

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: P1213086

Luminaire Tested: 4SNLED-LD5-47SL-RM-UNV-L930-CD1-U

Issue Date: 3/29/2018

Test Information

Test Method: LM-79-2019
Report Number: P1213086
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-L930-CD1-U
Description: 4FT LINEAR SNLED LED FIXTURE
METALIC FINISH REFLECTOR
Light Source: -
Ballast/Driver: -

Summary

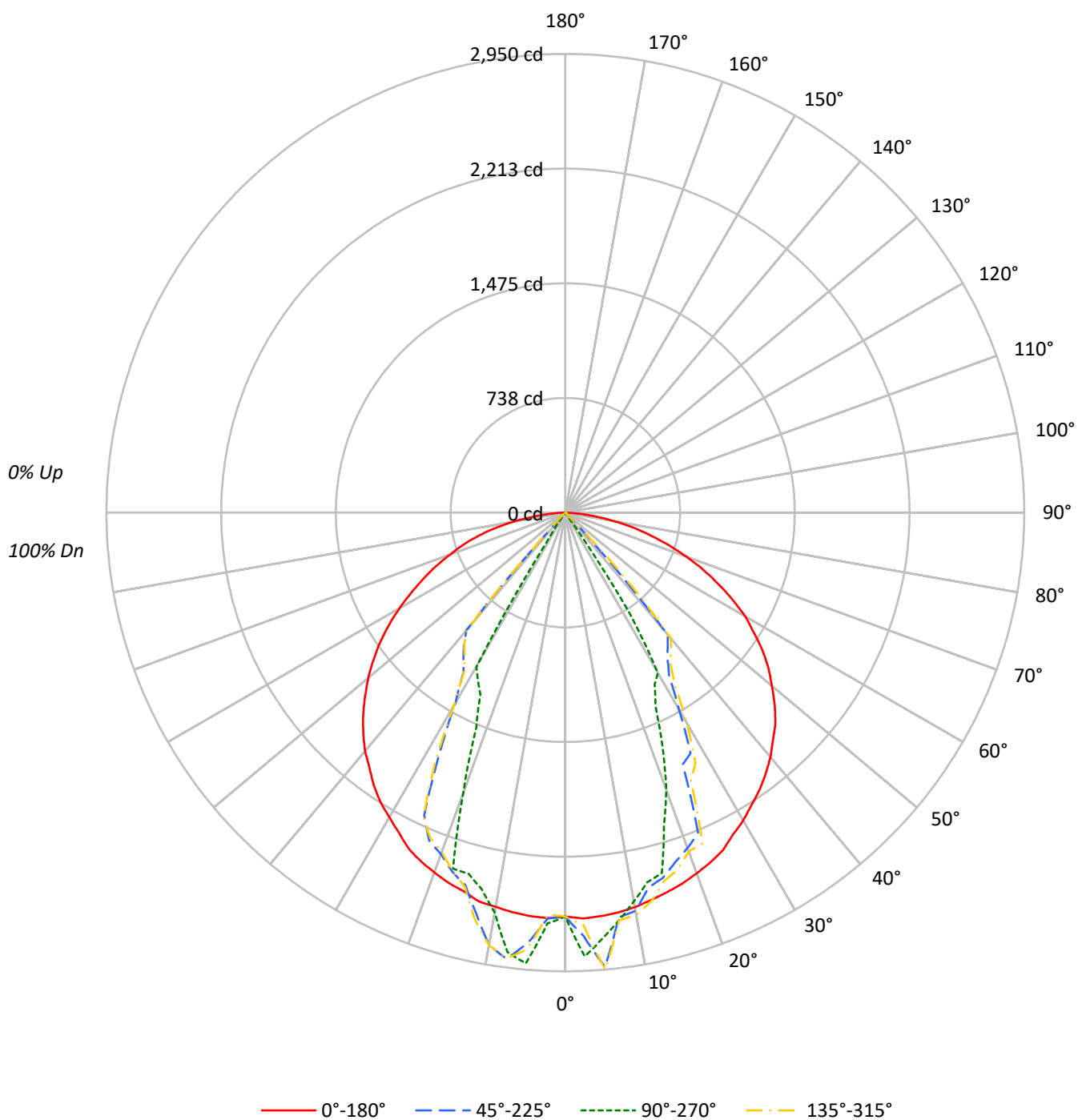
Lumens per Lamp: N/A
Luminaire Lumens: 3693.0 lumens
Efficiency: N/A
Efficacy: 105.5 lumens/watt
Spacing Criteria (0/90/45): 1.3 / 0.81 / 0.97
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.12')
CIE Type: Direct

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

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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°	20988	20988	20988	20988
5°	21074	21586	21067	22859
10°	21023	19533	21011	20097
15°	20966	18231	20914	18279
20°	20990	14360	20931	14537
25°	21051	10392	20948	9807
30°	20955	9116	20733	8763
35°	21017	201	20708	244
40°	21089	44	20585	44
45°	21163	26	20369	19
50°	21002	20	20039	20
55°	20878	15	19595	15
60°	20484	16	18883	16
65°	19417	24	18033	17
70°	18012	27	17146	27
75°	15933	30	16193	30
80°	12942	34	13682	34
85°	7617	40	7774	40

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 2°

Vertical Angle: 45°

Luminance: 22852 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	260.6	7.1
10°-20°	710.7	19.2
20°-30°	904.4	24.5
30°-40°	764.0	20.7
40°-50°	499.5	13.5
50°-60°	314.7	8.5
60°-70°	167.5	4.5
70°-80°	61.1	1.7
80°-90°	10.5	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°	1875.7	50.8
0°-40°	2639.7	71.5
0°-60°	3453.9	93.5
0°-90°	3693.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3693.0	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	2597	2597	2597	2597	2597	
5°	2605	2748	2604	2910	2605	248
15°	2527	2398	2521	2405	2527	714
25°	2395	1370	2384	1292	2395	1102
35°	2177	26	2145	31	2177	1362
45°	1910	3	1838	2	1910	1469
55°	1548	2	1453	2	1548	1379
65°	1084	2	1006	2	1084	1073
75°	570	2	579	2	570	605
85°	112	2	114	2	112	141
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°	2597.2	2597.2	2597.2	2597.2	2597.2	2597.2	2597.2	2597.2	2597.2	2597.2	2597.2
2.5°	2612.0	2613.6	2614.3	2615.9	2618.2	2619.0	2620.6	2619.0	2619.0	2619.0	2619.0
5°	2605.0	2608.1	2610.4	2613.6	2619.0	2619.8	2626.0	2626.8	2629.9	2636.2	2640.8
7.5°	2593.3	2596.4	2601.1	2608.9	2616.7	2625.3	2636.2	2647.9	2664.2	2679.8	2699.3
10°	2576.1	2580.0	2585.5	2592.5	2630.7	2636.2	2660.3	2693.8	2703.2	2752.3	2788.9
12.5°	2551.2	2564.5	2578.5	2584.7	2621.4	2679.0	2760.1	2743.7	2725.8	2886.4	2884.0
15°	2527.0	2545.0	2538.0	2588.6	2622.1	2722.7	2688.4	2761.7	2895.7	2863.0	2864.6
17.5°	2501.3	2505.2	2544.2	2586.3	2646.3	2697.7	2739.8	2840.4	2866.9	2869.2	2840.4
20°	2468.6	2487.3	2544.2	2582.4	2683.7	2707.9	2799.1	2850.5	2839.6	2813.1	2764.0
22.5°	2435.1	2492.0	2549.6	2603.4	2674.4	2739.1	2784.3	2808.4	2751.5	2647.1	2591.0
25°	2395.3	2428.8	2504.4	2583.2	2672.0	2709.4	2735.9	2697.0	2622.9	2529.4	2435.1
27.5°	2333.7	2387.5	2484.2	2573.0	2653.3	2698.5	2655.7	2562.1	2442.9	2381.3	2338.4
30°	2286.2	2356.3	2435.8	2521.6	2605.0	2631.5	2522.4	2415.6	2333.7	2272.2	2262.8
32.5°	2228.5	2328.3	2403.9	2485.7	2555.9	2520.8	2414.8	2276.8	2209.0	2185.6	2195.0
35°	2177.1	2252.7	2351.7	2431.9	2482.6	2403.9	2236.3	2150.6	2117.8	2131.1	2113.9
37.5°	2115.5	2215.3	2306.5	2375.8	2358.7	2240.2	2098.3	2043.8	2047.7	2036.8	2004.0
40°	2051.6	2146.7	2241.8	2307.2	2247.2	2066.4	1972.1	1960.4	1962.7	1927.6	1880.9
42.5°	1976.7	2063.3	2158.4	2217.6	2088.2	1947.1	1883.2	1884.8	1864.5	1815.4	1790.4
45°	1909.7	1989.2	2088.2	2093.7	1934.6	1816.9	1798.2	1778.0	1732.8	1716.4	1697.7
47.5°	1824.0	1912.0	1993.9	1964.3	1784.2	1710.9	1696.9	1652.5	1629.9	1617.4	1601.8
50°	1732.8	1821.6	1896.5	1812.3	1642.3	1625.2	1579.2	1544.1	1528.5	1515.3	1501.3
52.5°	1646.2	1719.5	1795.9	1650.9	1533.2	1516.8	1464.6	1444.4	1428.8	1414.0	1410.8
55°	1548.0	1612.7	1664.9	1497.4	1428.8	1390.6	1353.2	1339.1	1324.3	1317.3	1329.0
57.5°	1436.6	1509.8	1502.0	1346.1	1315.7	1260.4	1246.4	1237.0	1226.1	1230.8	1133.3
60°	1336.0	1392.1	1353.9	1235.5	1184.0	1146.6	1134.1	1127.9	1134.1	1039.0	913.5
62.5°	1212.1	1275.2	1198.0	1106.1	1051.5	1033.6	1022.7	1031.2	940.0	835.6	805.2
65°	1083.5	1152.1	1038.3	967.3	933.0	917.4	916.7	844.2	754.5	714.0	714.0
67.5°	959.5	1030.5	883.9	824.7	811.4	813.0	767.8	657.9	632.9	605.6	526.9
70°	827.8	890.2	730.4	694.5	686.7	681.3	571.4	541.7	512.1	439.6	433.4
72.5°	696.8	727.2	586.9	578.4	576.8	479.4	457.5	406.9	372.6	364.0	360.1
75°	569.8	560.4	463.8	471.6	397.5	363.2	328.2	298.5	293.9	290.7	72.5
77.5°	449.8	403.0	365.6	318.0	284.5	241.6	234.6	229.9	151.2	54.6	44.4
80°	327.4	261.1	243.2	206.6	176.2	169.1	173.0	53.0	42.1	35.1	30.4
82.5°	208.1	166.8	136.4	119.3	116.1	50.7	37.4	30.4	26.5	22.6	18.7
85°	111.5	74.0	68.6	57.7	34.3	23.4	19.5	14.8	12.5	10.1	9.4
87.5°	35.1	29.6	24.2	19.5	11.7	7.8	6.2	5.5	4.7	3.9	3.9
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°	2597.2	2597.2	2597.2	2597.2	2597.2	2597.2	2597.2	2597.2	2597.2	2597.2	2597.2
2.5°	2617.5	2619.0	2618.2	2620.6	2620.6	2623.7	2626.0	2628.4	2633.0	2635.4	2653.3
5°	2651.0	2654.9	2666.6	2677.5	2690.7	2694.6	2717.2	2722.7	2749.2	2752.3	2839.6
7.5°	2725.8	2740.6	2768.7	2796.7	2824.8	2842.7	2873.9	2893.4	2914.4	2933.1	3002.5
10°	2816.2	2841.2	2868.4	2896.5	2912.9	2947.2	2965.9	2969.0	2963.5	2933.1	2820.9
12.5°	2905.1	2930.0	2918.3	2923.8	2943.3	2882.5	2891.1	2847.4	2877.8	2727.4	2615.9
15°	2892.6	2891.1	2862.2	2768.7	2784.3	2668.1	2621.4	2585.5	2614.3	2598.8	2581.6
17.5°	2855.2	2784.3	2734.4	2622.1	2574.6	2541.9	2542.6	2543.4	2529.4	2544.2	2500.5
20°	2697.0	2617.5	2543.4	2503.7	2489.6	2466.2	2477.9	2466.2	2467.0	2471.7	2404.7
22.5°	2486.5	2462.3	2419.5	2431.9	2427.3	2448.3	2432.7	2408.6	2416.4	2381.3	2330.6
25°	2401.5	2373.5	2371.9	2376.6	2369.6	2360.2	2346.2	2309.6	2307.2	2296.3	2272.9
27.5°	2315.8	2317.4	2322.0	2308.0	2283.1	2264.4	2243.3	2225.4	2232.4	2219.9	2188.0
30°	2256.6	2255.8	2227.7	2215.3	2169.3	2170.0	2164.6	2153.7	2146.7	2147.4	2127.2
32.5°	2172.4	2148.2	2116.3	2100.7	2096.8	2082.7	2071.8	2074.2	2079.6	2060.1	2081.2
35°	2085.9	2036.0	2031.3	2018.0	2005.6	1996.2	2000.1	1984.5	1983.8	1981.4	1809.9
37.5°	1969.7	1945.6	1943.2	1929.2	1920.6	1918.3	1903.5	1905.8	1912.8	1925.3	1543.4
40°	1873.8	1852.0	1846.6	1845.8	1827.1	1825.5	1829.4	1844.2	1854.4	1776.4	1470.9
42.5°	1771.0	1772.5	1755.4	1744.5	1746.8	1753.8	1772.5	1721.1	1491.1	1421.0	1344.6
45°	1682.9	1675.1	1665.7	1662.6	1682.9	1668.8	1463.1	1350.0	1322.8	1319.6	1105.3
47.5°	1590.9	1588.6	1584.7	1587.0	1471.6	1311.8	1265.1	1250.3	1254.9	1251.8	949.4
50°	1498.1	1501.3	1501.3	1311.1	1203.5	1177.0	1180.9	1194.1	1111.5	1037.5	884.7
52.5°	1417.9	1393.7	1194.1	1125.6	1101.4	1113.1	1085.0	981.4	906.5	862.9	818.4
55°	1269.0	1091.3	1046.8	1035.9	1044.5	940.8	876.9	809.9	790.4	785.7	760.0
57.5°	998.5	962.6	966.5	922.9	823.9	765.4	739.7	730.4	721.8	715.6	62.4
60°	883.1	893.3	817.7	724.1	684.4	676.6	670.3	661.8	660.2	649.3	39.8
62.5°	808.3	710.9	645.4	622.0	612.7	610.3	598.6	594.7	505.1	69.4	29.6
65°	609.5	569.8	557.3	551.9	541.7	541.7	449.8	70.9	57.7	49.9	26.5
67.5°	497.3	494.2	487.9	480.9	327.4	68.6	60.0	52.2	45.2	39.8	23.4
70°	420.9	419.4	381.9	70.2	58.5	51.4	45.2	40.5	37.4	33.5	21.0
72.5°	345.3	70.2	59.2	51.4	44.4	40.5	36.6	32.7	29.6	27.3	17.1
75°	53.8	47.5	42.1	38.2	35.1	31.2	28.1	25.7	24.9	21.8	11.7
77.5°	39.0	33.5	30.4	27.3	24.2	21.8	18.7	16.4	14.8	12.5	8.6
80°	27.3	24.2	21.8	17.9	15.6	13.3	11.7	10.1	9.4	7.8	3.9
82.5°	15.6	13.3	11.7	9.4	8.6	7.0	6.2	5.5	5.5	3.9	3.9
85°	7.0	7.0	5.5	4.7	3.9	3.9	3.9	3.1	3.1	2.3	2.3
87.5°	3.1	3.1	3.1	3.1	3.1	2.3	2.3	2.3	2.3	2.3	1.6
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°	2597.2	2597.2	2597.2	2597.2	2597.2	2597.2	2597.2	2597.2	2597.2	2597.2	2597.2
2.5°	2678.3	2688.4	2707.9	2728.1	2705.5	2786.6	2780.4	2807.7	2822.5	2829.5	2845.8
5°	2916.8	2962.0	2976.8	2932.4	2906.6	2880.1	2820.1	2774.9	2780.4	2765.6	2711.8
7.5°	2912.1	2815.4	2685.3	2626.0	2621.4	2614.3	2633.0	2644.0	2645.5	2644.7	2643.2
10°	2665.8	2615.9	2607.3	2599.5	2602.7	2573.8	2560.6	2523.1	2543.4	2532.5	2536.4
12.5°	2591.0	2579.3	2533.3	2469.4	2507.6	2478.7	2462.3	2473.3	2460.8	2449.1	2445.2
15°	2546.5	2470.9	2445.2	2429.6	2418.7	2412.5	2417.9	2405.4	2401.5	2399.2	2404.7
17.5°	2454.6	2424.2	2396.1	2354.8	2355.6	2353.2	2368.8	2392.2	2393.8	2273.7	2165.4
20°	2382.1	2357.1	2321.3	2295.5	2330.6	2268.3	2027.4	1912.8	1894.9	1894.9	1898.0
22.5°	2324.4	2269.0	2271.4	2230.8	1902.7	1835.7	1837.2	1844.2	1812.3	1703.1	1691.4
25°	2245.7	2237.1	2066.4	1785.8	1788.1	1735.9	1655.6	1542.6	1420.2	1420.2	1399.9
27.5°	2186.4	2004.8	1755.4	1743.7	1568.3	1457.6	1389.0	1285.3	1271.3	1258.1	1259.6
30°	2135.7	1696.1	1702.4	1457.6	1328.2	1236.2	1230.8	1213.6	1205.1	1202.7	1194.1
32.5°	1688.3	1651.7	1424.9	1240.9	1190.3	1175.4	1168.4	1148.9	1148.2	1133.3	1030.5
35°	1583.1	1449.8	1192.6	1142.7	1127.9	1113.9	1102.2	739.7	87.3	35.1	30.4
37.5°	1463.1	1211.3	1102.9	1080.3	1066.3	788.0	78.7	27.3	19.5	14.0	12.5
40°	1240.1	1081.9	1047.6	1022.7	421.7	27.3	17.1	13.3	7.8	7.0	6.2
42.5°	1046.0	1019.5	982.9	299.3	31.2	13.3	8.6	6.2	5.5	5.5	4.7
45°	979.0	955.6	396.0	29.6	19.5	6.2	5.5	5.5	4.7	3.1	3.1
47.5°	916.7	806.8	35.9	18.7	12.5	5.5	4.7	3.1	3.1	3.1	2.3
50°	850.4	44.4	24.9	14.0	7.8	3.1	3.1	3.1	3.1	2.3	2.3
52.5°	159.0	31.2	20.3	12.5	3.9	3.1	3.1	3.1	2.3	2.3	2.3
55°	37.4	24.9	18.7	10.9	3.1	3.1	3.1	2.3	2.3	2.3	1.6
57.5°	28.1	18.7	14.8	10.1	3.1	2.3	2.3	2.3	2.3	2.3	1.6
60°	23.4	13.3	11.7	9.4	2.3	2.3	2.3	2.3	2.3	2.3	1.6
62.5°	16.4	10.9	8.6	7.0	2.3	2.3	2.3	2.3	2.3	2.3	2.3
65°	13.3	8.6	7.0	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
67.5°	11.7	7.0	4.7	1.6	2.3	2.3	2.3	2.3	2.3	2.3	2.3
70°	9.4	2.3	2.3	1.6	2.3	2.3	2.3	2.3	2.3	2.3	2.3
72.5°	7.8	2.3	1.6	1.6	2.3	2.3	2.3	2.3	2.3	2.3	2.3
75°	7.8	3.9	1.6	1.6	2.3	2.3	3.1	3.1	2.3	2.3	2.3
77.5°	5.5	3.9	1.6	1.6	2.3	2.3	3.1	3.1	2.3	2.3	2.3
80°	3.1	3.9	1.6	2.3	2.3	4.7	5.5	3.1	2.3	2.3	2.3
82.5°	3.1	3.9	4.7	4.7	2.3	3.9	4.7	3.9	3.1	2.3	2.3
85°	3.1	2.3	3.1	3.9	2.3	3.9	3.9	3.1	3.1	2.3	2.3
87.5°	1.6	2.3	2.3	3.1	3.1	3.1	3.9	3.1	3.1	3.1	2.3
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: P1213086

CATALOG NUMBER: 4SNLED-LD5-47SL-RM-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	85°	90°	95°	100°	105°	110°	115°	120°	125°	130°	135°
0°	2597.2	2597.2	2597.2	2597.2	2597.2	2597.2	2597.2	2597.2	2597.2	2597.2	2597.2
2.5°	2853.6	2856.8	2807.7	2790.5	2805.3	2802.2	2788.9	2739.8	2734.4	2701.6	2654.1
5°	2727.4	2748.4	2722.7	2767.1	2746.1	2767.1	2831.0	2860.7	2909.0	2938.6	2949.5
7.5°	2639.3	2644.0	2644.0	2647.9	2651.8	2652.5	2647.9	2644.7	2631.5	2615.1	2644.7
10°	2532.5	2538.0	2547.3	2545.7	2545.0	2561.3	2565.2	2598.8	2597.2	2603.4	2626.0
12.5°	2477.2	2435.1	2473.3	2463.1	2477.2	2455.3	2495.9	2488.8	2491.2	2509.9	2558.2
15°	2385.2	2398.4	2407.8	2407.8	2413.2	2408.6	2403.9	2435.8	2455.3	2456.1	2453.0
17.5°	2208.2	2107.7	2210.6	2184.1	2395.3	2400.8	2382.8	2368.0	2368.0	2379.7	2404.7
20°	1895.7	1898.0	1898.8	1908.9	1921.4	1920.6	1921.4	2228.5	2374.3	2340.7	2318.1
22.5°	1661.8	1633.0	1686.8	1682.9	1749.9	1824.0	1894.9	1887.9	1892.6	2109.2	2304.1
25°	1332.1	1369.5	1339.1	1352.4	1428.0	1516.1	1570.6	1713.3	1868.4	1857.5	1908.1
27.5°	1254.2	1244.0	1258.1	1258.1	1268.2	1279.9	1310.3	1390.6	1528.5	1673.5	1810.7
30°	1180.1	1188.7	1190.3	1204.3	1212.1	1219.9	1224.5	1254.9	1286.1	1386.7	1555.8
32.5°	886.3	777.1	1022.7	1088.9	1145.0	1158.3	1167.6	1180.1	1202.7	1217.5	1302.5
35°	25.7	25.7	27.3	31.2	39.8	268.1	1021.1	1125.6	1140.4	1159.1	1174.7
37.5°	12.5	9.4	10.9	11.7	14.0	19.5	28.1	87.3	972.0	1099.1	1116.2
40°	5.5	5.5	5.5	5.5	6.2	7.8	11.7	19.5	29.6	781.8	1054.6
42.5°	4.7	4.7	4.7	4.7	4.7	4.7	5.5	7.0	14.0	33.5	553.4
45°	3.1	3.1	2.3	3.1	3.1	3.9	4.7	4.7	6.2	21.0	38.2
47.5°	2.3	2.3	2.3	2.3	2.3	2.3	2.3	3.9	4.7	14.0	20.3
50°	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	10.9	14.0
52.5°	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	4.7	12.5
55°	1.6	1.6	1.6	1.6	1.6	1.6	1.6	2.3	2.3	3.1	10.9
57.5°	1.6	1.6	1.6	1.6	1.6	2.3	1.6	1.6	2.3	2.3	10.1
60°	1.6	1.6	1.6	1.6	1.6	2.3	2.3	2.3	2.3	2.3	9.4
62.5°	2.3	2.3	1.6	2.3	1.6	1.6	2.3	2.3	2.3	2.3	6.2
65°	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	1.6	2.3
67.5°	2.3	2.3	2.3	2.3	1.6	2.3	1.6	2.3	2.3	1.6	1.6
70°	2.3	2.3	2.3	2.3	2.3	2.3	2.3	1.6	1.6	1.6	1.6
72.5°	2.3	2.3	2.3	2.3	2.3	2.3	2.3	1.6	1.6	1.6	1.6
75°	2.3	2.3	2.3	2.3	2.3	2.3	3.1	3.1	1.6	1.6	1.6
77.5°	2.3	2.3	2.3	2.3	2.3	2.3	3.9	4.7	3.9	3.9	1.6
80°	2.3	2.3	2.3	2.3	2.3	2.3	3.9	3.9	3.9	3.9	5.5
82.5°	2.3	2.3	2.3	2.3	2.3	2.3	3.1	3.1	3.1	3.1	3.9
85°	2.3	2.3	2.3	2.3	2.3	2.3	3.1	3.1	3.1	2.3	3.1
87.5°	2.3	2.3	2.3	2.3	2.3	2.3	2.3	3.1	2.3	2.3	2.3
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: P1213086

CATALOG NUMBER: 4SNLED-LD5-47SL-RM-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	140°	145°	150°	155°	160°	161°	162°	163°	164°	165°	166°
0°	2597.2	2597.2	2597.2	2597.2	2597.2	2597.2	2597.2	2597.2	2597.2	2597.2	2597.2
2.5°	2658.0	2631.5	2622.9	2605.0	2603.4	2605.0	2601.1	2595.6	2598.8	2593.3	2588.6
5°	2955.8	2884.8	2838.8	2777.3	2692.3	2673.6	2668.9	2642.4	2633.0	2629.9	2617.5
7.5°	2714.9	2844.3	2922.2	2948.7	2849.0	2825.6	2798.3	2776.5	2755.4	2715.7	2691.5
10°	2608.1	2614.3	2689.2	2776.5	2918.3	2937.8	2952.6	2905.1	2891.8	2790.5	2768.7
12.5°	2583.2	2583.9	2592.5	2645.5	2757.0	2769.5	2821.7	2849.7	2884.0	2903.5	2887.9
15°	2469.4	2532.5	2579.3	2583.9	2594.1	2615.9	2631.5	2728.9	2770.2	2880.9	2874.7
17.5°	2416.4	2436.6	2504.4	2559.8	2550.4	2542.6	2555.1	2568.4	2608.1	2718.8	2717.2
20°	2328.3	2393.0	2429.6	2487.3	2539.5	2541.9	2527.8	2520.0	2504.4	2522.4	2538.7
22.5°	2290.9	2301.0	2369.6	2410.1	2469.4	2490.4	2493.5	2494.3	2485.7	2476.4	2471.7
25°	2287.0	2255.0	2290.1	2340.7	2384.4	2407.0	2432.7	2441.3	2438.2	2438.2	2433.5
27.5°	1871.5	2244.9	2226.2	2259.7	2312.7	2328.3	2341.5	2368.0	2384.4	2396.1	2401.5
30°	1782.6	1849.7	2176.3	2181.0	2234.7	2233.2	2248.0	2269.8	2290.9	2318.1	2325.2
32.5°	1576.9	1741.3	1992.3	2102.2	2158.4	2163.8	2171.6	2177.8	2197.3	2227.7	2254.2
35°	1263.5	1586.2	1707.0	2064.8	2074.9	2085.9	2090.5	2105.3	2111.6	2124.1	2147.4
37.5°	1143.5	1311.1	1637.7	1785.8	1979.1	1988.4	2013.4	2019.6	2029.7	2039.9	2057.8
40°	1074.1	1120.1	1363.3	1594.8	1901.9	1908.1	1916.7	1932.3	1933.1	1944.8	1961.1
42.5°	1018.8	1048.4	1119.3	1523.1	1847.3	1846.6	1826.3	1836.4	1841.1	1853.6	1876.2
45°	813.8	983.7	1028.9	1244.0	1470.9	1576.9	1780.3	1746.8	1746.0	1750.7	1774.9
47.5°	41.3	925.2	957.2	1026.6	1389.0	1392.9	1419.4	1642.3	1676.6	1665.7	1668.1
50°	28.1	63.9	891.7	923.7	1197.3	1293.9	1313.4	1323.5	1452.2	1595.6	1572.2
52.5°	21.8	36.6	546.4	857.4	972.8	1043.7	1169.2	1240.9	1248.7	1306.4	1502.0
55°	19.5	28.1	59.2	791.2	827.0	842.6	915.9	1041.4	1142.7	1173.1	1175.4
57.5°	17.1	25.7	40.5	357.8	752.2	755.3	767.8	811.4	902.6	986.0	1080.3
60°	15.6	22.6	32.0	61.6	683.6	691.4	693.7	705.4	716.3	773.2	881.6
62.5°	9.4	17.9	28.1	44.4	541.0	621.2	620.5	628.3	638.4	644.6	666.4
65°	7.8	14.0	24.2	37.4	66.3	82.6	502.0	558.1	564.3	572.9	576.8
67.5°	7.0	12.5	17.9	29.6	49.9	56.9	65.5	81.1	442.7	498.9	506.7
70°	6.2	8.6	14.8	24.9	40.5	43.7	49.1	56.1	66.3	81.8	400.6
72.5°	3.9	6.2	10.1	17.9	31.2	35.1	38.2	42.9	47.5	56.9	65.5
75°	1.6	4.7	8.6	13.3	24.2	26.5	28.8	32.0	35.9	42.1	46.8
77.5°	1.6	3.9	7.0	9.4	15.6	17.9	21.0	23.4	26.5	29.6	34.3
80°	5.5	3.1	4.7	7.0	10.9	11.7	13.3	14.8	17.1	19.5	22.6
82.5°	3.9	4.7	5.5	4.7	5.5	7.0	7.8	9.4	10.1	11.7	12.5
85°	3.1	3.1	3.9	3.9	3.9	3.9	3.9	3.9	4.7	5.5	7.0
87.5°	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	3.1	3.1
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

TEST NUMBER: P1213086

CATALOG NUMBER: 4SNLED-LD5-47SL-RM-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	167°	168°	169°	170°	171°	172°	173°	174°	175°	176°	177°
0°	2597.2	2597.2	2597.2	2597.2	2597.2	2597.2	2597.2	2597.2	2597.2	2597.2	2597.2
2.5°	2588.6	2587.1	2582.4	2582.4	2581.6	2584.7	2587.1	2589.4	2588.6	2593.3	2588.6
5°	2608.1	2604.2	2597.2	2591.0	2588.6	2590.2	2587.8	2590.2	2587.1	2591.0	2583.9
7.5°	2661.9	2648.6	2621.4	2610.4	2596.4	2595.6	2588.6	2587.1	2582.4	2582.4	2573.8
10°	2757.0	2693.1	2685.3	2652.5	2640.8	2583.9	2596.4	2575.4	2573.0	2562.9	2559.0
12.5°	2834.9	2785.0	2770.2	2741.4	2708.7	2593.3	2619.0	2573.8	2571.5	2551.2	2530.2
15°	2836.5	2865.3	2824.8	2745.3	2738.3	2658.8	2606.5	2591.0	2570.7	2509.9	2520.0
17.5°	2745.3	2811.5	2831.0	2813.9	2764.0	2710.2	2636.9	2605.8	2545.0	2517.7	2499.0
20°	2597.2	2664.2	2747.6	2753.1	2784.3	2746.1	2650.2	2599.5	2526.3	2478.7	2463.1
22.5°	2479.5	2528.6	2624.5	2668.9	2707.1	2720.4	2659.6	2584.7	2493.5	2447.5	2438.2
25°	2417.1	2428.0	2456.9	2509.1	2593.3	2654.1	2662.7	2583.2	2535.6	2435.1	2382.1
27.5°	2394.5	2385.2	2373.5	2400.0	2463.1	2537.2	2586.3	2599.5	2481.1	2385.2	2332.2
30°	2336.9	2342.3	2324.4	2315.0	2356.3	2432.7	2520.0	2541.9	2450.7	2351.7	2290.9
32.5°	2265.9	2275.3	2278.4	2262.0	2253.4	2306.5	2400.8	2453.0	2448.3	2304.1	2236.3
35°	2177.1	2203.6	2210.6	2211.4	2197.3	2188.8	2243.3	2351.7	2393.0	2282.3	2184.1
37.5°	2083.5	2091.3	2129.5	2139.6	2139.6	2113.9	2154.5	2241.0	2298.7	2233.2	2120.2
40°	1966.6	1991.5	2027.4	2045.3	2063.3	2065.6	2043.0	2103.8	2198.9	2182.5	2060.1
42.5°	1881.6	1898.0	1919.8	1944.0	1980.6	1990.0	1966.6	1977.5	2076.5	2119.4	1982.2
45°	1782.6	1804.5	1810.7	1837.2	1875.4	1902.7	1901.9	1879.3	1958.8	2011.8	1925.3
47.5°	1681.3	1702.4	1713.3	1726.5	1754.6	1789.7	1809.1	1799.0	1814.6	1918.3	1849.7
50°	1576.9	1588.6	1610.4	1625.2	1643.9	1664.2	1710.9	1720.3	1698.5	1781.1	1766.3
52.5°	1477.9	1481.8	1496.6	1511.4	1536.3	1551.1	1588.6	1616.6	1615.1	1639.2	1673.5
55°	1400.7	1383.6	1386.7	1398.4	1414.7	1437.3	1458.4	1502.0	1516.8	1521.5	1576.1
57.5°	1094.4	1270.5	1286.1	1285.3	1304.8	1315.0	1334.5	1363.3	1416.3	1404.6	1465.4
60°	994.6	1014.1	1161.4	1178.6	1185.6	1194.9	1218.3	1244.8	1283.8	1308.7	1335.2
62.5°	758.4	876.9	921.3	1051.5	1071.8	1077.2	1092.8	1105.3	1145.8	1202.7	1191.8
65°	586.9	637.6	773.2	826.2	936.9	951.0	972.8	986.0	997.7	1063.2	1066.3
67.5°	507.4	515.2	551.9	654.0	724.1	832.5	845.7	857.4	875.3	922.1	951.0
70°	433.4	442.7	452.9	461.4	552.6	624.4	724.9	728.8	740.5	771.7	837.2
72.5°	81.8	370.2	376.5	381.9	392.1	439.6	535.5	613.4	618.1	632.9	692.9
75°	55.3	64.7	88.9	305.6	315.7	318.8	335.2	432.6	504.3	507.4	533.9
77.5°	39.8	44.4	53.8	63.9	162.9	244.8	248.7	266.6	340.6	394.4	399.1
80°	27.3	30.4	35.9	40.5	49.9	65.5	180.8	186.3	195.6	269.7	283.7
82.5°	15.6	17.9	21.0	25.7	29.6	37.4	48.3	62.4	127.1	135.6	180.1
85°	7.8	8.6	10.1	12.5	14.8	17.9	24.2	29.6	40.5	73.3	75.6
87.5°	3.9	3.9	3.9	3.9	6.2	7.0	8.6	10.9	14.0	21.0	27.3
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: P1213086

CATALOG NUMBER: 4SNLED-LD5-47SL-RM-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	178°	179°	180°	181°	182°	183°	184°	185°	186°	187°	188°
0°	2597.2	2597.2	2597.2	2597.2	2597.2	2597.2	2597.2	2597.2	2597.2	2597.2	2597.2
2.5°	2589.4	2600.3	2609.7	2612.0	2612.0	2613.6	2615.9	2617.5	2619.0	2620.6	2619.0
5°	2584.7	2596.4	2604.2	2606.5	2606.5	2611.2	2615.1	2619.8	2622.1	2622.1	2620.6
7.5°	2573.0	2581.6	2591.7	2598.0	2598.8	2606.5	2613.6	2612.8	2615.9	2617.5	2621.4
10°	2557.4	2557.4	2574.6	2579.3	2583.2	2591.7	2594.1	2598.8	2609.7	2611.2	2621.4
12.5°	2549.6	2541.9	2562.1	2564.5	2577.7	2566.8	2580.8	2585.5	2574.6	2589.4	2569.9
15°	2514.6	2523.9	2520.8	2527.8	2551.2	2538.7	2576.9	2564.5	2592.5	2559.0	2618.2
17.5°	2485.7	2484.2	2496.6	2502.9	2507.6	2534.1	2544.2	2558.2	2569.1	2559.8	2583.2
20°	2464.7	2452.2	2461.6	2468.6	2485.0	2505.2	2511.5	2490.4	2527.0	2589.4	2604.2
22.5°	2424.9	2416.4	2427.3	2427.3	2452.2	2449.1	2472.5	2459.2	2493.5	2566.0	2641.6
25°	2371.1	2371.9	2383.6	2397.6	2402.3	2437.4	2449.9	2467.0	2509.9	2596.4	2642.4
27.5°	2316.6	2311.9	2318.9	2347.8	2371.9	2397.6	2401.5	2460.0	2518.5	2577.7	2618.2
30°	2262.0	2257.3	2262.0	2283.1	2311.9	2329.1	2371.9	2449.9	2504.4	2545.0	2583.2
32.5°	2203.6	2198.9	2209.8	2225.4	2276.1	2278.4	2363.4	2436.6	2479.5	2509.1	2502.1
35°	2141.2	2135.0	2145.1	2169.3	2216.0	2233.2	2322.0	2376.6	2424.9	2439.0	2406.2
37.5°	2066.4	2055.5	2067.9	2101.5	2150.6	2200.4	2274.5	2337.6	2363.4	2325.9	2287.0
40°	1988.4	1980.6	2002.5	2019.6	2077.3	2146.7	2231.6	2276.1	2259.7	2216.8	2173.9
42.5°	1919.1	1902.7	1922.2	1954.9	2020.4	2099.1	2167.7	2192.6	2153.7	2090.5	2040.7
45°	1834.1	1814.6	1838.0	1881.6	1951.8	2041.4	2095.2	2086.6	2020.4	1965.8	1897.2
47.5°	1745.2	1721.8	1745.2	1797.5	1876.2	1971.3	2010.3	1971.3	1887.9	1819.3	1763.9
50°	1657.9	1630.7	1653.3	1732.0	1809.1	1882.4	1881.6	1806.0	1756.1	1681.3	1633.0
52.5°	1571.4	1532.4	1555.0	1640.8	1718.0	1801.4	1739.8	1669.6	1609.6	1544.1	1528.5
55°	1464.6	1422.5	1452.9	1577.6	1636.9	1686.0	1587.8	1526.2	1467.0	1434.2	1414.7
57.5°	1363.3	1317.3	1343.8	1491.1	1534.8	1547.2	1456.8	1369.5	1334.5	1323.5	1295.5
60°	1258.8	1206.6	1231.6	1401.5	1431.9	1381.2	1292.4	1224.5	1217.5	1195.7	1173.9
62.5°	1159.1	1101.4	1117.0	1290.0	1304.1	1212.1	1130.2	1112.3	1095.2	1073.3	1061.6
65°	1044.5	984.5	1006.3	1171.5	1158.3	1039.8	993.8	989.9	967.3	949.4	966.5
67.5°	939.3	868.3	898.7	1042.2	982.1	885.5	866.8	857.4	839.5	849.6	669.6
70°	823.9	746.7	788.0	902.6	813.8	749.9	742.8	728.8	729.6	579.9	488.7
72.5°	695.3	628.3	688.3	749.9	643.8	625.1	615.0	613.4	495.0	402.2	379.6
75°	582.3	514.5	579.1	602.5	512.9	500.4	499.6	413.1	325.0	310.2	303.2
77.5°	454.4	402.2	463.8	428.7	393.6	379.6	340.6	255.7	244.8	234.6	88.1
80°	306.3	310.2	346.1	295.4	280.6	239.3	188.6	180.8	155.9	62.4	49.1
82.5°	186.3	233.8	220.6	184.7	180.8	130.2	119.3	60.8	45.2	35.9	31.2
85°	96.7	118.5	113.8	100.6	74.8	67.0	37.4	28.8	23.4	17.9	14.8
87.5°	32.7	43.7	42.1	33.5	25.7	20.3	13.3	10.9	7.8	6.2	5.5
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: P1213086

CATALOG NUMBER: 4SNLED-LD5-47SL-RM-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	189°	190°	191°	192°	193°	194°	195°	196°	197°	198°	199°
0°	2597.2	2597.2	2597.2	2597.2	2597.2	2597.2	2597.2	2597.2	2597.2	2597.2	2597.2
2.5°	2617.5	2617.5	2615.9	2617.5	2618.2	2616.7	2616.7	2618.2	2619.0	2619.8	2623.7
5°	2621.4	2622.9	2625.3	2629.9	2630.7	2640.1	2644.0	2646.3	2648.6	2649.4	2644.0
7.5°	2629.9	2635.4	2640.1	2639.3	2633.8	2619.0	2614.3	2610.4	2617.5	2635.4	2656.4
10°	2637.7	2612.8	2566.0	2629.9	2610.4	2628.4	2681.4	2693.1	2728.9	2779.6	2794.4
12.5°	2583.9	2652.5	2667.3	2595.6	2728.1	2679.0	2737.5	2788.9	2803.8	2855.2	2824.0
15°	2641.6	2675.1	2697.7	2769.5	2761.7	2803.8	2820.1	2810.0	2812.3	2825.6	2860.7
17.5°	2640.8	2707.9	2722.7	2771.0	2803.8	2804.5	2799.9	2795.2	2807.7	2817.8	2796.7
20°	2686.1	2707.9	2736.7	2756.2	2762.4	2770.2	2785.0	2773.4	2750.0	2727.4	2718.0
22.5°	2663.4	2712.6	2737.5	2740.6	2736.7	2712.6	2690.7	2658.0	2647.1	2635.4	2639.3
25°	2668.1	2690.7	2687.6	2675.1	2658.8	2613.6	2602.7	2588.6	2567.6	2516.9	2470.9
27.5°	2634.6	2622.9	2608.9	2578.5	2548.9	2524.7	2497.4	2452.2	2414.8	2360.2	2340.0
30°	2578.5	2531.7	2497.4	2479.5	2450.7	2410.1	2368.8	2313.5	2265.9	2255.0	2244.9
32.5°	2470.9	2424.9	2396.9	2353.2	2304.1	2255.8	2208.2	2186.4	2176.3	2177.8	2168.5
35°	2361.0	2320.5	2278.4	2212.9	2176.3	2128.0	2110.8	2106.1	2096.8	2086.6	2075.7
37.5°	2244.1	2196.5	2133.4	2094.4	2057.8	2038.3	2029.7	2022.7	2006.4	1988.4	1976.0
40°	2131.1	2045.3	2010.3	1972.1	1961.1	1952.6	1940.1	1923.0	1900.3	1897.2	1891.8
42.5°	1979.9	1918.3	1887.9	1880.1	1866.8	1852.0	1841.1	1822.4	1813.0	1819.3	1824.0
45°	1836.4	1805.3	1795.1	1785.8	1760.8	1739.8	1732.8	1726.5	1734.3	1768.6	1686.8
47.5°	1720.3	1707.8	1695.3	1679.8	1656.4	1640.8	1647.8	1654.0	1661.1	1409.3	1286.1
50°	1619.7	1602.6	1583.1	1566.0	1551.9	1550.4	1587.0	1477.1	1237.0	1230.8	1106.1
52.5°	1509.8	1484.1	1472.4	1462.3	1468.5	1491.9	1234.7	1145.8	1099.1	954.9	890.9
55°	1391.4	1368.7	1368.7	1378.1	1344.6	1089.7	1076.4	930.7	842.6	817.7	807.5
57.5°	1272.9	1270.5	1283.8	1173.9	989.1	948.6	797.4	765.4	751.4	748.3	731.9
60°	1164.5	1186.4	993.0	913.5	794.3	716.3	694.5	690.6	675.8	670.3	655.5
62.5°	1078.0	894.1	832.5	679.7	639.9	629.8	618.1	612.7	599.4	529.3	155.1
65°	778.7	735.8	597.1	571.4	568.2	553.4	548.7	493.4	116.1	77.9	66.3
67.5°	587.7	521.5	503.5	498.9	484.1	454.4	134.8	77.2	66.3	57.7	50.7
70°	451.3	439.6	426.4	415.5	122.4	76.4	66.3	56.1	48.3	42.9	39.0
72.5°	369.5	361.7	210.5	80.3	65.5	55.3	49.1	42.9	37.4	34.3	31.2
75°	289.2	80.3	66.3	55.3	47.5	40.5	35.9	32.0	28.8	26.5	24.2
77.5°	65.5	53.0	45.2	38.2	34.3	30.4	27.3	23.4	21.0	18.7	15.6
80°	40.5	35.1	29.6	27.3	23.4	19.5	17.1	15.6	12.5	11.7	10.1
82.5°	26.5	21.0	18.7	15.6	12.5	11.7	10.1	7.8	7.0	6.2	5.5
85°	11.7	10.1	8.6	7.0	5.5	4.7	3.9	3.1	3.1	3.1	3.1
87.5°	3.9	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	1.6	1.6
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: P1213086

CATALOG NUMBER: 4SNLED-LD5-47SL-RM-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	200°	205°	210°	215°	220°	225°	230°	235°	240°	245°	250°
0°	2597.2	2597.2	2597.2	2597.2	2597.2	2597.2	2597.2	2597.2	2597.2	2597.2	2597.2
2.5°	2625.3	2639.3	2652.5	2648.6	2634.6	2612.8	2606.5	2598.0	2604.2	2617.5	2622.9
5°	2644.0	2636.2	2664.2	2705.5	2772.6	2778.8	2825.6	2836.5	2873.9	2897.3	2896.5
7.5°	2670.5	2781.1	2827.1	2877.0	2899.6	2894.2	2901.2	2895.7	2887.2	2883.3	2878.6
10°	2805.3	2889.5	2906.6	2906.6	2871.6	2824.0	2803.8	2768.7	2698.5	2700.1	2688.4
12.5°	2884.0	2913.7	2873.1	2838.8	2697.7	2643.2	2583.9	2555.9	2539.5	2514.6	2523.9
15°	2842.7	2800.6	2776.5	2665.8	2579.3	2481.1	2482.6	2465.5	2447.5	2449.1	2437.4
17.5°	2781.9	2748.4	2576.9	2500.5	2458.4	2420.3	2413.2	2390.6	2378.9	2375.0	2374.3
20°	2698.5	2577.7	2449.9	2431.2	2380.5	2336.9	2329.8	2336.9	2372.7	2308.8	2092.1
22.5°	2601.1	2427.3	2389.9	2336.9	2302.6	2285.4	2328.3	2133.4	1838.8	1874.6	1836.4
25°	2435.8	2360.2	2296.3	2255.8	2251.9	2146.7	1788.9	1751.5	1562.1	1460.7	1346.9
27.5°	2315.0	2282.3	2215.3	2208.2	2157.6	1755.4	1569.1	1363.3	1287.7	1276.0	1251.0
30°	2241.8	2195.0	2154.5	1977.5	1721.8	1413.2	1258.8	1230.0	1216.8	1202.7	1180.9
32.5°	2153.7	2109.2	2128.7	1662.6	1372.6	1216.8	1185.6	1164.5	1140.4	1131.0	1052.3
35°	2064.0	2043.8	1663.4	1397.6	1180.1	1142.7	1119.3	1097.5	873.0	211.2	71.7
37.5°	1968.2	1963.5	1495.0	1159.9	1105.3	1070.2	1004.0	207.3	49.1	33.5	24.9
40°	1893.3	1495.8	1181.7	1087.4	1042.9	987.6	138.7	34.3	21.8	13.3	8.6
42.5°	1843.4	1345.4	1057.7	1020.3	923.7	102.1	35.1	14.8	8.6	7.0	5.5
45°	1421.0	1062.4	988.4	949.4	116.9	35.1	20.3	7.0	5.5	4.7	3.1
47.5°	1311.1	965.0	921.3	207.3	39.0	18.7	14.0	4.7	3.1	3.1	3.1
50°	993.0	891.7	733.5	50.7	24.9	13.3	10.1	3.1	3.1	3.1	2.3
52.5°	870.7	823.1	78.7	33.5	19.5	10.1	6.2	2.3	2.3	2.3	2.3
55°	795.8	522.2	46.8	25.7	16.4	9.4	3.9	2.3	2.3	2.3	1.6
57.5°	728.0	70.2	34.3	21.8	14.8	8.6	2.3	2.3	2.3	2.3	1.6
60°	617.3	50.7	28.1	19.5	14.0	7.8	2.3	2.3	2.3	2.3	2.3
62.5°	80.3	39.8	24.2	17.1	10.1	6.2	1.6	2.3	2.3	2.3	2.3
65°	58.5	31.2	21.8	11.7	6.2	2.3	1.6	2.3	2.3	2.3	2.3
67.5°	45.2	25.7	16.4	10.1	5.5	1.6	1.6	2.3	2.3	2.3	2.3
70°	35.9	21.8	13.3	8.6	4.7	1.6	1.6	2.3	2.3	2.3	2.3
72.5°	28.1	15.6	9.4	4.7	3.1	1.6	1.6	2.3	2.3	2.3	2.3
75°	21.0	12.5	7.0	3.9	1.6	1.6	1.6	2.3	2.3	2.3	2.3
77.5°	14.0	7.8	5.5	3.1	3.1	3.1	3.9	3.9	2.3	2.3	2.3
80°	9.4	5.5	3.9	3.9	3.9	3.1	3.9	3.9	2.3	3.9	2.3
82.5°	4.7	3.9	3.9	3.1	3.1	2.3	3.1	3.1	3.1	3.1	2.3
85°	3.1	2.3	2.3	2.3	2.3	2.3	2.3	2.3	3.1	3.1	2.3
87.5°	1.6	1.6	1.6	1.6	2.3	2.3	2.3	2.3	3.1	3.1	2.3
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: P1213086

CATALOG NUMBER: 4SNLED-LD5-47SL-RM-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	255°	260°	265°	270°	275°	280°	285°	290°	295°	300°	305°
0°	2597.2	2597.2	2597.2	2597.2	2597.2	2597.2	2597.2	2597.2	2597.2	2597.2	2597.2
2.5°	2615.9	2618.2	2612.0	2645.5	2628.4	2629.9	2636.9	2619.0	2622.9	2610.4	2601.9
5°	2899.6	2904.3	2909.0	2910.5	2913.7	2917.6	2912.9	2910.5	2905.9	2890.3	2873.9
7.5°	2855.2	2849.7	2847.4	2850.5	2856.0	2858.3	2854.4	2859.9	2880.1	2888.7	2894.2
10°	2621.4	2596.4	2613.6	2611.2	2591.7	2657.2	2639.3	2649.4	2656.4	2728.1	2771.8
12.5°	2509.9	2525.5	2495.9	2481.1	2500.5	2513.8	2527.0	2499.0	2538.0	2520.0	2577.7
15°	2416.4	2407.0	2403.9	2404.7	2400.8	2419.5	2424.2	2430.4	2435.8	2460.0	2469.4
17.5°	2374.3	2389.9	2396.1	2400.8	2393.0	2384.4	2375.8	2363.4	2367.3	2361.0	2378.9
20°	1946.3	1894.1	1891.0	1921.4	1887.9	1906.6	1951.8	2254.2	2244.1	2361.8	2322.0
22.5°	1624.4	1575.3	1533.2	1496.6	1548.8	1570.6	1654.8	1749.9	1904.2	1880.1	2047.7
25°	1326.7	1308.7	1297.8	1292.4	1296.3	1294.7	1313.4	1357.8	1428.0	1593.2	1806.8
27.5°	1240.9	1232.3	1228.4	1216.0	1225.3	1222.2	1237.0	1246.4	1267.4	1283.8	1353.2
30°	1173.1	1163.0	1156.0	1142.7	1152.1	1152.8	1157.5	1181.7	1190.3	1204.3	1226.1
32.5°	428.7	252.5	237.0	225.3	246.3	321.1	563.6	985.3	1124.0	1134.9	1159.9
35°	42.1	35.1	31.2	31.2	32.0	35.1	46.8	123.2	225.3	870.7	1089.7
37.5°	16.4	14.0	11.7	10.9	11.7	13.3	17.9	23.4	32.0	66.3	295.4
40°	7.0	6.2	5.5	5.5	5.5	5.5	6.2	7.8	11.7	21.8	34.3
42.5°	4.7	3.9	3.9	3.9	3.9	3.9	3.9	3.9	5.5	7.0	14.0
45°	3.1	2.3	2.3	2.3	2.3	2.3	2.3	2.3	3.1	3.9	6.2
47.5°	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	3.1
50°	2.3	2.3	2.3	2.3	1.6	2.3	1.6	2.3	2.3	2.3	2.3
52.5°	2.3	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	2.3	2.3
55°	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	2.3
57.5°	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
60°	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
62.5°	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	2.3	2.3	1.6
65°	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	2.3	1.6
67.5°	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
70°	2.3	2.3	1.6	2.3	1.6	1.6	2.3	2.3	2.3	1.6	1.6
72.5°	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	4.7	4.7	3.1
75°	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	3.9	4.7	3.9
77.5°	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	3.9	3.9	3.9
80°	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	3.1	3.1	3.1
82.5°	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	3.1	3.1	3.1
85°	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
87.5°	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
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: P1213086

CATALOG NUMBER: 4SNLED-LD5-47SL-RM-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	310°	315°	320°	325°	330°	335°	340°	341°	342°	343°	344°
0°	2597.2	2597.2	2597.2	2597.2	2597.2	2597.2	2597.2	2597.2	2597.2	2597.2	2597.2
2.5°	2587.1	2586.3	2602.7	2615.1	2610.4	2615.1	2620.6	2621.4	2622.9	2616.7	2614.3
5°	2842.7	2818.6	2771.8	2738.3	2699.3	2628.4	2593.3	2597.2	2598.0	2595.6	2598.8
7.5°	2891.8	2889.5	2873.1	2866.1	2839.6	2788.9	2707.9	2693.8	2659.6	2637.7	2619.8
10°	2768.7	2824.8	2839.6	2864.6	2880.1	2870.8	2802.2	2792.1	2770.2	2745.3	2750.7
12.5°	2635.4	2681.4	2683.7	2819.3	2849.7	2852.9	2826.4	2840.4	2843.5	2787.4	2754.6
15°	2471.7	2493.5	2539.5	2665.8	2757.8	2815.4	2832.6	2840.4	2802.2	2799.9	2786.6
17.5°	2400.0	2414.0	2435.1	2506.0	2645.5	2730.5	2803.0	2797.5	2812.3	2801.4	2767.9
20°	2309.6	2321.3	2358.7	2394.5	2463.1	2576.1	2711.8	2721.9	2741.4	2739.1	2748.4
22.5°	2308.0	2266.7	2272.9	2301.0	2372.7	2474.0	2618.2	2651.8	2664.2	2672.8	2682.9
25°	1831.0	2159.1	2219.2	2237.1	2283.8	2343.1	2513.0	2525.5	2548.9	2587.1	2615.1
27.5°	1586.2	1809.1	2049.2	2173.9	2203.6	2252.7	2354.0	2372.7	2452.2	2461.6	2505.2
30°	1251.8	1424.1	1782.6	2082.7	2131.9	2166.1	2237.9	2275.3	2309.6	2347.0	2393.0
32.5°	1177.8	1205.1	1403.8	1723.4	2105.3	2079.6	2132.6	2155.2	2192.6	2225.4	2258.9
35°	1110.0	1128.7	1170.8	1411.6	1714.8	2008.7	2044.5	2059.4	2080.4	2105.3	2129.5
37.5°	1039.0	1067.1	1095.9	1160.6	1586.2	1952.6	1951.8	1968.9	1981.4	2002.5	2022.7
40°	188.6	979.8	1026.6	1068.7	1230.0	1557.4	1864.5	1872.3	1880.9	1894.1	1915.2
42.5°	30.4	163.7	961.9	1002.4	1048.4	1394.5	1824.7	1792.8	1787.3	1796.7	1815.4
45°	15.6	39.8	193.3	936.1	977.5	1112.3	1491.9	1737.4	1732.0	1714.1	1718.0
47.5°	11.7	24.9	47.5	323.5	915.1	954.9	1376.5	1361.7	1465.4	1664.2	1633.8
50°	10.1	17.1	28.1	66.3	808.3	879.2	1060.1	1238.6	1293.1	1300.2	1538.7
52.5°	9.4	11.7	20.3	42.9	169.9	813.0	862.1	924.5	1016.4	1213.6	1209.0
55°	8.6	10.9	17.1	28.8	59.2	732.7	783.4	795.1	814.5	908.9	1033.6
57.5°	4.7	10.1	16.4	24.9	44.4	134.1	710.9	720.2	735.8	739.7	784.1
60°	2.3	9.4	14.8	21.8	32.7	62.4	639.2	650.1	659.4	661.0	675.0
62.5°	1.6	8.6	12.5	20.3	27.3	44.4	151.2	308.7	586.9	586.9	603.3
65°	1.6	6.2	7.8	13.3	24.9	36.6	63.9	74.0	144.2	354.7	529.3
67.5°	1.6	2.3	7.0	10.9	18.7	28.1	46.8	54.6	65.5	74.8	138.7
70°	1.6	1.6	6.2	7.0	11.7	21.0	33.5	38.2	44.4	50.7	58.5
72.5°	1.6	1.6	5.5	5.5	7.8	14.0	25.7	28.1	32.0	35.9	41.3
75°	3.9	3.1	4.7	4.7	5.5	10.9	19.5	21.8	23.4	26.5	30.4
77.5°	3.9	3.9	3.9	3.9	3.9	7.0	12.5	14.0	16.4	17.9	21.0
80°	3.1	3.1	3.1	3.9	3.9	4.7	7.8	8.6	9.4	11.7	12.5
82.5°	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	4.7	5.5	7.0
85°	2.3	2.3	2.3	2.3	2.3	2.3	2.3	3.1	3.1	3.1	3.1
87.5°	2.3	2.3	2.3	1.6	1.6	2.3	2.3	2.3	2.3	2.3	2.3
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: P1213086

CATALOG NUMBER: 4SNLED-LD5-47SL-RM-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	345°	346°	347°	348°	349°	350°	351°	352°	353°	354°	355°
0°	2597.2	2597.2	2597.2	2597.2	2597.2	2597.2	2597.2	2597.2	2597.2	2597.2	2597.2
2.5°	2613.6	2608.9	2605.0	2607.3	2600.3	2597.2	2599.5	2600.3	2601.9	2605.8	2606.5
5°	2606.5	2605.0	2612.0	2615.9	2614.3	2615.9	2615.9	2612.8	2608.1	2611.2	2604.2
7.5°	2601.9	2591.7	2583.9	2585.5	2577.7	2587.1	2595.6	2608.1	2612.0	2612.0	2604.2
10°	2682.2	2671.2	2627.6	2598.0	2578.5	2561.3	2601.9	2560.6	2580.0	2506.0	2591.0
12.5°	2748.4	2763.2	2743.7	2662.7	2648.6	2597.2	2626.8	2576.1	2561.3	2476.4	2503.7
15°	2774.9	2746.9	2740.6	2718.0	2687.6	2672.8	2593.3	2584.7	2560.6	2569.9	2534.1
17.5°	2751.5	2765.6	2746.9	2732.0	2700.9	2665.8	2618.2	2576.1	2542.6	2467.8	2530.9
20°	2728.9	2747.6	2691.5	2700.9	2704.0	2663.4	2638.5	2603.4	2561.3	2491.2	2436.6
22.5°	2691.5	2678.3	2682.9	2668.9	2657.2	2662.7	2628.4	2604.2	2533.3	2501.3	2427.3
25°	2630.7	2626.0	2638.5	2636.9	2608.9	2599.5	2582.4	2556.7	2528.6	2477.2	2416.4
27.5°	2531.7	2555.9	2577.7	2587.8	2573.0	2548.1	2538.7	2523.9	2504.4	2452.2	2407.0
30°	2427.3	2454.6	2479.5	2501.3	2514.6	2503.7	2495.1	2486.5	2456.9	2422.6	2371.9
32.5°	2308.0	2343.9	2378.2	2404.7	2433.5	2442.1	2435.8	2428.8	2403.9	2372.7	2332.2
35°	2170.0	2219.2	2269.0	2316.6	2329.1	2349.3	2369.6	2357.9	2344.6	2313.5	2276.1
37.5°	2053.1	2088.2	2124.1	2184.1	2227.7	2253.4	2289.3	2294.0	2271.4	2256.6	2207.5
40°	1932.3	1964.3	2016.5	2051.6	2111.6	2141.2	2179.4	2196.5	2191.1	2182.5	2139.6
42.5°	1837.2	1852.8	1887.1	1918.3	1977.5	2038.3	2071.8	2090.5	2110.0	2103.0	2081.2
45°	1735.9	1749.9	1761.6	1788.9	1846.6	1900.3	1941.7	1969.7	2004.8	2021.2	1994.7
47.5°	1635.3	1639.2	1653.3	1675.9	1710.2	1751.5	1820.8	1862.9	1895.7	1927.6	1910.5
50°	1558.2	1544.1	1546.5	1560.5	1588.6	1629.1	1679.0	1738.2	1775.6	1814.6	1818.5
52.5°	1361.7	1475.5	1448.3	1456.0	1470.9	1490.3	1542.6	1601.0	1647.0	1680.5	1714.1
55°	1142.7	1165.3	1384.3	1353.2	1362.5	1379.7	1403.8	1462.3	1506.7	1553.5	1600.3
57.5°	886.3	1054.6	1063.2	1265.9	1261.2	1262.7	1283.0	1316.5	1361.0	1419.4	1459.2
60°	689.1	760.0	897.9	968.1	1145.8	1152.1	1163.7	1183.2	1221.4	1276.8	1339.9
62.5°	608.0	617.3	666.4	771.7	887.0	1026.6	1051.5	1054.6	1071.8	1127.1	1200.4
65°	533.9	540.2	555.0	565.9	662.5	797.4	917.4	936.9	947.8	980.6	1042.9
67.5°	367.9	465.3	478.6	486.4	495.7	558.1	707.0	806.0	818.4	847.3	901.8
70°	70.9	147.3	403.0	411.6	416.2	430.3	454.4	611.9	694.5	721.8	746.7
72.5°	48.3	56.9	68.6	162.1	343.0	350.8	356.2	376.5	516.0	595.5	608.8
75°	35.1	39.0	46.0	56.9	70.2	228.4	282.9	293.1	303.2	418.6	485.6
77.5°	24.9	28.1	31.2	36.6	42.9	55.3	79.5	219.0	229.2	234.6	331.3
80°	14.0	17.1	21.0	24.2	27.3	31.2	40.5	50.7	113.0	165.2	173.8
82.5°	7.8	9.4	10.9	13.3	14.8	18.7	22.6	27.3	35.9	53.0	112.2
85°	3.9	3.9	3.9	5.5	6.2	8.6	10.1	11.7	16.4	22.6	31.2
87.5°	2.3	2.3	3.1	3.1	3.1	3.9	3.9	3.9	4.7	7.0	10.1
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

TEST NUMBER: P1213086

CATALOG NUMBER: 4SNLED-LD5-47SL-RM-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	356°	357°	358°	359°	360°
0°	2597.2	2597.2	2597.2	2597.2	2597.2
2.5°	2607.3	2605.0	2605.0	2614.3	2612.0
5°	2602.7	2600.3	2599.5	2609.7	2605.0
7.5°	2598.8	2590.2	2587.8	2597.2	2593.3
10°	2583.2	2576.9	2580.8	2577.7	2576.1
12.5°	2556.7	2552.8	2536.4	2538.0	2551.2
15°	2509.1	2524.7	2496.6	2521.6	2527.0
17.5°	2421.8	2456.9	2484.2	2499.0	2501.3
20°	2460.8	2472.5	2458.4	2459.2	2468.6
22.5°	2410.1	2415.6	2419.5	2414.8	2435.1
25°	2329.1	2308.0	2353.2	2362.6	2395.3
27.5°	2304.1	2287.0	2308.0	2306.5	2333.7
30°	2283.8	2228.5	2237.9	2252.7	2286.2
32.5°	2255.0	2167.7	2158.4	2191.1	2228.5
35°	2204.3	2121.7	2099.9	2120.9	2177.1
37.5°	2161.5	2057.8	2014.2	2042.2	2115.5
40°	2097.6	2007.9	1940.1	1965.0	2051.6
42.5°	2021.2	1965.0	1860.6	1877.7	1976.7
45°	1944.0	1894.1	1783.4	1792.0	1909.7
47.5°	1865.3	1819.3	1703.1	1704.7	1824.0
50°	1788.1	1727.3	1631.4	1604.1	1732.8
52.5°	1687.6	1631.4	1558.9	1514.5	1646.2
55°	1592.5	1529.3	1476.3	1407.7	1548.0
57.5°	1499.7	1429.5	1393.7	1305.6	1436.6
60°	1372.6	1339.1	1286.1	1201.9	1336.0
62.5°	1242.5	1231.6	1177.8	1090.5	1212.1
65°	1090.5	1116.2	1060.9	986.0	1083.5
67.5°	947.1	993.0	932.2	886.3	959.5
70°	794.3	847.3	813.0	796.6	827.8
72.5°	643.8	695.3	698.4	686.7	696.8
75°	497.3	554.2	585.4	567.5	569.8
77.5°	377.3	404.5	438.8	452.9	449.8
80°	233.1	280.6	308.7	337.5	327.4
82.5°	117.7	157.5	191.7	222.9	208.1
85°	49.1	63.1	88.1	116.1	111.5
87.5°	14.8	24.9	26.5	37.4	35.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)