

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: P1213115

Luminaire Tested: 4SNLED-LD5-54SL-RM-UNV-L930-CD1-U

Issue Date: 3/29/2018

Test Information

Test Method: LM-79-2019
Report Number: P1213115
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-LD5-54SL-RM-UNV-L930-CD1-U
Description: 4FT LINEAR SNLED LED FIXTURE
METALIC FINISH REFLECTOR
Light Source: -
Ballast/Driver: -

Summary

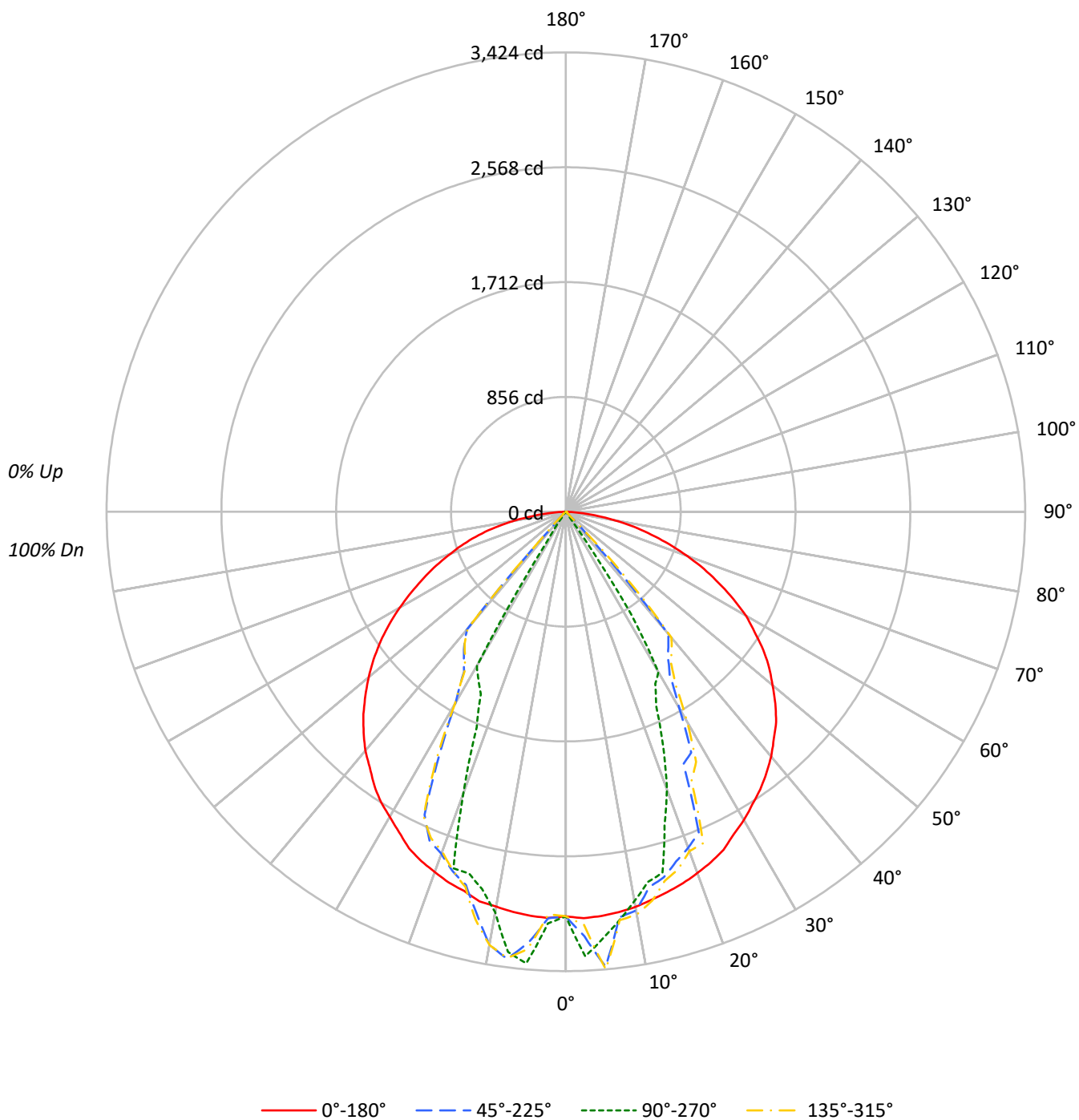
Lumens per Lamp: N/A
Luminaire Lumens: 4287.0 lumens
Efficiency: N/A
Efficacy: 104.6 lumens/watt
Spacing Criteria (0/90/45): 1.3 / 0.81 / 0.97
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.12')
CIE Type: Direct

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

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	24363	24363	24363	24363
5°	24463	25058	24456	26536
10°	24405	22675	24390	23329
15°	24338	21164	24278	21219
20°	24366	16670	24297	16875
25°	24437	12064	24317	11384
30°	24325	10583	24068	10173
35°	24397	234	24039	283
40°	24481	51	23895	51
45°	24568	30	23644	22
50°	24380	23	23262	23
55°	24236	17	22747	17
60°	23779	18	21920	18
65°	22538	29	20935	19
70°	20908	31	19905	31
75°	18494	35	18799	35
80°	15022	40	15883	40
85°	8840	47	9025	47

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 2°

Vertical Angle: 45°

Luminance: 26527 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	302.5	7.1
10°-20°	825.1	19.2
20°-30°	1049.9	24.5
30°-40°	886.9	20.7
40°-50°	579.8	13.5
50°-60°	365.3	8.5
60°-70°	194.5	4.5
70°-80°	70.9	1.7
80°-90°	12.2	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°	2177.4	50.8
0°-40°	3064.3	71.5
0°-60°	4009.4	93.5
0°-90°	4287.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4287.0	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	3015	3015	3015	3015	3015	
5°	3024	3190	3023	3379	3024	288
15°	2934	2784	2926	2791	2934	829
25°	2781	1590	2767	1500	2781	1279
35°	2527	30	2490	36	2527	1581
45°	2217	4	2134	3	2217	1705
55°	1797	2	1687	2	1797	1601
65°	1258	3	1168	2	1258	1246
75°	661	3	672	3	661	702
85°	129	3	132	3	129	164
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°	10°
0°	3014.9	3014.9	3014.9	3014.9	3014.9	3014.9	3014.9	3014.9	3014.9	3014.9	3014.9
2.5°	3032.1	3033.9	3034.8	3036.7	3039.4	3040.3	3042.1	3040.3	3040.3	3040.3	3040.3
5°	3024.0	3027.6	3030.3	3033.9	3040.3	3041.2	3048.4	3049.3	3052.9	3060.2	3065.6
7.5°	3010.4	3014.0	3019.5	3028.5	3037.6	3047.5	3060.2	3073.8	3092.8	3110.9	3133.5
10°	2990.5	2995.0	3001.4	3009.5	3053.8	3060.2	3088.2	3127.1	3138.0	3195.0	3237.5
12.5°	2961.6	2976.9	2993.2	3000.5	3043.0	3109.9	3204.1	3185.0	3164.2	3350.6	3347.9
15°	2933.5	2954.3	2946.2	3005.0	3043.9	3160.6	3120.8	3205.9	3361.5	3323.5	3325.3
17.5°	2903.6	2908.2	2953.4	3002.3	3071.9	3131.7	3180.5	3297.3	3328.0	3330.7	3297.3
20°	2865.6	2887.4	2953.4	2997.7	3115.4	3143.4	3249.3	3309.0	3296.3	3265.6	3208.6
22.5°	2826.7	2892.8	2959.7	3022.2	3104.5	3179.6	3232.1	3260.2	3194.1	3072.8	3007.7
25°	2780.6	2819.5	2907.3	2998.7	3101.8	3145.2	3176.0	3130.8	3044.8	2936.2	2826.7
27.5°	2709.1	2771.5	2883.7	2986.9	3080.1	3132.6	3082.8	2974.2	2835.8	2764.3	2714.5
30°	2653.9	2735.3	2827.6	2927.2	3024.0	3054.8	2928.1	2804.1	2709.1	2637.6	2626.8
32.5°	2586.9	2702.8	2790.5	2885.5	2967.0	2926.3	2803.2	2643.0	2564.3	2537.2	2548.0
35°	2527.2	2615.0	2729.9	2823.1	2881.9	2790.5	2596.0	2496.5	2458.5	2473.8	2453.9
37.5°	2455.7	2571.6	2677.4	2758.0	2738.1	2600.5	2435.8	2372.5	2377.0	2364.4	2326.4
40°	2381.5	2491.9	2602.3	2678.3	2608.7	2398.7	2289.3	2275.7	2278.4	2237.7	2183.4
42.5°	2294.7	2395.1	2505.5	2574.3	2424.1	2260.3	2186.1	2187.9	2164.4	2107.4	2078.4
45°	2216.9	2309.2	2424.1	2430.4	2245.8	2109.2	2087.5	2063.9	2011.5	1992.5	1970.7
47.5°	2117.3	2219.6	2314.6	2280.2	2071.2	1986.1	1969.8	1918.3	1892.0	1877.6	1859.5
50°	2011.5	2114.6	2201.5	2103.8	1906.5	1886.6	1833.2	1792.5	1774.4	1759.0	1742.7
52.5°	1911.0	1996.1	2084.8	1916.5	1779.8	1760.8	1700.2	1676.7	1658.6	1641.4	1637.8
55°	1797.0	1872.1	1932.7	1738.2	1658.6	1614.2	1570.8	1554.5	1537.3	1529.2	1542.8
57.5°	1667.6	1752.7	1743.6	1562.7	1527.4	1463.1	1446.8	1436.0	1423.3	1428.7	1315.6
60°	1550.9	1616.1	1571.7	1434.2	1374.5	1331.0	1316.5	1309.3	1316.5	1206.2	1060.5
62.5°	1407.0	1480.3	1390.7	1284.0	1220.6	1199.8	1187.2	1197.1	1091.2	970.0	934.7
65°	1257.7	1337.4	1205.3	1122.9	1083.1	1065.0	1064.1	979.9	875.9	828.8	828.8
67.5°	1113.9	1196.2	1026.1	957.3	941.9	943.8	891.3	763.7	734.7	703.1	611.7
70°	960.9	1033.3	847.8	806.2	797.2	790.8	663.3	628.9	594.5	510.3	503.1
72.5°	808.9	844.2	681.3	671.4	669.6	556.5	531.1	472.3	432.5	422.6	418.0
75°	661.4	650.6	538.4	547.4	461.5	421.7	380.9	346.6	341.1	337.5	84.2
77.5°	522.1	467.8	424.4	369.2	330.3	280.5	272.4	266.9	175.5	63.3	51.6
80°	380.0	303.1	282.3	239.8	204.5	196.4	200.9	61.5	48.9	40.7	35.3
82.5°	241.6	193.6	158.3	138.4	134.8	58.8	43.4	35.3	30.8	26.2	21.7
85°	129.4	86.0	79.6	67.0	39.8	27.1	22.6	17.2	14.5	11.8	10.9
87.5°	40.7	34.4	28.1	22.6	13.6	9.0	7.2	6.3	5.4	4.5	4.5
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):

	11°	12°	13°	14°	15°	16°	17°	18°	19°	20°	25°
0°	3014.9	3014.9	3014.9	3014.9	3014.9	3014.9	3014.9	3014.9	3014.9	3014.9	3014.9
2.5°	3038.5	3040.3	3039.4	3042.1	3042.1	3045.7	3048.4	3051.1	3056.6	3059.3	3080.1
5°	3077.4	3081.9	3095.5	3108.1	3123.5	3128.0	3154.3	3160.6	3191.4	3195.0	3296.3
7.5°	3164.2	3181.4	3214.0	3246.6	3279.2	3300.0	3336.2	3358.8	3383.2	3404.9	3485.5
10°	3269.2	3298.2	3329.8	3362.4	3381.4	3421.2	3442.9	3446.5	3440.2	3404.9	3274.6
12.5°	3372.4	3401.3	3387.7	3394.1	3416.7	3346.1	3356.1	3305.4	3340.7	3166.0	3036.7
15°	3357.9	3356.1	3322.6	3214.0	3232.1	3097.3	3043.0	3001.4	3034.8	3016.7	2996.8
17.5°	3314.4	3232.1	3174.2	3043.9	2988.7	2950.7	2951.6	2952.5	2936.2	2953.4	2902.7
20°	3130.8	3038.5	2952.5	2906.4	2890.1	2862.9	2876.5	2862.9	2863.8	2869.3	2791.4
22.5°	2886.5	2858.4	2808.6	2823.1	2817.7	2842.1	2824.0	2796.0	2805.0	2764.3	2705.5
25°	2787.8	2755.2	2753.4	2758.9	2750.7	2739.9	2723.6	2681.1	2678.3	2665.7	2638.5
27.5°	2688.3	2690.1	2695.5	2679.2	2650.3	2628.6	2604.1	2583.3	2591.5	2577.0	2539.9
30°	2619.5	2618.6	2586.0	2571.6	2518.2	2519.1	2512.8	2500.1	2491.9	2492.8	2469.3
32.5°	2521.8	2493.7	2456.7	2438.6	2434.0	2417.7	2405.1	2407.8	2414.1	2391.5	2415.9
35°	2421.4	2363.5	2358.0	2342.6	2328.2	2317.3	2321.8	2303.7	2302.8	2300.1	2101.0
37.5°	2286.5	2258.5	2255.8	2239.5	2229.5	2226.8	2209.6	2212.3	2220.5	2235.0	1791.6
40°	2175.2	2149.9	2143.6	2142.7	2121.0	2119.1	2123.7	2140.9	2152.6	2062.1	1707.4
42.5°	2055.8	2057.6	2037.7	2025.0	2027.8	2035.9	2057.6	1997.9	1731.0	1649.5	1560.9
45°	1953.6	1944.5	1933.7	1930.0	1953.6	1937.3	1698.4	1567.2	1535.5	1531.9	1283.1
47.5°	1846.8	1844.1	1839.5	1842.3	1708.3	1522.9	1468.6	1451.4	1456.8	1453.2	1102.1
50°	1739.1	1742.7	1742.7	1521.9	1397.1	1366.3	1370.8	1386.2	1290.3	1204.3	1027.0
52.5°	1645.9	1617.9	1386.2	1306.6	1278.5	1292.1	1259.5	1139.2	1052.3	1001.7	950.1
55°	1473.1	1266.8	1215.2	1202.5	1212.5	1092.1	1017.9	940.1	917.5	912.1	882.2
57.5°	1159.1	1117.5	1122.0	1071.3	956.4	888.6	858.7	847.8	837.9	830.6	72.4
60°	1025.2	1037.0	949.2	840.6	794.5	785.4	778.2	768.2	766.4	753.7	46.1
62.5°	938.3	825.2	749.2	722.1	711.2	708.5	694.9	690.4	586.3	80.5	34.4
65°	707.6	661.4	647.0	640.6	628.9	628.9	522.1	82.3	67.0	57.9	30.8
67.5°	577.3	573.7	566.4	558.3	380.0	79.6	69.7	60.6	52.5	46.1	27.1
70°	488.6	486.8	443.4	81.4	67.9	59.7	52.5	47.1	43.4	38.9	24.4
72.5°	400.8	81.4	68.8	59.7	51.6	47.1	42.5	38.0	34.4	31.7	19.9
75°	62.4	55.2	48.9	44.3	40.7	36.2	32.6	29.9	29.0	25.3	13.6
77.5°	45.2	38.9	35.3	31.7	28.1	25.3	21.7	19.0	17.2	14.5	10.0
80°	31.7	28.1	25.3	20.8	18.1	15.4	13.6	11.8	10.9	9.0	4.5
82.5°	18.1	15.4	13.6	10.9	10.0	8.1	7.2	6.3	6.3	4.5	4.5
85°	8.1	8.1	6.3	5.4	4.5	4.5	4.5	3.6	3.6	2.7	2.7
87.5°	3.6	3.6	3.6	3.6	3.6	2.7	2.7	2.7	2.7	2.7	1.8
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):

	30°	35°	40°	45°	50°	55°	60°	65°	70°	75°	80°
0°	3014.9	3014.9	3014.9	3014.9	3014.9	3014.9	3014.9	3014.9	3014.9	3014.9	3014.9
2.5°	3109.0	3120.8	3143.4	3167.0	3140.7	3234.8	3227.6	3259.2	3276.4	3284.6	3303.6
5°	3385.9	3438.4	3455.6	3404.0	3374.2	3343.4	3273.7	3221.2	3227.6	3210.4	3148.0
7.5°	3380.5	3268.3	3117.2	3048.4	3043.0	3034.8	3056.6	3069.2	3071.0	3070.1	3068.3
10°	3094.6	3036.7	3026.7	3017.7	3021.3	2987.8	2972.4	2929.0	2952.5	2939.8	2944.4
12.5°	3007.7	2994.1	2940.7	2866.5	2910.9	2877.4	2858.4	2871.1	2856.6	2843.0	2838.5
15°	2956.1	2868.4	2838.5	2820.4	2807.7	2800.5	2806.8	2792.3	2787.8	2785.1	2791.4
17.5°	2849.4	2814.1	2781.5	2733.5	2734.4	2731.7	2749.8	2777.0	2778.8	2639.4	2513.7
20°	2765.2	2736.2	2694.6	2664.8	2705.5	2633.1	2353.5	2220.5	2199.7	2199.7	2203.3
22.5°	2698.2	2634.0	2636.7	2589.7	2208.7	2130.9	2132.7	2140.9	2103.8	1977.1	1963.5
25°	2606.9	2596.9	2398.7	2073.0	2075.7	2015.1	1921.9	1790.7	1648.6	1648.6	1625.1
27.5°	2538.1	2327.3	2037.7	2024.1	1820.5	1692.1	1612.4	1492.1	1475.8	1460.4	1462.2
30°	2479.3	1968.9	1976.2	1692.1	1541.9	1435.1	1428.7	1408.8	1398.9	1396.2	1386.2
32.5°	1959.9	1917.4	1654.1	1440.5	1381.7	1364.5	1356.4	1333.7	1332.8	1315.6	1196.2
35°	1837.7	1683.0	1384.4	1326.5	1309.3	1293.0	1279.4	858.7	101.3	40.7	35.3
37.5°	1698.4	1406.1	1280.4	1254.1	1237.8	914.8	91.4	31.7	22.6	16.3	14.5
40°	1439.6	1255.9	1216.1	1187.2	489.5	31.7	19.9	15.4	9.0	8.1	7.2
42.5°	1214.3	1183.5	1141.0	347.5	36.2	15.4	10.0	7.2	6.3	6.3	5.4
45°	1136.5	1109.3	459.7	34.4	22.6	7.2	6.3	6.3	5.4	3.6	3.6
47.5°	1064.1	936.5	41.6	21.7	14.5	6.3	5.4	3.6	3.6	3.6	2.7
50°	987.2	51.6	29.0	16.3	9.0	3.6	3.6	3.6	3.6	2.7	2.7
52.5°	184.6	36.2	23.5	14.5	4.5	3.6	3.6	3.6	2.7	2.7	2.7
55°	43.4	29.0	21.7	12.7	3.6	3.6	3.6	2.7	2.7	2.7	1.8
57.5°	32.6	21.7	17.2	11.8	3.6	2.7	2.7	2.7	2.7	2.7	1.8
60°	27.1	15.4	13.6	10.9	2.7	2.7	2.7	2.7	2.7	2.7	1.8
62.5°	19.0	12.7	10.0	8.1	2.7	2.7	2.7	2.7	2.7	2.7	2.7
65°	15.4	10.0	8.1	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
67.5°	13.6	8.1	5.4	1.8	2.7	2.7	2.7	2.7	2.7	2.7	2.7
70°	10.9	2.7	2.7	1.8	2.7	2.7	2.7	2.7	2.7	2.7	2.7
72.5°	9.0	2.7	1.8	1.8	2.7	2.7	2.7	2.7	2.7	2.7	2.7
75°	9.0	4.5	1.8	1.8	2.7	2.7	3.6	3.6	2.7	2.7	2.7
77.5°	6.3	4.5	1.8	1.8	2.7	2.7	3.6	3.6	2.7	2.7	2.7
80°	3.6	4.5	1.8	2.7	2.7	5.4	6.3	3.6	2.7	2.7	2.7
82.5°	3.6	4.5	5.4	5.4	2.7	4.5	5.4	4.5	3.6	2.7	2.7
85°	3.6	2.7	3.6	4.5	2.7	4.5	4.5	3.6	3.6	2.7	2.7
87.5°	1.8	2.7	2.7	3.6	3.6	3.6	4.5	3.6	3.6	3.6	2.7
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: P1213115

CATALOG NUMBER: 4SNLED-LD5-54SL-RM-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	85°	90°	95°	100°	105°	110°	115°	120°	125°	130°	135°
0°	3014.9	3014.9	3014.9	3014.9	3014.9	3014.9	3014.9	3014.9	3014.9	3014.9	3014.9
2.5°	3312.6	3316.3	3259.2	3239.3	3256.5	3252.9	3237.5	3180.5	3174.2	3136.2	3081.0
5°	3166.0	3190.5	3160.6	3212.2	3187.8	3212.2	3286.4	3320.8	3376.9	3411.3	3423.9
7.5°	3063.8	3069.2	3069.2	3073.8	3078.3	3079.2	3073.8	3070.1	3054.8	3035.8	3070.1
10°	2939.8	2946.2	2957.0	2955.2	2954.3	2973.3	2977.8	3016.7	3014.9	3022.2	3048.4
12.5°	2875.6	2826.7	2871.1	2859.3	2875.6	2850.3	2897.3	2889.2	2891.9	2913.6	2969.7
15°	2768.8	2784.2	2795.1	2795.1	2801.4	2796.0	2790.5	2827.6	2850.3	2851.2	2847.5
17.5°	2563.4	2446.7	2566.1	2535.4	2780.6	2786.9	2766.1	2748.9	2748.9	2762.5	2791.4
20°	2200.6	2203.3	2204.2	2216.0	2230.4	2229.5	2230.4	2586.9	2756.2	2717.2	2691.0
22.5°	1929.1	1895.6	1958.1	1953.6	2031.4	2117.3	2199.7	2191.5	2197.0	2448.5	2674.7
25°	1546.4	1589.8	1554.5	1569.9	1657.7	1759.9	1823.3	1988.8	2168.9	2156.2	2215.1
27.5°	1455.9	1444.1	1460.4	1460.4	1472.2	1485.8	1521.0	1614.2	1774.4	1942.7	2102.0
30°	1369.9	1379.9	1381.7	1398.0	1407.0	1416.1	1421.5	1456.8	1493.0	1609.7	1806.1
32.5°	1028.8	902.1	1187.2	1264.1	1329.2	1344.6	1355.5	1369.9	1396.2	1413.4	1512.0
35°	29.9	29.9	31.7	36.2	46.1	311.3	1185.3	1306.6	1323.8	1345.5	1363.6
37.5°	14.5	10.9	12.7	13.6	16.3	22.6	32.6	101.3	1128.3	1275.8	1295.7
40°	6.3	6.3	6.3	6.3	7.2	9.0	13.6	22.6	34.4	907.6	1224.3
42.5°	5.4	5.4	5.4	5.4	5.4	5.4	6.3	8.1	16.3	38.9	642.4
45°	3.6	3.6	2.7	3.6	3.6	4.5	5.4	5.4	7.2	24.4	44.3
47.5°	2.7	2.7	2.7	2.7	2.7	2.7	2.7	4.5	5.4	16.3	23.5
50°	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	12.7	16.3
52.5°	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	5.4	14.5
55°	1.8	1.8	1.8	1.8	1.8	1.8	1.8	2.7	2.7	3.6	12.7
57.5°	1.8	1.8	1.8	1.8	1.8	2.7	1.8	1.8	2.7	2.7	11.8
60°	1.8	1.8	1.8	1.8	1.8	2.7	2.7	2.7	2.7	2.7	10.9
62.5°	2.7	2.7	1.8	2.7	1.8	1.8	2.7	2.7	2.7	2.7	7.2
65°	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	1.8	2.7
67.5°	2.7	2.7	2.7	2.7	1.8	2.7	1.8	2.7	2.7	1.8	1.8
70°	2.7	2.7	2.7	2.7	2.7	2.7	2.7	1.8	1.8	1.8	1.8
72.5°	2.7	2.7	2.7	2.7	2.7	2.7	2.7	1.8	1.8	1.8	1.8
75°	2.7	2.7	2.7	2.7	2.7	2.7	3.6	3.6	1.8	1.8	1.8
77.5°	2.7	2.7	2.7	2.7	2.7	2.7	4.5	5.4	4.5	4.5	1.8
80°	2.7	2.7	2.7	2.7	2.7	2.7	4.5	4.5	4.5	4.5	6.3
82.5°	2.7	2.7	2.7	2.7	2.7	2.7	3.6	3.6	3.6	3.6	4.5
85°	2.7	2.7	2.7	2.7	2.7	2.7	3.6	3.6	3.6	2.7	3.6
87.5°	2.7	2.7	2.7	2.7	2.7	2.7	2.7	3.6	2.7	2.7	2.7
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: P1213115

CATALOG NUMBER: 4SNLED-LD5-54SL-RM-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	140°	145°	150°	155°	160°	161°	162°	163°	164°	165°	166°
0°	3014.9	3014.9	3014.9	3014.9	3014.9	3014.9	3014.9	3014.9	3014.9	3014.9	3014.9
2.5°	3085.5	3054.8	3044.8	3024.0	3022.2	3024.0	3019.5	3013.1	3016.7	3010.4	3005.0
5°	3431.2	3348.8	3295.4	3224.0	3125.3	3103.6	3098.2	3067.4	3056.6	3052.9	3038.5
7.5°	3151.6	3301.8	3392.3	3423.0	3307.2	3280.1	3248.4	3223.1	3198.6	3152.5	3124.4
10°	3027.6	3034.8	3121.7	3223.1	3387.7	3410.4	3427.5	3372.4	3357.0	3239.3	3214.0
12.5°	2998.7	2999.6	3009.5	3071.0	3200.4	3214.9	3275.5	3308.1	3347.9	3370.5	3352.4
15°	2866.5	2939.8	2994.1	2999.6	3011.3	3036.7	3054.8	3167.9	3215.8	3344.3	3337.1
17.5°	2805.0	2828.5	2907.3	2971.5	2960.6	2951.6	2966.1	2981.5	3027.6	3156.1	3154.3
20°	2702.8	2777.9	2820.4	2887.4	2948.0	2950.7	2934.4	2925.4	2907.3	2928.1	2947.1
22.5°	2659.3	2671.1	2750.7	2797.8	2866.5	2891.0	2894.6	2895.5	2885.5	2874.7	2869.3
25°	2654.8	2617.7	2658.4	2717.2	2767.9	2794.2	2824.0	2834.0	2830.4	2830.4	2824.9
27.5°	2172.5	2605.9	2584.2	2623.1	2684.7	2702.8	2718.2	2748.9	2767.9	2781.5	2787.8
30°	2069.4	2147.2	2526.3	2531.8	2594.2	2592.4	2609.6	2634.9	2659.3	2691.0	2699.1
32.5°	1830.5	2021.4	2312.8	2440.4	2505.5	2511.8	2520.9	2528.1	2550.8	2586.0	2616.8
35°	1466.8	1841.4	1981.6	2396.9	2408.7	2421.4	2426.8	2444.0	2451.2	2465.7	2492.8
37.5°	1327.4	1521.9	1901.1	2073.0	2297.4	2308.3	2337.2	2344.4	2356.2	2368.0	2388.8
40°	1246.9	1300.3	1582.6	1851.3	2207.8	2215.1	2225.0	2243.1	2244.0	2257.6	2276.6
42.5°	1182.6	1217.0	1299.4	1768.1	2144.5	2143.6	2120.0	2131.8	2137.2	2151.7	2178.0
45°	944.7	1141.9	1194.4	1444.1	1707.4	1830.5	2066.7	2027.8	2026.8	2032.3	2060.3
47.5°	48.0	1074.0	1111.1	1191.7	1612.4	1617.0	1647.7	1906.5	1946.3	1933.7	1936.4
50°	32.6	74.2	1035.1	1072.2	1389.8	1502.0	1524.7	1536.4	1685.7	1852.2	1825.1
52.5°	25.3	42.5	634.3	995.3	1129.2	1211.6	1357.3	1440.5	1449.6	1516.5	1743.6
55°	22.6	32.6	68.8	918.4	960.0	978.1	1063.2	1208.9	1326.5	1361.8	1364.5
57.5°	19.9	29.9	47.1	415.3	873.2	876.8	891.3	941.9	1047.8	1144.6	1254.1
60°	18.1	26.2	37.1	71.5	793.5	802.6	805.3	818.9	831.6	897.6	1023.4
62.5°	10.9	20.8	32.6	51.6	628.0	721.2	720.3	729.3	741.1	748.3	773.6
65°	9.0	16.3	28.1	43.4	76.9	95.9	582.7	647.9	655.1	665.1	669.6
67.5°	8.1	14.5	20.8	34.4	57.9	66.1	76.0	94.1	514.0	579.1	588.1
70°	7.2	10.0	17.2	29.0	47.1	50.7	57.0	65.1	76.9	95.0	465.1
72.5°	4.5	7.2	11.8	20.8	36.2	40.7	44.3	49.8	55.2	66.1	76.0
75°	1.8	5.4	10.0	15.4	28.1	30.8	33.5	37.1	41.6	48.9	54.3
77.5°	1.8	4.5	8.1	10.9	18.1	20.8	24.4	27.1	30.8	34.4	39.8
80°	6.3	3.6	5.4	8.1	12.7	13.6	15.4	17.2	19.9	22.6	26.2
82.5°	4.5	5.4	6.3	5.4	6.3	8.1	9.0	10.9	11.8	13.6	14.5
85°	3.6	3.6	4.5	4.5	4.5	4.5	4.5	4.5	5.4	6.3	8.1
87.5°	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	3.6	3.6
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: P1213115

CATALOG NUMBER: 4SNLED-LD5-54SL-RM-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	167°	168°	169°	170°	171°	172°	173°	174°	175°	176°	177°
0°	3014.9	3014.9	3014.9	3014.9	3014.9	3014.9	3014.9	3014.9	3014.9	3014.9	3014.9
2.5°	3005.0	3003.2	2997.7	2997.7	2996.8	3000.5	3003.2	3005.9	3005.0	3010.4	3005.0
5°	3027.6	3023.1	3014.9	3007.7	3005.0	3006.8	3004.1	3006.8	3003.2	3007.7	2999.6
7.5°	3090.0	3074.7	3043.0	3030.3	3014.0	3013.1	3005.0	3003.2	2997.7	2997.7	2987.8
10°	3200.4	3126.2	3117.2	3079.2	3065.6	2999.6	3014.0	2989.6	2986.9	2975.1	2970.6
12.5°	3290.9	3233.0	3215.8	3182.3	3144.3	3010.4	3040.3	2987.8	2985.1	2961.6	2937.1
15°	3292.7	3326.2	3279.2	3186.9	3178.7	3086.4	3025.8	3007.7	2984.2	2913.6	2925.4
17.5°	3186.9	3263.8	3286.4	3266.5	3208.6	3146.1	3061.1	3024.9	2954.3	2922.6	2900.9
20°	3014.9	3092.8	3189.6	3195.9	3232.1	3187.8	3076.5	3017.7	2932.6	2877.4	2859.3
22.5°	2878.3	2935.3	3046.6	3098.2	3142.5	3157.9	3087.3	3000.5	2894.6	2841.2	2830.4
25°	2805.9	2818.6	2852.1	2912.7	3010.4	3081.0	3090.9	2998.7	2943.5	2826.7	2765.2
27.5°	2779.7	2768.8	2755.2	2786.0	2859.3	2945.3	3002.3	3017.7	2880.1	2768.8	2707.3
30°	2712.7	2719.1	2698.2	2687.4	2735.3	2824.0	2925.4	2950.7	2844.8	2729.9	2659.3
32.5°	2630.4	2641.2	2644.9	2625.9	2615.9	2677.4	2786.9	2847.5	2842.1	2674.7	2596.0
35°	2527.2	2558.0	2566.1	2567.0	2550.8	2540.8	2604.1	2729.9	2777.9	2649.4	2535.4
37.5°	2418.6	2427.7	2472.0	2483.8	2483.8	2453.9	2501.0	2601.4	2668.4	2592.4	2461.2
40°	2282.9	2311.9	2353.5	2374.3	2395.1	2397.8	2371.6	2442.2	2552.6	2533.6	2391.5
42.5°	2184.3	2203.3	2228.6	2256.7	2299.2	2310.1	2282.9	2295.6	2410.5	2460.3	2301.0
45°	2069.4	2094.7	2102.0	2132.7	2177.1	2208.7	2207.8	2181.6	2273.9	2335.4	2235.0
47.5°	1951.7	1976.2	1988.8	2004.2	2036.8	2077.5	2100.1	2088.4	2106.5	2226.8	2147.2
50°	1830.5	1844.1	1869.4	1886.6	1908.3	1931.8	1986.1	1997.0	1971.7	2067.6	2050.4
52.5°	1715.6	1720.1	1737.3	1754.5	1783.4	1800.6	1844.1	1876.6	1874.8	1902.9	1942.7
55°	1626.0	1606.1	1609.7	1623.3	1642.3	1668.5	1693.0	1743.6	1760.8	1766.3	1829.6
57.5°	1270.4	1474.9	1493.0	1492.1	1514.7	1526.5	1549.1	1582.6	1644.1	1630.5	1701.1
60°	1154.6	1177.2	1348.2	1368.1	1376.3	1387.1	1414.3	1445.0	1490.3	1519.2	1550.0
62.5°	880.4	1017.9	1069.5	1220.6	1244.2	1250.5	1268.6	1283.1	1330.1	1396.2	1383.5
65°	681.3	740.2	897.6	959.1	1087.6	1103.9	1129.2	1144.6	1158.2	1234.2	1237.8
67.5°	589.1	598.1	640.6	759.2	840.6	966.4	981.8	995.3	1016.1	1070.4	1103.9
70°	503.1	514.0	525.7	535.7	641.5	724.8	841.5	846.0	859.6	895.8	971.8
72.5°	95.0	429.8	437.0	443.4	455.1	510.3	621.6	712.1	717.5	734.7	804.4
75°	64.2	75.1	103.2	354.7	366.5	370.1	389.1	502.2	585.4	589.1	619.8
77.5°	46.1	51.6	62.4	74.2	189.1	284.1	288.6	309.5	395.4	457.9	463.3
80°	31.7	35.3	41.6	47.1	57.9	76.0	209.9	216.3	227.1	313.1	329.4
82.5°	18.1	20.8	24.4	29.9	34.4	43.4	56.1	72.4	147.5	157.4	209.0
85°	9.0	10.0	11.8	14.5	17.2	20.8	28.1	34.4	47.1	85.1	87.8
87.5°	4.5	4.5	4.5	4.5	7.2	8.1	10.0	12.7	16.3	24.4	31.7
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: P1213115

CATALOG NUMBER: 4SNLED-LD5-54SL-RM-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	178°	179°	180°	181°	182°	183°	184°	185°	186°	187°	188°
0°	3014.9	3014.9	3014.9	3014.9	3014.9	3014.9	3014.9	3014.9	3014.9	3014.9	3014.9
2.5°	3005.9	3018.6	3029.4	3032.1	3032.1	3033.9	3036.7	3038.5	3040.3	3042.1	3040.3
5°	3000.5	3014.0	3023.1	3025.8	3025.8	3031.2	3035.8	3041.2	3043.9	3043.9	3042.1
7.5°	2986.9	2996.8	3008.6	3015.8	3016.7	3025.8	3033.9	3033.0	3036.7	3038.5	3043.0
10°	2968.8	2968.8	2988.7	2994.1	2998.7	3008.6	3011.3	3016.7	3029.4	3031.2	3043.0
12.5°	2959.7	2950.7	2974.2	2976.9	2992.3	2979.7	2995.9	3001.4	2988.7	3005.9	2983.3
15°	2919.0	2929.9	2926.3	2934.4	2961.6	2947.1	2991.4	2976.9	3009.5	2970.6	3039.4
17.5°	2885.5	2883.7	2898.2	2905.5	2910.9	2941.6	2953.4	2969.7	2982.4	2971.5	2998.7
20°	2861.1	2846.6	2857.5	2865.6	2884.6	2908.2	2915.4	2891.0	2933.5	3005.9	3023.1
22.5°	2815.0	2805.0	2817.7	2817.7	2846.6	2843.0	2870.2	2854.8	2894.6	2978.7	3066.5
25°	2752.5	2753.4	2767.0	2783.3	2788.7	2829.4	2843.9	2863.8	2913.6	3014.0	3067.4
27.5°	2689.2	2683.8	2691.9	2725.4	2753.4	2783.3	2787.8	2855.7	2923.5	2992.3	3039.4
30°	2625.9	2620.4	2625.9	2650.3	2683.8	2703.7	2753.4	2843.9	2907.3	2954.3	2998.7
32.5°	2558.0	2552.6	2565.2	2583.3	2642.1	2644.9	2743.5	2828.5	2878.3	2912.7	2904.5
35°	2485.6	2478.4	2490.1	2518.2	2572.5	2592.4	2695.5	2758.9	2815.0	2831.3	2793.3
37.5°	2398.7	2386.1	2400.6	2439.5	2496.5	2554.4	2640.3	2713.6	2743.5	2700.1	2654.8
40°	2308.3	2299.2	2324.5	2344.4	2411.4	2491.9	2590.6	2642.1	2623.1	2573.4	2523.6
42.5°	2227.7	2208.7	2231.3	2269.3	2345.4	2436.7	2516.4	2545.3	2500.1	2426.8	2368.9
45°	2129.1	2106.5	2133.6	2184.3	2265.7	2369.8	2432.2	2422.3	2345.4	2282.0	2202.4
47.5°	2025.9	1998.8	2025.9	2086.6	2178.0	2288.3	2333.6	2288.3	2191.5	2111.9	2047.7
50°	1924.6	1892.9	1919.2	2010.6	2100.1	2185.2	2184.3	2096.5	2038.6	1951.7	1895.6
52.5°	1824.2	1778.9	1805.2	1904.7	1994.3	2091.1	2019.6	1938.2	1868.5	1792.5	1774.4
55°	1700.2	1651.3	1686.6	1831.4	1900.2	1957.2	1843.2	1771.7	1702.9	1664.9	1642.3
57.5°	1582.6	1529.2	1560.0	1731.0	1781.6	1796.1	1691.2	1589.8	1549.1	1536.4	1503.9
60°	1461.3	1400.7	1429.7	1626.9	1662.2	1603.4	1500.2	1421.5	1413.4	1388.0	1362.7
62.5°	1345.5	1278.5	1296.6	1497.5	1513.8	1407.0	1312.0	1291.2	1271.3	1246.0	1232.4
65°	1212.5	1142.8	1168.2	1360.0	1344.6	1207.1	1153.7	1149.2	1122.9	1102.1	1122.0
67.5°	1090.3	1008.0	1043.3	1209.8	1140.1	1027.9	1006.2	995.3	974.5	986.3	777.3
70°	956.4	866.8	914.8	1047.8	944.7	870.5	862.3	846.0	846.9	673.2	567.3
72.5°	807.1	729.3	799.0	870.5	747.4	725.7	713.9	712.1	574.6	466.9	440.7
75°	675.9	597.2	672.3	699.4	595.4	580.9	580.0	479.6	377.3	360.1	352.0
77.5°	527.5	466.9	538.4	497.7	456.9	440.7	395.4	296.8	284.1	272.4	102.2
80°	355.6	360.1	401.8	342.9	325.7	277.8	219.0	209.9	181.0	72.4	57.0
82.5°	216.3	271.5	256.1	214.4	209.9	151.1	138.4	70.6	52.5	41.6	36.2
85°	112.2	137.5	132.1	116.7	86.9	77.8	43.4	33.5	27.1	20.8	17.2
87.5°	38.0	50.7	48.9	38.9	29.9	23.5	15.4	12.7	9.0	7.2	6.3
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

TEST NUMBER: P1213115

CATALOG NUMBER: 4SNLED-LD5-54SL-RM-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	189°	190°	191°	192°	193°	194°	195°	196°	197°	198°	199°
0°	3014.9	3014.9	3014.9	3014.9	3014.9	3014.9	3014.9	3014.9	3014.9	3014.9	3014.9
2.5°	3038.5	3038.5	3036.7	3038.5	3039.4	3037.6	3037.6	3039.4	3040.3	3041.2	3045.7
5°	3043.0	3044.8	3047.5	3052.9	3053.8	3064.7	3069.2	3071.9	3074.7	3075.6	3069.2
7.5°	3052.9	3059.3	3064.7	3063.8	3057.5	3040.3	3034.8	3030.3	3038.5	3059.3	3083.7
10°	3062.0	3033.0	2978.7	3052.9	3030.3	3051.1	3112.7	3126.2	3167.9	3226.7	3243.9
12.5°	2999.6	3079.2	3096.4	3013.1	3167.0	3109.9	3177.8	3237.5	3254.7	3314.4	3278.2
15°	3066.5	3105.4	3131.7	3214.9	3205.9	3254.7	3273.7	3262.0	3264.7	3280.1	3320.8
17.5°	3065.6	3143.4	3160.6	3216.7	3254.7	3255.6	3250.2	3244.8	3259.2	3271.0	3246.6
20°	3118.1	3143.4	3176.9	3199.5	3206.8	3215.8	3233.0	3219.4	3192.3	3166.0	3155.2
22.5°	3091.9	3148.9	3177.8	3181.4	3176.9	3148.9	3123.5	3085.5	3072.8	3059.3	3063.8
25°	3097.3	3123.5	3119.9	3105.4	3086.4	3033.9	3021.3	3005.0	2980.6	2921.7	2868.4
27.5°	3058.4	3044.8	3028.5	2993.2	2958.8	2930.8	2899.1	2846.6	2803.2	2739.9	2716.3
30°	2993.2	2938.9	2899.1	2878.3	2844.8	2797.8	2749.8	2685.6	2630.4	2617.7	2605.9
32.5°	2868.4	2815.0	2782.4	2731.7	2674.7	2618.6	2563.4	2538.1	2526.3	2528.1	2517.3
35°	2740.8	2693.7	2644.9	2568.9	2526.3	2470.2	2450.3	2444.9	2434.0	2422.3	2409.6
37.5°	2605.0	2549.8	2476.6	2431.3	2388.8	2366.2	2356.2	2348.1	2329.1	2308.3	2293.8
40°	2473.8	2374.3	2333.6	2289.3	2276.6	2266.6	2252.2	2232.2	2206.0	2202.4	2196.1
42.5°	2298.3	2226.8	2191.5	2182.5	2167.1	2149.9	2137.2	2115.5	2104.7	2111.9	2117.3
45°	2131.8	2095.6	2083.9	2073.0	2044.0	2019.6	2011.5	2004.2	2013.3	2053.1	1958.1
47.5°	1997.0	1982.5	1968.0	1949.9	1922.8	1904.7	1912.8	1920.1	1928.2	1636.0	1493.0
50°	1880.3	1860.4	1837.7	1817.8	1801.5	1799.7	1842.3	1714.7	1436.0	1428.7	1284.0
52.5°	1752.7	1722.8	1709.2	1697.5	1704.7	1731.9	1433.3	1330.1	1275.8	1108.4	1034.2
55°	1615.1	1588.9	1588.9	1599.8	1560.9	1265.0	1249.6	1080.4	978.1	949.2	937.4
57.5°	1477.6	1474.9	1490.3	1362.7	1148.2	1101.2	925.7	888.6	872.3	868.6	849.6
60°	1351.8	1377.2	1152.8	1060.5	922.0	831.6	806.2	801.7	784.5	778.2	761.0
62.5°	1251.4	1037.9	966.4	789.0	742.9	731.1	717.5	711.2	695.8	614.4	180.1
65°	903.9	854.2	693.1	663.3	659.6	642.4	637.0	572.8	134.8	90.5	76.9
67.5°	682.3	605.3	584.5	579.1	561.9	527.5	156.5	89.6	76.9	67.0	58.8
70°	523.9	510.3	494.9	482.3	142.1	88.7	76.9	65.1	56.1	49.8	45.2
72.5°	428.9	419.8	244.3	93.2	76.0	64.2	57.0	49.8	43.4	39.8	36.2
75°	335.7	93.2	76.9	64.2	55.2	47.1	41.6	37.1	33.5	30.8	28.1
77.5°	76.0	61.5	52.5	44.3	39.8	35.3	31.7	27.1	24.4	21.7	18.1
80°	47.1	40.7	34.4	31.7	27.1	22.6	19.9	18.1	14.5	13.6	11.8
82.5°	30.8	24.4	21.7	18.1	14.5	13.6	11.8	9.0	8.1	7.2	6.3
85°	13.6	11.8	10.0	8.1	6.3	5.4	4.5	3.6	3.6	3.6	3.6
87.5°	4.5	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	1.8	1.8
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: P1213115

CATALOG NUMBER: 4SNLED-LD5-54SL-RM-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	200°	205°	210°	215°	220°	225°	230°	235°	240°	245°	250°
0°	3014.9	3014.9	3014.9	3014.9	3014.9	3014.9	3014.9	3014.9	3014.9	3014.9	3014.9
2.5°	3047.5	3063.8	3079.2	3074.7	3058.4	3033.0	3025.8	3015.8	3023.1	3038.5	3044.8
5°	3069.2	3060.2	3092.8	3140.7	3218.5	3225.8	3280.1	3292.7	3336.2	3363.3	3362.4
7.5°	3100.0	3228.5	3281.9	3339.8	3366.0	3359.7	3367.8	3361.5	3351.5	3347.0	3341.6
10°	3256.5	3354.3	3374.2	3374.2	3333.4	3278.2	3254.7	3214.0	3132.6	3134.4	3120.8
12.5°	3347.9	3382.3	3335.3	3295.4	3131.7	3068.3	2999.6	2967.0	2948.0	2919.0	2929.9
15°	3300.0	3251.1	3223.1	3094.6	2994.1	2880.1	2881.9	2862.0	2841.2	2843.0	2829.4
17.5°	3229.4	3190.5	2991.4	2902.7	2853.9	2809.5	2801.4	2775.2	2761.6	2757.1	2756.2
20°	3132.6	2992.3	2843.9	2822.2	2763.4	2712.7	2704.6	2712.7	2754.3	2680.1	2428.6
22.5°	3019.5	2817.7	2774.3	2712.7	2672.9	2653.0	2702.8	2476.6	2134.5	2176.1	2131.8
25°	2827.6	2739.9	2665.7	2618.6	2614.1	2491.9	2076.6	2033.2	1813.3	1695.7	1563.6
27.5°	2687.4	2649.4	2571.6	2563.4	2504.6	2037.7	1821.5	1582.6	1494.8	1481.2	1452.3
30°	2602.3	2548.0	2501.0	2295.6	1998.8	1640.5	1461.3	1427.8	1412.5	1396.2	1370.8
32.5°	2500.1	2448.5	2471.1	1930.0	1593.4	1412.5	1376.3	1351.8	1323.8	1312.9	1221.5
35°	2396.0	2372.5	1930.9	1622.4	1369.9	1326.5	1299.4	1274.0	1013.4	245.2	83.2
37.5°	2284.7	2279.3	1735.5	1346.4	1283.1	1242.4	1165.4	240.7	57.0	38.9	29.0
40°	2197.9	1736.4	1371.7	1262.3	1210.7	1146.4	161.1	39.8	25.3	15.4	10.0
42.5°	2140.0	1561.8	1227.9	1184.4	1072.2	118.5	40.7	17.2	10.0	8.1	6.3
45°	1649.5	1233.3	1147.3	1102.1	135.7	40.7	23.5	8.1	6.3	5.4	3.6
47.5°	1521.9	1120.2	1069.5	240.7	45.2	21.7	16.3	5.4	3.6	3.6	3.6
50°	1152.8	1035.1	851.5	58.8	29.0	15.4	11.8	3.6	3.6	3.6	2.7
52.5°	1010.7	955.5	91.4	38.9	22.6	11.8	7.2	2.7	2.7	2.7	2.7
55°	923.8	606.2	54.3	29.9	19.0	10.9	4.5	2.7	2.7	2.7	1.8
57.5°	845.1	81.4	39.8	25.3	17.2	10.0	2.7	2.7	2.7	2.7	1.8
60°	716.6	58.8	32.6	22.6	16.3	9.0	2.7	2.7	2.7	2.7	2.7
62.5°	93.2	46.1	28.1	19.9	11.8	7.2	1.8	2.7	2.7	2.7	2.7
65°	67.9	36.2	25.3	13.6	7.2	2.7	1.8	2.7	2.7	2.7	2.7
67.5°	52.5	29.9	19.0	11.8	6.3	1.8	1.8	2.7	2.7	2.7	2.7
70°	41.6	25.3	15.4	10.0	5.4	1.8	1.8	2.7	2.7	2.7	2.7
72.5°	32.6	18.1	10.9	5.4	3.6	1.8	1.8	2.7	2.7	2.7	2.7
75°	24.4	14.5	8.1	4.5	1.8	1.8	1.8	2.7	2.7	2.7	2.7
77.5°	16.3	9.0	6.3	3.6	3.6	3.6	4.5	4.5	2.7	2.7	2.7
80°	10.9	6.3	4.5	4.5	4.5	3.6	4.5	4.5	2.7	4.5	2.7
82.5°	5.4	4.5	4.5	3.6	3.6	2.7	3.6	3.6	3.6	3.6	2.7
85°	3.6	2.7	2.7	2.7	2.7	2.7	2.7	2.7	3.6	3.6	2.7
87.5°	1.8	1.8	1.8	1.8	2.7	2.7	2.7	2.7	3.6	3.6	2.7
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: P1213115

CATALOG NUMBER: 4SNLED-LD5-54SL-RM-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	255°	260°	265°	270°	275°	280°	285°	290°	295°	300°	305°
0°	3014.9	3014.9	3014.9	3014.9	3014.9	3014.9	3014.9	3014.9	3014.9	3014.9	3014.9
2.5°	3036.7	3039.4	3032.1	3071.0	3051.1	3052.9	3061.1	3040.3	3044.8	3030.3	3020.4
5°	3366.0	3371.4	3376.9	3378.7	3382.3	3386.8	3381.4	3378.7	3373.3	3355.2	3336.2
7.5°	3314.4	3308.1	3305.4	3309.0	3315.3	3318.1	3313.5	3319.9	3343.4	3353.4	3359.7
10°	3043.0	3014.0	3033.9	3031.2	3008.6	3084.6	3063.8	3075.6	3083.7	3167.0	3217.6
12.5°	2913.6	2931.7	2897.3	2880.1	2902.7	2918.1	2933.5	2900.9	2946.2	2925.4	2992.3
15°	2805.0	2794.2	2790.5	2791.4	2786.9	2808.6	2814.1	2821.3	2827.6	2855.7	2866.5
17.5°	2756.2	2774.3	2781.5	2786.9	2777.9	2767.9	2758.0	2743.5	2748.0	2740.8	2761.6
20°	2259.4	2198.8	2195.2	2230.4	2191.5	2213.2	2265.7	2616.8	2605.0	2741.7	2695.5
22.5°	1885.7	1828.7	1779.8	1737.3	1797.9	1823.3	1921.0	2031.4	2210.5	2182.5	2377.0
25°	1540.0	1519.2	1506.6	1500.2	1504.8	1502.9	1524.7	1576.2	1657.7	1849.5	2097.4
27.5°	1440.5	1430.6	1426.0	1411.6	1422.4	1418.8	1436.0	1446.8	1471.3	1490.3	1570.8
30°	1361.8	1350.0	1341.9	1326.5	1337.4	1338.3	1343.7	1371.7	1381.7	1398.0	1423.3
32.5°	497.7	293.2	275.1	261.5	285.9	372.8	654.2	1143.7	1304.8	1317.5	1346.4
35°	48.9	40.7	36.2	36.2	37.1	40.7	54.3	143.0	261.5	1010.7	1265.0
37.5°	19.0	16.3	13.6	12.7	13.6	15.4	20.8	27.1	37.1	76.9	342.9
40°	8.1	7.2	6.3	6.3	6.3	6.3	7.2	9.0	13.6	25.3	39.8
42.5°	5.4	4.5	4.5	4.5	4.5	4.5	4.5	4.5	6.3	8.1	16.3
45°	3.6	2.7	2.7	2.7	2.7	2.7	2.7	2.7	3.6	4.5	7.2
47.5°	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	3.6
50°	2.7	2.7	2.7	2.7	1.8	2.7	1.8	2.7	2.7	2.7	2.7
52.5°	2.7	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	2.7	2.7
55°	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	2.7
57.5°	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8
60°	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8
62.5°	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	2.7	2.7	1.8
65°	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	2.7	1.8
67.5°	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8
70°	2.7	2.7	1.8	2.7	1.8	1.8	2.7	2.7	2.7	1.8	1.8
72.5°	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	5.4	5.4	3.6
75°	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	4.5	5.4	4.5
77.5°	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	4.5	4.5	4.5
80°	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	3.6	3.6	3.6
82.5°	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	3.6	3.6	3.6
85°	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
87.5°	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
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: P1213115

CATALOG NUMBER: 4SNLED-LD5-54SL-RM-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	310°	315°	320°	325°	330°	335°	340°	341°	342°	343°	344°
0°	3014.9	3014.9	3014.9	3014.9	3014.9	3014.9	3014.9	3014.9	3014.9	3014.9	3014.9
2.5°	3003.2	3002.3	3021.3	3035.8	3030.3	3035.8	3042.1	3043.0	3044.8	3037.6	3034.8
5°	3300.0	3271.9	3217.6	3178.7	3133.5	3051.1	3010.4	3014.9	3015.8	3013.1	3016.7
7.5°	3357.0	3354.3	3335.3	3327.1	3296.3	3237.5	3143.4	3127.1	3087.3	3062.0	3041.2
10°	3214.0	3279.2	3296.3	3325.3	3343.4	3332.5	3252.9	3241.1	3215.8	3186.9	3193.2
12.5°	3059.3	3112.7	3115.4	3272.8	3308.1	3311.7	3281.0	3297.3	3300.9	3235.7	3197.7
15°	2869.3	2894.6	2948.0	3094.6	3201.3	3268.3	3288.2	3297.3	3252.9	3250.2	3234.8
17.5°	2786.0	2802.3	2826.7	2909.1	3071.0	3169.7	3253.8	3247.5	3264.7	3252.0	3213.1
20°	2681.1	2694.6	2738.1	2779.7	2859.3	2990.5	3148.0	3159.7	3182.3	3179.6	3190.5
22.5°	2679.2	2631.3	2638.5	2671.1	2754.3	2872.0	3039.4	3078.3	3092.8	3102.7	3114.5
25°	2125.5	2506.4	2576.1	2596.9	2651.2	2720.0	2917.2	2931.7	2958.8	3003.2	3035.8
27.5°	1841.4	2100.1	2378.8	2523.6	2558.0	2615.0	2732.6	2754.3	2846.6	2857.5	2908.2
30°	1453.2	1653.1	2069.4	2417.7	2474.7	2514.6	2597.8	2641.2	2681.1	2724.5	2777.9
32.5°	1367.2	1398.9	1629.6	2000.6	2444.0	2414.1	2475.7	2501.9	2545.3	2583.3	2622.2
35°	1288.5	1310.2	1359.1	1638.7	1990.7	2331.8	2373.4	2390.6	2415.0	2444.0	2472.0
37.5°	1206.2	1238.7	1272.2	1347.3	1841.4	2266.6	2265.7	2285.6	2300.1	2324.5	2348.1
40°	219.0	1137.4	1191.7	1240.5	1427.8	1807.9	2164.4	2173.4	2183.4	2198.8	2223.2
42.5°	35.3	190.0	1116.6	1163.6	1217.0	1618.8	2118.2	2081.1	2074.8	2085.7	2107.4
45°	18.1	46.1	224.4	1086.7	1134.7	1291.2	1731.9	2016.9	2010.6	1989.8	1994.3
47.5°	13.6	29.0	55.2	375.5	1062.3	1108.4	1598.0	1580.8	1701.1	1931.8	1896.6
50°	11.8	19.9	32.6	76.9	938.3	1020.7	1230.6	1437.8	1501.1	1509.3	1786.2
52.5°	10.9	13.6	23.5	49.8	197.3	943.8	1000.8	1073.1	1179.9	1408.8	1403.4
55°	10.0	12.7	19.9	33.5	68.8	850.6	909.4	922.9	945.6	1055.0	1199.8
57.5°	5.4	11.8	19.0	29.0	51.6	155.6	825.2	836.1	854.2	858.7	910.3
60°	2.7	10.9	17.2	25.3	38.0	72.4	742.0	754.6	765.5	767.3	783.6
62.5°	1.8	10.0	14.5	23.5	31.7	51.6	175.5	358.3	681.3	681.3	700.3
65°	1.8	7.2	9.0	15.4	29.0	42.5	74.2	86.0	167.4	411.7	614.4
67.5°	1.8	2.7	8.1	12.7	21.7	32.6	54.3	63.3	76.0	86.9	161.1
70°	1.8	1.8	7.2	8.1	13.6	24.4	38.9	44.3	51.6	58.8	67.9
72.5°	1.8	1.8	6.3	6.3	9.0	16.3	29.9	32.6	37.1	41.6	48.0
75°	4.5	3.6	5.4	5.4	6.3	12.7	22.6	25.3	27.1	30.8	35.3
77.5°	4.5	4.5	4.5	4.5	4.5	8.1	14.5	16.3	19.0	20.8	24.4
80°	3.6	3.6	3.6	4.5	4.5	5.4	9.0	10.0	10.9	13.6	14.5
82.5°	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	5.4	6.3	8.1
85°	2.7	2.7	2.7	2.7	2.7	2.7	2.7	3.6	3.6	3.6	3.6
87.5°	2.7	2.7	2.7	1.8	1.8	2.7	2.7	2.7	2.7	2.7	2.7
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: P1213115

CATALOG NUMBER: 4SNLED-LD5-54SL-RM-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	345°	346°	347°	348°	349°	350°	351°	352°	353°	354°	355°
0°	3014.9	3014.9	3014.9	3014.9	3014.9	3014.9	3014.9	3014.9	3014.9	3014.9	3014.9
2.5°	3033.9	3028.5	3024.0	3026.7	3018.6	3014.9	3017.7	3018.6	3020.4	3024.9	3025.8
5°	3025.8	3024.0	3032.1	3036.7	3034.8	3036.7	3036.7	3033.0	3027.6	3031.2	3023.1
7.5°	3020.4	3008.6	2999.6	3001.4	2992.3	3003.2	3013.1	3027.6	3032.1	3032.1	3023.1
10°	3113.6	3100.9	3050.2	3015.8	2993.2	2973.3	3020.4	2972.4	2995.0	2909.1	3007.7
12.5°	3190.5	3207.7	3185.0	3090.9	3074.7	3014.9	3049.3	2990.5	2973.3	2874.7	2906.4
15°	3221.2	3188.7	3181.4	3155.2	3119.9	3102.7	3010.4	3000.5	2972.4	2983.3	2941.6
17.5°	3194.1	3210.4	3188.7	3171.5	3135.3	3094.6	3039.4	2990.5	2951.6	2864.7	2938.0
20°	3167.9	3189.6	3124.4	3135.3	3138.9	3091.9	3062.9	3022.2	2973.3	2891.9	2828.5
22.5°	3124.4	3109.0	3114.5	3098.2	3084.6	3090.9	3051.1	3023.1	2940.7	2903.6	2817.7
25°	3053.8	3048.4	3062.9	3061.1	3028.5	3017.7	2997.7	2967.9	2935.3	2875.6	2805.0
27.5°	2938.9	2967.0	2992.3	3004.1	2986.9	2957.9	2947.1	2929.9	2907.3	2846.6	2794.2
30°	2817.7	2849.4	2878.3	2903.6	2919.0	2906.4	2896.4	2886.5	2852.1	2812.3	2753.4
32.5°	2679.2	2720.9	2760.7	2791.4	2824.9	2834.9	2827.6	2819.5	2790.5	2754.3	2707.3
35°	2519.1	2576.1	2634.0	2689.2	2703.7	2727.2	2750.7	2737.2	2721.8	2685.6	2642.1
37.5°	2383.4	2424.1	2465.7	2535.4	2586.0	2615.9	2657.5	2663.0	2636.7	2619.5	2562.5
40°	2243.1	2280.2	2340.8	2381.5	2451.2	2485.6	2529.9	2549.8	2543.5	2533.6	2483.8
42.5°	2132.7	2150.8	2190.6	2226.8	2295.6	2366.2	2405.1	2426.8	2449.4	2441.3	2415.9
45°	2015.1	2031.4	2044.9	2076.6	2143.6	2206.0	2254.0	2286.5	2327.3	2346.3	2315.5
47.5°	1898.4	1902.9	1919.2	1945.4	1985.2	2033.2	2113.7	2162.6	2200.6	2237.7	2217.8
50°	1808.8	1792.5	1795.2	1811.5	1844.1	1891.1	1949.0	2017.8	2061.2	2106.5	2111.0
52.5°	1580.8	1712.9	1681.2	1690.2	1707.4	1730.1	1790.7	1858.5	1911.9	1950.8	1989.8
55°	1326.5	1352.7	1607.0	1570.8	1581.7	1601.6	1629.6	1697.5	1749.1	1803.4	1857.6
57.5°	1028.8	1224.3	1234.2	1469.5	1464.0	1465.8	1489.4	1528.3	1579.9	1647.7	1693.9
60°	799.9	882.2	1042.4	1123.8	1330.1	1337.4	1350.9	1373.6	1417.9	1482.1	1555.4
62.5°	705.8	716.6	773.6	895.8	1029.7	1191.7	1220.6	1224.3	1244.2	1308.4	1393.5
65°	619.8	627.1	644.2	656.9	769.1	925.7	1065.0	1087.6	1100.3	1138.3	1210.7
67.5°	427.1	540.2	555.6	564.6	575.5	647.9	820.7	935.6	950.1	983.6	1046.9
70°	82.3	171.0	467.8	477.8	483.2	499.5	527.5	710.3	806.2	837.9	866.8
72.5°	56.1	66.1	79.6	188.2	398.1	407.2	413.5	437.0	599.0	691.3	706.7
75°	40.7	45.2	53.4	66.1	81.4	265.1	328.5	340.2	352.0	485.9	563.7
77.5°	29.0	32.6	36.2	42.5	49.8	64.2	92.3	254.3	266.0	272.4	384.6
80°	16.3	19.9	24.4	28.1	31.7	36.2	47.1	58.8	131.2	191.8	201.8
82.5°	9.0	10.9	12.7	15.4	17.2	21.7	26.2	31.7	41.6	61.5	130.3
85°	4.5	4.5	4.5	6.3	7.2	10.0	11.8	13.6	19.0	26.2	36.2
87.5°	2.7	2.7	3.6	3.6	3.6	4.5	4.5	4.5	5.4	8.1	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: P1213115

CATALOG NUMBER: 4SNLED-LD5-54SL-RM-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	356°	357°	358°	359°	360°
0°	3014.9	3014.9	3014.9	3014.9	3014.9
2.5°	3026.7	3024.0	3024.0	3034.8	3032.1
5°	3021.3	3018.6	3017.7	3029.4	3024.0
7.5°	3016.7	3006.8	3004.1	3014.9	3010.4
10°	2998.7	2991.4	2995.9	2992.3	2990.5
12.5°	2967.9	2963.4	2944.4	2946.2	2961.6
15°	2912.7	2930.8	2898.2	2927.2	2933.5
17.5°	2811.3	2852.1	2883.7	2900.9	2903.6
20°	2856.6	2870.2	2853.9	2854.8	2865.6
22.5°	2797.8	2804.1	2808.6	2803.2	2826.7
25°	2703.7	2679.2	2731.7	2742.6	2780.6
27.5°	2674.7	2654.8	2679.2	2677.4	2709.1
30°	2651.2	2586.9	2597.8	2615.0	2653.9
32.5°	2617.7	2516.4	2505.5	2543.5	2586.9
35°	2558.9	2463.0	2437.6	2462.1	2527.2
37.5°	2509.1	2388.8	2338.1	2370.7	2455.7
40°	2434.9	2330.9	2252.2	2281.1	2381.5
42.5°	2346.3	2281.1	2159.9	2179.8	2294.7
45°	2256.7	2198.8	2070.3	2080.2	2216.9
47.5°	2165.3	2111.9	1977.1	1978.9	2117.3
50°	2075.7	2005.1	1893.8	1862.2	2011.5
52.5°	1959.0	1893.8	1809.7	1758.1	1911.0
55°	1848.6	1775.3	1713.8	1634.1	1797.0
57.5°	1740.9	1659.5	1617.9	1515.6	1667.6
60°	1593.4	1554.5	1493.0	1395.3	1550.9
62.5°	1442.3	1429.7	1367.2	1265.9	1407.0
65°	1265.9	1295.7	1231.5	1144.6	1257.7
67.5°	1099.4	1152.8	1082.2	1028.8	1113.9
70°	922.0	983.6	943.8	924.8	960.9
72.5°	747.4	807.1	810.7	797.2	808.9
75°	577.3	643.3	679.5	658.7	661.4
77.5°	437.9	469.6	509.4	525.7	522.1
80°	270.5	325.7	358.3	391.8	380.0
82.5°	136.6	182.8	222.6	258.8	241.6
85°	57.0	73.3	102.2	134.8	129.4
87.5°	17.2	29.0	30.8	43.4	40.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)