

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-L950-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-L950-CD1-U
Description: 4FT LINEAR SNLED LED FIXTURE
WHITE REFLECTOR
Light Source: -
Ballast/Driver: -

Summary

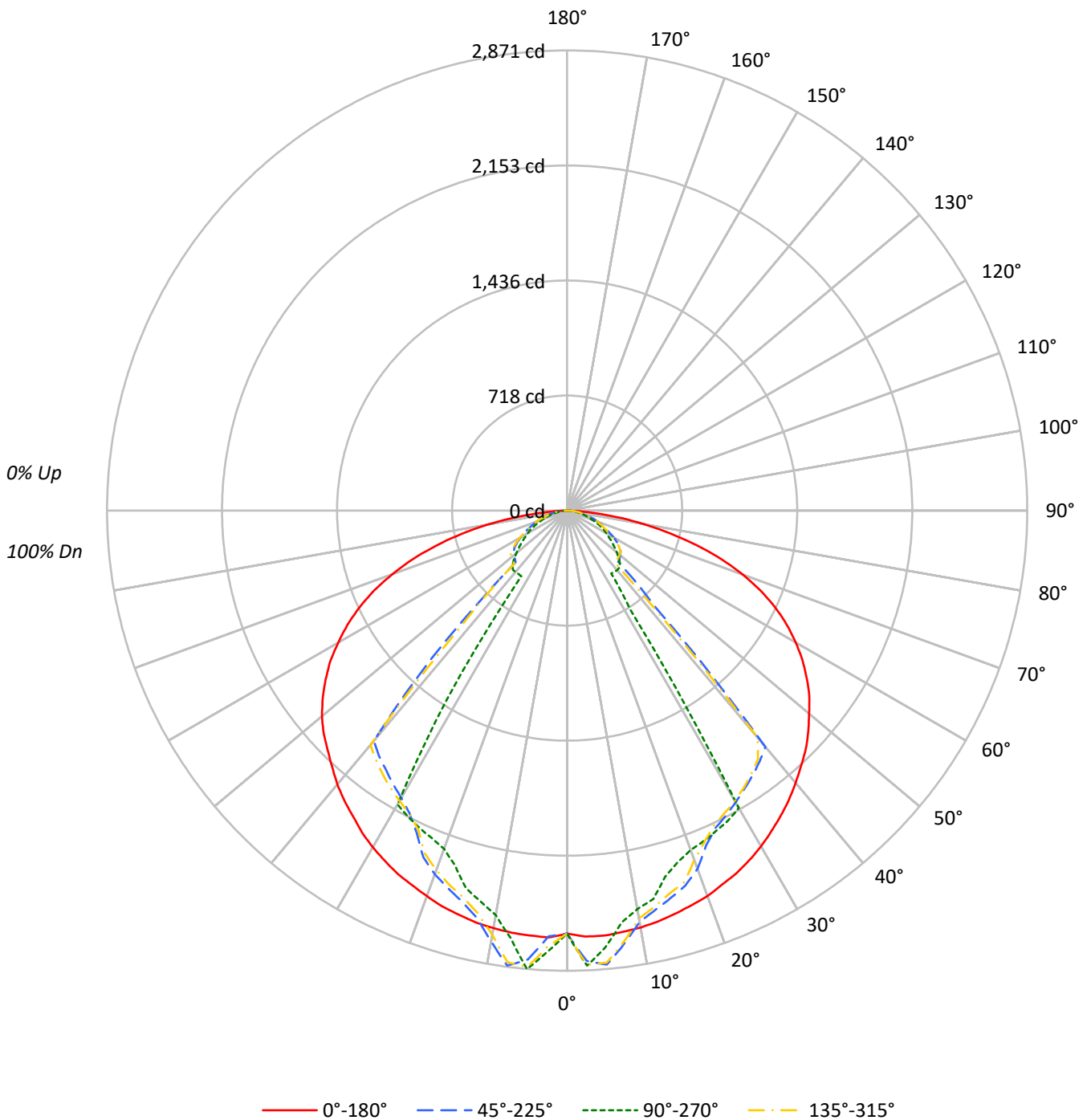
Lumens per Lamp: N/A
Luminaire Lumens: 5285.0 lumens
Efficiency: N/A
Efficacy: 114.9 lumens/watt
Spacing Criteria (0/90/45): 1.36 / 1.16 / 1.2
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.12')
CIE Type: Direct

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#
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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20					20					20					20					20					
RC	80					70					50					30					10					0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	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					100			
1	110	106	102	99	108	104	101	98	100	97	94	96	94	92	92	91	89	87					87			
2	102	94	88	83	99	93	87	82	89	85	81	86	82	79	83	80	77	75					75			
3	94	84	77	72	91	83	76	71	80	74	70	77	73	69	75	71	67	65					65			
4	87	76	68	62	85	75	67	62	72	66	61	70	65	60	68	63	59	57					57			
5	81	69	61	55	79	68	60	55	66	59	54	64	58	53	62	57	53	51					51			
6	75	63	55	49	73	62	54	49	60	53	48	59	53	48	57	52	47	46					46			
7	70	58	50	44	68	57	49	44	55	48	43	54	48	43	53	47	43	41					41			
8	66	53	45	40	64	52	45	40	51	44	39	50	44	39	49	43	39	37					37			
9	62	49	41	36	60	48	41	36	47	41	36	46	40	36	45	40	36	34					34			
10	58	46	38	33	57	45	38	33	44	38	33	43	37	33	42	37	33	31					31			

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	21327	21327	21327	21327
5°	21537	21488	21527	22552
10°	21557	19428	21587	19726
15°	21605	17975	21656	18545
20°	21762	17049	21762	16985
25°	21951	16723	21982	16567
30°	22173	16428	22228	16233
35°	22431	3742	22477	3902
40°	22791	3891	22927	4017
45°	23336	3870	23416	4010
50°	23881	3499	24203	3593
55°	24616	3107	24812	3151
60°	25240	2760	25295	2795
65°	25685	2409	25621	2371
70°	25319	1941	25238	1871
75°	23505	1494	23675	1432
80°	19078	1062	19844	971
85°	10330	636	10910	487



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	259.7	4.9
10°-20°	713.9	13.5
20°-30°	1057.5	20.0
30°-40°	1065.5	20.2
40°-50°	832.3	15.7
50°-60°	642.9	12.2
60°-70°	431.7	8.2
70°-80°	220.2	4.2
80°-90°	61.3	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°	2031.1	38.4
0°-40°	3096.6	58.6
0°-60°	4571.9	86.5
0°-90°	5285.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5285.0	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	2639	2639	2639	2639	2639	
5°	2662	2736	2661	2871	2662	253
15°	2604	2365	2610	2440	2604	737
25°	2498	2204	2501	2183	2498	1152
35°	2324	479	2328	500	2324	1456
45°	2106	466	2113	483	2106	1624
55°	1825	339	1840	344	1825	1630
65°	1433	227	1430	224	1433	1410
75°	841	115	847	110	841	879
85°	151	36	160	28	151	208
90°	0	0	0	0	0	



TEST NUMBER: P#

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CANDELA DISTRIBUTION (FULL):

	0°	2.5°	5°	7.5°	10°	12.5°	15°	17.5°	20°	22.5°	25°
0°	2639.2	2639.2	2639.2	2639.2	2639.2	2639.2	2639.2	2639.2	2639.2	2639.2	2639.2
2.5°	2659.8	2669.4	2676.7	2681.5	2683.9	2683.9	2685.2	2686.4	2702.1	2709.3	2714.2
5°	2662.2	2671.9	2686.4	2705.7	2722.7	2737.2	2749.3	2766.2	2783.1	2801.3	2807.3
7.5°	2651.3	2663.4	2692.4	2727.5	2760.1	2783.1	2798.9	2809.7	2818.2	2819.4	2825.5
10°	2641.6	2663.4	2703.3	2749.3	2790.4	2818.2	2818.2	2812.2	2820.6	2788.0	2755.3
12.5°	2624.7	2648.9	2703.3	2763.8	2802.5	2813.4	2808.5	2784.3	2734.7	2694.8	2676.7
15°	2604.1	2636.8	2704.5	2772.2	2804.9	2808.5	2762.6	2700.9	2663.4	2639.2	2609.0
17.5°	2581.1	2624.7	2705.7	2773.5	2785.5	2768.6	2681.5	2642.8	2604.1	2547.3	2506.1
20°	2559.4	2601.7	2696.0	2756.5	2763.8	2687.6	2619.8	2578.7	2513.4	2463.8	2445.7
22.5°	2525.5	2575.1	2687.6	2733.5	2705.7	2617.4	2552.1	2486.8	2427.5	2413.0	2391.2
25°	2497.7	2549.7	2668.2	2705.7	2631.9	2553.3	2477.1	2400.9	2373.1	2352.5	2333.2
27.5°	2460.2	2524.3	2642.8	2654.9	2553.3	2484.4	2373.1	2339.2	2313.8	2290.8	2282.4
30°	2419.1	2497.7	2607.7	2584.8	2488.0	2386.4	2304.2	2272.7	2254.6	2230.4	2220.7
32.5°	2371.9	2457.8	2569.0	2503.7	2417.8	2290.8	2237.6	2213.4	2189.2	2171.1	2110.6
35°	2323.5	2422.7	2523.1	2426.3	2333.2	2218.3	2171.1	2149.3	2126.4	2059.8	1996.9
37.5°	2273.9	2384.0	2467.4	2342.9	2220.7	2143.3	2103.4	2079.2	2027.2	1942.5	1911.1
40°	2217.1	2336.8	2396.1	2257.0	2122.7	2067.1	2029.6	2005.4	1888.1	1850.6	1840.9
42.5°	2160.2	2290.8	2309.0	2173.5	2041.7	1986.0	1954.6	1874.8	1794.9	1775.6	1779.2
45°	2105.8	2241.3	2213.4	2055.0	1957.0	1911.1	1857.8	1747.8	1705.4	1715.1	1717.5
47.5°	2040.5	2182.0	2113.0	1936.5	1869.9	1824.0	1705.4	1638.9	1632.9	1646.2	1653.4
50°	1970.3	2115.5	2006.6	1828.8	1775.6	1721.2	1586.9	1553.0	1560.3	1573.6	1582.1
52.5°	1905.0	2040.5	1896.5	1728.4	1682.5	1557.9	1467.2	1473.2	1485.3	1501.0	1505.9
55°	1825.2	1949.8	1779.2	1626.8	1583.3	1420.0	1378.9	1393.4	1405.5	1418.8	1428.5
57.5°	1741.7	1845.7	1640.1	1513.1	1443.0	1297.8	1301.5	1311.1	1319.6	1335.3	551.5
60°	1646.2	1727.2	1487.7	1407.9	1268.8	1201.1	1204.7	1221.6	1230.1	687.0	379.8
62.5°	1547.0	1589.3	1349.8	1288.1	1109.1	1104.3	1121.2	1128.5	768.1	362.9	355.6
65°	1433.3	1424.8	1214.4	1116.4	1000.3	1005.1	1023.3	987.0	339.9	339.9	337.5
67.5°	1307.5	1256.7	1082.5	924.1	895.1	905.9	925.3	322.9	314.5	316.9	308.4
70°	1163.6	1092.2	945.9	782.6	792.2	803.1	312.1	292.7	289.1	283.0	266.1
72.5°	1011.2	913.2	774.1	679.8	685.8	430.6	273.4	263.7	251.6	239.5	221.3
75°	840.6	713.6	568.5	568.5	576.9	245.5	238.3	222.6	209.2	193.5	182.6
77.5°	659.2	549.1	441.5	458.4	223.8	205.6	192.3	175.4	164.5	154.8	148.8
80°	482.6	383.4	332.6	297.5	174.2	156.0	142.7	133.0	128.2	122.2	114.9
82.5°	316.9	231.0	231.0	140.3	122.2	107.6	104.0	96.8	91.9	88.3	84.7
85°	151.2	134.3	101.6	85.9	76.2	68.9	66.5	62.9	62.9	61.7	60.5
87.5°	55.6	60.5	44.8	43.5	41.1	39.9	41.1	41.1	42.3	41.1	39.9
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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CANDELA DISTRIBUTION (continued):

	27.5°	30°	32.5°	35°	37.5°	40°	42.5°	45°	47.5°	50°	52.5°
0°	2639.2	2639.2	2639.2	2639.2	2639.2	2639.2	2639.2	2639.2	2639.2	2639.2	2639.2
2.5°	2726.3	2736.0	2743.2	2755.3	2771.0	2784.3	2796.4	2813.4	2840.0	2847.2	2853.3
5°	2807.3	2810.9	2819.4	2829.1	2831.5	2837.6	2836.3	2843.6	2847.2	2855.7	2837.6
7.5°	2812.2	2792.8	2769.8	2749.3	2734.7	2721.4	2713.0	2726.3	2733.5	2739.6	2721.4
10°	2710.6	2687.6	2674.3	2662.2	2647.7	2627.1	2599.3	2605.3	2602.9	2602.9	2596.9
12.5°	2646.5	2613.8	2579.9	2549.7	2536.4	2535.2	2536.4	2549.7	2549.7	2548.5	2541.2
15°	2546.1	2514.6	2497.7	2490.4	2490.4	2486.8	2486.8	2501.3	2497.7	2497.7	2494.0
17.5°	2479.5	2457.8	2445.7	2437.2	2433.6	2439.6	2446.9	2452.9	2454.1	2449.3	2429.9
20°	2425.1	2404.5	2390.0	2392.4	2391.2	2394.9	2398.5	2377.9	2352.5	2318.7	2302.9
22.5°	2368.3	2352.5	2341.6	2341.6	2327.1	2304.2	2270.3	2263.0	2259.4	2243.7	2230.4
25°	2313.8	2295.7	2280.0	2231.6	2201.3	2205.0	2198.9	2186.8	2185.6	2184.4	2189.2
27.5°	2259.4	2212.2	2151.8	2144.5	2132.4	2131.2	2138.4	2144.5	2144.5	2149.3	2155.4
30°	2146.9	2092.5	2081.6	2068.3	2073.1	2090.1	2093.7	2102.2	2104.6	2113.0	2117.9
32.5°	2044.1	2019.9	2010.2	2016.3	2032.0	2046.5	2055.0	2058.6	2064.7	2071.9	2078.0
35°	1960.6	1953.4	1961.9	1975.2	1990.9	2003.0	2010.2	2017.5	2023.5	2029.6	2034.4
37.5°	1899.0	1903.8	1915.9	1932.8	1948.6	1958.2	1964.3	1972.7	1981.2	1988.5	1959.4
40°	1840.9	1853.0	1866.3	1884.4	1897.8	1907.4	1913.5	1924.4	1851.8	838.2	459.6
42.5°	1790.1	1803.4	1813.1	1827.6	1842.1	1849.4	1796.2	801.9	453.6	451.2	457.2
45°	1728.4	1739.3	1755.0	1765.9	1779.2	1168.4	446.3	451.2	443.9	448.7	451.2
47.5°	1665.5	1682.5	1690.9	1613.5	480.2	443.9	439.1	443.9	439.1	445.1	441.5
50°	1594.2	1614.7	1149.1	434.2	430.6	428.2	433.0	430.6	434.2	439.1	429.4
52.5°	1521.6	942.2	420.9	418.5	420.9	418.5	427.0	420.9	422.1	417.3	405.2
55°	515.3	407.6	404.0	402.8	410.0	410.0	410.0	400.4	394.3	382.2	373.7
57.5°	394.3	394.3	393.1	394.3	391.9	389.5	378.6	370.1	361.6	344.7	339.9
60°	373.7	373.7	373.7	373.7	362.9	358.0	341.1	333.8	319.3	310.8	306.0
62.5°	356.8	354.4	343.5	339.9	327.8	314.5	304.8	297.5	283.0	278.2	274.6
65°	332.6	324.2	310.8	296.3	290.3	275.8	270.9	260.0	252.8	249.2	246.7
67.5°	292.7	280.6	269.7	260.0	249.2	244.3	238.3	229.8	225.0	222.6	220.1
70°	250.4	241.9	231.0	225.0	217.7	214.1	205.6	203.2	199.6	195.9	192.3
72.5°	209.2	204.4	199.6	191.1	188.7	186.3	177.8	173.0	168.1	163.3	160.9
75°	175.4	171.8	169.3	162.1	158.4	151.2	145.1	141.5	137.9	134.3	131.8
77.5°	143.9	141.5	134.3	129.4	127.0	121.0	118.5	119.7	117.3	112.5	110.1
80°	112.5	110.1	104.0	104.0	101.6	99.2	96.8	94.3	91.9	88.3	85.9
82.5°	85.9	83.5	81.0	78.6	76.2	75.0	73.8	71.4	68.9	66.5	65.3
85°	60.5	59.3	58.1	56.8	55.6	54.4	53.2	50.8	48.4	47.2	46.0
87.5°	41.1	39.9	38.7	37.5	36.3	35.1	33.9	32.7	30.2	29.0	27.8
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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CANDELA DISTRIBUTION (continued):

	55°	57.5°	60°	62.5°	65°	67.5°	70°	72.5°	75°	77.5°	80°
0°	2639.2	2639.2	2639.2	2639.2	2639.2	2639.2	2639.2	2639.2	2639.2	2639.2	2639.2
2.5°	2853.3	2859.3	2853.3	2840.0	2831.5	2827.9	2835.1	2835.1	2840.0	2846.0	2847.2
5°	2808.5	2794.0	2777.1	2760.1	2751.7	2746.8	2733.5	2736.0	2739.6	2742.0	2744.4
7.5°	2697.3	2677.9	2654.9	2633.1	2624.7	2617.4	2601.7	2601.7	2601.7	2602.9	2610.2
10°	2583.6	2575.1	2565.4	2550.9	2540.0	2536.4	2523.1	2526.7	2524.3	2527.9	2536.4
12.5°	2530.3	2520.7	2512.2	2497.7	2485.6	2480.7	2474.7	2478.3	2477.1	2483.2	2490.4
15°	2482.0	2477.1	2467.4	2456.6	2445.7	2436.0	2414.2	2407.0	2402.1	2396.1	2404.5
17.5°	2402.1	2368.3	2345.3	2328.3	2316.2	2307.8	2301.7	2301.7	2305.4	2309.0	2316.2
20°	2293.3	2283.6	2272.7	2254.6	2242.5	2237.6	2234.0	2234.0	2240.0	2244.9	2258.2
22.5°	2218.3	2217.1	2213.4	2205.0	2198.9	2198.9	2200.1	2202.6	2211.0	2218.3	2231.6
25°	2183.2	2188.0	2185.6	2180.8	2177.2	2178.4	2175.9	2178.4	2186.8	2194.1	2205.0
27.5°	2155.4	2162.6	2160.2	2153.0	2146.9	2149.3	2153.0	2150.5	2157.8	2166.3	2174.7
30°	2117.9	2119.1	2123.9	2115.5	2113.0	2116.7	2117.9	2120.3	2127.6	2133.6	2140.9
32.5°	2075.6	2085.2	2084.0	2075.6	2075.6	2079.2	2080.4	1999.4	1848.2	1591.7	1521.6
35°	2034.4	2045.3	2027.2	1709.1	1182.9	631.4	487.4	470.5	474.1	476.6	479.0
37.5°	1504.7	713.6	454.8	458.4	462.0	465.7	469.3	472.9	476.6	480.2	481.4
40°	452.4	451.2	454.8	459.6	463.2	465.7	470.5	474.1	477.8	481.4	482.6
42.5°	447.5	449.9	453.6	458.4	463.2	468.1	471.7	476.6	479.0	481.4	482.6
45°	445.1	449.9	454.8	458.4	462.0	464.5	466.9	468.1	466.9	466.9	469.3
47.5°	441.5	446.3	447.5	446.3	447.5	446.3	446.3	446.3	442.7	441.5	441.5
50°	428.2	428.2	425.8	420.9	419.7	418.5	416.1	414.9	410.0	408.8	408.8
52.5°	400.4	399.1	395.5	389.5	387.0	384.6	383.4	382.2	377.4	375.0	376.2
55°	367.7	365.3	361.6	354.4	353.2	350.8	349.6	348.3	343.5	345.9	342.3
57.5°	337.5	332.6	327.8	326.6	321.7	320.5	319.3	318.1	314.5	315.7	313.3
60°	301.2	300.0	297.5	292.7	292.7	291.5	291.5	289.1	286.7	285.4	285.4
62.5°	274.6	270.9	268.5	268.5	264.9	264.9	264.9	262.5	260.0	261.3	260.0
65°	245.5	244.3	243.1	240.7	240.7	239.5	239.5	237.1	233.4	234.6	232.2
67.5°	221.3	218.9	216.5	215.3	210.5	208.0	206.8	205.6	200.8	202.0	199.6
70°	191.1	187.5	185.1	182.6	179.0	176.6	176.6	174.2	170.5	171.8	169.3
72.5°	159.7	157.2	154.8	153.6	150.0	148.8	147.6	146.4	142.7	143.9	142.7
75°	133.0	133.0	131.8	130.6	127.0	123.4	121.0	119.7	117.3	118.5	116.1
77.5°	110.1	107.6	105.2	105.2	101.6	99.2	96.8	96.8	96.8	95.6	94.3
80°	85.9	83.5	83.5	82.2	79.8	77.4	76.2	76.2	75.0	75.0	73.8
82.5°	65.3	62.9	61.7	61.7	59.3	58.1	56.8	55.6	55.6	55.6	54.4
85°	46.0	43.5	42.3	42.3	39.9	38.7	38.7	37.5	37.5	36.3	36.3
87.5°	27.8	26.6	25.4	25.4	23.0	21.8	21.8	21.8	20.6	20.6	19.4
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-L950-CD1-U

CANDELA DISTRIBUTION (continued):

	82.5°	85°	87.5°	90°	92.5°	95°	97.5°	100°	102.5°	105°	107.5°
0°	2639.2	2639.2	2639.2	2639.2	2639.2	2639.2	2639.2	2639.2	2639.2	2639.2	2639.2
2.5°	2847.2	2847.2	2838.8	2841.2	2837.6	2842.4	2836.3	2836.3	2843.6	2843.6	2848.4
5°	2745.6	2739.6	2738.4	2736.0	2723.9	2728.7	2722.7	2716.6	2725.1	2725.1	2736.0
7.5°	2606.5	2595.6	2600.5	2593.2	2586.0	2575.1	2578.7	2573.9	2579.9	2588.4	2599.3
10°	2535.2	2525.5	2531.5	2524.3	2527.9	2512.2	2513.4	2514.6	2520.7	2523.1	2532.8
12.5°	2489.2	2486.8	2484.4	2482.0	2484.4	2475.9	2471.1	2472.3	2474.7	2475.9	2483.2
15°	2392.4	2376.7	2381.6	2364.6	2365.8	2367.0	2357.4	2367.0	2365.8	2381.6	2396.1
17.5°	2313.8	2313.8	2305.4	2298.1	2293.3	2292.1	2284.8	2289.6	2284.8	2294.5	2298.1
20°	2259.4	2258.2	2257.0	2253.4	2241.3	2242.5	2246.1	2235.2	2234.0	2232.8	2240.0
22.5°	2234.0	2235.2	2230.4	2230.4	2219.5	2221.9	2223.1	2211.0	2212.2	2208.6	2212.2
25°	2207.4	2209.8	2203.8	2203.8	2201.3	2200.1	2194.1	2196.5	2189.2	2183.2	2189.2
27.5°	2175.9	2180.8	2175.9	2178.4	2173.5	2171.1	2167.5	2165.1	2157.8	2156.6	2160.2
30°	2146.9	2149.3	2148.1	2142.1	2140.9	2133.6	2137.2	2130.0	2122.7	2123.9	2126.4
32.5°	1100.7	1051.1	810.4	731.8	724.5	751.1	890.2	1083.7	1404.3	1715.1	1938.9
35°	480.2	480.2	480.2	479.0	479.0	477.8	476.6	475.3	474.1	472.9	471.7
37.5°	482.6	482.6	482.6	482.6	481.4	480.2	480.2	477.8	476.6	475.3	474.1
40°	483.8	485.0	485.0	485.0	483.8	483.8	482.6	480.2	479.0	476.6	474.1
42.5°	482.6	483.8	483.8	482.6	482.6	481.4	481.4	480.2	479.0	477.8	476.6
45°	466.9	468.1	465.7	465.7	464.5	464.5	464.5	464.5	464.5	465.7	465.7
47.5°	439.1	439.1	437.8	436.6	436.6	435.4	436.6	435.4	437.8	439.1	441.5
50°	406.4	406.4	404.0	402.8	402.8	402.8	402.8	404.0	405.2	407.6	410.0
52.5°	372.5	372.5	371.3	370.1	368.9	368.9	372.5	371.3	372.5	373.7	377.4
55°	339.9	341.1	338.7	338.7	337.5	337.5	337.5	338.7	339.9	341.1	344.7
57.5°	312.1	312.1	309.6	309.6	309.6	308.4	312.1	309.6	310.8	312.1	314.5
60°	284.2	283.0	283.0	281.8	281.8	281.8	284.2	283.0	283.0	284.2	286.7
62.5°	258.8	258.8	257.6	257.6	256.4	256.4	258.8	257.6	257.6	258.8	260.0
65°	229.8	229.8	228.6	227.4	231.0	227.4	231.0	228.6	231.0	232.2	234.6
67.5°	197.2	197.2	197.2	195.9	195.9	198.4	199.6	197.2	198.4	200.8	202.0
70°	168.1	168.1	166.9	166.9	166.9	169.3	170.5	168.1	169.3	170.5	173.0
72.5°	142.7	140.3	140.3	139.1	141.5	141.5	142.7	141.5	142.7	142.7	145.1
75°	117.3	114.9	114.9	114.9	117.3	116.1	117.3	116.1	117.3	117.3	118.5
77.5°	94.3	93.1	91.9	91.9	94.3	94.3	94.3	93.1	94.3	95.6	96.8
80°	73.8	72.6	71.4	71.4	73.8	73.8	73.8	75.0	73.8	75.0	76.2
82.5°	54.4	53.2	52.0	54.4	54.4	54.4	54.4	55.6	54.4	55.6	56.8
85°	36.3	35.1	33.9	36.3	36.3	36.3	36.3	37.5	36.3	37.5	38.7
87.5°	19.4	18.1	18.1	19.4	19.4	19.4	20.6	20.6	20.6	21.8	21.8
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: P#

CATALOG NUMBER: 4SNLED-LD5-54SL-RW-UNV-L950-CD1-U

CANDELA DISTRIBUTION (continued):

	110°	112.5°	115°	117.5°	120°	122.5°	125°	127.5°	130°	132.5°	135°
0°	2639.2	2639.2	2639.2	2639.2	2639.2	2639.2	2639.2	2639.2	2639.2	2639.2	2639.2
2.5°	2855.7	2859.3	2858.1	2850.9	2843.6	2835.1	2829.1	2830.3	2842.4	2846.0	2835.1
5°	2736.0	2758.9	2758.9	2774.7	2766.2	2758.9	2763.8	2790.4	2803.7	2824.3	2831.5
7.5°	2612.6	2623.5	2622.3	2638.0	2635.6	2635.6	2639.2	2674.3	2691.2	2708.1	2713.0
10°	2543.6	2554.5	2553.3	2554.5	2550.9	2542.4	2542.4	2558.2	2572.7	2581.1	2583.6
12.5°	2494.0	2500.1	2498.9	2498.9	2496.5	2489.2	2488.0	2501.3	2517.0	2527.9	2529.1
15°	2420.3	2437.2	2440.8	2456.6	2452.9	2443.2	2445.7	2456.6	2466.2	2475.9	2472.3
17.5°	2310.2	2318.7	2319.9	2325.9	2323.5	2323.5	2338.0	2377.9	2404.5	2427.5	2429.9
20°	2247.3	2253.4	2250.9	2264.2	2258.2	2257.0	2260.6	2277.5	2289.6	2300.5	2319.9
22.5°	2217.1	2221.9	2218.3	2219.5	2208.6	2198.9	2196.5	2209.8	2223.1	2237.6	2237.6
25°	2191.7	2195.3	2194.1	2191.7	2183.2	2169.9	2167.5	2169.9	2174.7	2175.9	2167.5
27.5°	2161.4	2163.8	2163.8	2165.1	2154.2	2142.1	2139.7	2137.2	2142.1	2140.9	2127.6
30°	2130.0	2126.4	2127.6	2128.8	2119.1	2108.2	2103.4	2102.2	2107.0	2105.8	2092.5
32.5°	2055.0	2082.8	2085.2	2087.6	2079.2	2069.5	2064.7	2061.0	2063.5	2062.2	2050.2
35°	470.5	479.0	586.6	1328.1	1803.4	1996.9	2017.5	2012.7	2013.9	2013.9	2004.2
37.5°	471.7	470.5	469.3	465.7	462.0	459.6	794.7	1694.6	1963.1	1964.3	1955.8
40°	471.7	470.5	469.3	466.9	462.0	458.4	452.4	447.5	458.4	1008.7	1845.7
42.5°	474.1	471.7	469.3	466.9	462.0	457.2	452.4	446.3	449.9	447.5	441.5
45°	466.9	465.7	465.7	464.5	462.0	457.2	451.2	443.9	440.3	443.9	437.8
47.5°	443.9	445.1	448.7	449.9	449.9	451.2	447.5	442.7	436.6	440.3	433.0
50°	412.4	414.9	416.1	422.1	424.5	429.4	430.6	430.6	429.4	434.2	429.4
52.5°	378.6	381.0	387.0	389.5	391.9	399.1	401.6	405.2	407.6	414.9	419.7
55°	345.9	347.1	349.6	354.4	358.0	364.1	367.7	371.3	377.4	381.0	395.5
57.5°	315.7	316.9	321.7	322.9	325.4	330.2	333.8	338.7	343.5	345.9	362.9
60°	286.7	287.9	291.5	292.7	293.9	298.8	302.4	306.0	309.6	312.1	324.2
62.5°	261.3	261.3	264.9	264.9	266.1	269.7	272.1	274.6	278.2	279.4	285.4
65°	235.9	237.1	239.5	239.5	240.7	243.1	244.3	245.5	249.2	249.2	254.0
67.5°	204.4	205.6	209.2	211.7	212.9	217.7	218.9	220.1	222.6	223.8	226.2
70°	174.2	175.4	179.0	180.2	181.4	185.1	187.5	191.1	194.7	198.4	200.8
72.5°	146.4	147.6	151.2	151.2	154.8	156.0	158.4	159.7	163.3	165.7	169.3
75°	119.7	121.0	124.6	124.6	128.2	129.4	130.6	131.8	134.3	136.7	139.1
77.5°	98.0	98.0	102.8	105.2	107.6	107.6	108.9	108.9	108.9	110.1	112.5
80°	77.4	77.4	81.0	83.5	85.9	85.9	87.1	88.3	89.5	89.5	90.7
82.5°	58.1	58.1	61.7	62.9	65.3	65.3	65.3	66.5	67.7	66.5	68.9
85°	39.9	39.9	42.3	43.5	46.0	46.0	46.0	47.2	48.4	47.2	48.4
87.5°	23.0	24.2	25.4	26.6	27.8	29.0	29.0	29.0	30.2	30.2	31.4
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-L950-CD1-U

CANDELA DISTRIBUTION (continued):

	137.5°	140°	142.5°	145°	147.5°	150°	152.5°	155°	157.5°	160°	162.5°
0°	2639.2	2639.2	2639.2	2639.2	2639.2	2639.2	2639.2	2639.2	2639.2	2639.2	2639.2
2.5°	2823.0	2808.5	2807.3	2790.4	2785.5	2786.8	2773.5	2768.6	2746.8	2742.0	2719.0
5°	2833.9	2841.2	2837.6	2836.3	2840.0	2837.6	2827.9	2823.0	2819.4	2809.7	2790.4
7.5°	2714.2	2719.0	2722.7	2738.4	2751.7	2774.7	2798.9	2814.6	2826.7	2829.1	2813.4
10°	2592.0	2615.0	2630.7	2654.9	2674.3	2687.6	2702.1	2715.4	2750.5	2785.5	2806.1
12.5°	2529.1	2535.2	2534.0	2547.3	2560.6	2595.6	2629.5	2648.9	2675.5	2691.2	2728.7
15°	2475.9	2477.1	2480.7	2490.4	2497.7	2509.8	2525.5	2554.5	2607.7	2631.9	2652.5
17.5°	2427.5	2427.5	2429.9	2438.4	2448.1	2459.0	2468.6	2480.7	2507.4	2547.3	2598.1
20°	2350.1	2384.0	2387.6	2386.4	2391.2	2411.8	2414.2	2436.0	2449.3	2465.0	2514.6
22.5°	2235.2	2255.8	2284.8	2329.6	2346.5	2356.2	2363.4	2373.1	2393.7	2411.8	2432.4
25°	2172.3	2185.6	2194.1	2207.4	2242.5	2299.3	2310.2	2321.1	2334.4	2347.7	2373.1
27.5°	2116.7	2115.5	2121.5	2133.6	2143.3	2173.5	2226.7	2269.1	2271.5	2290.8	2312.6
30°	2076.8	2069.5	2061.0	2058.6	2071.9	2087.6	2103.4	2169.9	2215.9	2225.5	2248.5
32.5°	2039.3	2027.2	2015.1	2005.4	1996.9	2010.2	2019.9	2048.9	2108.2	2163.8	2175.9
35°	1993.3	1981.2	1966.7	1955.8	1942.5	1941.3	1940.1	1967.9	1987.3	2053.8	2111.8
37.5°	1946.1	1932.8	1920.7	1908.6	1895.3	1885.7	1879.6	1886.9	1905.0	1934.0	2030.8
40°	1896.5	1880.8	1868.7	1859.0	1840.9	1833.6	1821.6	1816.7	1817.9	1843.3	1894.1
42.5°	1133.3	1807.0	1813.1	1802.2	1786.5	1776.8	1763.5	1757.4	1745.4	1757.4	1786.5
45°	436.6	441.5	1322.0	1746.6	1727.2	1715.1	1703.0	1697.0	1683.7	1674.0	1700.6
47.5°	428.2	433.0	423.3	599.9	1648.6	1652.2	1637.7	1631.7	1618.4	1611.1	1603.8
50°	422.1	425.8	418.5	420.9	412.4	1510.7	1571.2	1563.9	1549.4	1540.9	1526.4
52.5°	416.1	416.1	411.2	405.2	402.8	404.0	1271.2	1495.0	1478.0	1469.6	1450.2
55°	396.7	399.1	404.0	394.3	391.9	390.7	387.0	1210.7	1399.4	1389.7	1372.8
57.5°	367.7	372.5	385.8	383.4	383.4	373.7	371.3	371.3	1123.7	1308.7	1291.8
60°	333.8	338.7	353.2	358.0	361.6	359.2	356.8	355.6	350.8	1184.1	1205.9
62.5°	298.8	303.6	308.4	324.2	329.0	335.0	342.3	338.7	333.8	333.8	1115.2
65°	261.3	268.5	270.9	285.4	291.5	302.4	308.4	316.9	314.5	313.3	319.3
67.5°	228.6	237.1	238.3	244.3	255.2	260.0	267.3	283.0	290.3	292.7	295.1
70°	200.8	205.6	209.2	211.7	218.9	220.1	233.4	244.3	255.2	267.3	270.9
72.5°	173.0	176.6	183.8	181.4	183.8	188.7	195.9	203.2	214.1	231.0	241.9
75°	141.5	143.9	148.8	151.2	156.0	159.7	164.5	170.5	180.2	188.7	203.2
77.5°	113.7	114.9	118.5	119.7	124.6	128.2	136.7	140.3	146.4	152.4	160.9
80°	91.9	91.9	93.1	93.1	96.8	100.4	106.4	110.1	117.3	122.2	122.2
82.5°	70.2	70.2	73.8	73.8	76.2	76.2	79.8	79.8	83.5	85.9	88.3
85°	49.6	50.8	53.2	52.0	54.4	53.2	55.6	58.1	59.3	58.1	56.8
87.5°	32.7	32.7	35.1	33.9	35.1	35.1	37.5	37.5	38.7	38.7	37.5
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-L950-CD1-U

CANDELA DISTRIBUTION (continued):

	165°	167.5°	170°	172.5°	175°	177.5°	180°	182.5°	185°	187.5°	190°
0°	2639.2	2639.2	2639.2	2639.2	2639.2	2639.2	2639.2	2639.2	2639.2	2639.2	2639.2
2.5°	2710.6	2692.4	2681.5	2668.2	2664.6	2661.0	2665.8	2665.8	2658.5	2652.5	2641.6
5°	2773.5	2754.1	2733.5	2711.8	2691.2	2669.4	2661.0	2659.8	2646.5	2639.2	2635.6
7.5°	2806.1	2796.4	2773.5	2743.2	2711.8	2673.1	2656.1	2646.5	2633.1	2630.7	2630.7
10°	2809.7	2798.9	2786.8	2765.0	2728.7	2677.9	2645.2	2625.9	2613.8	2622.3	2638.0
12.5°	2774.7	2795.2	2784.3	2769.8	2740.8	2679.1	2631.9	2602.9	2599.3	2621.1	2662.2
15°	2685.2	2745.6	2775.9	2761.4	2738.4	2676.7	2610.2	2576.3	2576.3	2621.1	2674.3
17.5°	2617.4	2664.6	2738.4	2750.5	2723.9	2671.9	2589.6	2549.7	2560.6	2625.9	2682.7
20°	2561.8	2590.8	2662.2	2729.9	2704.5	2661.0	2559.4	2518.2	2540.0	2618.6	2694.8
22.5°	2474.7	2532.8	2576.3	2676.7	2685.2	2640.4	2529.1	2479.5	2523.1	2618.6	2688.8
25°	2390.0	2460.2	2506.1	2604.1	2656.1	2615.0	2501.3	2438.4	2504.9	2615.0	2683.9
27.5°	2330.8	2363.4	2446.9	2517.0	2612.6	2581.1	2463.8	2393.7	2482.0	2595.6	2656.1
30°	2267.9	2289.6	2371.9	2438.4	2554.5	2542.4	2425.1	2344.1	2452.9	2577.5	2583.6
32.5°	2198.9	2223.1	2265.4	2362.2	2473.5	2506.1	2381.6	2294.5	2421.5	2549.7	2498.9
35°	2128.8	2146.9	2180.8	2284.8	2379.1	2451.7	2328.3	2237.6	2399.7	2507.4	2417.8
37.5°	2058.6	2078.0	2107.0	2194.1	2280.0	2400.9	2282.4	2180.8	2359.8	2432.4	2333.2
40°	1992.1	2003.0	2033.2	2087.6	2197.7	2348.9	2230.4	2121.5	2318.7	2336.8	2218.3
42.5°	1869.9	1924.4	1952.2	1995.7	2104.6	2277.5	2169.9	2058.6	2272.7	2241.3	2103.4
45°	1738.1	1856.6	1868.7	1912.3	2022.3	2201.3	2113.0	1996.9	2229.2	2159.0	1994.5
47.5°	1630.4	1716.3	1786.5	1822.8	1924.4	2111.8	2059.8	1944.9	2163.8	2055.0	1888.1
50°	1534.9	1580.9	1707.9	1734.5	1807.0	2004.2	1996.9	1884.4	2073.1	1924.4	1784.1
52.5°	1441.8	1474.4	1589.3	1646.2	1705.4	1888.1	1921.9	1825.2	1974.0	1793.7	1678.8
55°	1360.7	1371.6	1434.5	1554.2	1607.5	1770.8	1839.7	1756.2	1848.2	1669.2	1577.2
57.5°	1277.3	1267.6	1313.5	1467.2	1505.9	1651.0	1752.6	1686.1	1746.6	1542.1	1472.0
60°	1190.2	1176.9	1196.2	1297.8	1398.2	1532.5	1649.8	1608.7	1623.2	1416.4	1354.7
62.5°	1099.5	1086.2	1080.1	1144.2	1293.0	1410.3	1545.8	1522.8	1472.0	1301.5	1209.5
65°	1005.1	991.8	982.1	1007.5	1176.9	1251.9	1429.7	1423.6	1306.3	1180.5	1018.4
67.5°	306.0	902.3	881.7	880.5	991.8	1107.9	1303.9	1294.2	1139.4	1051.1	876.9
70°	275.8	731.8	777.7	766.8	815.2	961.6	1159.9	1152.7	977.3	843.0	775.3
72.5°	252.8	258.8	687.0	674.9	685.8	817.6	1010.0	990.6	828.5	665.2	670.1
75°	216.5	227.4	237.1	569.7	555.2	677.3	846.7	816.4	683.4	549.1	560.0
77.5°	176.6	189.9	197.2	414.9	448.7	482.6	676.1	636.2	470.5	439.1	209.2
80°	131.8	142.7	154.8	165.7	341.1	337.5	502.0	462.0	327.8	273.4	163.3
82.5°	96.8	100.4	107.6	119.7	135.5	226.2	322.9	284.2	227.4	124.6	112.5
85°	60.5	65.3	68.9	72.6	82.2	135.5	159.7	127.0	95.6	76.2	71.4
87.5°	38.7	38.7	37.5	38.7	39.9	48.4	54.4	52.0	41.1	38.7	38.7
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: P#

CATALOG NUMBER: 4SNLED-LD5-54SL-RW-UNV-L950-CD1-U

CANDELA DISTRIBUTION (continued):

	192.5°	195°	197.5°	200°	202.5°	205°	207.5°	210°	212.5°	215°	217.5°
0°	2639.2	2639.2	2639.2	2639.2	2639.2	2639.2	2639.2	2639.2	2639.2	2639.2	2639.2
2.5°	2629.5	2612.6	2612.6	2607.7	2611.4	2611.4	2610.2	2611.4	2619.8	2624.7	2633.1
5°	2628.3	2623.5	2634.4	2647.7	2663.4	2682.7	2687.6	2704.5	2720.2	2740.8	2762.6
7.5°	2644.0	2661.0	2681.5	2703.3	2734.7	2757.7	2778.3	2798.9	2813.4	2832.7	2844.8
10°	2667.0	2700.9	2736.0	2763.8	2797.6	2817.0	2830.3	2832.7	2812.2	2779.5	2752.9
12.5°	2699.7	2739.6	2772.2	2798.9	2814.6	2807.3	2768.6	2728.7	2705.7	2671.9	2624.7
15°	2727.5	2763.8	2797.6	2786.8	2744.4	2704.5	2674.3	2627.1	2581.1	2549.7	2529.1
17.5°	2739.6	2774.7	2762.6	2705.7	2665.8	2619.8	2558.2	2521.9	2491.6	2467.4	2455.3
20°	2746.8	2740.8	2675.5	2634.4	2556.9	2514.6	2474.7	2440.8	2417.8	2405.8	2403.3
22.5°	2727.5	2653.7	2598.1	2524.3	2467.4	2432.4	2400.9	2373.1	2357.4	2347.7	2341.6
25°	2663.4	2577.5	2495.3	2437.2	2388.8	2358.6	2334.4	2311.4	2292.1	2287.2	2275.1
27.5°	2573.9	2503.7	2394.9	2350.1	2307.8	2293.3	2266.7	2243.7	2226.7	2212.2	2173.5
30°	2500.1	2388.8	2310.2	2269.1	2243.7	2226.7	2196.5	2172.3	2143.3	2090.1	2068.3
32.5°	2409.4	2299.3	2224.3	2201.3	2169.9	2155.4	2121.5	2068.3	2023.5	2001.8	2000.6
35°	2292.1	2201.3	2146.9	2126.4	2101.0	2076.8	2006.6	1958.2	1936.5	1938.9	1957.0
37.5°	2194.1	2113.0	2078.0	2048.9	2019.9	1958.2	1899.0	1876.0	1882.0	1894.1	1902.6
40°	2094.9	2033.2	1993.3	1970.3	1905.0	1844.5	1813.1	1821.6	1832.4	1840.9	1851.8
42.5°	1998.1	1954.6	1914.7	1869.9	1780.4	1747.8	1755.0	1765.9	1775.6	1787.7	1798.6
45°	1906.2	1867.5	1821.6	1720.0	1675.2	1683.7	1694.6	1703.0	1717.5	1726.0	1736.9
47.5°	1819.1	1778.0	1697.0	1607.5	1602.6	1619.6	1629.2	1640.1	1651.0	1629.2	898.7
50°	1721.2	1678.8	1555.5	1521.6	1532.5	1548.2	1560.3	1571.2	1399.4	556.4	428.2
52.5°	1624.4	1516.7	1438.1	1447.8	1458.7	1476.8	1485.3	1103.1	439.1	418.5	419.7
55°	1516.7	1378.9	1355.9	1368.0	1377.7	1395.8	925.3	405.2	402.8	401.6	411.2
57.5°	1347.4	1264.0	1273.6	1285.7	1295.4	914.4	394.3	391.9	393.1	394.3	395.5
60°	1196.2	1178.1	1189.0	1199.9	849.1	381.0	373.7	375.0	379.8	376.2	366.5
62.5°	1076.5	1091.0	1101.9	965.2	361.6	358.0	361.6	358.0	349.6	343.5	331.4
65°	984.6	999.1	1007.5	339.9	338.7	343.5	339.9	327.8	314.5	297.5	293.9
67.5°	887.8	902.3	322.9	314.5	319.3	313.3	298.8	284.2	274.6	260.0	254.0
70°	787.4	337.5	292.7	291.5	283.0	273.4	257.6	243.1	231.0	225.0	218.9
72.5°	568.5	267.3	263.7	254.0	239.5	226.2	212.9	204.4	198.4	194.7	191.1
75°	237.1	232.2	221.3	204.4	189.9	183.8	174.2	168.1	165.7	158.4	156.0
77.5°	198.4	188.7	173.0	160.9	152.4	148.8	141.5	134.3	130.6	129.4	124.6
80°	152.4	139.1	131.8	125.8	123.4	114.9	106.4	102.8	100.4	99.2	95.6
82.5°	104.0	99.2	94.3	85.9	85.9	82.2	78.6	76.2	73.8	73.8	71.4
85°	67.7	64.1	62.9	59.3	59.3	56.8	55.6	54.4	53.2	52.0	50.8
87.5°	38.7	38.7	39.9	38.7	38.7	37.5	36.3	35.1	33.9	33.9	31.4
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-L950-CD1-U

CANDELA DISTRIBUTION (continued):

	220°	222.5°	225°	227.5°	230°	232.5°	235°	237.5°	240°	242.5°	245°
0°	2639.2	2639.2	2639.2	2639.2	2639.2	2639.2	2639.2	2639.2	2639.2	2639.2	2639.2
2.5°	2644.0	2656.1	2658.5	2699.7	2722.7	2721.4	2714.2	2736.0	2722.7	2715.4	2722.7
5°	2784.3	2798.9	2810.9	2855.7	2871.4	2878.7	2877.5	2889.6	2879.9	2871.4	2871.4
7.5°	2853.3	2858.1	2863.0	2852.1	2844.8	2832.7	2814.6	2788.0	2774.7	2760.1	2742.0
10°	2739.6	2723.9	2729.9	2708.1	2690.0	2676.7	2659.8	2638.0	2619.8	2606.5	2586.0
12.5°	2600.5	2599.3	2601.7	2605.3	2587.2	2576.3	2563.0	2547.3	2534.0	2519.4	2502.5
15°	2515.8	2517.0	2526.7	2523.1	2517.0	2511.0	2496.5	2491.6	2479.5	2463.8	2454.1
17.5°	2455.3	2461.4	2471.1	2466.2	2456.6	2450.5	2439.6	2428.7	2417.8	2405.8	2391.2
20°	2402.1	2408.2	2414.2	2408.2	2390.0	2381.6	2367.0	2333.2	2309.0	2284.8	2263.0
22.5°	2344.1	2347.7	2342.9	2323.5	2277.5	2255.8	2238.8	2229.2	2208.6	2195.3	2182.0
25°	2271.5	2250.9	2219.5	2197.7	2179.6	2169.9	2162.6	2161.4	2159.0	2156.6	2150.5
27.5°	2153.0	2145.7	2128.8	2120.3	2121.5	2125.1	2126.4	2130.0	2126.4	2121.5	2116.7
30°	2064.7	2068.3	2069.5	2071.9	2078.0	2081.6	2082.8	2087.6	2085.2	2081.6	2079.2
32.5°	2009.0	2017.5	2022.3	2029.6	2033.2	2039.3	2039.3	2046.5	2039.3	2038.1	2035.6
35°	1963.1	1970.3	1972.7	1983.6	1987.3	1993.3	1993.3	1999.4	1993.3	1931.6	1525.2
37.5°	1917.1	1924.4	1929.2	1938.9	1940.1	1943.7	1793.7	1312.3	846.7	655.6	500.7
40°	1862.7	1871.1	1876.0	1879.6	1320.8	838.2	576.9	469.3	469.3	472.9	476.6
42.5°	1804.6	1810.7	1261.5	734.2	457.2	456.0	459.6	463.2	466.9	471.7	476.6
45°	1418.8	716.0	454.8	443.9	447.5	452.4	457.2	462.0	468.1	472.9	475.3
47.5°	465.7	436.6	442.7	437.8	443.9	449.9	454.8	459.6	460.8	462.0	460.8
50°	430.6	430.6	434.2	434.2	439.1	441.5	441.5	441.5	436.6	435.4	431.8
52.5°	416.1	425.8	420.9	423.3	420.9	417.3	413.7	410.0	402.8	400.4	395.5
55°	408.8	412.4	400.4	396.7	391.9	382.2	377.4	372.5	366.5	364.1	358.0
57.5°	391.9	383.4	370.1	364.1	355.6	345.9	341.1	337.5	331.4	329.0	325.4
60°	360.4	343.5	335.0	327.8	318.1	309.6	306.0	303.6	298.8	297.5	293.9
62.5°	321.7	307.2	300.0	290.3	283.0	278.2	274.6	273.4	268.5	268.5	266.1
65°	279.4	272.1	266.1	256.4	252.8	248.0	246.7	245.5	243.1	241.9	239.5
67.5°	245.5	240.7	232.2	227.4	225.0	221.3	218.9	216.5	211.7	209.2	205.6
70°	215.3	211.7	203.2	199.6	194.7	188.7	185.1	182.6	179.0	176.6	173.0
72.5°	186.3	175.4	169.3	165.7	162.1	156.0	154.8	152.4	148.8	147.6	143.9
75°	150.0	141.5	137.9	135.5	131.8	128.2	128.2	128.2	124.6	123.4	122.2
77.5°	119.7	114.9	112.5	110.1	108.9	106.4	102.8	101.6	98.0	98.0	96.8
80°	91.9	89.5	87.1	85.9	84.7	82.2	79.8	78.6	75.0	75.0	73.8
82.5°	67.7	66.5	65.3	64.1	62.9	61.7	58.1	56.8	54.4	54.4	53.2
85°	48.4	47.2	44.8	43.5	43.5	42.3	38.7	37.5	35.1	35.1	35.1
87.5°	30.2	29.0	27.8	26.6	25.4	24.2	21.8	20.6	20.6	18.1	16.9
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-L950-CD1-U

CANDELA DISTRIBUTION (continued):

	247.5°	250°	252.5°	255°	257.5°	260°	262.5°	265°	267.5°	270°	272.5°
0°	2639.2	2639.2	2639.2	2639.2	2639.2	2639.2	2639.2	2639.2	2639.2	2639.2	2639.2
2.5°	2708.1	2728.7	2726.3	2740.8	2744.4	2751.7	2754.1	2755.3	2737.2	2751.7	2752.9
5°	2867.8	2871.4	2873.8	2879.9	2885.9	2887.1	2881.1	2873.8	2876.3	2871.4	2859.3
7.5°	2739.6	2721.4	2717.8	2713.0	2710.6	2708.1	2697.3	2706.9	2696.0	2691.2	2674.3
10°	2582.3	2565.4	2564.2	2564.2	2567.8	2566.6	2564.2	2559.4	2569.0	2563.0	2559.4
12.5°	2500.1	2494.0	2497.7	2495.3	2504.9	2507.4	2504.9	2504.9	2502.5	2497.7	2500.1
15°	2450.5	2445.7	2449.3	2445.7	2452.9	2454.1	2448.1	2451.7	2445.7	2439.6	2437.2
17.5°	2385.2	2374.3	2365.8	2353.7	2355.0	2352.5	2345.3	2345.3	2339.2	2323.5	2324.7
20°	2259.4	2248.5	2243.7	2243.7	2249.7	2252.1	2250.9	2253.4	2247.3	2244.9	2235.2
22.5°	2180.8	2179.6	2182.0	2188.0	2197.7	2211.0	2212.2	2212.2	2212.2	2211.0	2198.9
25°	2153.0	2153.0	2155.4	2163.8	2171.1	2180.8	2183.2	2185.6	2183.2	2183.2	2172.3
27.5°	2121.5	2119.1	2123.9	2132.4	2140.9	2148.1	2154.2	2155.4	2151.8	2151.8	2155.4
30°	2082.8	2081.6	2087.6	2096.1	2103.4	2110.6	2116.7	2121.5	2116.7	2116.7	2113.0
32.5°	2042.9	2042.9	2045.3	1994.5	1849.4	1665.5	1669.2	1562.7	1488.9	1395.8	1519.2
35°	1274.8	927.7	797.1	674.9	589.0	533.4	532.2	514.0	505.6	499.5	498.3
37.5°	481.4	483.8	488.6	491.1	494.7	497.1	498.3	498.3	498.3	498.3	497.1
40°	480.2	485.0	488.6	492.3	495.9	498.3	498.3	499.5	500.7	500.7	500.7
42.5°	481.4	486.2	491.1	494.7	497.1	498.3	499.5	500.7	500.7	500.7	500.7
45°	480.2	482.6	482.6	483.8	483.8	483.8	485.0	485.0	483.8	482.6	485.0
47.5°	462.0	462.0	458.4	457.2	456.0	453.6	454.8	453.6	452.4	451.2	453.6
50°	430.6	425.8	423.3	420.9	419.7	417.3	418.5	417.3	416.1	413.7	417.3
52.5°	393.1	391.9	387.0	384.6	383.4	384.6	382.2	381.0	379.8	378.6	379.8
55°	356.8	352.0	350.8	348.3	347.1	348.3	347.1	345.9	344.7	343.5	344.7
57.5°	324.2	320.5	319.3	316.9	316.9	316.9	316.9	315.7	314.5	313.3	314.5
60°	292.7	290.3	289.1	289.1	287.9	287.9	287.9	286.7	285.4	285.4	286.7
62.5°	266.1	266.1	262.5	261.3	261.3	262.5	261.3	260.0	258.8	257.6	260.0
65°	238.3	233.4	232.2	229.8	227.4	228.6	227.4	226.2	225.0	223.8	226.2
67.5°	204.4	203.2	198.4	195.9	194.7	195.9	194.7	193.5	192.3	191.1	193.5
70°	171.8	171.8	166.9	165.7	164.5	164.5	163.3	163.3	162.1	160.9	163.3
72.5°	142.7	142.7	141.5	139.1	137.9	136.7	135.5	134.3	134.3	135.5	135.5
75°	118.5	116.1	111.3	112.5	111.3	110.1	110.1	108.9	107.6	110.1	108.9
77.5°	93.1	91.9	88.3	89.5	88.3	87.1	87.1	85.9	84.7	85.9	85.9
80°	70.2	70.2	68.9	67.7	67.7	66.5	65.3	65.3	64.1	65.3	65.3
82.5°	50.8	50.8	49.6	48.4	47.2	47.2	46.0	46.0	46.0	46.0	46.0
85°	32.7	31.4	31.4	29.0	29.0	29.0	27.8	27.8	27.8	27.8	27.8
87.5°	15.7	15.7	14.5	14.5	13.3	12.1	12.1	10.9	10.9	12.1	12.1
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-L950-CD1-U

CANDELA DISTRIBUTION (continued):

	275°	277.5°	280°	282.5°	285°	287.5°	290°	292.5°	295°	297.5°	300°
0°	2639.2	2639.2	2639.2	2639.2	2639.2	2639.2	2639.2	2639.2	2639.2	2639.2	2639.2
2.5°	2731.1	2746.8	2733.5	2739.6	2740.8	2761.4	2760.1	2765.0	2756.5	2746.8	2733.5
5°	2870.2	2863.0	2853.3	2876.3	2864.2	2878.7	2883.5	2893.2	2893.2	2892.0	2881.1
7.5°	2692.4	2676.7	2688.8	2697.3	2700.9	2691.2	2710.6	2732.3	2750.5	2761.4	2762.6
10°	2553.3	2558.2	2556.9	2560.6	2569.0	2567.8	2579.9	2592.0	2596.9	2604.1	2606.5
12.5°	2488.0	2486.8	2489.2	2497.7	2502.5	2501.3	2513.4	2520.7	2523.1	2524.3	2523.1
15°	2436.0	2427.5	2433.6	2434.8	2438.4	2438.4	2452.9	2463.8	2468.6	2471.1	2468.6
17.5°	2338.0	2317.5	2336.8	2336.8	2350.1	2347.7	2370.7	2388.8	2398.5	2405.8	2405.8
20°	2241.3	2231.6	2238.8	2236.4	2246.1	2244.9	2259.4	2271.5	2280.0	2286.0	2293.3
22.5°	2202.6	2205.0	2194.1	2195.3	2195.3	2194.1	2201.3	2207.4	2209.8	2213.4	2211.0
25°	2177.2	2179.6	2175.9	2169.9	2167.5	2169.9	2173.5	2180.8	2182.0	2179.6	2171.1
27.5°	2151.8	2144.5	2150.5	2139.7	2137.2	2142.1	2146.9	2148.1	2149.3	2149.3	2142.1
30°	2113.0	2107.0	2113.0	2108.2	2103.4	2108.2	2111.8	2111.8	2114.3	2115.5	2107.0
32.5°	1476.8	1488.9	1684.9	1803.4	1970.3	2055.0	2070.7	2070.7	2073.1	2073.1	2065.9
35°	503.2	504.4	545.5	591.5	689.4	810.4	968.8	1051.1	1329.3	1661.9	1983.6
37.5°	497.1	495.9	494.7	493.5	492.3	491.1	488.6	487.4	494.7	586.6	795.9
40°	499.5	498.3	495.9	494.7	493.5	491.1	489.9	487.4	485.0	482.6	480.2
42.5°	499.5	498.3	497.1	495.9	494.7	493.5	491.1	488.6	486.2	482.6	479.0
45°	482.6	482.6	483.8	483.8	485.0	485.0	485.0	483.8	483.8	482.6	477.8
47.5°	451.2	451.2	454.8	454.8	457.2	459.6	459.6	462.0	465.7	468.1	469.3
50°	414.9	414.9	418.5	419.7	422.1	425.8	429.4	430.6	434.2	439.1	443.9
52.5°	378.6	378.6	382.2	382.2	384.6	388.3	391.9	393.1	397.9	402.8	408.8
55°	344.7	344.7	347.1	348.3	349.6	352.0	355.6	355.6	360.4	364.1	370.1
57.5°	314.5	316.9	316.9	316.9	318.1	320.5	322.9	322.9	326.6	330.2	335.0
60°	285.4	287.9	287.9	287.9	289.1	290.3	292.7	292.7	295.1	297.5	302.4
62.5°	258.8	261.3	261.3	262.5	262.5	263.7	266.1	264.9	267.3	268.5	272.1
65°	225.0	227.4	228.6	229.8	231.0	233.4	237.1	235.9	239.5	241.9	245.5
67.5°	192.3	194.7	194.7	195.9	197.2	199.6	202.0	202.0	205.6	208.0	212.9
70°	162.1	164.5	164.5	165.7	166.9	169.3	171.8	170.5	174.2	176.6	180.2
72.5°	134.3	136.7	136.7	137.9	137.9	140.3	142.7	145.1	145.1	147.6	150.0
75°	108.9	110.1	111.3	111.3	112.5	113.7	116.1	118.5	119.7	121.0	123.4
77.5°	85.9	87.1	88.3	88.3	89.5	90.7	91.9	96.8	99.2	100.4	100.4
80°	65.3	66.5	66.5	66.5	67.7	68.9	71.4	71.4	76.2	76.2	77.4
82.5°	46.0	47.2	47.2	47.2	48.4	50.8	52.0	53.2	55.6	56.8	56.8
85°	27.8	29.0	29.0	29.0	30.2	31.4	33.9	35.1	36.3	36.3	37.5
87.5°	10.9	12.1	13.3	13.3	14.5	15.7	16.9	18.1	19.4	19.4	20.6
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: P#

CATALOG NUMBER: 4SNLED-LD5-54SL-RW-UNV-L950-CD1-U

CANDELA DISTRIBUTION (continued):

	302.5°	305°	307.5°	310°	312.5°	315°	317.5°	320°	322.5°	325°	327.5°
0°	2639.2	2639.2	2639.2	2639.2	2639.2	2639.2	2639.2	2639.2	2639.2	2639.2	2639.2
2.5°	2719.0	2727.5	2719.0	2723.9	2729.9	2719.0	2693.6	2683.9	2680.3	2665.8	2656.1
5°	2870.2	2870.2	2866.6	2876.3	2875.1	2858.1	2831.5	2819.4	2807.3	2791.6	2779.5
7.5°	2762.6	2772.2	2778.3	2815.8	2840.0	2842.4	2859.3	2863.0	2867.8	2863.0	2855.7
10°	2607.7	2604.1	2621.1	2656.1	2676.7	2687.6	2720.2	2736.0	2749.3	2775.9	2803.7
12.5°	2520.7	2525.5	2532.8	2558.2	2577.5	2572.7	2586.0	2596.9	2612.6	2639.2	2679.1
15°	2462.6	2467.4	2474.7	2494.0	2506.1	2500.1	2507.4	2514.6	2525.5	2538.8	2563.0
17.5°	2399.7	2408.2	2416.6	2437.2	2448.1	2446.9	2452.9	2455.3	2459.0	2467.4	2484.4
20°	2301.7	2328.3	2345.3	2373.1	2388.8	2386.4	2397.3	2400.9	2405.8	2414.2	2421.5
22.5°	2212.2	2219.5	2228.0	2258.2	2284.8	2317.5	2324.7	2334.4	2346.5	2355.0	2362.2
25°	2161.4	2156.6	2160.2	2180.8	2195.3	2197.7	2208.6	2240.0	2272.7	2287.2	2304.2
27.5°	2131.2	2126.4	2125.1	2134.8	2137.2	2131.2	2128.8	2138.4	2162.6	2186.8	2237.6
30°	2098.5	2092.5	2087.6	2096.1	2099.7	2091.3	2075.6	2067.1	2081.6	2087.6	2108.2
32.5°	2059.8	2053.8	2051.4	2056.2	2058.6	2051.4	2034.4	2024.8	2022.3	2017.5	2022.3
35°	2016.3	2010.2	2006.6	2007.8	2012.7	2006.6	1992.1	1980.0	1974.0	1960.6	1951.0
37.5°	1039.0	1472.0	1911.1	1957.0	1961.9	1960.6	1946.1	1932.8	1926.8	1911.1	1906.2
40°	475.3	531.0	797.1	1041.4	1502.2	1908.6	1895.3	1882.0	1871.1	1866.3	1848.2
42.5°	474.1	475.3	476.6	470.5	583.0	993.0	1465.9	1830.0	1822.8	1810.7	1797.4
45°	474.1	468.1	472.9	465.7	468.1	466.9	581.8	938.6	1670.4	1745.4	1739.3
47.5°	469.3	465.7	470.5	464.5	457.2	460.8	456.0	462.0	720.9	1222.8	1675.2
50°	447.5	449.9	458.4	457.2	451.2	456.0	447.5	454.8	448.7	492.3	948.3
52.5°	414.9	419.7	428.2	435.4	437.8	443.9	441.5	443.9	439.1	440.3	441.5
55°	376.2	382.2	389.5	400.4	405.2	414.9	422.1	425.8	431.8	430.6	420.9
57.5°	339.9	345.9	352.0	362.9	373.7	378.6	391.9	399.1	414.9	411.2	408.8
60°	306.0	310.8	316.9	319.3	332.6	341.1	353.2	360.4	381.0	385.8	393.1
62.5°	275.8	278.2	283.0	286.7	295.1	303.6	309.6	321.7	332.6	348.3	359.2
65°	248.0	250.4	254.0	256.4	257.6	269.7	273.4	286.7	290.3	307.2	316.9
67.5°	216.5	221.3	226.2	228.6	231.0	238.3	240.7	246.7	255.2	262.5	274.6
70°	183.8	187.5	192.3	195.9	200.8	205.6	212.9	216.5	222.6	227.4	237.1
72.5°	153.6	157.2	159.7	163.3	166.9	170.5	176.6	185.1	189.9	198.4	200.8
75°	124.6	128.2	130.6	133.0	136.7	139.1	141.5	150.0	154.8	162.1	169.3
77.5°	102.8	102.8	105.2	112.5	111.3	111.3	113.7	118.5	122.2	127.0	134.3
80°	79.8	81.0	82.2	88.3	89.5	90.7	89.5	93.1	96.8	98.0	102.8
82.5°	59.3	60.5	60.5	64.1	67.7	67.7	67.7	68.9	72.6	73.8	76.2
85°	39.9	41.1	42.3	43.5	46.0	47.2	48.4	48.4	50.8	52.0	53.2
87.5°	21.8	24.2	25.4	26.6	27.8	29.0	30.2	31.4	32.7	33.9	35.1
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-L950-CD1-U

CANDELA DISTRIBUTION (continued):

	330°	332.5°	335°	337.5°	340°	342.5°	345°	347.5°	350°	352.5°	355°
0°	2639.2	2639.2	2639.2	2639.2	2639.2	2639.2	2639.2	2639.2	2639.2	2639.2	2639.2
2.5°	2652.5	2646.5	2642.8	2633.1	2630.7	2615.0	2617.4	2615.0	2615.0	2618.6	2630.7
5°	2766.2	2737.2	2729.9	2709.3	2692.4	2663.4	2645.2	2635.6	2621.1	2615.0	2623.5
7.5°	2843.6	2821.8	2803.7	2785.5	2761.4	2727.5	2702.1	2673.1	2648.9	2625.9	2619.8
10°	2830.3	2854.5	2854.5	2843.6	2820.6	2786.8	2756.5	2720.2	2677.9	2641.6	2619.8
12.5°	2717.8	2760.1	2794.0	2819.4	2842.4	2819.4	2789.2	2760.1	2713.0	2659.8	2619.8
15°	2594.4	2638.0	2680.3	2733.5	2789.2	2812.2	2810.9	2777.1	2734.7	2679.1	2623.5
17.5°	2507.4	2537.6	2560.6	2618.6	2686.4	2745.6	2785.5	2788.0	2746.8	2697.3	2624.7
20°	2442.0	2463.8	2483.2	2515.8	2575.1	2647.7	2721.4	2762.6	2755.3	2700.9	2628.3
22.5°	2382.8	2398.5	2414.2	2438.4	2485.6	2532.8	2618.6	2703.3	2739.6	2694.8	2624.7
25°	2323.5	2340.4	2352.5	2369.5	2407.0	2445.7	2506.1	2611.4	2692.4	2690.0	2617.4
27.5°	2253.4	2276.3	2290.8	2313.8	2339.2	2368.3	2409.4	2508.6	2624.7	2665.8	2598.1
30°	2168.7	2202.6	2224.3	2249.7	2271.5	2296.9	2329.6	2390.0	2534.0	2618.6	2577.5
32.5°	2046.5	2107.0	2155.4	2179.6	2203.8	2225.5	2254.6	2305.4	2422.7	2554.5	2554.5
35°	1959.4	1987.3	2030.8	2101.0	2131.2	2153.0	2179.6	2219.5	2294.5	2478.3	2517.0
37.5°	1891.7	1902.6	1924.4	1993.3	2050.2	2085.2	2111.8	2137.2	2211.0	2374.3	2468.6
40°	1840.9	1837.3	1834.9	1867.5	1948.6	2004.2	2034.4	2059.8	2116.7	2249.7	2404.5
42.5°	1781.6	1778.0	1765.9	1774.4	1814.3	1907.4	1953.4	1981.2	2028.4	2119.1	2334.4
45°	1720.0	1713.9	1709.1	1700.6	1715.1	1767.1	1861.5	1902.6	1929.2	2010.2	2246.1
47.5°	1657.1	1648.6	1642.5	1635.3	1626.8	1651.0	1740.5	1814.3	1860.3	1911.1	2139.7
50°	1567.6	1578.4	1571.2	1562.7	1555.5	1550.6	1588.1	1709.1	1765.9	1807.0	2010.2
52.5°	739.0	1436.9	1497.4	1488.9	1479.3	1470.8	1479.3	1571.2	1674.0	1706.6	1854.2
55°	420.9	639.8	1331.7	1407.9	1399.4	1387.3	1380.1	1411.5	1565.1	1608.7	1711.5
57.5°	405.2	406.4	587.8	1268.8	1316.0	1305.1	1296.6	1303.9	1434.5	1508.3	1586.9
60°	391.9	391.9	391.9	561.2	1213.2	1216.8	1205.9	1193.8	1250.7	1395.8	1461.1
62.5°	362.9	370.1	373.7	373.7	554.0	1123.7	1112.8	1109.1	1111.6	1260.3	1335.3
65°	325.4	342.3	349.6	354.4	354.4	581.8	1017.2	1011.2	1002.7	1059.5	1208.3
67.5°	284.2	301.2	316.9	326.6	327.8	338.7	607.2	910.8	898.7	899.9	1072.9
70°	241.9	256.4	273.4	287.9	301.2	307.2	316.9	756.0	795.9	778.9	919.2
72.5°	209.2	215.3	227.4	241.9	257.6	272.1	280.6	301.2	690.6	672.5	699.1
75°	174.2	179.0	187.5	197.2	209.2	226.2	240.7	255.2	366.5	563.6	560.0
77.5°	135.5	143.9	153.6	159.7	165.7	177.8	197.2	211.7	226.2	381.0	448.7
80°	104.0	110.1	114.9	121.0	128.2	136.7	143.9	160.9	177.8	191.1	343.5
82.5°	77.4	81.0	84.7	87.1	89.5	94.3	107.6	113.7	124.6	136.7	162.1
85°	54.4	56.8	59.3	60.5	61.7	62.9	67.7	68.9	79.8	82.2	98.0
87.5°	35.1	36.3	38.7	39.9	39.9	41.1	42.3	42.3	42.3	39.9	48.4
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-L950-CD1-U

CANDELA DISTRIBUTION (continued):

	357.5°	360°
0°	2639.2	2639.2
2.5°	2640.4	2659.8
5°	2636.8	2662.2
7.5°	2627.1	2651.3
10°	2612.6	2641.6
12.5°	2596.9	2624.7
15°	2583.6	2604.1
17.5°	2569.0	2581.1
20°	2549.7	2559.4
22.5°	2530.3	2525.5
25°	2508.6	2497.7
27.5°	2480.7	2460.2
30°	2455.3	2419.1
32.5°	2431.2	2371.9
35°	2398.5	2323.5
37.5°	2364.6	2273.9
40°	2324.7	2217.1
42.5°	2282.4	2160.2
45°	2229.2	2105.8
47.5°	2182.0	2040.5
50°	2116.7	1970.3
52.5°	2036.8	1905.0
55°	1942.5	1825.2
57.5°	1840.9	1741.7
60°	1732.0	1646.2
62.5°	1600.2	1547.0
65°	1445.4	1433.3
67.5°	1243.4	1307.5
70°	1019.6	1163.6
72.5°	852.7	1011.2
75°	699.1	840.6
77.5°	554.0	659.2
80°	345.9	482.6
82.5°	232.2	316.9
85°	140.3	151.2
87.5°	54.4	55.6
90°	0.0	0.0

(END OF REPORT)