

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: P1213455

Luminaire Tested: 4SNLED-LD5-52HL-RM-UNV-L935-CD1-U

Issue Date: 3/29/2018

Test Information

Test Method: LM-79-2019
Report Number: P1213455
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-LD5-52HL-RM-UNV-L935-CD1-U
Description: 4FT LINEAR SNLED LED FIXTURE
METALIC FINISH REFLECTOR
Light Source: -
Ballast/Driver: -

Summary

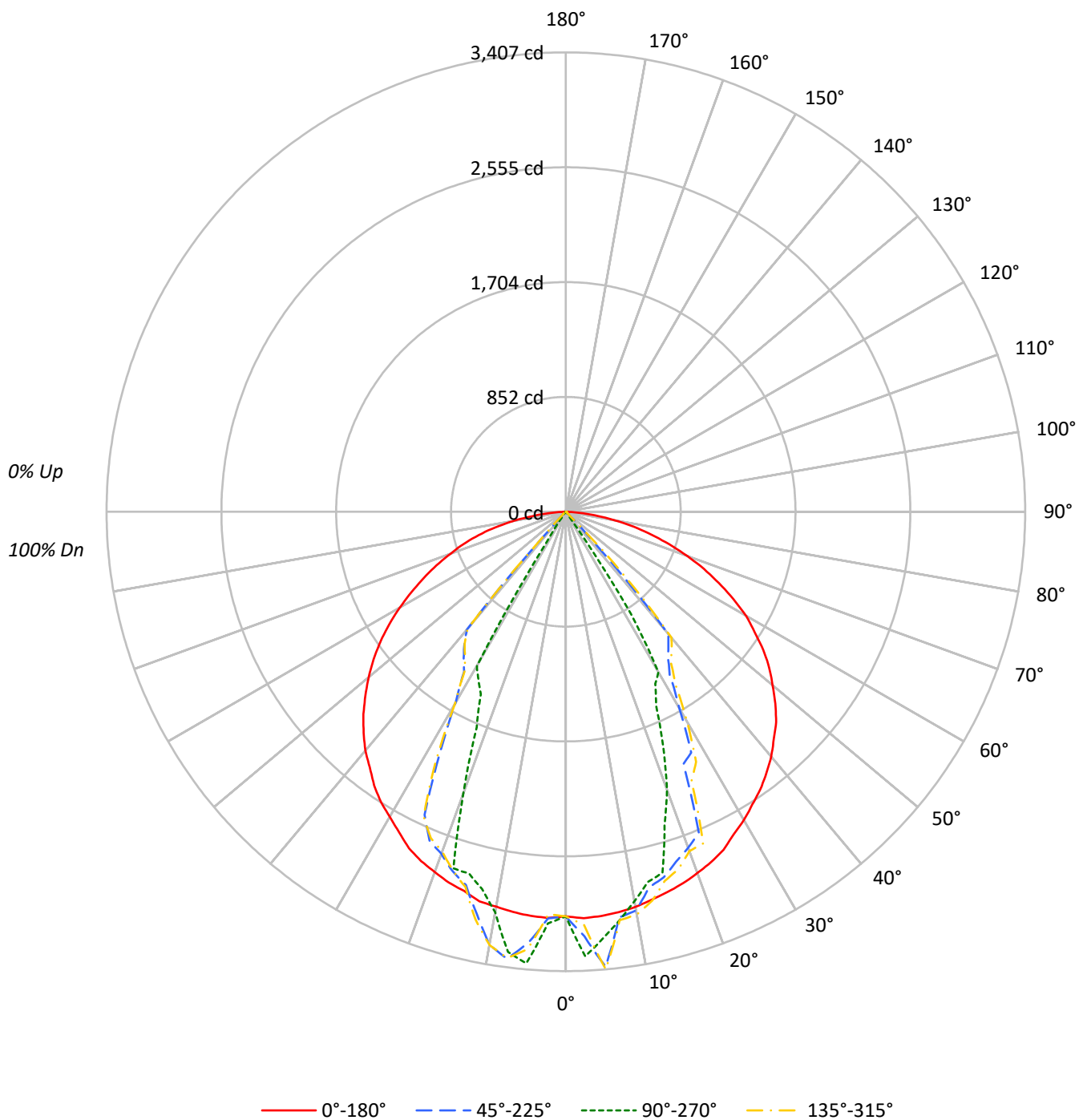
Lumens per Lamp: N/A
Luminaire Lumens: 4266.0 lumens
Efficiency: N/A
Efficacy: 109.4 lumens/watt
Spacing Criteria (0/90/45): 1.3 / 0.81 / 0.97
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.12')
CIE Type: Direct

Input Watts (W): 39
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			0
RW	70	50	30	10	70	50	30	10	50	30	10		50	30	10		50	30	10	0
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°	24245	24245	24245	24245
5°	24344	24936	24336	26406
10°	24285	22563	24271	23215
15°	24219	21061	24159	21115
20°	24247	16588	24178	16793
25°	24317	12004	24199	11328
30°	24206	10530	23950	10123
35°	24278	232	23921	281
40°	24361	51	23778	51
45°	24447	30	23529	22
50°	24260	23	23148	23
55°	24117	17	22636	17
60°	23662	18	21812	18
65°	22429	29	20831	19
70°	20806	31	19807	31
75°	18404	35	18706	35
80°	14951	40	15804	40
85°	8799	47	8984	47

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 2°

Vertical Angle: 45°

Luminance: 26397 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	301.0	7.1
10°-20°	821.0	19.2
20°-30°	1044.7	24.5
30°-40°	882.5	20.7
40°-50°	577.0	13.5
50°-60°	363.5	8.5
60°-70°	193.5	4.5
70°-80°	70.5	1.7
80°-90°	12.1	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°	2166.8	50.8
0°-40°	3049.3	71.5
0°-60°	3989.8	93.5
0°-90°	4266.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4266.0	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	3000	3000	3000	3000	3000	
5°	3009	3175	3008	3362	3009	286
15°	2919	2771	2912	2778	2919	825
25°	2767	1582	2754	1493	2767	1272
35°	2515	30	2478	36	2515	1573
45°	2206	4	2123	3	2206	1697
55°	1788	2	1678	2	1788	1593
65°	1252	3	1162	2	1252	1240
75°	658	3	669	3	658	699
85°	129	3	132	3	129	163
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°	3000.2	3000.2	3000.2	3000.2	3000.2	3000.2	3000.2	3000.2	3000.2	3000.2	3000.2
2.5°	3017.3	3019.1	3020.0	3021.8	3024.5	3025.4	3027.2	3025.4	3025.4	3025.4	3025.4
5°	3009.2	3012.8	3015.5	3019.1	3025.4	3026.3	3033.5	3034.4	3038.0	3045.2	3050.6
7.5°	2995.7	2999.3	3004.7	3013.7	3022.7	3032.6	3045.2	3058.7	3077.6	3095.6	3118.1
10°	2975.9	2980.4	2986.7	2994.8	3038.9	3045.2	3073.1	3111.8	3122.6	3179.4	3221.7
12.5°	2947.0	2962.4	2978.6	2985.8	3028.1	3094.7	3188.4	3169.4	3148.7	3334.2	3331.5
15°	2919.1	2939.8	2931.7	2990.3	3029.0	3145.1	3105.5	3190.2	3345.0	3307.2	3309.0
17.5°	2889.4	2893.9	2938.9	2987.6	3056.9	3116.3	3164.9	3281.1	3311.7	3314.4	3281.1
20°	2851.6	2873.2	2938.9	2983.1	3100.1	3128.0	3233.4	3292.8	3280.2	3249.6	3192.9
22.5°	2812.9	2878.6	2945.2	3007.4	3089.3	3164.0	3216.3	3244.2	3178.5	3057.8	2993.0
25°	2767.0	2805.7	2893.0	2984.0	3086.6	3129.8	3160.4	3115.4	3029.9	2921.8	2812.9
27.5°	2695.8	2758.0	2869.6	2972.3	3065.0	3117.2	3067.7	2959.7	2821.9	2750.8	2701.2
30°	2640.9	2721.9	2813.8	2912.8	3009.2	3039.8	2913.7	2790.4	2695.8	2624.7	2613.9
32.5°	2574.3	2689.5	2776.9	2871.4	2952.4	2911.9	2789.5	2630.1	2551.8	2524.8	2535.6
35°	2514.8	2602.2	2716.5	2809.3	2867.8	2776.9	2583.3	2484.2	2446.4	2461.7	2441.9
37.5°	2443.7	2559.0	2664.3	2744.5	2724.6	2587.8	2423.9	2360.9	2365.4	2352.8	2315.0
40°	2369.9	2479.7	2589.6	2665.2	2595.9	2387.0	2278.0	2264.5	2267.2	2226.7	2172.7
42.5°	2283.4	2383.4	2493.2	2561.7	2412.2	2249.2	2175.4	2177.2	2153.8	2097.1	2068.2
45°	2206.0	2297.8	2412.2	2418.5	2234.8	2098.9	2077.2	2053.8	2001.6	1982.7	1961.1
47.5°	2107.0	2208.7	2303.3	2269.0	2061.0	1976.4	1960.2	1908.9	1882.8	1868.4	1850.3
50°	2001.6	2104.3	2190.7	2093.5	1897.2	1877.4	1824.2	1783.7	1765.7	1750.4	1734.2
52.5°	1901.7	1986.3	2074.5	1907.1	1771.1	1752.2	1691.9	1668.5	1650.5	1633.3	1629.7
55°	1788.2	1863.0	1923.3	1729.7	1650.5	1606.3	1563.1	1546.9	1529.8	1521.7	1535.2
57.5°	1659.5	1744.1	1735.1	1555.0	1519.9	1456.0	1439.8	1429.0	1416.3	1421.7	1309.2
60°	1543.3	1608.1	1564.0	1427.2	1367.7	1324.5	1310.1	1302.9	1310.1	1200.2	1055.3
62.5°	1400.1	1473.1	1383.9	1277.7	1214.7	1193.9	1181.3	1191.2	1085.9	965.2	930.1
65°	1251.6	1330.8	1199.3	1117.4	1077.8	1059.8	1058.9	975.1	871.6	824.8	824.8
67.5°	1108.4	1190.3	1021.1	952.6	937.3	939.1	886.9	759.9	731.1	699.6	608.7
70°	956.2	1028.3	843.7	802.3	793.3	787.0	660.0	625.8	591.6	507.8	500.6
72.5°	805.0	840.1	678.0	668.1	666.3	553.8	528.5	470.0	430.4	420.5	416.0
75°	658.2	647.4	535.7	544.7	459.2	419.6	379.1	344.9	339.5	335.9	83.7
77.5°	519.5	465.5	422.3	367.4	328.7	279.1	271.0	265.6	174.7	63.0	51.3
80°	378.2	301.6	280.9	238.6	203.5	195.4	199.9	61.2	48.6	40.5	35.1
82.5°	240.4	192.7	157.6	137.8	134.2	58.5	43.2	35.1	30.6	26.1	21.6
85°	128.8	85.5	79.2	66.6	39.6	27.0	22.5	17.1	14.4	11.7	10.8
87.5°	40.5	34.2	27.9	22.5	13.5	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°	3000.2	3000.2	3000.2	3000.2	3000.2	3000.2	3000.2	3000.2	3000.2	3000.2	3000.2
2.5°	3023.6	3025.4	3024.5	3027.2	3027.2	3030.8	3033.5	3036.2	3041.6	3044.3	3065.0
5°	3062.3	3066.8	3080.3	3092.9	3108.2	3112.7	3138.8	3145.1	3175.8	3179.4	3280.2
7.5°	3148.7	3165.8	3198.3	3230.7	3263.1	3283.8	3319.8	3342.3	3366.6	3388.2	3468.4
10°	3253.2	3282.0	3313.5	3345.9	3364.8	3404.5	3426.1	3429.7	3423.4	3388.2	3258.6
12.5°	3355.8	3384.6	3371.1	3377.4	3400.0	3329.7	3339.6	3289.2	3324.3	3150.5	3021.8
15°	3341.4	3339.6	3306.3	3198.3	3216.3	3082.1	3028.1	2986.7	3020.0	3002.0	2982.2
17.5°	3298.2	3216.3	3158.6	3029.0	2974.1	2936.2	2937.1	2938.0	2921.8	2938.9	2888.5
20°	3115.4	3023.6	2938.0	2892.1	2875.9	2848.9	2862.4	2848.9	2849.8	2855.2	2777.8
22.5°	2872.3	2844.4	2794.9	2809.3	2803.9	2828.2	2810.2	2782.3	2791.3	2750.8	2692.2
25°	2774.2	2741.8	2740.0	2745.4	2737.3	2726.4	2710.2	2667.9	2665.2	2652.6	2625.6
27.5°	2675.1	2676.9	2682.3	2666.1	2637.3	2615.7	2591.4	2570.7	2578.8	2564.4	2527.5
30°	2606.7	2605.8	2573.4	2559.0	2505.8	2506.7	2500.4	2487.8	2479.7	2480.6	2457.2
32.5°	2509.4	2481.5	2444.6	2426.6	2422.1	2405.9	2393.3	2396.0	2402.3	2379.8	2404.1
35°	2409.5	2351.9	2346.5	2331.2	2316.8	2306.0	2310.5	2292.4	2291.5	2288.8	2090.8
37.5°	2275.3	2247.4	2244.7	2228.5	2218.6	2215.9	2198.8	2201.5	2209.6	2224.0	1782.8
40°	2164.6	2139.4	2133.1	2132.2	2110.6	2108.8	2113.3	2130.4	2142.1	2052.0	1699.1
42.5°	2045.7	2047.5	2027.7	2015.1	2017.8	2025.9	2047.5	1988.1	1722.5	1641.4	1553.2
45°	1944.0	1935.0	1924.2	1920.6	1944.0	1927.8	1690.1	1559.5	1528.0	1524.4	1276.8
47.5°	1837.7	1835.0	1830.5	1833.2	1700.0	1515.4	1461.4	1444.3	1449.7	1446.1	1096.7
50°	1730.6	1734.2	1734.2	1514.5	1390.2	1359.6	1364.1	1379.4	1284.0	1198.4	1022.0
52.5°	1637.8	1609.9	1379.4	1300.2	1272.3	1285.8	1253.4	1133.6	1047.2	996.8	945.4
55°	1465.9	1260.6	1209.3	1196.6	1206.6	1086.8	1013.0	935.5	913.0	907.6	877.9
57.5°	1153.4	1112.0	1116.5	1066.1	951.7	884.2	854.5	843.7	833.8	826.6	72.0
60°	1020.2	1031.9	944.5	836.5	790.6	781.6	774.4	764.4	762.6	750.0	45.9
62.5°	933.7	821.2	745.5	718.5	707.7	705.0	691.5	687.0	583.5	80.1	34.2
65°	704.1	658.2	643.8	637.5	625.8	625.8	519.5	81.9	66.6	57.6	30.6
67.5°	574.5	570.9	563.7	555.6	378.2	79.2	69.3	60.3	52.2	45.9	27.0
70°	486.2	484.4	441.2	81.0	67.5	59.4	52.2	46.8	43.2	38.7	24.3
72.5°	398.9	81.0	68.4	59.4	51.3	46.8	42.3	37.8	34.2	31.5	19.8
75°	62.1	54.9	48.6	44.1	40.5	36.0	32.4	29.7	28.8	25.2	13.5
77.5°	45.0	38.7	35.1	31.5	27.9	25.2	21.6	18.9	17.1	14.4	9.9
80°	31.5	27.9	25.2	20.7	18.0	15.3	13.5	11.7	10.8	9.0	4.5
82.5°	18.0	15.3	13.5	10.8	9.9	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°	3000.2	3000.2	3000.2	3000.2	3000.2	3000.2	3000.2	3000.2	3000.2	3000.2	3000.2
2.5°	3093.8	3105.5	3128.0	3151.4	3125.3	3219.0	3211.8	3243.3	3260.4	3268.5	3287.4
5°	3369.3	3421.6	3438.7	3387.3	3357.6	3327.0	3257.7	3205.5	3211.8	3194.7	3132.5
7.5°	3363.9	3252.3	3101.9	3033.5	3028.1	3020.0	3041.6	3054.2	3056.0	3055.1	3053.3
10°	3079.4	3021.8	3011.9	3002.9	3006.5	2973.2	2957.9	2914.6	2938.0	2925.4	2929.9
12.5°	2993.0	2979.5	2926.3	2852.5	2896.6	2863.3	2844.4	2857.0	2842.6	2829.1	2824.6
15°	2941.6	2854.3	2824.6	2806.6	2794.0	2786.8	2793.1	2778.7	2774.2	2771.5	2777.8
17.5°	2835.4	2800.3	2767.9	2720.1	2721.0	2718.3	2736.3	2763.4	2765.2	2626.5	2501.3
20°	2751.7	2722.8	2681.4	2651.7	2692.2	2620.2	2342.0	2209.6	2188.9	2188.9	2192.5
22.5°	2685.0	2621.1	2623.8	2577.0	2197.9	2120.5	2122.3	2130.4	2093.5	1967.4	1953.9
25°	2594.1	2584.2	2387.0	2062.8	2065.5	2005.2	1912.5	1781.9	1640.5	1640.5	1617.1
27.5°	2525.7	2315.9	2027.7	2014.2	1811.6	1683.8	1604.5	1484.8	1468.6	1453.3	1455.1
30°	2467.1	1959.3	1966.5	1683.8	1534.3	1428.1	1421.7	1401.9	1392.0	1389.3	1379.4
32.5°	1950.3	1908.0	1646.0	1433.5	1374.9	1357.8	1349.7	1327.2	1326.3	1309.2	1190.3
35°	1828.7	1674.8	1377.6	1320.0	1302.9	1286.7	1273.2	854.5	100.8	40.5	35.1
37.5°	1690.1	1399.2	1274.1	1248.0	1231.8	910.3	90.9	31.5	22.5	16.2	14.4
40°	1432.6	1249.8	1210.2	1181.3	487.1	31.5	19.8	15.3	9.0	8.1	7.2
42.5°	1208.4	1177.7	1135.4	345.8	36.0	15.3	9.9	7.2	6.3	6.3	5.4
45°	1130.9	1103.9	457.4	34.2	22.5	7.2	6.3	6.3	5.4	3.6	3.6
47.5°	1058.9	931.9	41.4	21.6	14.4	6.3	5.4	3.6	3.6	3.6	2.7
50°	982.3	51.3	28.8	16.2	9.0	3.6	3.6	3.6	3.6	2.7	2.7
52.5°	183.7	36.0	23.4	14.4	4.5	3.6	3.6	3.6	2.7	2.7	2.7
55°	43.2	28.8	21.6	12.6	3.6	3.6	3.6	2.7	2.7	2.7	1.8
57.5°	32.4	21.6	17.1	11.7	3.6	2.7	2.7	2.7	2.7	2.7	1.8
60°	27.0	15.3	13.5	10.8	2.7	2.7	2.7	2.7	2.7	2.7	1.8
62.5°	18.9	12.6	9.9	8.1	2.7	2.7	2.7	2.7	2.7	2.7	2.7
65°	15.3	9.9	8.1	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
67.5°	13.5	8.1	5.4	1.8	2.7	2.7	2.7	2.7	2.7	2.7	2.7
70°	10.8	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: P1213455

CATALOG NUMBER: 4SNLED-LD5-52HL-RM-UNV-L935-CD1-U

CANDELA DISTRIBUTION (continued):

	85°	90°	95°	100°	105°	110°	115°	120°	125°	130°	135°
0°	3000.2	3000.2	3000.2	3000.2	3000.2	3000.2	3000.2	3000.2	3000.2	3000.2	3000.2
2.5°	3296.4	3300.0	3243.3	3223.5	3240.6	3237.0	3221.7	3164.9	3158.6	3120.8	3065.9
5°	3150.5	3174.9	3145.1	3196.5	3172.1	3196.5	3270.3	3304.5	3360.3	3394.6	3407.2
7.5°	3048.8	3054.2	3054.2	3058.7	3063.2	3064.1	3058.7	3055.1	3039.8	3020.9	3055.1
10°	2925.4	2931.7	2942.5	2940.7	2939.8	2958.8	2963.3	3002.0	3000.2	3007.4	3033.5
12.5°	2861.5	2812.9	2857.0	2845.3	2861.5	2836.3	2883.1	2875.0	2877.7	2899.3	2955.1
15°	2755.3	2770.6	2781.4	2781.4	2787.7	2782.3	2776.9	2813.8	2836.3	2837.2	2833.6
17.5°	2550.9	2434.7	2553.6	2523.0	2767.0	2773.3	2752.6	2735.4	2735.4	2749.0	2777.8
20°	2189.8	2192.5	2193.4	2205.1	2219.5	2218.6	2219.5	2574.3	2742.7	2703.9	2677.8
22.5°	1919.7	1886.4	1948.5	1944.0	2021.4	2107.0	2188.9	2180.8	2186.2	2436.5	2661.6
25°	1538.8	1582.0	1546.9	1562.2	1649.6	1751.3	1814.3	1979.1	2158.3	2145.7	2204.2
27.5°	1448.8	1437.1	1453.3	1453.3	1465.0	1478.5	1513.6	1606.3	1765.7	1933.2	2091.7
30°	1363.2	1373.1	1374.9	1391.1	1400.1	1409.1	1414.5	1449.7	1485.7	1601.8	1797.2
32.5°	1023.8	897.7	1181.3	1257.9	1322.7	1338.0	1348.8	1363.2	1389.3	1406.4	1504.6
35°	29.7	29.7	31.5	36.0	45.9	309.7	1179.5	1300.2	1317.3	1338.9	1356.9
37.5°	14.4	10.8	12.6	13.5	16.2	22.5	32.4	100.8	1122.8	1269.6	1289.4
40°	6.3	6.3	6.3	6.3	7.2	9.0	13.5	22.5	34.2	903.1	1218.3
42.5°	5.4	5.4	5.4	5.4	5.4	5.4	6.3	8.1	16.2	38.7	639.3
45°	3.6	3.6	2.7	3.6	3.6	4.5	5.4	5.4	7.2	24.3	44.1
47.5°	2.7	2.7	2.7	2.7	2.7	2.7	2.7	4.5	5.4	16.2	23.4
50°	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	12.6	16.2
52.5°	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	5.4	14.4
55°	1.8	1.8	1.8	1.8	1.8	1.8	1.8	2.7	2.7	3.6	12.6
57.5°	1.8	1.8	1.8	1.8	1.8	2.7	1.8	1.8	2.7	2.7	11.7
60°	1.8	1.8	1.8	1.8	1.8	2.7	2.7	2.7	2.7	2.7	10.8
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: P1213455

CATALOG NUMBER: 4SNLED-LD5-52HL-RM-UNV-L935-CD1-U

CANDELA DISTRIBUTION (continued):

	140°	145°	150°	155°	160°	161°	162°	163°	164°	165°	166°
0°	3000.2	3000.2	3000.2	3000.2	3000.2	3000.2	3000.2	3000.2	3000.2	3000.2	3000.2
2.5°	3070.4	3039.8	3029.9	3009.2	3007.4	3009.2	3004.7	2998.4	3002.0	2995.7	2990.3
5°	3414.4	3332.4	3279.3	3208.2	3110.0	3088.4	3083.0	3052.4	3041.6	3038.0	3023.6
7.5°	3136.1	3285.6	3375.6	3406.3	3291.0	3264.0	3232.5	3207.3	3183.0	3137.0	3109.1
10°	3012.8	3020.0	3106.4	3207.3	3371.1	3393.7	3410.8	3355.8	3340.5	3223.5	3198.3
12.5°	2984.0	2984.9	2994.8	3056.0	3184.8	3199.2	3259.5	3291.9	3331.5	3354.0	3336.0
15°	2852.5	2925.4	2979.5	2984.9	2996.6	3021.8	3039.8	3152.3	3200.1	3327.9	3320.7
17.5°	2791.3	2814.7	2893.0	2957.0	2946.1	2937.1	2951.5	2966.9	3012.8	3140.6	3138.8
20°	2689.5	2764.3	2806.6	2873.2	2933.5	2936.2	2920.0	2911.0	2893.0	2913.7	2932.6
22.5°	2646.3	2658.0	2737.3	2784.1	2852.5	2876.8	2880.4	2881.3	2871.4	2860.6	2855.2
25°	2641.8	2604.9	2645.4	2703.9	2754.4	2780.5	2810.2	2820.1	2816.5	2816.5	2811.1
27.5°	2161.9	2593.2	2571.6	2610.3	2671.5	2689.5	2704.8	2735.4	2754.4	2767.9	2774.2
30°	2059.2	2136.7	2513.9	2519.4	2581.5	2579.7	2596.8	2622.0	2646.3	2677.8	2685.9
32.5°	1821.5	2011.5	2301.5	2428.4	2493.2	2499.5	2508.5	2515.7	2538.3	2573.4	2604.0
35°	1459.6	1832.3	1971.9	2385.2	2396.9	2409.5	2414.9	2432.0	2439.2	2453.6	2480.6
37.5°	1320.9	1514.5	1891.8	2062.8	2286.1	2296.9	2325.8	2333.0	2344.7	2356.4	2377.1
40°	1240.8	1293.9	1574.8	1842.2	2197.0	2204.2	2214.1	2232.1	2233.0	2246.5	2265.4
42.5°	1176.8	1211.1	1293.0	1759.4	2134.0	2133.1	2109.7	2121.4	2126.8	2141.2	2167.3
45°	940.0	1136.3	1188.5	1437.1	1699.1	1821.5	2056.5	2017.8	2016.9	2022.3	2050.2
47.5°	47.7	1068.8	1105.7	1185.8	1604.5	1609.0	1639.6	1897.2	1936.8	1924.2	1926.9
50°	32.4	73.8	1030.1	1067.0	1383.0	1494.7	1517.2	1528.9	1677.5	1843.1	1816.1
52.5°	25.2	42.3	631.2	990.5	1123.7	1205.7	1350.6	1433.5	1442.5	1509.1	1735.1
55°	22.5	32.4	68.4	913.9	955.3	973.3	1058.0	1202.9	1320.0	1355.1	1357.8
57.5°	19.8	29.7	46.8	413.3	868.9	872.5	886.9	937.3	1042.7	1139.0	1248.0
60°	18.0	26.1	36.9	71.1	789.7	798.7	801.4	814.9	827.5	893.2	1018.4
62.5°	10.8	20.7	32.4	51.3	624.9	717.6	716.7	725.7	737.4	744.6	769.9
65°	9.0	16.2	27.9	43.2	76.5	95.4	579.9	644.7	651.9	661.8	666.3
67.5°	8.1	14.4	20.7	34.2	57.6	65.7	75.6	93.6	511.4	576.3	585.3
70°	7.2	9.9	17.1	28.8	46.8	50.4	56.7	64.8	76.5	94.5	462.8
72.5°	4.5	7.2	11.7	20.7	36.0	40.5	44.1	49.5	54.9	65.7	75.6
75°	1.8	5.4	9.9	15.3	27.9	30.6	33.3	36.9	41.4	48.6	54.0
77.5°	1.8	4.5	8.1	10.8	18.0	20.7	24.3	27.0	30.6	34.2	39.6
80°	6.3	3.6	5.4	8.1	12.6	13.5	15.3	17.1	19.8	22.5	26.1
82.5°	4.5	5.4	6.3	5.4	6.3	8.1	9.0	10.8	11.7	13.5	14.4
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: P1213455

CATALOG NUMBER: 4SNLED-LD5-52HL-RM-UNV-L935-CD1-U

CANDELA DISTRIBUTION (continued):

	167°	168°	169°	170°	171°	172°	173°	174°	175°	176°	177°
0°	3000.2	3000.2	3000.2	3000.2	3000.2	3000.2	3000.2	3000.2	3000.2	3000.2	3000.2
2.5°	2990.3	2988.5	2983.1	2983.1	2982.2	2985.8	2988.5	2991.2	2990.3	2995.7	2990.3
5°	3012.8	3008.3	3000.2	2993.0	2990.3	2992.1	2989.4	2992.1	2988.5	2993.0	2984.9
7.5°	3074.9	3059.6	3028.1	3015.5	2999.3	2998.4	2990.3	2988.5	2983.1	2983.1	2973.2
10°	3184.8	3110.9	3101.9	3064.1	3050.6	2984.9	2999.3	2975.0	2972.3	2960.6	2956.1
12.5°	3274.8	3217.2	3200.1	3166.7	3128.9	2995.7	3025.4	2973.2	2970.5	2947.0	2922.7
15°	3276.6	3309.9	3263.1	3171.2	3163.1	3071.3	3011.0	2993.0	2969.6	2899.3	2911.0
17.5°	3171.2	3247.8	3270.3	3250.5	3192.9	3130.7	3046.1	3010.1	2939.8	2908.3	2886.7
20°	3000.2	3077.6	3173.9	3180.3	3216.3	3172.1	3061.4	3002.9	2918.2	2863.3	2845.3
22.5°	2864.2	2920.9	3031.7	3083.0	3127.1	3142.4	3072.2	2985.8	2880.4	2827.3	2816.5
25°	2792.2	2804.8	2838.1	2898.4	2995.7	3065.9	3075.8	2984.0	2929.0	2812.9	2751.7
27.5°	2766.1	2755.3	2741.8	2772.4	2845.3	2930.8	2987.6	3002.9	2866.0	2755.3	2694.0
30°	2699.4	2705.7	2685.0	2674.2	2721.9	2810.2	2911.0	2936.2	2830.9	2716.5	2646.3
32.5°	2617.5	2628.3	2631.9	2613.0	2603.1	2664.3	2773.3	2833.6	2828.2	2661.6	2583.3
35°	2514.8	2545.5	2553.6	2554.5	2538.3	2528.4	2591.4	2716.5	2764.3	2636.4	2523.0
37.5°	2406.8	2415.8	2459.9	2471.6	2471.6	2441.9	2488.7	2588.7	2655.3	2579.7	2449.1
40°	2271.7	2300.6	2342.0	2362.7	2383.4	2386.1	2360.0	2430.2	2540.1	2521.2	2379.8
42.5°	2173.6	2192.5	2217.7	2245.6	2287.9	2298.7	2271.7	2284.3	2398.7	2448.2	2289.7
45°	2059.2	2084.5	2091.7	2122.3	2166.4	2197.9	2197.0	2170.9	2262.7	2324.0	2224.0
47.5°	1942.2	1966.5	1979.1	1994.4	2026.8	2067.3	2089.9	2078.1	2096.2	2215.9	2136.7
50°	1821.5	1835.0	1860.2	1877.4	1899.0	1922.4	1976.4	1987.2	1962.0	2057.4	2040.3
52.5°	1707.2	1711.7	1728.8	1745.9	1774.7	1791.8	1835.0	1867.5	1865.7	1893.6	1933.2
55°	1618.0	1598.2	1601.8	1615.3	1634.2	1660.4	1684.7	1735.1	1752.2	1757.6	1820.6
57.5°	1264.2	1467.7	1485.7	1484.8	1507.3	1519.0	1541.5	1574.8	1636.0	1622.5	1692.8
60°	1148.9	1171.4	1341.6	1361.4	1369.5	1380.3	1407.3	1438.0	1483.0	1511.8	1542.4
62.5°	876.1	1013.0	1064.3	1214.7	1238.1	1244.4	1262.4	1276.8	1323.6	1389.3	1376.7
65°	678.0	736.5	893.2	954.4	1082.3	1098.5	1123.7	1139.0	1152.5	1228.2	1231.8
67.5°	586.2	595.2	637.5	755.4	836.5	961.6	976.9	990.5	1011.2	1065.2	1098.5
70°	500.6	511.4	523.1	533.0	638.4	721.2	837.4	841.9	855.4	891.4	967.0
72.5°	94.5	427.7	434.9	441.2	452.9	507.8	618.6	708.6	714.0	731.1	800.5
75°	63.9	74.7	102.6	353.0	364.7	368.3	387.2	499.7	582.6	586.2	616.8
77.5°	45.9	51.3	62.1	73.8	188.2	282.7	287.2	307.9	393.5	455.6	461.0
80°	31.5	35.1	41.4	46.8	57.6	75.6	208.9	215.2	226.0	311.5	327.7
82.5°	18.0	20.7	24.3	29.7	34.2	43.2	55.8	72.0	146.8	156.7	208.0
85°	9.0	9.9	11.7	14.4	17.1	20.7	27.9	34.2	46.8	84.6	87.3
87.5°	4.5	4.5	4.5	4.5	7.2	8.1	9.9	12.6	16.2	24.3	31.5
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: P1213455

CATALOG NUMBER: 4SNLED-LD5-52HL-RM-UNV-L935-CD1-U

CANDELA DISTRIBUTION (continued):

	178°	179°	180°	181°	182°	183°	184°	185°	186°	187°	188°
0°	3000.2	3000.2	3000.2	3000.2	3000.2	3000.2	3000.2	3000.2	3000.2	3000.2	3000.2
2.5°	2991.2	3003.8	3014.6	3017.3	3017.3	3019.1	3021.8	3023.6	3025.4	3027.2	3025.4
5°	2985.8	2999.3	3008.3	3011.0	3011.0	3016.4	3020.9	3026.3	3029.0	3029.0	3027.2
7.5°	2972.3	2982.2	2993.9	3001.1	3002.0	3011.0	3019.1	3018.2	3021.8	3023.6	3028.1
10°	2954.2	2954.2	2974.1	2979.5	2984.0	2993.9	2996.6	3002.0	3014.6	3016.4	3028.1
12.5°	2945.2	2936.2	2959.7	2962.4	2977.7	2965.1	2981.3	2986.7	2974.1	2991.2	2968.7
15°	2904.7	2915.5	2911.9	2920.0	2947.0	2932.6	2976.8	2962.4	2994.8	2956.1	3024.5
17.5°	2871.4	2869.6	2884.0	2891.2	2896.6	2927.2	2938.9	2955.1	2967.8	2957.0	2984.0
20°	2847.1	2832.7	2843.5	2851.6	2870.5	2893.9	2901.1	2876.8	2919.1	2991.2	3008.3
22.5°	2801.2	2791.3	2803.9	2803.9	2832.7	2829.1	2856.1	2840.8	2880.4	2964.2	3051.5
25°	2739.1	2740.0	2753.5	2769.7	2775.1	2815.6	2830.0	2849.8	2899.3	2999.3	3052.4
27.5°	2676.0	2670.6	2678.7	2712.0	2740.0	2769.7	2774.2	2841.7	2909.2	2977.7	3024.5
30°	2613.0	2607.6	2613.0	2637.3	2670.6	2690.4	2740.0	2830.0	2893.0	2939.8	2984.0
32.5°	2545.5	2540.1	2552.7	2570.7	2629.2	2631.9	2730.0	2814.7	2864.2	2898.4	2890.3
35°	2473.4	2466.2	2477.9	2505.8	2559.9	2579.7	2682.3	2745.4	2801.2	2817.4	2779.6
37.5°	2387.0	2374.4	2388.8	2427.5	2484.2	2541.9	2627.4	2700.3	2730.0	2686.8	2641.8
40°	2296.9	2287.9	2313.2	2333.0	2399.6	2479.7	2577.9	2629.2	2610.3	2560.8	2511.2
42.5°	2216.8	2197.9	2220.4	2258.2	2333.9	2424.8	2504.0	2532.9	2487.8	2414.9	2357.3
45°	2118.7	2096.2	2123.2	2173.6	2254.6	2358.2	2420.3	2410.4	2333.9	2270.8	2191.6
47.5°	2016.0	1989.0	2016.0	2076.3	2167.3	2277.1	2322.2	2277.1	2180.8	2101.6	2037.6
50°	1915.2	1883.7	1909.8	2000.7	2089.9	2174.5	2173.6	2086.3	2028.6	1942.2	1886.4
52.5°	1815.2	1770.2	1796.3	1895.4	1984.5	2080.9	2009.7	1928.7	1859.3	1783.7	1765.7
55°	1691.9	1643.3	1678.4	1822.4	1890.9	1947.6	1834.1	1763.0	1694.6	1656.8	1634.2
57.5°	1574.8	1521.7	1552.3	1722.5	1772.9	1787.3	1682.9	1582.0	1541.5	1528.9	1496.5
60°	1454.2	1393.8	1422.6	1618.9	1654.1	1595.5	1492.9	1414.5	1406.4	1381.2	1356.0
62.5°	1338.9	1272.3	1290.3	1490.2	1506.4	1400.1	1305.6	1284.9	1265.1	1239.9	1226.4
65°	1206.6	1137.2	1162.4	1353.3	1338.0	1201.1	1148.0	1143.5	1117.4	1096.7	1116.5
67.5°	1085.0	1003.1	1038.2	1203.8	1134.5	1022.9	1001.3	990.5	969.7	981.4	773.5
70°	951.7	862.6	910.3	1042.7	940.0	866.2	858.1	841.9	842.8	669.9	564.6
72.5°	803.2	725.7	795.1	866.2	743.7	722.1	710.4	708.6	571.8	464.6	438.5
75°	672.6	594.3	669.0	696.0	592.5	578.1	577.2	477.2	375.5	358.4	350.3
77.5°	524.9	464.6	535.7	495.2	454.7	438.5	393.5	295.3	282.7	271.0	101.7
80°	353.9	358.4	399.8	341.3	324.1	276.4	217.9	208.9	180.1	72.0	56.7
82.5°	215.2	270.1	254.8	213.4	208.9	150.4	137.8	70.2	52.2	41.4	36.0
85°	111.7	136.9	131.5	116.2	86.4	77.4	43.2	33.3	27.0	20.7	17.1
87.5°	37.8	50.4	48.6	38.7	29.7	23.4	15.3	12.6	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: P1213455

CATALOG NUMBER: 4SNLED-LD5-52HL-RM-UNV-L935-CD1-U

CANDELA DISTRIBUTION (continued):

	189°	190°	191°	192°	193°	194°	195°	196°	197°	198°	199°
0°	3000.2	3000.2	3000.2	3000.2	3000.2	3000.2	3000.2	3000.2	3000.2	3000.2	3000.2
2.5°	3023.6	3023.6	3021.8	3023.6	3024.5	3022.7	3022.7	3024.5	3025.4	3026.3	3030.8
5°	3028.1	3029.9	3032.6	3038.0	3038.9	3049.7	3054.2	3056.9	3059.6	3060.5	3054.2
7.5°	3038.0	3044.3	3049.7	3048.8	3042.5	3025.4	3020.0	3015.5	3023.6	3044.3	3068.6
10°	3047.0	3018.2	2964.2	3038.0	3015.5	3036.2	3097.4	3110.9	3152.3	3210.9	3228.0
12.5°	2984.9	3064.1	3081.2	2998.4	3151.4	3094.7	3162.2	3221.7	3238.8	3298.2	3262.2
15°	3051.5	3090.2	3116.3	3199.2	3190.2	3238.8	3257.7	3246.0	3248.7	3264.0	3304.5
17.5°	3050.6	3128.0	3145.1	3201.0	3238.8	3239.7	3234.3	3228.9	3243.3	3255.0	3230.7
20°	3102.8	3128.0	3161.3	3183.9	3191.1	3200.1	3217.2	3203.7	3176.7	3150.5	3139.7
22.5°	3076.7	3133.4	3162.2	3165.8	3161.3	3133.4	3108.2	3070.4	3057.8	3044.3	3048.8
25°	3082.1	3108.2	3104.6	3090.2	3071.3	3019.1	3006.5	2990.3	2966.0	2907.4	2854.3
27.5°	3043.4	3029.9	3013.7	2978.6	2944.3	2916.4	2884.9	2832.7	2789.5	2726.4	2703.0
30°	2978.6	2924.5	2884.9	2864.2	2830.9	2784.1	2736.3	2672.4	2617.5	2604.9	2593.2
32.5°	2854.3	2801.2	2768.8	2718.3	2661.6	2605.8	2550.9	2525.7	2513.9	2515.7	2504.9
35°	2727.3	2680.5	2631.9	2556.3	2513.9	2458.1	2438.3	2432.9	2422.1	2410.4	2397.8
37.5°	2592.3	2537.4	2464.4	2419.4	2377.1	2354.6	2344.7	2336.6	2317.7	2296.9	2282.5
40°	2461.7	2362.7	2322.2	2278.0	2265.4	2255.5	2241.1	2221.3	2195.2	2191.6	2185.3
42.5°	2287.0	2215.9	2180.8	2171.8	2156.5	2139.4	2126.8	2105.2	2094.4	2101.6	2107.0
45°	2121.4	2085.4	2073.6	2062.8	2034.0	2009.7	2001.6	1994.4	2003.4	2043.0	1948.5
47.5°	1987.2	1972.8	1958.4	1940.4	1913.4	1895.4	1903.5	1910.7	1918.8	1627.9	1485.7
50°	1871.1	1851.2	1828.7	1808.9	1792.7	1790.9	1833.2	1706.3	1429.0	1421.7	1277.7
52.5°	1744.1	1714.4	1700.9	1689.2	1696.4	1723.4	1426.3	1323.6	1269.6	1103.0	1029.2
55°	1607.2	1581.1	1581.1	1591.9	1553.2	1258.8	1243.5	1075.1	973.3	944.5	932.8
57.5°	1470.4	1467.7	1483.0	1356.0	1142.6	1095.8	921.1	884.2	868.0	864.4	845.5
60°	1345.2	1370.4	1147.1	1055.3	917.5	827.5	802.3	797.8	780.7	774.4	757.2
62.5°	1245.3	1032.8	961.6	785.2	739.2	727.5	714.0	707.7	692.4	611.4	179.2
65°	899.5	850.0	689.7	660.0	656.4	639.3	633.9	570.0	134.2	90.0	76.5
67.5°	678.9	602.4	581.7	576.3	559.2	524.9	155.8	89.1	76.5	66.6	58.5
70°	521.3	507.8	492.5	479.9	141.4	88.2	76.5	64.8	55.8	49.5	45.0
72.5°	426.8	417.8	243.1	92.7	75.6	63.9	56.7	49.5	43.2	39.6	36.0
75°	334.1	92.7	76.5	63.9	54.9	46.8	41.4	36.9	33.3	30.6	27.9
77.5°	75.6	61.2	52.2	44.1	39.6	35.1	31.5	27.0	24.3	21.6	18.0
80°	46.8	40.5	34.2	31.5	27.0	22.5	19.8	18.0	14.4	13.5	11.7
82.5°	30.6	24.3	21.6	18.0	14.4	13.5	11.7	9.0	8.1	7.2	6.3
85°	13.5	11.7	9.9	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: P1213455

CATALOG NUMBER: 4SNLED-LD5-52HL-RM-UNV-L935-CD1-U

CANDELA DISTRIBUTION (continued):

	200°	205°	210°	215°	220°	225°	230°	235°	240°	245°	250°
0°	3000.2	3000.2	3000.2	3000.2	3000.2	3000.2	3000.2	3000.2	3000.2	3000.2	3000.2
2.5°	3032.6	3048.8	3064.1	3059.6	3043.4	3018.2	3011.0	3001.1	3008.3	3023.6	3029.9
5°	3054.2	3045.2	3077.6	3125.3	3202.8	3210.0	3264.0	3276.6	3319.8	3346.8	3345.9
7.5°	3084.8	3212.7	3265.8	3323.4	3349.5	3343.2	3351.3	3345.0	3335.1	3330.6	3325.2
10°	3240.6	3337.8	3357.6	3357.6	3317.1	3262.2	3238.8	3198.3	3117.2	3119.0	3105.5
12.5°	3331.5	3365.7	3318.9	3279.3	3116.3	3053.3	2984.9	2952.4	2933.5	2904.7	2915.5
15°	3283.8	3235.2	3207.3	3079.4	2979.5	2866.0	2867.8	2848.0	2827.3	2829.1	2815.6
17.5°	3213.6	3174.9	2976.8	2888.5	2839.9	2795.8	2787.7	2761.6	2748.1	2743.6	2742.7
20°	3117.2	2977.7	2830.0	2808.4	2749.9	2699.4	2691.3	2699.4	2740.9	2667.0	2416.7
22.5°	3004.7	2803.9	2760.7	2699.4	2659.8	2640.0	2689.5	2464.4	2124.1	2165.5	2121.4
25°	2813.8	2726.4	2652.6	2605.8	2601.3	2479.7	2066.4	2023.2	1804.4	1687.4	1555.9
27.5°	2674.2	2636.4	2559.0	2550.9	2492.3	2027.7	1812.5	1574.8	1487.5	1474.0	1445.2
30°	2589.6	2535.6	2488.7	2284.3	1989.0	1632.4	1454.2	1420.8	1405.5	1389.3	1364.1
32.5°	2487.8	2436.5	2459.0	1920.6	1585.6	1405.5	1369.5	1345.2	1317.3	1306.5	1215.6
35°	2384.3	2360.9	1921.5	1614.4	1363.2	1320.0	1293.0	1267.8	1008.5	244.0	82.8
37.5°	2273.5	2268.1	1727.0	1339.8	1276.8	1236.3	1159.7	239.5	56.7	38.7	28.8
40°	2187.1	1727.9	1365.0	1256.1	1204.8	1140.8	160.3	39.6	25.2	15.3	9.9
42.5°	2129.5	1554.1	1221.9	1178.6	1067.0	118.0	40.5	17.1	9.9	8.1	6.3
45°	1641.4	1227.3	1141.7	1096.7	135.1	40.5	23.4	8.1	6.3	5.4	3.6
47.5°	1514.5	1114.7	1064.3	239.5	45.0	21.6	16.2	5.4	3.6	3.6	3.6
50°	1147.1	1030.1	847.3	58.5	28.8	15.3	11.7	3.6	3.6	3.6	2.7
52.5°	1005.8	950.8	90.9	38.7	22.5	11.7	7.2	2.7	2.7	2.7	2.7
55°	919.3	603.3	54.0	29.7	18.9	10.8	4.5	2.7	2.7	2.7	1.8
57.5°	841.0	81.0	39.6	25.2	17.1	9.9	2.7	2.7	2.7	2.7	1.8
60°	713.1	58.5	32.4	22.5	16.2	9.0	2.7	2.7	2.7	2.7	2.7
62.5°	92.7	45.9	27.9	19.8	11.7	7.2	1.8	2.7	2.7	2.7	2.7
65°	67.5	36.0	25.2	13.5	7.2	2.7	1.8	2.7	2.7	2.7	2.7
67.5°	52.2	29.7	18.9	11.7	6.3	1.8	1.8	2.7	2.7	2.7	2.7
70°	41.4	25.2	15.3	9.9	5.4	1.8	1.8	2.7	2.7	2.7	2.7
72.5°	32.4	18.0	10.8	5.4	3.6	1.8	1.8	2.7	2.7	2.7	2.7
75°	24.3	14.4	8.1	4.5	1.8	1.8	1.8	2.7	2.7	2.7	2.7
77.5°	16.2	9.0	6.3	3.6	3.6	3.6	4.5	4.5	2.7	2.7	2.7
80°	10.8	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: P1213455

CATALOG NUMBER: 4SNLED-LD5-52HL-RM-UNV-L935-CD1-U

CANDELA DISTRIBUTION (continued):

	255°	260°	265°	270°	275°	280°	285°	290°	295°	300°	305°
0°	3000.2	3000.2	3000.2	3000.2	3000.2	3000.2	3000.2	3000.2	3000.2	3000.2	3000.2
2.5°	3021.8	3024.5	3017.3	3056.0	3036.2	3038.0	3046.1	3025.4	3029.9	3015.5	3005.6
5°	3349.5	3354.9	3360.3	3362.1	3365.7	3370.2	3364.8	3362.1	3356.7	3338.7	3319.8
7.5°	3298.2	3291.9	3289.2	3292.8	3299.1	3301.8	3297.3	3303.6	3327.0	3336.9	3343.2
10°	3028.1	2999.3	3019.1	3016.4	2993.9	3069.5	3048.8	3060.5	3068.6	3151.4	3201.9
12.5°	2899.3	2917.3	2883.1	2866.0	2888.5	2903.8	2919.1	2886.7	2931.7	2911.0	2977.7
15°	2791.3	2780.5	2776.9	2777.8	2773.3	2794.9	2800.3	2807.5	2813.8	2841.7	2852.5
17.5°	2742.7	2760.7	2767.9	2773.3	2764.3	2754.4	2744.5	2730.0	2734.5	2727.3	2748.1
20°	2248.3	2188.0	2184.4	2219.5	2180.8	2202.4	2254.6	2604.0	2592.3	2728.2	2682.3
22.5°	1876.5	1819.7	1771.1	1728.8	1789.1	1814.3	1911.6	2021.4	2199.7	2171.8	2365.4
25°	1532.5	1511.8	1499.2	1492.9	1497.4	1495.6	1517.2	1568.5	1649.6	1840.4	2087.2
27.5°	1433.5	1423.6	1419.0	1404.6	1415.4	1411.8	1429.0	1439.8	1464.1	1483.0	1563.1
30°	1355.1	1343.4	1335.3	1320.0	1330.8	1331.7	1337.1	1365.0	1374.9	1391.1	1416.3
32.5°	495.2	291.7	273.7	260.2	284.5	371.0	651.0	1138.1	1298.4	1311.0	1339.8
35°	48.6	40.5	36.0	36.0	36.9	40.5	54.0	142.3	260.2	1005.8	1258.8
37.5°	18.9	16.2	13.5	12.6	13.5	15.3	20.7	27.0	36.9	76.5	341.3
40°	8.1	7.2	6.3	6.3	6.3	6.3	7.2	9.0	13.5	25.2	39.6
42.5°	5.4	4.5	4.5	4.5	4.5	4.5	4.5	4.5	6.3	8.1	16.2
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: P1213455

CATALOG NUMBER: 4SNLED-LD5-52HL-RM-UNV-L935-CD1-U

CANDELA DISTRIBUTION (continued):

	310°	315°	320°	325°	330°	335°	340°	341°	342°	343°	344°
0°	3000.2	3000.2	3000.2	3000.2	3000.2	3000.2	3000.2	3000.2	3000.2	3000.2	3000.2
2.5°	2988.5	2987.6	3006.5	3020.9	3015.5	3020.9	3027.2	3028.1	3029.9	3022.7	3020.0
5°	3283.8	3255.9	3201.9	3163.1	3118.1	3036.2	2995.7	3000.2	3001.1	2998.4	3002.0
7.5°	3340.5	3337.8	3318.9	3310.8	3280.2	3221.7	3128.0	3111.8	3072.2	3047.0	3026.3
10°	3198.3	3263.1	3280.2	3309.0	3327.0	3316.2	3237.0	3225.3	3200.1	3171.2	3177.6
12.5°	3044.3	3097.4	3100.1	3256.8	3291.9	3295.5	3264.9	3281.1	3284.7	3219.9	3182.1
15°	2855.2	2880.4	2933.5	3079.4	3185.7	3252.3	3272.1	3281.1	3237.0	3234.3	3219.0
17.5°	2772.4	2788.6	2812.9	2894.8	3056.0	3154.1	3237.9	3231.6	3248.7	3236.1	3197.4
20°	2667.9	2681.4	2724.6	2766.1	2845.3	2975.9	3132.5	3144.2	3166.7	3164.0	3174.9
22.5°	2666.1	2618.4	2625.6	2658.0	2740.9	2857.9	3024.5	3063.2	3077.6	3087.5	3099.2
25°	2115.1	2494.1	2563.5	2584.2	2638.2	2706.6	2902.9	2917.3	2944.3	2988.5	3020.9
27.5°	1832.3	2089.9	2367.2	2511.2	2545.5	2602.2	2719.2	2740.9	2832.7	2843.5	2893.9
30°	1446.1	1645.1	2059.2	2405.9	2462.6	2502.2	2585.1	2628.3	2667.9	2711.1	2764.3
32.5°	1360.5	1392.0	1621.6	1990.8	2432.0	2402.3	2463.5	2489.6	2532.9	2570.7	2609.4
35°	1282.2	1303.8	1352.4	1630.6	1980.9	2320.4	2361.8	2378.9	2403.2	2432.0	2459.9
37.5°	1200.2	1232.7	1266.0	1340.7	1832.3	2255.5	2254.6	2274.4	2288.8	2313.2	2336.6
40°	217.9	1131.8	1185.8	1234.5	1420.8	1799.0	2153.8	2162.8	2172.7	2188.0	2212.3
42.5°	35.1	189.1	1111.1	1157.9	1211.1	1610.8	2107.9	2070.9	2064.6	2075.4	2097.1
45°	18.0	45.9	223.3	1081.4	1129.1	1284.9	1723.4	2007.0	2000.7	1980.0	1984.5
47.5°	13.5	28.8	54.9	373.7	1057.1	1103.0	1590.1	1573.0	1692.8	1922.4	1887.3
50°	11.7	19.8	32.4	76.5	933.7	1015.7	1224.6	1430.8	1493.8	1501.9	1777.4
52.5°	10.8	13.5	23.4	49.5	196.3	939.1	995.9	1067.9	1174.1	1401.9	1396.5
55°	9.9	12.6	19.8	33.3	68.4	846.4	904.9	918.4	940.9	1049.9	1193.9
57.5°	5.4	11.7	18.9	28.8	51.3	154.9	821.2	832.0	850.0	854.5	905.8
60°	2.7	10.8	17.1	25.2	37.8	72.0	738.3	750.9	761.7	763.5	779.8
62.5°	1.8	9.9	14.4	23.4	31.5	51.3	174.7	356.6	678.0	678.0	696.9
65°	1.8	7.2	9.0	15.3	28.8	42.3	73.8	85.5	166.6	409.7	611.4
67.5°	1.8	2.7	8.1	12.6	21.6	32.4	54.0	63.0	75.6	86.4	160.3
70°	1.8	1.8	7.2	8.1	13.5	24.3	38.7	44.1	51.3	58.5	67.5
72.5°	1.8	1.8	6.3	6.3	9.0	16.2	29.7	32.4	36.9	41.4	47.7
75°	4.5	3.6	5.4	5.4	6.3	12.6	22.5	25.2	27.0	30.6	35.1
77.5°	4.5	4.5	4.5	4.5	4.5	8.1	14.4	16.2	18.9	20.7	24.3
80°	3.6	3.6	3.6	4.5	4.5	5.4	9.0	9.9	10.8	13.5	14.4
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

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CATALOG NUMBER: 4SNLED-LD5-52HL-RM-UNV-L935-CD1-U

CANDELA DISTRIBUTION (continued):

	345°	346°	347°	348°	349°	350°	351°	352°	353°	354°	355°
0°	3000.2	3000.2	3000.2	3000.2	3000.2	3000.2	3000.2	3000.2	3000.2	3000.2	3000.2
2.5°	3019.1	3013.7	3009.2	3011.9	3003.8	3000.2	3002.9	3003.8	3005.6	3010.1	3011.0
5°	3011.0	3009.2	3017.3	3021.8	3020.0	3021.8	3021.8	3018.2	3012.8	3016.4	3008.3
7.5°	3005.6	2993.9	2984.9	2986.7	2977.7	2988.5	2998.4	3012.8	3017.3	3017.3	3008.3
10°	3098.3	3085.7	3035.3	3001.1	2978.6	2958.8	3005.6	2957.9	2980.4	2894.8	2993.0
12.5°	3174.9	3192.0	3169.4	3075.8	3059.6	3000.2	3034.4	2975.9	2958.8	2860.6	2892.1
15°	3205.5	3173.0	3165.8	3139.7	3104.6	3087.5	2995.7	2985.8	2957.9	2968.7	2927.2
17.5°	3178.5	3194.7	3173.0	3155.9	3119.9	3079.4	3024.5	2975.9	2937.1	2850.7	2923.6
20°	3152.3	3173.9	3109.1	3119.9	3123.5	3076.7	3047.9	3007.4	2958.8	2877.7	2814.7
22.5°	3109.1	3093.8	3099.2	3083.0	3069.5	3075.8	3036.2	3008.3	2926.3	2889.4	2803.9
25°	3038.9	3033.5	3047.9	3046.1	3013.7	3002.9	2983.1	2953.3	2920.9	2861.5	2791.3
27.5°	2924.5	2952.4	2977.7	2989.4	2972.3	2943.4	2932.6	2915.5	2893.0	2832.7	2780.5
30°	2803.9	2835.4	2864.2	2889.4	2904.7	2892.1	2882.2	2872.3	2838.1	2798.5	2740.0
32.5°	2666.1	2707.5	2747.2	2777.8	2811.1	2821.0	2813.8	2805.7	2776.9	2740.9	2694.0
35°	2506.7	2563.5	2621.1	2676.0	2690.4	2713.8	2737.3	2723.7	2708.4	2672.4	2629.2
37.5°	2371.7	2412.2	2453.6	2523.0	2573.4	2603.1	2644.5	2649.9	2623.8	2606.7	2550.0
40°	2232.1	2269.0	2329.4	2369.9	2439.2	2473.4	2517.5	2537.4	2531.1	2521.2	2471.6
42.5°	2122.3	2140.3	2179.9	2215.9	2284.3	2354.6	2393.3	2414.9	2437.4	2429.3	2404.1
45°	2005.2	2021.4	2034.9	2066.4	2133.1	2195.2	2242.9	2275.3	2315.9	2334.8	2304.2
47.5°	1889.1	1893.6	1909.8	1935.9	1975.5	2023.2	2103.4	2152.0	2189.8	2226.7	2206.9
50°	1799.9	1783.7	1786.4	1802.6	1835.0	1881.9	1939.5	2007.9	2051.1	2096.2	2100.7
52.5°	1573.0	1704.5	1673.0	1682.0	1699.1	1721.6	1781.9	1849.4	1902.6	1941.3	1980.0
55°	1320.0	1346.1	1599.1	1563.1	1573.9	1593.7	1621.6	1689.2	1740.5	1794.5	1848.5
57.5°	1023.8	1218.3	1228.2	1462.3	1456.9	1458.7	1482.1	1520.8	1572.1	1639.6	1685.6
60°	796.0	877.9	1037.3	1118.3	1323.6	1330.8	1344.3	1366.8	1410.9	1474.9	1547.8
62.5°	702.3	713.1	769.9	891.4	1024.7	1185.8	1214.7	1218.3	1238.1	1302.0	1386.6
65°	616.8	624.0	641.1	653.7	765.3	921.1	1059.8	1082.3	1094.9	1132.7	1204.8
67.5°	425.0	537.5	552.9	561.9	572.7	644.7	816.7	931.0	945.4	978.7	1041.8
70°	81.9	170.2	465.5	475.4	480.8	497.0	524.9	706.8	802.3	833.8	862.6
72.5°	55.8	65.7	79.2	187.3	396.2	405.2	411.5	434.9	596.1	687.9	703.2
75°	40.5	45.0	53.1	65.7	81.0	263.8	326.8	338.6	350.3	483.5	561.0
77.5°	28.8	32.4	36.0	42.3	49.5	63.9	91.8	253.0	264.7	271.0	382.7
80°	16.2	19.8	24.3	27.9	31.5	36.0	46.8	58.5	130.6	190.9	200.8
82.5°	9.0	10.8	12.6	15.3	17.1	21.6	26.1	31.5	41.4	61.2	129.7
85°	4.5	4.5	4.5	6.3	7.2	9.9	11.7	13.5	18.9	26.1	36.0
87.5°	2.7	2.7	3.6	3.6	3.6	4.5	4.5	4.5	5.4	8.1	11.7
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: P1213455

CATALOG NUMBER: 4SNLED-LD5-52HL-RM-UNV-L935-CD1-U

CANDELA DISTRIBUTION (continued):

	356°	357°	358°	359°	360°
0°	3000.2	3000.2	3000.2	3000.2	3000.2
2.5°	3011.9	3009.2	3009.2	3020.0	3017.3
5°	3006.5	3003.8	3002.9	3014.6	3009.2
7.5°	3002.0	2992.1	2989.4	3000.2	2995.7
10°	2984.0	2976.8	2981.3	2977.7	2975.9
12.5°	2953.3	2948.8	2929.9	2931.7	2947.0
15°	2898.4	2916.4	2884.0	2912.8	2919.1
17.5°	2797.6	2838.1	2869.6	2886.7	2889.4
20°	2842.6	2856.1	2839.9	2840.8	2851.6
22.5°	2784.1	2790.4	2794.9	2789.5	2812.9
25°	2690.4	2666.1	2718.3	2729.1	2767.0
27.5°	2661.6	2641.8	2666.1	2664.3	2695.8
30°	2638.2	2574.3	2585.1	2602.2	2640.9
32.5°	2604.9	2504.0	2493.2	2531.1	2574.3
35°	2546.4	2450.9	2425.7	2450.0	2514.8
37.5°	2496.8	2377.1	2326.7	2359.1	2443.7
40°	2423.0	2319.5	2241.1	2269.9	2369.9
42.5°	2334.8	2269.9	2149.3	2169.1	2283.4
45°	2245.6	2188.0	2060.1	2070.0	2206.0
47.5°	2154.7	2101.6	1967.4	1969.2	2107.0
50°	2065.5	1995.3	1884.6	1853.0	2001.6
52.5°	1949.4	1884.6	1800.8	1749.5	1901.7
55°	1839.5	1766.6	1705.4	1626.1	1788.2
57.5°	1732.4	1651.4	1609.9	1508.2	1659.5
60°	1585.6	1546.9	1485.7	1388.4	1543.3
62.5°	1435.3	1422.6	1360.5	1259.7	1400.1
65°	1259.7	1289.4	1225.5	1139.0	1251.6
67.5°	1094.0	1147.1	1076.9	1023.8	1108.4
70°	917.5	978.7	939.1	920.2	956.2
72.5°	743.7	803.2	806.8	793.3	805.0
75°	574.5	640.2	676.2	655.5	658.2
77.5°	435.8	467.3	506.9	523.1	519.5
80°	269.2	324.1	356.6	389.9	378.2
82.5°	136.0	181.9	221.5	257.5	240.4
85°	56.7	72.9	101.7	134.2	128.8
87.5°	17.1	28.8	30.6	43.2	40.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)