

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: P1213002

Luminaire Tested: 2SNLED-LD5-43HL-RM-UNV-L930-CD1-U

Issue Date: 3/29/2018

Test Information

Test Method: LM-79-2019
Report Number: P1213002
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: 2SNLED-LD5-43HL-RM-UNV-L930-CD1-U
Description: 2FT LINEAR SNLED LED FIXTURE
METALIC FINISH REFLECTOR
Light Source: -
Ballast/Driver: -

Summary

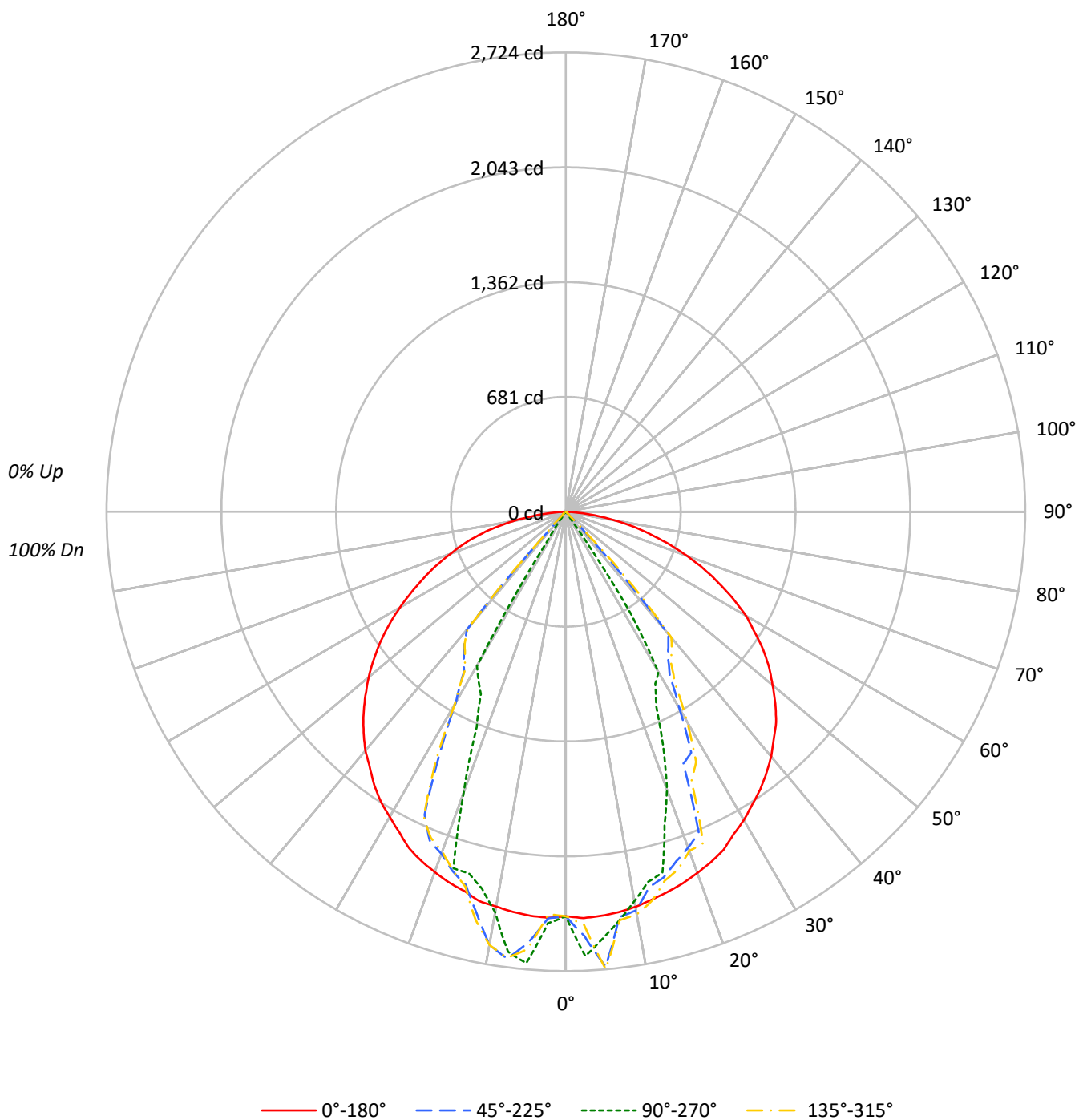
Lumens per Lamp: N/A
Luminaire Lumens: 3410.0 lumens
Efficiency: N/A
Efficacy: 94.7 lumens/watt
Spacing Criteria (0/90/45): 1.3 / 0.81 / 0.97
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 2' x H: 0.12')
CIE Type: Direct

Input Watts (W): 36
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT

TEST NUMBER: P1213002

CATALOG NUMBER: 2SNLED-LD5-43HL-RM-UNV-L930-CD1-U

Luminous Intensity Polar Plot



TEST NUMBER: P1213002

CATALOG NUMBER: 2SNLED-LD5-43HL-RM-UNV-L930-CD1-U

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20					20					20					20
RC	80				70					50					30					10
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10
RCR																				
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	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°	38760	38760	38760	38760
5°	38812	39864	38800	42215
10°	38612	36072	38589	37113
15°	38400	33669	38304	33757
20°	38332	26520	38223	26847
25°	38326	19192	38139	18110
30°	38024	16835	37622	16183
35°	37999	372	37441	450
40°	37976	80	37066	80
45°	37934	48	36508	37
50°	37441	38	35723	38
55°	36977	26	34705	26
60°	35980	27	33168	27
65°	33736	47	31335	30
70°	30828	51	29348	51
75°	26639	57	27079	57
80°	20773	65	21962	65
85°	11130	77	11368	77

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 2°

Vertical Angle: 45°

Luminance: 40976 cd/sqm

TEST NUMBER: P1213002

CATALOG NUMBER: 2SNLED-LD5-43HL-RM-UNV-L930-CD1-U

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	240.6	7.1
10°-20°	656.3	19.2
20°-30°	835.1	24.5
30°-40°	705.4	20.7
40°-50°	461.2	13.5
50°-60°	290.6	8.5
60°-70°	154.7	4.5
70°-80°	56.4	1.7
80°-90°	9.7	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°	1732.0	50.8
0°-40°	2437.4	71.5
0°-60°	3189.2	93.5
0°-90°	3410.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3410.0	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	2398	2398	2398	2398	2398	
5°	2405	2538	2405	2688	2405	229
15°	2333	2215	2328	2220	2333	660
25°	2212	1265	2201	1193	2212	1017
35°	2010	24	1981	29	2010	1258
45°	1763	3	1697	2	1763	1356
55°	1429	1	1342	1	1429	1274
65°	1000	2	929	1	1000	991
75°	526	2	535	2	526	558
85°	103	2	105	2	103	130
90°	0	0	0	0	0	

TEST NUMBER: P1213002

CATALOG NUMBER: 2SNLED-LD5-43HL-RM-UNV-L930-CD1-U

CANDELA DISTRIBUTION (FULL):

	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°	10°
0°	2398.2	2398.2	2398.2	2398.2	2398.2	2398.2	2398.2	2398.2	2398.2	2398.2	2398.2
2.5°	2411.8	2413.3	2414.0	2415.4	2417.6	2418.3	2419.8	2418.3	2418.3	2418.3	2418.3
5°	2405.4	2408.2	2410.4	2413.3	2418.3	2419.0	2424.8	2425.5	2428.4	2434.2	2438.5
7.5°	2394.6	2397.4	2401.8	2409.0	2416.2	2424.1	2434.2	2445.0	2460.1	2474.5	2492.5
10°	2378.7	2382.3	2387.4	2393.8	2429.1	2434.2	2456.5	2487.4	2496.1	2541.4	2575.2
12.5°	2355.7	2367.9	2380.9	2386.7	2420.5	2473.7	2548.6	2533.5	2516.9	2665.2	2663.0
15°	2333.4	2349.9	2343.5	2390.2	2421.2	2514.0	2482.4	2550.0	2673.8	2643.6	2645.0
17.5°	2309.6	2313.2	2349.2	2388.1	2443.5	2491.0	2529.9	2622.7	2647.2	2649.4	2622.7
20°	2279.4	2296.7	2349.2	2384.5	2478.1	2500.4	2584.6	2632.1	2622.0	2597.5	2552.2
22.5°	2248.5	2301.0	2354.3	2403.9	2469.4	2529.2	2570.9	2593.2	2540.7	2444.2	2392.4
25°	2211.8	2242.7	2312.5	2385.2	2467.3	2501.8	2526.3	2490.3	2421.9	2335.5	2248.5
27.5°	2154.9	2204.6	2293.8	2375.9	2450.0	2491.7	2452.1	2365.8	2255.7	2198.8	2159.2
30°	2111.0	2175.8	2249.2	2328.4	2405.4	2429.8	2329.1	2230.5	2154.9	2098.0	2089.4
32.5°	2057.7	2149.9	2219.7	2295.2	2360.0	2327.6	2229.7	2102.4	2039.7	2018.1	2026.8
35°	2010.2	2080.0	2171.4	2245.6	2292.4	2219.7	2064.9	1985.8	1955.5	1967.8	1951.9
37.5°	1953.4	2045.5	2129.7	2193.8	2177.9	2068.5	1937.5	1887.2	1890.8	1880.7	1850.4
40°	1894.4	1982.2	2070.0	2130.4	2075.0	1908.0	1820.9	1810.1	1812.3	1779.9	1736.7
42.5°	1825.3	1905.1	1993.0	2047.7	1928.2	1797.9	1738.9	1740.3	1721.6	1676.3	1653.2
45°	1763.4	1836.8	1928.2	1933.2	1786.4	1677.7	1660.4	1641.7	1600.0	1584.9	1567.6
47.5°	1684.2	1765.5	1841.1	1813.7	1647.5	1579.8	1566.9	1525.8	1505.0	1493.5	1479.1
50°	1600.0	1682.0	1751.1	1673.4	1516.5	1500.7	1458.2	1425.8	1411.4	1399.2	1386.2
52.5°	1520.1	1587.7	1658.3	1524.4	1415.7	1400.6	1352.4	1333.7	1319.3	1305.6	1302.7
55°	1429.4	1489.1	1537.4	1382.6	1319.3	1284.0	1249.5	1236.5	1222.8	1216.4	1227.2
57.5°	1326.5	1394.1	1386.9	1243.0	1214.9	1163.8	1150.9	1142.2	1132.1	1136.5	1046.5
60°	1233.6	1285.5	1250.2	1140.8	1093.3	1058.7	1047.2	1041.5	1047.2	959.4	843.5
62.5°	1119.2	1177.5	1106.2	1021.3	970.9	954.4	944.3	952.2	868.0	771.6	743.5
65°	1000.4	1063.8	958.7	893.2	861.5	847.1	846.4	779.5	696.7	659.3	659.3
67.5°	886.0	951.5	816.2	761.5	749.2	750.7	708.9	607.5	584.4	559.2	486.5
70°	764.4	821.9	674.4	641.3	634.1	629.1	527.6	500.2	472.9	405.9	400.2
72.5°	643.4	671.5	542.0	534.0	532.6	442.6	422.5	375.7	344.0	336.1	332.5
75°	526.1	517.5	428.2	435.4	367.1	335.4	303.0	275.7	271.3	268.5	66.9
77.5°	415.3	372.1	337.6	293.7	262.7	223.1	216.6	212.3	139.6	50.4	41.0
80°	302.3	241.1	224.6	190.7	162.7	156.2	159.8	48.9	38.9	32.4	28.1
82.5°	192.2	154.0	126.0	110.1	107.2	46.8	34.5	28.1	24.5	20.9	17.3
85°	102.9	68.4	63.3	53.3	31.7	21.6	18.0	13.7	11.5	9.4	8.6
87.5°	32.4	27.4	22.3	18.0	10.8	7.2	5.8	5.0	4.3	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: P1213002

CATALOG NUMBER: 2SNLED-LD5-43HL-RM-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	11°	12°	13°	14°	15°	16°	17°	18°	19°	20°	25°
0°	2398.2	2398.2	2398.2	2398.2	2398.2	2398.2	2398.2	2398.2	2398.2	2398.2	2398.2
2.5°	2416.9	2418.3	2417.6	2419.8	2419.8	2422.6	2424.8	2427.0	2431.3	2433.4	2450.0
5°	2447.8	2451.4	2462.2	2472.3	2484.5	2488.1	2509.0	2514.0	2538.5	2541.4	2622.0
7.5°	2516.9	2530.6	2556.5	2582.4	2608.3	2624.9	2653.7	2671.7	2691.1	2708.4	2772.4
10°	2600.4	2623.4	2648.6	2674.5	2689.7	2721.3	2738.6	2741.5	2736.4	2708.4	2604.7
12.5°	2682.5	2705.5	2694.7	2699.7	2717.7	2661.6	2669.5	2629.2	2657.3	2518.4	2415.4
15°	2670.9	2669.5	2642.9	2556.5	2570.9	2463.7	2420.5	2387.4	2414.0	2399.6	2383.8
17.5°	2636.4	2570.9	2524.8	2421.2	2377.3	2347.1	2347.8	2348.5	2335.5	2349.2	2308.9
20°	2490.3	2416.9	2348.5	2311.8	2298.8	2277.3	2288.0	2277.3	2278.0	2282.3	2220.4
22.5°	2296.0	2273.7	2234.1	2245.6	2241.3	2260.7	2246.3	2224.0	2231.2	2198.8	2152.0
25°	2217.5	2191.6	2190.2	2194.5	2188.0	2179.4	2166.4	2132.6	2130.4	2120.3	2098.8
27.5°	2138.3	2139.8	2144.1	2131.1	2108.1	2090.8	2071.4	2054.9	2061.3	2049.8	2020.3
30°	2083.6	2082.9	2057.0	2045.5	2003.0	2003.8	1998.7	1988.6	1982.2	1982.9	1964.2
32.5°	2005.9	1983.6	1954.1	1939.7	1936.1	1923.1	1913.1	1915.2	1920.3	1902.3	1921.7
35°	1926.0	1880.0	1875.6	1863.4	1851.9	1843.2	1846.8	1832.5	1831.7	1829.6	1671.2
37.5°	1818.8	1796.5	1794.3	1781.4	1773.4	1771.3	1757.6	1759.8	1766.2	1777.8	1425.1
40°	1730.3	1710.1	1705.1	1704.3	1687.1	1685.6	1689.2	1702.9	1712.3	1640.3	1358.1
42.5°	1635.2	1636.7	1620.9	1610.8	1612.9	1619.4	1636.7	1589.2	1376.9	1312.1	1241.5
45°	1553.9	1546.7	1538.1	1535.2	1553.9	1541.0	1350.9	1246.6	1221.4	1218.5	1020.6
47.5°	1469.0	1466.8	1463.2	1465.4	1358.9	1211.3	1168.1	1154.5	1158.8	1155.9	876.6
50°	1383.3	1386.2	1386.2	1210.6	1111.3	1086.8	1090.4	1102.6	1026.3	958.0	816.9
52.5°	1309.2	1286.9	1102.6	1039.3	1017.0	1027.8	1001.9	906.2	837.1	796.7	755.7
55°	1171.7	1007.6	966.6	956.5	964.4	868.7	809.7	747.8	729.8	725.5	701.7
57.5°	922.0	888.9	892.5	852.2	760.8	706.8	683.0	674.4	666.5	660.7	57.6
60°	815.5	824.8	755.0	668.6	631.9	624.7	619.0	611.1	609.6	599.5	36.7
62.5°	746.4	656.4	595.9	574.4	565.7	563.6	552.8	549.2	466.4	64.1	27.4
65°	562.8	526.1	514.6	509.6	500.2	500.2	415.3	65.5	53.3	46.1	24.5
67.5°	459.2	456.3	450.6	444.1	302.3	63.3	55.4	48.2	41.7	36.7	21.6
70°	388.7	387.2	352.7	64.8	54.0	47.5	41.7	37.4	34.5	30.9	19.4
72.5°	318.8	64.8	54.7	47.5	41.0	37.4	33.8	30.2	27.4	25.2	15.8
75°	49.7	43.9	38.9	35.3	32.4	28.8	25.9	23.8	23.0	20.2	10.8
77.5°	36.0	30.9	28.1	25.2	22.3	20.2	17.3	15.1	13.7	11.5	7.9
80°	25.2	22.3	20.2	16.6	14.4	12.2	10.8	9.4	8.6	7.2	3.6
82.5°	14.4	12.2	10.8	8.6	7.9	6.5	5.8	5.0	5.0	3.6	3.6
85°	6.5	6.5	5.0	4.3	3.6	3.6	3.6	2.9	2.9	2.2	2.2
87.5°	2.9	2.9	2.9	2.9	2.9	2.2	2.2	2.2	2.2	2.2	1.4
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

TEST NUMBER: P1213002

CATALOG NUMBER: 2SNLED-LD5-43HL-RM-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	30°	35°	40°	45°	50°	55°	60°	65°	70°	75°	80°
0°	2398.2	2398.2	2398.2	2398.2	2398.2	2398.2	2398.2	2398.2	2398.2	2398.2	2398.2
2.5°	2473.0	2482.4	2500.4	2519.1	2498.2	2573.1	2567.3	2592.5	2606.2	2612.6	2627.8
5°	2693.3	2735.0	2748.7	2707.7	2683.9	2659.4	2604.0	2562.3	2567.3	2553.6	2504.0
7.5°	2688.9	2599.7	2479.5	2424.8	2420.5	2414.0	2431.3	2441.4	2442.8	2442.1	2440.6
10°	2461.5	2415.4	2407.5	2400.3	2403.2	2376.6	2364.3	2329.8	2348.5	2338.4	2342.0
12.5°	2392.4	2381.6	2339.1	2280.1	2315.4	2288.8	2273.7	2283.7	2272.2	2261.4	2257.8
15°	2351.4	2281.6	2257.8	2243.4	2233.3	2227.6	2232.6	2221.1	2217.5	2215.4	2220.4
17.5°	2266.5	2238.4	2212.5	2174.3	2175.0	2172.9	2187.3	2208.9	2210.3	2099.5	1999.4
20°	2199.5	2176.5	2143.4	2119.6	2152.0	2094.4	1872.0	1766.2	1749.7	1749.7	1752.6
22.5°	2146.3	2095.2	2097.3	2059.9	1756.9	1695.0	1696.4	1702.9	1673.4	1572.6	1561.8
25°	2073.6	2065.6	1908.0	1648.9	1651.1	1602.9	1528.7	1424.4	1311.4	1311.4	1292.6
27.5°	2018.9	1851.2	1620.9	1610.1	1448.1	1345.9	1282.6	1186.8	1173.9	1161.7	1163.1
30°	1972.1	1566.1	1571.9	1345.9	1226.4	1141.5	1136.5	1120.6	1112.7	1110.6	1102.6
32.5°	1559.0	1525.1	1315.7	1145.8	1099.0	1085.4	1078.9	1060.9	1060.2	1046.5	951.5
35°	1461.8	1338.7	1101.2	1055.1	1041.5	1028.5	1017.7	683.0	80.6	32.4	28.1
37.5°	1350.9	1118.5	1018.4	997.6	984.6	727.7	72.7	25.2	18.0	13.0	11.5
40°	1145.1	999.0	967.3	944.3	389.4	25.2	15.8	12.2	7.2	6.5	5.8
42.5°	965.9	941.4	907.6	276.4	28.8	12.2	7.9	5.8	5.0	5.0	4.3
45°	904.0	882.4	365.6	27.4	18.0	5.8	5.0	5.0	4.3	2.9	2.9
47.5°	846.4	744.9	33.1	17.3	11.5	5.0	4.3	2.9	2.9	2.9	2.2
50°	785.2	41.0	23.0	13.0	7.2	2.9	2.9	2.9	2.9	2.2	2.2
52.5°	146.8	28.8	18.7	11.5	3.6	2.9	2.9	2.9	2.2	2.2	2.2
55°	34.5	23.0	17.3	10.1	2.9	2.9	2.9	2.2	2.2	2.2	1.4
57.5°	25.9	17.3	13.7	9.4	2.9	2.2	2.2	2.2	2.2	2.2	1.4
60°	21.6	12.2	10.8	8.6	2.2	2.2	2.2	2.2	2.2	2.2	1.4
62.5°	15.1	10.1	7.9	6.5	2.2	2.2	2.2	2.2	2.2	2.2	2.2
65°	12.2	7.9	6.5	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
67.5°	10.8	6.5	4.3	1.4	2.2	2.2	2.2	2.2	2.2	2.2	2.2
70°	8.6	2.2	2.2	1.4	2.2	2.2	2.2	2.2	2.2	2.2	2.2
72.5°	7.2	2.2	1.4	1.4	2.2	2.2	2.2	2.2	2.2	2.2	2.2
75°	7.2	3.6	1.4	1.4	2.2	2.2	2.9	2.9	2.2	2.2	2.2
77.5°	5.0	3.6	1.4	1.4	2.2	2.2	2.9	2.9	2.2	2.2	2.2
80°	2.9	3.6	1.4	2.2	2.2	4.3	5.0	2.9	2.2	2.2	2.2
82.5°	2.9	3.6	4.3	4.3	2.2	3.6	4.3	3.6	2.9	2.2	2.2
85°	2.9	2.2	2.9	3.6	2.2	3.6	3.6	2.9	2.9	2.2	2.2
87.5°	1.4	2.2	2.2	2.9	2.9	2.9	3.6	2.9	2.9	2.9	2.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

TEST NUMBER: P1213002

CATALOG NUMBER: 2SNLED-LD5-43HL-RM-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	85°	90°	95°	100°	105°	110°	115°	120°	125°	130°	135°
0°	2398.2	2398.2	2398.2	2398.2	2398.2	2398.2	2398.2	2398.2	2398.2	2398.2	2398.2
2.5°	2635.0	2637.8	2592.5	2576.7	2590.3	2587.5	2575.2	2529.9	2524.8	2494.6	2450.7
5°	2518.4	2537.8	2514.0	2555.1	2535.6	2555.1	2614.1	2641.4	2686.1	2713.4	2723.5
7.5°	2437.0	2441.4	2441.4	2445.0	2448.5	2449.3	2445.0	2442.1	2429.8	2414.7	2442.1
10°	2338.4	2343.5	2352.1	2350.7	2349.9	2365.1	2368.7	2399.6	2398.2	2403.9	2424.8
12.5°	2287.3	2248.5	2283.7	2274.4	2287.3	2267.2	2304.6	2298.1	2300.3	2317.6	2362.2
15°	2202.4	2214.6	2223.3	2223.3	2228.3	2224.0	2219.7	2249.2	2267.2	2267.9	2265.0
17.5°	2039.0	1946.2	2041.2	2016.7	2211.8	2216.8	2200.2	2186.6	2186.6	2197.4	2220.4
20°	1750.4	1752.6	1753.3	1762.6	1774.2	1773.4	1774.2	2057.7	2192.3	2161.4	2140.5
22.5°	1534.5	1507.9	1557.5	1553.9	1615.8	1684.2	1749.7	1743.2	1747.5	1947.6	2127.5
25°	1230.0	1264.6	1236.5	1248.7	1318.6	1399.9	1450.3	1582.0	1725.2	1715.1	1761.9
27.5°	1158.1	1148.7	1161.7	1161.7	1171.0	1181.8	1209.9	1284.0	1411.4	1545.3	1672.0
30°	1089.7	1097.6	1099.0	1112.0	1119.2	1126.4	1130.7	1158.8	1187.6	1280.4	1436.6
32.5°	818.3	717.6	944.3	1005.5	1057.3	1069.5	1078.2	1089.7	1110.6	1124.2	1202.7
35°	23.8	23.8	25.2	28.8	36.7	247.6	942.9	1039.3	1053.0	1070.3	1084.6
37.5°	11.5	8.6	10.1	10.8	13.0	18.0	25.9	80.6	897.5	1014.8	1030.7
40°	5.0	5.0	5.0	5.0	5.8	7.2	10.8	18.0	27.4	721.9	973.8
42.5°	4.3	4.3	4.3	4.3	4.3	4.3	5.0	6.5	13.0	30.9	511.0
45°	2.9	2.9	2.2	2.9	2.9	3.6	4.3	4.3	5.8	19.4	35.3
47.5°	2.2	2.2	2.2	2.2	2.2	2.2	2.2	3.6	4.3	13.0	18.7
50°	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	10.1	13.0
52.5°	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	4.3	11.5
55°	1.4	1.4	1.4	1.4	1.4	1.4	1.4	2.2	2.2	2.9	10.1
57.5°	1.4	1.4	1.4	1.4	1.4	2.2	1.4	1.4	2.2	2.2	9.4
60°	1.4	1.4	1.4	1.4	1.4	2.2	2.2	2.2	2.2	2.2	8.6
62.5°	2.2	2.2	1.4	2.2	1.4	1.4	2.2	2.2	2.2	2.2	5.8
65°	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	1.4	2.2
67.5°	2.2	2.2	2.2	2.2	1.4	2.2	1.4	2.2	2.2	1.4	1.4
70°	2.2	2.2	2.2	2.2	2.2	2.2	2.2	1.4	1.4	1.4	1.4
72.5°	2.2	2.2	2.2	2.2	2.2	2.2	2.2	1.4	1.4	1.4	1.4
75°	2.2	2.2	2.2	2.2	2.2	2.2	2.9	2.9	1.4	1.4	1.4
77.5°	2.2	2.2	2.2	2.2	2.2	2.2	3.6	4.3	3.6	3.6	1.4
80°	2.2	2.2	2.2	2.2	2.2	2.2	3.6	3.6	3.6	3.6	5.0
82.5°	2.2	2.2	2.2	2.2	2.2	2.2	2.9	2.9	2.9	2.9	3.6
85°	2.2	2.2	2.2	2.2	2.2	2.2	2.9	2.9	2.9	2.2	2.9
87.5°	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.9	2.2	2.2	2.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

TEST NUMBER: P1213002

CATALOG NUMBER: 2SNLED-LD5-43HL-RM-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	140°	145°	150°	155°	160°	161°	162°	163°	164°	165°	166°
0°	2398.2	2398.2	2398.2	2398.2	2398.2	2398.2	2398.2	2398.2	2398.2	2398.2	2398.2
2.5°	2454.3	2429.8	2421.9	2405.4	2403.9	2405.4	2401.8	2396.7	2399.6	2394.6	2390.2
5°	2729.2	2663.8	2621.3	2564.4	2486.0	2468.7	2464.4	2439.9	2431.3	2428.4	2416.9
7.5°	2506.8	2626.3	2698.3	2722.8	2630.6	2609.1	2583.9	2563.7	2544.3	2507.6	2485.3
10°	2408.2	2414.0	2483.1	2563.7	2694.7	2712.7	2726.4	2682.5	2670.2	2576.7	2556.5
12.5°	2385.2	2385.9	2393.8	2442.8	2545.7	2557.2	2605.5	2631.4	2663.0	2681.0	2666.6
15°	2280.1	2338.4	2381.6	2385.9	2395.3	2415.4	2429.8	2519.8	2557.9	2660.2	2654.4
17.5°	2231.2	2249.9	2312.5	2363.6	2355.0	2347.8	2359.3	2371.5	2408.2	2510.4	2509.0
20°	2149.9	2209.6	2243.4	2296.7	2344.9	2347.1	2334.1	2326.9	2312.5	2329.1	2344.2
22.5°	2115.3	2124.7	2188.0	2225.4	2280.1	2299.6	2302.4	2303.2	2295.2	2286.6	2282.3
25°	2111.7	2082.2	2114.6	2161.4	2201.7	2222.6	2246.3	2254.2	2251.3	2251.3	2247.0
27.5°	1728.1	2072.8	2055.6	2086.5	2135.5	2149.9	2162.1	2186.6	2201.7	2212.5	2217.5
30°	1646.0	1707.9	2009.5	2013.8	2063.5	2062.0	2075.7	2095.9	2115.3	2140.5	2147.0
32.5°	1456.0	1607.9	1839.7	1941.1	1993.0	1998.0	2005.2	2010.9	2028.9	2057.0	2081.5
35°	1166.7	1464.7	1576.2	1906.6	1915.9	1926.0	1930.3	1944.0	1949.8	1961.3	1982.9
37.5°	1055.9	1210.6	1512.2	1648.9	1827.4	1836.1	1859.1	1864.8	1874.2	1883.6	1900.1
40°	991.8	1034.3	1258.8	1472.6	1756.2	1761.9	1769.8	1784.2	1785.0	1795.7	1810.9
42.5°	940.7	968.0	1033.5	1406.4	1705.8	1705.1	1686.3	1695.7	1700.0	1711.5	1732.4
45°	751.4	908.3	950.1	1148.7	1358.1	1456.0	1643.9	1612.9	1612.2	1616.5	1638.8
47.5°	38.1	854.3	883.8	947.9	1282.6	1286.2	1310.6	1516.5	1548.2	1538.1	1540.2
50°	25.9	59.0	823.4	852.9	1105.5	1194.8	1212.8	1222.1	1340.9	1473.3	1451.7
52.5°	20.2	33.8	504.5	791.7	898.2	963.7	1079.6	1145.8	1153.0	1206.3	1386.9
55°	18.0	25.9	54.7	730.5	763.6	778.0	845.7	961.6	1055.1	1083.2	1085.4
57.5°	15.8	23.8	37.4	330.4	694.5	697.4	708.9	749.2	833.5	910.5	997.6
60°	14.4	20.9	29.5	56.9	631.2	638.4	640.6	651.4	661.4	714.0	814.0
62.5°	8.6	16.6	25.9	41.0	499.5	573.6	572.9	580.1	589.5	595.2	615.4
65°	7.2	13.0	22.3	34.5	61.2	76.3	463.5	515.3	521.1	529.0	532.6
67.5°	6.5	11.5	16.6	27.4	46.1	52.5	60.5	74.9	408.8	460.6	467.8
70°	5.8	7.9	13.7	23.0	37.4	40.3	45.3	51.8	61.2	75.6	369.9
72.5°	3.6	5.8	9.4	16.6	28.8	32.4	35.3	39.6	43.9	52.5	60.5
75°	1.4	4.3	7.9	12.2	22.3	24.5	26.6	29.5	33.1	38.9	43.2
77.5°	1.4	3.6	6.5	8.6	14.4	16.6	19.4	21.6	24.5	27.4	31.7
80°	5.0	2.9	4.3	6.5	10.1	10.8	12.2	13.7	15.8	18.0	20.9
82.5°	3.6	4.3	5.0	4.3	5.0	6.5	7.2	8.6	9.4	10.8	11.5
85°	2.9	2.9	3.6	3.6	3.6	3.6	3.6	3.6	4.3	5.0	6.5
87.5°	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.9	2.9
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

TEST NUMBER: P1213002

CATALOG NUMBER: 2SNLED-LD5-43HL-RM-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	167°	168°	169°	170°	171°	172°	173°	174°	175°	176°	177°
0°	2398.2	2398.2	2398.2	2398.2	2398.2	2398.2	2398.2	2398.2	2398.2	2398.2	2398.2
2.5°	2390.2	2388.8	2384.5	2384.5	2383.8	2386.7	2388.8	2391.0	2390.2	2394.6	2390.2
5°	2408.2	2404.6	2398.2	2392.4	2390.2	2391.7	2389.5	2391.7	2388.8	2392.4	2385.9
7.5°	2457.9	2445.7	2420.5	2410.4	2397.4	2396.7	2390.2	2388.8	2384.5	2384.5	2376.6
10°	2545.7	2486.7	2479.5	2449.3	2438.5	2385.9	2397.4	2378.0	2375.9	2366.5	2362.9
12.5°	2617.7	2571.6	2557.9	2531.3	2501.1	2394.6	2418.3	2376.6	2374.4	2355.7	2336.3
15°	2619.1	2645.8	2608.3	2534.9	2528.4	2455.0	2406.8	2392.4	2373.7	2317.6	2326.9
17.5°	2534.9	2596.1	2614.1	2598.3	2552.2	2502.5	2434.9	2406.1	2349.9	2324.8	2307.5
20°	2398.2	2460.1	2537.1	2542.1	2570.9	2535.6	2447.1	2400.3	2332.7	2288.8	2274.4
22.5°	2289.5	2334.8	2423.4	2464.4	2499.7	2511.9	2455.7	2386.7	2302.4	2260.0	2251.3
25°	2231.9	2242.0	2268.6	2316.8	2394.6	2450.7	2458.6	2385.2	2341.3	2248.5	2199.5
27.5°	2211.0	2202.4	2191.6	2216.1	2274.4	2342.7	2388.1	2400.3	2290.9	2202.4	2153.5
30°	2157.8	2162.8	2146.3	2137.6	2175.8	2246.3	2326.9	2347.1	2262.9	2171.4	2115.3
32.5°	2092.3	2100.9	2103.8	2088.7	2080.8	2129.7	2216.8	2265.0	2260.7	2127.5	2064.9
35°	2010.2	2034.7	2041.2	2041.9	2028.9	2021.0	2071.4	2171.4	2209.6	2107.4	2016.7
37.5°	1923.9	1931.1	1966.3	1975.7	1975.7	1951.9	1989.4	2069.2	2122.5	2062.0	1957.7
40°	1815.9	1838.9	1872.0	1888.6	1905.1	1907.3	1886.4	1942.6	2030.4	2015.3	1902.3
42.5°	1737.4	1752.6	1772.7	1795.0	1828.9	1837.5	1815.9	1826.0	1917.4	1957.0	1830.3
45°	1646.0	1666.2	1672.0	1696.4	1731.7	1756.9	1756.2	1735.3	1808.7	1857.6	1777.8
47.5°	1552.5	1571.9	1582.0	1594.2	1620.1	1652.5	1670.5	1661.2	1675.6	1771.3	1707.9
50°	1456.0	1466.8	1487.0	1500.7	1517.9	1536.6	1579.8	1588.5	1568.3	1644.6	1630.9
52.5°	1364.6	1368.2	1381.9	1395.6	1418.6	1432.3	1466.8	1492.7	1491.3	1513.6	1545.3
55°	1293.4	1277.5	1280.4	1291.2	1306.3	1327.2	1346.6	1386.9	1400.6	1404.9	1455.3
57.5°	1010.5	1173.2	1187.6	1186.8	1204.8	1214.2	1232.2	1258.8	1307.8	1297.0	1353.1
60°	918.4	936.4	1072.4	1088.2	1094.7	1103.4	1125.0	1149.4	1185.4	1208.4	1232.9
62.5°	700.3	809.7	850.7	970.9	989.6	994.7	1009.1	1020.6	1058.0	1110.6	1100.5
65°	542.0	588.7	714.0	762.9	865.1	878.1	898.2	910.5	921.3	981.7	984.6
67.5°	468.5	475.7	509.6	603.9	668.6	768.7	780.9	791.7	808.3	851.5	878.1
70°	400.2	408.8	418.2	426.1	510.3	576.5	669.4	673.0	683.8	712.5	773.0
72.5°	75.6	341.9	347.6	352.7	362.0	405.9	494.5	566.4	570.8	584.4	639.8
75°	51.1	59.7	82.1	282.1	291.5	294.4	309.5	399.5	465.7	468.5	493.0
77.5°	36.7	41.0	49.7	59.0	150.4	226.0	229.6	246.2	314.5	364.2	368.5
80°	25.2	28.1	33.1	37.4	46.1	60.5	167.0	172.0	180.7	249.0	262.0
82.5°	14.4	16.6	19.4	23.8	27.4	34.5	44.6	57.6	117.3	125.2	166.3
85°	7.2	7.9	9.4	11.5	13.7	16.6	22.3	27.4	37.4	67.7	69.8
87.5°	3.6	3.6	3.6	3.6	5.8	6.5	7.9	10.1	13.0	19.4	25.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

TEST NUMBER: P1213002

CATALOG NUMBER: 2SNLED-LD5-43HL-RM-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	178°	179°	180°	181°	182°	183°	184°	185°	186°	187°	188°
0°	2398.2	2398.2	2398.2	2398.2	2398.2	2398.2	2398.2	2398.2	2398.2	2398.2	2398.2
2.5°	2391.0	2401.0	2409.7	2411.8	2411.8	2413.3	2415.4	2416.9	2418.3	2419.8	2418.3
5°	2386.7	2397.4	2404.6	2406.8	2406.8	2411.1	2414.7	2419.0	2421.2	2421.2	2419.8
7.5°	2375.9	2383.8	2393.1	2398.9	2399.6	2406.8	2413.3	2412.6	2415.4	2416.9	2420.5
10°	2361.5	2361.5	2377.3	2381.6	2385.2	2393.1	2395.3	2399.6	2409.7	2411.1	2420.5
12.5°	2354.3	2347.1	2365.8	2367.9	2380.2	2370.1	2383.1	2387.4	2377.3	2391.0	2373.0
15°	2321.9	2330.5	2327.6	2334.1	2355.7	2344.2	2379.5	2367.9	2393.8	2362.9	2417.6
17.5°	2295.2	2293.8	2305.3	2311.1	2315.4	2339.9	2349.2	2362.2	2372.3	2363.6	2385.2
20°	2275.8	2264.3	2272.9	2279.4	2294.5	2313.2	2319.0	2299.6	2333.4	2391.0	2404.6
22.5°	2239.1	2231.2	2241.3	2241.3	2264.3	2261.4	2283.0	2270.8	2302.4	2369.4	2439.2
25°	2189.4	2190.2	2201.0	2213.9	2218.2	2250.6	2262.1	2278.0	2317.6	2397.4	2439.9
27.5°	2139.1	2134.7	2141.2	2167.9	2190.2	2213.9	2217.5	2271.5	2325.5	2380.2	2417.6
30°	2088.7	2084.4	2088.7	2108.1	2134.7	2150.6	2190.2	2262.1	2312.5	2349.9	2385.2
32.5°	2034.7	2030.4	2040.5	2054.9	2101.6	2103.8	2182.2	2249.9	2289.5	2316.8	2310.4
35°	1977.1	1971.4	1980.7	2003.0	2046.2	2062.0	2144.1	2194.5	2239.1	2252.1	2221.8
37.5°	1908.0	1897.9	1909.5	1940.4	1985.8	2031.8	2100.2	2158.5	2182.2	2147.7	2111.7
40°	1836.1	1828.9	1849.0	1864.8	1918.1	1982.2	2060.6	2101.6	2086.5	2046.9	2007.3
42.5°	1772.0	1756.9	1774.9	1805.1	1865.6	1938.3	2001.6	2024.6	1988.6	1930.3	1884.3
45°	1693.5	1675.6	1697.1	1737.4	1802.2	1885.0	1934.7	1926.7	1865.6	1815.2	1751.8
47.5°	1611.5	1589.9	1611.5	1659.7	1732.4	1820.2	1856.2	1820.2	1743.2	1679.9	1628.8
50°	1530.9	1505.7	1526.6	1599.3	1670.5	1738.2	1737.4	1667.6	1621.6	1552.5	1507.9
52.5°	1451.0	1415.0	1435.9	1515.0	1586.3	1663.3	1606.5	1541.7	1486.3	1425.8	1411.4
55°	1352.4	1313.5	1341.6	1456.7	1511.4	1556.8	1466.1	1409.2	1354.5	1324.3	1306.3
57.5°	1258.8	1216.4	1240.8	1376.9	1417.2	1428.7	1345.2	1264.6	1232.2	1222.1	1196.2
60°	1162.4	1114.2	1137.2	1294.1	1322.2	1275.4	1193.3	1130.7	1124.2	1104.1	1083.9
62.5°	1070.3	1017.0	1031.4	1191.2	1204.1	1119.2	1043.6	1027.1	1011.2	991.1	980.3
65°	964.4	909.0	929.2	1081.8	1069.5	960.1	917.7	914.1	893.2	876.6	892.5
67.5°	867.3	801.8	829.9	962.3	906.9	817.6	800.3	791.7	775.2	784.5	618.3
70°	760.8	689.5	727.7	833.5	751.4	692.4	685.9	673.0	673.7	535.5	451.3
72.5°	642.0	580.1	635.5	692.4	594.5	577.2	567.9	566.4	457.0	371.4	350.5
75°	537.6	475.0	534.8	556.4	473.6	462.1	461.4	381.5	300.1	286.5	280.0
77.5°	419.6	371.4	428.2	395.9	363.5	350.5	314.5	236.1	226.0	216.6	81.3
80°	282.9	286.5	319.6	272.8	259.1	221.0	174.2	167.0	143.9	57.6	45.3
82.5°	172.0	215.9	203.7	170.6	167.0	120.2	110.1	56.1	41.7	33.1	28.8
85°	89.2	109.4	105.1	92.8	69.1	61.9	34.5	26.6	21.6	16.6	13.7
87.5°	30.2	40.3	38.9	30.9	23.8	18.7	12.2	10.1	7.2	5.8	5.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

TEST NUMBER: P1213002

CATALOG NUMBER: 2SNLED-LD5-43HL-RM-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	189°	190°	191°	192°	193°	194°	195°	196°	197°	198°	199°
0°	2398.2	2398.2	2398.2	2398.2	2398.2	2398.2	2398.2	2398.2	2398.2	2398.2	2398.2
2.5°	2416.9	2416.9	2415.4	2416.9	2417.6	2416.2	2416.2	2417.6	2418.3	2419.0	2422.6
5°	2420.5	2421.9	2424.1	2428.4	2429.1	2437.8	2441.4	2443.5	2445.7	2446.4	2441.4
7.5°	2428.4	2433.4	2437.8	2437.0	2432.0	2418.3	2414.0	2410.4	2416.9	2433.4	2452.9
10°	2435.6	2412.6	2369.4	2428.4	2410.4	2427.0	2475.9	2486.7	2519.8	2566.6	2580.3
12.5°	2385.9	2449.3	2462.9	2396.7	2519.1	2473.7	2527.7	2575.2	2588.9	2636.4	2607.6
15°	2439.2	2470.1	2491.0	2557.2	2550.0	2588.9	2604.0	2594.7	2596.8	2609.1	2641.4
17.5°	2438.5	2500.4	2514.0	2558.7	2588.9	2589.6	2585.3	2581.0	2592.5	2601.9	2582.4
20°	2480.2	2500.4	2527.0	2545.0	2550.8	2557.9	2571.6	2560.8	2539.2	2518.4	2509.7
22.5°	2459.3	2504.7	2527.7	2530.6	2527.0	2504.7	2484.5	2454.3	2444.2	2433.4	2437.0
25°	2463.7	2484.5	2481.7	2470.1	2455.0	2413.3	2403.2	2390.2	2370.8	2324.0	2281.6
27.5°	2432.7	2421.9	2409.0	2380.9	2353.5	2331.2	2306.0	2264.3	2229.7	2179.4	2160.7
30°	2380.9	2337.7	2306.0	2289.5	2262.9	2225.4	2187.3	2136.2	2092.3	2082.2	2072.8
32.5°	2281.6	2239.1	2213.2	2172.9	2127.5	2082.9	2039.0	2018.9	2009.5	2010.9	2002.3
35°	2180.1	2142.7	2103.8	2043.3	2009.5	1964.9	1949.1	1944.7	1936.1	1926.7	1916.7
37.5°	2072.1	2028.2	1969.9	1933.9	1900.1	1882.1	1874.2	1867.7	1852.6	1836.1	1824.5
40°	1967.8	1888.6	1856.2	1820.9	1810.9	1802.9	1791.4	1775.6	1754.7	1751.8	1746.8
42.5°	1828.1	1771.3	1743.2	1736.0	1723.8	1710.1	1700.0	1682.7	1674.1	1679.9	1684.2
45°	1695.7	1666.9	1657.6	1648.9	1625.9	1606.5	1600.0	1594.2	1601.4	1633.1	1557.5
47.5°	1588.5	1576.9	1565.4	1551.0	1529.4	1515.0	1521.5	1527.3	1533.8	1301.3	1187.6
50°	1495.6	1479.8	1461.8	1446.0	1433.0	1431.6	1465.4	1363.9	1142.2	1136.5	1021.3
52.5°	1394.1	1370.4	1359.6	1350.2	1356.0	1377.6	1140.1	1058.0	1014.8	881.7	822.7
55°	1284.7	1263.9	1263.9	1272.5	1241.5	1006.2	994.0	859.4	778.0	755.0	745.6
57.5°	1175.3	1173.2	1185.4	1083.9	913.3	875.9	736.3	706.8	693.8	690.9	675.8
60°	1075.3	1095.4	916.9	843.5	733.4	661.4	641.3	637.7	624.0	619.0	605.3
62.5°	995.4	825.5	768.7	627.6	590.9	581.5	570.8	565.7	553.5	488.7	143.2
65°	719.0	679.4	551.3	527.6	524.7	511.0	506.7	455.6	107.2	72.0	61.2
67.5°	542.7	481.5	465.0	460.6	447.0	419.6	124.5	71.3	61.2	53.3	46.8
70°	416.7	405.9	393.7	383.6	113.0	70.5	61.2	51.8	44.6	39.6	36.0
72.5°	341.2	334.0	194.3	74.1	60.5	51.1	45.3	39.6	34.5	31.7	28.8
75°	267.0	74.1	61.2	51.1	43.9	37.4	33.1	29.5	26.6	24.5	22.3
77.5°	60.5	48.9	41.7	35.3	31.7	28.1	25.2	21.6	19.4	17.3	14.4
80°	37.4	32.4	27.4	25.2	21.6	18.0	15.8	14.4	11.5	10.8	9.4
82.5°	24.5	19.4	17.3	14.4	11.5	10.8	9.4	7.2	6.5	5.8	5.0
85°	10.8	9.4	7.9	6.5	5.0	4.3	3.6	2.9	2.9	2.9	2.9
87.5°	3.6	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	1.4	1.4
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

TEST NUMBER: P1213002

CATALOG NUMBER: 2SNLED-LD5-43HL-RM-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	200°	205°	210°	215°	220°	225°	230°	235°	240°	245°	250°
0°	2398.2	2398.2	2398.2	2398.2	2398.2	2398.2	2398.2	2398.2	2398.2	2398.2	2398.2
2.5°	2424.1	2437.0	2449.3	2445.7	2432.7	2412.6	2406.8	2398.9	2404.6	2416.9	2421.9
5°	2441.4	2434.2	2460.1	2498.2	2560.1	2565.9	2609.1	2619.1	2653.7	2675.3	2674.5
7.5°	2465.8	2568.0	2610.5	2656.6	2677.4	2672.4	2678.9	2673.8	2665.9	2662.3	2658.0
10°	2590.3	2668.1	2683.9	2683.9	2651.5	2607.6	2588.9	2556.5	2491.7	2493.2	2482.4
12.5°	2663.0	2690.4	2653.0	2621.3	2491.0	2440.6	2385.9	2360.0	2344.9	2321.9	2330.5
15°	2624.9	2586.0	2563.7	2461.5	2381.6	2290.9	2292.4	2276.5	2260.0	2261.4	2250.6
17.5°	2568.7	2537.8	2379.5	2308.9	2270.1	2234.8	2228.3	2207.4	2196.6	2193.0	2192.3
20°	2491.7	2380.2	2262.1	2244.9	2198.1	2157.8	2151.3	2157.8	2190.9	2131.9	1931.8
22.5°	2401.8	2241.3	2206.7	2157.8	2126.1	2110.3	2149.9	1969.9	1697.9	1731.0	1695.7
25°	2249.2	2179.4	2120.3	2082.9	2079.3	1982.2	1651.8	1617.3	1442.4	1348.8	1243.7
27.5°	2137.6	2107.4	2045.5	2039.0	1992.2	1620.9	1448.8	1258.8	1189.0	1178.2	1155.2
30°	2070.0	2026.8	1989.4	1826.0	1589.9	1304.9	1162.4	1135.7	1123.5	1110.6	1090.4
32.5°	1988.6	1947.6	1965.6	1535.2	1267.5	1123.5	1094.7	1075.3	1053.0	1044.3	971.6
35°	1905.9	1887.2	1535.9	1290.5	1089.7	1055.1	1033.5	1013.4	806.1	195.0	66.2
37.5°	1817.3	1813.0	1380.5	1071.0	1020.6	988.2	927.0	191.5	45.3	30.9	23.0
40°	1748.2	1381.2	1091.1	1004.0	963.0	911.9	128.1	31.7	20.2	12.2	7.9
42.5°	1702.2	1242.3	976.7	942.1	852.9	94.3	32.4	13.7	7.9	6.5	5.0
45°	1312.1	981.0	912.6	876.6	108.0	32.4	18.7	6.5	5.0	4.3	2.9
47.5°	1210.6	891.0	850.7	191.5	36.0	17.3	13.0	4.3	2.9	2.9	2.9
50°	916.9	823.4	677.3	46.8	23.0	12.2	9.4	2.9	2.9	2.9	2.2
52.5°	803.9	760.0	72.7	30.9	18.0	9.4	5.8	2.2	2.2	2.2	2.2
55°	734.9	482.2	43.2	23.8	15.1	8.6	3.6	2.2	2.2	2.2	1.4
57.5°	672.2	64.8	31.7	20.2	13.7	7.9	2.2	2.2	2.2	2.2	1.4
60°	570.0	46.8	25.9	18.0	13.0	7.2	2.2	2.2	2.2	2.2	2.2
62.5°	74.1	36.7	22.3	15.8	9.4	5.8	1.4	2.2	2.2	2.2	2.2
65°	54.0	28.8	20.2	10.8	5.8	2.2	1.4	2.2	2.2	2.2	2.2
67.5°	41.7	23.8	15.1	9.4	5.0	1.4	1.4	2.2	2.2	2.2	2.2
70°	33.1	20.2	12.2	7.9	4.3	1.4	1.4	2.2	2.2	2.2	2.2
72.5°	25.9	14.4	8.6	4.3	2.9	1.4	1.4	2.2	2.2	2.2	2.2
75°	19.4	11.5	6.5	3.6	1.4	1.4	1.4	2.2	2.2	2.2	2.2
77.5°	13.0	7.2	5.0	2.9	2.9	2.9	3.6	3.6	2.2	2.2	2.2
80°	8.6	5.0	3.6	3.6	3.6	2.9	3.6	3.6	2.2	3.6	2.2
82.5°	4.3	3.6	3.6	2.9	2.9	2.2	2.9	2.9	2.9	2.9	2.2
85°	2.9	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.9	2.9	2.2
87.5°	1.4	1.4	1.4	1.4	2.2	2.2	2.2	2.2	2.9	2.9	2.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

TEST NUMBER: P1213002

CATALOG NUMBER: 2SNLED-LD5-43HL-RM-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	255°	260°	265°	270°	275°	280°	285°	290°	295°	300°	305°
0°	2398.2	2398.2	2398.2	2398.2	2398.2	2398.2	2398.2	2398.2	2398.2	2398.2	2398.2
2.5°	2415.4	2417.6	2411.8	2442.8	2427.0	2428.4	2434.9	2418.3	2421.9	2410.4	2402.5
5°	2677.4	2681.7	2686.1	2687.5	2690.4	2694.0	2689.7	2687.5	2683.2	2668.8	2653.7
7.5°	2636.4	2631.4	2629.2	2632.1	2637.1	2639.3	2635.7	2640.7	2659.4	2667.3	2672.4
10°	2420.5	2397.4	2413.3	2411.1	2393.1	2453.6	2437.0	2446.4	2452.9	2519.1	2559.4
12.5°	2317.6	2332.0	2304.6	2290.9	2308.9	2321.2	2333.4	2307.5	2343.5	2326.9	2380.2
15°	2231.2	2222.6	2219.7	2220.4	2216.8	2234.1	2238.4	2244.1	2249.2	2271.5	2280.1
17.5°	2192.3	2206.7	2212.5	2216.8	2209.6	2201.7	2193.8	2182.2	2185.8	2180.1	2196.6
20°	1797.2	1749.0	1746.1	1774.2	1743.2	1760.5	1802.2	2081.5	2072.1	2180.8	2144.1
22.5°	1499.9	1454.6	1415.7	1381.9	1430.1	1450.3	1528.0	1615.8	1758.3	1736.0	1890.8
25°	1225.0	1208.4	1198.4	1193.3	1196.9	1195.5	1212.8	1253.8	1318.6	1471.1	1668.4
27.5°	1145.8	1137.9	1134.3	1122.8	1131.4	1128.5	1142.2	1150.9	1170.3	1185.4	1249.5
30°	1083.2	1073.8	1067.4	1055.1	1063.8	1064.5	1068.8	1091.1	1099.0	1112.0	1132.1
32.5°	395.9	233.2	218.8	208.0	227.4	296.5	520.4	909.7	1037.9	1047.9	1071.0
35°	38.9	32.4	28.8	28.8	29.5	32.4	43.2	113.7	208.0	803.9	1006.2
37.5°	15.1	13.0	10.8	10.1	10.8	12.2	16.6	21.6	29.5	61.2	272.8
40°	6.5	5.8	5.0	5.0	5.0	5.0	5.8	7.2	10.8	20.2	31.7
42.5°	4.3	3.6	3.6	3.6	3.6	3.6	3.6	3.6	5.0	6.5	13.0
45°	2.9	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.9	3.6	5.8
47.5°	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.9
50°	2.2	2.2	2.2	2.2	1.4	2.2	1.4	2.2	2.2	2.2	2.2
52.5°	2.2	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	2.2	2.2
55°	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	2.2
57.5°	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
60°	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
62.5°	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	2.2	2.2	1.4
65°	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	2.2	1.4
67.5°	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
70°	2.2	2.2	1.4	2.2	1.4	1.4	2.2	2.2	2.2	1.4	1.4
72.5°	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	4.3	4.3	2.9
75°	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	3.6	4.3	3.6
77.5°	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	3.6	3.6	3.6
80°	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.9	2.9	2.9
82.5°	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.9	2.9	2.9
85°	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
87.5°	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

TEST NUMBER: P1213002

CATALOG NUMBER: 2SNLED-LD5-43HL-RM-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	310°	315°	320°	325°	330°	335°	340°	341°	342°	343°	344°
0°	2398.2	2398.2	2398.2	2398.2	2398.2	2398.2	2398.2	2398.2	2398.2	2398.2	2398.2
2.5°	2388.8	2388.1	2403.2	2414.7	2410.4	2414.7	2419.8	2420.5	2421.9	2416.2	2414.0
5°	2624.9	2602.6	2559.4	2528.4	2492.5	2427.0	2394.6	2398.2	2398.9	2396.7	2399.6
7.5°	2670.2	2668.1	2653.0	2646.5	2622.0	2575.2	2500.4	2487.4	2455.7	2435.6	2419.0
10°	2556.5	2608.3	2622.0	2645.0	2659.4	2650.8	2587.5	2578.1	2557.9	2534.9	2540.0
12.5°	2433.4	2475.9	2478.1	2603.3	2631.4	2634.2	2609.8	2622.7	2625.6	2573.8	2543.6
15°	2282.3	2302.4	2344.9	2461.5	2546.4	2599.7	2615.5	2622.7	2587.5	2585.3	2573.1
17.5°	2216.1	2229.0	2248.5	2314.0	2442.8	2521.2	2588.2	2583.1	2596.8	2586.7	2555.8
20°	2132.6	2143.4	2177.9	2211.0	2274.4	2378.7	2504.0	2513.3	2531.3	2529.2	2537.8
22.5°	2131.1	2093.0	2098.8	2124.7	2190.9	2284.4	2417.6	2448.5	2460.1	2468.0	2477.3
25°	1690.7	1993.7	2049.1	2065.6	2108.8	2163.5	2320.4	2332.0	2353.5	2388.8	2414.7
27.5°	1464.7	1670.5	1892.2	2007.3	2034.7	2080.0	2173.6	2190.9	2264.3	2272.9	2313.2
30°	1155.9	1315.0	1646.0	1923.1	1968.5	2000.2	2066.4	2100.9	2132.6	2167.1	2209.6
32.5°	1087.5	1112.7	1296.2	1591.3	1944.0	1920.3	1969.2	1990.1	2024.6	2054.9	2085.8
35°	1024.9	1042.2	1081.0	1303.4	1583.4	1854.8	1887.9	1901.5	1921.0	1944.0	1966.3
37.5°	959.4	985.3	1012.0	1071.7	1464.7	1802.9	1802.2	1818.1	1829.6	1849.0	1867.7
40°	174.2	904.7	947.9	986.8	1135.7	1438.0	1721.6	1728.8	1736.7	1749.0	1768.4
42.5°	28.1	151.1	888.2	925.6	968.0	1287.6	1684.9	1655.4	1650.4	1659.0	1676.3
45°	14.4	36.7	178.5	864.4	902.6	1027.1	1377.6	1604.3	1599.3	1582.7	1586.3
47.5°	10.8	23.0	43.9	298.7	845.0	881.7	1271.1	1257.4	1353.1	1536.6	1508.6
50°	9.4	15.8	25.9	61.2	746.4	811.9	978.8	1143.7	1194.0	1200.5	1420.8
52.5°	8.6	10.8	18.7	39.6	156.9	750.7	796.0	853.6	938.5	1120.6	1116.3
55°	7.9	10.1	15.8	26.6	54.7	676.6	723.3	734.1	752.1	839.2	954.4
57.5°	4.3	9.4	15.1	23.0	41.0	123.8	656.4	665.0	679.4	683.0	724.1
60°	2.2	8.6	13.7	20.2	30.2	57.6	590.2	600.3	608.9	610.3	623.3
62.5°	1.4	7.9	11.5	18.7	25.2	41.0	139.6	285.0	542.0	542.0	557.1
65°	1.4	5.8	7.2	12.2	23.0	33.8	59.0	68.4	133.2	327.5	488.7
67.5°	1.4	2.2	6.5	10.1	17.3	25.9	43.2	50.4	60.5	69.1	128.1
70°	1.4	1.4	5.8	6.5	10.8	19.4	30.9	35.3	41.0	46.8	54.0
72.5°	1.4	1.4	5.0	5.0	7.2	13.0	23.8	25.9	29.5	33.1	38.1
75°	3.6	2.9	4.3	4.3	5.0	10.1	18.0	20.2	21.6	24.5	28.1
77.5°	3.6	3.6	3.6	3.6	3.6	6.5	11.5	13.0	15.1	16.6	19.4
80°	2.9	2.9	2.9	3.6	3.6	4.3	7.2	7.9	8.6	10.8	11.5
82.5°	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	4.3	5.0	6.5
85°	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.9	2.9	2.9	2.9
87.5°	2.2	2.2	2.2	1.4	1.4	2.2	2.2	2.2	2.2	2.2	2.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

TEST NUMBER: P1213002

CATALOG NUMBER: 2SNLED-LD5-43HL-RM-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	345°	346°	347°	348°	349°	350°	351°	352°	353°	354°	355°
0°	2398.2	2398.2	2398.2	2398.2	2398.2	2398.2	2398.2	2398.2	2398.2	2398.2	2398.2
2.5°	2413.3	2409.0	2405.4	2407.5	2401.0	2398.2	2400.3	2401.0	2402.5	2406.1	2406.8
5°	2406.8	2405.4	2411.8	2415.4	2414.0	2415.4	2415.4	2412.6	2408.2	2411.1	2404.6
7.5°	2402.5	2393.1	2385.9	2387.4	2380.2	2388.8	2396.7	2408.2	2411.8	2411.8	2404.6
10°	2476.6	2466.5	2426.2	2398.9	2380.9	2365.1	2402.5	2364.3	2382.3	2314.0	2392.4
12.5°	2537.8	2551.5	2533.5	2458.6	2445.7	2398.2	2425.5	2378.7	2365.1	2286.6	2311.8
15°	2562.3	2536.4	2530.6	2509.7	2481.7	2468.0	2394.6	2386.7	2364.3	2373.0	2339.9
17.5°	2540.7	2553.6	2536.4	2522.7	2493.9	2461.5	2417.6	2378.7	2347.8	2278.7	2337.0
20°	2519.8	2537.1	2485.3	2493.9	2496.8	2459.3	2436.3	2403.9	2365.1	2300.3	2249.9
22.5°	2485.3	2473.0	2477.3	2464.4	2453.6	2458.6	2427.0	2404.6	2339.1	2309.6	2241.3
25°	2429.1	2424.8	2436.3	2434.9	2409.0	2400.3	2384.5	2360.7	2334.8	2287.3	2231.2
27.5°	2337.7	2360.0	2380.2	2389.5	2375.9	2352.8	2344.2	2330.5	2312.5	2264.3	2222.6
30°	2241.3	2266.5	2289.5	2309.6	2321.9	2311.8	2303.9	2296.0	2268.6	2236.9	2190.2
32.5°	2131.1	2164.3	2195.9	2220.4	2247.0	2254.9	2249.2	2242.7	2219.7	2190.9	2153.5
35°	2003.8	2049.1	2095.2	2139.1	2150.6	2169.3	2188.0	2177.2	2165.0	2136.2	2101.6
37.5°	1895.8	1928.2	1961.3	2016.7	2057.0	2080.8	2113.9	2118.2	2097.3	2083.6	2038.3
40°	1784.2	1813.7	1862.0	1894.4	1949.8	1977.1	2012.4	2028.2	2023.2	2015.3	1975.7
42.5°	1696.4	1710.8	1742.5	1771.3	1826.0	1882.1	1913.1	1930.3	1948.3	1941.9	1921.7
45°	1602.9	1615.8	1626.6	1651.8	1705.1	1754.7	1792.9	1818.8	1851.2	1866.3	1841.8
47.5°	1510.0	1513.6	1526.6	1547.4	1579.1	1617.3	1681.3	1720.2	1750.4	1779.9	1764.1
50°	1438.8	1425.8	1428.0	1440.9	1466.8	1504.3	1550.3	1605.0	1639.6	1675.6	1679.1
52.5°	1257.4	1362.5	1337.3	1344.5	1358.1	1376.1	1424.4	1478.3	1520.8	1551.8	1582.7
55°	1055.1	1076.0	1278.3	1249.5	1258.1	1273.9	1296.2	1350.2	1391.3	1434.4	1477.6
57.5°	818.3	973.8	981.7	1168.9	1164.5	1166.0	1184.7	1215.6	1256.7	1310.6	1347.3
60°	636.2	701.7	829.1	893.9	1058.0	1063.8	1074.6	1092.6	1127.8	1178.9	1237.2
62.5°	561.4	570.0	615.4	712.5	819.1	947.9	970.9	973.8	989.6	1040.7	1108.4
65°	493.0	498.8	512.5	522.5	611.8	736.3	847.1	865.1	875.2	905.4	963.0
67.5°	339.7	429.7	441.9	449.1	457.8	515.3	652.8	744.2	755.7	782.4	832.7
70°	65.5	136.0	372.1	380.0	384.3	397.3	419.6	565.0	641.3	666.5	689.5
72.5°	44.6	52.5	63.3	149.7	316.7	323.9	328.9	347.6	476.5	549.9	562.1
75°	32.4	36.0	42.5	52.5	64.8	210.9	261.3	270.6	280.0	386.5	448.4
77.5°	23.0	25.9	28.8	33.8	39.6	51.1	73.4	202.2	211.6	216.6	305.9
80°	13.0	15.8	19.4	22.3	25.2	28.8	37.4	46.8	104.4	152.6	160.5
82.5°	7.2	8.6	10.1	12.2	13.7	17.3	20.9	25.2	33.1	48.9	103.6
85°	3.6	3.6	3.6	5.0	5.8	7.9	9.4	10.8	15.1	20.9	28.8
87.5°	2.2	2.2	2.9	2.9	2.9	3.6	3.6	3.6	4.3	6.5	9.4
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

TEST NUMBER: P1213002

CATALOG NUMBER: 2SNLED-LD5-43HL-RM-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	356°	357°	358°	359°	360°
0°	2398.2	2398.2	2398.2	2398.2	2398.2
2.5°	2407.5	2405.4	2405.4	2414.0	2411.8
5°	2403.2	2401.0	2400.3	2409.7	2405.4
7.5°	2399.6	2391.7	2389.5	2398.2	2394.6
10°	2385.2	2379.5	2383.1	2380.2	2378.7
12.5°	2360.7	2357.1	2342.0	2343.5	2355.7
15°	2316.8	2331.2	2305.3	2328.4	2333.4
17.5°	2236.2	2268.6	2293.8	2307.5	2309.6
20°	2272.2	2283.0	2270.1	2270.8	2279.4
22.5°	2225.4	2230.5	2234.1	2229.7	2248.5
25°	2150.6	2131.1	2172.9	2181.5	2211.8
27.5°	2127.5	2111.7	2131.1	2129.7	2154.9
30°	2108.8	2057.7	2066.4	2080.0	2111.0
32.5°	2082.2	2001.6	1993.0	2023.2	2057.7
35°	2035.4	1959.1	1939.0	1958.4	2010.2
37.5°	1995.8	1900.1	1859.8	1885.7	1953.4
40°	1936.8	1854.0	1791.4	1814.5	1894.4
42.5°	1866.3	1814.5	1718.0	1733.8	1825.3
45°	1795.0	1749.0	1646.8	1654.7	1763.4
47.5°	1722.3	1679.9	1572.6	1574.1	1684.2
50°	1651.1	1594.9	1506.4	1481.2	1600.0
52.5°	1558.2	1506.4	1439.5	1398.5	1520.1
55°	1470.4	1412.1	1363.2	1299.8	1429.4
57.5°	1384.8	1320.0	1286.9	1205.6	1326.5
60°	1267.5	1236.5	1187.6	1109.8	1233.6
62.5°	1147.3	1137.2	1087.5	1006.9	1119.2
65°	1006.9	1030.7	979.6	910.5	1000.4
67.5°	874.5	916.9	860.8	818.3	886.0
70°	733.4	782.4	750.7	735.6	764.4
72.5°	594.5	642.0	644.9	634.1	643.4
75°	459.2	511.7	540.5	524.0	526.1
77.5°	348.4	373.5	405.2	418.2	415.3
80°	215.2	259.1	285.0	311.6	302.3
82.5°	108.7	145.4	177.1	205.8	192.2
85°	45.3	58.3	81.3	107.2	102.9
87.5°	13.7	23.0	24.5	34.5	32.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)