

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State
Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: METALUX

Report Number: P#

Luminaire Tested: **4SNLED-LD5-54SL-RW-UNV-L940-CD1-U**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P#
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P33525)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 4SNLED-LD5-54SL-RW-UNV-L940-CD1-U
Description: 4FT LINEAR SNLED LED FIXTURE
WHITE REFLECTOR
Light Source: -
Ballast/Driver: -

Summary

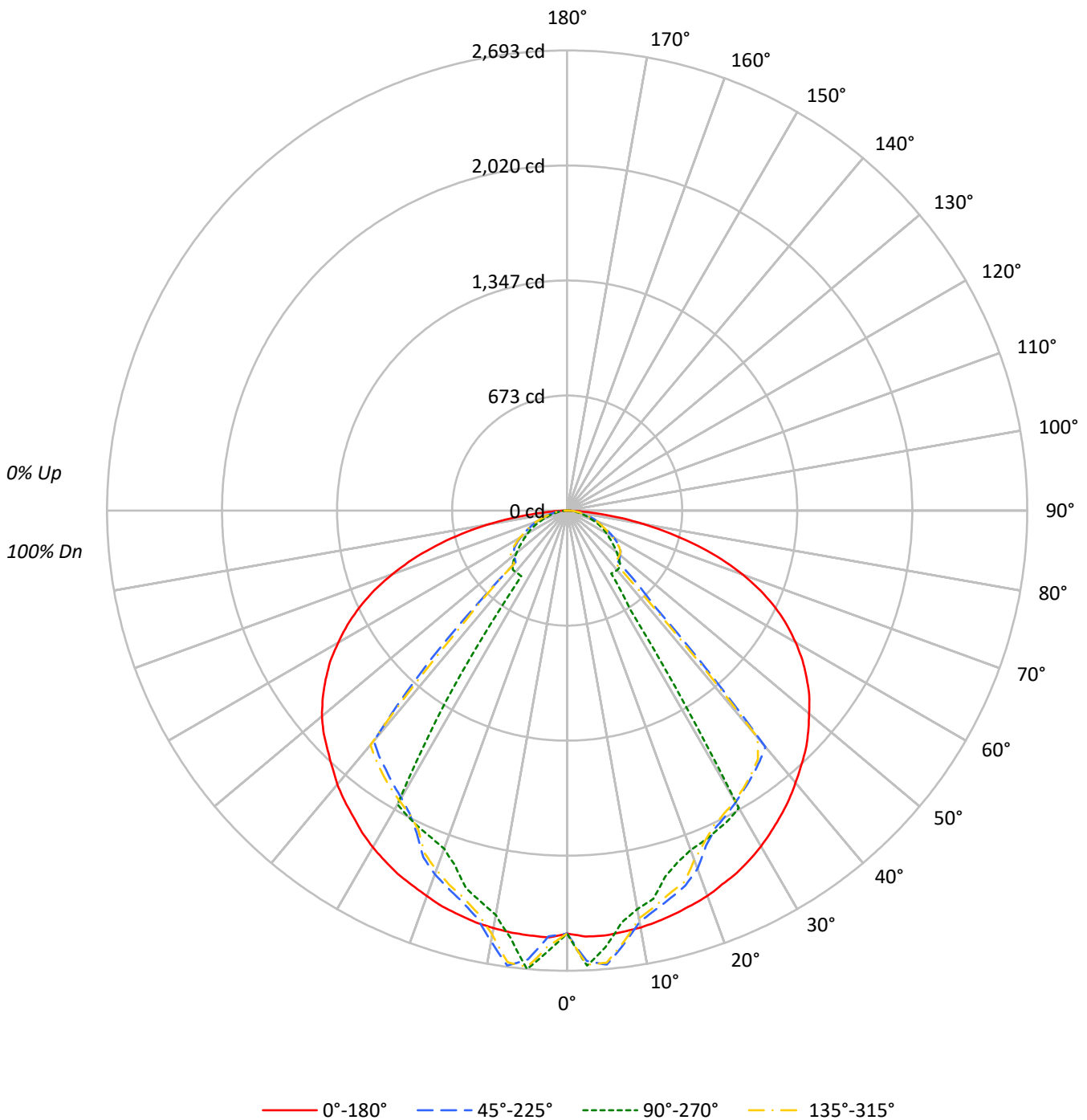
Lumens per Lamp: N/A
Luminaire Lumens: 4957.0 lumens
Efficiency: N/A
Efficacy: 107.8 lumens/watt
Spacing Criteria (0/90/45): 1.36 / 1.16 / 1.2
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.12')
CIE Type: Direct

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: 25 FT



TEST NUMBER: P#
CATALOG NUMBER: 4SNLED-LD5-54SL-RW-UNV-L940-CD1-U

Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20	
RC	80				70				50				30				10	0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	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°	20004	20004	20004	20004
5°	20200	20155	20190	21152
10°	20220	18222	20248	18501
15°	20264	16859	20312	17394
20°	20411	15991	20411	15931
25°	20588	15685	20618	15538
30°	20796	15408	20848	15225
35°	21039	3509	21082	3660
40°	21376	3649	21504	3768
45°	21888	3629	21963	3762
50°	22399	3282	22702	3370
55°	23088	2913	23272	2955
60°	23673	2589	23725	2622
65°	24090	2260	24029	2224
70°	23748	1821	23674	1755
75°	22048	1402	22204	1342
80°	17896	995	18611	912
85°	9687	596	10227	457



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-54SL-RW-UNV-L940-CD1-U

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	243.6	4.9
10°-20°	669.6	13.5
20°-30°	991.9	20.0
30°-40°	999.4	20.2
40°-50°	780.7	15.7
50°-60°	603.0	12.2
60°-70°	404.9	8.2
70°-80°	206.5	4.2
80°-90°	57.5	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°	1905.1	38.4
0°-40°	2904.5	58.6
0°-60°	4288.2	86.5
0°-90°	4957.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4957.0	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	2475	2475	2475	2475	2475	
5°	2497	2566	2496	2693	2497	237
15°	2442	2218	2448	2288	2442	691
25°	2343	2067	2346	2048	2343	1081
35°	2179	449	2184	468	2179	1366
45°	1975	437	1982	453	1975	1523
55°	1712	318	1726	322	1712	1529
65°	1344	213	1341	210	1344	1322
75°	788	108	794	103	788	825
85°	142	34	150	26	142	195
90°	0	0	0	0	0	



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-54SL-RW-UNV-L940-CD1-U

CANDELA DISTRIBUTION (FULL):

	0°	2.5°	5°	7.5°	10°	12.5°	15°	17.5°	20°	22.5°	25°
0°	2475.4	2475.4	2475.4	2475.4	2475.4	2475.4	2475.4	2475.4	2475.4	2475.4	2475.4
2.5°	2494.7	2503.8	2510.6	2515.1	2517.4	2517.4	2518.5	2519.6	2534.4	2541.2	2545.7
5°	2497.0	2506.0	2519.6	2537.8	2553.7	2567.3	2578.6	2594.5	2610.4	2627.4	2633.1
7.5°	2486.7	2498.1	2525.3	2558.2	2588.8	2610.4	2625.1	2635.4	2643.3	2644.4	2650.1
10°	2477.7	2498.1	2535.5	2578.6	2617.2	2643.3	2643.3	2637.6	2645.6	2614.9	2584.3
12.5°	2461.8	2484.5	2535.5	2592.2	2628.6	2638.8	2634.2	2611.5	2565.0	2527.6	2510.6
15°	2442.5	2473.1	2536.7	2600.2	2630.8	2634.2	2591.1	2533.3	2498.1	2475.4	2447.0
17.5°	2420.9	2461.8	2537.8	2601.3	2612.7	2596.8	2515.1	2478.8	2442.5	2389.2	2350.6
20°	2400.5	2440.2	2528.7	2585.4	2592.2	2520.8	2457.2	2418.7	2357.4	2310.9	2293.9
22.5°	2368.8	2415.3	2520.8	2563.9	2537.8	2455.0	2393.7	2332.5	2276.9	2263.3	2242.8
25°	2342.7	2391.4	2502.6	2537.8	2468.6	2394.9	2323.4	2251.9	2225.8	2206.5	2188.4
27.5°	2307.5	2367.6	2478.8	2490.1	2394.9	2330.2	2225.8	2194.1	2170.2	2148.7	2140.7
30°	2268.9	2342.7	2445.9	2424.3	2333.6	2238.3	2161.2	2131.7	2114.6	2091.9	2082.9
32.5°	2224.7	2305.2	2409.6	2348.3	2267.8	2148.7	2098.8	2076.1	2053.4	2036.4	1979.6
35°	2179.3	2272.3	2366.5	2275.7	2188.4	2080.6	2036.4	2015.9	1994.4	1932.0	1873.0
37.5°	2132.8	2236.0	2314.3	2197.5	2082.9	2010.3	1972.8	1950.1	1901.4	1821.9	1792.5
40°	2079.5	2191.8	2247.4	2116.9	1991.0	1938.8	1903.6	1880.9	1770.9	1735.7	1726.7
42.5°	2026.2	2148.7	2165.7	2038.6	1915.0	1862.8	1833.3	1758.4	1683.5	1665.4	1668.8
45°	1975.1	2102.2	2076.1	1927.5	1835.6	1792.5	1742.5	1639.3	1599.6	1608.7	1610.9
47.5°	1913.8	2046.6	1981.9	1816.3	1753.9	1710.8	1599.6	1537.2	1531.5	1544.0	1550.8
50°	1848.0	1984.2	1882.1	1715.3	1665.4	1614.3	1488.4	1456.7	1463.5	1475.9	1483.9
52.5°	1786.8	1913.8	1778.8	1621.1	1578.0	1461.2	1376.1	1381.8	1393.1	1407.9	1412.4
55°	1711.9	1828.8	1668.8	1525.9	1485.0	1331.9	1293.3	1306.9	1318.2	1330.7	1339.8
57.5°	1633.6	1731.2	1538.3	1419.2	1353.4	1217.3	1220.7	1229.8	1237.7	1252.4	517.3
60°	1544.0	1620.0	1395.4	1320.5	1190.1	1126.5	1129.9	1145.8	1153.7	644.4	356.2
62.5°	1451.0	1490.7	1266.1	1208.2	1040.3	1035.8	1051.6	1058.5	720.4	340.3	333.5
65°	1344.3	1336.4	1139.0	1047.1	938.2	942.7	959.8	925.7	318.8	318.8	316.5
67.5°	1226.4	1178.7	1015.3	866.7	839.5	849.7	867.9	302.9	295.0	297.2	289.3
70°	1091.4	1024.4	887.2	734.0	743.1	753.3	292.7	274.5	271.1	265.5	249.6
72.5°	948.4	856.5	726.1	637.6	643.2	403.9	256.4	247.3	236.0	224.6	207.6
75°	788.5	669.3	533.2	533.2	541.1	230.3	223.5	208.7	196.3	181.5	171.3
77.5°	618.3	515.0	414.1	430.0	209.9	192.9	180.4	164.5	154.3	145.2	139.5
80°	452.7	359.6	312.0	279.1	163.4	146.3	133.9	124.8	120.3	114.6	107.8
82.5°	297.2	216.7	216.7	131.6	114.6	101.0	97.6	90.8	86.2	82.8	79.4
85°	141.8	125.9	95.3	80.5	71.5	64.7	62.4	59.0	59.0	57.9	56.7
87.5°	52.2	56.7	42.0	40.8	38.6	37.4	38.6	38.6	39.7	38.6	37.4
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: P#

CATALOG NUMBER: 4SNLED-LD5-54SL-RW-UNV-L940-CD1-U

CANDELA DISTRIBUTION (continued):

	27.5°	30°	32.5°	35°	37.5°	40°	42.5°	45°	47.5°	50°	52.5°
0°	2475.4	2475.4	2475.4	2475.4	2475.4	2475.4	2475.4	2475.4	2475.4	2475.4	2475.4
2.5°	2557.1	2566.2	2573.0	2584.3	2599.1	2611.5	2622.9	2638.8	2663.7	2670.5	2676.2
5°	2633.1	2636.5	2644.4	2653.5	2655.8	2661.5	2660.3	2667.1	2670.5	2678.5	2661.5
7.5°	2637.6	2619.5	2597.9	2578.6	2565.0	2552.5	2544.6	2557.1	2563.9	2569.6	2552.5
10°	2542.3	2520.8	2508.3	2497.0	2483.3	2464.1	2438.0	2443.6	2441.4	2441.4	2435.7
12.5°	2482.2	2451.6	2419.8	2391.4	2379.0	2377.8	2379.0	2391.4	2391.4	2390.3	2383.5
15°	2388.0	2358.5	2342.7	2335.9	2335.9	2332.5	2332.5	2346.1	2342.7	2342.7	2339.3
17.5°	2325.6	2305.2	2293.9	2285.9	2282.5	2288.2	2295.0	2300.7	2301.8	2297.3	2279.1
20°	2274.6	2255.3	2241.7	2244.0	2242.8	2246.2	2249.6	2230.4	2206.5	2174.8	2160.0
22.5°	2221.3	2206.5	2196.3	2196.3	2182.7	2161.2	2129.4	2122.6	2119.2	2104.4	2091.9
25°	2170.2	2153.2	2138.5	2093.1	2064.7	2068.1	2062.5	2051.1	2050.0	2048.8	2053.4
27.5°	2119.2	2074.9	2018.2	2011.4	2000.1	1998.9	2005.7	2011.4	2011.4	2015.9	2021.6
30°	2013.7	1962.6	1952.4	1939.9	1944.5	1960.4	1963.8	1971.7	1974.0	1981.9	1986.4
32.5°	1917.2	1894.6	1885.5	1891.1	1905.9	1919.5	1927.5	1930.9	1936.5	1943.3	1949.0
35°	1839.0	1832.2	1840.1	1852.6	1867.3	1878.7	1885.5	1892.3	1898.0	1903.6	1908.2
37.5°	1781.1	1785.6	1797.0	1812.9	1827.6	1836.7	1842.4	1850.3	1858.3	1865.1	1837.8
40°	1726.7	1738.0	1750.5	1767.5	1780.0	1789.0	1794.7	1804.9	1736.9	786.2	431.1
42.5°	1679.0	1691.5	1700.6	1714.2	1727.8	1734.6	1684.7	752.1	425.4	423.2	428.8
45°	1621.1	1631.4	1646.1	1656.3	1668.8	1095.9	418.6	423.2	416.3	420.9	423.2
47.5°	1562.2	1578.0	1586.0	1513.4	450.4	416.3	411.8	416.3	411.8	417.5	414.1
50°	1495.2	1514.5	1077.7	407.3	403.9	401.6	406.1	403.9	407.3	411.8	402.7
52.5°	1427.2	883.7	394.8	392.5	394.8	392.5	400.5	394.8	395.9	391.4	380.0
55°	483.3	382.3	378.9	377.8	384.6	384.6	384.6	375.5	369.8	358.5	350.5
57.5°	369.8	369.8	368.7	369.8	367.6	365.3	355.1	347.1	339.2	323.3	318.8
60°	350.5	350.5	350.5	350.5	340.3	335.8	319.9	313.1	299.5	291.6	287.0
62.5°	334.7	332.4	322.2	318.8	307.4	295.0	285.9	279.1	265.5	260.9	257.5
65°	312.0	304.0	291.6	277.9	272.3	258.7	254.1	243.9	237.1	233.7	231.4
67.5°	274.5	263.2	253.0	243.9	233.7	229.2	223.5	215.5	211.0	208.7	206.5
70°	234.8	226.9	216.7	211.0	204.2	200.8	192.9	190.6	187.2	183.8	180.4
72.5°	196.3	191.7	187.2	179.2	177.0	174.7	166.8	162.2	157.7	153.2	150.9
75°	164.5	161.1	158.8	152.0	148.6	141.8	136.1	132.7	129.3	125.9	123.7
77.5°	135.0	132.7	125.9	121.4	119.1	113.4	111.2	112.3	110.0	105.5	103.2
80°	105.5	103.2	97.6	97.6	95.3	93.0	90.8	88.5	86.2	82.8	80.5
82.5°	80.5	78.3	76.0	73.7	71.5	70.3	69.2	66.9	64.7	62.4	61.3
85°	56.7	55.6	54.5	53.3	52.2	51.1	49.9	47.6	45.4	44.2	43.1
87.5°	38.6	37.4	36.3	35.2	34.0	32.9	31.8	30.6	28.4	27.2	26.1
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: P#

CATALOG NUMBER: 4SNLED-LD5-54SL-RW-UNV-L940-CD1-U

CANDELA DISTRIBUTION (continued):

	55°	57.5°	60°	62.5°	65°	67.5°	70°	72.5°	75°	77.5°	80°
0°	2475.4	2475.4	2475.4	2475.4	2475.4	2475.4	2475.4	2475.4	2475.4	2475.4	2475.4
2.5°	2676.2	2681.9	2676.2	2663.7	2655.8	2652.4	2659.2	2659.2	2663.7	2669.4	2670.5
5°	2634.2	2620.6	2604.7	2588.8	2580.9	2576.4	2563.9	2566.2	2569.6	2571.8	2574.1
7.5°	2529.9	2511.7	2490.1	2469.7	2461.8	2455.0	2440.2	2440.2	2440.2	2441.4	2448.2
10°	2423.2	2415.3	2406.2	2392.6	2382.4	2379.0	2366.5	2369.9	2367.6	2371.0	2379.0
12.5°	2373.3	2364.2	2356.3	2342.7	2331.3	2326.8	2321.1	2324.5	2323.4	2329.1	2335.9
15°	2327.9	2323.4	2314.3	2304.1	2293.9	2284.8	2264.4	2257.6	2253.0	2247.4	2255.3
17.5°	2253.0	2221.3	2199.7	2183.8	2172.5	2164.6	2158.9	2158.9	2162.3	2165.7	2172.5
20°	2150.9	2141.9	2131.7	2114.6	2103.3	2098.8	2095.4	2095.4	2101.0	2105.6	2118.0
22.5°	2080.6	2079.5	2076.1	2068.1	2062.5	2062.5	2063.6	2065.9	2073.8	2080.6	2093.1
25°	2047.7	2052.2	2050.0	2045.4	2042.0	2043.2	2040.9	2043.2	2051.1	2057.9	2068.1
27.5°	2021.6	2028.4	2026.2	2019.3	2013.7	2015.9	2019.3	2017.1	2023.9	2031.8	2039.8
30°	1986.4	1987.6	1992.1	1984.2	1981.9	1985.3	1986.4	1988.7	1995.5	2001.2	2008.0
32.5°	1946.7	1955.8	1954.7	1946.7	1946.7	1950.1	1951.3	1875.3	1733.5	1493.0	1427.2
35°	1908.2	1918.4	1901.4	1603.0	1109.5	592.2	457.2	441.3	444.7	447.0	449.2
37.5°	1411.3	669.3	426.6	430.0	433.4	436.8	440.2	443.6	447.0	450.4	451.5
40°	424.3	423.2	426.6	431.1	434.5	436.8	441.3	444.7	448.1	451.5	452.7
42.5°	419.8	422.0	425.4	430.0	434.5	439.0	442.4	447.0	449.2	451.5	452.7
45°	417.5	422.0	426.6	430.0	433.4	435.6	437.9	439.0	437.9	437.9	440.2
47.5°	414.1	418.6	419.8	418.6	419.8	418.6	418.6	418.6	415.2	414.1	414.1
50°	401.6	401.6	399.3	394.8	393.7	392.5	390.3	389.1	384.6	383.4	383.4
52.5°	375.5	374.4	371.0	365.3	363.0	360.8	359.6	358.5	354.0	351.7	352.8
55°	344.9	342.6	339.2	332.4	331.3	329.0	327.9	326.7	322.2	324.5	321.1
57.5°	316.5	312.0	307.4	306.3	301.8	300.6	299.5	298.4	295.0	296.1	293.8
60°	282.5	281.3	279.1	274.5	274.5	273.4	273.4	271.1	268.9	267.7	267.7
62.5°	257.5	254.1	251.9	251.9	248.4	248.4	248.4	246.2	243.9	245.0	243.9
65°	230.3	229.2	228.0	225.8	225.8	224.6	224.6	222.4	219.0	220.1	217.8
67.5°	207.6	205.3	203.1	201.9	197.4	195.1	194.0	192.9	188.3	189.5	187.2
70°	179.2	175.8	173.6	171.3	167.9	165.6	165.6	163.4	160.0	161.1	158.8
72.5°	149.7	147.5	145.2	144.1	140.7	139.5	138.4	137.3	133.9	135.0	133.9
75°	124.8	124.8	123.7	122.5	119.1	115.7	113.4	112.3	110.0	111.2	108.9
77.5°	103.2	101.0	98.7	98.7	95.3	93.0	90.8	90.8	90.8	89.6	88.5
80°	80.5	78.3	78.3	77.1	74.9	72.6	71.5	71.5	70.3	70.3	69.2
82.5°	61.3	59.0	57.9	57.9	55.6	54.5	53.3	52.2	52.2	52.2	51.1
85°	43.1	40.8	39.7	39.7	37.4	36.3	36.3	35.2	35.2	34.0	34.0
87.5°	26.1	25.0	23.8	23.8	21.6	20.4	20.4	20.4	19.3	19.3	18.2
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: P#

CATALOG NUMBER: 4SNLED-LD5-54SL-RW-UNV-L940-CD1-U

CANDELA DISTRIBUTION (continued):

	82.5°	85°	87.5°	90°	92.5°	95°	97.5°	100°	102.5°	105°	107.5°
0°	2475.4	2475.4	2475.4	2475.4	2475.4	2475.4	2475.4	2475.4	2475.4	2475.4	2475.4
2.5°	2670.5	2670.5	2662.6	2664.9	2661.5	2666.0	2660.3	2660.3	2667.1	2667.1	2671.7
5°	2575.2	2569.6	2568.4	2566.2	2554.8	2559.3	2553.7	2548.0	2555.9	2555.9	2566.2
7.5°	2444.8	2434.6	2439.1	2432.3	2425.5	2415.3	2418.7	2414.1	2419.8	2427.8	2438.0
10°	2377.8	2368.8	2374.4	2367.6	2371.0	2356.3	2357.4	2358.5	2364.2	2366.5	2375.6
12.5°	2334.7	2332.5	2330.2	2327.9	2330.2	2322.2	2317.7	2318.8	2321.1	2322.2	2329.1
15°	2244.0	2229.2	2233.8	2217.9	2219.0	2220.1	2211.1	2220.1	2219.0	2233.8	2247.4
17.5°	2170.2	2170.2	2162.3	2155.5	2150.9	2149.8	2143.0	2147.5	2143.0	2152.1	2155.5
20°	2119.2	2118.0	2116.9	2113.5	2102.2	2103.3	2106.7	2096.5	2095.4	2094.2	2101.0
22.5°	2095.4	2096.5	2091.9	2091.9	2081.7	2084.0	2085.1	2073.8	2074.9	2071.5	2074.9
25°	2070.4	2072.7	2067.0	2067.0	2064.7	2063.6	2057.9	2060.2	2053.4	2047.7	2053.4
27.5°	2040.9	2045.4	2040.9	2043.2	2038.6	2036.4	2033.0	2030.7	2023.9	2022.7	2026.2
30°	2013.7	2015.9	2014.8	2009.1	2008.0	2001.2	2004.6	1997.8	1991.0	1992.1	1994.4
32.5°	1032.4	985.8	760.1	686.4	679.5	704.5	835.0	1016.5	1317.1	1608.7	1818.5
35°	450.4	450.4	450.4	449.2	449.2	448.1	447.0	445.8	444.7	443.6	442.4
37.5°	452.7	452.7	452.7	452.7	451.5	450.4	450.4	448.1	447.0	445.8	444.7
40°	453.8	454.9	454.9	454.9	453.8	453.8	452.7	450.4	449.2	447.0	444.7
42.5°	452.7	453.8	453.8	452.7	452.7	451.5	451.5	450.4	449.2	448.1	447.0
45°	437.9	439.0	436.8	436.8	435.6	435.6	435.6	435.6	435.6	436.8	436.8
47.5°	411.8	411.8	410.7	409.5	409.5	408.4	409.5	408.4	410.7	411.8	414.1
50°	381.2	381.2	378.9	377.8	377.8	377.8	377.8	378.9	380.0	382.3	384.6
52.5°	349.4	349.4	348.3	347.1	346.0	346.0	349.4	348.3	349.4	350.5	354.0
55°	318.8	319.9	317.6	317.6	316.5	316.5	316.5	317.6	318.8	319.9	323.3
57.5°	292.7	292.7	290.4	290.4	290.4	289.3	292.7	290.4	291.6	292.7	295.0
60°	266.6	265.5	265.5	264.3	264.3	264.3	266.6	265.5	265.5	266.6	268.9
62.5°	242.8	242.8	241.6	241.6	240.5	240.5	242.8	241.6	241.6	242.8	243.9
65°	215.5	215.5	214.4	213.3	216.7	213.3	216.7	214.4	216.7	217.8	220.1
67.5°	184.9	184.9	184.9	183.8	183.8	186.1	187.2	184.9	186.1	188.3	189.5
70°	157.7	157.7	156.6	156.6	156.6	158.8	160.0	157.7	158.8	160.0	162.2
72.5°	133.9	131.6	131.6	130.5	132.7	132.7	133.9	132.7	133.9	133.9	136.1
75°	110.0	107.8	107.8	107.8	110.0	108.9	110.0	108.9	110.0	110.0	111.2
77.5°	88.5	87.4	86.2	86.2	88.5	88.5	88.5	87.4	88.5	89.6	90.8
80°	69.2	68.1	66.9	66.9	69.2	69.2	69.2	70.3	69.2	70.3	71.5
82.5°	51.1	49.9	48.8	51.1	51.1	51.1	51.1	52.2	51.1	52.2	53.3
85°	34.0	32.9	31.8	34.0	34.0	34.0	34.0	35.2	34.0	35.2	36.3
87.5°	18.2	17.0	17.0	18.2	18.2	18.2	19.3	19.3	19.3	20.4	20.4
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: P#

CATALOG NUMBER: 4SNLED-LD5-54SL-RW-UNV-L940-CD1-U

CANDELA DISTRIBUTION (continued):

	110°	112.5°	115°	117.5°	120°	122.5°	125°	127.5°	130°	132.5°	135°
0°	2475.4	2475.4	2475.4	2475.4	2475.4	2475.4	2475.4	2475.4	2475.4	2475.4	2475.4
2.5°	2678.5	2681.9	2680.7	2673.9	2667.1	2659.2	2653.5	2654.6	2666.0	2669.4	2659.2
5°	2566.2	2587.7	2587.7	2602.5	2594.5	2587.7	2592.2	2617.2	2629.7	2649.0	2655.8
7.5°	2450.4	2460.7	2459.5	2474.3	2472.0	2472.0	2475.4	2508.3	2524.2	2540.1	2544.6
10°	2385.8	2396.0	2394.9	2396.0	2392.6	2384.6	2384.6	2399.4	2413.0	2420.9	2423.2
12.5°	2339.3	2344.9	2343.8	2343.8	2341.5	2334.7	2333.6	2346.1	2360.8	2371.0	2372.2
15°	2270.1	2285.9	2289.3	2304.1	2300.7	2291.6	2293.9	2304.1	2313.2	2322.2	2318.8
17.5°	2166.8	2174.8	2175.9	2181.6	2179.3	2179.3	2192.9	2230.4	2255.3	2276.9	2279.1
20°	2107.8	2113.5	2111.2	2123.7	2118.0	2116.9	2120.3	2136.2	2147.5	2157.7	2175.9
22.5°	2079.5	2084.0	2080.6	2081.7	2071.5	2062.5	2060.2	2072.7	2085.1	2098.8	2098.8
25°	2055.6	2059.1	2057.9	2055.6	2047.7	2035.2	2033.0	2035.2	2039.8	2040.9	2033.0
27.5°	2027.3	2029.6	2029.6	2030.7	2020.5	2009.1	2006.9	2004.6	2009.1	2008.0	1995.5
30°	1997.8	1994.4	1995.5	1996.7	1987.6	1977.4	1972.8	1971.7	1976.2	1975.1	1962.6
32.5°	1927.5	1953.5	1955.8	1958.1	1950.1	1941.1	1936.5	1933.1	1935.4	1934.3	1922.9
35°	441.3	449.2	550.2	1245.6	1691.5	1873.0	1892.3	1887.7	1888.9	1888.9	1879.8
37.5°	442.4	441.3	440.2	436.8	433.4	431.1	745.3	1589.4	1841.2	1842.4	1834.4
40°	442.4	441.3	440.2	437.9	433.4	430.0	424.3	419.8	430.0	946.1	1731.2
42.5°	444.7	442.4	440.2	437.9	433.4	428.8	424.3	418.6	422.0	419.8	414.1
45°	437.9	436.8	436.8	435.6	433.4	428.8	423.2	416.3	412.9	416.3	410.7
47.5°	416.3	417.5	420.9	422.0	422.0	423.2	419.8	415.2	409.5	412.9	406.1
50°	386.9	389.1	390.3	395.9	398.2	402.7	403.9	403.9	402.7	407.3	402.7
52.5°	355.1	357.4	363.0	365.3	367.6	374.4	376.6	380.0	382.3	389.1	393.7
55°	324.5	325.6	327.9	332.4	335.8	341.5	344.9	348.3	354.0	357.4	371.0
57.5°	296.1	297.2	301.8	302.9	305.2	309.7	313.1	317.6	322.2	324.5	340.3
60°	268.9	270.0	273.4	274.5	275.7	280.2	283.6	287.0	290.4	292.7	304.0
62.5°	245.0	245.0	248.4	248.4	249.6	253.0	255.3	257.5	260.9	262.1	267.7
65°	221.2	222.4	224.6	224.6	225.8	228.0	229.2	230.3	233.7	233.7	238.2
67.5°	191.7	192.9	196.3	198.5	199.7	204.2	205.3	206.5	208.7	209.9	212.1
70°	163.4	164.5	167.9	169.0	170.2	173.6	175.8	179.2	182.6	186.1	188.3
72.5°	137.3	138.4	141.8	141.8	145.2	146.3	148.6	149.7	153.2	155.4	158.8
75°	112.3	113.4	116.8	116.8	120.3	121.4	122.5	123.7	125.9	128.2	130.5
77.5°	91.9	91.9	96.4	98.7	101.0	101.0	102.1	102.1	102.1	103.2	105.5
80°	72.6	72.6	76.0	78.3	80.5	80.5	81.7	82.8	84.0	84.0	85.1
82.5°	54.5	54.5	57.9	59.0	61.3	61.3	61.3	62.4	63.5	62.4	64.7
85°	37.4	37.4	39.7	40.8	43.1	43.1	43.1	44.2	45.4	44.2	45.4
87.5°	21.6	22.7	23.8	25.0	26.1	27.2	27.2	27.2	28.4	28.4	29.5
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: P#

CATALOG NUMBER: 4SNLED-LD5-54SL-RW-UNV-L940-CD1-U

CANDELA DISTRIBUTION (continued):

	137.5°	140°	142.5°	145°	147.5°	150°	152.5°	155°	157.5°	160°	162.5°
0°	2475.4	2475.4	2475.4	2475.4	2475.4	2475.4	2475.4	2475.4	2475.4	2475.4	2475.4
2.5°	2647.8	2634.2	2633.1	2617.2	2612.7	2613.8	2601.3	2596.8	2576.4	2571.8	2550.3
5°	2658.0	2664.9	2661.5	2660.3	2663.7	2661.5	2652.4	2647.8	2644.4	2635.4	2617.2
7.5°	2545.7	2550.3	2553.7	2568.4	2580.9	2602.5	2625.1	2639.9	2651.2	2653.5	2638.8
10°	2431.2	2452.7	2467.5	2490.1	2508.3	2520.8	2534.4	2546.9	2579.8	2612.7	2632.0
12.5°	2372.2	2377.8	2376.7	2389.2	2401.7	2434.6	2466.3	2484.5	2509.4	2524.2	2559.3
15°	2322.2	2323.4	2326.8	2335.9	2342.7	2354.0	2368.8	2396.0	2445.9	2468.6	2487.9
17.5°	2276.9	2276.9	2279.1	2287.1	2296.2	2306.4	2315.4	2326.8	2351.7	2389.2	2436.8
20°	2204.3	2236.0	2239.4	2238.3	2242.8	2262.1	2264.4	2284.8	2297.3	2312.0	2358.5
22.5°	2096.5	2115.8	2143.0	2185.0	2200.9	2209.9	2216.7	2225.8	2245.1	2262.1	2281.4
25°	2037.5	2050.0	2057.9	2070.4	2103.3	2156.6	2166.8	2177.0	2189.5	2202.0	2225.8
27.5°	1985.3	1984.2	1989.8	2001.2	2010.3	2038.6	2088.5	2128.3	2130.5	2148.7	2169.1
30°	1947.9	1941.1	1933.1	1930.9	1943.3	1958.1	1972.8	2035.2	2078.3	2087.4	2109.0
32.5°	1912.7	1901.4	1890.0	1880.9	1873.0	1885.5	1894.6	1921.8	1977.4	2029.6	2040.9
35°	1869.6	1858.3	1844.6	1834.4	1821.9	1820.8	1819.7	1845.8	1863.9	1926.3	1980.8
37.5°	1825.4	1812.9	1801.5	1790.2	1777.7	1768.6	1763.0	1769.8	1786.8	1814.0	1904.8
40°	1778.8	1764.1	1752.7	1743.7	1726.7	1719.8	1708.5	1704.0	1705.1	1728.9	1776.6
42.5°	1063.0	1694.9	1700.6	1690.3	1675.6	1666.5	1654.0	1648.4	1637.0	1648.4	1675.6
45°	409.5	414.1	1240.0	1638.2	1620.0	1608.7	1597.3	1591.7	1579.2	1570.1	1595.1
47.5°	401.6	406.1	397.1	562.7	1546.3	1549.7	1536.1	1530.4	1517.9	1511.1	1504.3
50°	395.9	399.3	392.5	394.8	386.9	1416.9	1473.7	1466.9	1453.2	1445.3	1431.7
52.5°	390.3	390.3	385.7	380.0	377.8	378.9	1192.3	1402.2	1386.3	1378.4	1360.2
55°	372.1	374.4	378.9	369.8	367.6	366.4	363.0	1135.6	1312.6	1303.5	1287.6
57.5°	344.9	349.4	361.9	359.6	359.6	350.5	348.3	348.3	1053.9	1227.5	1211.6
60°	313.1	317.6	331.3	335.8	339.2	336.9	334.7	333.5	329.0	1110.6	1131.1
62.5°	280.2	284.8	289.3	304.0	308.6	314.2	321.1	317.6	313.1	313.1	1046.0
65°	245.0	251.9	254.1	267.7	273.4	283.6	289.3	297.2	295.0	293.8	299.5
67.5°	214.4	222.4	223.5	229.2	239.4	243.9	250.7	265.5	272.3	274.5	276.8
70°	188.3	192.9	196.3	198.5	205.3	206.5	219.0	229.2	239.4	250.7	254.1
72.5°	162.2	165.6	172.4	170.2	172.4	177.0	183.8	190.6	200.8	216.7	226.9
75°	132.7	135.0	139.5	141.8	146.3	149.7	154.3	160.0	169.0	177.0	190.6
77.5°	106.6	107.8	111.2	112.3	116.8	120.3	128.2	131.6	137.3	142.9	150.9
80°	86.2	86.2	87.4	87.4	90.8	94.2	99.8	103.2	110.0	114.6	114.6
82.5°	65.8	65.8	69.2	69.2	71.5	71.5	74.9	74.9	78.3	80.5	82.8
85°	46.5	47.6	49.9	48.8	51.1	49.9	52.2	54.5	55.6	54.5	53.3
87.5°	30.6	30.6	32.9	31.8	32.9	32.9	35.2	35.2	36.3	36.3	35.2
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: P#

CATALOG NUMBER: 4SNLED-LD5-54SL-RW-UNV-L940-CD1-U

CANDELA DISTRIBUTION (continued):

	165°	167.5°	170°	172.5°	175°	177.5°	180°	182.5°	185°	187.5°	190°
0°	2475.4	2475.4	2475.4	2475.4	2475.4	2475.4	2475.4	2475.4	2475.4	2475.4	2475.4
2.5°	2542.3	2525.3	2515.1	2502.6	2499.2	2495.8	2500.4	2500.4	2493.5	2487.9	2477.7
5°	2601.3	2583.2	2563.9	2543.5	2524.2	2503.8	2495.8	2494.7	2482.2	2475.4	2472.0
7.5°	2632.0	2622.9	2601.3	2573.0	2543.5	2507.2	2491.3	2482.2	2469.7	2467.5	2467.5
10°	2635.4	2625.1	2613.8	2593.4	2559.3	2511.7	2481.1	2462.9	2451.6	2459.5	2474.3
12.5°	2602.5	2621.7	2611.5	2597.9	2570.7	2512.8	2468.6	2441.4	2438.0	2458.4	2497.0
15°	2518.5	2575.2	2603.6	2590.0	2568.4	2510.6	2448.2	2416.4	2416.4	2458.4	2508.3
17.5°	2455.0	2499.2	2568.4	2579.8	2554.8	2506.0	2428.9	2391.4	2401.7	2462.9	2516.2
20°	2402.8	2430.0	2497.0	2560.5	2536.7	2495.8	2400.5	2362.0	2382.4	2456.1	2527.6
22.5°	2321.1	2375.6	2416.4	2510.6	2518.5	2476.5	2372.2	2325.6	2366.5	2456.1	2521.9
25°	2241.7	2307.5	2350.6	2442.5	2491.3	2452.7	2346.1	2287.1	2349.5	2452.7	2517.4
27.5°	2186.1	2216.7	2295.0	2360.8	2450.4	2420.9	2310.9	2245.1	2327.9	2434.6	2491.3
30°	2127.1	2147.5	2224.7	2287.1	2396.0	2384.6	2274.6	2198.6	2300.7	2417.5	2423.2
32.5°	2062.5	2085.1	2124.8	2215.6	2320.0	2350.6	2233.8	2152.1	2271.2	2391.4	2343.8
35°	1996.7	2013.7	2045.4	2143.0	2231.5	2299.6	2183.8	2098.8	2250.8	2351.7	2267.8
37.5°	1930.9	1949.0	1976.2	2057.9	2138.5	2251.9	2140.7	2045.4	2213.3	2281.4	2188.4
40°	1868.5	1878.7	1907.0	1958.1	2061.3	2203.1	2091.9	1989.8	2174.8	2191.8	2080.6
42.5°	1753.9	1804.9	1831.0	1871.9	1974.0	2136.2	2035.2	1930.9	2131.7	2102.2	1972.8
45°	1630.2	1741.4	1752.7	1793.6	1896.8	2064.7	1981.9	1873.0	2090.8	2025.0	1870.7
47.5°	1529.3	1609.8	1675.6	1709.6	1804.9	1980.8	1932.0	1824.2	2029.6	1927.5	1770.9
50°	1439.6	1482.7	1601.9	1626.8	1694.9	1879.8	1873.0	1767.5	1944.5	1804.9	1673.3
52.5°	1352.3	1382.9	1490.7	1544.0	1599.6	1770.9	1802.7	1711.9	1851.4	1682.4	1574.6
55°	1276.3	1286.5	1345.5	1457.8	1507.7	1660.9	1725.5	1647.2	1733.5	1565.6	1479.3
57.5°	1198.0	1188.9	1232.0	1376.1	1412.4	1548.5	1643.8	1581.4	1638.2	1446.4	1380.6
60°	1116.3	1103.8	1122.0	1217.3	1311.4	1437.4	1547.4	1508.8	1522.4	1328.5	1270.6
62.5°	1031.2	1018.7	1013.1	1073.2	1212.7	1322.8	1449.8	1428.3	1380.6	1220.7	1134.5
65°	942.7	930.3	921.2	945.0	1103.8	1174.2	1340.9	1335.3	1225.2	1107.2	955.2
67.5°	287.0	846.3	827.0	825.9	930.3	1039.2	1223.0	1213.9	1068.7	985.8	822.5
70°	258.7	686.4	729.5	719.2	764.6	901.9	1088.0	1081.1	916.6	790.7	727.2
72.5°	237.1	242.8	644.4	633.0	643.2	766.9	947.3	929.1	777.1	624.0	628.5
75°	203.1	213.3	222.4	534.3	520.7	635.3	794.1	765.8	641.0	515.0	525.3
77.5°	165.6	178.1	184.9	389.1	420.9	452.7	634.2	596.7	441.3	411.8	196.3
80°	123.7	133.9	145.2	155.4	319.9	316.5	470.8	433.4	307.4	256.4	153.2
82.5°	90.8	94.2	101.0	112.3	127.1	212.1	302.9	266.6	213.3	116.8	105.5
85°	56.7	61.3	64.7	68.1	77.1	127.1	149.7	119.1	89.6	71.5	66.9
87.5°	36.3	36.3	35.2	36.3	37.4	45.4	51.1	48.8	38.6	36.3	36.3
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: P#

CATALOG NUMBER: 4SNLED-LD5-54SL-RW-UNV-L940-CD1-U

CANDELA DISTRIBUTION (continued):

	192.5°	195°	197.5°	200°	202.5°	205°	207.5°	210°	212.5°	215°	217.5°
0°	2475.4	2475.4	2475.4	2475.4	2475.4	2475.4	2475.4	2475.4	2475.4	2475.4	2475.4
2.5°	2466.3	2450.4	2450.4	2445.9	2449.3	2449.3	2448.2	2449.3	2457.2	2461.8	2469.7
5°	2465.2	2460.7	2470.9	2483.3	2498.1	2516.2	2520.8	2536.7	2551.4	2570.7	2591.1
7.5°	2479.9	2495.8	2515.1	2535.5	2565.0	2586.6	2605.9	2625.1	2638.8	2656.9	2668.3
10°	2501.5	2533.3	2566.2	2592.2	2624.0	2642.2	2654.6	2656.9	2637.6	2607.0	2582.0
12.5°	2532.1	2569.6	2600.2	2625.1	2639.9	2633.1	2596.8	2559.3	2537.8	2506.0	2461.8
15°	2558.2	2592.2	2624.0	2613.8	2574.1	2536.7	2508.3	2464.1	2420.9	2391.4	2372.2
17.5°	2569.6	2602.5	2591.1	2537.8	2500.4	2457.2	2399.4	2365.4	2337.0	2314.3	2303.0
20°	2576.4	2570.7	2509.4	2470.9	2398.3	2358.5	2321.1	2289.3	2267.8	2256.4	2254.2
22.5°	2558.2	2489.0	2436.8	2367.6	2314.3	2281.4	2251.9	2225.8	2211.1	2202.0	2196.3
25°	2498.1	2417.5	2340.4	2285.9	2240.6	2212.2	2189.5	2168.0	2149.8	2145.3	2133.9
27.5°	2414.1	2348.3	2246.2	2204.3	2164.6	2150.9	2126.0	2104.4	2088.5	2074.9	2038.6
30°	2344.9	2240.6	2166.8	2128.3	2104.4	2088.5	2060.2	2037.5	2010.3	1960.4	1939.9
32.5°	2259.9	2156.6	2086.3	2064.7	2035.2	2021.6	1989.8	1939.9	1898.0	1877.5	1876.4
35°	2149.8	2064.7	2013.7	1994.4	1970.6	1947.9	1882.1	1836.7	1816.3	1818.5	1835.6
37.5°	2057.9	1981.9	1949.0	1921.8	1894.6	1836.7	1781.1	1759.6	1765.2	1776.6	1784.5
40°	1964.9	1907.0	1869.6	1848.0	1786.8	1730.1	1700.6	1708.5	1718.7	1726.7	1736.9
42.5°	1874.1	1833.3	1795.9	1753.9	1669.9	1639.3	1646.1	1656.3	1665.4	1676.7	1686.9
45°	1787.9	1751.6	1708.5	1613.2	1571.2	1579.2	1589.4	1597.3	1610.9	1618.9	1629.1
47.5°	1706.2	1667.7	1591.7	1507.7	1503.2	1519.0	1528.1	1538.3	1548.5	1528.1	842.9
50°	1614.3	1574.6	1458.9	1427.2	1437.4	1452.1	1463.5	1473.7	1312.6	521.9	401.6
52.5°	1523.6	1422.6	1348.9	1358.0	1368.2	1385.2	1393.1	1034.6	411.8	392.5	393.7
55°	1422.6	1293.3	1271.7	1283.1	1292.2	1309.2	867.9	380.0	377.8	376.6	385.7
57.5°	1263.8	1185.5	1194.6	1205.9	1215.0	857.7	369.8	367.6	368.7	369.8	371.0
60°	1122.0	1105.0	1115.2	1125.4	796.4	357.4	350.5	351.7	356.2	352.8	343.7
62.5°	1009.7	1023.3	1033.5	905.3	339.2	335.8	339.2	335.8	327.9	322.2	310.8
65°	923.5	937.1	945.0	318.8	317.6	322.2	318.8	307.4	295.0	279.1	275.7
67.5°	832.7	846.3	302.9	295.0	299.5	293.8	280.2	266.6	257.5	243.9	238.2
70°	738.5	316.5	274.5	273.4	265.5	256.4	241.6	228.0	216.7	211.0	205.3
72.5°	533.2	250.7	247.3	238.2	224.6	212.1	199.7	191.7	186.1	182.6	179.2
75°	222.4	217.8	207.6	191.7	178.1	172.4	163.4	157.7	155.4	148.6	146.3
77.5°	186.1	177.0	162.2	150.9	142.9	139.5	132.7	125.9	122.5	121.4	116.8
80°	142.9	130.5	123.7	118.0	115.7	107.8	99.8	96.4	94.2	93.0	89.6
82.5°	97.6	93.0	88.5	80.5	80.5	77.1	73.7	71.5	69.2	69.2	66.9
85°	63.5	60.1	59.0	55.6	55.6	53.3	52.2	51.1	49.9	48.8	47.6
87.5°	36.3	36.3	37.4	36.3	36.3	35.2	34.0	32.9	31.8	31.8	29.5
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: P#

CATALOG NUMBER: 4SNLED-LD5-54SL-RW-UNV-L940-CD1-U

CANDELA DISTRIBUTION (continued):

	220°	222.5°	225°	227.5°	230°	232.5°	235°	237.5°	240°	242.5°	245°
0°	2475.4	2475.4	2475.4	2475.4	2475.4	2475.4	2475.4	2475.4	2475.4	2475.4	2475.4
2.5°	2479.9	2491.3	2493.5	2532.1	2553.7	2552.5	2545.7	2566.2	2553.7	2546.9	2553.7
5°	2611.5	2625.1	2636.5	2678.5	2693.2	2700.0	2698.9	2710.2	2701.2	2693.2	2693.2
7.5°	2676.2	2680.7	2685.3	2675.1	2668.3	2656.9	2639.9	2614.9	2602.5	2588.8	2571.8
10°	2569.6	2554.8	2560.5	2540.1	2523.0	2510.6	2494.7	2474.3	2457.2	2444.8	2425.5
12.5°	2439.1	2438.0	2440.2	2443.6	2426.6	2416.4	2403.9	2389.2	2376.7	2363.1	2347.2
15°	2359.7	2360.8	2369.9	2366.5	2360.8	2355.1	2341.5	2337.0	2325.6	2310.9	2301.8
17.5°	2303.0	2308.6	2317.7	2313.2	2304.1	2298.4	2288.2	2278.0	2267.8	2256.4	2242.8
20°	2253.0	2258.7	2264.4	2258.7	2241.7	2233.8	2220.1	2188.4	2165.7	2143.0	2122.6
22.5°	2198.6	2202.0	2197.5	2179.3	2136.2	2115.8	2099.9	2090.8	2071.5	2059.1	2046.6
25°	2130.5	2111.2	2081.7	2061.3	2044.3	2035.2	2028.4	2027.3	2025.0	2022.7	2017.1
27.5°	2019.3	2012.5	1996.7	1988.7	1989.8	1993.3	1994.4	1997.8	1994.4	1989.8	1985.3
30°	1936.5	1939.9	1941.1	1943.3	1949.0	1952.4	1953.5	1958.1	1955.8	1952.4	1950.1
32.5°	1884.3	1892.3	1896.8	1903.6	1907.0	1912.7	1912.7	1919.5	1912.7	1911.6	1909.3
35°	1841.2	1848.0	1850.3	1860.5	1863.9	1869.6	1869.6	1875.3	1869.6	1811.7	1430.6
37.5°	1798.1	1804.9	1809.5	1818.5	1819.7	1823.1	1682.4	1230.9	794.1	614.9	469.7
40°	1747.1	1755.0	1759.6	1763.0	1238.8	786.2	541.1	440.2	440.2	443.6	447.0
42.5°	1692.6	1698.3	1183.2	688.6	428.8	427.7	431.1	434.5	437.9	442.4	447.0
45°	1330.7	671.6	426.6	416.3	419.8	424.3	428.8	433.4	439.0	443.6	445.8
47.5°	436.8	409.5	415.2	410.7	416.3	422.0	426.6	431.1	432.2	433.4	432.2
50°	403.9	403.9	407.3	407.3	411.8	414.1	414.1	414.1	409.5	408.4	405.0
52.5°	390.3	399.3	394.8	397.1	394.8	391.4	388.0	384.6	377.8	375.5	371.0
55°	383.4	386.9	375.5	372.1	367.6	358.5	354.0	349.4	343.7	341.5	335.8
57.5°	367.6	359.6	347.1	341.5	333.5	324.5	319.9	316.5	310.8	308.6	305.2
60°	338.1	322.2	314.2	307.4	298.4	290.4	287.0	284.8	280.2	279.1	275.7
62.5°	301.8	288.2	281.3	272.3	265.5	260.9	257.5	256.4	251.9	251.9	249.6
65°	262.1	255.3	249.6	240.5	237.1	232.6	231.4	230.3	228.0	226.9	224.6
67.5°	230.3	225.8	217.8	213.3	211.0	207.6	205.3	203.1	198.5	196.3	192.9
70°	201.9	198.5	190.6	187.2	182.6	177.0	173.6	171.3	167.9	165.6	162.2
72.5°	174.7	164.5	158.8	155.4	152.0	146.3	145.2	142.9	139.5	138.4	135.0
75°	140.7	132.7	129.3	127.1	123.7	120.3	120.3	120.3	116.8	115.7	114.6
77.5°	112.3	107.8	105.5	103.2	102.1	99.8	96.4	95.3	91.9	91.9	90.8
80°	86.2	84.0	81.7	80.5	79.4	77.1	74.9	73.7	70.3	70.3	69.2
82.5°	63.5	62.4	61.3	60.1	59.0	57.9	54.5	53.3	51.1	51.1	49.9
85°	45.4	44.2	42.0	40.8	40.8	39.7	36.3	35.2	32.9	32.9	32.9
87.5°	28.4	27.2	26.1	25.0	23.8	22.7	20.4	19.3	19.3	17.0	15.9
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: P#

CATALOG NUMBER: 4SNLED-LD5-54SL-RW-UNV-L940-CD1-U

CANDELA DISTRIBUTION (continued):

	247.5°	250°	252.5°	255°	257.5°	260°	262.5°	265°	267.5°	270°	272.5°
0°	2475.4	2475.4	2475.4	2475.4	2475.4	2475.4	2475.4	2475.4	2475.4	2475.4	2475.4
2.5°	2540.1	2559.3	2557.1	2570.7	2574.1	2580.9	2583.2	2584.3	2567.3	2580.9	2582.0
5°	2689.8	2693.2	2695.5	2701.2	2706.8	2708.0	2702.3	2695.5	2697.8	2693.2	2681.9
7.5°	2569.6	2552.5	2549.1	2544.6	2542.3	2540.1	2529.9	2538.9	2528.7	2524.2	2508.3
10°	2422.1	2406.2	2405.1	2405.1	2408.5	2407.3	2405.1	2400.5	2409.6	2403.9	2400.5
12.5°	2344.9	2339.3	2342.7	2340.4	2349.5	2351.7	2349.5	2349.5	2347.2	2342.7	2344.9
15°	2298.4	2293.9	2297.3	2293.9	2300.7	2301.8	2296.2	2299.6	2293.9	2288.2	2285.9
17.5°	2237.2	2227.0	2219.0	2207.7	2208.8	2206.5	2199.7	2199.7	2194.1	2179.3	2180.4
20°	2119.2	2109.0	2104.4	2104.4	2110.1	2112.4	2111.2	2113.5	2107.8	2105.6	2096.5
22.5°	2045.4	2044.3	2046.6	2052.2	2061.3	2073.8	2074.9	2074.9	2074.9	2073.8	2062.5
25°	2019.3	2019.3	2021.6	2029.6	2036.4	2045.4	2047.7	2050.0	2047.7	2047.7	2037.5
27.5°	1989.8	1987.6	1992.1	2000.1	2008.0	2014.8	2020.5	2021.6	2018.2	2018.2	2021.6
30°	1953.5	1952.4	1958.1	1966.0	1972.8	1979.6	1985.3	1989.8	1985.3	1985.3	1981.9
32.5°	1916.1	1916.1	1918.4	1870.7	1734.6	1562.2	1565.6	1465.7	1396.5	1309.2	1424.9
35°	1195.7	870.1	747.6	633.0	552.5	500.3	499.2	482.1	474.2	468.5	467.4
37.5°	451.5	453.8	458.3	460.6	464.0	466.3	467.4	467.4	467.4	467.4	466.3
40°	450.4	454.9	458.3	461.7	465.1	467.4	467.4	468.5	469.7	469.7	469.7
42.5°	451.5	456.1	460.6	464.0	466.3	467.4	468.5	469.7	469.7	469.7	469.7
45°	450.4	452.7	452.7	453.8	453.8	453.8	454.9	454.9	453.8	452.7	454.9
47.5°	433.4	433.4	430.0	428.8	427.7	425.4	426.6	425.4	424.3	423.2	425.4
50°	403.9	399.3	397.1	394.8	393.7	391.4	392.5	391.4	390.3	388.0	391.4
52.5°	368.7	367.6	363.0	360.8	359.6	360.8	358.5	357.4	356.2	355.1	356.2
55°	334.7	330.1	329.0	326.7	325.6	326.7	325.6	324.5	323.3	322.2	323.3
57.5°	304.0	300.6	299.5	297.2	297.2	297.2	297.2	296.1	295.0	293.8	295.0
60°	274.5	272.3	271.1	271.1	270.0	270.0	270.0	268.9	267.7	267.7	268.9
62.5°	249.6	249.6	246.2	245.0	245.0	246.2	245.0	243.9	242.8	241.6	243.9
65°	223.5	219.0	217.8	215.5	213.3	214.4	213.3	212.1	211.0	209.9	212.1
67.5°	191.7	190.6	186.1	183.8	182.6	183.8	182.6	181.5	180.4	179.2	181.5
70°	161.1	161.1	156.6	155.4	154.3	154.3	153.2	153.2	152.0	150.9	153.2
72.5°	133.9	133.9	132.7	130.5	129.3	128.2	127.1	125.9	125.9	127.1	127.1
75°	111.2	108.9	104.4	105.5	104.4	103.2	103.2	102.1	101.0	103.2	102.1
77.5°	87.4	86.2	82.8	84.0	82.8	81.7	81.7	80.5	79.4	80.5	80.5
80°	65.8	65.8	64.7	63.5	63.5	62.4	61.3	61.3	60.1	61.3	61.3
82.5°	47.6	47.6	46.5	45.4	44.2	44.2	43.1	43.1	43.1	43.1	43.1
85°	30.6	29.5	29.5	27.2	27.2	27.2	26.1	26.1	26.1	26.1	26.1
87.5°	14.7	14.7	13.6	13.6	12.5	11.3	11.3	10.2	10.2	11.3	11.3
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: P#

CATALOG NUMBER: 4SNLED-LD5-54SL-RW-UNV-L940-CD1-U

CANDELA DISTRIBUTION (continued):

	275°	277.5°	280°	282.5°	285°	287.5°	290°	292.5°	295°	297.5°	300°
0°	2475.4	2475.4	2475.4	2475.4	2475.4	2475.4	2475.4	2475.4	2475.4	2475.4	2475.4
2.5°	2561.6	2576.4	2563.9	2569.6	2570.7	2590.0	2588.8	2593.4	2585.4	2576.4	2563.9
5°	2692.1	2685.3	2676.2	2697.8	2686.4	2700.0	2704.6	2713.6	2713.6	2712.5	2702.3
7.5°	2525.3	2510.6	2521.9	2529.9	2533.3	2524.2	2542.3	2562.8	2579.8	2590.0	2591.1
10°	2394.9	2399.4	2398.3	2401.7	2409.6	2408.5	2419.8	2431.2	2435.7	2442.5	2444.8
12.5°	2333.6	2332.5	2334.7	2342.7	2347.2	2346.1	2357.4	2364.2	2366.5	2367.6	2366.5
15°	2284.8	2276.9	2282.5	2283.7	2287.1	2287.1	2300.7	2310.9	2315.4	2317.7	2315.4
17.5°	2192.9	2173.6	2191.8	2191.8	2204.3	2202.0	2223.5	2240.6	2249.6	2256.4	2256.4
20°	2102.2	2093.1	2099.9	2097.6	2106.7	2105.6	2119.2	2130.5	2138.5	2144.1	2150.9
22.5°	2065.9	2068.1	2057.9	2059.1	2059.1	2057.9	2064.7	2070.4	2072.7	2076.1	2073.8
25°	2042.0	2044.3	2040.9	2035.2	2033.0	2035.2	2038.6	2045.4	2046.6	2044.3	2036.4
27.5°	2018.2	2011.4	2017.1	2006.9	2004.6	2009.1	2013.7	2014.8	2015.9	2015.9	2009.1
30°	1981.9	1976.2	1981.9	1977.4	1972.8	1977.4	1980.8	1980.8	1983.0	1984.2	1976.2
32.5°	1385.2	1396.5	1580.3	1691.5	1848.0	1927.5	1942.2	1942.2	1944.5	1944.5	1937.7
35°	471.9	473.1	511.6	554.8	646.6	760.1	908.7	985.8	1246.8	1558.8	1860.5
37.5°	466.3	465.1	464.0	462.9	461.7	460.6	458.3	457.2	464.0	550.2	746.5
40°	468.5	467.4	465.1	464.0	462.9	460.6	459.5	457.2	454.9	452.7	450.4
42.5°	468.5	467.4	466.3	465.1	464.0	462.9	460.6	458.3	456.1	452.7	449.2
45°	452.7	452.7	453.8	453.8	454.9	454.9	454.9	453.8	453.8	452.7	448.1
47.5°	423.2	423.2	426.6	426.6	428.8	431.1	431.1	433.4	436.8	439.0	440.2
50°	389.1	389.1	392.5	393.7	395.9	399.3	402.7	403.9	407.3	411.8	416.3
52.5°	355.1	355.1	358.5	358.5	360.8	364.2	367.6	368.7	373.2	377.8	383.4
55°	323.3	323.3	325.6	326.7	327.9	330.1	333.5	333.5	338.1	341.5	347.1
57.5°	295.0	297.2	297.2	297.2	298.4	300.6	302.9	302.9	306.3	309.7	314.2
60°	267.7	270.0	270.0	270.0	271.1	272.3	274.5	274.5	276.8	279.1	283.6
62.5°	242.8	245.0	245.0	246.2	246.2	247.3	249.6	248.4	250.7	251.9	255.3
65°	211.0	213.3	214.4	215.5	216.7	219.0	222.4	221.2	224.6	226.9	230.3
67.5°	180.4	182.6	182.6	183.8	184.9	187.2	189.5	189.5	192.9	195.1	199.7
70°	152.0	154.3	154.3	155.4	156.6	158.8	161.1	160.0	163.4	165.6	169.0
72.5°	125.9	128.2	128.2	129.3	129.3	131.6	133.9	136.1	136.1	138.4	140.7
75°	102.1	103.2	104.4	104.4	105.5	106.6	108.9	111.2	112.3	113.4	115.7
77.5°	80.5	81.7	82.8	82.8	84.0	85.1	86.2	90.8	93.0	94.2	94.2
80°	61.3	62.4	62.4	62.4	63.5	64.7	66.9	66.9	71.5	71.5	72.6
82.5°	43.1	44.2	44.2	44.2	45.4	47.6	48.8	49.9	52.2	53.3	53.3
85°	26.1	27.2	27.2	27.2	28.4	29.5	31.8	32.9	34.0	34.0	35.2
87.5°	10.2	11.3	12.5	12.5	13.6	14.7	15.9	17.0	18.2	18.2	19.3
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: P#

CATALOG NUMBER: 4SNLED-LD5-54SL-RW-UNV-L940-CD1-U

CANDELA DISTRIBUTION (continued):

	302.5°	305°	307.5°	310°	312.5°	315°	317.5°	320°	322.5°	325°	327.5°
0°	2475.4	2475.4	2475.4	2475.4	2475.4	2475.4	2475.4	2475.4	2475.4	2475.4	2475.4
2.5°	2550.3	2558.2	2550.3	2554.8	2560.5	2550.3	2526.4	2517.4	2514.0	2500.4	2491.3
5°	2692.1	2692.1	2688.7	2697.8	2696.6	2680.7	2655.8	2644.4	2633.1	2618.3	2607.0
7.5°	2591.1	2600.2	2605.9	2641.0	2663.7	2666.0	2681.9	2685.3	2689.8	2685.3	2678.5
10°	2445.9	2442.5	2458.4	2491.3	2510.6	2520.8	2551.4	2566.2	2578.6	2603.6	2629.7
12.5°	2364.2	2368.8	2375.6	2399.4	2417.5	2413.0	2425.5	2435.7	2450.4	2475.4	2512.8
15°	2309.8	2314.3	2321.1	2339.3	2350.6	2344.9	2351.7	2358.5	2368.8	2381.2	2403.9
17.5°	2250.8	2258.7	2266.7	2285.9	2296.2	2295.0	2300.7	2303.0	2306.4	2314.3	2330.2
20°	2158.9	2183.8	2199.7	2225.8	2240.6	2238.3	2248.5	2251.9	2256.4	2264.4	2271.2
22.5°	2074.9	2081.7	2089.7	2118.0	2143.0	2173.6	2180.4	2189.5	2200.9	2208.8	2215.6
25°	2027.3	2022.7	2026.2	2045.4	2059.1	2061.3	2071.5	2101.0	2131.7	2145.3	2161.2
27.5°	1998.9	1994.4	1993.3	2002.3	2004.6	1998.9	1996.7	2005.7	2028.4	2051.1	2098.8
30°	1968.3	1962.6	1958.1	1966.0	1969.4	1961.5	1946.7	1938.8	1952.4	1958.1	1977.4
32.5°	1932.0	1926.3	1924.0	1928.6	1930.9	1924.0	1908.2	1899.1	1896.8	1892.3	1896.8
35°	1891.1	1885.5	1882.1	1883.2	1887.7	1882.1	1868.5	1857.1	1851.4	1839.0	1829.9
37.5°	974.5	1380.6	1792.5	1835.6	1840.1	1839.0	1825.4	1812.9	1807.2	1792.5	1787.9
40°	445.8	498.0	747.6	976.8	1409.0	1790.2	1777.7	1765.2	1755.0	1750.5	1733.5
42.5°	444.7	445.8	447.0	441.3	546.8	931.4	1375.0	1716.4	1709.6	1698.3	1685.8
45°	444.7	439.0	443.6	436.8	439.0	437.9	545.7	880.3	1566.7	1637.0	1631.4
47.5°	440.2	436.8	441.3	435.6	428.8	432.2	427.7	433.4	676.1	1146.9	1571.2
50°	419.8	422.0	430.0	428.8	423.2	427.7	419.8	426.6	420.9	461.7	889.4
52.5°	389.1	393.7	401.6	408.4	410.7	416.3	414.1	416.3	411.8	412.9	414.1
55°	352.8	358.5	365.3	375.5	380.0	389.1	395.9	399.3	405.0	403.9	394.8
57.5°	318.8	324.5	330.1	340.3	350.5	355.1	367.6	374.4	389.1	385.7	383.4
60°	287.0	291.6	297.2	299.5	312.0	319.9	331.3	338.1	357.4	361.9	368.7
62.5°	258.7	260.9	265.5	268.9	276.8	284.8	290.4	301.8	312.0	326.7	336.9
65°	232.6	234.8	238.2	240.5	241.6	253.0	256.4	268.9	272.3	288.2	297.2
67.5°	203.1	207.6	212.1	214.4	216.7	223.5	225.8	231.4	239.4	246.2	257.5
70°	172.4	175.8	180.4	183.8	188.3	192.9	199.7	203.1	208.7	213.3	222.4
72.5°	144.1	147.5	149.7	153.2	156.6	160.0	165.6	173.6	178.1	186.1	188.3
75°	116.8	120.3	122.5	124.8	128.2	130.5	132.7	140.7	145.2	152.0	158.8
77.5°	96.4	96.4	98.7	105.5	104.4	104.4	106.6	111.2	114.6	119.1	125.9
80°	74.9	76.0	77.1	82.8	84.0	85.1	84.0	87.4	90.8	91.9	96.4
82.5°	55.6	56.7	56.7	60.1	63.5	63.5	63.5	64.7	68.1	69.2	71.5
85°	37.4	38.6	39.7	40.8	43.1	44.2	45.4	45.4	47.6	48.8	49.9
87.5°	20.4	22.7	23.8	25.0	26.1	27.2	28.4	29.5	30.6	31.8	32.9
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: P#

CATALOG NUMBER: 4SNLED-LD5-54SL-RW-UNV-L940-CD1-U

CANDELA DISTRIBUTION (continued):

	330°	332.5°	335°	337.5°	340°	342.5°	345°	347.5°	350°	352.5°	355°
0°	2475.4	2475.4	2475.4	2475.4	2475.4	2475.4	2475.4	2475.4	2475.4	2475.4	2475.4
2.5°	2487.9	2482.2	2478.8	2469.7	2467.5	2452.7	2455.0	2452.7	2452.7	2456.1	2467.5
5°	2594.5	2567.3	2560.5	2541.2	2525.3	2498.1	2481.1	2472.0	2458.4	2452.7	2460.7
7.5°	2667.1	2646.7	2629.7	2612.7	2590.0	2558.2	2534.4	2507.2	2484.5	2462.9	2457.2
10°	2654.6	2677.3	2677.3	2667.1	2645.6	2613.8	2585.4	2551.4	2511.7	2477.7	2457.2
12.5°	2549.1	2588.8	2620.6	2644.4	2666.0	2644.4	2616.1	2588.8	2544.6	2494.7	2457.2
15°	2433.4	2474.3	2514.0	2563.9	2616.1	2637.6	2636.5	2604.7	2565.0	2512.8	2460.7
17.5°	2351.7	2380.1	2401.7	2456.1	2519.6	2575.2	2612.7	2614.9	2576.4	2529.9	2461.8
20°	2290.5	2310.9	2329.1	2359.7	2415.3	2483.3	2552.5	2591.1	2584.3	2533.3	2465.2
22.5°	2234.9	2249.6	2264.4	2287.1	2331.3	2375.6	2456.1	2535.5	2569.6	2527.6	2461.8
25°	2179.3	2195.2	2206.5	2222.4	2257.6	2293.9	2350.6	2449.3	2525.3	2523.0	2455.0
27.5°	2113.5	2135.1	2148.7	2170.2	2194.1	2221.3	2259.9	2352.9	2461.8	2500.4	2436.8
30°	2034.1	2065.9	2086.3	2110.1	2130.5	2154.3	2185.0	2241.7	2376.7	2456.1	2417.5
32.5°	1919.5	1976.2	2021.6	2044.3	2067.0	2087.4	2114.6	2162.3	2272.3	2396.0	2396.0
35°	1837.8	1863.9	1904.8	1970.6	1998.9	2019.3	2044.3	2081.7	2152.1	2324.5	2360.8
37.5°	1774.3	1784.5	1804.9	1869.6	1922.9	1955.8	1980.8	2004.6	2073.8	2227.0	2315.4
40°	1726.7	1723.2	1721.0	1751.6	1827.6	1879.8	1908.2	1932.0	1985.3	2110.1	2255.3
42.5°	1671.1	1667.7	1656.3	1664.3	1701.7	1789.0	1832.2	1858.3	1902.5	1987.6	2189.5
45°	1613.2	1607.5	1603.0	1595.1	1608.7	1657.5	1745.9	1784.5	1809.5	1885.5	2106.7
47.5°	1554.2	1546.3	1540.6	1533.8	1525.9	1548.5	1632.5	1701.7	1744.8	1792.5	2006.9
50°	1470.3	1480.5	1473.7	1465.7	1458.9	1454.4	1489.5	1603.0	1656.3	1694.9	1885.5
52.5°	693.2	1347.7	1404.5	1396.5	1387.4	1379.5	1387.4	1473.7	1570.1	1600.7	1739.1
55°	394.8	600.1	1249.0	1320.5	1312.6	1301.2	1294.4	1323.9	1468.0	1508.8	1605.3
57.5°	380.0	381.2	551.3	1190.1	1234.3	1224.1	1216.1	1223.0	1345.5	1414.7	1488.4
60°	367.6	367.6	367.6	526.4	1137.9	1141.3	1131.1	1119.7	1173.0	1309.2	1370.4
62.5°	340.3	347.1	350.5	350.5	519.6	1053.9	1043.7	1040.3	1042.6	1182.1	1252.4
65°	305.2	321.1	327.9	332.4	332.4	545.7	954.1	948.4	940.5	993.8	1133.3
67.5°	266.6	282.5	297.2	306.3	307.4	317.6	569.5	854.3	842.9	844.0	1006.3
70°	226.9	240.5	256.4	270.0	282.5	288.2	297.2	709.0	746.5	730.6	862.2
72.5°	196.3	201.9	213.3	226.9	241.6	255.3	263.2	282.5	647.8	630.8	655.7
75°	163.4	167.9	175.8	184.9	196.3	212.1	225.8	239.4	343.7	528.7	525.3
77.5°	127.1	135.0	144.1	149.7	155.4	166.8	184.9	198.5	212.1	357.4	420.9
80°	97.6	103.2	107.8	113.4	120.3	128.2	135.0	150.9	166.8	179.2	322.2
82.5°	72.6	76.0	79.4	81.7	84.0	88.5	101.0	106.6	116.8	128.2	152.0
85°	51.1	53.3	55.6	56.7	57.9	59.0	63.5	64.7	74.9	77.1	91.9
87.5°	32.9	34.0	36.3	37.4	37.4	38.6	39.7	39.7	39.7	37.4	45.4
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: P#

CATALOG NUMBER: 4SNLED-LD5-54SL-RW-UNV-L940-CD1-U

CANDELA DISTRIBUTION (continued):

	357.5°	360°
0°	2475.4	2475.4
2.5°	2476.5	2494.7
5°	2473.1	2497.0
7.5°	2464.1	2486.7
10°	2450.4	2477.7
12.5°	2435.7	2461.8
15°	2423.2	2442.5
17.5°	2409.6	2420.9
20°	2391.4	2400.5
22.5°	2373.3	2368.8
25°	2352.9	2342.7
27.5°	2326.8	2307.5
30°	2303.0	2268.9
32.5°	2280.3	2224.7
35°	2249.6	2179.3
37.5°	2217.9	2132.8
40°	2180.4	2079.5
42.5°	2140.7	2026.2
45°	2090.8	1975.1
47.5°	2046.6	1913.8
50°	1985.3	1848.0
52.5°	1910.4	1786.8
55°	1821.9	1711.9
57.5°	1726.7	1633.6
60°	1624.6	1544.0
62.5°	1500.9	1451.0
65°	1355.7	1344.3
67.5°	1166.2	1226.4
70°	956.4	1091.4
72.5°	799.8	948.4
75°	655.7	788.5
77.5°	519.6	618.3
80°	324.5	452.7
82.5°	217.8	297.2
85°	131.6	141.8
87.5°	51.1	52.2
90°	0.0	0.0

(END OF REPORT)