660.1	2680.9	2693.9	2687.4	2695.2	2703.0	2714.7	2729.0	2755.0
17.5°	2579.5	2588.6	2597.7	2619.8	2631.5	2630.2	2636.7	2639.3	2643.2	2652.3	2670.5
20°	2474.2	2502.8	2521.0	2550.9	2567.8	2565.2	2576.9	2580.8	2586.0	2595.1	2602.9
22.5°	2378.0	2385.8	2394.9	2427.4	2456.0	2491.1	2498.9	2509.3	2522.3	2531.4	2539.2
25°	2323.4	2318.2	2322.1	2344.2	2359.8	2362.4	2374.1	2407.9	2443.0	2458.6	2476.8
27.5°	2290.9	2285.7	2284.4	2294.8	2297.4	2290.9	2288.3	2298.7	2324.7	2350.7	2405.3
30°	2255.8	2249.3	2244.1	2253.2	2257.1	2248.0	2231.1	2222.0	2237.6	2244.1	2266.2
32.5°	2214.2	2207.7	2205.1	2210.3	2212.9	2205.1	2186.9	2176.5	2173.9	2168.7	2173.9
35°	2167.4	2160.9	2157.0	2158.3	2163.5	2157.0	2141.4	2128.4	2121.9	2107.6	2097.2
37.5°	1116.8	1582.3	2054.2	2103.7	2108.9	2107.6	2092.0	2077.7	2071.2	2054.2	2049.0
40°	511.0	570.8	856.8	1119.4	1614.8	2051.6	2037.3	2023.0	2011.3	2006.1	1986.6
42.5°	509.7	511.0	512.3	505.8	626.7	1067.4	1575.8	1967.1	1959.3	1946.3	1932.0
45°	509.7	503.2	508.4	500.6	503.2	501.9	625.4	1008.9	1795.5	1876.1	1869.6
47.5°	504.5	500.6	505.8	499.3	491.5	495.4	490.2	496.7	774.9	1314.5	1800.7
50°	481.1	483.7	492.8	491.5	485.0	490.2	481.1	488.9	482.4	529.2	1019.3
52.5°	446.0	451.2	460.3	468.1	470.7	477.2	474.6	477.2	472.0	473.3	474.6
55°	404.3	410.8	418.7	430.4	435.6	446.0	453.8	457.7	464.2	462.9	452.5
57.5°	365.3	371.8	378.3	390.0	401.7	406.9	421.3	429.1	446.0	442.1	439.5
60°	328.9	334.1	340.6	343.2	357.5	366.6	379.6	387.4	409.5	414.8	422.6
62.5°	296.4	299.0	304.2	308.1	317.2	326.3	332.8	345.8	357.5	374.4	386.1
65°	266.5	269.1	273.0	275.6	276.9	289.9	293.8	308.1	312.0	330.2	340.6
67.5°	232.7	237.9	243.1	245.7	248.3	256.1	258.7	265.2	274.3	282.1	295.1
70°	197.6	201.5	206.7	210.6	215.8	221.0	228.8	232.7	239.2	244.4	254.8
72.5°	165.1	169.0	171.6	175.5	179.4	183.3	189.8	198.9	204.1	213.2	215.8
75°	133.9	137.8	140.4	143.0	146.9	149.5	152.1	161.2	166.4	174.2	182.0
77.5°	110.5	110.5	113.1	120.9	119.6	119.6	122.2	127.4	131.3	136.5	144.3
80°	85.8	87.1	88.4	94.9	96.2	97.5	96.2	100.1	104.0	105.3	110.5
82.5°	63.7	65.0	65.0	68.9	72.8	72.8	72.8	74.1	78.0	79.3	81.9
85°	42.9	44.2	45.5	46.8	49.4	50.7	52.0	52.0	54.6	55.9	57.2
87.5°	23.4	26.0	27.3	28.6	29.9	31.2	32.5	33.8	35.1	36.4	37.7
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):

	330°	332.5°	335°	337.5°	340°	342.5°	345°	347.5°	350°	352.5°	355°
0°	2836.9	2836.9	2836.9	2836.9	2836.9	2836.9	2836.9	2836.9	2836.9	2836.9	2836.9
2.5°	2851.2	2844.7	2840.8	2830.4	2827.8	2810.9	2813.5	2810.9	2810.9	2814.8	2827.8
5°	2973.5	2942.3	2934.5	2912.4	2894.2	2862.9	2843.4	2833.0	2817.4	2810.9	2820.0
7.5°	3056.7	3033.3	3013.8	2994.3	2968.3	2931.9	2904.6	2873.3	2847.3	2822.6	2816.1
10°	3042.4	3068.4	3068.4	3056.7	3032.0	2995.6	2963.1	2924.1	2878.6	2839.5	2816.1
12.5°	2921.5	2967.0	3003.4	3030.7	3055.4	3030.7	2998.2	2967.0	2916.3	2859.0	2816.1
15°	2788.8	2835.6	2881.2	2938.4	2998.2	3022.9	3021.6	2985.2	2939.7	2879.9	2820.0
17.5°	2695.2	2727.7	2752.4	2814.8	2887.7	2951.4	2994.3	2996.9	2952.7	2899.4	2821.3
20°	2625.0	2648.4	2669.2	2704.3	2768.0	2846.0	2925.4	2969.6	2961.8	2903.3	2825.2
22.5°	2561.3	2578.2	2595.1	2621.1	2671.8	2722.5	2814.8	2905.9	2944.9	2896.8	2821.3
25°	2497.6	2515.8	2528.8	2547.0	2587.3	2628.9	2693.9	2807.0	2894.2	2891.6	2813.5
27.5°	2422.2	2446.9	2462.5	2487.2	2514.5	2545.7	2589.9	2696.5	2821.3	2865.5	2792.7
30°	2331.2	2367.6	2391.0	2418.3	2441.7	2469.0	2504.1	2569.1	2723.8	2814.8	2770.6
32.5°	2199.9	2264.9	2316.9	2342.9	2368.9	2392.3	2423.5	2478.1	2604.2	2745.9	2745.9
35°	2106.3	2136.2	2183.0	2258.4	2290.9	2314.3	2342.9	2385.8	2466.4	2664.0	2705.6
37.5°	2033.4	2045.1	2068.6	2142.7	2203.8	2241.5	2270.1	2297.4	2376.7	2552.2	2653.6
40°	1978.8	1974.9	1972.3	2007.4	2094.6	2154.4	2186.9	2214.2	2275.3	2418.3	2584.7
42.5°	1915.1	1911.2	1898.2	1907.3	1950.2	2050.3	2099.8	2129.7	2180.4	2277.9	2509.3
45°	1848.8	1842.3	1837.1	1828.0	1843.6	1899.5	2000.9	2045.1	2073.8	2160.9	2414.4
47.5°	1781.2	1772.1	1765.6	1757.8	1748.7	1774.7	1870.9	1950.2	1999.6	2054.2	2300.0
50°	1685.0	1696.7	1688.9	1679.8	1672.0	1666.8	1707.1	1837.1	1898.2	1942.4	2160.9
52.5°	794.4	1544.6	1609.6	1600.5	1590.1	1581.0	1590.1	1688.9	1799.4	1834.5	1993.1
55°	452.5	687.8	1431.5	1513.4	1504.3	1491.3	1483.5	1517.3	1682.4	1729.2	1839.7
57.5°	435.6	436.9	631.9	1363.9	1414.6	1402.9	1393.8	1401.6	1542.0	1621.3	1705.8
60°	421.3	421.3	421.3	603.3	1304.1	1308.0	1296.3	1283.3	1344.4	1500.4	1570.6
62.5°	390.0	397.8	401.7	401.7	595.5	1207.8	1196.1	1192.2	1194.8	1354.8	1435.4
65°	349.7	367.9	375.7	380.9	380.9	625.4	1093.4	1086.9	1077.8	1138.9	1298.9
67.5°	305.5	323.7	340.6	351.0	352.3	364.0	652.7	979.0	966.0	967.3	1153.2
70°	260.0	275.6	293.8	309.4	323.7	330.2	340.6	812.6	855.5	837.3	988.1
72.5°	224.9	231.4	244.4	260.0	276.9	292.5	301.6	323.7	742.4	722.9	751.5
75°	187.2	192.4	201.5	211.9	224.9	243.1	258.7	274.3	393.9	605.9	602.0
77.5°	145.6	154.7	165.1	171.6	178.1	191.1	211.9	227.5	243.1	409.5	482.4
80°	111.8	118.3	123.5	130.0	137.8	146.9	154.7	172.9	191.1	205.4	369.2
82.5°	83.2	87.1	91.0	93.6	96.2	101.4	115.7	122.2	133.9	146.9	174.2
85°	58.5	61.1	63.7	65.0	66.3	67.6	72.8	74.1	85.8	88.4	105.3
87.5°	37.7	39.0	41.6	42.9	42.9	44.2	45.5	45.5	45.5	42.9	52.0
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):

	357.5°	360°
0°	2836.9	2836.9
2.5°	2838.2	2859.0
5°	2834.3	2861.6
7.5°	2823.9	2849.9
10°	2808.3	2839.5
12.5°	2791.4	2821.3
15°	2777.1	2799.2
17.5°	2761.5	2774.5
20°	2740.7	2751.1
22.5°	2719.9	2714.7
25°	2696.5	2684.8
27.5°	2666.6	2644.5
30°	2639.3	2600.3
32.5°	2613.3	2549.6
35°	2578.2	2497.6
37.5°	2541.8	2444.3
40°	2498.9	2383.2
42.5°	2453.4	2322.1
45°	2396.2	2263.6
47.5°	2345.5	2193.4
50°	2275.3	2118.0
52.5°	2189.5	2047.7
55°	2088.1	1961.9
57.5°	1978.8	1872.2
60°	1861.8	1769.5
62.5°	1720.1	1662.9
65°	1553.7	1540.7
67.5°	1336.6	1405.5
70°	1096.0	1250.8
72.5°	916.6	1086.9
75°	751.5	903.6
77.5°	595.5	708.6
80°	371.8	518.8
82.5°	249.6	340.6
85°	150.8	162.5
87.5°	58.5	59.8
90°	0.0	0.0

(END OF REPORT)