

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: P1213162

Luminaire Tested: 4SNLED-LD5-67HL-RW-UNV-L930-CD1-U

Issue Date: 3/29/2018

Test Information

Test Method: LM-79-2019
Report Number: P1213162
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-L930-CD1-U
Description: 4FT LINEAR SNLED LED FIXTURE
WHITE REFLECTOR
Light Source: -
Ballast/Driver: -

Summary

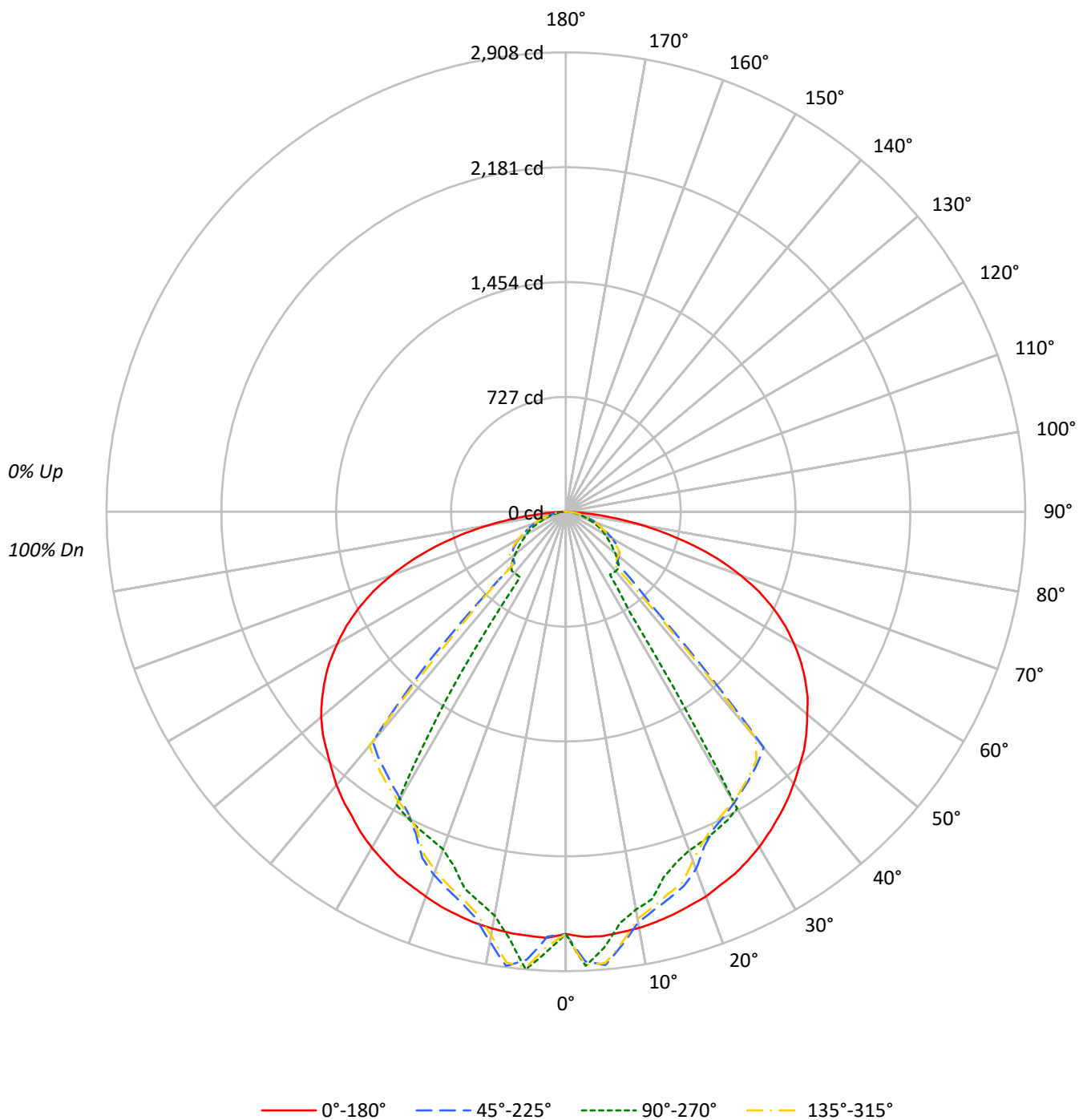
Lumens per Lamp: N/A
Luminaire Lumens: 5352.0 lumens
Efficiency: N/A
Efficacy: 86.3 lumens/watt
Spacing Criteria (0/90/45): 1.36 / 1.16 / 1.2
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.12')
CIE Type: Direct

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°	21598	21598	21598	21598
5°	21809	21760	21799	22838
10°	21831	19674	21861	19976
15°	21879	18203	21930	18780
20°	22038	17265	22038	17200
25°	22228	16935	22261	16777
30°	22453	16636	22510	16439
35°	22716	3789	22763	3952
40°	23079	3941	23217	4068
45°	23632	3919	23713	4061
50°	24184	3543	24510	3639
55°	24928	3146	25126	3191
60°	25559	2795	25615	2831
65°	26011	2440	25945	2400
70°	25639	1966	25558	1895
75°	23804	1514	23974	1450
80°	19319	1075	20093	983
85°	10459	643	11047	494

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 357.5°

Vertical Angle: 60°

Luminance: 26189 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	263.0	4.9
10°-20°	723.0	13.5
20°-30°	1070.9	20.0
30°-40°	1079.0	20.2
40°-50°	842.9	15.7
50°-60°	651.1	12.2
60°-70°	437.1	8.2
70°-80°	223.0	4.2
80°-90°	62.0	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°	2056.9	38.4
0°-40°	3135.9	58.6
0°-60°	4629.9	86.5
0°-90°	5352.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5352.0	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	2673	2673	2673	2673	2673	
5°	2696	2771	2695	2908	2696	256
15°	2637	2395	2643	2470	2637	746
25°	2529	2232	2533	2211	2529	1167
35°	2353	485	2358	506	2353	1475
45°	2132	472	2140	489	2132	1644
55°	1848	343	1863	348	1848	1651
65°	1452	230	1448	227	1452	1428
75°	851	116	857	112	851	890
85°	153	37	162	28	153	211
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°	2672.7	2672.7	2672.7	2672.7	2672.7	2672.7	2672.7	2672.7	2672.7	2672.7	2672.7
2.5°	2693.5	2703.3	2710.6	2715.5	2718.0	2718.0	2719.2	2720.4	2736.3	2743.7	2748.6
5°	2695.9	2705.7	2720.4	2740.0	2757.2	2771.9	2784.1	2801.3	2818.4	2836.8	2842.9
7.5°	2684.9	2697.1	2726.5	2762.1	2795.1	2818.4	2834.3	2845.4	2853.9	2855.2	2861.3
10°	2675.1	2697.1	2737.6	2784.1	2825.8	2853.9	2853.9	2847.8	2856.4	2823.3	2790.2
12.5°	2658.0	2682.4	2737.6	2798.8	2838.0	2849.0	2844.1	2819.6	2769.4	2729.0	2710.6
15°	2637.1	2670.2	2738.8	2807.4	2840.5	2844.1	2797.6	2735.1	2697.1	2672.7	2642.0
17.5°	2613.9	2658.0	2740.0	2808.6	2820.9	2803.7	2715.5	2676.3	2637.1	2579.6	2537.9
20°	2591.8	2634.7	2730.2	2791.5	2798.8	2721.6	2653.1	2611.4	2545.3	2495.0	2476.7
22.5°	2557.5	2607.7	2721.6	2768.2	2740.0	2650.6	2584.5	2518.3	2458.3	2443.6	2421.6
25°	2529.3	2582.0	2702.0	2740.0	2665.3	2585.7	2508.5	2431.4	2403.2	2382.4	2362.8
27.5°	2491.4	2556.3	2676.3	2688.6	2585.7	2515.9	2403.2	2368.9	2343.2	2319.9	2311.3
30°	2449.7	2529.3	2640.8	2617.5	2519.5	2416.7	2333.4	2301.5	2283.1	2258.6	2248.8
32.5°	2402.0	2488.9	2601.6	2535.5	2448.5	2319.9	2266.0	2241.5	2217.0	2198.6	2137.4
35°	2353.0	2453.4	2555.1	2457.1	2362.8	2246.4	2198.6	2176.6	2153.3	2085.9	2022.2
37.5°	2302.7	2414.2	2498.7	2372.6	2248.8	2170.5	2130.0	2105.5	2052.9	1967.1	1935.3
40°	2245.2	2366.4	2426.5	2285.6	2149.6	2093.3	2055.3	2030.8	1912.0	1874.0	1864.2
42.5°	2187.6	2319.9	2338.3	2201.1	2067.6	2011.2	1979.4	1898.5	1817.7	1798.1	1801.8
45°	2132.5	2269.7	2241.5	2081.0	1981.8	1935.3	1881.4	1769.9	1727.1	1736.9	1739.3
47.5°	2066.3	2209.7	2139.8	1961.0	1893.6	1847.1	1727.1	1659.7	1653.6	1667.0	1674.4
50°	1995.3	2142.3	2032.0	1852.0	1798.1	1743.0	1607.0	1572.7	1580.1	1593.5	1602.1
52.5°	1929.2	2066.3	1920.6	1750.3	1703.8	1577.6	1485.8	1491.9	1504.1	1520.1	1525.0
55°	1848.3	1974.5	1801.8	1647.4	1603.3	1438.0	1396.3	1411.0	1423.3	1436.8	1446.6
57.5°	1763.8	1869.1	1660.9	1532.3	1461.3	1314.3	1318.0	1327.8	1336.3	1352.2	558.5
60°	1667.0	1749.1	1506.6	1425.7	1284.9	1216.3	1220.0	1237.1	1245.7	695.7	384.6
62.5°	1566.6	1609.5	1366.9	1304.5	1123.2	1118.3	1135.4	1142.8	777.8	367.5	360.1
65°	1451.5	1442.9	1229.8	1130.5	1013.0	1017.9	1036.2	999.5	344.2	344.2	341.7
67.5°	1324.1	1272.6	1096.3	935.8	906.4	917.4	937.0	327.0	318.5	320.9	312.3
70°	1178.3	1106.1	957.8	792.5	802.3	813.3	316.0	296.4	292.7	286.6	269.5
72.5°	1024.0	924.8	783.9	688.4	694.5	436.1	276.8	267.0	254.8	242.5	224.1
75°	851.3	722.7	575.7	575.7	584.3	248.6	241.3	225.4	211.9	196.0	185.0
77.5°	667.6	556.1	447.1	464.2	226.6	208.2	194.8	177.6	166.6	156.8	150.7
80°	488.7	388.3	336.8	301.3	176.4	158.0	144.5	134.7	129.8	123.7	116.4
82.5°	320.9	233.9	233.9	142.1	123.7	109.0	105.3	98.0	93.1	89.4	85.7
85°	153.1	136.0	102.9	87.0	77.2	69.8	67.4	63.7	63.7	62.5	61.2
87.5°	56.3	61.2	45.3	44.1	41.6	40.4	41.6	41.6	42.9	41.6	40.4
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°	2672.7	2672.7	2672.7	2672.7	2672.7	2672.7	2672.7	2672.7	2672.7	2672.7	2672.7
2.5°	2760.8	2770.6	2778.0	2790.2	2806.2	2819.6	2831.9	2849.0	2876.0	2883.3	2889.5
5°	2842.9	2846.6	2855.2	2865.0	2867.4	2873.5	2872.3	2879.7	2883.3	2891.9	2873.5
7.5°	2847.8	2828.2	2804.9	2784.1	2769.4	2755.9	2747.4	2760.8	2768.2	2774.3	2755.9
10°	2744.9	2721.6	2708.2	2695.9	2681.2	2660.4	2632.2	2638.4	2635.9	2635.9	2629.8
12.5°	2680.0	2646.9	2612.6	2582.0	2568.5	2567.3	2568.5	2582.0	2582.0	2580.8	2573.4
15°	2578.3	2546.5	2529.3	2522.0	2522.0	2518.3	2518.3	2533.0	2529.3	2529.3	2525.7
17.5°	2511.0	2488.9	2476.7	2468.1	2464.4	2470.5	2477.9	2484.0	2485.2	2480.3	2460.7
20°	2455.9	2435.0	2420.3	2422.8	2421.6	2425.2	2428.9	2408.1	2382.4	2348.1	2332.1
22.5°	2398.3	2382.4	2371.3	2371.3	2356.6	2333.4	2299.1	2291.7	2288.0	2272.1	2258.6
25°	2343.2	2324.8	2308.9	2259.9	2229.3	2232.9	2226.8	2214.6	2213.3	2212.1	2217.0
27.5°	2288.0	2240.3	2179.0	2171.7	2159.4	2158.2	2165.6	2171.7	2171.7	2176.6	2182.7
30°	2174.1	2119.0	2108.0	2094.5	2099.4	2116.6	2120.2	2128.8	2131.3	2139.8	2144.7
32.5°	2070.0	2045.5	2035.7	2041.8	2057.8	2072.5	2081.0	2084.7	2090.8	2098.2	2104.3
35°	1985.5	1978.2	1986.7	2000.2	2016.1	2028.4	2035.7	2043.1	2049.2	2055.3	2060.2
37.5°	1923.0	1927.9	1940.2	1957.3	1973.3	1983.1	1989.2	1997.8	2006.3	2013.7	1984.3
40°	1864.2	1876.5	1890.0	1908.3	1921.8	1931.6	1937.7	1948.8	1875.3	848.8	465.4
42.5°	1812.8	1826.3	1836.1	1850.8	1865.5	1872.8	1818.9	812.1	459.3	456.9	463.0
45°	1750.3	1761.4	1777.3	1788.3	1801.8	1183.2	452.0	456.9	449.5	454.4	456.9
47.5°	1686.6	1703.8	1712.4	1634.0	486.3	449.5	444.6	449.5	444.6	450.7	447.1
50°	1614.4	1635.2	1163.6	439.7	436.1	433.6	438.5	436.1	439.7	444.6	434.8
52.5°	1540.9	954.2	426.3	423.8	426.3	423.8	432.4	426.3	427.5	422.6	410.3
55°	521.8	412.8	409.1	407.9	415.2	415.2	415.2	405.4	399.3	387.1	378.5
57.5°	399.3	399.3	398.1	399.3	396.9	394.4	383.4	374.8	366.2	349.1	344.2
60°	378.5	378.5	378.5	378.5	367.5	362.6	345.4	338.1	323.4	314.8	309.9
62.5°	361.3	358.9	347.9	344.2	331.9	318.5	308.7	301.3	286.6	281.7	278.0
65°	336.8	328.3	314.8	300.1	294.0	279.3	274.4	263.3	256.0	252.3	249.9
67.5°	296.4	284.2	273.1	263.3	252.3	247.4	241.3	232.7	227.8	225.4	222.9
70°	253.5	245.0	233.9	227.8	220.5	216.8	208.2	205.8	202.1	198.4	194.8
72.5°	211.9	207.0	202.1	193.5	191.1	188.6	180.1	175.2	170.3	165.4	162.9
75°	177.6	173.9	171.5	164.1	160.5	153.1	147.0	143.3	139.6	136.0	133.5
77.5°	145.8	143.3	136.0	131.1	128.6	122.5	120.0	121.3	118.8	113.9	111.5
80°	113.9	111.5	105.3	105.3	102.9	100.4	98.0	95.5	93.1	89.4	87.0
82.5°	87.0	84.5	82.1	79.6	77.2	75.9	74.7	72.3	69.8	67.4	66.1
85°	61.2	60.0	58.8	57.6	56.3	55.1	53.9	51.4	49.0	47.8	46.5
87.5°	41.6	40.4	39.2	38.0	36.7	35.5	34.3	33.1	30.6	29.4	28.2
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):

	55°	57.5°	60°	62.5°	65°	67.5°	70°	72.5°	75°	77.5°	80°
0°	2672.7	2672.7	2672.7	2672.7	2672.7	2672.7	2672.7	2672.7	2672.7	2672.7	2672.7
2.5°	2889.5	2895.6	2889.5	2876.0	2867.4	2863.7	2871.1	2871.1	2876.0	2882.1	2883.3
5°	2844.1	2829.4	2812.3	2795.1	2786.6	2781.7	2768.2	2770.6	2774.3	2776.8	2779.2
7.5°	2731.4	2711.8	2688.6	2666.5	2658.0	2650.6	2634.7	2634.7	2634.7	2635.9	2643.3
10°	2616.3	2607.7	2597.9	2583.2	2572.2	2568.5	2555.1	2558.7	2556.3	2560.0	2568.5
12.5°	2562.4	2552.6	2544.0	2529.3	2517.1	2512.2	2506.1	2509.7	2508.5	2514.6	2522.0
15°	2513.4	2508.5	2498.7	2487.7	2476.7	2466.9	2444.8	2437.5	2432.6	2426.5	2435.0
17.5°	2432.6	2398.3	2375.0	2357.9	2345.6	2337.0	2330.9	2330.9	2334.6	2338.3	2345.6
20°	2322.3	2312.5	2301.5	2283.1	2270.9	2266.0	2262.3	2262.3	2268.4	2273.3	2286.8
22.5°	2246.4	2245.2	2241.5	2232.9	2226.8	2226.8	2228.0	2230.5	2239.0	2246.4	2259.9
25°	2210.9	2215.8	2213.3	2208.4	2204.8	2206.0	2203.5	2206.0	2214.6	2221.9	2232.9
27.5°	2182.7	2190.1	2187.6	2180.3	2174.1	2176.6	2180.3	2177.8	2185.2	2193.7	2202.3
30°	2144.7	2146.0	2150.9	2142.3	2139.8	2143.5	2144.7	2147.2	2154.5	2160.7	2168.0
32.5°	2101.9	2111.7	2110.4	2101.9	2101.9	2105.5	2106.8	2024.7	1871.6	1611.9	1540.9
35°	2060.2	2071.2	2052.9	1730.7	1197.9	639.4	493.6	476.5	480.1	482.6	485.0
37.5°	1523.7	722.7	460.5	464.2	467.9	471.6	475.2	478.9	482.6	486.3	487.5
40°	458.1	456.9	460.5	465.4	469.1	471.6	476.5	480.1	483.8	487.5	488.7
42.5°	453.2	455.6	459.3	464.2	469.1	474.0	477.7	482.6	485.0	487.5	488.7
45°	450.7	455.6	460.5	464.2	467.9	470.3	472.8	474.0	472.8	472.8	475.2
47.5°	447.1	452.0	453.2	452.0	453.2	452.0	452.0	452.0	448.3	447.1	447.1
50°	433.6	433.6	431.2	426.3	425.0	423.8	421.4	420.1	415.2	414.0	414.0
52.5°	405.4	404.2	400.5	394.4	392.0	389.5	388.3	387.1	382.2	379.7	380.9
55°	372.4	369.9	366.2	358.9	357.7	355.2	354.0	352.8	347.9	350.3	346.6
57.5°	341.7	336.8	331.9	330.7	325.8	324.6	323.4	322.1	318.5	319.7	317.2
60°	305.0	303.8	301.3	296.4	296.4	295.2	295.2	292.7	290.3	289.1	289.1
62.5°	278.0	274.4	271.9	271.9	268.2	268.2	268.2	265.8	263.3	264.6	263.3
65°	248.6	247.4	246.2	243.7	243.7	242.5	242.5	240.1	236.4	237.6	235.2
67.5°	224.1	221.7	219.3	218.0	213.1	210.7	209.5	208.2	203.3	204.6	202.1
70°	193.5	189.9	187.4	185.0	181.3	178.8	178.8	176.4	172.7	173.9	171.5
72.5°	161.7	159.2	156.8	155.6	151.9	150.7	149.4	148.2	144.5	145.8	144.5
75°	134.7	134.7	133.5	132.3	128.6	124.9	122.5	121.3	118.8	120.0	117.6
77.5°	111.5	109.0	106.6	106.6	102.9	100.4	98.0	98.0	98.0	96.8	95.5
80°	87.0	84.5	84.5	83.3	80.8	78.4	77.2	77.2	75.9	75.9	74.7
82.5°	66.1	63.7	62.5	62.5	60.0	58.8	57.6	56.3	56.3	56.3	55.1
85°	46.5	44.1	42.9	42.9	40.4	39.2	39.2	38.0	38.0	36.7	36.7
87.5°	28.2	26.9	25.7	25.7	23.3	22.0	22.0	22.0	20.8	20.8	19.6
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: P1213162

CATALOG NUMBER: 4SNLED-LD5-67HL-RW-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	82.5°	85°	87.5°	90°	92.5°	95°	97.5°	100°	102.5°	105°	107.5°
0°	2672.7	2672.7	2672.7	2672.7	2672.7	2672.7	2672.7	2672.7	2672.7	2672.7	2672.7
2.5°	2883.3	2883.3	2874.8	2877.2	2873.5	2878.4	2872.3	2872.3	2879.7	2879.7	2884.6
5°	2780.4	2774.3	2773.1	2770.6	2758.4	2763.3	2757.2	2751.0	2759.6	2759.6	2770.6
7.5°	2639.6	2628.6	2633.5	2626.1	2618.8	2607.7	2611.4	2606.5	2612.6	2621.2	2632.2
10°	2567.3	2557.5	2563.6	2556.3	2560.0	2544.0	2545.3	2546.5	2552.6	2555.1	2564.9
12.5°	2520.8	2518.3	2515.9	2513.4	2515.9	2507.3	2502.4	2503.6	2506.1	2507.3	2514.6
15°	2422.8	2406.9	2411.8	2394.6	2395.8	2397.1	2387.3	2397.1	2395.8	2411.8	2426.5
17.5°	2343.2	2343.2	2334.6	2327.2	2322.3	2321.1	2313.8	2318.7	2313.8	2323.6	2327.2
20°	2288.0	2286.8	2285.6	2281.9	2269.7	2270.9	2274.6	2263.5	2262.3	2261.1	2268.4
22.5°	2262.3	2263.5	2258.6	2258.6	2247.6	2250.1	2251.3	2239.0	2240.3	2236.6	2240.3
25°	2235.4	2237.8	2231.7	2231.7	2229.3	2228.0	2221.9	2224.4	2217.0	2210.9	2217.0
27.5°	2203.5	2208.4	2203.5	2206.0	2201.1	2198.6	2195.0	2192.5	2185.2	2183.9	2187.6
30°	2174.1	2176.6	2175.4	2169.2	2168.0	2160.7	2164.3	2157.0	2149.6	2150.9	2153.3
32.5°	1114.6	1064.4	820.7	741.0	733.7	760.6	901.5	1097.5	1422.1	1736.9	1963.5
35°	486.3	486.3	486.3	485.0	485.0	483.8	482.6	481.4	480.1	478.9	477.7
37.5°	488.7	488.7	488.7	488.7	487.5	486.3	486.3	483.8	482.6	481.4	480.1
40°	489.9	491.2	491.2	491.2	489.9	489.9	488.7	486.3	485.0	482.6	480.1
42.5°	488.7	489.9	489.9	488.7	488.7	487.5	487.5	486.3	485.0	483.8	482.6
45°	472.8	474.0	471.6	471.6	470.3	470.3	470.3	470.3	470.3	471.6	471.6
47.5°	444.6	444.6	443.4	442.2	442.2	441.0	442.2	441.0	443.4	444.6	447.1
50°	411.6	411.6	409.1	407.9	407.9	407.9	407.9	409.1	410.3	412.8	415.2
52.5°	377.3	377.3	376.0	374.8	373.6	373.6	377.3	376.0	377.3	378.5	382.2
55°	344.2	345.4	343.0	343.0	341.7	341.7	341.7	343.0	344.2	345.4	349.1
57.5°	316.0	316.0	313.6	313.6	313.6	312.3	316.0	313.6	314.8	316.0	318.5
60°	287.8	286.6	286.6	285.4	285.4	285.4	287.8	286.6	286.6	287.8	290.3
62.5°	262.1	262.1	260.9	260.9	259.7	259.7	262.1	260.9	260.9	262.1	263.3
65°	232.7	232.7	231.5	230.3	233.9	230.3	233.9	231.5	233.9	235.2	237.6
67.5°	199.7	199.7	199.7	198.4	198.4	200.9	202.1	199.7	200.9	203.3	204.6
70°	170.3	170.3	169.0	169.0	169.0	171.5	172.7	170.3	171.5	172.7	175.2
72.5°	144.5	142.1	142.1	140.9	143.3	143.3	144.5	143.3	144.5	144.5	147.0
75°	118.8	116.4	116.4	116.4	118.8	117.6	118.8	117.6	118.8	118.8	120.0
77.5°	95.5	94.3	93.1	93.1	95.5	95.5	95.5	94.3	95.5	96.8	98.0
80°	74.7	73.5	72.3	72.3	74.7	74.7	74.7	75.9	74.7	75.9	77.2
82.5°	55.1	53.9	52.7	55.1	55.1	55.1	55.1	56.3	55.1	56.3	57.6
85°	36.7	35.5	34.3	36.7	36.7	36.7	36.7	38.0	36.7	38.0	39.2
87.5°	19.6	18.4	18.4	19.6	19.6	19.6	20.8	20.8	20.8	22.0	22.0
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: P1213162

CATALOG NUMBER: 4SNLED-LD5-67HL-RW-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	110°	112.5°	115°	117.5°	120°	122.5°	125°	127.5°	130°	132.5°	135°
0°	2672.7	2672.7	2672.7	2672.7	2672.7	2672.7	2672.7	2672.7	2672.7	2672.7	2672.7
2.5°	2891.9	2895.6	2894.4	2887.0	2879.7	2871.1	2865.0	2866.2	2878.4	2882.1	2871.1
5°	2770.6	2793.9	2793.9	2809.8	2801.3	2793.9	2798.8	2825.8	2839.2	2860.1	2867.4
7.5°	2645.7	2656.7	2655.5	2671.4	2669.0	2669.0	2672.7	2708.2	2725.3	2742.5	2747.4
10°	2575.9	2586.9	2585.7	2586.9	2583.2	2574.7	2574.7	2590.6	2605.3	2613.9	2616.3
12.5°	2525.7	2531.8	2530.6	2530.6	2528.1	2520.8	2519.5	2533.0	2548.9	2560.0	2561.2
15°	2451.0	2468.1	2471.8	2487.7	2484.0	2474.2	2476.7	2487.7	2497.5	2507.3	2503.6
17.5°	2339.5	2348.1	2349.3	2355.4	2353.0	2353.0	2367.7	2408.1	2435.0	2458.3	2460.7
20°	2275.8	2281.9	2279.5	2292.9	2286.8	2285.6	2289.3	2306.4	2318.7	2329.7	2349.3
22.5°	2245.2	2250.1	2246.4	2247.6	2236.6	2226.8	2224.4	2237.8	2251.3	2266.0	2266.0
25°	2219.5	2223.1	2221.9	2219.5	2210.9	2197.4	2195.0	2197.4	2202.3	2203.5	2195.0
27.5°	2188.8	2191.3	2191.3	2192.5	2181.5	2169.2	2166.8	2164.3	2169.2	2168.0	2154.5
30°	2157.0	2153.3	2154.5	2155.8	2146.0	2134.9	2130.0	2128.8	2133.7	2132.5	2119.0
32.5°	2081.0	2109.2	2111.7	2114.1	2105.5	2095.7	2090.8	2087.2	2089.6	2088.4	2076.1
35°	476.5	485.0	594.1	1344.9	1826.3	2022.2	2043.1	2038.2	2039.4	2039.4	2029.6
37.5°	477.7	476.5	475.2	471.6	467.9	465.4	804.7	1716.0	1988.0	1989.2	1980.6
40°	477.7	476.5	475.2	472.8	467.9	464.2	458.1	453.2	464.2	1021.5	1869.1
42.5°	480.1	477.7	475.2	472.8	467.9	463.0	458.1	452.0	455.6	453.2	447.1
45°	472.8	471.6	471.6	470.3	467.9	463.0	456.9	449.5	445.9	449.5	443.4
47.5°	449.5	450.7	454.4	455.6	455.6	456.9	453.2	448.3	442.2	445.9	438.5
50°	417.7	420.1	421.4	427.5	429.9	434.8	436.1	436.1	434.8	439.7	434.8
52.5°	383.4	385.8	392.0	394.4	396.9	404.2	406.7	410.3	412.8	420.1	425.0
55°	350.3	351.5	354.0	358.9	362.6	368.7	372.4	376.0	382.2	385.8	400.5
57.5°	319.7	320.9	325.8	327.0	329.5	334.4	338.1	343.0	347.9	350.3	367.5
60°	290.3	291.5	295.2	296.4	297.6	302.5	306.2	309.9	313.6	316.0	328.3
62.5°	264.6	264.6	268.2	268.2	269.5	273.1	275.6	278.0	281.7	282.9	289.1
65°	238.8	240.1	242.5	242.5	243.7	246.2	247.4	248.6	252.3	252.3	257.2
67.5°	207.0	208.2	211.9	214.4	215.6	220.5	221.7	222.9	225.4	226.6	229.0
70°	176.4	177.6	181.3	182.5	183.7	187.4	189.9	193.5	197.2	200.9	203.3
72.5°	148.2	149.4	153.1	153.1	156.8	158.0	160.5	161.7	165.4	167.8	171.5
75°	121.3	122.5	126.2	126.2	129.8	131.1	132.3	133.5	136.0	138.4	140.9
77.5°	99.2	99.2	104.1	106.6	109.0	109.0	110.2	110.2	110.2	111.5	113.9
80°	78.4	78.4	82.1	84.5	87.0	87.0	88.2	89.4	90.6	90.6	91.9
82.5°	58.8	58.8	62.5	63.7	66.1	66.1	66.1	67.4	68.6	67.4	69.8
85°	40.4	40.4	42.9	44.1	46.5	46.5	46.5	47.8	49.0	47.8	49.0
87.5°	23.3	24.5	25.7	26.9	28.2	29.4	29.4	29.4	30.6	30.6	31.8
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: P1213162

CATALOG NUMBER: 4SNLED-LD5-67HL-RW-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	137.5°	140°	142.5°	145°	147.5°	150°	152.5°	155°	157.5°	160°	162.5°
0°	2672.7	2672.7	2672.7	2672.7	2672.7	2672.7	2672.7	2672.7	2672.7	2672.7	2672.7
2.5°	2858.8	2844.1	2842.9	2825.8	2820.9	2822.1	2808.6	2803.7	2781.7	2776.8	2753.5
5°	2869.9	2877.2	2873.5	2872.3	2876.0	2873.5	2863.7	2858.8	2855.2	2845.4	2825.8
7.5°	2748.6	2753.5	2757.2	2773.1	2786.6	2809.8	2834.3	2850.3	2862.5	2865.0	2849.0
10°	2624.9	2648.2	2664.1	2688.6	2708.2	2721.6	2736.3	2749.8	2785.3	2820.9	2841.7
12.5°	2561.2	2567.3	2566.1	2579.6	2593.0	2628.6	2662.9	2682.4	2709.4	2725.3	2763.3
15°	2507.3	2508.5	2512.2	2522.0	2529.3	2541.6	2557.5	2586.9	2640.8	2665.3	2686.1
17.5°	2458.3	2458.3	2460.7	2469.3	2479.1	2490.1	2499.9	2512.2	2539.1	2579.6	2631.0
20°	2379.9	2414.2	2417.9	2416.7	2421.6	2442.4	2444.8	2466.9	2480.3	2496.3	2546.5
22.5°	2263.5	2284.4	2313.8	2359.1	2376.2	2386.0	2393.4	2403.2	2424.0	2442.4	2463.2
25°	2199.9	2213.3	2221.9	2235.4	2270.9	2328.5	2339.5	2350.5	2364.0	2377.5	2403.2
27.5°	2143.5	2142.3	2148.4	2160.7	2170.5	2201.1	2255.0	2297.8	2300.3	2319.9	2341.9
30°	2103.1	2095.7	2087.2	2084.7	2098.2	2114.1	2130.0	2197.4	2243.9	2253.7	2277.0
32.5°	2065.1	2052.9	2040.6	2030.8	2022.2	2035.7	2045.5	2074.9	2134.9	2191.3	2203.5
35°	2018.6	2006.3	1991.6	1980.6	1967.1	1965.9	1964.7	1992.9	2012.4	2079.8	2138.6
37.5°	1970.8	1957.3	1945.1	1932.8	1919.4	1909.6	1903.4	1910.8	1929.2	1958.6	2056.5
40°	1920.6	1904.7	1892.4	1882.6	1864.2	1856.9	1844.6	1839.7	1841.0	1866.7	1918.1
42.5°	1147.7	1829.9	1836.1	1825.0	1809.1	1799.3	1785.9	1779.7	1767.5	1779.7	1809.1
45°	442.2	447.1	1338.8	1768.7	1749.1	1736.9	1724.6	1718.5	1705.0	1695.2	1722.2
47.5°	433.6	438.5	428.7	607.5	1669.5	1673.2	1658.5	1652.3	1638.9	1631.5	1624.2
50°	427.5	431.2	423.8	426.3	417.7	1529.9	1591.1	1583.7	1569.0	1560.5	1545.8
52.5°	421.4	421.4	416.5	410.3	407.9	409.1	1287.3	1513.9	1496.8	1488.2	1468.6
55°	401.8	404.2	409.1	399.3	396.9	395.6	392.0	1226.1	1417.2	1407.4	1390.2
57.5°	372.4	377.3	390.7	388.3	388.3	378.5	376.0	376.0	1137.9	1325.3	1308.2
60°	338.1	343.0	357.7	362.6	366.2	363.8	361.3	360.1	355.2	1199.1	1221.2
62.5°	302.5	307.4	312.3	328.3	333.2	339.3	346.6	343.0	338.1	338.1	1129.3
65°	264.6	271.9	274.4	289.1	295.2	306.2	312.3	320.9	318.5	317.2	323.4
67.5°	231.5	240.1	241.3	247.4	258.4	263.3	270.7	286.6	294.0	296.4	298.9
70°	203.3	208.2	211.9	214.4	221.7	222.9	236.4	247.4	258.4	270.7	274.4
72.5°	175.2	178.8	186.2	183.7	186.2	191.1	198.4	205.8	216.8	233.9	245.0
75°	143.3	145.8	150.7	153.1	158.0	161.7	166.6	172.7	182.5	191.1	205.8
77.5°	115.1	116.4	120.0	121.3	126.2	129.8	138.4	142.1	148.2	154.3	162.9
80°	93.1	93.1	94.3	94.3	98.0	101.7	107.8	111.5	118.8	123.7	123.7
82.5°	71.0	71.0	74.7	74.7	77.2	77.2	80.8	80.8	84.5	87.0	89.4
85°	50.2	51.4	53.9	52.7	55.1	53.9	56.3	58.8	60.0	58.8	57.6
87.5°	33.1	33.1	35.5	34.3	35.5	35.5	38.0	38.0	39.2	39.2	38.0
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: P1213162

CATALOG NUMBER: 4SNLED-LD5-67HL-RW-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	165°	167.5°	170°	172.5°	175°	177.5°	180°	182.5°	185°	187.5°	190°
0°	2672.7	2672.7	2672.7	2672.7	2672.7	2672.7	2672.7	2672.7	2672.7	2672.7	2672.7
2.5°	2744.9	2726.5	2715.5	2702.0	2698.4	2694.7	2699.6	2699.6	2692.2	2686.1	2675.1
5°	2808.6	2789.0	2768.2	2746.1	2725.3	2703.3	2694.7	2693.5	2680.0	2672.7	2669.0
7.5°	2841.7	2831.9	2808.6	2778.0	2746.1	2706.9	2689.8	2680.0	2666.5	2664.1	2664.1
10°	2845.4	2834.3	2822.1	2800.0	2763.3	2711.8	2678.8	2659.2	2646.9	2655.5	2671.4
12.5°	2809.8	2830.7	2819.6	2804.9	2775.5	2713.1	2665.3	2635.9	2632.2	2654.3	2695.9
15°	2719.2	2780.4	2811.1	2796.4	2773.1	2710.6	2643.3	2609.0	2609.0	2654.3	2708.2
17.5°	2650.6	2698.4	2773.1	2785.3	2758.4	2705.7	2622.4	2582.0	2593.0	2659.2	2716.7
20°	2594.3	2623.7	2695.9	2764.5	2738.8	2694.7	2591.8	2550.2	2572.2	2651.8	2729.0
22.5°	2506.1	2564.9	2609.0	2710.6	2719.2	2673.9	2561.2	2511.0	2555.1	2651.8	2722.9
25°	2420.3	2491.4	2537.9	2637.1	2689.8	2648.2	2533.0	2469.3	2536.7	2648.2	2718.0
27.5°	2360.3	2393.4	2477.9	2548.9	2645.7	2613.9	2495.0	2424.0	2513.4	2628.6	2689.8
30°	2296.6	2318.7	2402.0	2469.3	2586.9	2574.7	2455.9	2373.8	2484.0	2610.2	2616.3
32.5°	2226.8	2251.3	2294.2	2392.2	2504.8	2537.9	2411.8	2323.6	2452.2	2582.0	2530.6
35°	2155.8	2174.1	2208.4	2313.8	2409.3	2482.8	2357.9	2266.0	2430.1	2539.1	2448.5
37.5°	2084.7	2104.3	2133.7	2221.9	2308.9	2431.4	2311.3	2208.4	2389.7	2463.2	2362.8
40°	2017.3	2028.4	2059.0	2114.1	2225.6	2378.7	2258.6	2148.4	2348.1	2366.4	2246.4
42.5°	1893.6	1948.8	1976.9	2021.0	2131.3	2306.4	2197.4	2084.7	2301.5	2269.7	2130.0
45°	1760.1	1880.2	1892.4	1936.5	2048.0	2229.3	2139.8	2022.2	2257.4	2186.4	2019.8
47.5°	1651.1	1738.1	1809.1	1845.9	1948.8	2138.6	2085.9	1969.6	2191.3	2081.0	1912.0
50°	1554.4	1600.9	1729.5	1756.5	1829.9	2029.6	2022.2	1908.3	2099.4	1948.8	1806.7
52.5°	1460.0	1493.1	1609.5	1667.0	1727.1	1912.0	1946.3	1848.3	1999.0	1816.5	1700.1
55°	1378.0	1389.0	1452.7	1573.9	1627.8	1793.2	1863.0	1778.5	1871.6	1690.3	1597.2
57.5°	1293.5	1283.7	1330.2	1485.8	1525.0	1671.9	1774.8	1707.5	1768.7	1561.7	1490.7
60°	1205.3	1191.8	1211.4	1314.3	1415.9	1551.9	1670.7	1629.1	1643.8	1434.3	1371.8
62.5°	1113.4	1099.9	1093.8	1158.7	1309.4	1428.2	1565.4	1542.1	1490.7	1318.0	1224.9
65°	1017.9	1004.4	994.6	1020.3	1191.8	1267.7	1447.8	1441.7	1322.9	1195.5	1031.3
67.5°	309.9	913.7	892.9	891.7	1004.4	1122.0	1320.4	1310.6	1153.8	1064.4	888.0
70°	279.3	741.0	787.6	776.6	825.6	973.8	1174.6	1167.3	989.7	853.7	785.1
72.5°	256.0	262.1	695.7	683.5	694.5	828.0	1022.8	1003.2	839.0	673.7	678.6
75°	219.3	230.3	240.1	576.9	562.2	685.9	857.4	826.8	692.0	556.1	567.1
77.5°	178.8	192.3	199.7	420.1	454.4	488.7	684.7	644.3	476.5	444.6	211.9
80°	133.5	144.5	156.8	167.8	345.4	341.7	508.3	467.9	331.9	276.8	165.4
82.5°	98.0	101.7	109.0	121.3	137.2	229.0	327.0	287.8	230.3	126.2	113.9
85°	61.2	66.1	69.8	73.5	83.3	137.2	161.7	128.6	96.8	77.2	72.3
87.5°	39.2	39.2	38.0	39.2	40.4	49.0	55.1	52.7	41.6	39.2	39.2
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: P1213162

CATALOG NUMBER: 4SNLED-LD5-67HL-RW-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	192.5°	195°	197.5°	200°	202.5°	205°	207.5°	210°	212.5°	215°	217.5°
0°	2672.7	2672.7	2672.7	2672.7	2672.7	2672.7	2672.7	2672.7	2672.7	2672.7	2672.7
2.5°	2662.9	2645.7	2645.7	2640.8	2644.5	2644.5	2643.3	2644.5	2653.1	2658.0	2666.5
5°	2661.6	2656.7	2667.8	2681.2	2697.1	2716.7	2721.6	2738.8	2754.7	2775.5	2797.6
7.5°	2677.6	2694.7	2715.5	2737.6	2769.4	2792.7	2813.5	2834.3	2849.0	2868.6	2880.9
10°	2700.8	2735.1	2770.6	2798.8	2833.1	2852.7	2866.2	2868.6	2847.8	2814.7	2787.8
12.5°	2733.9	2774.3	2807.4	2834.3	2850.3	2842.9	2803.7	2763.3	2740.0	2705.7	2658.0
15°	2762.1	2798.8	2833.1	2822.1	2779.2	2738.8	2708.2	2660.4	2613.9	2582.0	2561.2
17.5°	2774.3	2809.8	2797.6	2740.0	2699.6	2653.1	2590.6	2553.8	2523.2	2498.7	2486.5
20°	2781.7	2775.5	2709.4	2667.8	2589.4	2546.5	2506.1	2471.8	2448.5	2436.3	2433.8
22.5°	2762.1	2687.3	2631.0	2556.3	2498.7	2463.2	2431.4	2403.2	2387.3	2377.5	2371.3
25°	2697.1	2610.2	2526.9	2468.1	2419.1	2388.5	2364.0	2340.7	2321.1	2316.2	2304.0
27.5°	2606.5	2535.5	2425.2	2379.9	2337.0	2322.3	2295.4	2272.1	2255.0	2240.3	2201.1
30°	2531.8	2419.1	2339.5	2297.8	2272.1	2255.0	2224.4	2199.9	2170.5	2116.6	2094.5
32.5°	2439.9	2328.5	2252.5	2229.3	2197.4	2182.7	2148.4	2094.5	2049.2	2027.1	2025.9
35°	2321.1	2229.3	2174.1	2153.3	2127.6	2103.1	2032.0	1983.1	1961.0	1963.5	1981.8
37.5°	2221.9	2139.8	2104.3	2074.9	2045.5	1983.1	1923.0	1899.8	1905.9	1918.1	1926.7
40°	2121.5	2059.0	2018.6	1995.3	1929.2	1867.9	1836.1	1844.6	1855.7	1864.2	1875.3
42.5°	2023.5	1979.4	1939.0	1893.6	1803.0	1769.9	1777.3	1788.3	1798.1	1810.3	1821.4
45°	1930.4	1891.2	1844.6	1741.8	1696.4	1705.0	1716.0	1724.6	1739.3	1747.9	1758.9
47.5°	1842.2	1800.5	1718.5	1627.8	1622.9	1640.1	1649.9	1660.9	1671.9	1649.9	910.1
50°	1743.0	1700.1	1575.2	1540.9	1551.9	1567.8	1580.1	1591.1	1417.2	563.4	433.6
52.5°	1645.0	1536.0	1456.4	1466.2	1477.2	1495.6	1504.1	1117.1	444.6	423.8	425.0
55°	1536.0	1396.3	1373.1	1385.3	1395.1	1413.5	937.0	410.3	407.9	406.7	416.5
57.5°	1364.5	1280.0	1289.8	1302.0	1311.8	926.0	399.3	396.9	398.1	399.3	400.5
60°	1211.4	1193.0	1204.0	1215.1	859.9	385.8	378.5	379.7	384.6	380.9	371.1
62.5°	1090.1	1104.8	1115.9	977.4	366.2	362.6	366.2	362.6	354.0	347.9	335.6
65°	997.0	1011.7	1020.3	344.2	343.0	347.9	344.2	331.9	318.5	301.3	297.6
67.5°	899.0	913.7	327.0	318.5	323.4	317.2	302.5	287.8	278.0	263.3	257.2
70°	797.4	341.7	296.4	295.2	286.6	276.8	260.9	246.2	233.9	227.8	221.7
72.5°	575.7	270.7	267.0	257.2	242.5	229.0	215.6	207.0	200.9	197.2	193.5
75°	240.1	235.2	224.1	207.0	192.3	186.2	176.4	170.3	167.8	160.5	158.0
77.5°	200.9	191.1	175.2	162.9	154.3	150.7	143.3	136.0	132.3	131.1	126.2
80°	154.3	140.9	133.5	127.4	124.9	116.4	107.8	104.1	101.7	100.4	96.8
82.5°	105.3	100.4	95.5	87.0	87.0	83.3	79.6	77.2	74.7	74.7	72.3
85°	68.6	64.9	63.7	60.0	60.0	57.6	56.3	55.1	53.9	52.7	51.4
87.5°	39.2	39.2	40.4	39.2	39.2	38.0	36.7	35.5	34.3	34.3	31.8
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: P1213162

CATALOG NUMBER: 4SNLED-LD5-67HL-RW-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	220°	222.5°	225°	227.5°	230°	232.5°	235°	237.5°	240°	242.5°	245°
0°	2672.7	2672.7	2672.7	2672.7	2672.7	2672.7	2672.7	2672.7	2672.7	2672.7	2672.7
2.5°	2677.6	2689.8	2692.2	2733.9	2757.2	2755.9	2748.6	2770.6	2757.2	2749.8	2757.2
5°	2819.6	2834.3	2846.6	2891.9	2907.8	2915.2	2913.9	2926.2	2916.4	2907.8	2907.8
7.5°	2889.5	2894.4	2899.3	2888.2	2880.9	2868.6	2850.3	2823.3	2809.8	2795.1	2776.8
10°	2774.3	2758.4	2764.5	2742.5	2724.1	2710.6	2693.5	2671.4	2653.1	2639.6	2618.8
12.5°	2633.5	2632.2	2634.7	2638.4	2620.0	2609.0	2595.5	2579.6	2566.1	2551.4	2534.2
15°	2547.7	2548.9	2558.7	2555.1	2548.9	2542.8	2528.1	2523.2	2511.0	2495.0	2485.2
17.5°	2486.5	2492.6	2502.4	2497.5	2487.7	2481.6	2470.5	2459.5	2448.5	2436.3	2421.6
20°	2432.6	2438.7	2444.8	2438.7	2420.3	2411.8	2397.1	2362.8	2338.3	2313.8	2291.7
22.5°	2373.8	2377.5	2372.6	2353.0	2306.4	2284.4	2267.2	2257.4	2236.6	2223.1	2209.7
25°	2300.3	2279.5	2247.6	2225.6	2207.2	2197.4	2190.1	2188.8	2186.4	2183.9	2177.8
27.5°	2180.3	2172.9	2155.8	2147.2	2148.4	2152.1	2153.3	2157.0	2153.3	2148.4	2143.5
30°	2090.8	2094.5	2095.7	2098.2	2104.3	2108.0	2109.2	2114.1	2111.7	2108.0	2105.5
32.5°	2034.5	2043.1	2048.0	2055.3	2059.0	2065.1	2065.1	2072.5	2065.1	2063.9	2061.4
35°	1988.0	1995.3	1997.8	2008.8	2012.4	2018.6	2018.6	2024.7	2018.6	1956.1	1544.6
37.5°	1941.4	1948.8	1953.7	1963.5	1964.7	1968.4	1816.5	1329.0	857.4	663.9	507.1
40°	1886.3	1894.9	1899.8	1903.4	1337.6	848.8	584.3	475.2	475.2	478.9	482.6
42.5°	1827.5	1833.6	1277.5	743.5	463.0	461.8	465.4	469.1	472.8	477.7	482.6
45°	1436.8	725.1	460.5	449.5	453.2	458.1	463.0	467.9	474.0	478.9	481.4
47.5°	471.6	442.2	448.3	443.4	449.5	455.6	460.5	465.4	466.7	467.9	466.7
50°	436.1	436.1	439.7	439.7	444.6	447.1	447.1	447.1	442.2	441.0	437.3
52.5°	421.4	431.2	426.3	428.7	426.3	422.6	418.9	415.2	407.9	405.4	400.5
55°	414.0	417.7	405.4	401.8	396.9	387.1	382.2	377.3	371.1	368.7	362.6
57.5°	396.9	388.3	374.8	368.7	360.1	350.3	345.4	341.7	335.6	333.2	329.5
60°	365.0	347.9	339.3	331.9	322.1	313.6	309.9	307.4	302.5	301.3	297.6
62.5°	325.8	311.1	303.8	294.0	286.6	281.7	278.0	276.8	271.9	271.9	269.5
65°	282.9	275.6	269.5	259.7	256.0	251.1	249.9	248.6	246.2	245.0	242.5
67.5°	248.6	243.7	235.2	230.3	227.8	224.1	221.7	219.3	214.4	211.9	208.2
70°	218.0	214.4	205.8	202.1	197.2	191.1	187.4	185.0	181.3	178.8	175.2
72.5°	188.6	177.6	171.5	167.8	164.1	158.0	156.8	154.3	150.7	149.4	145.8
75°	151.9	143.3	139.6	137.2	133.5	129.8	129.8	129.8	126.2	124.9	123.7
77.5°	121.3	116.4	113.9	111.5	110.2	107.8	104.1	102.9	99.2	99.2	98.0
80°	93.1	90.6	88.2	87.0	85.7	83.3	80.8	79.6	75.9	75.9	74.7
82.5°	68.6	67.4	66.1	64.9	63.7	62.5	58.8	57.6	55.1	55.1	53.9
85°	49.0	47.8	45.3	44.1	44.1	42.9	39.2	38.0	35.5	35.5	35.5
87.5°	30.6	29.4	28.2	26.9	25.7	24.5	22.0	20.8	20.8	18.4	17.1
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: P1213162

CATALOG NUMBER: 4SNLED-LD5-67HL-RW-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	247.5°	250°	252.5°	255°	257.5°	260°	262.5°	265°	267.5°	270°	272.5°
0°	2672.7	2672.7	2672.7	2672.7	2672.7	2672.7	2672.7	2672.7	2672.7	2672.7	2672.7
2.5°	2742.5	2763.3	2760.8	2775.5	2779.2	2786.6	2789.0	2790.2	2771.9	2786.6	2787.8
5°	2904.2	2907.8	2910.3	2916.4	2922.5	2923.7	2917.6	2910.3	2912.7	2907.8	2895.6
7.5°	2774.3	2755.9	2752.3	2747.4	2744.9	2742.5	2731.4	2741.2	2730.2	2725.3	2708.2
10°	2615.1	2597.9	2596.7	2596.7	2600.4	2599.2	2596.7	2591.8	2601.6	2595.5	2591.8
12.5°	2531.8	2525.7	2529.3	2526.9	2536.7	2539.1	2536.7	2536.7	2534.2	2529.3	2531.8
15°	2481.6	2476.7	2480.3	2476.7	2484.0	2485.2	2479.1	2482.8	2476.7	2470.5	2468.1
17.5°	2415.4	2404.4	2395.8	2383.6	2384.8	2382.4	2375.0	2375.0	2368.9	2353.0	2354.2
20°	2288.0	2277.0	2272.1	2272.1	2278.2	2280.7	2279.5	2281.9	2275.8	2273.3	2263.5
22.5°	2208.4	2207.2	2209.7	2215.8	2225.6	2239.0	2240.3	2240.3	2240.3	2239.0	2226.8
25°	2180.3	2180.3	2182.7	2191.3	2198.6	2208.4	2210.9	2213.3	2210.9	2210.9	2199.9
27.5°	2148.4	2146.0	2150.9	2159.4	2168.0	2175.4	2181.5	2182.7	2179.0	2179.0	2182.7
30°	2109.2	2108.0	2114.1	2122.7	2130.0	2137.4	2143.5	2148.4	2143.5	2143.5	2139.8
32.5°	2068.8	2068.8	2071.2	2019.8	1872.8	1686.6	1690.3	1582.5	1507.8	1413.5	1538.4
35°	1291.0	939.5	807.2	683.5	596.5	540.2	538.9	520.6	512.0	505.9	504.6
37.5°	487.5	489.9	494.8	497.3	501.0	503.4	504.6	504.6	504.6	504.6	503.4
40°	486.3	491.2	494.8	498.5	502.2	504.6	504.6	505.9	507.1	507.1	507.1
42.5°	487.5	492.4	497.3	501.0	503.4	504.6	505.9	507.1	507.1	507.1	507.1
45°	486.3	488.7	488.7	489.9	489.9	489.9	491.2	491.2	489.9	488.7	491.2
47.5°	467.9	467.9	464.2	463.0	461.8	459.3	460.5	459.3	458.1	456.9	459.3
50°	436.1	431.2	428.7	426.3	425.0	422.6	423.8	422.6	421.4	418.9	422.6
52.5°	398.1	396.9	392.0	389.5	388.3	389.5	387.1	385.8	384.6	383.4	384.6
55°	361.3	356.4	355.2	352.8	351.5	352.8	351.5	350.3	349.1	347.9	349.1
57.5°	328.3	324.6	323.4	320.9	320.9	320.9	320.9	319.7	318.5	317.2	318.5
60°	296.4	294.0	292.7	292.7	291.5	291.5	291.5	290.3	289.1	289.1	290.3
62.5°	269.5	269.5	265.8	264.6	264.6	265.8	264.6	263.3	262.1	260.9	263.3
65°	241.3	236.4	235.2	232.7	230.3	231.5	230.3	229.0	227.8	226.6	229.0
67.5°	207.0	205.8	200.9	198.4	197.2	198.4	197.2	196.0	194.8	193.5	196.0
70°	173.9	173.9	169.0	167.8	166.6	166.6	165.4	165.4	164.1	162.9	165.4
72.5°	144.5	144.5	143.3	140.9	139.6	138.4	137.2	136.0	136.0	137.2	137.2
75°	120.0	117.6	112.7	113.9	112.7	111.5	111.5	110.2	109.0	111.5	110.2
77.5°	94.3	93.1	89.4	90.6	89.4	88.2	88.2	87.0	85.7	87.0	87.0
80°	71.0	71.0	69.8	68.6	68.6	67.4	66.1	66.1	64.9	66.1	66.1
82.5°	51.4	51.4	50.2	49.0	47.8	47.8	46.5	46.5	46.5	46.5	46.5
85°	33.1	31.8	31.8	29.4	29.4	29.4	28.2	28.2	28.2	28.2	28.2
87.5°	15.9	15.9	14.7	14.7	13.5	12.2	12.2	11.0	11.0	12.2	12.2
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: P1213162

CATALOG NUMBER: 4SNLED-LD5-67HL-RW-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	275°	277.5°	280°	282.5°	285°	287.5°	290°	292.5°	295°	297.5°	300°
0°	2672.7	2672.7	2672.7	2672.7	2672.7	2672.7	2672.7	2672.7	2672.7	2672.7	2672.7
2.5°	2765.7	2781.7	2768.2	2774.3	2775.5	2796.4	2795.1	2800.0	2791.5	2781.7	2768.2
5°	2906.6	2899.3	2889.5	2912.7	2900.5	2915.2	2920.1	2929.9	2929.9	2928.6	2917.6
7.5°	2726.5	2710.6	2722.9	2731.4	2735.1	2725.3	2744.9	2767.0	2785.3	2796.4	2797.6
10°	2585.7	2590.6	2589.4	2593.0	2601.6	2600.4	2612.6	2624.9	2629.8	2637.1	2639.6
12.5°	2519.5	2518.3	2520.8	2529.3	2534.2	2533.0	2545.3	2552.6	2555.1	2556.3	2555.1
15°	2466.9	2458.3	2464.4	2465.6	2469.3	2469.3	2484.0	2495.0	2499.9	2502.4	2499.9
17.5°	2367.7	2346.8	2366.4	2366.4	2379.9	2377.5	2400.7	2419.1	2428.9	2436.3	2436.3
20°	2269.7	2259.9	2267.2	2264.8	2274.6	2273.3	2288.0	2300.3	2308.9	2315.0	2322.3
22.5°	2230.5	2232.9	2221.9	2223.1	2223.1	2221.9	2229.3	2235.4	2237.8	2241.5	2239.0
25°	2204.8	2207.2	2203.5	2197.4	2195.0	2197.4	2201.1	2208.4	2209.7	2207.2	2198.6
27.5°	2179.0	2171.7	2177.8	2166.8	2164.3	2169.2	2174.1	2175.4	2176.6	2176.6	2169.2
30°	2139.8	2133.7	2139.8	2134.9	2130.0	2134.9	2138.6	2138.6	2141.1	2142.3	2133.7
32.5°	1495.6	1507.8	1706.2	1826.3	1995.3	2081.0	2097.0	2097.0	2099.4	2099.4	2092.1
35°	509.5	510.8	552.4	599.0	698.2	820.7	981.1	1064.4	1346.1	1683.0	2008.8
37.5°	503.4	502.2	501.0	499.7	498.5	497.3	494.8	493.6	501.0	594.1	806.0
40°	505.9	504.6	502.2	501.0	499.7	497.3	496.1	493.6	491.2	488.7	486.3
42.5°	505.9	504.6	503.4	502.2	501.0	499.7	497.3	494.8	492.4	488.7	485.0
45°	488.7	488.7	489.9	489.9	491.2	491.2	491.2	489.9	489.9	488.7	483.8
47.5°	456.9	456.9	460.5	460.5	463.0	465.4	465.4	467.9	471.6	474.0	475.2
50°	420.1	420.1	423.8	425.0	427.5	431.2	434.8	436.1	439.7	444.6	449.5
52.5°	383.4	383.4	387.1	387.1	389.5	393.2	396.9	398.1	403.0	407.9	414.0
55°	349.1	349.1	351.5	352.8	354.0	356.4	360.1	360.1	365.0	368.7	374.8
57.5°	318.5	320.9	320.9	320.9	322.1	324.6	327.0	327.0	330.7	334.4	339.3
60°	289.1	291.5	291.5	291.5	292.7	294.0	296.4	296.4	298.9	301.3	306.2
62.5°	262.1	264.6	264.6	265.8	265.8	267.0	269.5	268.2	270.7	271.9	275.6
65°	227.8	230.3	231.5	232.7	233.9	236.4	240.1	238.8	242.5	245.0	248.6
67.5°	194.8	197.2	197.2	198.4	199.7	202.1	204.6	204.6	208.2	210.7	215.6
70°	164.1	166.6	166.6	167.8	169.0	171.5	173.9	172.7	176.4	178.8	182.5
72.5°	136.0	138.4	138.4	139.6	139.6	142.1	144.5	147.0	147.0	149.4	151.9
75°	110.2	111.5	112.7	112.7	113.9	115.1	117.6	120.0	121.3	122.5	124.9
77.5°	87.0	88.2	89.4	89.4	90.6	91.9	93.1	98.0	100.4	101.7	101.7
80°	66.1	67.4	67.4	67.4	68.6	69.8	72.3	72.3	77.2	77.2	78.4
82.5°	46.5	47.8	47.8	47.8	49.0	51.4	52.7	53.9	56.3	57.6	57.6
85°	28.2	29.4	29.4	29.4	30.6	31.8	34.3	35.5	36.7	36.7	38.0
87.5°	11.0	12.2	13.5	13.5	14.7	15.9	17.1	18.4	19.6	19.6	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

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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°	2672.7	2672.7	2672.7	2672.7	2672.7	2672.7	2672.7	2672.7	2672.7	2672.7	2672.7
2.5°	2753.5	2762.1	2753.5	2758.4	2764.5	2753.5	2727.8	2718.0	2714.3	2699.6	2689.8
5°	2906.6	2906.6	2902.9	2912.7	2911.5	2894.4	2867.4	2855.2	2842.9	2827.0	2814.7
7.5°	2797.6	2807.4	2813.5	2851.5	2876.0	2878.4	2895.6	2899.3	2904.2	2899.3	2891.9
10°	2640.8	2637.1	2654.3	2689.8	2710.6	2721.6	2754.7	2770.6	2784.1	2811.1	2839.2
12.5°	2552.6	2557.5	2564.9	2590.6	2610.2	2605.3	2618.8	2629.8	2645.7	2672.7	2713.1
15°	2493.8	2498.7	2506.1	2525.7	2537.9	2531.8	2539.1	2546.5	2557.5	2571.0	2595.5
17.5°	2430.1	2438.7	2447.3	2468.1	2479.1	2477.9	2484.0	2486.5	2490.1	2498.7	2515.9
20°	2330.9	2357.9	2375.0	2403.2	2419.1	2416.7	2427.7	2431.4	2436.3	2444.8	2452.2
22.5°	2240.3	2247.6	2256.2	2286.8	2313.8	2346.8	2354.2	2364.0	2376.2	2384.8	2392.2
25°	2188.8	2183.9	2187.6	2208.4	2223.1	2225.6	2236.6	2268.4	2301.5	2316.2	2333.4
27.5°	2158.2	2153.3	2152.1	2161.9	2164.3	2158.2	2155.8	2165.6	2190.1	2214.6	2266.0
30°	2125.1	2119.0	2114.1	2122.7	2126.4	2117.8	2101.9	2093.3	2108.0	2114.1	2134.9
32.5°	2085.9	2079.8	2077.4	2082.3	2084.7	2077.4	2060.2	2050.4	2048.0	2043.1	2048.0
35°	2041.8	2035.7	2032.0	2033.3	2038.2	2032.0	2017.3	2005.1	1999.0	1985.5	1975.7
37.5°	1052.2	1490.7	1935.3	1981.8	1986.7	1985.5	1970.8	1957.3	1951.2	1935.3	1930.4
40°	481.4	537.7	807.2	1054.6	1521.3	1932.8	1919.4	1905.9	1894.9	1890.0	1871.6
42.5°	480.1	481.4	482.6	476.5	590.4	1005.6	1484.5	1853.2	1845.9	1833.6	1820.1
45°	480.1	474.0	478.9	471.6	474.0	472.8	589.2	950.5	1691.5	1767.5	1761.4
47.5°	475.2	471.6	476.5	470.3	463.0	466.7	461.8	467.9	730.0	1238.3	1696.4
50°	453.2	455.6	464.2	463.0	456.9	461.8	453.2	460.5	454.4	498.5	960.3
52.5°	420.1	425.0	433.6	441.0	443.4	449.5	447.1	449.5	444.6	445.9	447.1
55°	380.9	387.1	394.4	405.4	410.3	420.1	427.5	431.2	437.3	436.1	426.3
57.5°	344.2	350.3	356.4	367.5	378.5	383.4	396.9	404.2	420.1	416.5	414.0
60°	309.9	314.8	320.9	323.4	336.8	345.4	357.7	365.0	385.8	390.7	398.1
62.5°	279.3	281.7	286.6	290.3	298.9	307.4	313.6	325.8	336.8	352.8	363.8
65°	251.1	253.5	257.2	259.7	260.9	273.1	276.8	290.3	294.0	311.1	320.9
67.5°	219.3	224.1	229.0	231.5	233.9	241.3	243.7	249.9	258.4	265.8	278.0
70°	186.2	189.9	194.8	198.4	203.3	208.2	215.6	219.3	225.4	230.3	240.1
72.5°	155.6	159.2	161.7	165.4	169.0	172.7	178.8	187.4	192.3	200.9	203.3
75°	126.2	129.8	132.3	134.7	138.4	140.9	143.3	151.9	156.8	164.1	171.5
77.5°	104.1	104.1	106.6	113.9	112.7	112.7	115.1	120.0	123.7	128.6	136.0
80°	80.8	82.1	83.3	89.4	90.6	91.9	90.6	94.3	98.0	99.2	104.1
82.5°	60.0	61.2	61.2	64.9	68.6	68.6	68.6	69.8	73.5	74.7	77.2
85°	40.4	41.6	42.9	44.1	46.5	47.8	49.0	49.0	51.4	52.7	53.9
87.5°	22.0	24.5	25.7	26.9	28.2	29.4	30.6	31.8	33.1	34.3	35.5
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°	2672.7	2672.7	2672.7	2672.7	2672.7	2672.7	2672.7	2672.7	2672.7	2672.7	2672.7
2.5°	2686.1	2680.0	2676.3	2666.5	2664.1	2648.2	2650.6	2648.2	2648.2	2651.8	2664.1
5°	2801.3	2771.9	2764.5	2743.7	2726.5	2697.1	2678.8	2669.0	2654.3	2648.2	2656.7
7.5°	2879.7	2857.6	2839.2	2820.9	2796.4	2762.1	2736.3	2706.9	2682.4	2659.2	2653.1
10°	2866.2	2890.7	2890.7	2879.7	2856.4	2822.1	2791.5	2754.7	2711.8	2675.1	2653.1
12.5°	2752.3	2795.1	2829.4	2855.2	2878.4	2855.2	2824.5	2795.1	2747.4	2693.5	2653.1
15°	2627.3	2671.4	2714.3	2768.2	2824.5	2847.8	2846.6	2812.3	2769.4	2713.1	2656.7
17.5°	2539.1	2569.8	2593.0	2651.8	2720.4	2780.4	2820.9	2823.3	2781.7	2731.4	2658.0
20°	2473.0	2495.0	2514.6	2547.7	2607.7	2681.2	2755.9	2797.6	2790.2	2735.1	2661.6
22.5°	2413.0	2428.9	2444.8	2469.3	2517.1	2564.9	2651.8	2737.6	2774.3	2729.0	2658.0
25°	2353.0	2370.1	2382.4	2399.5	2437.5	2476.7	2537.9	2644.5	2726.5	2724.1	2650.6
27.5°	2281.9	2305.2	2319.9	2343.2	2368.9	2398.3	2439.9	2540.4	2658.0	2699.6	2631.0
30°	2196.2	2230.5	2252.5	2278.2	2300.3	2326.0	2359.1	2420.3	2566.1	2651.8	2610.2
32.5°	2072.5	2133.7	2182.7	2207.2	2231.7	2253.7	2283.1	2334.6	2453.4	2586.9	2586.9
35°	1984.3	2012.4	2056.5	2127.6	2158.2	2180.3	2207.2	2247.6	2323.6	2509.7	2548.9
37.5°	1915.7	1926.7	1948.8	2018.6	2076.1	2111.7	2138.6	2164.3	2239.0	2404.4	2499.9
40°	1864.2	1860.6	1858.1	1891.2	1973.3	2029.6	2060.2	2085.9	2143.5	2278.2	2435.0
42.5°	1804.2	1800.5	1788.3	1796.9	1837.3	1931.6	1978.2	2006.3	2054.1	2146.0	2364.0
45°	1741.8	1735.6	1730.7	1722.2	1736.9	1789.5	1885.1	1926.7	1953.7	2035.7	2274.6
47.5°	1678.1	1669.5	1663.4	1656.0	1647.4	1671.9	1762.6	1837.3	1883.8	1935.3	2166.8
50°	1587.4	1598.4	1591.1	1582.5	1575.2	1570.3	1608.2	1730.7	1788.3	1829.9	2035.7
52.5°	748.4	1455.1	1516.4	1507.8	1498.0	1489.4	1498.0	1591.1	1695.2	1728.3	1877.7
55°	426.3	648.0	1348.6	1425.7	1417.2	1404.9	1397.6	1429.4	1585.0	1629.1	1733.2
57.5°	410.3	411.6	595.3	1284.9	1332.7	1321.6	1313.1	1320.4	1452.7	1527.4	1607.0
60°	396.9	396.9	396.9	568.3	1228.5	1232.2	1221.2	1208.9	1266.5	1413.5	1479.6
62.5°	367.5	374.8	378.5	378.5	561.0	1137.9	1126.9	1123.2	1125.6	1276.3	1352.2
65°	329.5	346.6	354.0	358.9	358.9	589.2	1030.1	1024.0	1015.4	1073.0	1223.6
67.5°	287.8	305.0	320.9	330.7	331.9	343.0	614.9	922.3	910.1	911.3	1086.5
70°	245.0	259.7	276.8	291.5	305.0	311.1	320.9	765.5	806.0	788.8	930.9
72.5°	211.9	218.0	230.3	245.0	260.9	275.6	284.2	305.0	699.4	681.0	708.0
75°	176.4	181.3	189.9	199.7	211.9	229.0	243.7	258.4	371.1	570.8	567.1
77.5°	137.2	145.8	155.6	161.7	167.8	180.1	199.7	214.4	229.0	385.8	454.4
80°	105.3	111.5	116.4	122.5	129.8	138.4	145.8	162.9	180.1	193.5	347.9
82.5°	78.4	82.1	85.7	88.2	90.6	95.5	109.0	115.1	126.2	138.4	164.1
85°	55.1	57.6	60.0	61.2	62.5	63.7	68.6	69.8	80.8	83.3	99.2
87.5°	35.5	36.7	39.2	40.4	40.4	41.6	42.9	42.9	42.9	40.4	49.0
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°	2672.7	2672.7
2.5°	2673.9	2693.5
5°	2670.2	2695.9
7.5°	2660.4	2684.9
10°	2645.7	2675.1
12.5°	2629.8	2658.0
15°	2616.3	2637.1
17.5°	2601.6	2613.9
20°	2582.0	2591.8
22.5°	2562.4	2557.5
25°	2540.4	2529.3
27.5°	2512.2	2491.4
30°	2486.5	2449.7
32.5°	2462.0	2402.0
35°	2428.9	2353.0
37.5°	2394.6	2302.7
40°	2354.2	2245.2
42.5°	2311.3	2187.6
45°	2257.4	2132.5
47.5°	2209.7	2066.3
50°	2143.5	1995.3
52.5°	2062.7	1929.2
55°	1967.1	1848.3
57.5°	1864.2	1763.8
60°	1754.0	1667.0
62.5°	1620.5	1566.6
65°	1463.7	1451.5
67.5°	1259.2	1324.1
70°	1032.6	1178.3
72.5°	863.5	1024.0
75°	708.0	851.3
77.5°	561.0	667.6
80°	350.3	488.7
82.5°	235.2	320.9
85°	142.1	153.1
87.5°	55.1	56.3
90°	0.0	0.0

(END OF REPORT)