

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-LD5-78SL-LN-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 (P33519)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 4SNLED-LD5-78SL-LN-UNV-L950-CD1-U
Description: 4FT LINEAR SNLED LED FIXTURE
NARROW LENS
Light Source: -
Ballast/Driver: -

Summary

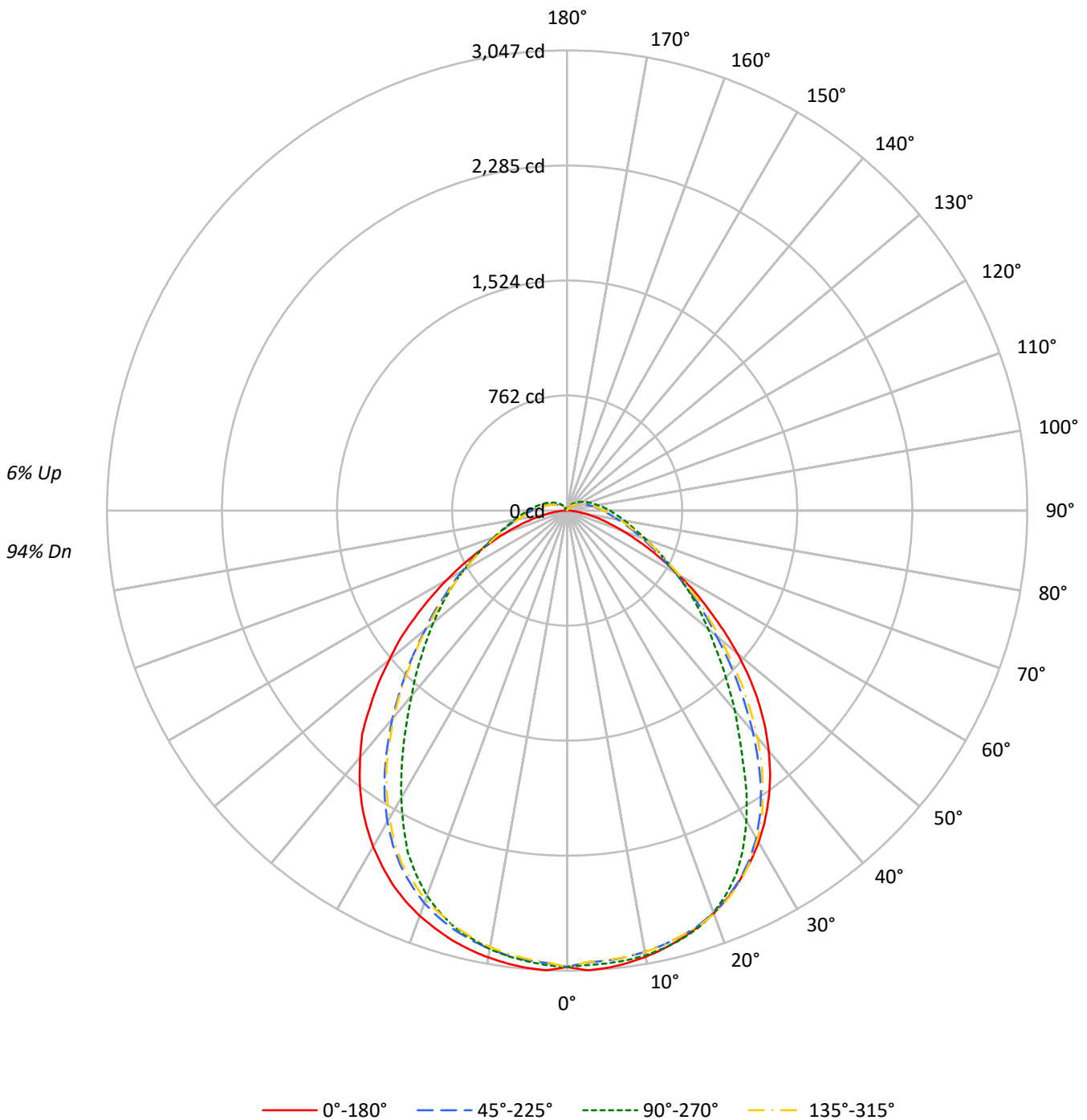
Lumens per Lamp: N/A
Luminaire Lumens: 7647.0 lumens
Efficiency: N/A
Efficacy: 90.0 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.14 / 1.24
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.12')
CIE Type: Direct

Input Watts (W): 85
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-LD5-78SL-LN-UNV-L950-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	118	118	118	118	114	114	114	114	108	108	108	102	102	102	96	96	96	94
1	107	103	98	95	104	100	96	92	94	91	88	89	87	85	85	83	81	79
2	98	90	84	78	95	88	82	77	83	78	74	79	75	72	75	72	69	67
3	90	80	72	66	87	78	71	65	74	68	63	71	66	61	67	63	60	57
4	83	72	63	57	80	70	62	56	67	60	55	64	58	53	61	56	52	50
5	77	64	56	50	74	63	55	49	60	53	48	58	52	47	55	50	46	44
6	71	58	50	44	69	57	49	43	55	48	42	52	46	42	50	45	41	39
7	66	53	45	39	64	52	44	39	50	43	38	48	42	37	46	41	37	35
8	62	49	41	35	60	48	40	35	46	39	34	44	38	34	43	37	33	31
9	58	45	37	32	56	44	37	31	42	36	31	41	35	30	40	34	30	28
10	54	42	34	29	53	41	34	29	39	33	28	38	32	28	37	31	27	26

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	24418	24418	24418	24418
5°	24592	23640	24592	23536
10°	24482	23013	24523	22692
15°	24325	22325	24435	21743
20°	24138	21440	24279	20535
25°	23751	20129	24013	18943
30°	23247	18202	23552	16851
35°	22464	15840	22897	14750
40°	21339	13854	21903	12853
45°	19856	12043	20501	11352
50°	17828	10582	18615	10048
55°	15422	9345	16543	8872
60°	12971	8205	14144	7732
65°	10634	7254	11706	6726
70°	8462	6438	9476	5954
75°	6646	5944	7483	5468
80°	4795	5735	5649	5241
85°	2951	5768	3976	5301



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	286.5	3.7
10°-20°	821.4	10.7
20°-30°	1217.4	15.9
30°-40°	1352.5	17.7
40°-50°	1226.0	16.0
50°-60°	950.0	12.4
60°-70°	645.1	8.4
70°-80°	410.4	5.4
80°-90°	262.4	3.4
90°-100°	176.9	2.3
100°-110°	121.2	1.6
110°-120°	80.8	1.1
120°-130°	50.3	0.7
130°-140°	27.8	0.4
140°-150°	13.1	0.2
150°-160°	4.8	0.1
160°-170°	0.3	0.0
170°-180°	0.0	0.0
0°-30°	2325.3	30.4
0°-40°	3677.8	48.1
0°-60°	5853.9	76.6
0°-90°	7171.8	93.8
90°-120°	378.9	5.0
90°-150°	470.1	6.1
90°-180°	475.0	6.2
0°-180°	7647.0	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	3022	3022	3022	3022	3022	
5°	3040	3010	3040	2997	3040	289
15°	2932	2937	2945	2860	2932	828
25°	2702	2653	2732	2496	2702	1245
35°	2327	2028	2372	1888	2327	1452
45°	1792	1449	1850	1366	1792	1376
55°	1144	1019	1227	967	1144	1030
65°	593	685	653	635	593	595
75°	238	457	268	420	238	256
85°	43	329	58	302	43	52
90°	0	284	3	259	0	3
95°	2	243	0	226	2	1
105°	2	178	0	168	2	2
115°	2	135	0	125	2	2
125°	2	100	2	88	2	2
135°	2	70	2	56	2	1
145°	2	45	2	32	2	1
155°	2	25	2	12	2	1
165°	0	0	0	0	0	0
175°	0	0	0	0	0	0
180°	0	0	0	0	0	



TEST NUMBER: P#

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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	3021.6	3021.6	3021.6	3021.6	3021.6	3021.6	3021.6	3021.6	3021.6	3021.6	3021.6
2.5°	3046.6	3043.3	3039.9	3034.9	3039.9	3053.2	3044.9	3026.6	3023.3	2993.4	3006.7
5°	3039.9	3034.9	3031.6	3026.6	3033.3	3049.9	3041.6	3025.0	3020.0	2991.7	3006.7
7.5°	3023.3	3020.0	3015.0	3015.0	3021.6	3038.3	3031.6	3013.3	3010.0	2981.8	2998.4
10°	3000.0	2998.4	2995.1	2995.1	3001.7	3021.6	3013.3	2996.7	2993.4	2966.8	2985.1
12.5°	2970.1	2971.8	2966.8	2966.8	2976.8	2996.7	2990.1	2971.8	2968.5	2945.2	2963.5
15°	2931.9	2933.6	2930.2	2931.9	2941.9	2965.1	2956.8	2940.2	2936.9	2918.6	2933.6
17.5°	2888.7	2890.3	2890.3	2888.7	2900.3	2923.6	2916.9	2902.0	2897.0	2882.0	2900.3
20°	2838.8	2838.8	2838.8	2838.8	2852.1	2875.4	2867.1	2855.4	2845.5	2833.8	2848.8
22.5°	2777.3	2775.7	2777.3	2782.3	2795.6	2813.9	2808.9	2795.6	2780.6	2774.0	2785.6
25°	2702.5	2707.5	2709.2	2714.2	2730.8	2745.7	2740.8	2727.5	2704.2	2699.2	2702.5
27.5°	2624.4	2627.7	2632.7	2631.1	2654.3	2669.3	2659.3	2647.7	2614.4	2609.5	2606.1
30°	2536.3	2541.3	2544.6	2543.0	2561.3	2577.9	2567.9	2552.9	2508.1	2504.7	2478.2
32.5°	2436.6	2441.6	2444.9	2444.9	2471.5	2478.2	2459.9	2438.3	2390.1	2378.4	2355.2
35°	2326.9	2331.9	2333.6	2333.6	2360.1	2358.5	2335.2	2305.3	2252.1	2237.2	2197.3
37.5°	2208.9	2212.2	2213.9	2223.9	2235.5	2225.5	2195.6	2157.4	2117.5	2075.9	2032.7
40°	2075.9	2080.9	2084.2	2090.9	2102.5	2090.9	2047.7	2001.1	1957.9	1911.4	1868.2
42.5°	1939.6	1954.6	1951.3	1949.6	1956.3	1924.7	1891.4	1838.3	1795.0	1746.8	1703.6
45°	1791.7	1790.1	1798.4	1801.7	1800.0	1773.4	1726.9	1678.7	1635.5	1585.6	1549.1
47.5°	1635.5	1633.8	1640.5	1643.8	1633.8	1605.6	1569.0	1514.1	1477.6	1434.4	1406.1
50°	1470.9	1470.9	1480.9	1470.9	1465.9	1437.7	1407.8	1352.9	1324.7	1286.4	1269.8
52.5°	1306.4	1321.3	1311.4	1308.1	1303.1	1274.8	1251.5	1206.7	1183.4	1166.8	1146.8
55°	1143.5	1160.1	1153.5	1148.5	1146.8	1123.6	1102.0	1068.7	1053.8	1042.1	1030.5
57.5°	1005.6	1003.9	1000.6	995.6	997.2	979.0	957.4	939.1	932.4	927.4	930.8
60°	846.0	859.3	854.3	856.0	857.6	854.3	836.0	824.4	826.1	827.7	832.7
62.5°	714.7	726.3	734.6	728.0	731.3	736.3	726.3	723.0	729.7	736.3	742.9
65°	593.4	605.0	613.3	611.6	621.6	631.6	629.9	633.2	648.2	656.5	664.8
67.5°	483.7	495.3	506.9	508.6	523.6	538.5	545.2	556.8	573.4	585.0	595.0
70°	388.9	398.9	412.2	420.5	440.4	460.4	472.0	495.3	505.3	521.9	528.5
72.5°	304.2	312.5	330.8	350.7	367.3	392.2	415.5	435.5	450.4	468.7	477.0
75°	237.7	241.0	260.9	284.2	307.5	335.7	360.7	382.3	402.2	420.5	433.8
77.5°	174.5	179.5	197.8	229.4	256.0	285.9	314.1	337.4	359.0	377.3	395.6
80°	121.3	131.3	151.2	182.8	212.7	246.0	272.6	299.2	322.4	340.7	359.0
82.5°	78.1	86.4	114.7	146.3	177.8	211.1	239.3	265.9	290.9	310.8	327.4
85°	43.2	54.8	83.1	116.3	147.9	181.2	211.1	237.7	262.6	280.9	297.5
87.5°	16.6	33.2	59.8	91.4	123.0	154.6	186.2	211.1	236.0	256.0	270.9
90°	0.0	19.9	44.9	76.5	108.0	139.6	169.5	196.1	219.4	237.7	254.3
92.5°	1.7	13.3	34.9	61.5	91.4	121.3	149.6	176.2	199.4	217.7	232.7
95°	1.7	10.0	28.3	53.2	79.8	108.0	134.6	159.6	181.2	199.4	214.4
97.5°	1.7	6.6	23.3	46.5	69.8	98.1	123.0	146.3	166.2	184.5	196.1
100°	1.7	6.6	19.9	39.9	63.2	88.1	111.4	134.6	152.9	167.9	181.2
102.5°	1.7	5.0	16.6	34.9	56.5	78.1	101.4	123.0	139.6	154.6	167.9
105°	1.7	5.0	15.0	29.9	49.9	71.5	91.4	111.4	129.6	142.9	154.6
107.5°	1.7	3.3	13.3	24.9	43.2	64.8	84.8	101.4	118.0	131.3	142.9
110°	1.7	3.3	11.6	23.3	38.2	58.2	76.5	93.1	108.0	121.3	131.3



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CATALOG NUMBER: 4SNLED-LD5-78SL-LN-UNV-L950-CD1-U

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	1.7	3.3	10.0	21.6	34.9	51.5	69.8	84.8	99.7	111.4	121.3
115°	1.7	3.3	10.0	19.9	31.6	44.9	61.5	78.1	89.8	103.0	111.4
117.5°	1.7	3.3	8.3	16.6	29.9	41.6	56.5	69.8	83.1	94.7	103.0
120°	1.7	3.3	8.3	15.0	26.6	38.2	49.9	63.2	76.5	84.8	93.1
122.5°	1.7	3.3	6.6	15.0	23.3	34.9	44.9	56.5	68.1	78.1	86.4
125°	1.7	3.3	6.6	13.3	21.6	31.6	41.6	49.9	61.5	69.8	78.1
127.5°	1.7	3.3	6.6	11.6	19.9	28.3	38.2	46.5	54.8	63.2	69.8
130°	1.7	3.3	5.0	10.0	18.3	24.9	33.2	43.2	49.9	56.5	63.2
132.5°	1.7	3.3	5.0	10.0	15.0	21.6	29.9	38.2	44.9	51.5	56.5
135°	1.7	3.3	5.0	8.3	13.3	19.9	24.9	33.2	39.9	46.5	51.5
137.5°	1.7	3.3	5.0	8.3	11.6	16.6	21.6	28.3	34.9	39.9	46.5
140°	1.7	3.3	5.0	6.6	10.0	15.0	19.9	23.3	29.9	34.9	39.9
142.5°	1.7	3.3	5.0	6.6	10.0	13.3	16.6	19.9	24.9	29.9	34.9
145°	1.7	3.3	5.0	6.6	8.3	11.6	15.0	18.3	19.9	24.9	28.3
147.5°	1.7	3.3	5.0	6.6	6.6	10.0	13.3	15.0	18.3	19.9	23.3
150°	1.7	3.3	5.0	5.0	6.6	8.3	11.6	13.3	15.0	18.3	19.9
152.5°	1.7	3.3	5.0	5.0	6.6	8.3	10.0	11.6	13.3	15.0	16.6
155°	1.7	3.3	5.0	5.0	5.0	6.6	8.3	10.0	11.6	13.3	15.0
157.5°	3.3	3.3	3.3	5.0	5.0	6.6	6.6	8.3	10.0	10.0	11.6
160°	3.3	3.3	3.3	5.0	5.0	5.0	6.6	6.6	8.3	8.3	10.0
162.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
167.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180°	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°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	3021.6	3021.6	3021.6	3021.6	3021.6	3021.6	3021.6	3021.6	3021.6	3021.6	3021.6
2.5°	3003.4	3008.4	3023.3	3023.3	3020.0	3016.7	3016.7	3011.7	3015.0	3021.6	3018.3
5°	3003.4	3008.4	3023.3	3023.3	3020.0	3016.7	3015.0	3010.0	3015.0	3021.6	3018.3
7.5°	2993.4	3000.0	3015.0	3015.0	3011.7	3010.0	3006.7	3003.4	3008.4	3015.0	3011.7
10°	2980.1	2986.7	3001.7	3001.7	2998.4	2998.4	2993.4	2990.1	2996.7	3001.7	3000.0
12.5°	2960.2	2968.5	2981.8	2980.1	2976.8	2978.4	2973.4	2966.8	2973.4	2978.4	2980.1
15°	2931.9	2941.9	2955.2	2951.8	2946.9	2950.2	2941.9	2936.9	2941.9	2951.8	2950.2
17.5°	2895.3	2902.0	2912.0	2912.0	2907.0	2903.6	2900.3	2895.3	2898.7	2905.3	2907.0
20°	2843.8	2852.1	2857.1	2852.1	2850.5	2845.5	2838.8	2833.8	2840.5	2850.5	2852.1
22.5°	2775.7	2777.3	2789.0	2777.3	2769.0	2767.4	2760.7	2750.7	2760.7	2769.0	2770.7
25°	2690.9	2699.2	2694.2	2674.3	2674.3	2661.0	2657.7	2652.7	2654.3	2669.3	2675.9
27.5°	2582.9	2586.2	2572.9	2556.3	2541.3	2533.0	2521.4	2523.0	2523.0	2543.0	2549.6
30°	2464.9	2446.6	2434.9	2408.3	2396.7	2376.8	2373.4	2373.4	2370.1	2380.1	2410.0
32.5°	2323.6	2298.6	2280.4	2255.4	2235.5	2215.5	2205.6	2210.6	2208.9	2233.8	2243.8
35°	2169.0	2154.0	2115.8	2084.2	2072.6	2042.7	2042.7	2027.7	2037.7	2066.0	2077.6
37.5°	2006.1	1982.9	1951.3	1916.4	1908.1	1884.8	1876.5	1868.2	1889.8	1894.8	1906.4
40°	1839.9	1818.3	1788.4	1755.1	1755.1	1726.9	1726.9	1726.9	1728.6	1738.5	1760.1
42.5°	1682.0	1658.7	1632.2	1608.9	1605.6	1584.0	1584.0	1582.3	1585.6	1593.9	1613.9
45°	1529.1	1510.8	1482.6	1470.9	1472.6	1449.3	1454.3	1449.3	1456.0	1464.3	1470.9
47.5°	1387.8	1376.2	1364.6	1347.9	1343.0	1341.3	1333.0	1326.3	1338.0	1338.0	1347.9
50°	1256.5	1249.9	1243.2	1233.3	1234.9	1228.3	1218.3	1218.3	1226.6	1228.3	1234.9
52.5°	1141.8	1133.5	1125.2	1126.9	1128.5	1125.2	1120.2	1115.3	1120.2	1123.6	1131.9
55°	1027.2	1020.5	1028.8	1025.5	1028.8	1025.5	1022.2	1018.9	1027.2	1022.2	1030.5
57.5°	924.1	930.8	934.1	927.4	932.4	929.1	930.8	925.8	932.4	935.7	934.1
60°	829.4	839.3	834.4	836.0	842.7	839.3	832.7	837.7	844.3	846.0	844.3
62.5°	742.9	754.6	759.6	756.2	757.9	754.6	759.6	752.9	761.2	764.6	759.6
65°	664.8	678.1	681.5	681.5	681.5	678.1	683.1	684.8	688.1	688.1	684.8
67.5°	598.3	610.0	613.3	616.6	613.3	610.0	610.0	611.6	618.3	621.6	618.3
70°	538.5	550.1	551.8	551.8	553.5	556.8	550.1	553.5	558.5	560.1	558.5
72.5°	487.0	498.6	501.9	500.3	501.9	503.6	503.6	500.3	505.3	508.6	508.6
75°	445.4	452.1	455.4	455.4	457.1	458.7	458.7	457.1	460.4	462.1	463.7
77.5°	407.2	412.2	417.2	417.2	418.8	417.2	420.5	420.5	422.2	423.8	425.5
80°	369.0	375.6	379.0	380.6	383.9	385.6	385.6	385.6	387.3	388.9	388.9
82.5°	339.1	344.0	349.0	354.0	354.0	355.7	355.7	355.7	357.3	357.3	359.0
85°	309.1	315.8	320.8	324.1	325.8	327.4	327.4	329.1	329.1	329.1	330.8
87.5°	282.6	290.9	294.2	297.5	299.2	302.5	302.5	302.5	304.2	304.2	304.2
90°	264.3	272.6	275.9	279.2	280.9	282.6	282.6	284.2	284.2	285.9	285.9
92.5°	242.7	251.0	257.6	257.6	259.3	262.6	260.9	260.9	262.6	264.3	264.3
95°	226.0	232.7	237.7	239.3	241.0	241.0	241.0	242.7	241.0	242.7	242.7
97.5°	206.1	212.7	217.7	221.1	222.7	222.7	222.7	224.4	222.7	224.4	224.4
100°	189.5	196.1	201.1	202.8	206.1	206.1	206.1	206.1	206.1	206.1	207.8
102.5°	176.2	182.8	186.2	187.8	189.5	191.1	191.1	191.1	191.1	192.8	192.8
105°	162.9	169.5	172.9	174.5	176.2	177.8	177.8	177.8	179.5	179.5	177.8
107.5°	151.2	156.2	159.6	162.9	164.5	164.5	166.2	166.2	166.2	166.2	166.2
110°	139.6	144.6	149.6	152.9	152.9	154.6	154.6	156.2	156.2	154.6	156.2



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-78SL-LN-UNV-L950-CD1-U

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
112.5°	128.0	134.6	138.0	141.3	142.9	144.6	144.6	144.6	144.6	144.6	144.6
115°	118.0	124.7	128.0	131.3	133.0	134.6	134.6	134.6	134.6	134.6	134.6
117.5°	109.7	116.3	119.7	121.3	123.0	124.7	126.3	126.3	126.3	126.3	124.7
120°	101.4	106.4	109.7	113.0	114.7	116.3	116.3	116.3	116.3	116.3	116.3
122.5°	93.1	98.1	101.4	104.7	106.4	108.0	108.0	108.0	108.0	108.0	108.0
125°	84.8	89.8	93.1	96.4	98.1	99.7	99.7	99.7	99.7	99.7	99.7
127.5°	76.5	81.4	86.4	88.1	89.8	91.4	91.4	91.4	93.1	91.4	91.4
130°	68.1	73.1	78.1	79.8	81.4	83.1	84.8	84.8	84.8	84.8	83.1
132.5°	61.5	66.5	69.8	71.5	74.8	74.8	76.5	76.5	76.5	76.5	74.8
135°	56.5	59.8	63.2	64.8	68.1	68.1	68.1	69.8	69.8	68.1	66.5
137.5°	49.9	53.2	56.5	58.2	59.8	61.5	61.5	63.2	61.5	61.5	61.5
140°	46.5	48.2	51.5	53.2	54.8	54.8	54.8	56.5	56.5	54.8	54.8
142.5°	39.9	43.2	46.5	48.2	49.9	49.9	49.9	49.9	49.9	49.9	49.9
145°	33.2	38.2	39.9	43.2	43.2	44.9	44.9	44.9	44.9	44.9	43.2
147.5°	28.3	31.6	36.6	38.2	38.2	39.9	39.9	39.9	39.9	39.9	38.2
150°	21.6	24.9	29.9	33.2	33.2	34.9	34.9	34.9	34.9	33.2	33.2
152.5°	18.3	21.6	23.3	26.6	28.3	28.3	28.3	29.9	28.3	28.3	28.3
155°	16.6	18.3	19.9	21.6	23.3	24.9	24.9	24.9	24.9	23.3	23.3
157.5°	13.3	15.0	16.6	18.3	19.9	21.6	21.6	21.6	21.6	21.6	19.9
160°	10.0	11.6	13.3	13.3	15.0	16.6	18.3	16.6	16.6	16.6	16.6
162.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
167.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180°	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-LD5-78SL-LN-UNV-L950-CD1-U

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	3021.6	3021.6	3021.6	3021.6	3021.6	3021.6	3021.6	3021.6	3021.6	3021.6	3021.6
2.5°	3015.0	3013.3	3018.3	3010.0	2985.1	2991.7	2988.4	3003.4	3006.7	3010.0	3025.0
5°	3015.0	3013.3	3016.7	3010.0	2983.4	2988.4	2985.1	3000.0	3003.4	3005.0	3020.0
7.5°	3008.4	3006.7	3011.7	3003.4	2975.1	2981.8	2976.8	2991.7	2993.4	2995.1	3008.4
10°	2995.1	2993.4	2996.7	2990.1	2961.8	2968.5	2961.8	2976.8	2976.8	2980.1	2990.1
12.5°	2975.1	2971.8	2978.4	2970.1	2938.5	2946.9	2943.5	2953.5	2955.2	2956.8	2966.8
15°	2946.9	2943.5	2948.5	2943.5	2915.3	2916.9	2912.0	2926.9	2928.6	2925.2	2935.2
17.5°	2905.3	2902.0	2912.0	2908.6	2880.4	2887.0	2885.4	2888.7	2893.7	2885.4	2898.7
20°	2853.8	2857.1	2860.4	2862.1	2840.5	2840.5	2838.8	2845.5	2850.5	2843.8	2853.8
22.5°	2777.3	2785.6	2795.6	2798.9	2784.0	2782.3	2792.3	2789.0	2793.9	2790.6	2797.3
25°	2680.9	2697.5	2707.5	2717.5	2709.2	2712.5	2727.5	2730.8	2730.8	2729.1	2735.8
27.5°	2561.3	2582.9	2601.1	2622.8	2614.4	2621.1	2646.0	2649.3	2656.0	2649.3	2662.6
30°	2418.3	2438.3	2473.2	2504.7	2508.1	2518.0	2552.9	2556.3	2574.6	2567.9	2572.9
32.5°	2275.4	2285.4	2325.2	2356.8	2376.8	2401.7	2439.9	2446.6	2471.5	2476.5	2476.5
35°	2095.9	2124.1	2160.7	2205.6	2230.5	2257.1	2308.6	2318.6	2355.2	2366.8	2380.1
37.5°	1944.6	1971.2	1994.5	2041.0	2085.9	2115.8	2157.4	2182.3	2220.5	2242.1	2258.8
40°	1783.4	1805.0	1829.9	1876.5	1914.7	1959.6	2001.1	2031.1	2079.3	2104.2	2125.8
42.5°	1630.5	1647.1	1673.7	1706.9	1746.8	1796.7	1836.6	1871.5	1923.0	1957.9	1982.9
45°	1494.2	1504.2	1527.4	1552.4	1587.3	1638.8	1677.0	1721.9	1763.5	1800.0	1829.9
47.5°	1366.2	1379.5	1391.2	1407.8	1439.4	1470.9	1515.8	1559.0	1600.6	1640.5	1670.4
50°	1248.2	1248.2	1266.5	1278.1	1299.7	1328.0	1362.9	1392.8	1444.3	1472.6	1510.8
52.5°	1133.5	1140.2	1150.2	1156.8	1173.4	1191.7	1220.0	1244.9	1288.1	1314.7	1351.3
55°	1032.1	1038.8	1043.8	1047.1	1057.1	1078.7	1088.7	1108.6	1138.5	1160.1	1191.7
57.5°	935.7	939.1	944.1	945.7	947.4	960.7	969.0	974.0	1003.9	1025.5	1052.1
60°	847.7	847.7	852.6	851.0	849.3	856.0	854.3	859.3	877.6	890.9	902.5
62.5°	764.6	764.6	766.2	762.9	761.2	761.2	754.6	759.6	764.6	766.2	774.5
65°	688.1	696.4	689.8	691.4	681.5	678.1	674.8	664.8	663.2	656.5	659.8
67.5°	620.0	626.6	620.0	620.0	611.6	605.0	596.7	580.1	575.1	561.8	558.5
70°	565.1	560.1	563.4	558.5	548.5	540.2	528.5	515.2	498.6	482.0	470.4
72.5°	511.9	511.9	508.6	503.6	498.6	482.0	468.7	453.7	433.8	412.2	395.6
75°	460.4	462.1	462.1	457.1	448.8	433.8	418.8	397.2	375.6	350.7	329.1
77.5°	423.8	423.8	423.8	415.5	407.2	393.9	375.6	352.4	329.1	299.2	274.2
80°	388.9	387.3	387.3	377.3	369.0	354.0	335.7	312.5	287.5	256.0	227.7
82.5°	360.7	359.0	355.7	347.4	335.7	320.8	302.5	277.6	251.0	222.7	187.8
85°	330.8	329.1	325.8	317.5	305.8	292.5	272.6	247.6	221.1	189.5	156.2
87.5°	304.2	302.5	297.5	292.5	279.2	264.3	244.3	221.1	192.8	162.9	129.6
90°	285.9	282.6	279.2	272.6	260.9	244.3	224.4	199.4	171.2	141.3	108.0
92.5°	264.3	262.6	257.6	251.0	241.0	224.4	204.4	181.2	152.9	124.7	93.1
95°	242.7	241.0	237.7	231.0	221.1	206.1	187.8	164.5	138.0	109.7	81.4
97.5°	222.7	222.7	217.7	212.7	201.1	189.5	171.2	149.6	124.7	99.7	73.1
100°	206.1	206.1	201.1	194.5	186.2	174.5	156.2	136.3	113.0	89.8	63.2
102.5°	191.1	189.5	186.2	179.5	171.2	159.6	142.9	124.7	103.0	79.8	56.5
105°	177.8	176.2	172.9	166.2	159.6	146.3	133.0	114.7	93.1	71.5	49.9
107.5°	164.5	162.9	161.2	154.6	146.3	134.6	121.3	103.0	84.8	64.8	44.9
110°	152.9	151.2	147.9	141.3	133.0	123.0	109.7	94.7	76.5	58.2	39.9



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-78SL-LN-UNV-L950-CD1-U

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
112.5°	142.9	141.3	138.0	131.3	124.7	113.0	101.4	84.8	69.8	53.2	34.9
115°	133.0	131.3	128.0	121.3	113.0	103.0	91.4	78.1	61.5	46.5	31.6
117.5°	123.0	121.3	118.0	113.0	104.7	94.7	83.1	69.8	54.8	43.2	28.3
120°	114.7	111.4	108.0	103.0	94.7	86.4	74.8	63.2	49.9	38.2	24.9
122.5°	106.4	103.0	99.7	94.7	86.4	78.1	66.5	56.5	46.5	34.9	23.3
125°	96.4	94.7	91.4	86.4	78.1	69.8	61.5	51.5	41.6	31.6	19.9
127.5°	88.1	86.4	83.1	76.5	69.8	63.2	54.8	46.5	36.6	26.6	18.3
130°	81.4	78.1	74.8	69.8	64.8	58.2	49.9	41.6	33.2	23.3	16.6
132.5°	73.1	69.8	66.5	63.2	58.2	51.5	44.9	36.6	29.9	21.6	15.0
135°	66.5	63.2	59.8	56.5	51.5	46.5	39.9	33.2	26.6	19.9	13.3
137.5°	58.2	56.5	54.8	51.5	46.5	41.6	36.6	28.3	23.3	18.3	11.6
140°	53.2	51.5	49.9	44.9	41.6	36.6	31.6	24.9	19.9	15.0	10.0
142.5°	48.2	46.5	43.2	39.9	36.6	33.2	26.6	23.3	18.3	13.3	10.0
145°	41.6	39.9	38.2	34.9	31.6	26.6	23.3	19.9	16.6	11.6	8.3
147.5°	38.2	36.6	33.2	29.9	26.6	23.3	21.6	18.3	13.3	10.0	6.6
150°	31.6	29.9	28.3	24.9	23.3	21.6	18.3	15.0	11.6	8.3	6.6
152.5°	26.6	24.9	23.3	23.3	19.9	18.3	15.0	13.3	10.0	8.3	5.0
155°	23.3	23.3	21.6	19.9	16.6	15.0	13.3	10.0	8.3	6.6	5.0
157.5°	19.9	18.3	16.6	16.6	15.0	13.3	10.0	8.3	6.6	6.6	5.0
160°	16.6	15.0	15.0	13.3	11.6	10.0	8.3	8.3	6.6	5.0	5.0
162.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
167.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180°	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-LD5-78SL-LN-UNV-L950-CD1-U

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
0°	3021.6	3021.6	3021.6	3021.6	3021.6	3021.6	3021.6	3021.6	3021.6	3021.6	3021.6
2.5°	3026.6	3008.4	3025.0	3046.6	3046.6	3043.3	3039.9	3046.6	3063.2	3056.6	3036.6
5°	3021.6	3003.4	3018.3	3039.9	3039.9	3034.9	3031.6	3036.6	3054.9	3046.6	3028.3
7.5°	3011.7	2995.1	3005.0	3025.0	3025.0	3020.0	3016.7	3023.3	3038.3	3030.0	3010.0
10°	2993.4	2975.1	2986.7	3005.0	3003.4	3000.0	2995.1	3003.4	3016.7	3005.0	2981.8
12.5°	2970.1	2951.8	2961.8	2978.4	2976.8	2970.1	2966.8	2971.8	2983.4	2976.8	2951.8
15°	2938.5	2920.3	2928.6	2945.2	2940.2	2935.2	2928.6	2930.2	2945.2	2933.6	2907.0
17.5°	2900.3	2880.4	2887.0	2902.0	2897.0	2892.0	2883.7	2885.4	2902.0	2885.4	2857.1
20°	2853.8	2832.2	2837.2	2855.4	2847.1	2838.8	2830.5	2830.5	2847.1	2828.8	2797.3
22.5°	2803.9	2782.3	2785.6	2798.9	2792.3	2777.3	2769.0	2774.0	2782.3	2759.0	2725.8
25°	2742.4	2714.2	2719.2	2732.4	2727.5	2707.5	2699.2	2702.5	2699.2	2680.9	2646.0
27.5°	2671.0	2641.0	2644.4	2652.7	2646.0	2627.7	2617.8	2619.4	2612.8	2589.5	2549.6
30°	2581.2	2566.2	2564.6	2569.6	2559.6	2541.3	2529.7	2526.4	2524.7	2491.4	2443.2
32.5°	2489.8	2476.5	2468.2	2474.8	2463.2	2444.9	2425.0	2425.0	2408.3	2376.8	2335.2
35°	2396.7	2375.1	2366.8	2371.8	2358.5	2335.2	2318.6	2310.3	2285.4	2245.5	2200.6
37.5°	2277.0	2262.1	2252.1	2257.1	2242.1	2225.5	2193.9	2185.6	2159.0	2104.2	2047.7
40°	2147.4	2135.8	2125.8	2130.8	2114.2	2089.2	2061.0	2047.7	2017.8	1956.3	1911.4
42.5°	2007.8	2002.8	1991.2	2009.4	1976.2	1951.3	1923.0	1901.4	1871.5	1805.0	1753.5
45°	1859.9	1871.5	1844.9	1849.9	1828.3	1806.7	1776.8	1745.2	1715.3	1652.1	1593.9
47.5°	1703.6	1711.9	1693.7	1697.0	1673.7	1653.8	1627.2	1587.3	1554.0	1499.2	1447.7
50°	1542.4	1539.1	1539.1	1535.8	1517.5	1492.5	1465.9	1429.4	1396.1	1346.3	1303.1
52.5°	1371.2	1377.9	1381.2	1389.5	1366.2	1351.3	1309.7	1278.1	1253.2	1201.7	1165.1
55°	1206.7	1229.9	1223.3	1226.6	1200.0	1188.4	1155.1	1130.2	1093.6	1063.7	1040.5
57.5°	1057.1	1062.1	1065.4	1070.4	1058.7	1035.5	1008.9	988.9	960.7	935.7	919.1
60°	912.5	912.5	914.1	922.5	910.8	890.9	870.9	856.0	836.0	821.1	811.1
62.5°	776.2	787.8	789.5	782.8	767.9	757.9	744.6	736.3	723.0	718.0	714.7
65°	649.9	649.9	649.9	653.2	644.9	638.2	629.9	628.3	633.2	626.6	629.9
67.5°	543.5	538.5	535.2	536.8	533.5	530.2	528.5	533.5	543.5	543.5	551.8
70°	452.1	442.1	435.5	435.5	435.5	437.1	442.1	452.1	468.7	475.4	487.0
72.5°	377.3	355.7	345.7	345.7	347.4	354.0	369.0	387.3	402.2	415.5	430.5
75°	305.8	284.2	269.3	267.6	270.9	280.9	302.5	319.1	344.0	362.3	380.6
77.5°	247.6	221.1	202.8	201.1	206.1	221.1	247.6	269.3	297.5	317.5	337.4
80°	197.8	167.9	152.9	142.9	151.2	169.5	199.4	226.0	252.6	279.2	304.2
82.5°	157.9	129.6	106.4	96.4	106.4	131.3	159.6	191.1	217.7	246.0	270.9
85°	124.7	94.7	68.1	58.2	69.8	96.4	128.0	159.6	189.5	217.7	242.7
87.5°	98.1	68.1	41.6	28.3	43.2	71.5	101.4	133.0	164.5	192.8	217.7
90°	76.5	48.2	23.3	3.3	24.9	51.5	81.4	111.4	142.9	171.2	196.1
92.5°	64.8	36.6	13.3	0.0	15.0	38.2	66.5	96.4	124.7	152.9	177.8
95°	54.8	29.9	10.0	0.0	10.0	29.9	54.8	81.4	109.7	138.0	162.9
97.5°	46.5	23.3	6.6	0.0	6.6	23.3	44.9	71.5	96.4	123.0	146.3
100°	39.9	19.9	5.0	0.0	5.0	18.3	38.2	61.5	86.4	111.4	133.0
102.5°	34.9	16.6	3.3	0.0	3.3	15.0	31.6	53.2	74.8	98.1	119.7
105°	29.9	13.3	3.3	0.0	1.7	11.6	26.6	46.5	66.5	88.1	108.0
107.5°	26.6	11.6	3.3	0.0	1.7	10.0	23.3	39.9	59.8	78.1	96.4
110°	23.3	10.0	3.3	0.0	1.7	6.6	19.9	34.9	51.5	69.8	88.1



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-78SL-LN-UNV-L950-CD1-U

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
112.5°	19.9	8.3	1.7	0.0	0.0	5.0	16.6	29.9	44.9	63.2	78.1
115°	18.3	8.3	1.7	0.0	0.0	3.3	13.3	26.6	39.9	56.5	69.8
117.5°	16.6	6.6	1.7	0.0	1.7	3.3	11.6	23.3	34.9	48.2	63.2
120°	15.0	6.6	1.7	0.0	1.7	1.7	8.3	19.9	29.9	43.2	54.8
122.5°	13.3	6.6	1.7	0.0	1.7	1.7	6.6	16.6	26.6	38.2	48.2
125°	11.6	5.0	3.3	1.7	1.7	1.7	5.0	13.3	23.3	31.6	43.2
127.5°	11.6	5.0	3.3	1.7	1.7	1.7	3.3	11.6	18.3	28.3	38.2
130°	10.0	5.0	3.3	1.7	1.7	1.7	1.7	8.3	16.6	23.3	31.6
132.5°	8.3	5.0	3.3	1.7	1.7	1.7	1.7	5.0	11.6	19.9	26.6
135°	8.3	5.0	3.3	1.7	1.7	1.7	1.7	3.3	8.3	15.0	21.6
137.5°	6.6	3.3	3.3	1.7	1.7	1.7	1.7	1.7	6.6	11.6	16.6
140°	6.6	3.3	3.3	1.7	1.7	1.7	1.7	1.7	5.0	8.3	13.3
142.5°	5.0	3.3	3.3	1.7	1.7	1.7	1.7	1.7	3.3	6.6	10.0
145°	5.0	3.3	3.3	1.7	1.7	1.7	1.7	1.7	1.7	3.3	6.6
147.5°	5.0	5.0	3.3	1.7	1.7	1.7	1.7	1.7	1.7	3.3	5.0
150°	5.0	3.3	3.3	1.7	1.7	1.7	1.7	1.7	1.7	1.7	3.3
152.5°	5.0	3.3	3.3	1.7	1.7	1.7	1.7	1.7	1.7	1.7	3.3
155°	5.0	3.3	3.3	1.7	1.7	1.7	1.7	1.7	1.7	3.3	3.3
157.5°	5.0	3.3	3.3	1.7	1.7	1.7	1.7	1.7	1.7	1.7	3.3
160°	5.0	3.3	3.3	1.7	3.3	1.7	3.3	3.3	3.3	3.3	3.3
162.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
167.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180°	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-LD5-78SL-LN-UNV-L950-CD1-U

CANDELA DISTRIBUTION (continued):

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
0°	3021.6	3021.6	3021.6	3021.6	3021.6	3021.6	3021.6	3021.6	3021.6	3021.6	3021.6
2.5°	3030.0	2998.4	3015.0	3010.0	3016.7	3030.0	3028.3	3025.0	3025.0	3020.0	3013.3
5°	3020.0	2990.1	3005.0	2996.7	3005.0	3016.7	3015.0	3010.0	3013.3	3005.0	2996.7
7.5°	3000.0	2973.4	2986.7	2980.1	2986.7	2998.4	2993.4	2991.7	2995.1	2981.8	2976.8
10°	2976.8	2946.9	2961.8	2953.5	2961.8	2970.1	2966.8	2960.2	2966.8	2953.5	2948.5
12.5°	2940.2	2915.3	2925.2	2921.9	2926.9	2935.2	2928.6	2923.6	2926.9	2915.3	2905.3
15°	2900.3	2875.4	2883.7	2878.7	2882.0	2892.0	2880.4	2878.7	2875.4	2863.8	2860.4
17.5°	2848.8	2825.5	2833.8	2825.5	2830.5	2827.2	2825.5	2817.2	2817.2	2803.9	2793.9
20°	2785.6	2765.7	2760.7	2754.1	2760.7	2754.1	2744.1	2737.4	2735.8	2722.5	2714.2
22.5°	2712.5	2689.2	2692.6	2674.3	2675.9	2666.0	2649.3	2642.7	2636.0	2621.1	2609.5
25°	2624.4	2601.1	2584.5	2572.9	2557.9	2556.3	2534.7	2518.0	2516.4	2498.1	2496.4
27.5°	2524.7	2498.1	2484.8	2456.5	2438.3	2423.3	2405.0	2388.4	2380.1	2360.1	2346.8
30°	2410.0	2380.1	2346.8	2326.9	2298.6	2287.0	2255.4	2235.5	2228.8	2207.2	2197.3
32.5°	2280.4	2248.8	2222.2	2184.0	2152.4	2135.8	2104.2	2084.2	2075.9	2052.7	2039.4
35°	2139.1	2104.2	2072.6	2036.0	2011.1	1982.9	1944.6	1924.7	1906.4	1898.1	1888.1
37.5°	1991.2	1952.9	1916.4	1879.8	1858.2	1825.0	1791.7	1778.4	1756.8	1748.5	1738.5
40°	1838.3	1800.0	1765.1	1730.2	1705.3	1675.4	1645.5	1640.5	1617.2	1608.9	1602.2
42.5°	1687.0	1647.1	1607.2	1582.3	1564.0	1534.1	1514.1	1509.2	1489.2	1484.2	1484.2
45°	1550.7	1500.9	1467.6	1446.0	1431.0	1406.1	1389.5	1386.2	1369.5	1366.2	1366.2
47.5°	1404.5	1357.9	1333.0	1319.7	1306.4	1288.1	1278.1	1278.1	1261.5	1258.2	1256.5
50°	1268.2	1224.9	1206.7	1193.4	1191.7	1178.4	1170.1	1166.8	1166.8	1155.1	1156.8
52.5°	1138.5	1116.9	1102.0	1093.6	1083.7	1075.4	1068.7	1068.7	1063.7	1055.4	1058.7
55°	1018.9	993.9	995.6	988.9	983.9	979.0	980.6	970.7	969.0	962.3	967.3
57.5°	899.2	899.2	895.9	890.9	882.6	885.9	885.9	885.9	877.6	872.6	877.6
60°	797.8	802.8	794.5	799.5	796.1	797.8	794.5	794.5	789.5	787.8	789.5
62.5°	708.0	716.4	713.0	719.7	716.4	718.0	721.3	714.7	711.4	708.0	711.4
65°	628.3	638.2	636.6	641.6	643.2	644.9	646.5	643.2	639.9	636.6	634.9
67.5°	558.5	568.4	575.1	576.7	578.4	583.4	581.7	578.4	575.1	570.1	568.4
70°	495.3	508.6	516.9	520.2	526.9	523.6	523.6	521.9	518.6	513.6	511.9
72.5°	442.1	457.1	465.4	468.7	475.4	475.4	473.7	472.0	468.7	463.7	462.1
75°	395.6	408.9	420.5	427.2	432.1	432.1	430.5	428.8	425.5	422.2	420.5
77.5°	359.0	370.6	380.6	388.9	392.2	393.9	392.2	388.9	388.9	387.3	385.6
80°	322.4	335.7	345.7	354.0	359.0	359.0	357.3	359.0	355.7	354.0	352.4
82.5°	290.9	305.8	317.5	325.8	329.1	330.8	329.1	330.8	327.4	327.4	327.4
85°	262.6	277.6	290.9	297.5	302.5	304.2	304.2	304.2	302.5	302.5	302.5
87.5°	239.3	254.3	267.6	274.2	279.2	280.9	280.9	282.6	279.2	279.2	279.2
90°	217.7	232.7	246.0	252.6	257.6	260.9	260.9	262.6	260.9	259.3	259.3
92.5°	197.8	214.4	227.7	234.4	239.3	244.3	244.3	246.0	242.7	242.7	242.7
95°	181.2	197.8	209.4	217.7	222.7	226.0	227.7	227.7	226.0	226.0	226.0
97.5°	166.2	181.2	192.8	201.1	206.1	207.8	209.4	211.1	209.4	209.4	209.4
100°	151.2	166.2	177.8	184.5	191.1	192.8	194.5	196.1	196.1	194.5	194.5
102.5°	138.0	152.9	162.9	171.2	176.2	179.5	181.2	181.2	181.2	181.2	181.2
105°	124.7	139.6	149.6	157.9	162.9	166.2	167.9	169.5	169.5	167.9	167.9
107.5°	113.0	126.3	138.0	144.6	151.2	154.6	156.2	156.2	157.9	156.2	156.2
110°	101.4	116.3	126.3	133.0	139.6	142.9	144.6	146.3	146.3	146.3	146.3



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-78SL-LN-UNV-L950-CD1-U

CANDELA DISTRIBUTION (continued):

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
112.5°	93.1	104.7	114.7	121.3	128.0	131.3	133.0	134.6	136.3	134.6	134.6
115°	83.1	94.7	104.7	111.4	116.3	119.7	123.0	124.7	124.7	126.3	124.7
117.5°	74.8	84.8	94.7	101.4	106.4	111.4	113.0	114.7	116.3	114.7	114.7
120°	66.5	76.5	84.8	91.4	96.4	101.4	103.0	104.7	106.4	104.7	104.7
122.5°	59.8	68.1	76.5	83.1	88.1	91.4	94.7	94.7	96.4	96.4	96.4
125°	53.2	61.5	68.1	74.8	79.8	83.1	84.8	86.4	86.4	88.1	88.1
127.5°	46.5	53.2	61.5	66.5	71.5	74.8	76.5	78.1	78.1	79.8	79.8
130°	39.9	46.5	53.2	58.2	63.2	66.5	68.1	69.8	71.5	71.5	71.5
132.5°	34.9	41.6	46.5	51.5	54.8	58.2	61.5	63.2	63.2	63.2	63.2
135°	28.3	34.9	39.9	44.9	48.2	51.5	53.2	56.5	56.5	56.5	56.5
137.5°	23.3	29.9	34.9	38.2	41.6	44.9	46.5	48.2	49.9	49.9	49.9
140°	18.3	23.3	28.3	33.2	36.6	38.2	41.6	41.6	43.2	43.2	43.2
142.5°	13.3	18.3	21.6	26.6	29.9	33.2	34.9	36.6	36.6	36.6	36.6
145°	10.0	13.3	16.6	19.9	24.9	26.6	28.3	29.9	31.6	31.6	31.6
147.5°	6.6	10.0	11.6	15.0	18.3	21.6	23.3	24.9	26.6	26.6	26.6
150°	5.0	6.6	10.0	11.6	13.3	16.6	19.9	19.9	21.6	21.6	19.9
152.5°	3.3	5.0	6.6	8.3	10.0	11.6	15.0	15.0	16.6	16.6	16.6
155°	3.3	3.3	3.3	5.0	6.6	8.3	10.0	11.6	11.6	11.6	11.6
157.5°	3.3	3.3	3.3	3.3	3.3	5.0	6.6	8.3	8.3	8.3	8.3
160°	3.3	3.3	1.7	1.7	3.3	3.3	3.3	3.3	5.0	5.0	5.0
162.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
167.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180°	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-LD5-78SL-LN-UNV-L950-CD1-U

CANDELA DISTRIBUTION (continued):

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°
0°	3021.6	3021.6	3021.6	3021.6	3021.6	3021.6	3021.6	3021.6	3021.6	3021.6	3021.6
2.5°	3018.3	3021.6	3021.6	3018.3	3016.7	3023.3	3015.0	2983.4	2993.4	2996.7	3006.7
5°	3003.4	3006.7	3006.7	3006.7	3003.4	3010.0	3001.7	2970.1	2981.8	2986.7	2993.4
7.5°	2981.8	2983.4	2986.7	2985.1	2981.8	2991.7	2983.4	2951.8	2960.2	2968.5	2976.8
10°	2953.5	2953.5	2955.2	2958.5	2955.2	2963.5	2955.2	2926.9	2935.2	2940.2	2950.2
12.5°	2915.3	2918.6	2920.3	2918.6	2916.9	2923.6	2920.3	2893.7	2897.0	2907.0	2916.9
15°	2863.8	2863.8	2872.1	2868.7	2868.7	2875.4	2878.7	2848.8	2853.8	2868.7	2878.7
17.5°	2800.6	2802.3	2808.9	2812.2	2810.6	2822.2	2823.9	2800.6	2798.9	2817.2	2827.2
20°	2719.2	2722.5	2730.8	2737.4	2737.4	2750.7	2755.7	2740.8	2742.4	2762.4	2765.7
22.5°	2619.4	2619.4	2634.4	2644.4	2652.7	2661.0	2675.9	2662.6	2662.6	2689.2	2704.2
25°	2496.4	2508.1	2513.1	2533.0	2544.6	2567.9	2581.2	2582.9	2584.5	2609.5	2619.4
27.5°	2360.1	2363.5	2378.4	2401.7	2415.0	2436.6	2461.5	2466.5	2474.8	2508.1	2523.0
30°	2205.6	2215.5	2222.2	2255.4	2273.7	2302.0	2333.6	2345.2	2351.8	2396.7	2415.0
32.5°	2047.7	2051.0	2079.3	2097.5	2119.1	2149.1	2185.6	2207.2	2220.5	2267.1	2293.7
35°	1889.8	1896.4	1919.7	1943.0	1964.6	1994.5	2032.7	2062.6	2085.9	2127.5	2162.4
37.5°	1745.2	1761.8	1766.8	1790.1	1806.7	1836.6	1863.2	1906.4	1929.7	1972.9	2017.8
40°	1615.5	1620.5	1623.8	1647.1	1658.7	1687.0	1725.2	1753.5	1785.1	1816.6	1869.8
42.5°	1487.6	1490.9	1495.9	1509.2	1522.5	1542.4	1570.7	1598.9	1632.2	1678.7	1713.6
45°	1369.5	1372.9	1376.2	1384.5	1396.1	1414.4	1432.7	1452.7	1485.9	1525.8	1562.3
47.5°	1259.9	1266.5	1266.5	1268.2	1276.5	1291.4	1304.7	1329.7	1347.9	1369.5	1411.1
50°	1155.1	1160.1	1161.8	1161.8	1166.8	1176.7	1180.1	1196.7	1213.3	1233.3	1263.2
52.5°	1057.1	1057.1	1055.4	1062.1	1062.1	1068.7	1070.4	1080.3	1092.0	1113.6	1126.9
55°	964.0	964.0	969.0	965.7	965.7	969.0	967.3	969.0	979.0	992.3	1003.9
57.5°	874.3	872.6	877.6	874.3	872.6	875.9	879.2	872.6	874.3	887.5	887.5
60°	784.5	786.2	791.1	787.8	787.8	787.8	784.5	781.2	777.9	786.2	789.5
62.5°	713.0	708.0	713.0	708.0	711.4	709.7	706.4	699.7	701.4	698.1	694.7
65°	638.2	638.2	639.9	634.9	638.2	638.2	633.2	631.6	621.6	618.3	610.0
67.5°	573.4	573.4	575.1	571.8	571.8	573.4	568.4	563.4	553.5	548.5	536.8
70°	516.9	516.9	516.9	515.2	515.2	515.2	511.9	505.3	495.3	487.0	472.0
72.5°	465.4	467.0	465.4	465.4	470.4	465.4	460.4	453.7	445.4	428.8	415.5
75°	423.8	425.5	423.8	423.8	423.8	422.2	420.5	410.5	400.6	387.3	367.3
77.5°	387.3	387.3	388.9	387.3	387.3	385.6	380.6	372.3	360.7	349.0	325.8
80°	352.4	354.0	355.7	357.3	354.0	352.4	347.4	340.7	325.8	312.5	289.2
82.5°	327.4	325.8	327.4	329.1	325.8	324.1	319.1	310.8	299.2	280.9	257.6
85°	302.5	300.8	300.8	302.5	300.8	297.5	292.5	284.2	272.6	254.3	231.0
87.5°	277.6	279.2	280.9	279.2	277.6	274.2	269.3	260.9	247.6	232.7	207.8
90°	259.3	259.3	259.3	259.3	257.6	254.3	249.3	239.3	227.7	209.4	187.8
92.5°	242.7	242.7	242.7	242.7	241.0	236.0	231.0	222.7	209.4	191.1	171.2
95°	226.0	227.7	226.0	226.0	222.7	221.1	212.7	204.4	192.8	174.5	152.9
97.5°	207.8	209.4	207.8	207.8	206.1	202.8	197.8	187.8	176.2	159.6	139.6
100°	194.5	194.5	192.8	192.8	191.1	187.8	181.2	172.9	161.2	144.6	124.7
102.5°	179.5	181.2	179.5	179.5	176.2	172.9	167.9	159.6	147.9	131.3	113.0
105°	167.9	167.9	166.2	166.2	162.9	159.6	154.6	144.6	134.6	119.7	101.4
107.5°	156.2	156.2	154.6	154.6	151.2	147.9	141.3	133.0	123.0	108.0	91.4
110°	144.6	144.6	144.6	142.9	139.6	134.6	129.6	121.3	111.4	98.1	81.4



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-78SL-LN-UNV-L950-CD1-U

CANDELA DISTRIBUTION (continued):

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°
112.5°	136.3	134.6	133.0	131.3	128.0	124.7	118.0	109.7	99.7	88.1	73.1
115°	124.7	124.7	123.0	121.3	118.0	113.0	108.0	101.4	91.4	78.1	64.8
117.5°	114.7	114.7	113.0	111.4	108.0	103.0	98.1	91.4	81.4	69.8	58.2
120°	104.7	104.7	103.0	101.4	98.1	93.1	89.8	81.4	73.1	61.5	51.5
122.5°	96.4	94.7	94.7	91.4	89.8	84.8	79.8	73.1	64.8	54.8	44.9
125°	86.4	86.4	84.8	83.1	81.4	76.5	71.5	64.8	56.5	48.2	39.9
127.5°	78.1	78.1	76.5	74.8	73.1	68.1	63.2	58.2	49.9	41.6	33.2
130°	69.8	69.8	68.1	66.5	64.8	59.8	56.5	49.9	43.2	36.6	28.3
132.5°	63.2	63.2	61.5	59.8	56.5	53.2	49.9	43.2	38.2	31.6	24.9
135°	56.5	54.8	54.8	53.2	49.9	46.5	43.2	38.2	31.6	26.6	19.9
137.5°	49.9	48.2	46.5	44.9	43.2	39.9	36.6	33.2	28.3	21.6	16.6
140°	43.2	41.6	41.6	39.9	36.6	34.9	31.6	26.6	23.3	18.3	13.3
142.5°	36.6	36.6	34.9	33.2	31.6	29.9	26.6	23.3	18.3	15.0	10.0
145°	31.6	29.9	29.9	28.3	26.6	23.3	21.6	18.3	15.0	11.6	8.3
147.5°	24.9	24.9	24.9	23.3	21.6	19.9	18.3	15.0	11.6	8.3	5.0
150°	19.9	19.9	19.9	18.3	16.6	15.0	13.3	11.6	8.3	5.0	3.3
152.5°	16.6	16.6	15.0	15.0	13.3	11.6	10.0	8.3	5.0	3.3	3.3
155°	11.6	11.6	11.6	10.0	10.0	8.3	6.6	5.0	3.3	3.3	3.3
157.5°	8.3	8.3	8.3	6.6	6.6	5.0	5.0	3.3	3.3	3.3	3.3
160°	5.0	5.0	5.0	5.0	3.3	3.3	3.3	3.3	3.3	3.3	3.3
162.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
167.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180°	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-LD5-78SL-LN-UNV-L950-CD1-U

CANDELA DISTRIBUTION (continued):

	330°	335°	340°	345°	350°	355°	360°
0°	3021.6	3021.6	3021.6	3021.6	3021.6	3021.6	3021.6
2.5°	3001.7	3000.0	3013.3	3013.3	2998.4	3021.6	3046.6
5°	2991.7	2990.1	3003.4	3003.4	2990.1	3013.3	3039.9
7.5°	2971.8	2973.4	2986.7	2990.1	2973.4	2995.1	3023.3
10°	2950.2	2948.5	2963.5	2966.8	2953.5	2973.4	3000.0
12.5°	2915.3	2915.3	2930.2	2935.2	2921.9	2945.2	2970.1
15°	2878.7	2878.7	2888.7	2897.0	2885.4	2907.0	2931.9
17.5°	2832.2	2830.5	2840.5	2850.5	2838.8	2862.1	2888.7
20°	2772.3	2772.3	2784.0	2795.6	2787.3	2808.9	2838.8
22.5°	2709.2	2702.5	2722.5	2730.8	2725.8	2747.4	2777.3
25°	2629.4	2627.7	2647.7	2659.3	2652.7	2675.9	2702.5
27.5°	2543.0	2541.3	2561.3	2576.2	2572.9	2594.5	2624.4
30°	2438.3	2446.6	2464.9	2489.8	2481.5	2504.7	2536.3
32.5°	2328.6	2336.9	2358.5	2385.1	2386.7	2405.0	2436.6
35°	2197.3	2218.9	2233.8	2268.7	2275.4	2293.7	2326.9
37.5°	2059.3	2084.2	2115.8	2142.4	2155.7	2170.7	2208.9
40°	1904.7	1941.3	1976.2	2007.8	2024.4	2039.4	2075.9
42.5°	1765.1	1793.4	1826.6	1858.2	1888.1	1901.4	1939.6
45°	1607.2	1640.5	1670.4	1708.6	1738.5	1753.5	1791.7
47.5°	1452.7	1485.9	1525.8	1552.4	1584.0	1598.9	1635.5
50°	1304.7	1334.6	1367.9	1399.5	1426.1	1439.4	1470.9
52.5°	1158.5	1190.0	1221.6	1241.6	1269.8	1279.8	1306.4
55°	1028.8	1050.4	1078.7	1090.3	1118.6	1125.2	1143.5
57.5°	904.2	919.1	929.1	949.0	969.0	983.9	1005.6
60°	791.1	797.8	804.4	816.1	832.7	837.7	846.0
62.5°	689.8	688.1	701.4	704.7	706.4	723.0	714.7
65°	600.0	601.7	590.0	585.0	591.7	596.7	593.4
67.5°	525.2	515.2	505.3	493.6	483.7	488.6	483.7
70°	452.1	443.8	427.2	410.5	403.9	393.9	388.9
72.5°	393.9	374.0	357.3	335.7	324.1	312.5	304.2
75°	349.0	320.8	297.5	274.2	257.6	241.0	237.7
77.5°	302.5	275.9	249.3	224.4	199.4	181.2	174.5
80°	265.9	241.0	209.4	179.5	152.9	129.6	121.3
82.5°	232.7	206.1	174.5	142.9	113.0	88.1	78.1
85°	204.4	176.2	144.6	113.0	83.1	56.5	43.2
87.5°	182.8	151.2	119.7	89.8	58.2	31.6	16.6
90°	162.9	133.0	103.0	71.5	41.6	16.6	0.0
92.5°	144.6	116.3	86.4	58.2	31.6	10.0	1.7
95°	128.0	103.0	73.1	46.5	23.3	6.6	1.7
97.5°	114.7	89.8	63.2	38.2	18.3	5.0	1.7
100°	103.0	78.1	54.8	31.6	15.0	3.3	1.7
102.5°	91.4	69.8	46.5	26.6	11.6	1.7	1.7
105°	81.4	61.5	39.9	23.3	10.0	1.7	1.7
107.5°	73.1	54.8	34.9	19.9	6.6	1.7	1.7
110°	64.8	46.5	29.9	16.6	5.0	1.7	1.7



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-78SL-LN-UNV-L950-CD1-U

CANDELA DISTRIBUTION (continued):

	330°	335°	340°	345°	350°	355°	360°
112.5°	58.2	41.6	26.6	13.3	3.3	1.7	1.7
115°	51.5	36.6	23.3	11.6	3.3	1.7	1.7
117.5°	44.9	31.6	19.9	8.3	1.7	1.7	1.7
120°	39.9	28.3	16.6	6.6	1.7	1.7	1.7
122.5°	34.9	23.3	13.3	5.0	1.7	1.7	1.7
125°	29.9	19.9	11.6	3.3	1.7	1.7	1.7
127.5°	24.9	16.6	8.3	3.3	1.7	1.7	1.7
130°	21.6	13.3	6.6	1.7	1.7	1.7	1.7
132.5°	18.3	10.0	5.0	1.7	1.7	1.7	1.7
135°	15.0	8.3	3.3	1.7	1.7	1.7	1.7
137.5°	11.6	6.6	3.3	1.7	1.7	1.7	1.7
140°	8.3	5.0	1.7	1.7	1.7	1.7	1.7
142.5°	6.6	3.3	1.7	1.7	1.7	1.7	1.7
145°	5.0	3.3	1.7	1.7	1.7	1.7	1.7
147.5°	3.3	3.3	3.3	3.3	1.7	1.7	1.7
150°	3.3	3.3	1.7	1.7	3.3	1.7	1.7
152.5°	3.3	1.7	1.7	1.7	3.3	1.7	1.7
155°	3.3	3.3	3.3	3.3	3.3	3.3	1.7
157.5°	3.3	3.3	3.3	3.3	3.3	3.3	3.3
160°	3.3	3.3	3.3	3.3	3.3	3.3	3.3
162.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0	0.0	0.0
167.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180°	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)