

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: P1213154

Luminaire Tested: 4SNLED-LD5-64SL-RW-UNV-L930-CD1-U

Issue Date: 3/29/2018

Test Information

Test Method: LM-79-2019
Report Number: P1213154
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-LD5-64SL-RW-UNV-L930-CD1-U
Description: 4FT LINEAR SNLED LED FIXTURE
WHITE REFLECTOR
Light Source: -
Ballast/Driver: -

Summary

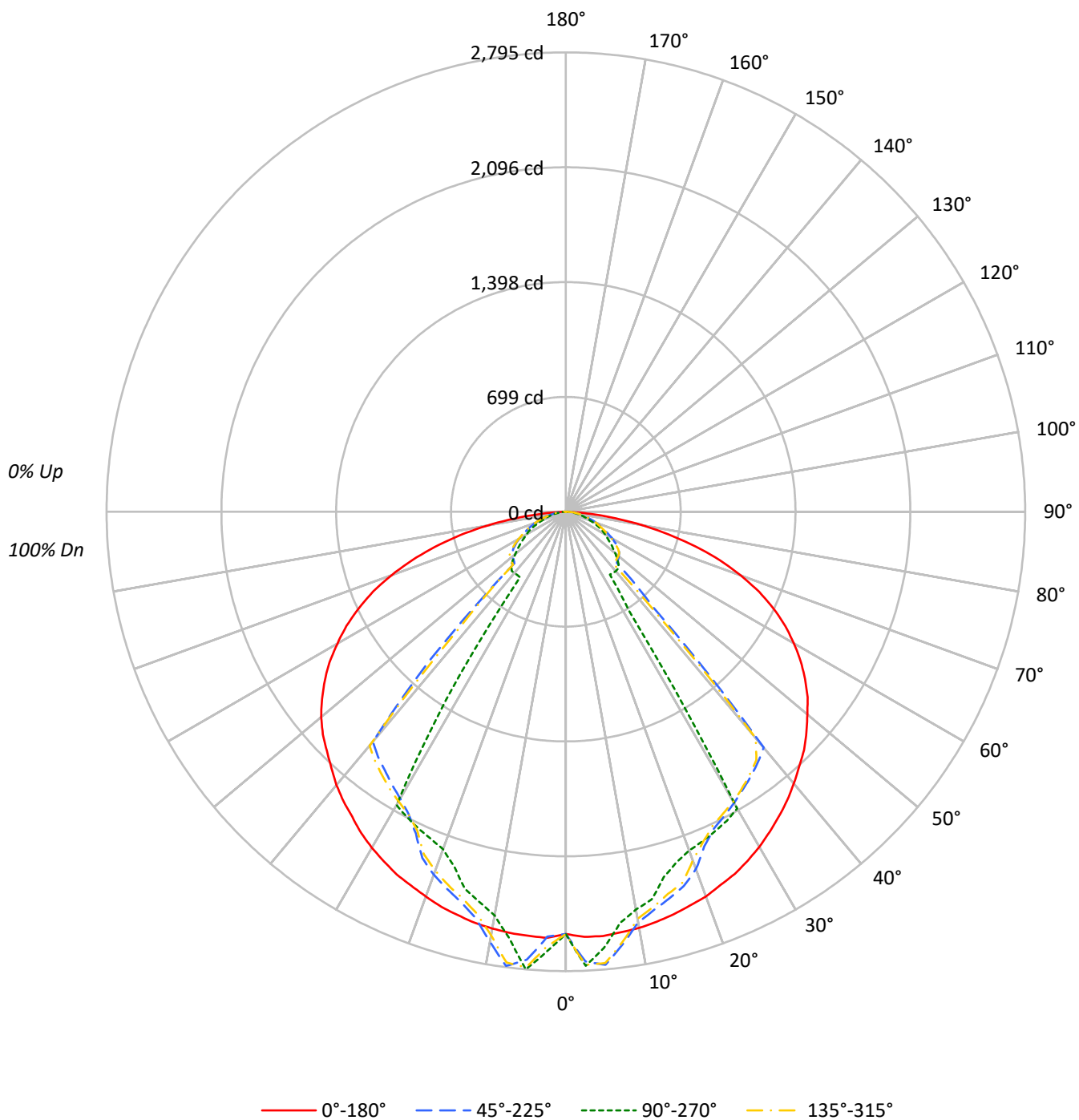
Lumens per Lamp: N/A
Luminaire Lumens: 5144.0 lumens
Efficiency: N/A
Efficacy: 93.5 lumens/watt
Spacing Criteria (0/90/45): 1.36 / 1.16 / 1.2
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.12')
CIE Type: Direct

Input Watts (W): 55
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°	20759	20759	20759	20759
5°	20961	20915	20952	21950
10°	20982	18909	21011	19199
15°	21029	17495	21078	18050
20°	21182	16594	21182	16532
25°	21364	16277	21396	16125
30°	21581	15989	21635	15800
35°	21832	3642	21878	3798
40°	22182	3787	22316	3910
45°	22714	3766	22792	3903
50°	23245	3405	23558	3497
55°	23959	3023	24150	3066
60°	24567	2687	24620	2721
65°	25001	2344	24936	2307
70°	24642	1890	24566	1821
75°	22878	1454	23043	1393
80°	18568	1034	19315	946
85°	10056	619	10616	475

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 357.5°

Vertical Angle: 60°

Luminance: 25171 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	252.7	4.9
10°-20°	694.9	13.5
20°-30°	1029.3	20.0
30°-40°	1037.1	20.2
40°-50°	810.1	15.7
50°-60°	625.8	12.2
60°-70°	420.1	8.2
70°-80°	214.3	4.2
80°-90°	59.6	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°	1976.9	38.4
0°-40°	3014.0	58.6
0°-60°	4449.9	86.5
0°-90°	5144.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5144.0	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	2569	2569	2569	2569	2569	
5°	2591	2663	2590	2795	2591	246
15°	2535	2302	2540	2374	2535	717
25°	2431	2145	2435	2125	2431	1121
35°	2262	466	2266	486	2262	1417
45°	2050	453	2057	470	2050	1580
55°	1776	330	1791	334	1776	1587
65°	1395	221	1392	218	1395	1372
75°	818	112	824	107	818	856
85°	147	35	155	27	147	202
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°	2568.8	2568.8	2568.8	2568.8	2568.8	2568.8	2568.8	2568.8	2568.8	2568.8	2568.8
2.5°	2588.8	2598.2	2605.3	2610.0	2612.3	2612.3	2613.5	2614.7	2630.0	2637.1	2641.8
5°	2591.1	2600.6	2614.7	2633.5	2650.0	2664.1	2675.9	2692.4	2708.9	2726.5	2732.4
7.5°	2580.6	2592.3	2620.6	2654.7	2686.5	2708.9	2724.2	2734.8	2743.0	2744.2	2750.1
10°	2571.1	2592.3	2631.2	2675.9	2715.9	2743.0	2743.0	2737.1	2745.4	2713.6	2681.8
12.5°	2554.7	2578.2	2631.2	2690.0	2727.7	2738.3	2733.6	2710.1	2661.8	2622.9	2605.3
15°	2534.6	2566.4	2632.4	2698.3	2730.1	2733.6	2688.9	2628.8	2592.3	2568.8	2539.3
17.5°	2512.3	2554.7	2633.5	2699.5	2711.2	2694.7	2610.0	2572.3	2534.6	2479.3	2439.3
20°	2491.1	2532.3	2624.1	2683.0	2690.0	2615.9	2549.9	2509.9	2446.3	2398.1	2380.4
22.5°	2458.1	2506.4	2615.9	2660.6	2633.5	2547.6	2484.0	2420.4	2362.8	2348.6	2327.4
25°	2431.0	2481.7	2597.0	2633.5	2561.7	2485.2	2411.0	2336.9	2309.8	2289.8	2270.9
27.5°	2394.5	2456.9	2572.3	2584.1	2485.2	2418.1	2309.8	2276.8	2252.1	2229.7	2221.5
30°	2354.5	2431.0	2538.2	2515.8	2421.6	2322.7	2242.7	2212.1	2194.4	2170.9	2161.4
32.5°	2308.6	2392.2	2500.5	2436.9	2353.3	2229.7	2177.9	2154.4	2130.8	2113.2	2054.3
35°	2261.5	2358.1	2455.8	2361.6	2270.9	2159.1	2113.2	2092.0	2069.6	2004.9	1943.7
37.5°	2213.2	2320.4	2401.6	2280.4	2161.4	2086.1	2047.3	2023.7	1973.1	1890.7	1860.1
40°	2157.9	2274.5	2332.2	2196.8	2066.1	2011.9	1975.4	1951.9	1837.7	1801.2	1791.8
42.5°	2102.6	2229.7	2247.4	2115.5	1987.2	1933.1	1902.5	1824.8	1747.1	1728.2	1731.7
45°	2049.6	2181.5	2154.4	2000.2	1904.8	1860.1	1808.3	1701.1	1659.9	1669.4	1671.7
47.5°	1986.0	2123.8	2056.7	1884.8	1820.0	1775.3	1659.9	1595.2	1589.3	1602.3	1609.3
50°	1917.8	2059.0	1953.1	1780.0	1728.2	1675.2	1544.6	1511.6	1518.7	1531.6	1539.9
52.5°	1854.2	1986.0	1845.9	1682.3	1637.6	1516.3	1428.0	1433.9	1445.7	1461.0	1465.7
55°	1776.5	1897.7	1731.7	1583.4	1541.0	1382.1	1342.1	1356.2	1368.0	1380.9	1390.3
57.5°	1695.3	1796.5	1596.4	1472.8	1404.5	1263.2	1266.7	1276.1	1284.4	1299.7	536.8
60°	1602.3	1681.1	1448.0	1370.3	1234.9	1169.0	1172.6	1189.0	1197.3	668.7	369.7
62.5°	1505.7	1546.9	1313.8	1253.8	1079.5	1074.8	1091.3	1098.4	747.6	353.2	346.1
65°	1395.1	1386.8	1182.0	1086.6	973.6	978.3	996.0	960.6	330.8	330.8	328.5
67.5°	1272.6	1223.2	1053.6	899.4	871.2	881.8	900.6	314.3	306.1	308.4	300.2
70°	1132.5	1063.1	920.6	761.7	771.1	781.7	303.7	284.9	281.4	275.5	259.0
72.5°	984.2	888.8	753.4	661.6	667.5	419.1	266.1	256.6	244.9	233.1	215.4
75°	818.2	694.6	553.3	553.3	561.6	239.0	231.9	216.6	203.7	188.4	177.8
77.5°	641.6	534.5	429.7	446.2	217.8	200.1	187.2	170.7	160.1	150.7	144.8
80°	469.7	373.2	323.7	289.6	169.5	151.9	138.9	129.5	124.8	118.9	111.8
82.5°	308.4	224.9	224.9	136.6	118.9	104.8	101.2	94.2	89.5	85.9	82.4
85°	147.2	130.7	98.9	83.6	74.2	67.1	64.7	61.2	61.2	60.0	58.9
87.5°	54.2	58.9	43.6	42.4	40.0	38.8	40.0	40.0	41.2	40.0	38.8
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):

	27.5°	30°	32.5°	35°	37.5°	40°	42.5°	45°	47.5°	50°	52.5°
0°	2568.8	2568.8	2568.8	2568.8	2568.8	2568.8	2568.8	2568.8	2568.8	2568.8	2568.8
2.5°	2653.5	2663.0	2670.0	2681.8	2697.1	2710.1	2721.8	2738.3	2764.2	2771.3	2777.2
5°	2732.4	2736.0	2744.2	2753.6	2756.0	2761.9	2760.7	2767.7	2771.3	2779.5	2761.9
7.5°	2737.1	2718.3	2695.9	2675.9	2661.8	2648.8	2640.6	2653.5	2660.6	2666.5	2648.8
10°	2638.2	2615.9	2602.9	2591.1	2577.0	2557.0	2529.9	2535.8	2533.5	2533.5	2527.6
12.5°	2575.8	2544.1	2511.1	2481.7	2468.7	2467.5	2468.7	2481.7	2481.7	2480.5	2473.4
15°	2478.1	2447.5	2431.0	2424.0	2424.0	2420.4	2420.4	2434.6	2431.0	2431.0	2427.5
17.5°	2413.4	2392.2	2380.4	2372.2	2368.6	2374.5	2381.6	2387.5	2388.7	2384.0	2365.1
20°	2360.4	2340.4	2326.3	2328.6	2327.4	2331.0	2334.5	2314.5	2289.8	2256.8	2241.5
22.5°	2305.1	2289.8	2279.2	2279.2	2265.0	2242.7	2209.7	2202.7	2199.1	2183.8	2170.9
25°	2252.1	2234.4	2219.1	2172.0	2142.6	2146.1	2140.3	2128.5	2127.3	2126.1	2130.8
27.5°	2199.1	2153.2	2094.3	2087.3	2075.5	2074.3	2081.4	2087.3	2087.3	2092.0	2097.9
30°	2089.6	2036.7	2026.1	2013.1	2017.8	2034.3	2037.8	2046.1	2048.4	2056.7	2061.4
32.5°	1989.6	1966.0	1956.6	1962.5	1977.8	1991.9	2000.2	2003.7	2009.6	2016.6	2022.5
35°	1908.3	1901.3	1909.5	1922.5	1937.8	1949.5	1956.6	1963.7	1969.6	1975.4	1980.2
37.5°	1848.3	1853.0	1864.8	1881.3	1896.6	1906.0	1911.9	1920.1	1928.4	1935.4	1907.2
40°	1791.8	1803.6	1816.5	1834.2	1847.1	1856.5	1862.4	1873.0	1802.4	815.8	447.4
42.5°	1742.3	1755.3	1764.7	1778.8	1793.0	1800.0	1748.2	780.5	441.5	439.1	445.0
45°	1682.3	1692.9	1708.2	1718.8	1731.7	1137.2	434.4	439.1	432.1	436.8	439.1
47.5°	1621.1	1637.6	1645.8	1570.5	467.4	432.1	427.3	432.1	427.3	433.2	429.7
50°	1551.6	1571.6	1118.4	422.6	419.1	416.8	421.5	419.1	422.6	427.3	417.9
52.5°	1481.0	917.1	409.7	407.3	409.7	407.3	415.6	409.7	410.9	406.2	394.4
55°	501.5	396.7	393.2	392.0	399.1	399.1	399.1	389.7	383.8	372.0	363.8
57.5°	383.8	383.8	382.6	383.8	381.4	379.1	368.5	360.2	352.0	335.5	330.8
60°	363.8	363.8	363.8	363.8	353.2	348.5	332.0	324.9	310.8	302.6	297.8
62.5°	347.3	344.9	334.3	330.8	319.0	306.1	296.7	289.6	275.5	270.8	267.2
65°	323.7	315.5	302.6	288.4	282.5	268.4	263.7	253.1	246.0	242.5	240.2
67.5°	284.9	273.1	262.5	253.1	242.5	237.8	231.9	223.7	219.0	216.6	214.3
70°	243.7	235.5	224.9	219.0	211.9	208.4	200.1	197.8	194.2	190.7	187.2
72.5°	203.7	199.0	194.2	186.0	183.7	181.3	173.1	168.3	163.6	158.9	156.6
75°	170.7	167.2	164.8	157.8	154.2	147.2	141.3	137.7	134.2	130.7	128.3
77.5°	140.1	137.7	130.7	126.0	123.6	117.7	115.4	116.5	114.2	109.5	107.1
80°	109.5	107.1	101.2	101.2	98.9	96.5	94.2	91.8	89.5	85.9	83.6
82.5°	83.6	81.2	78.9	76.5	74.2	73.0	71.8	69.5	67.1	64.7	63.6
85°	58.9	57.7	56.5	55.3	54.2	53.0	51.8	49.4	47.1	45.9	44.7
87.5°	40.0	38.8	37.7	36.5	35.3	34.1	33.0	31.8	29.4	28.3	27.1
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):

	55°	57.5°	60°	62.5°	65°	67.5°	70°	72.5°	75°	77.5°	80°
0°	2568.8	2568.8	2568.8	2568.8	2568.8	2568.8	2568.8	2568.8	2568.8	2568.8	2568.8
2.5°	2777.2	2783.0	2777.2	2764.2	2756.0	2752.4	2759.5	2759.5	2764.2	2770.1	2771.3
5°	2733.6	2719.5	2703.0	2686.5	2678.3	2673.6	2660.6	2663.0	2666.5	2668.8	2671.2
7.5°	2625.3	2606.5	2584.1	2562.9	2554.7	2547.6	2532.3	2532.3	2532.3	2533.5	2540.5
10°	2514.6	2506.4	2497.0	2482.8	2472.2	2468.7	2455.8	2459.3	2456.9	2460.5	2468.7
12.5°	2462.8	2453.4	2445.2	2431.0	2419.3	2414.6	2408.7	2412.2	2411.0	2416.9	2424.0
15°	2415.7	2411.0	2401.6	2391.0	2380.4	2371.0	2349.8	2342.7	2338.0	2332.2	2340.4
17.5°	2338.0	2305.1	2282.7	2266.2	2254.5	2246.2	2240.3	2240.3	2243.9	2247.4	2254.5
20°	2232.1	2222.7	2212.1	2194.4	2182.6	2177.9	2174.4	2174.4	2180.3	2185.0	2197.9
22.5°	2159.1	2157.9	2154.4	2146.1	2140.3	2140.3	2141.4	2143.8	2152.0	2159.1	2172.0
25°	2125.0	2129.7	2127.3	2122.6	2119.1	2120.2	2117.9	2120.2	2128.5	2135.5	2146.1
27.5°	2097.9	2104.9	2102.6	2095.5	2089.6	2092.0	2095.5	2093.2	2100.2	2108.5	2116.7
30°	2061.4	2062.6	2067.3	2059.0	2056.7	2060.2	2061.4	2063.7	2070.8	2076.7	2083.8
32.5°	2020.2	2029.6	2028.4	2020.2	2020.2	2023.7	2024.9	1946.0	1798.9	1549.3	1481.0
35°	1980.2	1990.7	1973.1	1663.5	1151.4	614.5	474.4	458.0	461.5	463.8	466.2
37.5°	1464.5	694.6	442.6	446.2	449.7	453.2	456.8	460.3	463.8	467.4	468.5
40°	440.3	439.1	442.6	447.4	450.9	453.2	458.0	461.5	465.0	468.5	469.7
42.5°	435.6	437.9	441.5	446.2	450.9	455.6	459.1	463.8	466.2	468.5	469.7
45°	433.2	437.9	442.6	446.2	449.7	452.1	454.4	455.6	454.4	454.4	456.8
47.5°	429.7	434.4	435.6	434.4	435.6	434.4	434.4	434.4	430.9	429.7	429.7
50°	416.8	416.8	414.4	409.7	408.5	407.3	405.0	403.8	399.1	397.9	397.9
52.5°	389.7	388.5	385.0	379.1	376.7	374.4	373.2	372.0	367.3	365.0	366.1
55°	357.9	355.5	352.0	344.9	343.8	341.4	340.2	339.1	334.3	336.7	333.2
57.5°	328.5	323.7	319.0	317.9	313.2	312.0	310.8	309.6	306.1	307.3	304.9
60°	293.1	292.0	289.6	284.9	284.9	283.7	283.7	281.4	279.0	277.8	277.8
62.5°	267.2	263.7	261.4	261.4	257.8	257.8	257.8	255.5	253.1	254.3	253.1
65°	239.0	237.8	236.6	234.3	234.3	233.1	233.1	230.7	227.2	228.4	226.0
67.5°	215.4	213.1	210.7	209.6	204.8	202.5	201.3	200.1	195.4	196.6	194.2
70°	186.0	182.5	180.1	177.8	174.2	171.9	171.9	169.5	166.0	167.2	164.8
72.5°	155.4	153.0	150.7	149.5	146.0	144.8	143.6	142.4	138.9	140.1	138.9
75°	129.5	129.5	128.3	127.1	123.6	120.1	117.7	116.5	114.2	115.4	113.0
77.5°	107.1	104.8	102.4	102.4	98.9	96.5	94.2	94.2	94.2	93.0	91.8
80°	83.6	81.2	81.2	80.1	77.7	75.3	74.2	74.2	73.0	73.0	71.8
82.5°	63.6	61.2	60.0	60.0	57.7	56.5	55.3	54.2	54.2	54.2	53.0
85°	44.7	42.4	41.2	41.2	38.8	37.7	37.7	36.5	36.5	35.3	35.3
87.5°	27.1	25.9	24.7	24.7	22.4	21.2	21.2	21.2	20.0	20.0	18.8
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: P1213154

CATALOG NUMBER: 4SNLED-LD5-64SL-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°	2568.8	2568.8	2568.8	2568.8	2568.8	2568.8	2568.8	2568.8	2568.8	2568.8	2568.8
2.5°	2771.3	2771.3	2763.0	2765.4	2761.9	2766.6	2760.7	2760.7	2767.7	2767.7	2772.4
5°	2672.4	2666.5	2665.3	2663.0	2651.2	2655.9	2650.0	2644.1	2652.4	2652.4	2663.0
7.5°	2537.0	2526.4	2531.1	2524.0	2517.0	2506.4	2509.9	2505.2	2511.1	2519.3	2529.9
10°	2467.5	2458.1	2464.0	2456.9	2460.5	2445.2	2446.3	2447.5	2453.4	2455.8	2465.2
12.5°	2422.8	2420.4	2418.1	2415.7	2418.1	2409.9	2405.1	2406.3	2408.7	2409.9	2416.9
15°	2328.6	2313.3	2318.0	2301.5	2302.7	2303.9	2294.5	2303.9	2302.7	2318.0	2332.2
17.5°	2252.1	2252.1	2243.9	2236.8	2232.1	2230.9	2223.8	2228.6	2223.8	2233.3	2236.8
20°	2199.1	2197.9	2196.8	2193.2	2181.5	2182.6	2186.2	2175.6	2174.4	2173.2	2180.3
22.5°	2174.4	2175.6	2170.9	2170.9	2160.3	2162.6	2163.8	2152.0	2153.2	2149.7	2153.2
25°	2148.5	2150.9	2145.0	2145.0	2142.6	2141.4	2135.5	2137.9	2130.8	2125.0	2130.8
27.5°	2117.9	2122.6	2117.9	2120.2	2115.5	2113.2	2109.6	2107.3	2100.2	2099.1	2102.6
30°	2089.6	2092.0	2090.8	2084.9	2083.8	2076.7	2080.2	2073.2	2066.1	2067.3	2069.6
32.5°	1071.3	1023.0	788.8	712.2	705.2	731.1	866.5	1054.8	1366.8	1669.4	1887.1
35°	467.4	467.4	467.4	466.2	466.2	465.0	463.8	462.7	461.5	460.3	459.1
37.5°	469.7	469.7	469.7	469.7	468.5	467.4	467.4	465.0	463.8	462.7	461.5
40°	470.9	472.1	472.1	472.1	470.9	470.9	469.7	467.4	466.2	463.8	461.5
42.5°	469.7	470.9	470.9	469.7	469.7	468.5	468.5	467.4	466.2	465.0	463.8
45°	454.4	455.6	453.2	453.2	452.1	452.1	452.1	452.1	452.1	453.2	453.2
47.5°	427.3	427.3	426.2	425.0	425.0	423.8	425.0	423.8	426.2	427.3	429.7
50°	395.6	395.6	393.2	392.0	392.0	392.0	392.0	393.2	394.4	396.7	399.1
52.5°	362.6	362.6	361.4	360.2	359.1	359.1	362.6	361.4	362.6	363.8	367.3
55°	330.8	332.0	329.6	329.6	328.5	328.5	328.5	329.6	330.8	332.0	335.5
57.5°	303.7	303.7	301.4	301.4	301.4	300.2	303.7	301.4	302.6	303.7	306.1
60°	276.7	275.5	275.5	274.3	274.3	274.3	276.7	275.5	275.5	276.7	279.0
62.5°	251.9	251.9	250.8	250.8	249.6	249.6	251.9	250.8	250.8	251.9	253.1
65°	223.7	223.7	222.5	221.3	224.9	221.3	224.9	222.5	224.9	226.0	228.4
67.5°	191.9	191.9	191.9	190.7	190.7	193.1	194.2	191.9	193.1	195.4	196.6
70°	163.6	163.6	162.5	162.5	162.5	164.8	166.0	163.6	164.8	166.0	168.3
72.5°	138.9	136.6	136.6	135.4	137.7	137.7	138.9	137.7	138.9	138.9	141.3
75°	114.2	111.8	111.8	111.8	114.2	113.0	114.2	113.0	114.2	114.2	115.4
77.5°	91.8	90.6	89.5	89.5	91.8	91.8	91.8	90.6	91.8	93.0	94.2
80°	71.8	70.6	69.5	69.5	71.8	71.8	71.8	73.0	71.8	73.0	74.2
82.5°	53.0	51.8	50.6	53.0	53.0	53.0	53.0	54.2	53.0	54.2	55.3
85°	35.3	34.1	33.0	35.3	35.3	35.3	35.3	36.5	35.3	36.5	37.7
87.5°	18.8	17.7	17.7	18.8	18.8	18.8	20.0	20.0	20.0	21.2	21.2
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: P1213154

CATALOG NUMBER: 4SNLED-LD5-64SL-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°	2568.8	2568.8	2568.8	2568.8	2568.8	2568.8	2568.8	2568.8	2568.8	2568.8	2568.8
2.5°	2779.5	2783.0	2781.9	2774.8	2767.7	2759.5	2753.6	2754.8	2766.6	2770.1	2759.5
5°	2663.0	2685.3	2685.3	2700.6	2692.4	2685.3	2690.0	2715.9	2728.9	2748.9	2756.0
7.5°	2542.9	2553.5	2552.3	2567.6	2565.2	2565.2	2568.8	2602.9	2619.4	2635.9	2640.6
10°	2475.8	2486.4	2485.2	2486.4	2482.8	2474.6	2474.6	2489.9	2504.0	2512.3	2514.6
12.5°	2427.5	2433.4	2432.2	2432.2	2429.9	2422.8	2421.6	2434.6	2449.9	2460.5	2461.7
15°	2355.7	2372.2	2375.7	2391.0	2387.5	2378.1	2380.4	2391.0	2400.4	2409.9	2406.3
17.5°	2248.6	2256.8	2258.0	2263.9	2261.5	2261.5	2275.6	2314.5	2340.4	2362.8	2365.1
20°	2187.3	2193.2	2190.9	2203.8	2197.9	2196.8	2200.3	2216.8	2228.6	2239.1	2258.0
22.5°	2157.9	2162.6	2159.1	2160.3	2149.7	2140.3	2137.9	2150.9	2163.8	2177.9	2177.9
25°	2133.2	2136.7	2135.5	2133.2	2125.0	2112.0	2109.6	2112.0	2116.7	2117.9	2109.6
27.5°	2103.8	2106.1	2106.1	2107.3	2096.7	2084.9	2082.6	2080.2	2084.9	2083.8	2070.8
30°	2073.2	2069.6	2070.8	2072.0	2062.6	2052.0	2047.3	2046.1	2050.8	2049.6	2036.7
32.5°	2000.2	2027.2	2029.6	2032.0	2023.7	2014.3	2009.6	2006.1	2008.4	2007.2	1995.5
35°	458.0	466.2	571.0	1292.6	1755.3	1943.7	1963.7	1959.0	1960.1	1960.1	1950.7
37.5°	459.1	458.0	456.8	453.2	449.7	447.4	773.5	1649.3	1910.7	1911.9	1903.6
40°	459.1	458.0	456.8	454.4	449.7	446.2	440.3	435.6	446.2	981.8	1796.5
42.5°	461.5	459.1	456.8	454.4	449.7	445.0	440.3	434.4	437.9	435.6	429.7
45°	454.4	453.2	453.2	452.1	449.7	445.0	439.1	432.1	428.5	432.1	426.2
47.5°	432.1	433.2	436.8	437.9	437.9	439.1	435.6	430.9	425.0	428.5	421.5
50°	401.4	403.8	405.0	410.9	413.2	417.9	419.1	419.1	417.9	422.6	417.9
52.5°	368.5	370.8	376.7	379.1	381.4	388.5	390.9	394.4	396.7	403.8	408.5
55°	336.7	337.9	340.2	344.9	348.5	354.4	357.9	361.4	367.3	370.8	385.0
57.5°	307.3	308.4	313.2	314.3	316.7	321.4	324.9	329.6	334.3	336.7	353.2
60°	279.0	280.2	283.7	284.9	286.1	290.8	294.3	297.8	301.4	303.7	315.5
62.5°	254.3	254.3	257.8	257.8	259.0	262.5	264.9	267.2	270.8	271.9	277.8
65°	229.6	230.7	233.1	233.1	234.3	236.6	237.8	239.0	242.5	242.5	247.2
67.5°	199.0	200.1	203.7	206.0	207.2	211.9	213.1	214.3	216.6	217.8	220.1
70°	169.5	170.7	174.2	175.4	176.6	180.1	182.5	186.0	189.5	193.1	195.4
72.5°	142.4	143.6	147.2	147.2	150.7	151.9	154.2	155.4	158.9	161.3	164.8
75°	116.5	117.7	121.3	121.3	124.8	126.0	127.1	128.3	130.7	133.0	135.4
77.5°	95.4	95.4	100.1	102.4	104.8	104.8	106.0	106.0	106.0	107.1	109.5
80°	75.3	75.3	78.9	81.2	83.6	83.6	84.8	85.9	87.1	87.1	88.3
82.5°	56.5	56.5	60.0	61.2	63.6	63.6	63.6	64.7	65.9	64.7	67.1
85°	38.8	38.8	41.2	42.4	44.7	44.7	44.7	45.9	47.1	45.9	47.1
87.5°	22.4	23.5	24.7	25.9	27.1	28.3	28.3	28.3	29.4	29.4	30.6
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: P1213154

CATALOG NUMBER: 4SNLED-LD5-64SL-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°	2568.8	2568.8	2568.8	2568.8	2568.8	2568.8	2568.8	2568.8	2568.8	2568.8	2568.8
2.5°	2747.7	2733.6	2732.4	2715.9	2711.2	2712.4	2699.5	2694.7	2673.6	2668.8	2646.5
5°	2758.3	2765.4	2761.9	2760.7	2764.2	2761.9	2752.4	2747.7	2744.2	2734.8	2715.9
7.5°	2641.8	2646.5	2650.0	2665.3	2678.3	2700.6	2724.2	2739.5	2751.3	2753.6	2738.3
10°	2522.9	2545.2	2560.5	2584.1	2602.9	2615.9	2630.0	2642.9	2677.1	2711.2	2731.2
12.5°	2461.7	2467.5	2466.4	2479.3	2492.3	2526.4	2559.4	2578.2	2604.1	2619.4	2655.9
15°	2409.9	2411.0	2414.6	2424.0	2431.0	2442.8	2458.1	2486.4	2538.2	2561.7	2581.7
17.5°	2362.8	2362.8	2365.1	2373.4	2382.8	2393.4	2402.8	2414.6	2440.5	2479.3	2528.8
20°	2287.4	2320.4	2323.9	2322.7	2327.4	2347.5	2349.8	2371.0	2384.0	2399.3	2447.5
22.5°	2175.6	2195.6	2223.8	2267.4	2283.9	2293.3	2300.4	2309.8	2329.8	2347.5	2367.5
25°	2114.4	2127.3	2135.5	2148.5	2182.6	2238.0	2248.6	2259.2	2272.1	2285.1	2309.8
27.5°	2060.2	2059.0	2064.9	2076.7	2086.1	2115.5	2167.3	2208.5	2210.9	2229.7	2250.9
30°	2021.4	2014.3	2006.1	2003.7	2016.6	2032.0	2047.3	2112.0	2156.7	2166.2	2188.5
32.5°	1984.9	1973.1	1961.3	1951.9	1943.7	1956.6	1966.0	1994.3	2052.0	2106.1	2117.9
35°	1940.1	1928.4	1914.2	1903.6	1890.7	1889.5	1888.3	1915.4	1934.2	1999.0	2055.5
37.5°	1894.2	1881.3	1869.5	1857.7	1844.8	1835.3	1829.5	1836.5	1854.2	1882.4	1976.6
40°	1845.9	1830.6	1818.9	1809.4	1791.8	1784.7	1773.0	1768.2	1769.4	1794.1	1843.6
42.5°	1103.1	1758.8	1764.7	1754.1	1738.8	1729.4	1716.4	1710.6	1698.8	1710.6	1738.8
45°	425.0	429.7	1286.7	1700.0	1681.1	1669.4	1657.6	1651.7	1638.7	1629.3	1655.2
47.5°	416.8	421.5	412.0	583.9	1604.6	1608.1	1594.0	1588.1	1575.2	1568.1	1561.0
50°	410.9	414.4	407.3	409.7	401.4	1470.4	1529.3	1522.2	1508.1	1499.8	1485.7
52.5°	405.0	405.0	400.3	394.4	392.0	393.2	1237.3	1455.1	1438.6	1430.4	1411.5
55°	386.1	388.5	393.2	383.8	381.4	380.3	376.7	1178.4	1362.1	1352.7	1336.2
57.5°	357.9	362.6	375.5	373.2	373.2	363.8	361.4	361.4	1093.7	1273.8	1257.3
60°	324.9	329.6	343.8	348.5	352.0	349.6	347.3	346.1	341.4	1152.5	1173.7
62.5°	290.8	295.5	300.2	315.5	320.2	326.1	333.2	329.6	324.9	324.9	1085.4
65°	254.3	261.4	263.7	277.8	283.7	294.3	300.2	308.4	306.1	304.9	310.8
67.5°	222.5	230.7	231.9	237.8	248.4	253.1	260.2	275.5	282.5	284.9	287.3
70°	195.4	200.1	203.7	206.0	213.1	214.3	227.2	237.8	248.4	260.2	263.7
72.5°	168.3	171.9	178.9	176.6	178.9	183.7	190.7	197.8	208.4	224.9	235.5
75°	137.7	140.1	144.8	147.2	151.9	155.4	160.1	166.0	175.4	183.7	197.8
77.5°	110.7	111.8	115.4	116.5	121.3	124.8	133.0	136.6	142.4	148.3	156.6
80°	89.5	89.5	90.6	90.6	94.2	97.7	103.6	107.1	114.2	118.9	118.9
82.5°	68.3	68.3	71.8	71.8	74.2	74.2	77.7	77.7	81.2	83.6	85.9
85°	48.3	49.4	51.8	50.6	53.0	51.8	54.2	56.5	57.7	56.5	55.3
87.5°	31.8	31.8	34.1	33.0	34.1	34.1	36.5	36.5	37.7	37.7	36.5
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: P1213154

CATALOG NUMBER: 4SNLED-LD5-64SL-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°	2568.8	2568.8	2568.8	2568.8	2568.8	2568.8	2568.8	2568.8	2568.8	2568.8	2568.8
2.5°	2638.2	2620.6	2610.0	2597.0	2593.5	2590.0	2594.7	2594.7	2587.6	2581.7	2571.1
5°	2699.5	2680.6	2660.6	2639.4	2619.4	2598.2	2590.0	2588.8	2575.8	2568.8	2565.2
7.5°	2731.2	2721.8	2699.5	2670.0	2639.4	2601.7	2585.3	2575.8	2562.9	2560.5	2560.5
10°	2734.8	2724.2	2712.4	2691.2	2655.9	2606.5	2574.7	2555.8	2544.1	2552.3	2567.6
12.5°	2700.6	2720.6	2710.1	2695.9	2667.7	2607.6	2561.7	2533.5	2529.9	2551.1	2591.1
15°	2613.5	2672.4	2701.8	2687.7	2665.3	2605.3	2540.5	2507.6	2507.6	2551.1	2602.9
17.5°	2547.6	2593.5	2665.3	2677.1	2651.2	2600.6	2520.5	2481.7	2492.3	2555.8	2611.2
20°	2493.4	2521.7	2591.1	2657.1	2632.4	2590.0	2491.1	2451.1	2472.2	2548.8	2622.9
22.5°	2408.7	2465.2	2507.6	2605.3	2613.5	2570.0	2461.7	2413.4	2455.8	2548.8	2617.0
25°	2326.3	2394.5	2439.3	2534.6	2585.3	2545.2	2434.6	2373.4	2438.1	2545.2	2612.3
27.5°	2268.6	2300.4	2381.6	2449.9	2542.9	2512.3	2398.1	2329.8	2415.7	2526.4	2585.3
30°	2207.4	2228.6	2308.6	2373.4	2486.4	2474.6	2360.4	2281.5	2387.5	2508.7	2514.6
32.5°	2140.3	2163.8	2205.0	2299.2	2407.5	2439.3	2318.0	2233.3	2356.9	2481.7	2432.2
35°	2072.0	2089.6	2122.6	2223.8	2315.7	2386.3	2266.2	2177.9	2335.7	2440.5	2353.3
37.5°	2003.7	2022.5	2050.8	2135.5	2219.1	2336.9	2221.5	2122.6	2296.8	2367.5	2270.9
40°	1938.9	1949.5	1979.0	2032.0	2139.1	2286.2	2170.9	2064.9	2256.8	2274.5	2159.1
42.5°	1820.0	1873.0	1900.1	1942.5	2048.4	2216.8	2112.0	2003.7	2212.1	2181.5	2047.3
45°	1691.7	1807.1	1818.9	1861.2	1968.4	2142.6	2056.7	1943.7	2169.7	2101.4	1941.3
47.5°	1586.9	1670.5	1738.8	1774.1	1873.0	2055.5	2004.9	1893.0	2106.1	2000.2	1837.7
50°	1493.9	1538.7	1662.3	1688.2	1758.8	1950.7	1943.7	1834.2	2017.8	1873.0	1736.5
52.5°	1403.3	1435.1	1546.9	1602.3	1659.9	1837.7	1870.7	1776.5	1921.3	1745.9	1634.0
55°	1324.4	1335.0	1396.2	1512.8	1564.6	1723.5	1790.6	1709.4	1798.9	1624.6	1535.1
57.5°	1243.2	1233.8	1278.5	1428.0	1465.7	1607.0	1705.8	1641.1	1700.0	1501.0	1432.7
60°	1158.4	1145.5	1164.3	1263.2	1360.9	1491.6	1605.8	1565.8	1579.9	1378.6	1318.5
62.5°	1070.1	1057.2	1051.3	1113.7	1258.5	1372.7	1504.5	1482.2	1432.7	1266.7	1177.3
65°	978.3	965.4	955.9	980.7	1145.5	1218.5	1391.5	1385.6	1271.4	1149.0	991.3
67.5°	297.8	878.2	858.2	857.0	965.4	1078.4	1269.1	1259.7	1109.0	1023.0	853.5
70°	268.4	712.2	757.0	746.4	793.5	935.9	1129.0	1121.9	951.2	820.6	754.6
72.5°	246.0	251.9	668.7	656.9	667.5	795.8	983.0	964.2	806.4	647.5	652.2
75°	210.7	221.3	230.7	554.5	540.4	659.3	824.1	794.7	665.2	534.5	545.1
77.5°	171.9	184.8	191.9	403.8	436.8	469.7	658.1	619.2	458.0	427.3	203.7
80°	128.3	138.9	150.7	161.3	332.0	328.5	488.6	449.7	319.0	266.1	158.9
82.5°	94.2	97.7	104.8	116.5	131.9	220.1	314.3	276.7	221.3	121.3	109.5
85°	58.9	63.6	67.1	70.6	80.1	131.9	155.4	123.6	93.0	74.2	69.5
87.5°	37.7	37.7	36.5	37.7	38.8	47.1	53.0	50.6	40.0	37.7	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

TEST NUMBER: P1213154

CATALOG NUMBER: 4SNLED-LD5-64SL-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°	2568.8	2568.8	2568.8	2568.8	2568.8	2568.8	2568.8	2568.8	2568.8	2568.8	2568.8
2.5°	2559.4	2542.9	2542.9	2538.2	2541.7	2541.7	2540.5	2541.7	2549.9	2554.7	2562.9
5°	2558.2	2553.5	2564.1	2577.0	2592.3	2611.2	2615.9	2632.4	2647.7	2667.7	2688.9
7.5°	2573.5	2590.0	2610.0	2631.2	2661.8	2684.2	2704.2	2724.2	2738.3	2757.1	2768.9
10°	2595.9	2628.8	2663.0	2690.0	2723.0	2741.8	2754.8	2757.1	2737.1	2705.3	2679.4
12.5°	2627.6	2666.5	2698.3	2724.2	2739.5	2732.4	2694.7	2655.9	2633.5	2600.6	2554.7
15°	2654.7	2690.0	2723.0	2712.4	2671.2	2632.4	2602.9	2557.0	2512.3	2481.7	2461.7
17.5°	2666.5	2700.6	2688.9	2633.5	2594.7	2549.9	2489.9	2454.6	2425.2	2401.6	2389.8
20°	2673.6	2667.7	2604.1	2564.1	2488.7	2447.5	2408.7	2375.7	2353.3	2341.6	2339.2
22.5°	2654.7	2582.9	2528.8	2456.9	2401.6	2367.5	2336.9	2309.8	2294.5	2285.1	2279.2
25°	2592.3	2508.7	2428.7	2372.2	2325.1	2295.7	2272.1	2249.7	2230.9	2226.2	2214.4
27.5°	2505.2	2436.9	2331.0	2287.4	2246.2	2232.1	2206.2	2183.8	2167.3	2153.2	2115.5
30°	2433.4	2325.1	2248.6	2208.5	2183.8	2167.3	2137.9	2114.4	2086.1	2034.3	2013.1
32.5°	2345.1	2238.0	2165.0	2142.6	2112.0	2097.9	2064.9	2013.1	1969.6	1948.4	1947.2
35°	2230.9	2142.6	2089.6	2069.6	2044.9	2021.4	1953.1	1906.0	1884.8	1887.1	1904.8
37.5°	2135.5	2056.7	2022.5	1994.3	1966.0	1906.0	1848.3	1825.9	1831.8	1843.6	1851.8
40°	2039.0	1979.0	1940.1	1917.8	1854.2	1795.3	1764.7	1773.0	1783.5	1791.8	1802.4
42.5°	1944.8	1902.5	1863.6	1820.0	1732.9	1701.1	1708.2	1718.8	1728.2	1740.0	1750.6
45°	1855.4	1817.7	1773.0	1674.1	1630.5	1638.7	1649.3	1657.6	1671.7	1679.9	1690.5
47.5°	1770.6	1730.6	1651.7	1564.6	1559.9	1576.4	1585.8	1596.4	1607.0	1585.8	874.7
50°	1675.2	1634.0	1514.0	1481.0	1491.6	1506.9	1518.7	1529.3	1362.1	541.5	416.8
52.5°	1581.1	1476.3	1399.8	1409.2	1419.8	1437.4	1445.7	1073.7	427.3	407.3	408.5
55°	1476.3	1342.1	1319.7	1331.5	1340.9	1358.6	900.6	394.4	392.0	390.9	400.3
57.5°	1311.5	1230.2	1239.7	1251.4	1260.8	890.0	383.8	381.4	382.6	383.8	385.0
60°	1164.3	1146.7	1157.2	1167.8	826.4	370.8	363.8	365.0	369.7	366.1	356.7
62.5°	1047.8	1061.9	1072.5	939.5	352.0	348.5	352.0	348.5	340.2	334.3	322.6
65°	958.3	972.4	980.7	330.8	329.6	334.3	330.8	319.0	306.1	289.6	286.1
67.5°	864.1	878.2	314.3	306.1	310.8	304.9	290.8	276.7	267.2	253.1	247.2
70°	766.4	328.5	284.9	283.7	275.5	266.1	250.8	236.6	224.9	219.0	213.1
72.5°	553.3	260.2	256.6	247.2	233.1	220.1	207.2	199.0	193.1	189.5	186.0
75°	230.7	226.0	215.4	199.0	184.8	178.9	169.5	163.6	161.3	154.2	151.9
77.5°	193.1	183.7	168.3	156.6	148.3	144.8	137.7	130.7	127.1	126.0	121.3
80°	148.3	135.4	128.3	122.4	120.1	111.8	103.6	100.1	97.7	96.5	93.0
82.5°	101.2	96.5	91.8	83.6	83.6	80.1	76.5	74.2	71.8	71.8	69.5
85°	65.9	62.4	61.2	57.7	57.7	55.3	54.2	53.0	51.8	50.6	49.4
87.5°	37.7	37.7	38.8	37.7	37.7	36.5	35.3	34.1	33.0	33.0	30.6
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: P1213154

CATALOG NUMBER: 4SNLED-LD5-64SL-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°	2568.8	2568.8	2568.8	2568.8	2568.8	2568.8	2568.8	2568.8	2568.8	2568.8	2568.8
2.5°	2573.5	2585.3	2587.6	2627.6	2650.0	2648.8	2641.8	2663.0	2650.0	2642.9	2650.0
5°	2710.1	2724.2	2736.0	2779.5	2794.8	2801.9	2800.7	2812.5	2803.1	2794.8	2794.8
7.5°	2777.2	2781.9	2786.6	2776.0	2768.9	2757.1	2739.5	2713.6	2700.6	2686.5	2668.8
10°	2666.5	2651.2	2657.1	2635.9	2618.2	2605.3	2588.8	2567.6	2549.9	2537.0	2517.0
12.5°	2531.1	2529.9	2532.3	2535.8	2518.2	2507.6	2494.6	2479.3	2466.4	2452.2	2435.8
15°	2448.7	2449.9	2459.3	2455.8	2449.9	2444.0	2429.9	2425.2	2413.4	2398.1	2388.7
17.5°	2389.8	2395.7	2405.1	2400.4	2391.0	2385.1	2374.5	2363.9	2353.3	2341.6	2327.4
20°	2338.0	2343.9	2349.8	2343.9	2326.3	2318.0	2303.9	2270.9	2247.4	2223.8	2202.7
22.5°	2281.5	2285.1	2280.4	2261.5	2216.8	2195.6	2179.1	2169.7	2149.7	2136.7	2123.8
25°	2210.9	2190.9	2160.3	2139.1	2121.4	2112.0	2104.9	2103.8	2101.4	2099.1	2093.2
27.5°	2095.5	2088.5	2072.0	2063.7	2064.9	2068.4	2069.6	2073.2	2069.6	2064.9	2060.2
30°	2009.6	2013.1	2014.3	2016.6	2022.5	2026.1	2027.2	2032.0	2029.6	2026.1	2023.7
32.5°	1955.4	1963.7	1968.4	1975.4	1979.0	1984.9	1984.9	1991.9	1984.9	1983.7	1981.3
35°	1910.7	1917.8	1920.1	1930.7	1934.2	1940.1	1940.1	1946.0	1940.1	1880.1	1484.5
37.5°	1866.0	1873.0	1877.7	1887.1	1888.3	1891.9	1745.9	1277.3	824.1	638.1	487.4
40°	1813.0	1821.2	1825.9	1829.5	1285.6	815.8	561.6	456.8	456.8	460.3	463.8
42.5°	1756.5	1762.4	1227.9	714.6	445.0	443.8	447.4	450.9	454.4	459.1	463.8
45°	1380.9	696.9	442.6	432.1	435.6	440.3	445.0	449.7	455.6	460.3	462.7
47.5°	453.2	425.0	430.9	426.2	432.1	437.9	442.6	447.4	448.5	449.7	448.5
50°	419.1	419.1	422.6	422.6	427.3	429.7	429.7	429.7	425.0	423.8	420.3
52.5°	405.0	414.4	409.7	412.0	409.7	406.2	402.6	399.1	392.0	389.7	385.0
55°	397.9	401.4	389.7	386.1	381.4	372.0	367.3	362.6	356.7	354.4	348.5
57.5°	381.4	373.2	360.2	354.4	346.1	336.7	332.0	328.5	322.6	320.2	316.7
60°	350.8	334.3	326.1	319.0	309.6	301.4	297.8	295.5	290.8	289.6	286.1
62.5°	313.2	299.0	292.0	282.5	275.5	270.8	267.2	266.1	261.4	261.4	259.0
65°	271.9	264.9	259.0	249.6	246.0	241.3	240.2	239.0	236.6	235.5	233.1
67.5°	239.0	234.3	226.0	221.3	219.0	215.4	213.1	210.7	206.0	203.7	200.1
70°	209.6	206.0	197.8	194.2	189.5	183.7	180.1	177.8	174.2	171.9	168.3
72.5°	181.3	170.7	164.8	161.3	157.8	151.9	150.7	148.3	144.8	143.6	140.1
75°	146.0	137.7	134.2	131.9	128.3	124.8	124.8	124.8	121.3	120.1	118.9
77.5°	116.5	111.8	109.5	107.1	106.0	103.6	100.1	98.9	95.4	95.4	94.2
80°	89.5	87.1	84.8	83.6	82.4	80.1	77.7	76.5	73.0	73.0	71.8
82.5°	65.9	64.7	63.6	62.4	61.2	60.0	56.5	55.3	53.0	53.0	51.8
85°	47.1	45.9	43.6	42.4	42.4	41.2	37.7	36.5	34.1	34.1	34.1
87.5°	29.4	28.3	27.1	25.9	24.7	23.5	21.2	20.0	20.0	17.7	16.5
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: P1213154

CATALOG NUMBER: 4SNLED-LD5-64SL-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°	2568.8	2568.8	2568.8	2568.8	2568.8	2568.8	2568.8	2568.8	2568.8	2568.8	2568.8
2.5°	2635.9	2655.9	2653.5	2667.7	2671.2	2678.3	2680.6	2681.8	2664.1	2678.3	2679.4
5°	2791.3	2794.8	2797.2	2803.1	2808.9	2810.1	2804.2	2797.2	2799.5	2794.8	2783.0
7.5°	2666.5	2648.8	2645.3	2640.6	2638.2	2635.9	2625.3	2634.7	2624.1	2619.4	2602.9
10°	2513.5	2497.0	2495.8	2495.8	2499.3	2498.1	2495.8	2491.1	2500.5	2494.6	2491.1
12.5°	2433.4	2427.5	2431.0	2428.7	2438.1	2440.5	2438.1	2438.1	2435.8	2431.0	2433.4
15°	2385.1	2380.4	2384.0	2380.4	2387.5	2388.7	2382.8	2386.3	2380.4	2374.5	2372.2
17.5°	2321.6	2311.0	2302.7	2290.9	2292.1	2289.8	2282.7	2282.7	2276.8	2261.5	2262.7
20°	2199.1	2188.5	2183.8	2183.8	2189.7	2192.1	2190.9	2193.2	2187.3	2185.0	2175.6
22.5°	2122.6	2121.4	2123.8	2129.7	2139.1	2152.0	2153.2	2153.2	2153.2	2152.0	2140.3
25°	2095.5	2095.5	2097.9	2106.1	2113.2	2122.6	2125.0	2127.3	2125.0	2125.0	2114.4
27.5°	2064.9	2062.6	2067.3	2075.5	2083.8	2090.8	2096.7	2097.9	2094.3	2094.3	2097.9
30°	2027.2	2026.1	2032.0	2040.2	2047.3	2054.3	2060.2	2064.9	2060.2	2060.2	2056.7
32.5°	1988.4	1988.4	1990.7	1941.3	1800.0	1621.1	1624.6	1521.0	1449.2	1358.6	1478.6
35°	1240.8	903.0	775.8	656.9	573.3	519.2	518.0	500.3	492.1	486.2	485.0
37.5°	468.5	470.9	475.6	478.0	481.5	483.9	485.0	485.0	485.0	485.0	483.9
40°	467.4	472.1	475.6	479.1	482.7	485.0	485.0	486.2	487.4	487.4	487.4
42.5°	468.5	473.3	478.0	481.5	483.9	485.0	486.2	487.4	487.4	487.4	487.4
45°	467.4	469.7	469.7	470.9	470.9	470.9	472.1	472.1	470.9	469.7	472.1
47.5°	449.7	449.7	446.2	445.0	443.8	441.5	442.6	441.5	440.3	439.1	441.5
50°	419.1	414.4	412.0	409.7	408.5	406.2	407.3	406.2	405.0	402.6	406.2
52.5°	382.6	381.4	376.7	374.4	373.2	374.4	372.0	370.8	369.7	368.5	369.7
55°	347.3	342.6	341.4	339.1	337.9	339.1	337.9	336.7	335.5	334.3	335.5
57.5°	315.5	312.0	310.8	308.4	308.4	308.4	308.4	307.3	306.1	304.9	306.1
60°	284.9	282.5	281.4	281.4	280.2	280.2	280.2	279.0	277.8	277.8	279.0
62.5°	259.0	259.0	255.5	254.3	254.3	255.5	254.3	253.1	251.9	250.8	253.1
65°	231.9	227.2	226.0	223.7	221.3	222.5	221.3	220.1	219.0	217.8	220.1
67.5°	199.0	197.8	193.1	190.7	189.5	190.7	189.5	188.4	187.2	186.0	188.4
70°	167.2	167.2	162.5	161.3	160.1	160.1	158.9	158.9	157.8	156.6	158.9
72.5°	138.9	138.9	137.7	135.4	134.2	133.0	131.9	130.7	130.7	131.9	131.9
75°	115.4	113.0	108.3	109.5	108.3	107.1	107.1	106.0	104.8	107.1	106.0
77.5°	90.6	89.5	85.9	87.1	85.9	84.8	84.8	83.6	82.4	83.6	83.6
80°	68.3	68.3	67.1	65.9	65.9	64.7	63.6	63.6	62.4	63.6	63.6
82.5°	49.4	49.4	48.3	47.1	45.9	45.9	44.7	44.7	44.7	44.7	44.7
85°	31.8	30.6	30.6	28.3	28.3	28.3	27.1	27.1	27.1	27.1	27.1
87.5°	15.3	15.3	14.1	14.1	12.9	11.8	11.8	10.6	10.6	11.8	11.8
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: P1213154

CATALOG NUMBER: 4SNLED-LD5-64SL-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°	2568.8	2568.8	2568.8	2568.8	2568.8	2568.8	2568.8	2568.8	2568.8	2568.8	2568.8
2.5°	2658.3	2673.6	2660.6	2666.5	2667.7	2687.7	2686.5	2691.2	2683.0	2673.6	2660.6
5°	2793.6	2786.6	2777.2	2799.5	2787.8	2801.9	2806.6	2816.0	2816.0	2814.8	2804.2
7.5°	2620.6	2605.3	2617.0	2625.3	2628.8	2619.4	2638.2	2659.4	2677.1	2687.7	2688.9
10°	2485.2	2489.9	2488.7	2492.3	2500.5	2499.3	2511.1	2522.9	2527.6	2534.6	2537.0
12.5°	2421.6	2420.4	2422.8	2431.0	2435.8	2434.6	2446.3	2453.4	2455.8	2456.9	2455.8
15°	2371.0	2362.8	2368.6	2369.8	2373.4	2373.4	2387.5	2398.1	2402.8	2405.1	2402.8
17.5°	2275.6	2255.6	2274.5	2274.5	2287.4	2285.1	2307.4	2325.1	2334.5	2341.6	2341.6
20°	2181.5	2172.0	2179.1	2176.8	2186.2	2185.0	2199.1	2210.9	2219.1	2225.0	2232.1
22.5°	2143.8	2146.1	2135.5	2136.7	2136.7	2135.5	2142.6	2148.5	2150.9	2154.4	2152.0
25°	2119.1	2121.4	2117.9	2112.0	2109.6	2112.0	2115.5	2122.6	2123.8	2121.4	2113.2
27.5°	2094.3	2087.3	2093.2	2082.6	2080.2	2084.9	2089.6	2090.8	2092.0	2092.0	2084.9
30°	2056.7	2050.8	2056.7	2052.0	2047.3	2052.0	2055.5	2055.5	2057.9	2059.0	2050.8
32.5°	1437.4	1449.2	1639.9	1755.3	1917.8	2000.2	2015.5	2015.5	2017.8	2017.8	2010.8
35°	489.7	490.9	530.9	575.7	671.0	788.8	943.0	1023.0	1293.8	1617.6	1930.7
37.5°	483.9	482.7	481.5	480.3	479.1	478.0	475.6	474.4	481.5	571.0	774.6
40°	486.2	485.0	482.7	481.5	480.3	478.0	476.8	474.4	472.1	469.7	467.4
42.5°	486.2	485.0	483.9	482.7	481.5	480.3	478.0	475.6	473.3	469.7	466.2
45°	469.7	469.7	470.9	470.9	472.1	472.1	472.1	470.9	470.9	469.7	465.0
47.5°	439.1	439.1	442.6	442.6	445.0	447.4	447.4	449.7	453.2	455.6	456.8
50°	403.8	403.8	407.3	408.5	410.9	414.4	417.9	419.1	422.6	427.3	432.1
52.5°	368.5	368.5	372.0	372.0	374.4	377.9	381.4	382.6	387.3	392.0	397.9
55°	335.5	335.5	337.9	339.1	340.2	342.6	346.1	346.1	350.8	354.4	360.2
57.5°	306.1	308.4	308.4	308.4	309.6	312.0	314.3	314.3	317.9	321.4	326.1
60°	277.8	280.2	280.2	280.2	281.4	282.5	284.9	284.9	287.3	289.6	294.3
62.5°	251.9	254.3	254.3	255.5	255.5	256.6	259.0	257.8	260.2	261.4	264.9
65°	219.0	221.3	222.5	223.7	224.9	227.2	230.7	229.6	233.1	235.5	239.0
67.5°	187.2	189.5	189.5	190.7	191.9	194.2	196.6	196.6	200.1	202.5	207.2
70°	157.8	160.1	160.1	161.3	162.5	164.8	167.2	166.0	169.5	171.9	175.4
72.5°	130.7	133.0	133.0	134.2	134.2	136.6	138.9	141.3	141.3	143.6	146.0
75°	106.0	107.1	108.3	108.3	109.5	110.7	113.0	115.4	116.5	117.7	120.1
77.5°	83.6	84.8	85.9	85.9	87.1	88.3	89.5	94.2	96.5	97.7	97.7
80°	63.6	64.7	64.7	64.7	65.9	67.1	69.5	69.5	74.2	74.2	75.3
82.5°	44.7	45.9	45.9	45.9	47.1	49.4	50.6	51.8	54.2	55.3	55.3
85°	27.1	28.3	28.3	28.3	29.4	30.6	33.0	34.1	35.3	35.3	36.5
87.5°	10.6	11.8	12.9	12.9	14.1	15.3	16.5	17.7	18.8	18.8	20.0
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):

	302.5°	305°	307.5°	310°	312.5°	315°	317.5°	320°	322.5°	325°	327.5°
0°	2568.8	2568.8	2568.8	2568.8	2568.8	2568.8	2568.8	2568.8	2568.8	2568.8	2568.8
2.5°	2646.5	2654.7	2646.5	2651.2	2657.1	2646.5	2621.8	2612.3	2608.8	2594.7	2585.3
5°	2793.6	2793.6	2790.1	2799.5	2798.3	2781.9	2756.0	2744.2	2732.4	2717.1	2705.3
7.5°	2688.9	2698.3	2704.2	2740.7	2764.2	2766.6	2783.0	2786.6	2791.3	2786.6	2779.5
10°	2538.2	2534.6	2551.1	2585.3	2605.3	2615.9	2647.7	2663.0	2675.9	2701.8	2728.9
12.5°	2453.4	2458.1	2465.2	2489.9	2508.7	2504.0	2517.0	2527.6	2542.9	2568.8	2607.6
15°	2396.9	2401.6	2408.7	2427.5	2439.3	2433.4	2440.5	2447.5	2458.1	2471.1	2494.6
17.5°	2335.7	2343.9	2352.2	2372.2	2382.8	2381.6	2387.5	2389.8	2393.4	2401.6	2418.1
20°	2240.3	2266.2	2282.7	2309.8	2325.1	2322.7	2333.3	2336.9	2341.6	2349.8	2356.9
22.5°	2153.2	2160.3	2168.5	2197.9	2223.8	2255.6	2262.7	2272.1	2283.9	2292.1	2299.2
25°	2103.8	2099.1	2102.6	2122.6	2136.7	2139.1	2149.7	2180.3	2212.1	2226.2	2242.7
27.5°	2074.3	2069.6	2068.4	2077.9	2080.2	2074.3	2072.0	2081.4	2104.9	2128.5	2177.9
30°	2042.5	2036.7	2032.0	2040.2	2043.7	2035.5	2020.2	2011.9	2026.1	2032.0	2052.0
32.5°	2004.9	1999.0	1996.6	2001.3	2003.7	1996.6	1980.2	1970.7	1968.4	1963.7	1968.4
35°	1962.5	1956.6	1953.1	1954.3	1959.0	1953.1	1938.9	1927.2	1921.3	1908.3	1898.9
37.5°	1011.3	1432.7	1860.1	1904.8	1909.5	1908.3	1894.2	1881.3	1875.4	1860.1	1855.4
40°	462.7	516.8	775.8	1013.6	1462.2	1857.7	1844.8	1831.8	1821.2	1816.5	1798.9
42.5°	461.5	462.7	463.8	458.0	567.4	966.5	1426.8	1781.2	1774.1	1762.4	1749.4
45°	461.5	455.6	460.3	453.2	455.6	454.4	566.3	913.6	1625.8	1698.8	1692.9
47.5°	456.8	453.2	458.0	452.1	445.0	448.5	443.8	449.7	701.6	1190.2	1630.5
50°	435.6	437.9	446.2	445.0	439.1	443.8	435.6	442.6	436.8	479.1	923.0
52.5°	403.8	408.5	416.8	423.8	426.2	432.1	429.7	432.1	427.3	428.5	429.7
55°	366.1	372.0	379.1	389.7	394.4	403.8	410.9	414.4	420.3	419.1	409.7
57.5°	330.8	336.7	342.6	353.2	363.8	368.5	381.4	388.5	403.8	400.3	397.9
60°	297.8	302.6	308.4	310.8	323.7	332.0	343.8	350.8	370.8	375.5	382.6
62.5°	268.4	270.8	275.5	279.0	287.3	295.5	301.4	313.2	323.7	339.1	349.6
65°	241.3	243.7	247.2	249.6	250.8	262.5	266.1	279.0	282.5	299.0	308.4
67.5°	210.7	215.4	220.1	222.5	224.9	231.9	234.3	240.2	248.4	255.5	267.2
70°	178.9	182.5	187.2	190.7	195.4	200.1	207.2	210.7	216.6	221.3	230.7
72.5°	149.5	153.0	155.4	158.9	162.5	166.0	171.9	180.1	184.8	193.1	195.4
75°	121.3	124.8	127.1	129.5	133.0	135.4	137.7	146.0	150.7	157.8	164.8
77.5°	100.1	100.1	102.4	109.5	108.3	108.3	110.7	115.4	118.9	123.6	130.7
80°	77.7	78.9	80.1	85.9	87.1	88.3	87.1	90.6	94.2	95.4	100.1
82.5°	57.7	58.9	58.9	62.4	65.9	65.9	65.9	67.1	70.6	71.8	74.2
85°	38.8	40.0	41.2	42.4	44.7	45.9	47.1	47.1	49.4	50.6	51.8
87.5°	21.2	23.5	24.7	25.9	27.1	28.3	29.4	30.6	31.8	33.0	34.1
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):

	330°	332.5°	335°	337.5°	340°	342.5°	345°	347.5°	350°	352.5°	355°
0°	2568.8	2568.8	2568.8	2568.8	2568.8	2568.8	2568.8	2568.8	2568.8	2568.8	2568.8
2.5°	2581.7	2575.8	2572.3	2562.9	2560.5	2545.2	2547.6	2545.2	2545.2	2548.8	2560.5
5°	2692.4	2664.1	2657.1	2637.1	2620.6	2592.3	2574.7	2565.2	2551.1	2545.2	2553.5
7.5°	2767.7	2746.5	2728.9	2711.2	2687.7	2654.7	2630.0	2601.7	2578.2	2555.8	2549.9
10°	2754.8	2778.3	2778.3	2767.7	2745.4	2712.4	2683.0	2647.7	2606.5	2571.1	2549.9
12.5°	2645.3	2686.5	2719.5	2744.2	2766.6	2744.2	2714.8	2686.5	2640.6	2588.8	2549.9
15°	2525.2	2567.6	2608.8	2660.6	2714.8	2737.1	2736.0	2703.0	2661.8	2607.6	2553.5
17.5°	2440.5	2469.9	2492.3	2548.8	2614.7	2672.4	2711.2	2713.6	2673.6	2625.3	2554.7
20°	2376.9	2398.1	2416.9	2448.7	2506.4	2577.0	2648.8	2688.9	2681.8	2628.8	2558.2
22.5°	2319.2	2334.5	2349.8	2373.4	2419.3	2465.2	2548.8	2631.2	2666.5	2622.9	2554.7
25°	2261.5	2278.0	2289.8	2306.3	2342.7	2380.4	2439.3	2541.7	2620.6	2618.2	2547.6
27.5°	2193.2	2215.6	2229.7	2252.1	2276.8	2305.1	2345.1	2441.6	2554.7	2594.7	2528.8
30°	2110.8	2143.8	2165.0	2189.7	2210.9	2235.6	2267.4	2326.3	2466.4	2548.8	2508.7
32.5°	1991.9	2050.8	2097.9	2121.4	2145.0	2166.2	2194.4	2243.9	2358.1	2486.4	2486.4
35°	1907.2	1934.2	1976.6	2044.9	2074.3	2095.5	2121.4	2160.3	2233.3	2412.2	2449.9
37.5°	1841.2	1851.8	1873.0	1940.1	1995.5	2029.6	2055.5	2080.2	2152.0	2311.0	2402.8
40°	1791.8	1788.3	1785.9	1817.7	1896.6	1950.7	1980.2	2004.9	2060.2	2189.7	2340.4
42.5°	1734.1	1730.6	1718.8	1727.0	1765.9	1856.5	1901.3	1928.4	1974.3	2062.6	2272.1
45°	1674.1	1668.2	1663.5	1655.2	1669.4	1720.0	1811.8	1851.8	1877.7	1956.6	2186.2
47.5°	1612.8	1604.6	1598.7	1591.7	1583.4	1607.0	1694.1	1765.9	1810.6	1860.1	2082.6
50°	1525.7	1536.3	1529.3	1521.0	1514.0	1509.2	1545.7	1663.5	1718.8	1758.8	1956.6
52.5°	719.3	1398.6	1457.4	1449.2	1439.8	1431.5	1439.8	1529.3	1629.3	1661.1	1804.7
55°	409.7	622.8	1296.2	1370.3	1362.1	1350.3	1343.3	1373.9	1523.4	1565.8	1665.8
57.5°	394.4	395.6	572.1	1234.9	1280.9	1270.3	1262.0	1269.1	1396.2	1468.0	1544.6
60°	381.4	381.4	381.4	546.2	1180.8	1184.3	1173.7	1162.0	1217.3	1358.6	1422.1
62.5°	353.2	360.2	363.8	363.8	539.2	1093.7	1083.1	1079.5	1081.9	1226.7	1299.7
65°	316.7	333.2	340.2	344.9	344.9	566.3	990.1	984.2	975.9	1031.3	1176.1
67.5°	276.7	293.1	308.4	317.9	319.0	329.6	591.0	886.5	874.7	875.9	1044.2
70°	235.5	249.6	266.1	280.2	293.1	299.0	308.4	735.8	774.6	758.2	894.7
72.5°	203.7	209.6	221.3	235.5	250.8	264.9	273.1	293.1	672.2	654.6	680.5
75°	169.5	174.2	182.5	191.9	203.7	220.1	234.3	248.4	356.7	548.6	545.1
77.5°	131.9	140.1	149.5	155.4	161.3	173.1	191.9	206.0	220.1	370.8	436.8
80°	101.2	107.1	111.8	117.7	124.8	133.0	140.1	156.6	173.1	186.0	334.3
82.5°	75.3	78.9	82.4	84.8	87.1	91.8	104.8	110.7	121.3	133.0	157.8
85°	53.0	55.3	57.7	58.9	60.0	61.2	65.9	67.1	77.7	80.1	95.4
87.5°	34.1	35.3	37.7	38.8	38.8	40.0	41.2	41.2	41.2	38.8	47.1
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: P1213154

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CANDELA DISTRIBUTION (continued):

	357.5°	360°
0°	2568.8	2568.8
2.5°	2570.0	2588.8
5°	2566.4	2591.1
7.5°	2557.0	2580.6
10°	2542.9	2571.1
12.5°	2527.6	2554.7
15°	2514.6	2534.6
17.5°	2500.5	2512.3
20°	2481.7	2491.1
22.5°	2462.8	2458.1
25°	2441.6	2431.0
27.5°	2414.6	2394.5
30°	2389.8	2354.5
32.5°	2366.3	2308.6
35°	2334.5	2261.5
37.5°	2301.5	2213.2
40°	2262.7	2157.9
42.5°	2221.5	2102.6
45°	2169.7	2049.6
47.5°	2123.8	1986.0
50°	2060.2	1917.8
52.5°	1982.5	1854.2
55°	1890.7	1776.5
57.5°	1791.8	1695.3
60°	1685.8	1602.3
62.5°	1557.5	1505.7
65°	1406.8	1395.1
67.5°	1210.2	1272.6
70°	992.4	1132.5
72.5°	830.0	984.2
75°	680.5	818.2
77.5°	539.2	641.6
80°	336.7	469.7
82.5°	226.0	308.4
85°	136.6	147.2
87.5°	53.0	54.2
90°	0.0	0.0

(END OF REPORT)