

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: P1213788

Luminaire Tested: 4SNLED-LD5-47SL-RM-UNV-L940-CD1-U

Issue Date: 3/29/2018

Test Information

Test Method: LM-79-2019
Report Number: P1213788
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P33524)
Test Lab: INNOVATIONS CENTER-P3
Issue Date: 3/29/2018
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: METALUX
Catalog Number: 4SNLED-LD5-47SL-RM-UNV-L940-CD1-U
Description: 4FT LINEAR SNLED LED FIXTURE
METALIC FINISH REFLECTOR
Light Source: -
Ballast/Driver: -

Summary

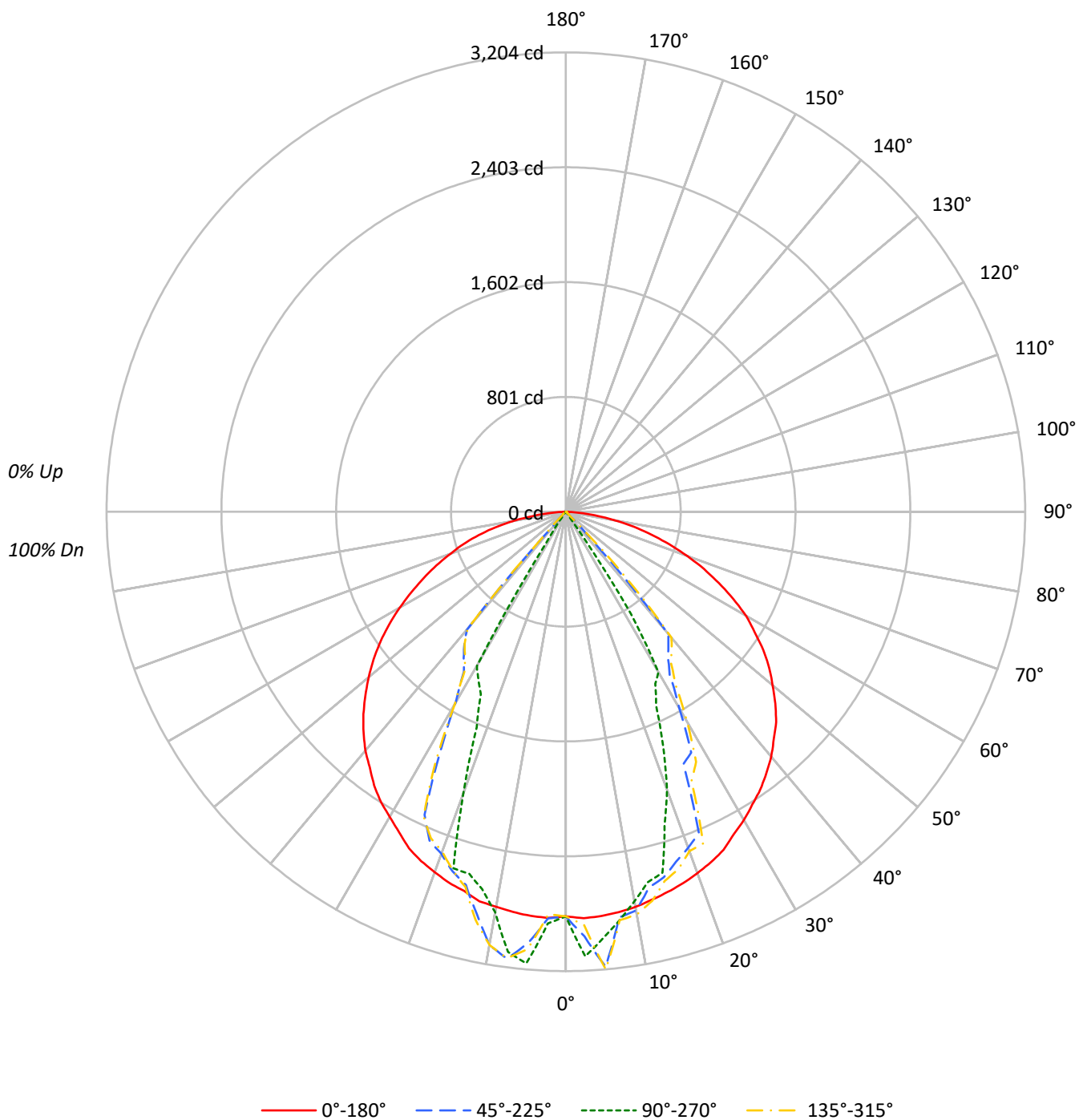
Lumens per Lamp: N/A
Luminaire Lumens: 4011.9 lumens
Efficiency: N/A
Efficacy: 114.6 lumens/watt
Spacing Criteria (0/90/45): 1.3 / 0.81 / 0.97
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.12')
CIE Type: Direct

Input Watts (W): 35
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

TEST NUMBER: P1213788

CATALOG NUMBER: 4SNLED-LD5-47SL-RM-UNV-L940-CD1-U

Luminous Intensity Polar Plot



TEST NUMBER: P1213788

CATALOG NUMBER: 4SNLED-LD5-47SL-RM-UNV-L940-CD1-U

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	102	102	100
1	112	108	105	103	109	106	103	101	102	100	98	98	96	95	95	93	92	92	92	90
2	105	98	93	89	102	97	92	88	93	89	86	90	87	84	87	85	82	82	82	81
3	98	90	83	78	95	88	82	78	85	80	76	83	79	75	80	77	74	74	74	72
4	91	82	75	70	89	81	74	69	78	73	69	76	72	68	74	70	67	67	67	65
5	85	75	68	63	84	74	68	63	72	66	62	71	65	61	69	64	61	61	61	59
6	80	69	62	57	79	69	62	57	67	61	56	65	60	56	64	59	55	55	55	54
7	75	64	57	52	74	64	57	52	62	56	52	61	55	51	60	55	51	51	51	49
8	71	60	53	48	70	59	52	48	58	52	47	57	51	47	56	51	47	47	47	45
9	67	56	49	44	66	55	49	44	54	48	44	53	48	44	52	47	44	44	44	42
10	63	52	45	41	62	52	45	41	51	45	41	50	44	41	49	44	40	40	40	39

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	22801	22801	22801	22801
5°	22894	23450	22888	24834
10°	22839	21220	22826	21833
15°	22777	19807	22721	19858
20°	22803	15601	22739	15793
25°	22869	11290	22757	10654
30°	22765	9904	22524	9520
35°	22832	218	22497	265
40°	22911	47	22362	47
45°	22992	28	22128	21
50°	22816	22	21770	22
55°	22681	16	21288	16
60°	22253	17	20513	17
65°	21094	26	19591	18
70°	19568	29	18628	29
75°	17308	33	17593	33
80°	14061	37	14864	37
85°	8273	44	8444	44

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 2°

Vertical Angle: 45°

Luminance: 24826 cd/sqm

TEST NUMBER: P1213788

CATALOG NUMBER: 4SNLED-LD5-47SL-RM-UNV-L940-CD1-U

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	283.1	7.1
10°-20°	772.1	19.2
20°-30°	982.5	24.5
30°-40°	830.0	20.7
40°-50°	542.6	13.5
50°-60°	341.9	8.5
60°-70°	182.0	4.5
70°-80°	66.3	1.7
80°-90°	11.4	0.3
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	2037.7	50.8
0°-40°	2867.7	71.5
0°-60°	3752.2	93.5
0°-90°	4011.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4011.9	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	2822	2822	2822	2822	2822	
5°	2830	2986	2829	3162	2830	269
15°	2745	2606	2739	2612	2745	776
25°	2602	1488	2590	1404	2602	1197
35°	2365	28	2330	34	2365	1480
45°	2075	3	1997	2	2075	1595
55°	1682	2	1578	2	1682	1498
65°	1177	2	1093	2	1177	1166
75°	619	2	629	2	619	657
85°	121	2	124	2	121	153
90°	0	0	0	0	0	

TEST NUMBER: P1213788

CATALOG NUMBER: 4SNLED-LD5-47SL-RM-UNV-L940-CD1-U

CANDELA DISTRIBUTION (FULL):

	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°	10°
0°	2821.5	2821.5	2821.5	2821.5	2821.5	2821.5	2821.5	2821.5	2821.5	2821.5	2821.5
2.5°	2837.6	2839.3	2840.2	2841.9	2844.4	2845.2	2846.9	2845.2	2845.2	2845.2	2845.2
5°	2830.0	2833.4	2835.9	2839.3	2845.2	2846.1	2852.9	2853.7	2857.1	2863.9	2869.0
7.5°	2817.3	2820.7	2825.8	2834.2	2842.7	2852.0	2863.9	2876.6	2894.4	2911.3	2932.5
10°	2798.7	2802.9	2808.8	2816.5	2858.0	2863.9	2890.1	2926.5	2936.7	2990.1	3029.9
12.5°	2771.6	2786.0	2801.2	2808.0	2847.8	2910.5	2998.5	2980.7	2961.3	3135.7	3133.2
15°	2745.3	2764.8	2757.2	2812.2	2848.6	2957.9	2920.6	3000.2	3145.9	3110.3	3112.0
17.5°	2717.4	2721.6	2764.0	2809.7	2874.9	2930.8	2976.5	3085.7	3114.5	3117.1	3085.7
20°	2681.8	2702.1	2764.0	2805.4	2915.5	2941.8	3040.9	3096.7	3084.9	3056.1	3002.8
22.5°	2645.4	2707.2	2769.9	2828.3	2905.4	2975.7	3024.8	3051.0	2989.2	2875.7	2814.8
25°	2602.2	2638.6	2720.8	2806.3	2902.8	2943.5	2972.3	2929.9	2849.5	2747.9	2645.4
27.5°	2535.3	2593.7	2698.8	2795.3	2882.5	2931.6	2885.0	2783.4	2653.9	2587.0	2540.4
30°	2483.7	2559.9	2646.3	2739.4	2830.0	2858.8	2740.2	2624.2	2535.3	2468.4	2458.3
32.5°	2421.0	2529.4	2611.5	2700.4	2776.7	2738.6	2623.4	2473.5	2399.8	2374.4	2384.6
35°	2365.1	2447.3	2554.8	2642.0	2697.1	2611.5	2429.5	2336.3	2300.8	2315.2	2296.5
37.5°	2298.2	2406.6	2505.7	2581.0	2562.4	2433.7	2279.6	2220.3	2224.5	2212.7	2177.1
40°	2228.8	2332.1	2435.4	2506.5	2441.3	2244.9	2142.4	2129.7	2132.2	2094.1	2043.3
42.5°	2147.5	2241.5	2344.8	2409.1	2268.6	2115.3	2045.9	2047.6	2025.5	1972.2	1945.1
45°	2074.7	2161.0	2268.6	2274.5	2101.8	1973.9	1953.6	1931.6	1882.4	1864.7	1844.3
47.5°	1981.5	2077.2	2166.1	2133.9	1938.3	1858.7	1843.5	1795.2	1770.7	1757.1	1740.2
50°	1882.4	1979.0	2060.3	1968.8	1784.2	1765.6	1715.6	1677.5	1660.6	1646.2	1630.9
52.5°	1788.4	1868.0	1951.0	1793.5	1665.7	1647.9	1591.1	1569.1	1552.2	1536.1	1532.7
55°	1681.7	1752.0	1808.8	1626.7	1552.2	1510.7	1470.0	1454.8	1438.7	1431.1	1443.8
57.5°	1560.7	1640.3	1631.8	1462.4	1429.4	1369.3	1354.0	1343.9	1332.0	1337.1	1231.2
60°	1451.4	1512.4	1470.9	1342.2	1286.3	1245.6	1232.1	1225.3	1232.1	1128.8	992.4
62.5°	1316.8	1385.4	1301.5	1201.6	1142.3	1122.9	1111.0	1120.3	1021.2	907.8	874.7
65°	1177.1	1251.6	1127.9	1050.9	1013.6	996.7	995.8	917.1	819.7	775.7	775.7
67.5°	1042.4	1119.5	960.3	895.9	881.5	883.2	834.1	714.7	687.6	658.0	572.4
70°	899.3	967.0	793.5	754.5	746.0	740.1	620.7	588.5	556.3	477.6	470.8
72.5°	757.0	790.1	637.6	628.3	626.6	520.8	497.1	442.0	404.8	395.5	391.2
75°	619.0	608.8	503.8	512.3	431.9	394.6	356.5	324.3	319.2	315.9	78.8
77.5°	488.6	437.8	397.1	345.5	309.1	262.5	254.9	249.8	164.3	59.3	48.3
80°	355.7	283.7	264.2	224.4	191.4	183.8	188.0	57.6	45.7	38.1	33.0
82.5°	226.1	181.2	148.2	129.6	126.2	55.0	40.6	33.0	28.8	24.6	20.3
85°	121.1	80.4	74.5	62.7	37.3	25.4	21.2	16.1	13.5	11.0	10.2
87.5°	38.1	32.2	26.3	21.2	12.7	8.5	6.8	5.9	5.1	4.2	4.2
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: P1213788

CATALOG NUMBER: 4SNLED-LD5-47SL-RM-UNV-L940-CD1-U

CANDELA DISTRIBUTION (continued):

	11°	12°	13°	14°	15°	16°	17°	18°	19°	20°	25°
0°	2821.5	2821.5	2821.5	2821.5	2821.5	2821.5	2821.5	2821.5	2821.5	2821.5	2821.5
2.5°	2843.6	2845.2	2844.4	2846.9	2846.9	2850.3	2852.9	2855.4	2860.5	2863.0	2882.5
5°	2880.0	2884.2	2896.9	2908.8	2923.2	2927.4	2951.9	2957.9	2986.7	2990.1	3084.9
7.5°	2961.3	2977.3	3007.8	3038.3	3068.8	3088.3	3122.2	3143.3	3166.2	3186.5	3261.9
10°	3059.5	3086.6	3116.2	3146.7	3164.5	3201.8	3222.1	3225.5	3219.5	3186.5	3064.6
12.5°	3156.0	3183.1	3170.4	3176.3	3197.5	3131.5	3140.8	3093.4	3126.4	2963.0	2841.9
15°	3142.5	3140.8	3109.5	3007.8	3024.8	2898.6	2847.8	2808.8	2840.2	2823.2	2804.6
17.5°	3101.8	3024.8	2970.6	2848.6	2797.0	2761.4	2762.3	2763.1	2747.9	2764.0	2716.5
20°	2929.9	2843.6	2763.1	2719.9	2704.7	2679.3	2692.0	2679.3	2680.1	2685.2	2612.4
22.5°	2701.3	2675.0	2628.5	2642.0	2636.9	2659.8	2642.9	2616.6	2625.1	2587.0	2531.9
25°	2609.0	2578.5	2576.8	2581.9	2574.3	2564.1	2548.9	2509.1	2506.5	2494.7	2469.3
27.5°	2515.8	2517.5	2522.6	2507.4	2480.3	2460.0	2437.1	2417.6	2425.2	2411.7	2377.0
30°	2451.5	2450.6	2420.2	2406.6	2356.6	2357.5	2351.6	2339.7	2332.1	2332.9	2310.9
32.5°	2360.0	2333.8	2299.1	2282.1	2277.9	2262.7	2250.8	2253.3	2259.3	2238.1	2261.0
35°	2266.0	2211.8	2206.8	2192.4	2178.8	2168.7	2172.9	2156.0	2155.1	2152.6	1966.3
37.5°	2139.9	2113.6	2111.1	2095.8	2086.5	2084.0	2067.9	2070.4	2078.0	2091.6	1676.7
40°	2035.7	2012.0	2006.1	2005.2	1984.9	1983.2	1987.4	2003.5	2014.5	1929.9	1597.9
42.5°	1923.9	1925.6	1907.0	1895.1	1897.7	1905.3	1925.6	1869.7	1619.9	1543.7	1460.7
45°	1828.2	1819.8	1809.6	1806.2	1828.2	1813.0	1589.4	1466.7	1437.0	1433.6	1200.8
47.5°	1728.3	1725.8	1721.5	1724.1	1598.8	1425.2	1374.4	1358.3	1363.3	1360.0	1031.4
50°	1627.6	1630.9	1630.9	1424.3	1307.5	1278.7	1282.9	1297.3	1207.5	1127.1	961.1
52.5°	1540.3	1514.1	1297.3	1222.8	1196.5	1209.2	1178.7	1066.1	984.8	937.4	889.1
55°	1378.6	1185.5	1137.3	1125.4	1134.7	1022.1	952.7	879.8	858.7	853.6	825.6
57.5°	1084.8	1045.8	1050.0	1002.6	895.1	831.6	803.6	793.5	784.1	777.4	67.7
60°	959.4	970.4	888.3	786.7	743.5	735.0	728.2	718.9	717.2	705.4	43.2
62.5°	878.1	772.3	701.2	675.7	665.6	663.0	650.3	646.1	548.7	75.4	32.2
65°	662.2	619.0	605.5	599.5	588.5	588.5	488.6	77.1	62.7	54.2	28.8
67.5°	540.3	536.9	530.1	522.5	355.7	74.5	65.2	56.7	49.1	43.2	25.4
70°	457.3	455.6	414.9	76.2	63.5	55.9	49.1	44.0	40.6	36.4	22.9
72.5°	375.1	76.2	64.4	55.9	48.3	44.0	39.8	35.6	32.2	29.6	18.6
75°	58.4	51.7	45.7	41.5	38.1	33.9	30.5	27.9	27.1	23.7	12.7
77.5°	42.3	36.4	33.0	29.6	26.3	23.7	20.3	17.8	16.1	13.5	9.3
80°	29.6	26.3	23.7	19.5	16.9	14.4	12.7	11.0	10.2	8.5	4.2
82.5°	16.9	14.4	12.7	10.2	9.3	7.6	6.8	5.9	5.9	4.2	4.2
85°	7.6	7.6	5.9	5.1	4.2	4.2	4.2	3.4	3.4	2.5	2.5
87.5°	3.4	3.4	3.4	3.4	3.4	2.5	2.5	2.5	2.5	2.5	1.7
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: P1213788

CATALOG NUMBER: 4SNLED-LD5-47SL-RM-UNV-L940-CD1-U

CANDELA DISTRIBUTION (continued):

	30°	35°	40°	45°	50°	55°	60°	65°	70°	75°	80°
0°	2821.5	2821.5	2821.5	2821.5	2821.5	2821.5	2821.5	2821.5	2821.5	2821.5	2821.5
2.5°	2909.6	2920.6	2941.8	2963.8	2939.2	3027.3	3020.5	3050.2	3066.3	3073.9	3091.7
5°	3168.7	3217.8	3233.9	3185.7	3157.7	3128.9	3063.7	3014.6	3020.5	3004.4	2946.0
7.5°	3163.6	3058.6	2917.2	2852.9	2847.8	2840.2	2860.5	2872.3	2874.0	2873.2	2871.5
10°	2896.1	2841.9	2832.5	2824.1	2827.5	2796.1	2781.7	2741.1	2763.1	2751.3	2755.5
12.5°	2814.8	2802.1	2752.1	2682.7	2724.2	2692.8	2675.0	2686.9	2673.3	2660.6	2656.4
15°	2766.5	2684.4	2656.4	2639.5	2627.6	2620.8	2626.8	2613.2	2609.0	2606.5	2612.4
17.5°	2666.6	2633.5	2603.1	2558.2	2559.0	2556.5	2573.4	2598.8	2600.5	2470.1	2352.4
20°	2587.8	2560.7	2521.8	2493.8	2531.9	2464.2	2202.5	2078.0	2058.6	2058.6	2062.0
22.5°	2525.2	2465.0	2467.6	2423.5	2067.0	1994.2	1995.9	2003.5	1968.8	1850.3	1837.6
25°	2439.6	2430.3	2244.9	1940.0	1942.6	1885.8	1798.6	1675.8	1542.9	1542.9	1520.9
27.5°	2375.3	2178.0	1907.0	1894.3	1703.8	1583.5	1509.0	1396.4	1381.1	1366.7	1368.4
30°	2320.2	1842.6	1849.4	1583.5	1442.9	1343.0	1337.1	1318.5	1309.2	1306.6	1297.3
32.5°	1834.2	1794.4	1548.0	1348.1	1293.1	1277.0	1269.4	1248.2	1247.3	1231.2	1119.5
35°	1719.9	1575.0	1295.6	1241.4	1225.3	1210.1	1197.4	803.6	94.8	38.1	33.0
37.5°	1589.4	1315.9	1198.2	1173.7	1158.4	856.1	85.5	29.6	21.2	15.2	13.5
40°	1347.3	1175.4	1138.1	1111.0	458.1	29.6	18.6	14.4	8.5	7.6	6.8
42.5°	1136.4	1107.6	1067.8	325.2	33.9	14.4	9.3	6.8	5.9	5.9	5.1
45°	1063.6	1038.2	430.2	32.2	21.2	6.8	5.9	5.9	5.1	3.4	3.4
47.5°	995.8	876.4	39.0	20.3	13.5	5.9	5.1	3.4	3.4	3.4	2.5
50°	923.9	48.3	27.1	15.2	8.5	3.4	3.4	3.4	3.4	2.5	2.5
52.5°	172.7	33.9	22.0	13.5	4.2	3.4	3.4	3.4	2.5	2.5	2.5
55°	40.6	27.1	20.3	11.9	3.4	3.4	3.4	2.5	2.5	2.5	1.7
57.5°	30.5	20.3	16.1	11.0	3.4	2.5	2.5	2.5	2.5	2.5	1.7
60°	25.4	14.4	12.7	10.2	2.5	2.5	2.5	2.5	2.5	2.5	1.7
62.5°	17.8	11.9	9.3	7.6	2.5	2.5	2.5	2.5	2.5	2.5	2.5
65°	14.4	9.3	7.6	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
67.5°	12.7	7.6	5.1	1.7	2.5	2.5	2.5	2.5	2.5	2.5	2.5
70°	10.2	2.5	2.5	1.7	2.5	2.5	2.5	2.5	2.5	2.5	2.5
72.5°	8.5	2.5	1.7	1.7	2.5	2.5	2.5	2.5	2.5	2.5	2.5
75°	8.5	4.2	1.7	1.7	2.5	2.5	3.4	3.4	2.5	2.5	2.5
77.5°	5.9	4.2	1.7	1.7	2.5	2.5	3.4	3.4	2.5	2.5	2.5
80°	3.4	4.2	1.7	2.5	2.5	5.1	5.9	3.4	2.5	2.5	2.5
82.5°	3.4	4.2	5.1	5.1	2.5	4.2	5.1	4.2	3.4	2.5	2.5
85°	3.4	2.5	3.4	4.2	2.5	4.2	4.2	3.4	3.4	2.5	2.5
87.5°	1.7	2.5	2.5	3.4	3.4	3.4	4.2	3.4	3.4	3.4	2.5
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: P1213788

CATALOG NUMBER: 4SNLED-LD5-47SL-RM-UNV-L940-CD1-U

CANDELA DISTRIBUTION (continued):

	85°	90°	95°	100°	105°	110°	115°	120°	125°	130°	135°
0°	2821.5	2821.5	2821.5	2821.5	2821.5	2821.5	2821.5	2821.5	2821.5	2821.5	2821.5
2.5°	3100.1	3103.5	3050.2	3031.5	3047.6	3044.2	3029.9	2976.5	2970.6	2935.0	2883.4
5°	2963.0	2985.8	2957.9	3006.1	2983.3	3006.1	3075.6	3107.8	3160.3	3192.4	3204.3
7.5°	2867.3	2872.3	2872.3	2876.6	2880.8	2881.7	2876.6	2873.2	2858.8	2841.0	2873.2
10°	2751.3	2757.2	2767.3	2765.6	2764.8	2782.6	2786.8	2823.2	2821.5	2828.3	2852.9
12.5°	2691.1	2645.4	2686.9	2675.9	2691.1	2667.4	2711.5	2703.8	2706.4	2726.7	2779.2
15°	2591.2	2605.6	2615.8	2615.8	2621.7	2616.6	2611.5	2646.3	2667.4	2668.3	2664.9
17.5°	2399.0	2289.7	2401.5	2372.7	2602.2	2608.1	2588.7	2572.6	2572.6	2585.3	2612.4
20°	2059.4	2062.0	2062.8	2073.8	2087.4	2086.5	2087.4	2421.0	2579.4	2542.9	2518.4
22.5°	1805.4	1774.0	1832.5	1828.2	1901.1	1981.5	2058.6	2051.0	2056.0	2291.4	2503.1
25°	1447.2	1487.8	1454.8	1469.2	1551.3	1647.0	1706.3	1861.3	2029.8	2017.9	2073.0
27.5°	1362.5	1351.5	1366.7	1366.7	1377.7	1390.4	1423.5	1510.7	1660.6	1818.1	1967.1
30°	1282.1	1291.4	1293.1	1308.3	1316.8	1325.2	1330.3	1363.3	1397.2	1506.5	1690.2
32.5°	962.8	844.3	1111.0	1183.0	1243.9	1258.3	1268.5	1282.1	1306.6	1322.7	1415.0
35°	27.9	27.9	29.6	33.9	43.2	291.3	1109.3	1222.8	1238.9	1259.2	1276.1
37.5°	13.5	10.2	11.9	12.7	15.2	21.2	30.5	94.8	1056.0	1194.0	1212.6
40°	5.9	5.9	5.9	5.9	6.8	8.5	12.7	21.2	32.2	849.3	1145.7
42.5°	5.1	5.1	5.1	5.1	5.1	5.1	5.9	7.6	15.2	36.4	601.2
45°	3.4	3.4	2.5	3.4	3.4	4.2	5.1	5.1	6.8	22.9	41.5
47.5°	2.5	2.5	2.5	2.5	2.5	2.5	2.5	4.2	5.1	15.2	22.0
50°	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	11.9	15.2
52.5°	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	5.1	13.5
55°	1.7	1.7	1.7	1.7	1.7	1.7	1.7	2.5	2.5	3.4	11.9
57.5°	1.7	1.7	1.7	1.7	1.7	2.5	1.7	1.7	2.5	2.5	11.0
60°	1.7	1.7	1.7	1.7	1.7	2.5	2.5	2.5	2.5	2.5	10.2
62.5°	2.5	2.5	1.7	2.5	1.7	1.7	2.5	2.5	2.5	2.5	6.8
65°	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	1.7	2.5
67.5°	2.5	2.5	2.5	2.5	1.7	2.5	1.7	2.5	2.5	1.7	1.7
70°	2.5	2.5	2.5	2.5	2.5	2.5	2.5	1.7	1.7	1.7	1.7
72.5°	2.5	2.5	2.5	2.5	2.5	2.5	2.5	1.7	1.7	1.7	1.7
75°	2.5	2.5	2.5	2.5	2.5	2.5	3.4	3.4	1.7	1.7	1.7
77.5°	2.5	2.5	2.5	2.5	2.5	2.5	4.2	5.1	4.2	4.2	1.7
80°	2.5	2.5	2.5	2.5	2.5	2.5	4.2	4.2	4.2	4.2	5.9
82.5°	2.5	2.5	2.5	2.5	2.5	2.5	3.4	3.4	3.4	3.4	4.2
85°	2.5	2.5	2.5	2.5	2.5	2.5	3.4	3.4	3.4	2.5	3.4
87.5°	2.5	2.5	2.5	2.5	2.5	2.5	2.5	3.4	2.5	2.5	2.5
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: P1213788

CATALOG NUMBER: 4SNLED-LD5-47SL-RM-UNV-L940-CD1-U

CANDELA DISTRIBUTION (continued):

	140°	145°	150°	155°	160°	161°	162°	163°	164°	165°	166°
0°	2821.5	2821.5	2821.5	2821.5	2821.5	2821.5	2821.5	2821.5	2821.5	2821.5	2821.5
2.5°	2887.6	2858.8	2849.5	2830.0	2828.3	2830.0	2825.8	2819.8	2823.2	2817.3	2812.2
5°	3211.1	3134.0	3084.0	3017.1	2924.8	2904.5	2899.4	2870.7	2860.5	2857.1	2843.6
7.5°	2949.4	3090.0	3174.7	3203.4	3095.1	3069.7	3040.0	3016.3	2993.4	2950.3	2924.0
10°	2833.4	2840.2	2921.5	3016.3	3170.4	3191.6	3207.7	3156.0	3141.6	3031.5	3007.8
12.5°	2806.3	2807.1	2816.5	2874.0	2995.1	3008.7	3065.4	3095.9	3133.2	3154.3	3137.4
15°	2682.7	2751.3	2802.1	2807.1	2818.2	2841.9	2858.8	2964.6	3009.5	3129.8	3123.0
17.5°	2625.1	2647.1	2720.8	2780.9	2770.7	2762.3	2775.8	2790.2	2833.4	2953.6	2951.9
20°	2529.4	2599.7	2639.5	2702.1	2758.9	2761.4	2746.2	2737.7	2720.8	2740.2	2758.0
22.5°	2488.7	2499.8	2574.3	2618.3	2682.7	2705.5	2708.9	2709.8	2700.4	2690.3	2685.2
25°	2484.5	2449.8	2487.9	2542.9	2590.4	2614.9	2642.9	2652.2	2648.8	2648.8	2643.7
27.5°	2033.2	2438.8	2418.5	2454.9	2512.5	2529.4	2543.8	2572.6	2590.4	2603.1	2609.0
30°	1936.6	2009.5	2364.3	2369.3	2427.8	2426.1	2442.2	2465.9	2488.7	2518.4	2526.0
32.5°	1713.1	1891.8	2164.4	2283.8	2344.8	2350.7	2359.2	2366.0	2387.1	2420.2	2448.9
35°	1372.7	1723.2	1854.5	2243.2	2254.2	2266.0	2271.1	2287.2	2294.0	2307.5	2332.9
37.5°	1242.3	1424.3	1779.1	1940.0	2150.0	2160.2	2187.3	2194.1	2205.1	2216.1	2235.6
40°	1166.9	1216.9	1481.1	1732.6	2066.2	2073.0	2082.3	2099.2	2100.1	2112.8	2130.5
42.5°	1106.8	1138.9	1216.0	1654.6	2006.9	2006.1	1984.1	1995.1	2000.1	2013.7	2038.2
45°	884.1	1068.7	1117.8	1351.5	1597.9	1713.1	1934.1	1897.7	1896.8	1901.9	1928.2
47.5°	44.9	1005.2	1039.9	1115.2	1509.0	1513.2	1542.0	1784.2	1821.5	1809.6	1812.2
50°	30.5	69.4	968.7	1003.5	1300.7	1405.7	1426.9	1437.9	1577.6	1733.4	1708.0
52.5°	23.7	39.8	593.6	931.5	1056.8	1133.9	1270.2	1348.1	1356.6	1419.2	1631.8
55°	21.2	30.5	64.4	859.5	898.5	915.4	995.0	1131.3	1241.4	1274.4	1277.0
57.5°	18.6	27.9	44.0	388.7	817.2	820.5	834.1	881.5	980.6	1071.2	1173.7
60°	16.9	24.6	34.7	66.9	742.6	751.1	753.7	766.4	778.2	840.0	957.7
62.5°	10.2	19.5	30.5	48.3	587.7	674.9	674.1	682.5	693.5	700.3	724.0
65°	8.5	15.2	26.3	40.6	72.0	89.8	545.3	606.3	613.1	622.4	626.6
67.5°	7.6	13.5	19.5	32.2	54.2	61.8	71.1	88.1	481.0	542.0	550.4
70°	6.8	9.3	16.1	27.1	44.0	47.4	53.3	61.0	72.0	88.9	435.3
72.5°	4.2	6.8	11.0	19.5	33.9	38.1	41.5	46.6	51.7	61.8	71.1
75°	1.7	5.1	9.3	14.4	26.3	28.8	31.3	34.7	39.0	45.7	50.8
77.5°	1.7	4.2	7.6	10.2	16.9	19.5	22.9	25.4	28.8	32.2	37.3
80°	5.9	3.4	5.1	7.6	11.9	12.7	14.4	16.1	18.6	21.2	24.6
82.5°	4.2	5.1	5.9	5.1	5.9	7.6	8.5	10.2	11.0	12.7	13.5
85°	3.4	3.4	4.2	4.2	4.2	4.2	4.2	4.2	5.1	5.9	7.6
87.5°	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	3.4	3.4
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: P1213788

CATALOG NUMBER: 4SNLED-LD5-47SL-RM-UNV-L940-CD1-U

CANDELA DISTRIBUTION (continued):

	167°	168°	169°	170°	171°	172°	173°	174°	175°	176°	177°
0°	2821.5	2821.5	2821.5	2821.5	2821.5	2821.5	2821.5	2821.5	2821.5	2821.5	2821.5
2.5°	2812.2	2810.5	2805.4	2805.4	2804.6	2808.0	2810.5	2813.1	2812.2	2817.3	2812.2
5°	2833.4	2829.2	2821.5	2814.8	2812.2	2813.9	2811.4	2813.9	2810.5	2814.8	2807.1
7.5°	2891.8	2877.4	2847.8	2835.9	2820.7	2819.8	2812.2	2810.5	2805.4	2805.4	2796.1
10°	2995.1	2925.7	2917.2	2881.7	2869.0	2807.1	2820.7	2797.8	2795.3	2784.3	2780.0
12.5°	3079.8	3025.6	3009.5	2978.2	2942.6	2817.3	2845.2	2796.1	2793.6	2771.6	2748.7
15°	3081.5	3112.8	3068.8	2982.4	2974.8	2888.4	2831.7	2814.8	2792.7	2726.7	2737.7
17.5°	2982.4	3054.4	3075.6	3056.9	3002.8	2944.3	2864.7	2830.9	2764.8	2735.2	2714.8
20°	2821.5	2894.4	2985.0	2990.9	3024.8	2983.3	2879.1	2824.1	2744.5	2692.8	2675.9
22.5°	2693.7	2747.0	2851.2	2899.4	2940.9	2955.3	2889.3	2808.0	2708.9	2659.0	2648.8
25°	2625.9	2637.8	2669.1	2725.9	2817.3	2883.4	2892.7	2806.3	2754.6	2645.4	2587.8
27.5°	2601.4	2591.2	2578.5	2607.3	2675.9	2756.3	2809.7	2824.1	2695.4	2591.2	2533.6
30°	2538.7	2544.6	2525.2	2515.0	2559.9	2642.9	2737.7	2761.4	2662.3	2554.8	2488.7
32.5°	2461.6	2471.8	2475.2	2457.4	2448.1	2505.7	2608.1	2664.9	2659.8	2503.1	2429.5
35°	2365.1	2393.9	2401.5	2402.4	2387.1	2377.8	2437.1	2554.8	2599.7	2479.4	2372.7
37.5°	2263.5	2272.0	2313.5	2324.5	2324.5	2296.5	2340.6	2434.6	2497.2	2426.1	2303.3
40°	2136.5	2163.6	2202.5	2222.0	2241.5	2244.0	2219.5	2285.5	2388.8	2371.0	2238.1
42.5°	2044.2	2062.0	2085.7	2111.9	2151.7	2161.9	2136.5	2148.3	2255.9	2302.4	2153.4
45°	1936.6	1960.3	1967.1	1995.9	2037.4	2067.0	2066.2	2041.6	2128.0	2185.6	2091.6
47.5°	1826.5	1849.4	1861.3	1875.7	1906.1	1944.3	1965.4	1954.4	1971.4	2084.0	2009.5
50°	1713.1	1725.8	1749.5	1765.6	1785.9	1807.9	1858.7	1868.9	1845.2	1934.9	1918.8
52.5°	1605.5	1609.8	1625.9	1641.9	1669.0	1685.1	1725.8	1756.3	1754.6	1780.8	1818.1
55°	1521.7	1503.1	1506.5	1519.2	1536.9	1561.5	1584.4	1631.8	1647.9	1653.0	1712.2
57.5°	1188.9	1380.3	1397.2	1396.4	1417.5	1428.6	1449.7	1481.1	1538.6	1525.9	1592.0
60°	1080.5	1101.7	1261.7	1280.4	1288.0	1298.1	1323.5	1352.3	1394.7	1421.8	1450.6
62.5°	823.9	952.7	1000.9	1142.3	1164.4	1170.3	1187.2	1200.8	1244.8	1306.6	1294.8
65°	637.6	692.7	840.0	897.6	1017.9	1033.1	1056.8	1071.2	1083.9	1155.0	1158.4
67.5°	551.3	559.7	599.5	710.5	786.7	904.4	918.8	931.5	951.0	1001.8	1033.1
70°	470.8	481.0	492.0	501.3	600.4	678.3	787.5	791.8	804.5	838.3	909.5
72.5°	88.9	402.2	409.0	414.9	425.9	477.6	581.8	666.4	671.5	687.6	752.8
75°	60.1	70.3	96.5	331.9	343.0	346.3	364.1	470.0	547.9	551.3	580.1
77.5°	43.2	48.3	58.4	69.4	177.0	265.9	270.1	289.6	370.1	428.5	433.6
80°	29.6	33.0	39.0	44.0	54.2	71.1	196.5	202.4	212.5	293.0	308.2
82.5°	16.9	19.5	22.9	27.9	32.2	40.6	52.5	67.7	138.0	147.3	195.6
85°	8.5	9.3	11.0	13.5	16.1	19.5	26.3	32.2	44.0	79.6	82.1
87.5°	4.2	4.2	4.2	4.2	6.8	7.6	9.3	11.9	15.2	22.9	29.6
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: P1213788

CATALOG NUMBER: 4SNLED-LD5-47SL-RM-UNV-L940-CD1-U

CANDELA DISTRIBUTION (continued):

	178°	179°	180°	181°	182°	183°	184°	185°	186°	187°	188°
0°	2821.5	2821.5	2821.5	2821.5	2821.5	2821.5	2821.5	2821.5	2821.5	2821.5	2821.5
2.5°	2813.1	2824.9	2835.1	2837.6	2837.6	2839.3	2841.9	2843.6	2845.2	2846.9	2845.2
5°	2808.0	2820.7	2829.2	2831.7	2831.7	2836.8	2841.0	2846.1	2848.6	2848.6	2846.9
7.5°	2795.3	2804.6	2815.6	2822.4	2823.2	2831.7	2839.3	2838.5	2841.9	2843.6	2847.8
10°	2778.4	2778.4	2797.0	2802.1	2806.3	2815.6	2818.2	2823.2	2835.1	2836.8	2847.8
12.5°	2769.9	2761.4	2783.4	2786.0	2800.4	2788.5	2803.8	2808.8	2797.0	2813.1	2791.9
15°	2731.8	2741.9	2738.6	2746.2	2771.6	2758.0	2799.5	2786.0	2816.5	2780.0	2844.4
17.5°	2700.4	2698.8	2712.3	2719.1	2724.2	2752.9	2764.0	2779.2	2791.1	2780.9	2806.3
20°	2677.6	2664.0	2674.2	2681.8	2699.6	2721.6	2728.4	2705.5	2745.3	2813.1	2829.2
22.5°	2634.4	2625.1	2636.9	2636.9	2664.0	2660.6	2686.1	2671.7	2708.9	2787.7	2869.8
25°	2576.0	2576.8	2589.5	2604.8	2609.8	2647.9	2661.5	2680.1	2726.7	2820.7	2870.7
27.5°	2516.7	2511.6	2519.2	2550.6	2576.8	2604.8	2609.0	2672.5	2736.0	2800.4	2844.4
30°	2457.4	2452.3	2457.4	2480.3	2511.6	2530.2	2576.8	2661.5	2720.8	2764.8	2806.3
32.5°	2393.9	2388.8	2400.7	2417.6	2472.7	2475.2	2567.5	2647.1	2693.7	2725.9	2718.2
35°	2326.2	2319.4	2330.4	2356.6	2407.5	2426.1	2522.6	2581.9	2634.4	2649.6	2614.1
37.5°	2244.9	2233.0	2246.6	2283.0	2336.3	2390.5	2471.0	2539.6	2567.5	2526.9	2484.5
40°	2160.2	2151.7	2175.4	2194.1	2256.7	2332.1	2424.4	2472.7	2454.9	2408.3	2361.7
42.5°	2084.8	2067.0	2088.2	2123.8	2194.9	2280.4	2355.0	2382.0	2339.7	2271.1	2216.9
45°	1992.5	1971.4	1996.8	2044.2	2120.4	2217.8	2276.2	2266.9	2194.9	2135.6	2061.1
47.5°	1896.0	1870.6	1896.0	1952.7	2038.2	2141.6	2183.9	2141.6	2051.0	1976.4	1916.3
50°	1801.1	1771.5	1796.1	1881.6	1965.4	2045.0	2044.2	1962.0	1907.8	1826.5	1774.0
52.5°	1707.1	1664.8	1689.4	1782.5	1866.3	1957.0	1890.1	1813.8	1748.6	1677.5	1660.6
55°	1591.1	1545.4	1578.4	1713.9	1778.3	1831.6	1724.9	1658.0	1593.7	1558.1	1536.9
57.5°	1481.1	1431.1	1459.9	1619.9	1667.3	1680.9	1582.7	1487.8	1449.7	1437.9	1407.4
60°	1367.6	1310.8	1337.9	1522.5	1555.6	1500.5	1404.0	1330.3	1322.7	1299.0	1275.3
62.5°	1259.2	1196.5	1213.5	1401.5	1416.7	1316.8	1227.9	1208.4	1189.8	1166.0	1153.3
65°	1134.7	1069.5	1093.2	1272.7	1258.3	1129.6	1079.7	1075.4	1050.9	1031.4	1050.0
67.5°	1020.4	943.3	976.4	1132.2	1067.0	962.0	941.6	931.5	912.0	923.0	727.4
70°	895.1	811.2	856.1	980.6	884.1	814.6	807.0	791.8	792.6	630.0	530.9
72.5°	755.3	682.5	747.7	814.6	699.5	679.1	668.1	666.4	537.7	436.9	412.4
75°	632.6	558.9	629.2	654.6	557.2	543.6	542.8	448.8	353.1	337.0	329.4
77.5°	493.7	436.9	503.8	465.7	427.6	412.4	370.1	277.8	265.9	254.9	95.7
80°	332.8	337.0	376.0	320.9	304.8	260.0	204.9	196.5	169.4	67.7	53.3
82.5°	202.4	254.0	239.6	200.7	196.5	141.4	129.6	66.1	49.1	39.0	33.9
85°	105.0	128.7	123.6	109.2	81.3	72.8	40.6	31.3	25.4	19.5	16.1
87.5°	35.6	47.4	45.7	36.4	27.9	22.0	14.4	11.9	8.5	6.8	5.9
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: P1213788

CATALOG NUMBER: 4SNLED-LD5-47SL-RM-UNV-L940-CD1-U

CANDELA DISTRIBUTION (continued):

	189°	190°	191°	192°	193°	194°	195°	196°	197°	198°	199°
0°	2821.5	2821.5	2821.5	2821.5	2821.5	2821.5	2821.5	2821.5	2821.5	2821.5	2821.5
2.5°	2843.6	2843.6	2841.9	2843.6	2844.4	2842.7	2842.7	2844.4	2845.2	2846.1	2850.3
5°	2847.8	2849.5	2852.0	2857.1	2858.0	2868.1	2872.3	2874.9	2877.4	2878.3	2872.3
7.5°	2857.1	2863.0	2868.1	2867.3	2861.3	2845.2	2840.2	2835.9	2843.6	2863.0	2885.9
10°	2865.6	2838.5	2787.7	2857.1	2835.9	2855.4	2913.0	2925.7	2964.6	3019.7	3035.8
12.5°	2807.1	2881.7	2897.8	2819.8	2963.8	2910.5	2974.0	3029.9	3045.9	3101.8	3068.0
15°	2869.8	2906.2	2930.8	3008.7	3000.2	3045.9	3063.7	3052.7	3055.3	3069.7	3107.8
17.5°	2869.0	2941.8	2957.9	3010.4	3045.9	3046.8	3041.7	3036.6	3050.2	3061.2	3038.3
20°	2918.1	2941.8	2973.1	2994.3	3001.1	3009.5	3025.6	3012.9	2987.5	2963.0	2952.8
22.5°	2893.5	2946.9	2974.0	2977.3	2973.1	2946.9	2923.2	2887.6	2875.7	2863.0	2867.3
25°	2898.6	2923.2	2919.8	2906.2	2888.4	2839.3	2827.5	2812.2	2789.4	2734.3	2684.4
27.5°	2862.2	2849.5	2834.2	2801.2	2769.0	2742.8	2713.1	2664.0	2623.4	2564.1	2542.1
30°	2801.2	2750.4	2713.1	2693.7	2662.3	2618.3	2573.4	2513.3	2461.6	2449.8	2438.8
32.5°	2684.4	2634.4	2603.9	2556.5	2503.1	2450.6	2399.0	2375.3	2364.3	2366.0	2355.8
35°	2565.0	2520.9	2475.2	2404.1	2364.3	2311.8	2293.1	2288.1	2277.9	2266.9	2255.0
37.5°	2437.9	2386.3	2317.7	2275.4	2235.6	2214.4	2205.1	2197.4	2179.7	2160.2	2146.6
40°	2315.2	2222.0	2183.9	2142.4	2130.5	2121.2	2107.7	2089.1	2064.5	2061.1	2055.2
42.5°	2150.9	2084.0	2051.0	2042.5	2028.1	2012.0	2000.1	1979.8	1969.7	1976.4	1981.5
45°	1995.1	1961.2	1950.2	1940.0	1912.9	1890.1	1882.4	1875.7	1884.1	1921.4	1832.5
47.5°	1868.9	1855.3	1841.8	1824.9	1799.5	1782.5	1790.1	1796.9	1804.5	1531.0	1397.2
50°	1759.7	1741.0	1719.9	1701.2	1686.0	1684.3	1724.1	1604.7	1343.9	1337.1	1201.6
52.5°	1640.3	1612.3	1599.6	1588.6	1595.4	1620.8	1341.3	1244.8	1194.0	1037.3	967.9
55°	1511.5	1487.0	1487.0	1497.1	1460.7	1183.8	1169.4	1011.1	915.4	888.3	877.3
57.5°	1382.8	1380.3	1394.7	1275.3	1074.6	1030.6	866.3	831.6	816.3	812.9	795.1
60°	1265.1	1288.8	1078.8	992.4	862.9	778.2	754.5	750.3	734.2	728.2	712.2
62.5°	1171.1	971.3	904.4	738.4	695.2	684.2	671.5	665.6	651.2	575.0	168.5
65°	846.0	799.4	648.6	620.7	617.3	601.2	596.1	536.0	126.2	84.7	72.0
67.5°	638.5	566.5	547.0	542.0	525.9	493.7	146.5	83.8	72.0	62.7	55.0
70°	490.3	477.6	463.2	451.3	132.9	83.0	72.0	61.0	52.5	46.6	42.3
72.5°	401.4	392.9	228.6	87.2	71.1	60.1	53.3	46.6	40.6	37.3	33.9
75°	314.2	87.2	72.0	60.1	51.7	44.0	39.0	34.7	31.3	28.8	26.3
77.5°	71.1	57.6	49.1	41.5	37.3	33.0	29.6	25.4	22.9	20.3	16.9
80°	44.0	38.1	32.2	29.6	25.4	21.2	18.6	16.9	13.5	12.7	11.0
82.5°	28.8	22.9	20.3	16.9	13.5	12.7	11.0	8.5	7.6	6.8	5.9
85°	12.7	11.0	9.3	7.6	5.9	5.1	4.2	3.4	3.4	3.4	3.4
87.5°	4.2	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	1.7	1.7
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: P1213788

CATALOG NUMBER: 4SNLED-LD5-47SL-RM-UNV-L940-CD1-U

CANDELA DISTRIBUTION (continued):

	200°	205°	210°	215°	220°	225°	230°	235°	240°	245°	250°
0°	2821.5	2821.5	2821.5	2821.5	2821.5	2821.5	2821.5	2821.5	2821.5	2821.5	2821.5
2.5°	2852.0	2867.3	2881.7	2877.4	2862.2	2838.5	2831.7	2822.4	2829.2	2843.6	2849.5
5°	2872.3	2863.9	2894.4	2939.2	3012.1	3018.8	3069.7	3081.5	3122.2	3147.6	3146.7
7.5°	2901.1	3021.4	3071.3	3125.5	3150.1	3144.2	3151.8	3145.9	3136.5	3132.3	3127.2
10°	3047.6	3139.1	3157.7	3157.7	3119.6	3068.0	3045.9	3007.8	2931.6	2933.3	2920.6
12.5°	3133.2	3165.3	3121.3	3084.0	2930.8	2871.5	2807.1	2776.7	2758.9	2731.8	2741.9
15°	3088.3	3042.6	3016.3	2896.1	2802.1	2695.4	2697.1	2678.4	2659.0	2660.6	2647.9
17.5°	3022.2	2985.8	2799.5	2716.5	2670.8	2629.3	2621.7	2597.1	2584.4	2580.2	2579.4
20°	2931.6	2800.4	2661.5	2641.2	2586.1	2538.7	2531.1	2538.7	2577.7	2508.2	2272.8
22.5°	2825.8	2636.9	2596.3	2538.7	2501.4	2482.8	2529.4	2317.7	1997.6	2036.6	1995.1
25°	2646.3	2564.1	2494.7	2450.6	2446.4	2332.1	1943.4	1902.8	1697.0	1586.9	1463.3
27.5°	2515.0	2479.4	2406.6	2399.0	2343.9	1907.0	1704.6	1481.1	1398.9	1386.2	1359.1
30°	2435.4	2384.6	2340.6	2148.3	1870.6	1535.2	1367.6	1336.3	1321.9	1306.6	1282.9
32.5°	2339.7	2291.4	2312.6	1806.2	1491.2	1321.9	1288.0	1265.1	1238.9	1228.7	1143.2
35°	2242.3	2220.3	1807.1	1518.3	1282.1	1241.4	1216.0	1192.3	948.4	229.5	77.9
37.5°	2138.2	2133.1	1624.2	1260.0	1200.8	1162.7	1090.7	225.2	53.3	36.4	27.1
40°	2056.9	1625.0	1283.7	1181.3	1133.0	1072.9	150.7	37.3	23.7	14.4	9.3
42.5°	2002.7	1461.6	1149.1	1108.5	1003.5	110.9	38.1	16.1	9.3	7.6	5.9
45°	1543.7	1154.2	1073.7	1031.4	127.0	38.1	22.0	7.6	5.9	5.1	3.4
47.5°	1424.3	1048.3	1000.9	225.2	42.3	20.3	15.2	5.1	3.4	3.4	3.4
50°	1078.8	968.7	796.8	55.0	27.1	14.4	11.0	3.4	3.4	3.4	2.5
52.5°	945.9	894.2	85.5	36.4	21.2	11.0	6.8	2.5	2.5	2.5	2.5
55°	864.6	567.4	50.8	27.9	17.8	10.2	4.2	2.5	2.5	2.5	1.7
57.5°	790.9	76.2	37.3	23.7	16.1	9.3	2.5	2.5	2.5	2.5	1.7
60°	670.7	55.0	30.5	21.2	15.2	8.5	2.5	2.5	2.5	2.5	2.5
62.5°	87.2	43.2	26.3	18.6	11.0	6.8	1.7	2.5	2.5	2.5	2.5
65°	63.5	33.9	23.7	12.7	6.8	2.5	1.7	2.5	2.5	2.5	2.5
67.5°	49.1	27.9	17.8	11.0	5.9	1.7	1.7	2.5	2.5	2.5	2.5
70°	39.0	23.7	14.4	9.3	5.1	1.7	1.7	2.5	2.5	2.5	2.5
72.5°	30.5	16.9	10.2	5.1	3.4	1.7	1.7	2.5	2.5	2.5	2.5
75°	22.9	13.5	7.6	4.2	1.7	1.7	1.7	2.5	2.5	2.5	2.5
77.5°	15.2	8.5	5.9	3.4	3.4	3.4	4.2	4.2	2.5	2.5	2.5
80°	10.2	5.9	4.2	4.2	4.2	3.4	4.2	4.2	2.5	4.2	2.5
82.5°	5.1	4.2	4.2	3.4	3.4	2.5	3.4	3.4	3.4	3.4	2.5
85°	3.4	2.5	2.5	2.5	2.5	2.5	2.5	2.5	3.4	3.4	2.5
87.5°	1.7	1.7	1.7	1.7	2.5	2.5	2.5	2.5	3.4	3.4	2.5
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: P1213788

CATALOG NUMBER: 4SNLED-LD5-47SL-RM-UNV-L940-CD1-U

CANDELA DISTRIBUTION (continued):

	255°	260°	265°	270°	275°	280°	285°	290°	295°	300°	305°
0°	2821.5	2821.5	2821.5	2821.5	2821.5	2821.5	2821.5	2821.5	2821.5	2821.5	2821.5
2.5°	2841.9	2844.4	2837.6	2874.0	2855.4	2857.1	2864.7	2845.2	2849.5	2835.9	2826.6
5°	3150.1	3155.2	3160.3	3162.0	3165.3	3169.6	3164.5	3162.0	3156.9	3139.9	3122.2
7.5°	3101.8	3095.9	3093.4	3096.7	3102.7	3105.2	3101.0	3106.9	3128.9	3138.2	3144.2
10°	2847.8	2820.7	2839.3	2836.8	2815.6	2886.7	2867.3	2878.3	2885.9	2963.8	3011.2
12.5°	2726.7	2743.6	2711.5	2695.4	2716.5	2730.9	2745.3	2714.8	2757.2	2737.7	2800.4
15°	2625.1	2614.9	2611.5	2612.4	2608.1	2628.5	2633.5	2640.3	2646.3	2672.5	2682.7
17.5°	2579.4	2596.3	2603.1	2608.1	2599.7	2590.4	2581.0	2567.5	2571.7	2565.0	2584.4
20°	2114.5	2057.7	2054.3	2087.4	2051.0	2071.3	2120.4	2448.9	2437.9	2565.8	2522.6
22.5°	1764.7	1711.4	1665.7	1625.9	1682.6	1706.3	1797.8	1901.1	2068.7	2042.5	2224.5
25°	1441.3	1421.8	1409.9	1404.0	1408.2	1406.5	1426.9	1475.1	1551.3	1730.9	1962.9
27.5°	1348.1	1338.8	1334.6	1321.0	1331.2	1327.8	1343.9	1354.0	1376.9	1394.7	1470.0
30°	1274.4	1263.4	1255.8	1241.4	1251.6	1252.4	1257.5	1283.7	1293.1	1308.3	1332.0
32.5°	465.7	274.4	257.4	244.7	267.6	348.9	612.2	1070.4	1221.1	1232.9	1260.0
35°	45.7	38.1	33.9	33.9	34.7	38.1	50.8	133.8	244.7	945.9	1183.8
37.5°	17.8	15.2	12.7	11.9	12.7	14.4	19.5	25.4	34.7	72.0	320.9
40°	7.6	6.8	5.9	5.9	5.9	5.9	6.8	8.5	12.7	23.7	37.3
42.5°	5.1	4.2	4.2	4.2	4.2	4.2	4.2	4.2	5.9	7.6	15.2
45°	3.4	2.5	2.5	2.5	2.5	2.5	2.5	2.5	3.4	4.2	6.8
47.5°	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	3.4
50°	2.5	2.5	2.5	2.5	1.7	2.5	1.7	2.5	2.5	2.5	2.5
52.5°	2.5	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	2.5	2.5
55°	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	2.5
57.5°	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
60°	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
62.5°	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	2.5	2.5	1.7
65°	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	2.5	1.7
67.5°	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
70°	2.5	2.5	1.7	2.5	1.7	1.7	2.5	2.5	2.5	1.7	1.7
72.5°	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	5.1	5.1	3.4
75°	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	4.2	5.1	4.2
77.5°	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	4.2	4.2	4.2
80°	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	3.4	3.4	3.4
82.5°	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	3.4	3.4	3.4
85°	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
87.5°	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
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: P1213788

CATALOG NUMBER: 4SNLED-LD5-47SL-RM-UNV-L940-CD1-U

CANDELA DISTRIBUTION (continued):

	310°	315°	320°	325°	330°	335°	340°	341°	342°	343°	344°
0°	2821.5	2821.5	2821.5	2821.5	2821.5	2821.5	2821.5	2821.5	2821.5	2821.5	2821.5
2.5°	2810.5	2809.7	2827.5	2841.0	2835.9	2841.0	2846.9	2847.8	2849.5	2842.7	2840.2
5°	3088.3	3062.0	3011.2	2974.8	2932.5	2855.4	2817.3	2821.5	2822.4	2819.8	2823.2
7.5°	3141.6	3139.1	3121.3	3113.7	3084.9	3029.9	2941.8	2926.5	2889.3	2865.6	2846.1
10°	3007.8	3068.8	3084.9	3112.0	3128.9	3118.8	3044.2	3033.2	3009.5	2982.4	2988.4
12.5°	2863.0	2913.0	2915.5	3062.9	3095.9	3099.3	3070.5	3085.7	3089.1	3028.2	2992.6
15°	2685.2	2708.9	2758.9	2896.1	2996.0	3058.6	3077.3	3085.7	3044.2	3041.7	3027.3
17.5°	2607.3	2622.5	2645.4	2722.5	2874.0	2966.3	3045.1	3039.2	3055.3	3043.4	3007.0
20°	2509.1	2521.8	2562.4	2601.4	2675.9	2798.7	2946.0	2957.0	2978.2	2975.7	2985.8
22.5°	2507.4	2462.5	2469.3	2499.8	2577.7	2687.7	2844.4	2880.8	2894.4	2903.7	2914.7
25°	1989.1	2345.6	2410.8	2430.3	2481.1	2545.5	2730.1	2743.6	2769.0	2810.5	2841.0
27.5°	1723.2	1965.4	2226.2	2361.7	2393.9	2447.3	2557.3	2577.7	2664.0	2674.2	2721.6
30°	1360.0	1547.1	1936.6	2262.7	2316.0	2353.3	2431.2	2471.8	2509.1	2549.7	2599.7
32.5°	1279.5	1309.2	1525.1	1872.3	2287.2	2259.3	2316.8	2341.4	2382.0	2417.6	2454.0
35°	1205.8	1226.2	1271.9	1533.6	1863.0	2182.2	2221.2	2237.2	2260.1	2287.2	2313.5
37.5°	1128.8	1159.3	1190.6	1260.9	1723.2	2121.2	2120.4	2139.0	2152.6	2175.4	2197.4
40°	204.9	1064.4	1115.2	1161.0	1336.3	1691.9	2025.5	2034.0	2043.3	2057.7	2080.6
42.5°	33.0	177.8	1045.0	1089.0	1138.9	1514.9	1982.4	1947.6	1941.7	1951.9	1972.2
45°	16.9	43.2	210.0	1017.0	1061.9	1208.4	1620.8	1887.5	1881.6	1862.1	1866.3
47.5°	12.7	27.1	51.7	351.4	994.1	1037.3	1495.4	1479.4	1592.0	1807.9	1774.9
50°	11.0	18.6	30.5	72.0	878.1	955.2	1151.6	1345.6	1404.8	1412.5	1671.6
52.5°	10.2	12.7	22.0	46.6	184.6	883.2	936.6	1004.3	1104.2	1318.5	1313.4
55°	9.3	11.9	18.6	31.3	64.4	796.0	851.0	863.7	884.9	987.4	1122.9
57.5°	5.1	11.0	17.8	27.1	48.3	145.6	772.3	782.4	799.4	803.6	851.9
60°	2.5	10.2	16.1	23.7	35.6	67.7	694.4	706.2	716.4	718.1	733.3
62.5°	1.7	9.3	13.5	22.0	29.6	48.3	164.3	335.3	637.6	637.6	655.4
65°	1.7	6.8	8.5	14.4	27.1	39.8	69.4	80.4	156.7	385.3	575.0
67.5°	1.7	2.5	7.6	11.9	20.3	30.5	50.8	59.3	71.1	81.3	150.7
70°	1.7	1.7	6.8	7.6	12.7	22.9	36.4	41.5	48.3	55.0	63.5
72.5°	1.7	1.7	5.9	5.9	8.5	15.2	27.9	30.5	34.7	39.0	44.9
75°	4.2	3.4	5.1	5.1	5.9	11.9	21.2	23.7	25.4	28.8	33.0
77.5°	4.2	4.2	4.2	4.2	4.2	7.6	13.5	15.2	17.8	19.5	22.9
80°	3.4	3.4	3.4	4.2	4.2	5.1	8.5	9.3	10.2	12.7	13.5
82.5°	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	5.1	5.9	7.6
85°	2.5	2.5	2.5	2.5	2.5	2.5	2.5	3.4	3.4	3.4	3.4
87.5°	2.5	2.5	2.5	1.7	1.7	2.5	2.5	2.5	2.5	2.5	2.5
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: P1213788

CATALOG NUMBER: 4SNLED-LD5-47SL-RM-UNV-L940-CD1-U

CANDELA DISTRIBUTION (continued):

	345°	346°	347°	348°	349°	350°	351°	352°	353°	354°	355°
0°	2821.5	2821.5	2821.5	2821.5	2821.5	2821.5	2821.5	2821.5	2821.5	2821.5	2821.5
2.5°	2839.3	2834.2	2830.0	2832.5	2824.9	2821.5	2824.1	2824.9	2826.6	2830.9	2831.7
5°	2831.7	2830.0	2837.6	2841.9	2840.2	2841.9	2841.9	2838.5	2833.4	2836.8	2829.2
7.5°	2826.6	2815.6	2807.1	2808.8	2800.4	2810.5	2819.8	2833.4	2837.6	2837.6	2829.2
10°	2913.8	2902.0	2854.6	2822.4	2801.2	2782.6	2826.6	2781.7	2802.9	2722.5	2814.8
12.5°	2985.8	3001.9	2980.7	2892.7	2877.4	2821.5	2853.7	2798.7	2782.6	2690.3	2719.9
15°	3014.6	2984.1	2977.3	2952.8	2919.8	2903.7	2817.3	2808.0	2781.7	2791.9	2752.9
17.5°	2989.2	3004.4	2984.1	2968.0	2934.2	2896.1	2844.4	2798.7	2762.3	2681.0	2749.6
20°	2964.6	2985.0	2924.0	2934.2	2937.6	2893.5	2866.4	2828.3	2782.6	2706.4	2647.1
22.5°	2924.0	2909.6	2914.7	2899.4	2886.7	2892.7	2855.4	2829.2	2752.1	2717.4	2636.9
25°	2858.0	2852.9	2866.4	2864.7	2834.2	2824.1	2805.4	2777.5	2747.0	2691.1	2625.1
27.5°	2750.4	2776.7	2800.4	2811.4	2795.3	2768.2	2758.0	2741.9	2720.8	2664.0	2614.9
30°	2636.9	2666.6	2693.7	2717.4	2731.8	2719.9	2710.6	2701.3	2669.1	2631.9	2576.8
32.5°	2507.4	2546.3	2583.6	2612.4	2643.7	2653.0	2646.3	2638.6	2611.5	2577.7	2533.6
35°	2357.5	2410.8	2465.0	2516.7	2530.2	2552.3	2574.3	2561.6	2547.2	2513.3	2472.7
37.5°	2230.5	2268.6	2307.5	2372.7	2420.2	2448.1	2487.1	2492.1	2467.6	2451.5	2398.1
40°	2099.2	2133.9	2190.7	2228.8	2294.0	2326.2	2367.7	2386.3	2380.4	2371.0	2324.5
42.5°	1995.9	2012.8	2050.1	2084.0	2148.3	2214.4	2250.8	2271.1	2292.3	2284.7	2261.0
45°	1885.8	1901.1	1913.8	1943.4	2006.1	2064.5	2109.4	2139.9	2178.0	2195.8	2167.0
47.5°	1776.6	1780.8	1796.1	1820.6	1857.9	1902.8	1978.1	2023.9	2059.4	2094.1	2075.5
50°	1692.8	1677.5	1680.1	1695.3	1725.8	1769.8	1824.0	1888.4	1929.0	1971.4	1975.6
52.5°	1479.4	1603.0	1573.4	1581.8	1597.9	1619.1	1675.8	1739.3	1789.3	1825.7	1862.1
55°	1241.4	1266.0	1503.9	1470.0	1480.2	1498.8	1525.1	1588.6	1636.9	1687.7	1738.5
57.5°	962.8	1145.7	1155.0	1375.2	1370.1	1371.8	1393.8	1430.2	1478.5	1542.0	1585.2
60°	748.6	825.6	975.5	1051.7	1244.8	1251.6	1264.3	1285.4	1326.9	1387.1	1455.6
62.5°	660.5	670.7	724.0	838.3	963.7	1115.2	1142.3	1145.7	1164.4	1224.5	1304.1
65°	580.1	586.8	602.9	614.8	719.8	866.3	996.7	1017.9	1029.7	1065.3	1133.0
67.5°	399.7	505.5	519.9	528.4	538.6	606.3	768.0	875.6	889.1	920.5	979.7
70°	77.1	160.0	437.8	447.1	452.2	467.4	493.7	664.7	754.5	784.1	811.2
72.5°	52.5	61.8	74.5	176.1	372.6	381.1	387.0	409.0	560.6	647.0	661.4
75°	38.1	42.3	50.0	61.8	76.2	248.1	307.4	318.4	329.4	454.7	527.6
77.5°	27.1	30.5	33.9	39.8	46.6	60.1	86.4	238.0	249.0	254.9	359.9
80°	15.2	18.6	22.9	26.3	29.6	33.9	44.0	55.0	122.8	179.5	188.8
82.5°	8.5	10.2	11.9	14.4	16.1	20.3	24.6	29.6	39.0	57.6	121.9
85°	4.2	4.2	4.2	5.9	6.8	9.3	11.0	12.7	17.8	24.6	33.9
87.5°	2.5	2.5	3.4	3.4	3.4	4.2	4.2	4.2	5.1	7.6	11.0
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: P1213788

CATALOG NUMBER: 4SNLED-LD5-47SL-RM-UNV-L940-CD1-U

CANDELA DISTRIBUTION (continued):

	356°	357°	358°	359°	360°
0°	2821.5	2821.5	2821.5	2821.5	2821.5
2.5°	2832.5	2830.0	2830.0	2840.2	2837.6
5°	2827.5	2824.9	2824.1	2835.1	2830.0
7.5°	2823.2	2813.9	2811.4	2821.5	2817.3
10°	2806.3	2799.5	2803.8	2800.4	2798.7
12.5°	2777.5	2773.3	2755.5	2757.2	2771.6
15°	2725.9	2742.8	2712.3	2739.4	2745.3
17.5°	2631.0	2669.1	2698.8	2714.8	2717.4
20°	2673.3	2686.1	2670.8	2671.7	2681.8
22.5°	2618.3	2624.2	2628.5	2623.4	2645.4
25°	2530.2	2507.4	2556.5	2566.7	2602.2
27.5°	2503.1	2484.5	2507.4	2505.7	2535.3
30°	2481.1	2421.0	2431.2	2447.3	2483.7
32.5°	2449.8	2355.0	2344.8	2380.4	2421.0
35°	2394.8	2305.0	2281.3	2304.1	2365.1
37.5°	2348.2	2235.6	2188.1	2218.6	2298.2
40°	2278.7	2181.4	2107.7	2134.8	2228.8
42.5°	2195.8	2134.8	2021.3	2039.9	2147.5
45°	2111.9	2057.7	1937.5	1946.8	2074.7
47.5°	2026.4	1976.4	1850.3	1852.0	1981.5
50°	1942.6	1876.5	1772.4	1742.7	1882.4
52.5°	1833.3	1772.4	1693.6	1645.3	1788.4
55°	1730.0	1661.4	1603.8	1529.3	1681.7
57.5°	1629.2	1553.0	1514.1	1418.4	1560.7
60°	1491.2	1454.8	1397.2	1305.8	1451.4
62.5°	1349.8	1337.9	1279.5	1184.7	1316.8
65°	1184.7	1212.6	1152.5	1071.2	1177.1
67.5°	1028.9	1078.8	1012.8	962.8	1042.4
70°	862.9	920.5	883.2	865.4	899.3
72.5°	699.5	755.3	758.7	746.0	757.0
75°	540.3	602.1	635.9	616.5	619.0
77.5°	409.9	439.5	476.7	492.0	488.6
80°	253.2	304.8	335.3	366.7	355.7
82.5°	127.9	171.1	208.3	242.2	226.1
85°	53.3	68.6	95.7	126.2	121.1
87.5°	16.1	27.1	28.8	40.6	38.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)