

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: P1213467

Luminaire Tested: 4SNLED-LD5-54SL-RW-UNV-L935-CD1-U

Issue Date: 3/29/2018

Test Information

Test Method: LM-79-2019
Report Number: P1213467
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P33525)
Test Lab: INNOVATIONS CENTER-P3
Issue Date: 3/29/2018
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: METALUX
Catalog Number: 4SNLED-LD5-54SL-RW-UNV-L935-CD1-U
Description: 4FT LINEAR SNLED LED FIXTURE
WHITE REFLECTOR
Light Source: -
Ballast/Driver: -

Summary

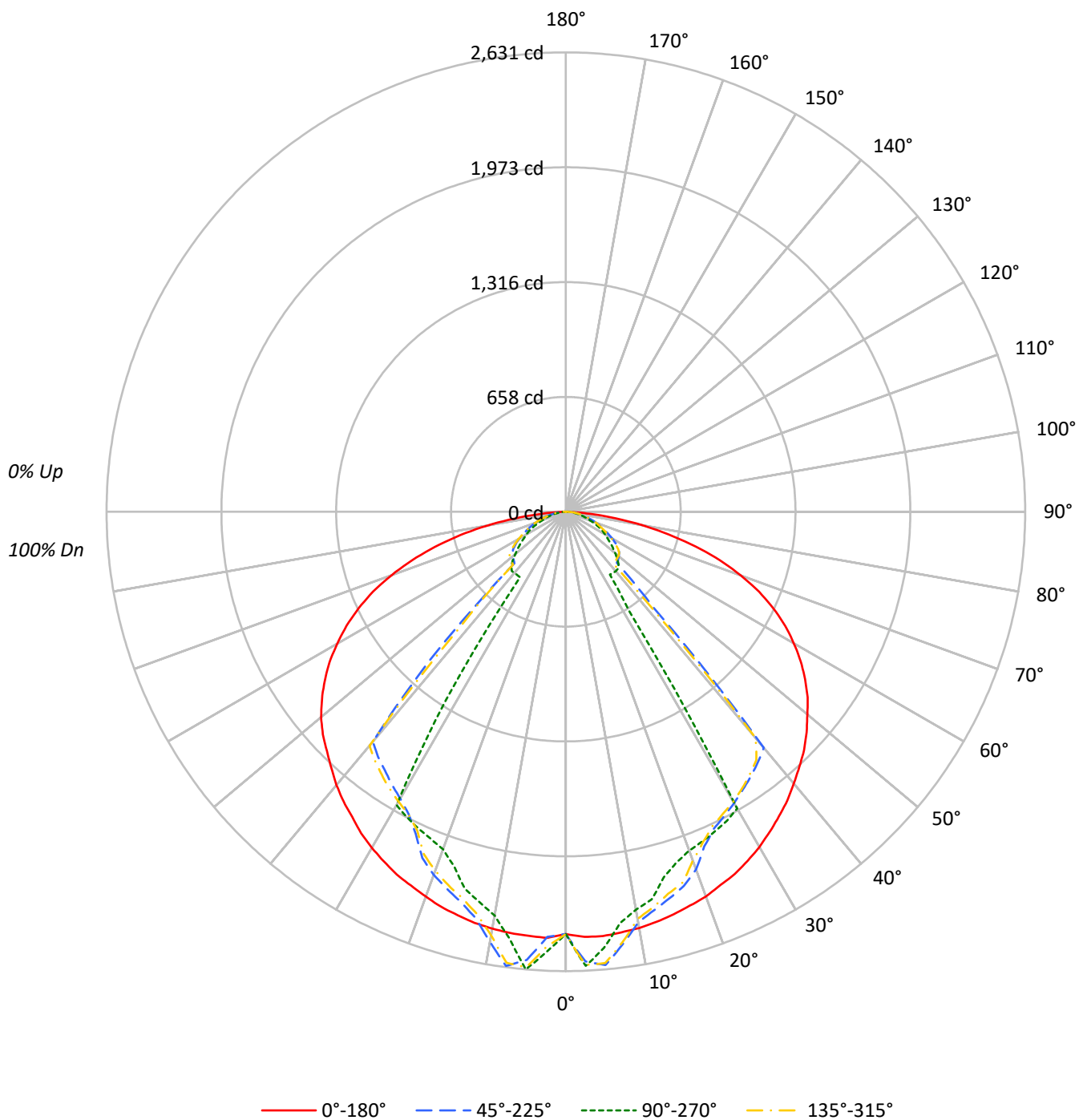
Lumens per Lamp: N/A
Luminaire Lumens: 4843.0 lumens
Efficiency: N/A
Efficacy: 105.3 lumens/watt
Spacing Criteria (0/90/45): 1.36 / 1.16 / 1.2
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.12')
CIE Type: Direct

Input Watts (W): 46
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: P1213467

CATALOG NUMBER: 4SNLED-LD5-54SL-RW-UNV-L935-CD1-U

Luminous Intensity Polar Plot



TEST NUMBER: P1213467

CATALOG NUMBER: 4SNLED-LD5-54SL-RW-UNV-L935-CD1-U

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	110	106	102	99	108	104	101	98	100	97	94		96	94	92		92	91	89	87
2	102	94	88	83	99	93	87	82	89	85	81		86	82	79		83	80	77	75
3	94	84	77	72	91	83	76	71	80	74	70		77	73	69		75	71	67	65
4	87	76	68	62	85	75	67	62	72	66	61		70	65	60		68	63	59	57
5	81	69	61	55	79	68	60	55	66	59	54		64	58	53		62	57	53	51
6	75	63	55	49	73	62	54	49	60	53	48		59	53	48		57	52	47	46
7	70	58	50	44	68	57	49	44	55	48	43		54	48	43		53	47	43	41
8	66	53	45	40	64	52	45	40	51	44	39		50	44	39		49	43	39	37
9	62	49	41	36	60	48	41	36	47	41	36		46	40	36		45	40	36	34
10	58	46	38	33	57	45	38	33	44	38	33		43	37	33		42	37	33	31

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	19544	19544	19544	19544
5°	19735	19691	19726	20666
10°	19755	17803	19782	18075
15°	19798	16472	19845	16994
20°	19942	15623	19942	15564
25°	20115	15324	20144	15181
30°	20318	15054	20369	14876
35°	20555	3429	20597	3576
40°	20884	3566	21009	3681
45°	21385	3546	21458	3674
50°	21883	3206	22179	3293
55°	22557	2846	22736	2887
60°	23129	2530	23179	2562
65°	23537	2208	23477	2172
70°	23202	1780	23128	1714
75°	21539	1369	21695	1312
80°	17481	973	18184	891
85°	9462	584	9995	447

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 357.5°

Vertical Angle: 60°

Luminance: 23699 cd/sqm

TEST NUMBER: P1213467

CATALOG NUMBER: 4SNLED-LD5-54SL-RW-UNV-L935-CD1-U

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	238.0	4.9
10°-20°	654.2	13.5
20°-30°	969.1	20.0
30°-40°	976.4	20.2
40°-50°	762.7	15.7
50°-60°	589.2	12.2
60°-70°	395.6	8.2
70°-80°	201.8	4.2
80°-90°	56.1	1.2
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°	1861.3	38.4
0°-40°	2837.7	58.6
0°-60°	4189.5	86.5
0°-90°	4843.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4843.0	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	2418	2418	2418	2418	2418	
5°	2440	2507	2438	2631	2440	232
15°	2386	2167	2392	2236	2386	675
25°	2289	2020	2292	2001	2289	1056
35°	2129	439	2134	458	2129	1334
45°	1930	427	1936	442	1930	1488
55°	1672	310	1686	315	1672	1494
65°	1313	208	1310	205	1313	1292
75°	770	105	776	101	770	806
85°	138	33	146	26	138	191
90°	0	0	0	0	0	

TEST NUMBER: P1213467

CATALOG NUMBER: 4SNLED-LD5-54SL-RW-UNV-L935-CD1-U

CANDELA DISTRIBUTION (FULL):

	0°	2.5°	5°	7.5°	10°	12.5°	15°	17.5°	20°	22.5°	25°
0°	2418.5	2418.5	2418.5	2418.5	2418.5	2418.5	2418.5	2418.5	2418.5	2418.5	2418.5
2.5°	2437.3	2446.2	2452.8	2457.3	2459.5	2459.5	2460.6	2461.7	2476.1	2482.8	2487.2
5°	2439.5	2448.4	2461.7	2479.4	2494.9	2508.2	2519.3	2534.8	2550.4	2567.0	2572.5
7.5°	2429.6	2440.6	2467.2	2499.4	2529.3	2550.4	2564.8	2574.8	2582.5	2583.6	2589.2
10°	2420.7	2440.6	2477.2	2519.3	2557.0	2582.5	2582.5	2577.0	2584.7	2554.8	2524.9
12.5°	2405.2	2427.3	2477.2	2532.6	2568.1	2578.1	2573.6	2551.5	2506.0	2469.5	2452.8
15°	2386.3	2416.3	2478.3	2540.4	2570.3	2573.6	2531.5	2475.0	2440.6	2418.5	2390.8
17.5°	2365.3	2405.2	2479.4	2541.5	2552.6	2537.1	2457.3	2421.8	2386.3	2334.2	2296.5
20°	2345.3	2384.1	2470.6	2526.0	2532.6	2462.8	2400.7	2363.1	2303.2	2257.8	2241.1
22.5°	2314.3	2359.7	2462.8	2504.9	2479.4	2398.5	2338.7	2278.8	2224.5	2211.2	2191.3
25°	2288.8	2336.4	2445.1	2479.4	2411.8	2339.8	2269.9	2200.1	2174.6	2155.8	2138.1
27.5°	2254.4	2313.2	2421.8	2432.9	2339.8	2276.6	2174.6	2143.6	2120.3	2099.3	2091.5
30°	2216.7	2288.8	2389.7	2368.6	2279.9	2186.8	2111.5	2082.6	2066.0	2043.8	2035.0
32.5°	2173.5	2252.2	2354.2	2294.3	2215.6	2099.3	2050.5	2028.3	2006.2	1989.5	1934.1
35°	2129.2	2220.1	2312.1	2223.4	2138.1	2032.8	1989.5	1969.6	1948.5	1887.6	1829.9
37.5°	2083.7	2184.6	2261.1	2146.9	2035.0	1964.0	1927.5	1905.3	1857.6	1780.0	1751.2
40°	2031.6	2141.4	2195.7	2068.2	1945.2	1894.2	1859.8	1837.7	1730.2	1695.8	1686.9
42.5°	1979.6	2099.3	2115.9	1991.7	1870.9	1819.9	1791.1	1718.0	1644.8	1627.1	1630.4
45°	1929.7	2053.8	2028.3	1883.1	1793.3	1751.2	1702.5	1601.6	1562.8	1571.7	1573.9
47.5°	1869.8	1999.5	1936.3	1774.5	1713.5	1671.4	1562.8	1501.8	1496.3	1508.5	1515.1
50°	1805.5	1938.5	1838.8	1675.9	1627.1	1577.2	1454.2	1423.2	1429.8	1442.0	1449.8
52.5°	1745.7	1869.8	1737.9	1583.9	1541.7	1427.6	1344.5	1350.0	1361.1	1375.5	1379.9
55°	1672.5	1786.7	1630.4	1490.8	1450.9	1301.2	1263.5	1276.8	1287.9	1300.1	1309.0
57.5°	1596.1	1691.4	1503.0	1386.6	1322.3	1189.3	1192.6	1201.5	1209.2	1223.6	505.4
60°	1508.5	1582.8	1363.3	1290.1	1162.7	1100.6	1103.9	1119.5	1127.2	629.6	348.0
62.5°	1417.6	1456.4	1236.9	1180.4	1016.4	1011.9	1027.5	1034.1	703.8	332.5	325.9
65°	1313.4	1305.7	1112.8	1023.0	916.6	921.1	937.7	904.4	311.5	311.5	309.2
67.5°	1198.2	1151.6	992.0	846.8	820.2	830.2	847.9	295.9	288.2	290.4	282.6
70°	1066.3	1000.9	866.7	717.1	726.0	736.0	286.0	268.2	264.9	259.4	243.8
72.5°	926.6	836.8	709.4	622.9	628.4	394.6	250.5	241.6	230.5	219.5	202.8
75°	770.3	653.9	520.9	520.9	528.7	225.0	218.3	203.9	191.7	177.3	167.4
77.5°	604.1	503.2	404.6	420.1	205.0	188.4	176.2	160.7	150.7	141.9	136.3
80°	442.2	351.4	304.8	272.7	159.6	143.0	130.8	121.9	117.5	111.9	105.3
82.5°	290.4	211.7	211.7	128.6	111.9	98.6	95.3	88.7	84.2	80.9	77.6
85°	138.5	123.0	93.1	78.7	69.8	63.2	61.0	57.6	57.6	56.5	55.4
87.5°	51.0	55.4	41.0	39.9	37.7	36.6	37.7	37.7	38.8	37.7	36.6
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: P1213467

CATALOG NUMBER: 4SNLED-LD5-54SL-RW-UNV-L935-CD1-U

CANDELA DISTRIBUTION (continued):

	27.5°	30°	32.5°	35°	37.5°	40°	42.5°	45°	47.5°	50°	52.5°
0°	2418.5	2418.5	2418.5	2418.5	2418.5	2418.5	2418.5	2418.5	2418.5	2418.5	2418.5
2.5°	2498.3	2507.1	2513.8	2524.9	2539.3	2551.5	2562.6	2578.1	2602.5	2609.1	2614.7
5°	2572.5	2575.9	2583.6	2592.5	2594.7	2600.2	2599.1	2605.8	2609.1	2616.9	2600.2
7.5°	2577.0	2559.2	2538.2	2519.3	2506.0	2493.8	2486.1	2498.3	2504.9	2510.5	2493.8
10°	2483.9	2462.8	2450.6	2439.5	2426.2	2407.4	2381.9	2387.4	2385.2	2385.2	2379.7
12.5°	2425.1	2395.2	2364.2	2336.4	2324.3	2323.1	2324.3	2336.4	2336.4	2335.3	2328.7
15°	2333.1	2304.3	2288.8	2282.1	2282.1	2278.8	2278.8	2292.1	2288.8	2288.8	2285.5
17.5°	2272.2	2252.2	2241.1	2233.4	2230.0	2235.6	2242.2	2247.8	2248.9	2244.5	2226.7
20°	2222.3	2203.4	2190.1	2192.4	2191.3	2194.6	2197.9	2179.1	2155.8	2124.8	2110.3
22.5°	2170.2	2155.8	2145.8	2145.8	2132.5	2111.5	2080.4	2073.8	2070.4	2056.0	2043.8
25°	2120.3	2103.7	2089.3	2044.9	2017.2	2020.6	2015.0	2003.9	2002.8	2001.7	2006.2
27.5°	2070.4	2027.2	1971.8	1965.1	1954.1	1953.0	1959.6	1965.1	1965.1	1969.6	1975.1
30°	1967.4	1917.5	1907.5	1895.3	1899.8	1915.3	1918.6	1926.4	1928.6	1936.3	1940.8
32.5°	1873.2	1851.0	1842.1	1847.7	1862.1	1875.4	1883.1	1886.5	1892.0	1898.6	1904.2
35°	1796.7	1790.0	1797.8	1810.0	1824.4	1835.5	1842.1	1848.8	1854.3	1859.8	1864.3
37.5°	1740.1	1744.6	1755.7	1771.2	1785.6	1794.5	1800.0	1807.8	1815.5	1822.2	1795.6
40°	1686.9	1698.0	1710.2	1726.8	1739.0	1747.9	1753.4	1763.4	1696.9	768.1	421.2
42.5°	1640.4	1652.6	1661.5	1674.8	1688.1	1694.7	1645.9	734.9	415.6	413.4	419.0
45°	1583.9	1593.8	1608.2	1618.2	1630.4	1070.7	409.0	413.4	406.8	411.2	413.4
47.5°	1526.2	1541.7	1549.5	1478.6	440.0	406.8	402.3	406.8	402.3	407.9	404.6
50°	1460.8	1479.7	1053.0	397.9	394.6	392.4	396.8	394.6	397.9	402.3	393.5
52.5°	1394.3	863.4	385.7	383.5	385.7	383.5	391.3	385.7	386.8	382.4	371.3
55°	472.2	373.5	370.2	369.1	375.7	375.7	375.7	366.9	361.3	350.2	342.5
57.5°	361.3	361.3	360.2	361.3	359.1	356.9	346.9	339.2	331.4	315.9	311.5
60°	342.5	342.5	342.5	342.5	332.5	328.1	312.6	305.9	292.6	284.9	280.4
62.5°	327.0	324.8	314.8	311.5	300.4	288.2	279.3	272.7	259.4	254.9	251.6
65°	304.8	297.0	284.9	271.6	266.0	252.7	248.3	238.3	231.6	228.3	226.1
67.5°	268.2	257.1	247.2	238.3	228.3	223.9	218.3	210.6	206.2	203.9	201.7
70°	229.4	221.7	211.7	206.2	199.5	196.2	188.4	186.2	182.9	179.6	176.2
72.5°	191.7	187.3	182.9	175.1	172.9	170.7	162.9	158.5	154.1	149.6	147.4
75°	160.7	157.4	155.2	148.5	145.2	138.5	133.0	129.7	126.4	123.0	120.8
77.5°	131.9	129.7	123.0	118.6	116.4	110.8	108.6	109.7	107.5	103.1	100.9
80°	103.1	100.9	95.3	95.3	93.1	90.9	88.7	86.5	84.2	80.9	78.7
82.5°	78.7	76.5	74.3	72.0	69.8	68.7	67.6	65.4	63.2	61.0	59.9
85°	55.4	54.3	53.2	52.1	51.0	49.9	48.8	46.6	44.3	43.2	42.1
87.5°	37.7	36.6	35.5	34.4	33.3	32.1	31.0	29.9	27.7	26.6	25.5
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: P1213467

CATALOG NUMBER: 4SNLED-LD5-54SL-RW-UNV-L935-CD1-U

CANDELA DISTRIBUTION (continued):

	55°	57.5°	60°	62.5°	65°	67.5°	70°	72.5°	75°	77.5°	80°
0°	2418.5	2418.5	2418.5	2418.5	2418.5	2418.5	2418.5	2418.5	2418.5	2418.5	2418.5
2.5°	2614.7	2620.2	2614.7	2602.5	2594.7	2591.4	2598.0	2598.0	2602.5	2608.0	2609.1
5°	2573.6	2560.3	2544.8	2529.3	2521.5	2517.1	2504.9	2507.1	2510.5	2512.7	2514.9
7.5°	2471.7	2453.9	2432.9	2412.9	2405.2	2398.5	2384.1	2384.1	2384.1	2385.2	2391.9
10°	2367.5	2359.7	2350.9	2337.6	2327.6	2324.3	2312.1	2315.4	2313.2	2316.5	2324.3
12.5°	2318.7	2309.8	2302.1	2288.8	2277.7	2273.3	2267.7	2271.1	2269.9	2275.5	2282.1
15°	2274.4	2269.9	2261.1	2251.1	2241.1	2232.3	2212.3	2205.7	2201.2	2195.7	2203.4
17.5°	2201.2	2170.2	2149.1	2133.6	2122.5	2114.8	2109.2	2109.2	2112.6	2115.9	2122.5
20°	2101.5	2092.6	2082.6	2066.0	2054.9	2050.5	2047.2	2047.2	2052.7	2057.1	2069.3
22.5°	2032.8	2031.6	2028.3	2020.6	2015.0	2015.0	2016.1	2018.3	2026.1	2032.8	2044.9
25°	2000.6	2005.0	2002.8	1998.4	1995.1	1996.2	1994.0	1996.2	2003.9	2010.6	2020.6
27.5°	1975.1	1981.8	1979.6	1972.9	1967.4	1969.6	1972.9	1970.7	1977.3	1985.1	1992.9
30°	1940.8	1941.9	1946.3	1938.5	1936.3	1939.7	1940.8	1943.0	1949.6	1955.2	1961.8
32.5°	1902.0	1910.8	1909.7	1902.0	1902.0	1905.3	1906.4	1832.1	1693.6	1458.6	1394.3
35°	1864.3	1874.3	1857.6	1566.1	1084.0	578.6	446.7	431.2	434.5	436.7	438.9
37.5°	1378.8	653.9	416.7	420.1	423.4	426.7	430.0	433.4	436.7	440.0	441.1
40°	414.5	413.4	416.7	421.2	424.5	426.7	431.2	434.5	437.8	441.1	442.2
42.5°	410.1	412.3	415.6	420.1	424.5	428.9	432.3	436.7	438.9	441.1	442.2
45°	407.9	412.3	416.7	420.1	423.4	425.6	427.8	428.9	427.8	427.8	430.0
47.5°	404.6	409.0	410.1	409.0	410.1	409.0	409.0	409.0	405.7	404.6	404.6
50°	392.4	392.4	390.1	385.7	384.6	383.5	381.3	380.2	375.7	374.6	374.6
52.5°	366.9	365.8	362.4	356.9	354.7	352.5	351.4	350.2	345.8	343.6	344.7
55°	336.9	334.7	331.4	324.8	323.6	321.4	320.3	319.2	314.8	317.0	313.7
57.5°	309.2	304.8	300.4	299.3	294.8	293.7	292.6	291.5	288.2	289.3	287.1
60°	276.0	274.9	272.7	268.2	268.2	267.1	267.1	264.9	262.7	261.6	261.6
62.5°	251.6	248.3	246.1	246.1	242.7	242.7	242.7	240.5	238.3	239.4	238.3
65°	225.0	223.9	222.8	220.6	220.6	219.5	219.5	217.2	213.9	215.0	212.8
67.5°	202.8	200.6	198.4	197.3	192.9	190.6	189.5	188.4	184.0	185.1	182.9
70°	175.1	171.8	169.6	167.4	164.0	161.8	161.8	159.6	156.3	157.4	155.2
72.5°	146.3	144.1	141.9	140.8	137.4	136.3	135.2	134.1	130.8	131.9	130.8
75°	121.9	121.9	120.8	119.7	116.4	113.1	110.8	109.7	107.5	108.6	106.4
77.5°	100.9	98.6	96.4	96.4	93.1	90.9	88.7	88.7	88.7	87.6	86.5
80°	78.7	76.5	76.5	75.4	73.2	70.9	69.8	69.8	68.7	68.7	67.6
82.5°	59.9	57.6	56.5	56.5	54.3	53.2	52.1	51.0	51.0	51.0	49.9
85°	42.1	39.9	38.8	38.8	36.6	35.5	35.5	34.4	34.4	33.3	33.3
87.5°	25.5	24.4	23.3	23.3	21.1	20.0	20.0	20.0	18.8	18.8	17.7
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: P1213467

CATALOG NUMBER: 4SNLED-LD5-54SL-RW-UNV-L935-CD1-U

CANDELA DISTRIBUTION (continued):

	82.5°	85°	87.5°	90°	92.5°	95°	97.5°	100°	102.5°	105°	107.5°
0°	2418.5	2418.5	2418.5	2418.5	2418.5	2418.5	2418.5	2418.5	2418.5	2418.5	2418.5
2.5°	2609.1	2609.1	2601.4	2603.6	2600.2	2604.7	2599.1	2599.1	2605.8	2605.8	2610.2
5°	2516.0	2510.5	2509.4	2507.1	2496.1	2500.5	2494.9	2489.4	2497.2	2497.2	2507.1
7.5°	2388.5	2378.6	2383.0	2376.4	2369.7	2359.7	2363.1	2358.6	2364.2	2371.9	2381.9
10°	2323.1	2314.3	2319.8	2313.2	2316.5	2302.1	2303.2	2304.3	2309.8	2312.1	2320.9
12.5°	2281.0	2278.8	2276.6	2274.4	2276.6	2268.8	2264.4	2265.5	2267.7	2268.8	2275.5
15°	2192.4	2178.0	2182.4	2166.9	2168.0	2169.1	2160.2	2169.1	2168.0	2182.4	2195.7
17.5°	2120.3	2120.3	2112.6	2105.9	2101.5	2100.4	2093.7	2098.1	2093.7	2102.6	2105.9
20°	2070.4	2069.3	2068.2	2064.9	2053.8	2054.9	2058.2	2048.3	2047.2	2046.1	2052.7
22.5°	2047.2	2048.3	2043.8	2043.8	2033.9	2036.1	2037.2	2026.1	2027.2	2023.9	2027.2
25°	2022.8	2025.0	2019.5	2019.5	2017.2	2016.1	2010.6	2012.8	2006.2	2000.6	2006.2
27.5°	1994.0	1998.4	1994.0	1996.2	1991.7	1989.5	1986.2	1984.0	1977.3	1976.2	1979.6
30°	1967.4	1969.6	1968.5	1962.9	1961.8	1955.2	1958.5	1951.8	1945.2	1946.3	1948.5
32.5°	1008.6	963.2	742.6	670.6	663.9	688.3	815.8	993.1	1286.8	1571.7	1776.7
35°	440.0	440.0	440.0	438.9	438.9	437.8	436.7	435.6	434.5	433.4	432.3
37.5°	442.2	442.2	442.2	442.2	441.1	440.0	440.0	437.8	436.7	435.6	434.5
40°	443.3	444.5	444.5	444.5	443.3	443.3	442.2	440.0	438.9	436.7	434.5
42.5°	442.2	443.3	443.3	442.2	442.2	441.1	441.1	440.0	438.9	437.8	436.7
45°	427.8	428.9	426.7	426.7	425.6	425.6	425.6	425.6	425.6	426.7	426.7
47.5°	402.3	402.3	401.2	400.1	400.1	399.0	400.1	399.0	401.2	402.3	404.6
50°	372.4	372.4	370.2	369.1	369.1	369.1	369.1	370.2	371.3	373.5	375.7
52.5°	341.4	341.4	340.3	339.2	338.1	338.1	341.4	340.3	341.4	342.5	345.8
55°	311.5	312.6	310.3	310.3	309.2	309.2	309.2	310.3	311.5	312.6	315.9
57.5°	286.0	286.0	283.7	283.7	283.7	282.6	286.0	283.7	284.9	286.0	288.2
60°	260.5	259.4	259.4	258.3	258.3	258.3	260.5	259.4	259.4	260.5	262.7
62.5°	237.2	237.2	236.1	236.1	235.0	235.0	237.2	236.1	236.1	237.2	238.3
65°	210.6	210.6	209.5	208.4	211.7	208.4	211.7	209.5	211.7	212.8	215.0
67.5°	180.7	180.7	180.7	179.6	179.6	181.8	182.9	180.7	181.8	184.0	185.1
70°	154.1	154.1	153.0	153.0	153.0	155.2	156.3	154.1	155.2	156.3	158.5
72.5°	130.8	128.6	128.6	127.5	129.7	129.7	130.8	129.7	130.8	130.8	133.0
75°	107.5	105.3	105.3	105.3	107.5	106.4	107.5	106.4	107.5	107.5	108.6
77.5°	86.5	85.3	84.2	84.2	86.5	86.5	86.5	85.3	86.5	87.6	88.7
80°	67.6	66.5	65.4	65.4	67.6	67.6	67.6	68.7	67.6	68.7	69.8
82.5°	49.9	48.8	47.7	49.9	49.9	49.9	49.9	51.0	49.9	51.0	52.1
85°	33.3	32.1	31.0	33.3	33.3	33.3	33.3	34.4	33.3	34.4	35.5
87.5°	17.7	16.6	16.6	17.7	17.7	17.7	18.8	18.8	18.8	20.0	20.0
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: P1213467

CATALOG NUMBER: 4SNLED-LD5-54SL-RW-UNV-L935-CD1-U

CANDELA DISTRIBUTION (continued):

	110°	112.5°	115°	117.5°	120°	122.5°	125°	127.5°	130°	132.5°	135°
0°	2418.5	2418.5	2418.5	2418.5	2418.5	2418.5	2418.5	2418.5	2418.5	2418.5	2418.5
2.5°	2616.9	2620.2	2619.1	2612.4	2605.8	2598.0	2592.5	2593.6	2604.7	2608.0	2598.0
5°	2507.1	2528.2	2528.2	2542.6	2534.8	2528.2	2532.6	2557.0	2569.2	2588.1	2594.7
7.5°	2394.1	2404.1	2403.0	2417.4	2415.1	2415.1	2418.5	2450.6	2466.1	2481.6	2486.1
10°	2330.9	2340.9	2339.8	2340.9	2337.6	2329.8	2329.8	2344.2	2357.5	2365.3	2367.5
12.5°	2285.5	2291.0	2289.9	2289.9	2287.7	2281.0	2279.9	2292.1	2306.5	2316.5	2317.6
15°	2217.9	2233.4	2236.7	2251.1	2247.8	2238.9	2241.1	2251.1	2260.0	2268.8	2265.5
17.5°	2117.0	2124.8	2125.9	2131.4	2129.2	2129.2	2142.5	2179.1	2203.4	2224.5	2226.7
20°	2059.4	2064.9	2062.7	2074.9	2069.3	2068.2	2071.5	2087.1	2098.1	2108.1	2125.9
22.5°	2031.6	2036.1	2032.8	2033.9	2023.9	2015.0	2012.8	2025.0	2037.2	2050.5	2050.5
25°	2008.4	2011.7	2010.6	2008.4	2000.6	1988.4	1986.2	1988.4	1992.9	1994.0	1986.2
27.5°	1980.7	1982.9	1982.9	1984.0	1974.0	1962.9	1960.7	1958.5	1962.9	1961.8	1949.6
30°	1951.8	1948.5	1949.6	1950.7	1941.9	1931.9	1927.5	1926.4	1930.8	1929.7	1917.5
32.5°	1883.1	1908.6	1910.8	1913.1	1905.3	1896.4	1892.0	1888.7	1890.9	1889.8	1878.7
35°	431.2	438.9	537.6	1217.0	1652.6	1829.9	1848.8	1844.3	1845.4	1845.4	1836.6
37.5°	432.3	431.2	430.0	426.7	423.4	421.2	728.2	1552.8	1798.9	1800.0	1792.2
40°	432.3	431.2	430.0	427.8	423.4	420.1	414.5	410.1	420.1	924.4	1691.4
42.5°	434.5	432.3	430.0	427.8	423.4	419.0	414.5	409.0	412.3	410.1	404.6
45°	427.8	426.7	426.7	425.6	423.4	419.0	413.4	406.8	403.4	406.8	401.2
47.5°	406.8	407.9	411.2	412.3	412.3	413.4	410.1	405.7	400.1	403.4	396.8
50°	378.0	380.2	381.3	386.8	389.0	393.5	394.6	394.6	393.5	397.9	393.5
52.5°	346.9	349.1	354.7	356.9	359.1	365.8	368.0	371.3	373.5	380.2	384.6
55°	317.0	318.1	320.3	324.8	328.1	333.6	336.9	340.3	345.8	349.1	362.4
57.5°	289.3	290.4	294.8	295.9	298.2	302.6	305.9	310.3	314.8	317.0	332.5
60°	262.7	263.8	267.1	268.2	269.3	273.8	277.1	280.4	283.7	286.0	297.0
62.5°	239.4	239.4	242.7	242.7	243.8	247.2	249.4	251.6	254.9	256.0	261.6
65°	216.1	217.2	219.5	219.5	220.6	222.8	223.9	225.0	228.3	228.3	232.8
67.5°	187.3	188.4	191.7	194.0	195.1	199.5	200.6	201.7	203.9	205.0	207.3
70°	159.6	160.7	164.0	165.1	166.3	169.6	171.8	175.1	178.4	181.8	184.0
72.5°	134.1	135.2	138.5	138.5	141.9	143.0	145.2	146.3	149.6	151.8	155.2
75°	109.7	110.8	114.2	114.2	117.5	118.6	119.7	120.8	123.0	125.2	127.5
77.5°	89.8	89.8	94.2	96.4	98.6	98.6	99.8	99.8	99.8	100.9	103.1
80°	70.9	70.9	74.3	76.5	78.7	78.7	79.8	80.9	82.0	82.0	83.1
82.5°	53.2	53.2	56.5	57.6	59.9	59.9	59.9	61.0	62.1	61.0	63.2
85°	36.6	36.6	38.8	39.9	42.1	42.1	42.1	43.2	44.3	43.2	44.3
87.5°	21.1	22.2	23.3	24.4	25.5	26.6	26.6	26.6	27.7	27.7	28.8
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: P1213467

CATALOG NUMBER: 4SNLED-LD5-54SL-RW-UNV-L935-CD1-U

CANDELA DISTRIBUTION (continued):

	137.5°	140°	142.5°	145°	147.5°	150°	152.5°	155°	157.5°	160°	162.5°
0°	2418.5	2418.5	2418.5	2418.5	2418.5	2418.5	2418.5	2418.5	2418.5	2418.5	2418.5
2.5°	2586.9	2573.6	2572.5	2557.0	2552.6	2553.7	2541.5	2537.1	2517.1	2512.7	2491.6
5°	2596.9	2603.6	2600.2	2599.1	2602.5	2600.2	2591.4	2586.9	2583.6	2574.8	2557.0
7.5°	2487.2	2491.6	2494.9	2509.4	2521.5	2542.6	2564.8	2579.2	2590.3	2592.5	2578.1
10°	2375.2	2396.3	2410.7	2432.9	2450.6	2462.8	2476.1	2488.3	2520.4	2552.6	2571.4
12.5°	2317.6	2323.1	2322.0	2334.2	2346.4	2378.6	2409.6	2427.3	2451.7	2466.1	2500.5
15°	2268.8	2269.9	2273.3	2282.1	2288.8	2299.9	2314.3	2340.9	2389.7	2411.8	2430.7
17.5°	2224.5	2224.5	2226.7	2234.5	2243.3	2253.3	2262.2	2273.3	2297.7	2334.2	2380.8
20°	2153.6	2184.6	2187.9	2186.8	2191.3	2210.1	2212.3	2232.3	2244.5	2258.9	2304.3
22.5°	2048.3	2067.1	2093.7	2134.7	2150.2	2159.1	2165.8	2174.6	2193.5	2210.1	2228.9
25°	1990.6	2002.8	2010.6	2022.8	2054.9	2107.0	2117.0	2127.0	2139.2	2151.4	2174.6
27.5°	1939.7	1938.5	1944.1	1955.2	1964.0	1991.7	2040.5	2079.3	2081.5	2099.3	2119.2
30°	1903.1	1896.4	1888.7	1886.5	1898.6	1913.1	1927.5	1988.4	2030.5	2039.4	2060.5
32.5°	1868.7	1857.6	1846.5	1837.7	1829.9	1842.1	1851.0	1877.6	1931.9	1982.9	1994.0
35°	1826.6	1815.5	1802.2	1792.2	1780.0	1778.9	1777.8	1803.3	1821.1	1882.0	1935.2
37.5°	1783.4	1771.2	1760.1	1749.0	1736.8	1728.0	1722.4	1729.1	1745.7	1772.3	1861.0
40°	1737.9	1723.5	1712.4	1703.6	1686.9	1680.3	1669.2	1664.8	1665.9	1689.2	1735.7
42.5°	1038.5	1655.9	1661.5	1651.5	1637.1	1628.2	1616.0	1610.5	1599.4	1610.5	1637.1
45°	400.1	404.6	1211.5	1600.5	1582.8	1571.7	1560.6	1555.0	1542.9	1534.0	1558.4
47.5°	392.4	396.8	387.9	549.8	1510.7	1514.0	1500.7	1495.2	1483.0	1476.4	1469.7
50°	386.8	390.1	383.5	385.7	378.0	1384.4	1439.8	1433.1	1419.8	1412.1	1398.8
52.5°	381.3	381.3	376.8	371.3	369.1	370.2	1164.9	1369.9	1354.4	1346.7	1328.9
55°	363.5	365.8	370.2	361.3	359.1	358.0	354.7	1109.5	1282.4	1273.5	1258.0
57.5°	336.9	341.4	353.6	351.4	351.4	342.5	340.3	340.3	1029.7	1199.3	1183.7
60°	305.9	310.3	323.6	328.1	331.4	329.2	327.0	325.9	321.4	1085.1	1105.0
62.5°	273.8	278.2	282.6	297.0	301.5	307.0	313.7	310.3	305.9	305.9	1021.9
65°	239.4	246.1	248.3	261.6	267.1	277.1	282.6	290.4	288.2	287.1	292.6
67.5°	209.5	217.2	218.3	223.9	233.9	238.3	245.0	259.4	266.0	268.2	270.4
70°	184.0	188.4	191.7	194.0	200.6	201.7	213.9	223.9	233.9	245.0	248.3
72.5°	158.5	161.8	168.5	166.3	168.5	172.9	179.6	186.2	196.2	211.7	221.7
75°	129.7	131.9	136.3	138.5	143.0	146.3	150.7	156.3	165.1	172.9	186.2
77.5°	104.2	105.3	108.6	109.7	114.2	117.5	125.2	128.6	134.1	139.7	147.4
80°	84.2	84.2	85.3	85.3	88.7	92.0	97.5	100.9	107.5	111.9	111.9
82.5°	64.3	64.3	67.6	67.6	69.8	69.8	73.2	73.2	76.5	78.7	80.9
85°	45.4	46.6	48.8	47.7	49.9	48.8	51.0	53.2	54.3	53.2	52.1
87.5°	29.9	29.9	32.1	31.0	32.1	32.1	34.4	34.4	35.5	35.5	34.4
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: P1213467

CATALOG NUMBER: 4SNLED-LD5-54SL-RW-UNV-L935-CD1-U

CANDELA DISTRIBUTION (continued):

	165°	167.5°	170°	172.5°	175°	177.5°	180°	182.5°	185°	187.5°	190°
0°	2418.5	2418.5	2418.5	2418.5	2418.5	2418.5	2418.5	2418.5	2418.5	2418.5	2418.5
2.5°	2483.9	2467.2	2457.3	2445.1	2441.7	2438.4	2442.9	2442.9	2436.2	2430.7	2420.7
5°	2541.5	2523.8	2504.9	2485.0	2466.1	2446.2	2438.4	2437.3	2425.1	2418.5	2415.1
7.5°	2571.4	2562.6	2541.5	2513.8	2485.0	2449.5	2434.0	2425.1	2412.9	2410.7	2410.7
10°	2574.8	2564.8	2553.7	2533.7	2500.5	2453.9	2424.0	2406.3	2395.2	2403.0	2417.4
12.5°	2542.6	2561.4	2551.5	2538.2	2511.6	2455.0	2411.8	2385.2	2381.9	2401.8	2439.5
15°	2460.6	2516.0	2543.7	2530.4	2509.4	2452.8	2391.9	2360.8	2360.8	2401.8	2450.6
17.5°	2398.5	2441.7	2509.4	2520.4	2496.1	2448.4	2373.0	2336.4	2346.4	2406.3	2458.4
20°	2347.5	2374.1	2439.5	2501.6	2478.3	2438.4	2345.3	2307.6	2327.6	2399.6	2469.5
22.5°	2267.7	2320.9	2360.8	2452.8	2460.6	2419.6	2317.6	2272.2	2312.1	2399.6	2463.9
25°	2190.1	2254.4	2296.5	2386.3	2434.0	2396.3	2292.1	2234.5	2295.4	2396.3	2459.5
27.5°	2135.8	2165.8	2242.2	2306.5	2394.1	2365.3	2257.8	2193.5	2274.4	2378.6	2434.0
30°	2078.2	2098.1	2173.5	2234.5	2340.9	2329.8	2222.3	2148.0	2247.8	2361.9	2367.5
32.5°	2015.0	2037.2	2076.0	2164.7	2266.6	2296.5	2182.4	2102.6	2219.0	2336.4	2289.9
35°	1950.7	1967.4	1998.4	2093.7	2180.2	2246.7	2133.6	2050.5	2199.0	2297.7	2215.6
37.5°	1886.5	1904.2	1930.8	2010.6	2089.3	2200.1	2091.5	1998.4	2162.4	2228.9	2138.1
40°	1825.5	1835.5	1863.2	1913.1	2013.9	2152.5	2043.8	1944.1	2124.8	2141.4	2032.8
42.5°	1713.5	1763.4	1788.9	1828.8	1928.6	2087.1	1988.4	1886.5	2082.6	2053.8	1927.5
45°	1592.7	1701.4	1712.4	1752.3	1853.2	2017.2	1936.3	1829.9	2042.7	1978.4	1827.7
47.5°	1494.1	1572.8	1637.1	1670.3	1763.4	1935.2	1887.6	1782.3	1982.9	1883.1	1730.2
50°	1406.5	1448.6	1565.0	1589.4	1655.9	1836.6	1829.9	1726.8	1899.8	1763.4	1634.8
52.5°	1321.2	1351.1	1456.4	1508.5	1562.8	1730.2	1761.2	1672.5	1808.9	1643.7	1538.4
55°	1246.9	1256.9	1314.5	1424.3	1473.0	1622.7	1685.8	1609.4	1693.6	1529.6	1445.3
57.5°	1170.4	1161.6	1203.7	1344.5	1379.9	1512.9	1606.0	1545.1	1600.5	1413.2	1348.9
60°	1090.6	1078.4	1096.2	1189.3	1281.3	1404.3	1511.8	1474.1	1487.4	1297.9	1241.4
62.5°	1007.5	995.3	989.8	1048.5	1184.9	1292.4	1416.5	1395.4	1348.9	1192.6	1108.4
65°	921.1	908.9	900.0	923.3	1078.4	1147.2	1310.1	1304.6	1197.0	1081.8	933.2
67.5°	280.4	826.8	808.0	806.9	908.9	1015.3	1194.8	1186.0	1044.1	963.2	803.6
70°	252.7	670.6	712.7	702.7	747.0	881.2	1062.9	1056.3	895.6	772.5	710.5
72.5°	231.6	237.2	629.6	618.5	628.4	749.3	925.5	907.8	759.2	609.6	614.0
75°	198.4	208.4	217.2	522.0	508.7	620.7	775.9	748.2	626.2	503.2	513.2
77.5°	161.8	174.0	180.7	380.2	411.2	442.2	619.6	583.0	431.2	402.3	191.7
80°	120.8	130.8	141.9	151.8	312.6	309.2	460.0	423.4	300.4	250.5	149.6
82.5°	88.7	92.0	98.6	109.7	124.1	207.3	295.9	260.5	208.4	114.2	103.1
85°	55.4	59.9	63.2	66.5	75.4	124.1	146.3	116.4	87.6	69.8	65.4
87.5°	35.5	35.5	34.4	35.5	36.6	44.3	49.9	47.7	37.7	35.5	35.5
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: P1213467

CATALOG NUMBER: 4SNLED-LD5-54SL-RW-UNV-L935-CD1-U

CANDELA DISTRIBUTION (continued):

	192.5°	195°	197.5°	200°	202.5°	205°	207.5°	210°	212.5°	215°	217.5°
0°	2418.5	2418.5	2418.5	2418.5	2418.5	2418.5	2418.5	2418.5	2418.5	2418.5	2418.5
2.5°	2409.6	2394.1	2394.1	2389.7	2393.0	2393.0	2391.9	2393.0	2400.7	2405.2	2412.9
5°	2408.5	2404.1	2414.0	2426.2	2440.6	2458.4	2462.8	2478.3	2492.7	2511.6	2531.5
7.5°	2422.9	2438.4	2457.3	2477.2	2506.0	2527.1	2545.9	2564.8	2578.1	2595.8	2606.9
10°	2444.0	2475.0	2507.1	2532.6	2563.7	2581.4	2593.6	2595.8	2577.0	2547.0	2522.7
12.5°	2473.9	2510.5	2540.4	2564.8	2579.2	2572.5	2537.1	2500.5	2479.4	2448.4	2405.2
15°	2499.4	2532.6	2563.7	2553.7	2514.9	2478.3	2450.6	2407.4	2365.3	2336.4	2317.6
17.5°	2510.5	2542.6	2531.5	2479.4	2442.9	2400.7	2344.2	2311.0	2283.2	2261.1	2250.0
20°	2517.1	2511.6	2451.7	2414.0	2343.1	2304.3	2267.7	2236.7	2215.6	2204.6	2202.3
22.5°	2499.4	2431.8	2380.8	2313.2	2261.1	2228.9	2200.1	2174.6	2160.2	2151.4	2145.8
25°	2440.6	2361.9	2286.6	2233.4	2189.0	2161.3	2139.2	2118.1	2100.4	2095.9	2084.8
27.5°	2358.6	2294.3	2194.6	2153.6	2114.8	2101.5	2077.1	2056.0	2040.5	2027.2	1991.7
30°	2291.0	2189.0	2117.0	2079.3	2056.0	2040.5	2012.8	1990.6	1964.0	1915.3	1895.3
32.5°	2207.9	2107.0	2038.3	2017.2	1988.4	1975.1	1944.1	1895.3	1854.3	1834.4	1833.2
35°	2100.4	2017.2	1967.4	1948.5	1925.2	1903.1	1838.8	1794.5	1774.5	1776.7	1793.3
37.5°	2010.6	1936.3	1904.2	1877.6	1851.0	1794.5	1740.1	1719.1	1724.6	1735.7	1743.5
40°	1919.7	1863.2	1826.6	1805.5	1745.7	1690.3	1661.5	1669.2	1679.2	1686.9	1696.9
42.5°	1831.0	1791.1	1754.6	1713.5	1631.5	1601.6	1608.2	1618.2	1627.1	1638.2	1648.2
45°	1746.8	1711.3	1669.2	1576.1	1535.1	1542.9	1552.8	1560.6	1573.9	1581.6	1591.6
47.5°	1667.0	1629.3	1555.0	1473.0	1468.6	1484.1	1493.0	1503.0	1512.9	1493.0	823.5
50°	1577.2	1538.4	1425.4	1394.3	1404.3	1418.7	1429.8	1439.8	1282.4	509.9	392.4
52.5°	1488.5	1389.9	1317.9	1326.7	1336.7	1353.3	1361.1	1010.8	402.3	383.5	384.6
55°	1389.9	1263.5	1242.5	1253.6	1262.4	1279.1	847.9	371.3	369.1	368.0	376.8
57.5°	1234.7	1158.2	1167.1	1178.2	1187.1	837.9	361.3	359.1	360.2	361.3	362.4
60°	1096.2	1079.6	1089.5	1099.5	778.1	349.1	342.5	343.6	348.0	344.7	335.8
62.5°	986.5	999.8	1009.7	884.5	331.4	328.1	331.4	328.1	320.3	314.8	303.7
65°	902.2	915.5	923.3	311.5	310.3	314.8	311.5	300.4	288.2	272.7	269.3
67.5°	813.5	826.8	295.9	288.2	292.6	287.1	273.8	260.5	251.6	238.3	232.8
70°	721.6	309.2	268.2	267.1	259.4	250.5	236.1	222.8	211.7	206.2	200.6
72.5°	520.9	245.0	241.6	232.8	219.5	207.3	195.1	187.3	181.8	178.4	175.1
75°	217.2	212.8	202.8	187.3	174.0	168.5	159.6	154.1	151.8	145.2	143.0
77.5°	181.8	172.9	158.5	147.4	139.7	136.3	129.7	123.0	119.7	118.6	114.2
80°	139.7	127.5	120.8	115.3	113.1	105.3	97.5	94.2	92.0	90.9	87.6
82.5°	95.3	90.9	86.5	78.7	78.7	75.4	72.0	69.8	67.6	67.6	65.4
85°	62.1	58.7	57.6	54.3	54.3	52.1	51.0	49.9	48.8	47.7	46.6
87.5°	35.5	35.5	36.6	35.5	35.5	34.4	33.3	32.1	31.0	31.0	28.8
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: P1213467

CATALOG NUMBER: 4SNLED-LD5-54SL-RW-UNV-L935-CD1-U

CANDELA DISTRIBUTION (continued):

	220°	222.5°	225°	227.5°	230°	232.5°	235°	237.5°	240°	242.5°	245°
0°	2418.5	2418.5	2418.5	2418.5	2418.5	2418.5	2418.5	2418.5	2418.5	2418.5	2418.5
2.5°	2422.9	2434.0	2436.2	2473.9	2494.9	2493.8	2487.2	2507.1	2494.9	2488.3	2494.9
5°	2551.5	2564.8	2575.9	2616.9	2631.3	2637.9	2636.8	2647.9	2639.0	2631.3	2631.3
7.5°	2614.7	2619.1	2623.5	2613.5	2606.9	2595.8	2579.2	2554.8	2542.6	2529.3	2512.7
10°	2510.5	2496.1	2501.6	2481.6	2465.0	2452.8	2437.3	2417.4	2400.7	2388.5	2369.7
12.5°	2383.0	2381.9	2384.1	2387.4	2370.8	2360.8	2348.6	2334.2	2322.0	2308.7	2293.2
15°	2305.4	2306.5	2315.4	2312.1	2306.5	2301.0	2287.7	2283.2	2272.2	2257.8	2248.9
17.5°	2250.0	2255.5	2264.4	2260.0	2251.1	2245.6	2235.6	2225.6	2215.6	2204.6	2191.3
20°	2201.2	2206.8	2212.3	2206.8	2190.1	2182.4	2169.1	2138.1	2115.9	2093.7	2073.8
22.5°	2148.0	2151.4	2146.9	2129.2	2087.1	2067.1	2051.6	2042.7	2023.9	2011.7	1999.5
25°	2081.5	2062.7	2033.9	2013.9	1997.3	1988.4	1981.8	1980.7	1978.4	1976.2	1970.7
27.5°	1972.9	1966.3	1950.7	1943.0	1944.1	1947.4	1948.5	1951.8	1948.5	1944.1	1939.7
30°	1892.0	1895.3	1896.4	1898.6	1904.2	1907.5	1908.6	1913.1	1910.8	1907.5	1905.3
32.5°	1841.0	1848.8	1853.2	1859.8	1863.2	1868.7	1868.7	1875.4	1868.7	1867.6	1865.4
35°	1798.9	1805.5	1807.8	1817.7	1821.1	1826.6	1826.6	1832.1	1826.6	1770.1	1397.7
37.5°	1756.8	1763.4	1767.9	1776.7	1777.8	1781.2	1643.7	1202.6	775.9	600.7	458.9
40°	1706.9	1714.7	1719.1	1722.4	1210.3	768.1	528.7	430.0	430.0	433.4	436.7
42.5°	1653.7	1659.2	1156.0	672.8	419.0	417.9	421.2	424.5	427.8	432.3	436.7
45°	1300.1	656.2	416.7	406.8	410.1	414.5	419.0	423.4	428.9	433.4	435.6
47.5°	426.7	400.1	405.7	401.2	406.8	412.3	416.7	421.2	422.3	423.4	422.3
50°	394.6	394.6	397.9	397.9	402.3	404.6	404.6	404.6	400.1	399.0	395.7
52.5°	381.3	390.1	385.7	387.9	385.7	382.4	379.1	375.7	369.1	366.9	362.4
55°	374.6	378.0	366.9	363.5	359.1	350.2	345.8	341.4	335.8	333.6	328.1
57.5°	359.1	351.4	339.2	333.6	325.9	317.0	312.6	309.2	303.7	301.5	298.2
60°	330.3	314.8	307.0	300.4	291.5	283.7	280.4	278.2	273.8	272.7	269.3
62.5°	294.8	281.5	274.9	266.0	259.4	254.9	251.6	250.5	246.1	246.1	243.8
65°	256.0	249.4	243.8	235.0	231.6	227.2	226.1	225.0	222.8	221.7	219.5
67.5°	225.0	220.6	212.8	208.4	206.2	202.8	200.6	198.4	194.0	191.7	188.4
70°	197.3	194.0	186.2	182.9	178.4	172.9	169.6	167.4	164.0	161.8	158.5
72.5°	170.7	160.7	155.2	151.8	148.5	143.0	141.9	139.7	136.3	135.2	131.9
75°	137.4	129.7	126.4	124.1	120.8	117.5	117.5	117.5	114.2	113.1	111.9
77.5°	109.7	105.3	103.1	100.9	99.8	97.5	94.2	93.1	89.8	89.8	88.7
80°	84.2	82.0	79.8	78.7	77.6	75.4	73.2	72.0	68.7	68.7	67.6
82.5°	62.1	61.0	59.9	58.7	57.6	56.5	53.2	52.1	49.9	49.9	48.8
85°	44.3	43.2	41.0	39.9	39.9	38.8	35.5	34.4	32.1	32.1	32.1
87.5°	27.7	26.6	25.5	24.4	23.3	22.2	20.0	18.8	18.8	16.6	15.5
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: P1213467

CATALOG NUMBER: 4SNLED-LD5-54SL-RW-UNV-L935-CD1-U

CANDELA DISTRIBUTION (continued):

	247.5°	250°	252.5°	255°	257.5°	260°	262.5°	265°	267.5°	270°	272.5°
0°	2418.5	2418.5	2418.5	2418.5	2418.5	2418.5	2418.5	2418.5	2418.5	2418.5	2418.5
2.5°	2481.6	2500.5	2498.3	2511.6	2514.9	2521.5	2523.8	2524.9	2508.2	2521.5	2522.7
5°	2628.0	2631.3	2633.5	2639.0	2644.6	2645.7	2640.1	2633.5	2635.7	2631.3	2620.2
7.5°	2510.5	2493.8	2490.5	2486.1	2483.9	2481.6	2471.7	2480.5	2470.6	2466.1	2450.6
10°	2366.4	2350.9	2349.8	2349.8	2353.1	2352.0	2349.8	2345.3	2354.2	2348.6	2345.3
12.5°	2291.0	2285.5	2288.8	2286.6	2295.4	2297.7	2295.4	2295.4	2293.2	2288.8	2291.0
15°	2245.6	2241.1	2244.5	2241.1	2247.8	2248.9	2243.3	2246.7	2241.1	2235.6	2233.4
17.5°	2185.7	2175.7	2168.0	2156.9	2158.0	2155.8	2149.1	2149.1	2143.6	2129.2	2130.3
20°	2070.4	2060.5	2056.0	2056.0	2061.6	2063.8	2062.7	2064.9	2059.4	2057.1	2048.3
22.5°	1998.4	1997.3	1999.5	2005.0	2013.9	2026.1	2027.2	2027.2	2027.2	2026.1	2015.0
25°	1972.9	1972.9	1975.1	1982.9	1989.5	1998.4	2000.6	2002.8	2000.6	2000.6	1990.6
27.5°	1944.1	1941.9	1946.3	1954.1	1961.8	1968.5	1974.0	1975.1	1971.8	1971.8	1975.1
30°	1908.6	1907.5	1913.1	1920.8	1927.5	1934.1	1939.7	1944.1	1939.7	1939.7	1936.3
32.5°	1872.0	1872.0	1874.3	1827.7	1694.7	1526.2	1529.6	1432.0	1364.4	1279.1	1392.1
35°	1168.2	850.1	730.4	618.5	539.8	488.8	487.7	471.1	463.3	457.8	456.6
37.5°	441.1	443.3	447.8	450.0	453.3	455.5	456.6	456.6	456.6	456.6	455.5
40°	440.0	444.5	447.8	451.1	454.4	456.6	456.6	457.8	458.9	458.9	458.9
42.5°	441.1	445.6	450.0	453.3	455.5	456.6	457.8	458.9	458.9	458.9	458.9
45°	440.0	442.2	442.2	443.3	443.3	443.3	444.5	444.5	443.3	442.2	444.5
47.5°	423.4	423.4	420.1	419.0	417.9	415.6	416.7	415.6	414.5	413.4	415.6
50°	394.6	390.1	387.9	385.7	384.6	382.4	383.5	382.4	381.3	379.1	382.4
52.5°	360.2	359.1	354.7	352.5	351.4	352.5	350.2	349.1	348.0	346.9	348.0
55°	327.0	322.5	321.4	319.2	318.1	319.2	318.1	317.0	315.9	314.8	315.9
57.5°	297.0	293.7	292.6	290.4	290.4	290.4	290.4	289.3	288.2	287.1	288.2
60°	268.2	266.0	264.9	264.9	263.8	263.8	263.8	262.7	261.6	261.6	262.7
62.5°	243.8	243.8	240.5	239.4	239.4	240.5	239.4	238.3	237.2	236.1	238.3
65°	218.3	213.9	212.8	210.6	208.4	209.5	208.4	207.3	206.2	205.0	207.3
67.5°	187.3	186.2	181.8	179.6	178.4	179.6	178.4	177.3	176.2	175.1	177.3
70°	157.4	157.4	153.0	151.8	150.7	150.7	149.6	149.6	148.5	147.4	149.6
72.5°	130.8	130.8	129.7	127.5	126.4	125.2	124.1	123.0	123.0	124.1	124.1
75°	108.6	106.4	102.0	103.1	102.0	100.9	100.9	99.8	98.6	100.9	99.8
77.5°	85.3	84.2	80.9	82.0	80.9	79.8	79.8	78.7	77.6	78.7	78.7
80°	64.3	64.3	63.2	62.1	62.1	61.0	59.9	59.9	58.7	59.9	59.9
82.5°	46.6	46.6	45.4	44.3	43.2	43.2	42.1	42.1	42.1	42.1	42.1
85°	29.9	28.8	28.8	26.6	26.6	26.6	25.5	25.5	25.5	25.5	25.5
87.5°	14.4	14.4	13.3	13.3	12.2	11.1	11.1	10.0	10.0	11.1	11.1
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: P1213467

CATALOG NUMBER: 4SNLED-LD5-54SL-RW-UNV-L935-CD1-U

CANDELA DISTRIBUTION (continued):

	275°	277.5°	280°	282.5°	285°	287.5°	290°	292.5°	295°	297.5°	300°
0°	2418.5	2418.5	2418.5	2418.5	2418.5	2418.5	2418.5	2418.5	2418.5	2418.5	2418.5
2.5°	2502.7	2517.1	2504.9	2510.5	2511.6	2530.4	2529.3	2533.7	2526.0	2517.1	2504.9
5°	2630.2	2623.5	2614.7	2635.7	2624.6	2637.9	2642.4	2651.2	2651.2	2650.1	2640.1
7.5°	2467.2	2452.8	2463.9	2471.7	2475.0	2466.1	2483.9	2503.8	2520.4	2530.4	2531.5
10°	2339.8	2344.2	2343.1	2346.4	2354.2	2353.1	2364.2	2375.2	2379.7	2386.3	2388.5
12.5°	2279.9	2278.8	2281.0	2288.8	2293.2	2292.1	2303.2	2309.8	2312.1	2313.2	2312.1
15°	2232.3	2224.5	2230.0	2231.2	2234.5	2234.5	2247.8	2257.8	2262.2	2264.4	2262.2
17.5°	2142.5	2123.6	2141.4	2141.4	2153.6	2151.4	2172.4	2189.0	2197.9	2204.6	2204.6
20°	2053.8	2044.9	2051.6	2049.4	2058.2	2057.1	2070.4	2081.5	2089.3	2094.8	2101.5
22.5°	2018.3	2020.6	2010.6	2011.7	2011.7	2010.6	2017.2	2022.8	2025.0	2028.3	2026.1
25°	1995.1	1997.3	1994.0	1988.4	1986.2	1988.4	1991.7	1998.4	1999.5	1997.3	1989.5
27.5°	1971.8	1965.1	1970.7	1960.7	1958.5	1962.9	1967.4	1968.5	1969.6	1969.6	1962.9
30°	1936.3	1930.8	1936.3	1931.9	1927.5	1931.9	1935.2	1935.2	1937.4	1938.5	1930.8
32.5°	1353.3	1364.4	1544.0	1652.6	1805.5	1883.1	1897.5	1897.5	1899.8	1899.8	1893.1
35°	461.1	462.2	499.9	542.0	631.8	742.6	887.8	963.2	1218.1	1522.9	1817.7
37.5°	455.5	454.4	453.3	452.2	451.1	450.0	447.8	446.7	453.3	537.6	729.3
40°	457.8	456.6	454.4	453.3	452.2	450.0	448.9	446.7	444.5	442.2	440.0
42.5°	457.8	456.6	455.5	454.4	453.3	452.2	450.0	447.8	445.6	442.2	438.9
45°	442.2	442.2	443.3	443.3	444.5	444.5	444.5	443.3	443.3	442.2	437.8
47.5°	413.4	413.4	416.7	416.7	419.0	421.2	421.2	423.4	426.7	428.9	430.0
50°	380.2	380.2	383.5	384.6	386.8	390.1	393.5	394.6	397.9	402.3	406.8
52.5°	346.9	346.9	350.2	350.2	352.5	355.8	359.1	360.2	364.7	369.1	374.6
55°	315.9	315.9	318.1	319.2	320.3	322.5	325.9	325.9	330.3	333.6	339.2
57.5°	288.2	290.4	290.4	290.4	291.5	293.7	295.9	295.9	299.3	302.6	307.0
60°	261.6	263.8	263.8	263.8	264.9	266.0	268.2	268.2	270.4	272.7	277.1
62.5°	237.2	239.4	239.4	240.5	240.5	241.6	243.8	242.7	245.0	246.1	249.4
65°	206.2	208.4	209.5	210.6	211.7	213.9	217.2	216.1	219.5	221.7	225.0
67.5°	176.2	178.4	178.4	179.6	180.7	182.9	185.1	185.1	188.4	190.6	195.1
70°	148.5	150.7	150.7	151.8	153.0	155.2	157.4	156.3	159.6	161.8	165.1
72.5°	123.0	125.2	125.2	126.4	126.4	128.6	130.8	133.0	133.0	135.2	137.4
75°	99.8	100.9	102.0	102.0	103.1	104.2	106.4	108.6	109.7	110.8	113.1
77.5°	78.7	79.8	80.9	80.9	82.0	83.1	84.2	88.7	90.9	92.0	92.0
80°	59.9	61.0	61.0	61.0	62.1	63.2	65.4	65.4	69.8	69.8	70.9
82.5°	42.1	43.2	43.2	43.2	44.3	46.6	47.7	48.8	51.0	52.1	52.1
85°	25.5	26.6	26.6	26.6	27.7	28.8	31.0	32.1	33.3	33.3	34.4
87.5°	10.0	11.1	12.2	12.2	13.3	14.4	15.5	16.6	17.7	17.7	18.8
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: P1213467

CATALOG NUMBER: 4SNLED-LD5-54SL-RW-UNV-L935-CD1-U

CANDELA DISTRIBUTION (continued):

	302.5°	305°	307.5°	310°	312.5°	315°	317.5°	320°	322.5°	325°	327.5°
0°	2418.5	2418.5	2418.5	2418.5	2418.5	2418.5	2418.5	2418.5	2418.5	2418.5	2418.5
2.5°	2491.6	2499.4	2491.6	2496.1	2501.6	2491.6	2468.3	2459.5	2456.2	2442.9	2434.0
5°	2630.2	2630.2	2626.8	2635.7	2634.6	2619.1	2594.7	2583.6	2572.5	2558.1	2547.0
7.5°	2531.5	2540.4	2545.9	2580.3	2602.5	2604.7	2620.2	2623.5	2628.0	2623.5	2616.9
10°	2389.7	2386.3	2401.8	2434.0	2452.8	2462.8	2492.7	2507.1	2519.3	2543.7	2569.2
12.5°	2309.8	2314.3	2320.9	2344.2	2361.9	2357.5	2369.7	2379.7	2394.1	2418.5	2455.0
15°	2256.6	2261.1	2267.7	2285.5	2296.5	2291.0	2297.7	2304.3	2314.3	2326.5	2348.6
17.5°	2199.0	2206.8	2214.5	2233.4	2243.3	2242.2	2247.8	2250.0	2253.3	2261.1	2276.6
20°	2109.2	2133.6	2149.1	2174.6	2189.0	2186.8	2196.8	2200.1	2204.6	2212.3	2219.0
22.5°	2027.2	2033.9	2041.6	2069.3	2093.7	2123.6	2130.3	2139.2	2150.2	2158.0	2164.7
25°	1980.7	1976.2	1979.6	1998.4	2011.7	2013.9	2023.9	2052.7	2082.6	2095.9	2111.5
27.5°	1953.0	1948.5	1947.4	1956.3	1958.5	1953.0	1950.7	1959.6	1981.8	2003.9	2050.5
30°	1923.0	1917.5	1913.1	1920.8	1924.1	1916.4	1902.0	1894.2	1907.5	1913.1	1931.9
32.5°	1887.6	1882.0	1879.8	1884.2	1886.5	1879.8	1864.3	1855.4	1853.2	1848.8	1853.2
35°	1847.7	1842.1	1838.8	1839.9	1844.3	1838.8	1825.5	1814.4	1808.9	1796.7	1787.8
37.5°	952.1	1348.9	1751.2	1793.3	1797.8	1796.7	1783.4	1771.2	1765.6	1751.2	1746.8
40°	435.6	486.6	730.4	954.3	1376.6	1749.0	1736.8	1724.6	1714.7	1710.2	1693.6
42.5°	434.5	435.6	436.7	431.2	534.2	910.0	1343.3	1677.0	1670.3	1659.2	1647.0
45°	434.5	428.9	433.4	426.7	428.9	427.8	533.1	860.1	1530.7	1599.4	1593.8
47.5°	430.0	426.7	431.2	425.6	419.0	422.3	417.9	423.4	660.6	1120.6	1535.1
50°	410.1	412.3	420.1	419.0	413.4	417.9	410.1	416.7	411.2	451.1	869.0
52.5°	380.2	384.6	392.4	399.0	401.2	406.8	404.6	406.8	402.3	403.4	404.6
55°	344.7	350.2	356.9	366.9	371.3	380.2	386.8	390.1	395.7	394.6	385.7
57.5°	311.5	317.0	322.5	332.5	342.5	346.9	359.1	365.8	380.2	376.8	374.6
60°	280.4	284.9	290.4	292.6	304.8	312.6	323.6	330.3	349.1	353.6	360.2
62.5°	252.7	254.9	259.4	262.7	270.4	278.2	283.7	294.8	304.8	319.2	329.2
65°	227.2	229.4	232.8	235.0	236.1	247.2	250.5	262.7	266.0	281.5	290.4
67.5°	198.4	202.8	207.3	209.5	211.7	218.3	220.6	226.1	233.9	240.5	251.6
70°	168.5	171.8	176.2	179.6	184.0	188.4	195.1	198.4	203.9	208.4	217.2
72.5°	140.8	144.1	146.3	149.6	153.0	156.3	161.8	169.6	174.0	181.8	184.0
75°	114.2	117.5	119.7	121.9	125.2	127.5	129.7	137.4	141.9	148.5	155.2
77.5°	94.2	94.2	96.4	103.1	102.0	102.0	104.2	108.6	111.9	116.4	123.0
80°	73.2	74.3	75.4	80.9	82.0	83.1	82.0	85.3	88.7	89.8	94.2
82.5°	54.3	55.4	55.4	58.7	62.1	62.1	62.1	63.2	66.5	67.6	69.8
85°	36.6	37.7	38.8	39.9	42.1	43.2	44.3	44.3	46.6	47.7	48.8
87.5°	20.0	22.2	23.3	24.4	25.5	26.6	27.7	28.8	29.9	31.0	32.1
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: P1213467

CATALOG NUMBER: 4SNLED-LD5-54SL-RW-UNV-L935-CD1-U

CANDELA DISTRIBUTION (continued):

	330°	332.5°	335°	337.5°	340°	342.5°	345°	347.5°	350°	352.5°	355°
0°	2418.5	2418.5	2418.5	2418.5	2418.5	2418.5	2418.5	2418.5	2418.5	2418.5	2418.5
2.5°	2430.7	2425.1	2421.8	2412.9	2410.7	2396.3	2398.5	2396.3	2396.3	2399.6	2410.7
5°	2534.8	2508.2	2501.6	2482.8	2467.2	2440.6	2424.0	2415.1	2401.8	2396.3	2404.1
7.5°	2605.8	2585.8	2569.2	2552.6	2530.4	2499.4	2476.1	2449.5	2427.3	2406.3	2400.7
10°	2593.6	2615.8	2615.8	2605.8	2584.7	2553.7	2526.0	2492.7	2453.9	2420.7	2400.7
12.5°	2490.5	2529.3	2560.3	2583.6	2604.7	2583.6	2555.9	2529.3	2486.1	2437.3	2400.7
15°	2377.5	2417.4	2456.2	2504.9	2555.9	2577.0	2575.9	2544.8	2506.0	2455.0	2404.1
17.5°	2297.7	2325.4	2346.4	2399.6	2461.7	2516.0	2552.6	2554.8	2517.1	2471.7	2405.2
20°	2237.8	2257.8	2275.5	2305.4	2359.7	2426.2	2493.8	2531.5	2524.9	2475.0	2408.5
22.5°	2183.5	2197.9	2212.3	2234.5	2277.7	2320.9	2399.6	2477.2	2510.5	2469.5	2405.2
25°	2129.2	2144.7	2155.8	2171.3	2205.7	2241.1	2296.5	2393.0	2467.2	2465.0	2398.5
27.5°	2064.9	2086.0	2099.3	2120.3	2143.6	2170.2	2207.9	2298.8	2405.2	2442.9	2380.8
30°	1987.3	2018.3	2038.3	2061.6	2081.5	2104.8	2134.7	2190.1	2322.0	2399.6	2361.9
32.5°	1875.4	1930.8	1975.1	1997.3	2019.5	2039.4	2066.0	2112.6	2220.1	2340.9	2340.9
35°	1795.6	1821.1	1861.0	1925.2	1953.0	1972.9	1997.3	2033.9	2102.6	2271.1	2306.5
37.5°	1733.5	1743.5	1763.4	1826.6	1878.7	1910.8	1935.2	1958.5	2026.1	2175.7	2262.2
40°	1686.9	1683.6	1681.4	1711.3	1785.6	1836.6	1864.3	1887.6	1939.7	2061.6	2203.4
42.5°	1632.6	1629.3	1618.2	1626.0	1662.6	1747.9	1790.0	1815.5	1858.7	1941.9	2139.2
45°	1576.1	1570.6	1566.1	1558.4	1571.7	1619.3	1705.8	1743.5	1767.9	1842.1	2058.2
47.5°	1518.5	1510.7	1505.2	1498.5	1490.8	1512.9	1594.9	1662.6	1704.7	1751.2	1960.7
50°	1436.5	1446.4	1439.8	1432.0	1425.4	1420.9	1455.3	1566.1	1618.2	1655.9	1842.1
52.5°	677.2	1316.7	1372.2	1364.4	1355.5	1347.8	1355.5	1439.8	1534.0	1563.9	1699.1
55°	385.7	586.3	1220.3	1290.1	1282.4	1271.3	1264.7	1293.5	1434.2	1474.1	1568.3
57.5°	371.3	372.4	538.7	1162.7	1205.9	1195.9	1188.2	1194.8	1314.5	1382.1	1454.2
60°	359.1	359.1	359.1	514.3	1111.7	1115.0	1105.0	1094.0	1146.1	1279.1	1338.9
62.5°	332.5	339.2	342.5	342.5	507.6	1029.7	1019.7	1016.4	1018.6	1154.9	1223.6
65°	298.2	313.7	320.3	324.8	324.8	533.1	932.1	926.6	918.8	970.9	1107.3
67.5°	260.5	276.0	290.4	299.3	300.4	310.3	556.4	834.6	823.5	824.6	983.1
70°	221.7	235.0	250.5	263.8	276.0	281.5	290.4	692.7	729.3	713.8	842.4
72.5°	191.7	197.3	208.4	221.7	236.1	249.4	257.1	276.0	632.9	616.3	640.6
75°	159.6	164.0	171.8	180.7	191.7	207.3	220.6	233.9	335.8	516.5	513.2
77.5°	124.1	131.9	140.8	146.3	151.8	162.9	180.7	194.0	207.3	349.1	411.2
80°	95.3	100.9	105.3	110.8	117.5	125.2	131.9	147.4	162.9	175.1	314.8
82.5°	70.9	74.3	77.6	79.8	82.0	86.5	98.6	104.2	114.2	125.2	148.5
85°	49.9	52.1	54.3	55.4	56.5	57.6	62.1	63.2	73.2	75.4	89.8
87.5°	32.1	33.3	35.5	36.6	36.6	37.7	38.8	38.8	38.8	36.6	44.3
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: P1213467

CATALOG NUMBER: 4SNLED-LD5-54SL-RW-UNV-L935-CD1-U

CANDELA DISTRIBUTION (continued):

	357.5°	360°
0°	2418.5	2418.5
2.5°	2419.6	2437.3
5°	2416.3	2439.5
7.5°	2407.4	2429.6
10°	2394.1	2420.7
12.5°	2379.7	2405.2
15°	2367.5	2386.3
17.5°	2354.2	2365.3
20°	2336.4	2345.3
22.5°	2318.7	2314.3
25°	2298.8	2288.8
27.5°	2273.3	2254.4
30°	2250.0	2216.7
32.5°	2227.8	2173.5
35°	2197.9	2129.2
37.5°	2166.9	2083.7
40°	2130.3	2031.6
42.5°	2091.5	1979.6
45°	2042.7	1929.7
47.5°	1999.5	1869.8
50°	1939.7	1805.5
52.5°	1866.5	1745.7
55°	1780.0	1672.5
57.5°	1686.9	1596.1
60°	1587.2	1508.5
62.5°	1466.4	1417.6
65°	1324.5	1313.4
67.5°	1139.4	1198.2
70°	934.4	1066.3
72.5°	781.4	926.6
75°	640.6	770.3
77.5°	507.6	604.1
80°	317.0	442.2
82.5°	212.8	290.4
85°	128.6	138.5
87.5°	49.9	51.0
90°	0.0	0.0

(END OF REPORT)