

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-LD5-90HL-LN-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 (P33519)  
Test Lab: INNOVATION CENTER-P3  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 4SNLED-LD5-90HL-LN-UNV-L940-CD1-U  
Description: 4FT LINEAR SNLED LED FIXTURE  
NARROW LENS  
Light Source: -  
Ballast/Driver: -

**Summary**

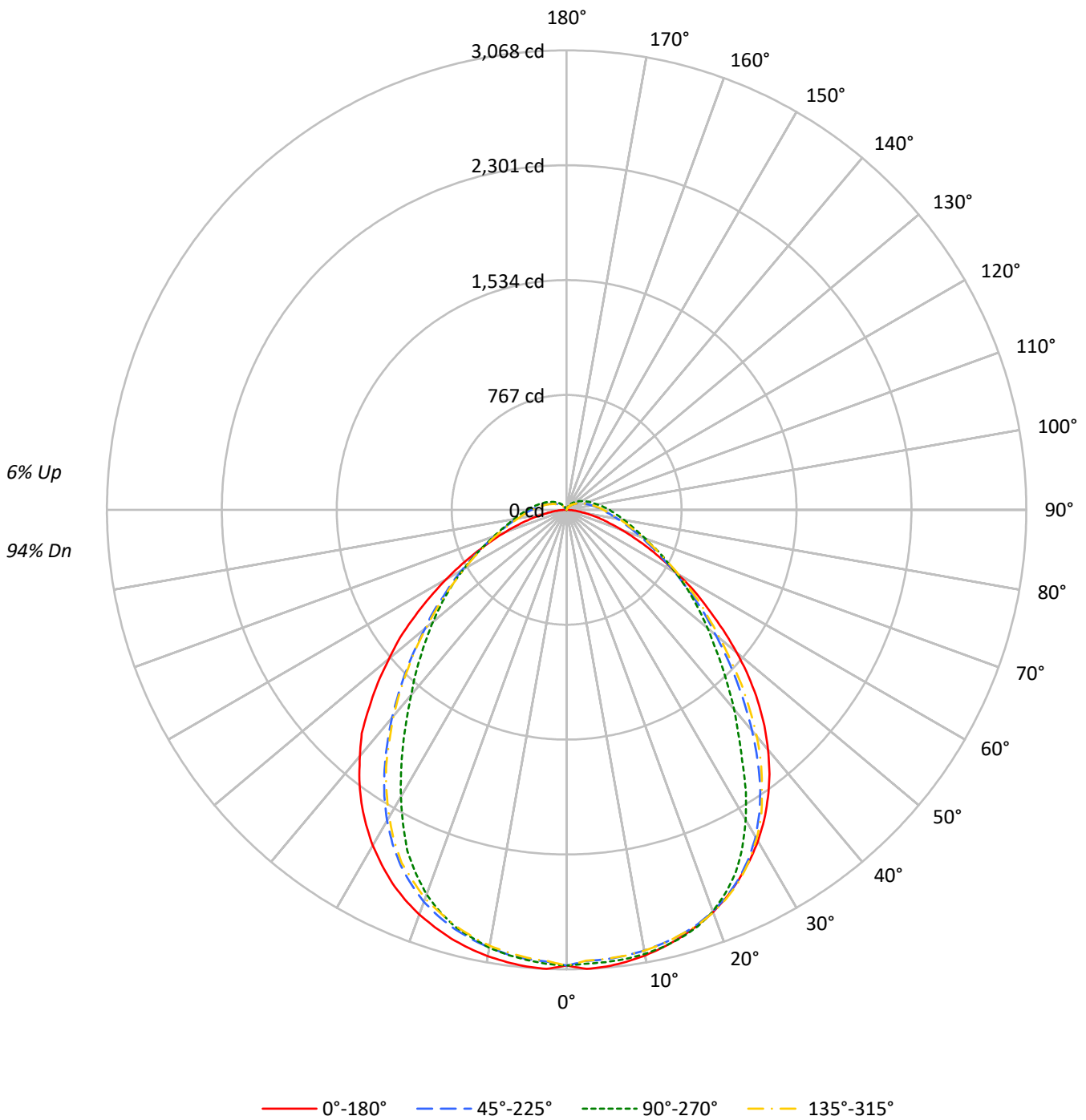
Lumens per Lamp: N/A  
Luminaire Lumens: 7700.0 lumens  
Efficiency: N/A  
Efficacy: 97.5 lumens/watt  
Spacing Criteria (0/90/45): 1.25 / 1.14 / 1.24  
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.12')  
CIE Type: Direct

Input Watts (W): 79  
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	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°	24587	24587	24587	24587
5°	24763	23805	24763	23699
10°	24652	23172	24694	22850
15°	24493	22479	24604	21895
20°	24306	21589	24448	20678
25°	23916	20269	24180	19074
30°	23408	18328	23716	16968
35°	22619	15950	23055	14852
40°	21487	13950	22055	12942
45°	19993	12126	20642	11431
50°	17952	10655	18743	10118
55°	15529	9409	16658	8933
60°	13061	8261	14241	7786
65°	10707	7304	11786	6772
70°	8521	6482	9541	5996
75°	6691	5985	7533	5506
80°	4831	5775	5688	5277
85°	2972	5808	4003	5338



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	288.5	3.7
10°-20°	827.1	10.7
20°-30°	1225.8	15.9
30°-40°	1361.9	17.7
40°-50°	1234.5	16.0
50°-60°	956.6	12.4
60°-70°	649.6	8.4
70°-80°	413.3	5.4
80°-90°	264.2	3.4
90°-100°	178.1	2.3
100°-110°	122.0	1.6
110°-120°	81.4	1.1
120°-130°	50.6	0.7
130°-140°	28.0	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°	2341.4	30.4
0°-40°	3703.3	48.1
0°-60°	5894.4	76.6
0°-90°	7221.5	93.8
90°-120°	381.6	5.0
90°-150°	473.3	6.1
90°-180°	478.0	6.2
0°-180°	7700.0	100.0

**CANDELA DISTRIBUTION:**

	0°	90°	180°	270°	360°	Flux
0°	3043	3043	3043	3043	3043	
5°	3061	3031	3061	3018	3061	291
15°	2952	2957	2966	2880	2952	833
25°	2721	2671	2751	2514	2721	1253
35°	2343	2042	2388	1901	2343	1462
45°	1804	1459	1863	1376	1804	1386
55°	1151	1026	1235	974	1151	1037
65°	598	690	658	639	598	599
75°	239	460	269	423	239	258
85°	44	331	59	305	44	52
90°	0	286	3	261	0	3
95°	2	244	0	228	2	1
105°	2	179	0	169	2	2
115°	2	136	0	126	2	2
125°	2	100	2	89	2	2
135°	2	70	2	57	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#

CATALOG NUMBER: 4SNLED-LD5-90HL-LN-UNV-L940-CD1-U

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	3042.6	3042.6	3042.6	3042.6	3042.6	3042.6	3042.6	3042.6	3042.6	3042.6	3042.6
2.5°	3067.7	3064.3	3061.0	3056.0	3061.0	3074.4	3066.0	3047.6	3044.3	3014.1	3027.5
5°	3061.0	3056.0	3052.6	3047.6	3054.3	3071.0	3062.7	3045.9	3040.9	3012.5	3027.5
7.5°	3044.3	3040.9	3035.9	3035.9	3042.6	3059.3	3052.6	3034.2	3030.9	3002.4	3019.2
10°	3020.8	3019.2	3015.8	3015.8	3022.5	3042.6	3034.2	3017.5	3014.1	2987.4	3005.8
12.5°	2990.7	2992.4	2987.4	2987.4	2997.4	3017.5	3010.8	2992.4	2989.0	2965.6	2984.0
15°	2952.2	2953.9	2950.5	2952.2	2962.3	2985.7	2977.3	2960.6	2957.2	2938.8	2953.9
17.5°	2908.7	2910.4	2910.4	2908.7	2920.4	2943.8	2937.2	2922.1	2917.1	2902.0	2920.4
20°	2858.5	2858.5	2858.5	2858.5	2871.9	2895.3	2886.9	2875.2	2865.2	2853.5	2868.5
22.5°	2796.6	2794.9	2796.6	2801.6	2815.0	2833.4	2828.4	2815.0	2799.9	2793.2	2804.9
25°	2721.3	2726.3	2728.0	2733.0	2749.7	2764.8	2759.8	2746.4	2722.9	2717.9	2721.3
27.5°	2642.6	2646.0	2651.0	2649.3	2672.7	2687.8	2677.7	2666.0	2632.6	2627.5	2624.2
30°	2553.9	2558.9	2562.3	2560.6	2579.0	2595.7	2585.7	2570.6	2525.5	2522.1	2495.3
32.5°	2453.5	2458.5	2461.9	2461.9	2488.6	2495.3	2476.9	2455.2	2406.6	2394.9	2371.5
35°	2343.0	2348.1	2349.7	2349.7	2376.5	2374.8	2351.4	2321.3	2267.7	2252.7	2212.5
37.5°	2224.2	2227.6	2229.2	2239.3	2251.0	2240.9	2210.8	2172.3	2132.2	2090.3	2046.8
40°	2090.3	2095.3	2098.7	2105.4	2117.1	2105.4	2061.9	2015.0	1971.5	1924.6	1881.1
42.5°	1953.1	1968.1	1964.8	1963.1	1969.8	1938.0	1904.5	1851.0	1807.5	1758.9	1715.4
45°	1804.1	1802.5	1810.8	1814.2	1812.5	1785.7	1738.9	1690.3	1646.8	1596.6	1559.8
47.5°	1646.8	1645.1	1651.8	1655.2	1645.1	1616.7	1579.9	1524.6	1487.8	1444.3	1415.9
50°	1481.1	1481.1	1491.2	1481.1	1476.1	1447.7	1417.5	1362.3	1333.9	1295.4	1278.6
52.5°	1315.4	1330.5	1320.5	1317.1	1312.1	1283.6	1260.2	1215.0	1191.6	1174.9	1154.8
55°	1151.4	1168.2	1161.5	1156.5	1154.8	1131.3	1109.6	1076.1	1061.1	1049.3	1037.6
57.5°	1012.5	1010.9	1007.5	1002.5	1004.2	985.7	964.0	945.6	938.9	933.9	937.2
60°	851.9	865.2	860.2	861.9	863.6	860.2	841.8	830.1	831.8	833.4	838.5
62.5°	719.6	731.4	739.7	733.0	736.4	741.4	731.4	728.0	734.7	741.4	748.1
65°	597.5	609.2	617.6	615.9	625.9	636.0	634.3	637.6	652.7	661.1	669.4
67.5°	487.0	498.7	510.4	512.1	527.2	542.2	548.9	560.7	577.4	589.1	599.1
70°	391.6	401.7	415.1	423.4	443.5	463.6	475.3	498.7	508.8	525.5	532.2
72.5°	306.3	314.6	333.0	353.1	369.9	395.0	418.4	438.5	453.5	472.0	480.3
75°	239.3	242.7	262.8	286.2	309.6	338.1	363.2	384.9	405.0	423.4	436.8
77.5°	175.7	180.7	199.2	231.0	257.7	287.9	316.3	339.7	361.5	379.9	398.3
80°	122.2	132.2	152.3	184.1	214.2	247.7	274.5	301.2	324.7	343.1	361.5
82.5°	78.7	87.0	115.5	147.3	179.1	212.5	241.0	267.8	292.9	313.0	329.7
85°	43.5	55.2	83.7	117.2	148.9	182.4	212.5	239.3	264.4	282.8	299.6
87.5°	16.7	33.5	60.2	92.0	123.8	155.6	187.4	212.5	237.7	257.7	272.8
90°	0.0	20.1	45.2	77.0	108.8	140.6	170.7	197.5	220.9	239.3	256.1
92.5°	1.7	13.4	35.1	61.9	92.0	122.2	150.6	177.4	200.8	219.2	234.3
95°	1.7	10.0	28.5	53.6	80.3	108.8	135.6	160.7	182.4	200.8	215.9
97.5°	1.7	6.7	23.4	46.9	70.3	98.7	123.8	147.3	167.4	185.8	197.5
100°	1.7	6.7	20.1	40.2	63.6	88.7	112.1	135.6	154.0	169.0	182.4
102.5°	1.7	5.0	16.7	35.1	56.9	78.7	102.1	123.8	140.6	155.6	169.0
105°	1.7	5.0	15.1	30.1	50.2	72.0	92.0	112.1	130.5	143.9	155.6
107.5°	1.7	3.3	13.4	25.1	43.5	65.3	85.4	102.1	118.8	132.2	143.9
110°	1.7	3.3	11.7	23.4	38.5	58.6	77.0	93.7	108.8	122.2	132.2



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-90HL-LN-UNV-L940-CD1-U

**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	1.7	3.3	10.0	21.8	35.1	51.9	70.3	85.4	100.4	112.1	122.2
115°	1.7	3.3	10.0	20.1	31.8	45.2	61.9	78.7	90.4	103.8	112.1
117.5°	1.7	3.3	8.4	16.7	30.1	41.8	56.9	70.3	83.7	95.4	103.8
120°	1.7	3.3	8.4	15.1	26.8	38.5	50.2	63.6	77.0	85.4	93.7
122.5°	1.7	3.3	6.7	15.1	23.4	35.1	45.2	56.9	68.6	78.7	87.0
125°	1.7	3.3	6.7	13.4	21.8	31.8	41.8	50.2	61.9	70.3	78.7
127.5°	1.7	3.3	6.7	11.7	20.1	28.5	38.5	46.9	55.2	63.6	70.3
130°	1.7	3.3	5.0	10.0	18.4	25.1	33.5	43.5	50.2	56.9	63.6
132.5°	1.7	3.3	5.0	10.0	15.1	21.8	30.1	38.5	45.2	51.9	56.9
135°	1.7	3.3	5.0	8.4	13.4	20.1	25.1	33.5	40.2	46.9	51.9
137.5°	1.7	3.3	5.0	8.4	11.7	16.7	21.8	28.5	35.1	40.2	46.9
140°	1.7	3.3	5.0	6.7	10.0	15.1	20.1	23.4	30.1	35.1	40.2
142.5°	1.7	3.3	5.0	6.7	10.0	13.4	16.7	20.1	25.1	30.1	35.1
145°	1.7	3.3	5.0	6.7	8.4	11.7	15.1	18.4	20.1	25.1	28.5
147.5°	1.7	3.3	5.0	6.7	6.7	10.0	13.4	15.1	18.4	20.1	23.4
150°	1.7	3.3	5.0	5.0	6.7	8.4	11.7	13.4	15.1	18.4	20.1
152.5°	1.7	3.3	5.0	5.0	6.7	8.4	10.0	11.7	13.4	15.1	16.7
155°	1.7	3.3	5.0	5.0	5.0	6.7	8.4	10.0	11.7	13.4	15.1
157.5°	3.3	3.3	3.3	5.0	5.0	6.7	6.7	8.4	10.0	10.0	11.7
160°	3.3	3.3	3.3	5.0	5.0	5.0	6.7	6.7	8.4	8.4	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°	3042.6	3042.6	3042.6	3042.6	3042.6	3042.6	3042.6	3042.6	3042.6	3042.6	3042.6
2.5°	3024.2	3029.2	3044.3	3044.3	3040.9	3037.6	3037.6	3032.6	3035.9	3042.6	3039.2
5°	3024.2	3029.2	3044.3	3044.3	3040.9	3037.6	3035.9	3030.9	3035.9	3042.6	3039.2
7.5°	3014.1	3020.8	3035.9	3035.9	3032.6	3030.9	3027.5	3024.2	3029.2	3035.9	3032.6
10°	3000.8	3007.4	3022.5	3022.5	3019.2	3019.2	3014.1	3010.8	3017.5	3022.5	3020.8
12.5°	2980.7	2989.0	3002.4	3000.8	2997.4	2999.1	2994.1	2987.4	2994.1	2999.1	3000.8
15°	2952.2	2962.3	2975.6	2972.3	2967.3	2970.6	2962.3	2957.2	2962.3	2972.3	2970.6
17.5°	2915.4	2922.1	2932.1	2932.1	2927.1	2923.8	2920.4	2915.4	2918.7	2925.4	2927.1
20°	2863.5	2871.9	2876.9	2871.9	2870.2	2865.2	2858.5	2853.5	2860.2	2870.2	2871.9
22.5°	2794.9	2796.6	2808.3	2796.6	2788.2	2786.5	2779.8	2769.8	2779.8	2788.2	2789.9
25°	2709.5	2717.9	2712.9	2692.8	2692.8	2679.4	2676.1	2671.1	2672.7	2687.8	2694.5
27.5°	2600.8	2604.1	2590.7	2574.0	2558.9	2550.6	2538.8	2540.5	2540.5	2560.6	2567.3
30°	2481.9	2463.5	2451.8	2425.0	2413.3	2393.2	2389.9	2389.9	2386.5	2396.6	2426.7
32.5°	2339.7	2314.6	2296.2	2271.1	2251.0	2230.9	2220.9	2225.9	2224.2	2249.3	2259.4
35°	2184.0	2169.0	2130.5	2098.7	2087.0	2056.8	2056.8	2041.8	2051.8	2080.3	2092.0
37.5°	2020.0	1996.6	1964.8	1929.7	1921.3	1897.9	1889.5	1881.1	1902.9	1907.9	1919.6
40°	1852.7	1830.9	1800.8	1767.3	1767.3	1738.9	1738.9	1738.9	1740.5	1750.6	1772.3
42.5°	1693.7	1670.2	1643.5	1620.0	1616.7	1594.9	1594.9	1593.3	1596.6	1605.0	1625.1
45°	1539.7	1521.3	1492.8	1481.1	1482.8	1459.4	1464.4	1459.4	1466.1	1474.4	1481.1
47.5°	1397.5	1385.7	1374.0	1357.3	1352.3	1350.6	1342.2	1335.5	1347.2	1347.2	1357.3
50°	1265.2	1258.5	1251.8	1241.8	1243.5	1236.8	1226.7	1226.7	1235.1	1236.8	1243.5
52.5°	1149.8	1141.4	1133.0	1134.7	1136.4	1133.0	1128.0	1123.0	1128.0	1131.3	1139.7
55°	1034.3	1027.6	1036.0	1032.6	1036.0	1032.6	1029.3	1025.9	1034.3	1029.3	1037.6
57.5°	930.5	937.2	940.6	933.9	938.9	935.5	937.2	932.2	938.9	942.2	940.6
60°	835.1	845.2	840.1	841.8	848.5	845.2	838.5	843.5	850.2	851.9	850.2
62.5°	748.1	759.8	764.8	761.5	763.2	759.8	764.8	758.1	766.5	769.9	764.8
65°	669.4	682.8	686.2	686.2	686.2	682.8	687.8	689.5	692.9	692.9	689.5
67.5°	602.5	614.2	617.6	620.9	617.6	614.2	614.2	615.9	622.6	625.9	622.6
70°	542.2	554.0	555.6	555.6	557.3	560.7	554.0	557.3	562.3	564.0	562.3
72.5°	490.4	502.1	505.4	503.8	505.4	507.1	507.1	503.8	508.8	512.1	512.1
75°	448.5	455.2	458.6	458.6	460.2	461.9	461.9	460.2	463.6	465.3	466.9
77.5°	410.0	415.1	420.1	420.1	421.7	420.1	423.4	423.4	425.1	426.8	428.4
80°	371.5	378.2	381.6	383.3	386.6	388.3	388.3	388.3	389.9	391.6	391.6
82.5°	341.4	346.4	351.5	356.5	356.5	358.1	358.1	358.1	359.8	359.8	361.5
85°	311.3	318.0	323.0	326.4	328.0	329.7	329.7	331.4	331.4	331.4	333.0
87.5°	284.5	292.9	296.2	299.6	301.2	304.6	304.6	304.6	306.3	306.3	306.3
90°	266.1	274.5	277.8	281.2	282.8	284.5	284.5	286.2	286.2	287.9	287.9
92.5°	244.3	252.7	259.4	259.4	261.1	264.4	262.8	262.8	264.4	266.1	266.1
95°	227.6	234.3	239.3	241.0	242.7	242.7	242.7	244.3	242.7	244.3	244.3
97.5°	207.5	214.2	219.2	222.6	224.3	224.3	224.3	225.9	224.3	225.9	225.9
100°	190.8	197.5	202.5	204.2	207.5	207.5	207.5	207.5	207.5	207.5	209.2
102.5°	177.4	184.1	187.4	189.1	190.8	192.5	192.5	192.5	192.5	194.1	194.1
105°	164.0	170.7	174.1	175.7	177.4	179.1	179.1	179.1	180.7	180.7	179.1
107.5°	152.3	157.3	160.7	164.0	165.7	165.7	167.4	167.4	167.4	167.4	167.4
110°	140.6	145.6	150.6	154.0	154.0	155.6	155.6	157.3	157.3	155.6	157.3





TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-90HL-LN-UNV-L940-CD1-U

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
112.5°	128.9	135.6	138.9	142.3	143.9	145.6	145.6	145.6	145.6	145.6	145.6
115°	118.8	125.5	128.9	132.2	133.9	135.6	135.6	135.6	135.6	135.6	135.6
117.5°	110.5	117.2	120.5	122.2	123.8	125.5	127.2	127.2	127.2	127.2	125.5
120°	102.1	107.1	110.5	113.8	115.5	117.2	117.2	117.2	117.2	117.2	117.2
122.5°	93.7	98.7	102.1	105.4	107.1	108.8	108.8	108.8	108.8	108.8	108.8
125°	85.4	90.4	93.7	97.1	98.7	100.4	100.4	100.4	100.4	100.4	100.4
127.5°	77.0	82.0	87.0	88.7	90.4	92.0	92.0	92.0	93.7	92.0	92.0
130°	68.6	73.6	78.7	80.3	82.0	83.7	85.4	85.4	85.4	85.4	83.7
132.5°	61.9	66.9	70.3	72.0	75.3	75.3	77.0	77.0	77.0	77.0	75.3
135°	56.9	60.2	63.6	65.3	68.6	68.6	68.6	70.3	70.3	68.6	66.9
137.5°	50.2	53.6	56.9	58.6	60.2	61.9	61.9	63.6	61.9	61.9	61.9
140°	46.9	48.5	51.9	53.6	55.2	55.2	55.2	56.9	56.9	55.2	55.2
142.5°	40.2	43.5	46.9	48.5	50.2	50.2	50.2	50.2	50.2	50.2	50.2
145°	33.5	38.5	40.2	43.5	43.5	45.2	45.2	45.2	45.2	45.2	43.5
147.5°	28.5	31.8	36.8	38.5	38.5	40.2	40.2	40.2	40.2	40.2	38.5
150°	21.8	25.1	30.1	33.5	33.5	35.1	35.1	35.1	35.1	33.5	33.5
152.5°	18.4	21.8	23.4	26.8	28.5	28.5	28.5	30.1	28.5	28.5	28.5
155°	16.7	18.4	20.1	21.8	23.4	25.1	25.1	25.1	25.1	23.4	23.4
157.5°	13.4	15.1	16.7	18.4	20.1	21.8	21.8	21.8	21.8	21.8	20.1
160°	10.0	11.7	13.4	13.4	15.1	16.7	18.4	16.7	16.7	16.7	16.7
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-LD5-90HL-LN-UNV-L940-CD1-U

**CANDELA DISTRIBUTION (continued):**

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	3042.6	3042.6	3042.6	3042.6	3042.6	3042.6	3042.6	3042.6	3042.6	3042.6	3042.6
2.5°	3035.9	3034.2	3039.2	3030.9	3005.8	3012.5	3009.1	3024.2	3027.5	3030.9	3045.9
5°	3035.9	3034.2	3037.6	3030.9	3004.1	3009.1	3005.8	3020.8	3024.2	3025.9	3040.9
7.5°	3029.2	3027.5	3032.6	3024.2	2995.7	3002.4	2997.4	3012.5	3014.1	3015.8	3029.2
10°	3015.8	3014.1	3017.5	3010.8	2982.3	2989.0	2982.3	2997.4	2997.4	3000.8	3010.8
12.5°	2995.7	2992.4	2999.1	2990.7	2958.9	2967.3	2963.9	2974.0	2975.6	2977.3	2987.4
15°	2967.3	2963.9	2969.0	2963.9	2935.5	2937.2	2932.1	2947.2	2948.9	2945.5	2955.6
17.5°	2925.4	2922.1	2932.1	2928.8	2900.3	2907.0	2905.4	2908.7	2913.7	2905.4	2918.7
20°	2873.6	2876.9	2880.3	2881.9	2860.2	2860.2	2858.5	2865.2	2870.2	2863.5	2873.6
22.5°	2796.6	2804.9	2815.0	2818.3	2803.3	2801.6	2811.6	2808.3	2813.3	2810.0	2816.7
25°	2699.5	2716.2	2726.3	2736.3	2728.0	2731.3	2746.4	2749.7	2749.7	2748.0	2754.7
27.5°	2579.0	2600.8	2619.2	2640.9	2632.6	2639.3	2664.4	2667.7	2674.4	2667.7	2681.1
30°	2435.1	2455.2	2490.3	2522.1	2525.5	2535.5	2570.6	2574.0	2592.4	2585.7	2590.7
32.5°	2291.1	2301.2	2341.4	2373.2	2393.2	2418.3	2456.8	2463.5	2488.6	2493.7	2493.7
35°	2110.4	2138.9	2175.7	2220.9	2246.0	2272.7	2324.6	2334.7	2371.5	2383.2	2396.6
37.5°	1958.1	1984.9	2008.3	2055.2	2100.4	2130.5	2172.3	2197.4	2235.9	2257.7	2274.4
40°	1795.8	1817.5	1842.6	1889.5	1928.0	1973.2	2015.0	2045.1	2093.7	2118.8	2140.5
42.5°	1641.8	1658.5	1685.3	1718.8	1758.9	1809.2	1849.3	1884.5	1936.3	1971.5	1996.6
45°	1504.6	1514.6	1538.0	1563.1	1598.3	1650.2	1688.7	1733.8	1775.7	1812.5	1842.6
47.5°	1375.7	1389.1	1400.8	1417.5	1449.3	1481.1	1526.3	1569.8	1611.7	1651.8	1682.0
50°	1256.9	1256.9	1275.3	1287.0	1308.7	1337.2	1372.3	1402.5	1454.4	1482.8	1521.3
52.5°	1141.4	1148.1	1158.1	1164.8	1181.6	1200.0	1228.4	1253.5	1297.0	1323.8	1360.6
55°	1039.3	1046.0	1051.0	1054.4	1064.4	1086.2	1096.2	1116.3	1146.4	1168.2	1200.0
57.5°	942.2	945.6	950.6	952.3	953.9	967.3	975.7	980.7	1010.9	1032.6	1059.4
60°	853.5	853.5	858.6	856.9	855.2	861.9	860.2	865.2	883.7	897.0	908.8
62.5°	769.9	769.9	771.5	768.2	766.5	766.5	759.8	764.8	769.9	771.5	779.9
65°	692.9	701.2	694.5	696.2	686.2	682.8	679.5	669.4	667.8	661.1	664.4
67.5°	624.3	630.9	624.3	624.3	615.9	609.2	600.8	584.1	579.1	565.7	562.3
70°	569.0	564.0	567.3	562.3	552.3	543.9	532.2	518.8	502.1	485.3	473.6
72.5°	515.5	515.5	512.1	507.1	502.1	485.3	472.0	456.9	436.8	415.1	398.3
75°	463.6	465.3	465.3	460.2	451.9	436.8	421.7	400.0	378.2	353.1	331.4
77.5°	426.8	426.8	426.8	418.4	410.0	396.6	378.2	354.8	331.4	301.2	276.1
80°	391.6	389.9	389.9	379.9	371.5	356.5	338.1	314.6	289.5	257.7	229.3
82.5°	363.2	361.5	358.1	349.8	338.1	323.0	304.6	279.5	252.7	224.3	189.1
85°	333.0	331.4	328.0	319.7	307.9	294.6	274.5	249.4	222.6	190.8	157.3
87.5°	306.3	304.6	299.6	294.6	281.2	266.1	246.0	222.6	194.1	164.0	130.5
90°	287.9	284.5	281.2	274.5	262.8	246.0	225.9	200.8	172.4	142.3	108.8
92.5°	266.1	264.4	259.4	252.7	242.7	225.9	205.9	182.4	154.0	125.5	93.7
95°	244.3	242.7	239.3	232.6	222.6	207.5	189.1	165.7	138.9	110.5	82.0
97.5°	224.3	224.3	219.2	214.2	202.5	190.8	172.4	150.6	125.5	100.4	73.6
100°	207.5	207.5	202.5	195.8	187.4	175.7	157.3	137.2	113.8	90.4	63.6
102.5°	192.5	190.8	187.4	180.7	172.4	160.7	143.9	125.5	103.8	80.3	56.9
105°	179.1	177.4	174.1	167.4	160.7	147.3	133.9	115.5	93.7	72.0	50.2
107.5°	165.7	164.0	162.3	155.6	147.3	135.6	122.2	103.8	85.4	65.3	45.2
110°	154.0	152.3	148.9	142.3	133.9	123.8	110.5	95.4	77.0	58.6	40.2



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-90HL-LN-UNV-L940-CD1-U

**CANDELA DISTRIBUTION (continued):**

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
112.5°	143.9	142.3	138.9	132.2	125.5	113.8	102.1	85.4	70.3	53.6	35.1
115°	133.9	132.2	128.9	122.2	113.8	103.8	92.0	78.7	61.9	46.9	31.8
117.5°	123.8	122.2	118.8	113.8	105.4	95.4	83.7	70.3	55.2	43.5	28.5
120°	115.5	112.1	108.8	103.8	95.4	87.0	75.3	63.6	50.2	38.5	25.1
122.5°	107.1	103.8	100.4	95.4	87.0	78.7	66.9	56.9	46.9	35.1	23.4
125°	97.1	95.4	92.0	87.0	78.7	70.3	61.9	51.9	41.8	31.8	20.1
127.5°	88.7	87.0	83.7	77.0	70.3	63.6	55.2	46.9	36.8	26.8	18.4
130°	82.0	78.7	75.3	70.3	65.3	58.6	50.2	41.8	33.5	23.4	16.7
132.5°	73.6	70.3	66.9	63.6	58.6	51.9	45.2	36.8	30.1	21.8	15.1
135°	66.9	63.6	60.2	56.9	51.9	46.9	40.2	33.5	26.8	20.1	13.4
137.5°	58.6	56.9	55.2	51.9	46.9	41.8	36.8	28.5	23.4	18.4	11.7
140°	53.6	51.9	50.2	45.2	41.8	36.8	31.8	25.1	20.1	15.1	10.0
142.5°	48.5	46.9	43.5	40.2	36.8	33.5	26.8	23.4	18.4	13.4	10.0
145°	41.8	40.2	38.5	35.1	31.8	26.8	23.4	20.1	16.7	11.7	8.4
147.5°	38.5	36.8	33.5	30.1	26.8	23.4	21.8	18.4	13.4	10.0	6.7
150°	31.8	30.1	28.5	25.1	23.4	21.8	18.4	15.1	11.7	8.4	6.7
152.5°	26.8	25.1	23.4	23.4	20.1	18.4	15.1	13.4	10.0	8.4	5.0
155°	23.4	23.4	21.8	20.1	16.7	15.1	13.4	10.0	8.4	6.7	5.0
157.5°	20.1	18.4	16.7	16.7	15.1	13.4	10.0	8.4	6.7	6.7	5.0
160°	16.7	15.1	15.1	13.4	11.7	10.0	8.4	8.4	6.7	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-LD5-90HL-LN-UNV-L940-CD1-U

**CANDELA DISTRIBUTION (continued):**

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
0°	3042.6	3042.6	3042.6	3042.6	3042.6	3042.6	3042.6	3042.6	3042.6	3042.6	3042.6
2.5°	3047.6	3029.2	3045.9	3067.7	3067.7	3064.3	3061.0	3067.7	3084.4	3077.7	3057.7
5°	3042.6	3024.2	3039.2	3061.0	3061.0	3056.0	3052.6	3057.7	3076.1	3067.7	3049.3
7.5°	3032.6	3015.8	3025.9	3045.9	3045.9	3040.9	3037.6	3044.3	3059.3	3051.0	3030.9
10°	3014.1	2995.7	3007.4	3025.9	3024.2	3020.8	3015.8	3024.2	3037.6	3025.9	3002.4
12.5°	2990.7	2972.3	2982.3	2999.1	2997.4	2990.7	2987.4	2992.4	3004.1	2997.4	2972.3
15°	2958.9	2940.5	2948.9	2965.6	2960.6	2955.6	2948.9	2950.5	2965.6	2953.9	2927.1
17.5°	2920.4	2900.3	2907.0	2922.1	2917.1	2912.1	2903.7	2905.4	2922.1	2905.4	2876.9
20°	2873.6	2851.8	2856.8	2875.2	2866.9	2858.5	2850.1	2850.1	2866.9	2848.5	2816.7
22.5°	2823.4	2801.6	2804.9	2818.3	2811.6	2796.6	2788.2	2793.2	2801.6	2778.2	2744.7
25°	2761.4	2733.0	2738.0	2751.4	2746.4	2726.3	2717.9	2721.3	2717.9	2699.5	2664.4
27.5°	2689.5	2659.3	2662.7	2671.1	2664.4	2646.0	2635.9	2637.6	2630.9	2607.5	2567.3
30°	2599.1	2584.0	2582.4	2587.4	2577.3	2558.9	2547.2	2543.9	2542.2	2508.7	2460.2
32.5°	2507.0	2493.7	2485.3	2492.0	2480.3	2461.9	2441.8	2441.8	2425.0	2393.2	2351.4
35°	2413.3	2391.6	2383.2	2388.2	2374.8	2351.4	2334.7	2326.3	2301.2	2261.0	2215.8
37.5°	2292.8	2277.8	2267.7	2272.7	2257.7	2240.9	2209.1	2200.8	2174.0	2118.8	2061.9
40°	2162.3	2150.6	2140.5	2145.5	2128.8	2103.7	2075.3	2061.9	2031.7	1969.8	1924.6
42.5°	2021.7	2016.7	2005.0	2023.4	1989.9	1964.8	1936.3	1914.6	1884.5	1817.5	1765.6
45°	1872.8	1884.5	1857.7	1862.7	1841.0	1819.2	1789.1	1757.3	1727.1	1663.6	1605.0
47.5°	1715.4	1723.8	1705.4	1708.7	1685.3	1665.2	1638.4	1598.3	1564.8	1509.6	1457.7
50°	1553.1	1549.7	1549.7	1546.4	1528.0	1502.9	1476.1	1439.3	1405.8	1355.6	1312.1
52.5°	1380.7	1387.4	1390.8	1399.1	1375.7	1360.6	1318.8	1287.0	1261.9	1210.0	1173.2
55°	1215.0	1238.5	1231.8	1235.1	1208.3	1196.6	1163.1	1138.0	1101.2	1071.1	1047.7
57.5°	1064.4	1069.4	1072.8	1077.8	1066.1	1042.6	1015.9	995.8	967.3	942.2	925.5
60°	918.8	918.8	920.5	928.8	917.1	897.0	877.0	861.9	841.8	826.8	816.7
62.5°	781.6	793.3	795.0	788.3	773.2	763.2	749.8	741.4	728.0	723.0	719.6
65°	654.4	654.4	654.4	657.7	649.4	642.7	634.3	632.6	637.6	630.9	634.3
67.5°	547.3	542.2	538.9	540.6	537.2	533.9	532.2	537.2	547.3	547.3	555.6
70°	455.2	445.2	438.5	438.5	438.5	440.2	445.2	455.2	472.0	478.6	490.4
72.5°	379.9	358.1	348.1	348.1	349.8	356.5	371.5	389.9	405.0	418.4	433.5
75°	307.9	286.2	271.1	269.4	272.8	282.8	304.6	321.3	346.4	364.8	383.3
77.5°	249.4	222.6	204.2	202.5	207.5	222.6	249.4	271.1	299.6	319.7	339.7
80°	199.2	169.0	154.0	143.9	152.3	170.7	200.8	227.6	254.4	281.2	306.3
82.5°	159.0	130.5	107.1	97.1	107.1	132.2	160.7	192.5	219.2	247.7	272.8
85°	125.5	95.4	68.6	58.6	70.3	97.1	128.9	160.7	190.8	219.2	244.3
87.5°	98.7	68.6	41.8	28.5	43.5	72.0	102.1	133.9	165.7	194.1	219.2
90°	77.0	48.5	23.4	3.3	25.1	51.9	82.0	112.1	143.9	172.4	197.5
92.5°	65.3	36.8	13.4	0.0	15.1	38.5	66.9	97.1	125.5	154.0	179.1
95°	55.2	30.1	10.0	0.0	10.0	30.1	55.2	82.0	110.5	138.9	164.0
97.5°	46.9	23.4	6.7	0.0	6.7	23.4	45.2	72.0	97.1	123.8	147.3
100°	40.2	20.1	5.0	0.0	5.0	18.4	38.5	61.9	87.0	112.1	133.9
102.5°	35.1	16.7	3.3	0.0	3.3	15.1	31.8	53.6	75.3	98.7	120.5
105°	30.1	13.4	3.3	0.0	1.7	11.7	26.8	46.9	66.9	88.7	108.8
107.5°	26.8	11.7	3.3	0.0	1.7	10.0	23.4	40.2	60.2	78.7	97.1
110°	23.4	10.0	3.3	0.0	1.7	6.7	20.1	35.1	51.9	70.3	88.7



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-90HL-LN-UNV-L940-CD1-U

**CANDELA DISTRIBUTION (continued):**

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
112.5°	20.1	8.4	1.7	0.0	0.0	5.0	16.7	30.1	45.2	63.6	78.7
115°	18.4	8.4	1.7	0.0	0.0	3.3	13.4	26.8	40.2	56.9	70.3
117.5°	16.7	6.7	1.7	0.0	1.7	3.3	11.7	23.4	35.1	48.5	63.6
120°	15.1	6.7	1.7	0.0	1.7	1.7	8.4	20.1	30.1	43.5	55.2
122.5°	13.4	6.7	1.7	0.0	1.7	1.7	6.7	16.7	26.8	38.5	48.5
125°	11.7	5.0	3.3	1.7	1.7	1.7	5.0	13.4	23.4	31.8	43.5
127.5°	11.7	5.0	3.3	1.7	1.7	1.7	3.3	11.7	18.4	28.5	38.5
130°	10.0	5.0	3.3	1.7	1.7	1.7	1.7	8.4	16.7	23.4	31.8
132.5°	8.4	5.0	3.3	1.7	1.7	1.7	1.7	5.0	11.7	20.1	26.8
135°	8.4	5.0	3.3	1.7	1.7	1.7	1.7	3.3	8.4	15.1	21.8
137.5°	6.7	3.3	3.3	1.7	1.7	1.7	1.7	1.7	6.7	11.7	16.7
140°	6.7	3.3	3.3	1.7	1.7	1.7	1.7	1.7	5.0	8.4	13.4
142.5°	5.0	3.3	3.3	1.7	1.7	1.7	1.7	1.7	3.3	6.7	10.0
145°	5.0	3.3	3.3	1.7	1.7	1.7	1.7	1.7	1.7	3.3	6.7
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-LD5-90HL-LN-UNV-L940-CD1-U

**CANDELA DISTRIBUTION (continued):**

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
0°	3042.6	3042.6	3042.6	3042.6	3042.6	3042.6	3042.6	3042.6	3042.6	3042.6	3042.6
2.5°	3051.0	3019.2	3035.9	3030.9	3037.6	3051.0	3049.3	3045.9	3045.9	3040.9	3034.2
5°	3040.9	3010.8	3025.9	3017.5	3025.9	3037.6	3035.9	3030.9	3034.2	3025.9	3017.5
7.5°	3020.8	2994.1	3007.4	3000.8	3007.4	3019.2	3014.1	3012.5	3015.8	3002.4	2997.4
10°	2997.4	2967.3	2982.3	2974.0	2982.3	2990.7	2987.4	2980.7	2987.4	2974.0	2969.0
12.5°	2960.6	2935.5	2945.5	2942.2	2947.2	2955.6	2948.9	2943.8	2947.2	2935.5	2925.4
15°	2920.4	2895.3	2903.7	2898.7	2902.0	2912.1	2900.3	2898.7	2895.3	2883.6	2880.3
17.5°	2868.5	2845.1	2853.5	2845.1	2850.1	2846.8	2845.1	2836.7	2836.7	2823.4	2813.3
20°	2804.9	2784.9	2779.8	2773.1	2779.8	2773.1	2763.1	2756.4	2754.7	2741.3	2733.0
22.5°	2731.3	2707.9	2711.2	2692.8	2694.5	2684.4	2667.7	2661.0	2654.3	2639.3	2627.5
25°	2642.6	2619.2	2602.4	2590.7	2575.7	2574.0	2552.2	2535.5	2533.8	2515.4	2513.7
27.5°	2542.2	2515.4	2502.0	2473.6	2455.2	2440.1	2421.7	2405.0	2396.6	2376.5	2363.1
30°	2426.7	2396.6	2363.1	2343.0	2314.6	2302.9	2271.1	2251.0	2244.3	2222.5	2212.5
32.5°	2296.2	2264.4	2237.6	2199.1	2167.3	2150.6	2118.8	2098.7	2090.3	2066.9	2053.5
35°	2153.9	2118.8	2087.0	2050.2	2025.0	1996.6	1958.1	1938.0	1919.6	1911.2	1901.2
37.5°	2005.0	1966.5	1929.7	1892.8	1871.1	1837.6	1804.1	1790.7	1769.0	1760.6	1750.6
40°	1851.0	1812.5	1777.4	1742.2	1717.1	1687.0	1656.9	1651.8	1628.4	1620.0	1613.3
42.5°	1698.7	1658.5	1618.4	1593.3	1574.9	1544.7	1524.6	1519.6	1499.5	1494.5	1494.5
45°	1561.5	1511.3	1477.8	1456.0	1441.0	1415.9	1399.1	1395.8	1379.0	1375.7	1375.7
47.5°	1414.2	1367.3	1342.2	1328.8	1315.4	1297.0	1287.0	1287.0	1270.3	1266.9	1265.2
50°	1277.0	1233.4	1215.0	1201.6	1200.0	1186.6	1178.2	1174.9	1174.9	1163.1	1164.8
52.5°	1146.4	1124.7	1109.6	1101.2	1091.2	1082.8	1076.1	1076.1	1071.1	1062.7	1066.1
55°	1025.9	1000.8	1002.5	995.8	990.8	985.7	987.4	977.4	975.7	969.0	974.0
57.5°	905.4	905.4	902.1	897.0	888.7	892.0	892.0	892.0	883.7	878.6	883.7
60°	803.3	808.3	800.0	805.0	801.7	803.3	800.0	800.0	795.0	793.3	795.0
62.5°	713.0	721.3	718.0	724.7	721.3	723.0	726.3	719.6	716.3	713.0	716.3
65°	632.6	642.7	641.0	646.0	647.7	649.4	651.0	647.7	644.3	641.0	639.3
67.5°	562.3	572.4	579.1	580.7	582.4	587.4	585.8	582.4	579.1	574.0	572.4
70°	498.7	512.1	520.5	523.8	530.5	527.2	527.2	525.5	522.2	517.1	515.5
72.5°	445.2	460.2	468.6	472.0	478.6	478.6	477.0	475.3	472.0	466.9	465.3
75°	398.3	411.7	423.4	430.1	435.1	435.1	433.5	431.8	428.4	425.1	423.4
77.5°	361.5	373.2	383.3	391.6	395.0	396.6	395.0	391.6	391.6	389.9	388.3
80°	324.7	338.1	348.1	356.5	361.5	361.5	359.8	361.5	358.1	356.5	354.8
82.5°	292.9	307.9	319.7	328.0	331.4	333.0	331.4	333.0	329.7	329.7	329.7
85°	264.4	279.5	292.9	299.6	304.6	306.3	306.3	306.3	304.6	304.6	304.6
87.5°	241.0	256.1	269.4	276.1	281.2	282.8	282.8	284.5	281.2	281.2	281.2
90°	219.2	234.3	247.7	254.4	259.4	262.8	262.8	264.4	262.8	261.1	261.1
92.5°	199.2	215.9	229.3	236.0	241.0	246.0	246.0	247.7	244.3	244.3	244.3
95°	182.4	199.2	210.9	219.2	224.3	227.6	229.3	229.3	227.6	227.6	227.6
97.5°	167.4	182.4	194.1	202.5	207.5	209.2	210.9	212.5	210.9	210.9	210.9
100°	152.3	167.4	179.1	185.8	192.5	194.1	195.8	197.5	197.5	195.8	195.8
102.5°	138.9	154.0	164.0	172.4	177.4	180.7	182.4	182.4	182.4	182.4	182.4
105°	125.5	140.6	150.6	159.0	164.0	167.4	169.0	170.7	170.7	169.0	169.0
107.5°	113.8	127.2	138.9	145.6	152.3	155.6	157.3	157.3	159.0	157.3	157.3
110°	102.1	117.2	127.2	133.9	140.6	143.9	145.6	147.3	147.3	147.3	147.3



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-90HL-LN-UNV-L940-CD1-U

**CANDELA DISTRIBUTION (continued):**

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
112.5°	93.7	105.4	115.5	122.2	128.9	132.2	133.9	135.6	137.2	135.6	135.6
115°	83.7	95.4	105.4	112.1	117.2	120.5	123.8	125.5	125.5	127.2	125.5
117.5°	75.3	85.4	95.4	102.1	107.1	112.1	113.8	115.5	117.2	115.5	115.5
120°	66.9	77.0	85.4	92.0	97.1	102.1	103.8	105.4	107.1	105.4	105.4
122.5°	60.2	68.6	77.0	83.7	88.7	92.0	95.4	95.4	97.1	97.1	97.1
125°	53.6	61.9	68.6	75.3	80.3	83.7	85.4	87.0	87.0	88.7	88.7
127.5°	46.9	53.6	61.9	66.9	72.0	75.3	77.0	78.7	78.7	80.3	80.3
130°	40.2	46.9	53.6	58.6	63.6	66.9	68.6	70.3	72.0	72.0	72.0
132.5°	35.1	41.8	46.9	51.9	55.2	58.6	61.9	63.6	63.6	63.6	63.6
135°	28.5	35.1	40.2	45.2	48.5	51.9	53.6	56.9	56.9	56.9	56.9
137.5°	23.4	30.1	35.1	38.5	41.8	45.2	46.9	48.5	50.2	50.2	50.2
140°	18.4	23.4	28.5	33.5	36.8	38.5	41.8	41.8	43.5	43.5	43.5
142.5°	13.4	18.4	21.8	26.8	30.1	33.5	35.1	36.8	36.8	36.8	36.8
145°	10.0	13.4	16.7	20.1	25.1	26.8	28.5	30.1	31.8	31.8	31.8
147.5°	6.7	10.0	11.7	15.1	18.4	21.8	23.4	25.1	26.8	26.8	26.8
150°	5.0	6.7	10.0	11.7	13.4	16.7	20.1	20.1	21.8	21.8	20.1
152.5°	3.3	5.0	6.7	8.4	10.0	11.7	15.1	15.1	16.7	16.7	16.7
155°	3.3	3.3	3.3	5.0	6.7	8.4	10.0	11.7	11.7	11.7	11.7
157.5°	3.3	3.3	3.3	3.3	3.3	5.0	6.7	8.4	8.4	8.4	8.4
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-LD5-90HL-LN-UNV-L940-CD1-U

**CANDELA DISTRIBUTION (continued):**

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°
0°	3042.6	3042.6	3042.6	3042.6	3042.6	3042.6	3042.6	3042.6	3042.6	3042.6	3042.6
2.5°	3039.2	3042.6	3042.6	3039.2	3037.6	3044.3	3035.9	3004.1	3014.1	3017.5	3027.5
5°	3024.2	3027.5	3027.5	3027.5	3024.2	3030.9	3022.5	2990.7	3002.4	3007.4	3014.1
7.5°	3002.4	3004.1	3007.4	3005.8	3002.4	3012.5	3004.1	2972.3	2980.7	2989.0	2997.4
10°	2974.0	2974.0	2975.6	2979.0	2975.6	2984.0	2975.6	2947.2	2955.6	2960.6	2970.6
12.5°	2935.5	2938.8	2940.5	2938.8	2937.2	2943.8	2940.5	2913.7	2917.1	2927.1	2937.2
15°	2883.6	2883.6	2892.0	2888.6	2888.6	2895.3	2898.7	2868.5	2873.6	2888.6	2898.7
17.5°	2820.0	2821.7	2828.4	2831.7	2830.0	2841.8	2843.4	2820.0	2818.3	2836.7	2846.8
20°	2738.0	2741.3	2749.7	2756.4	2756.4	2769.8	2774.8	2759.8	2761.4	2781.5	2784.9
22.5°	2637.6	2637.6	2652.6	2662.7	2671.1	2679.4	2694.5	2681.1	2681.1	2707.9	2722.9
25°	2513.7	2525.5	2530.5	2550.6	2562.3	2585.7	2599.1	2600.8	2602.4	2627.5	2637.6
27.5°	2376.5	2379.8	2394.9	2418.3	2431.7	2453.5	2478.6	2483.6	2492.0	2525.5	2540.5
30°	2220.9	2230.9	2237.6	2271.1	2289.5	2317.9	2349.7	2361.4	2368.1	2413.3	2431.7
32.5°	2061.9	2065.2	2093.7	2112.1	2133.8	2164.0	2200.8	2222.5	2235.9	2282.8	2309.6
35°	1902.9	1909.6	1933.0	1956.4	1978.2	2008.3	2046.8	2076.9	2100.4	2142.2	2177.3
37.5°	1757.3	1774.0	1779.0	1802.5	1819.2	1849.3	1876.1	1919.6	1943.0	1986.6	2031.7
40°	1626.7	1631.8	1635.1	1658.5	1670.2	1698.7	1737.2	1765.6	1797.4	1829.2	1882.8
42.5°	1497.9	1501.2	1506.2	1519.6	1533.0	1553.1	1581.5	1610.0	1643.5	1690.3	1725.5
45°	1379.0	1382.4	1385.7	1394.1	1405.8	1424.2	1442.6	1462.7	1496.2	1536.4	1573.2
47.5°	1268.6	1275.3	1275.3	1277.0	1285.3	1300.4	1313.8	1338.9	1357.3	1379.0	1420.9
50°	1163.1	1168.2	1169.8	1169.8	1174.9	1184.9	1188.3	1205.0	1221.7	1241.8	1271.9
52.5°	1064.4	1064.4	1062.7	1069.4	1069.4	1076.1	1077.8	1087.8	1099.6	1121.3	1134.7
55°	970.7	970.7	975.7	972.4	972.4	975.7	974.0	975.7	985.7	999.1	1010.9
57.5°	880.3	878.6	883.7	880.3	878.6	882.0	885.3	878.6	880.3	893.7	893.7
60°	789.9	791.6	796.6	793.3	793.3	793.3	789.9	786.6	783.2	791.6	795.0
62.5°	718.0	713.0	718.0	713.0	716.3	714.6	711.3	704.6	706.3	702.9	699.6
65°	642.7	642.7	644.3	639.3	642.7	642.7	637.6	636.0	625.9	622.6	614.2
67.5°	577.4	577.4	579.1	575.7	575.7	577.4	572.4	567.3	557.3	552.3	540.6
70°	520.5	520.5	520.5	518.8	518.8	518.8	515.5	508.8	498.7	490.4	475.3
72.5°	468.6	470.3	468.6	468.6	473.6	468.6	463.6	456.9	448.5	431.8	418.4
75°	426.8	428.4	426.8	426.8	426.8	425.1	423.4	413.4	403.3	389.9	369.9
77.5°	389.9	389.9	391.6	389.9	389.9	388.3	383.3	374.9	363.2	351.5	328.0
80°	354.8	356.5	358.1	359.8	356.5	354.8	349.8	343.1	328.0	314.6	291.2
82.5°	329.7	328.0	329.7	331.4	328.0	326.4	321.3	313.0	301.2	282.8	259.4
85°	304.6	302.9	302.9	304.6	302.9	299.6	294.6	286.2	274.5	256.1	232.6
87.5°	279.5	281.2	282.8	281.2	279.5	276.1	271.1	262.8	249.4	234.3	209.2
90°	261.1	261.1	261.1	261.1	259.4	256.1	251.0	241.0	229.3	210.9	189.1
92.5°	244.3	244.3	244.3	244.3	242.7	237.7	232.6	224.3	210.9	192.5	172.4
95°	227.6	229.3	227.6	227.6	224.3	222.6	214.2	205.9	194.1	175.7	154.0
97.5°	209.2	210.9	209.2	209.2	207.5	204.2	199.2	189.1	177.4	160.7	140.6
100°	195.8	195.8	194.1	194.1	192.5	189.1	182.4	174.1	162.3	145.6	125.5
102.5°	180.7	182.4	180.7	180.7	177.4	174.1	169.0	160.7	148.9	132.2	113.8
105°	169.0	169.0	167.4	167.4	164.0	160.7	155.6	145.6	135.6	120.5	102.1
107.5°	157.3	157.3	155.6	155.6	152.3	148.9	142.3	133.9	123.8	108.8	92.0
110°	145.6	145.6	145.6	143.9	140.6	135.6	130.5	122.2	112.1	98.7	82.0





TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-90HL-LN-UNV-L940-CD1-U

**CANDELA DISTRIBUTION (continued):**

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°
112.5°	137.2	135.6	133.9	132.2	128.9	125.5	118.8	110.5	100.4	88.7	73.6
115°	125.5	125.5	123.8	122.2	118.8	113.8	108.8	102.1	92.0	78.7	65.3
117.5°	115.5	115.5	113.8	112.1	108.8	103.8	98.7	92.0	82.0	70.3	58.6
120°	105.4	105.4	103.8	102.1	98.7	93.7	90.4	82.0	73.6	61.9	51.9
122.5°	97.1	95.4	95.4	92.0	90.4	85.4	80.3	73.6	65.3	55.2	45.2
125°	87.0	87.0	85.4	83.7	82.0	77.0	72.0	65.3	56.9	48.5	40.2
127.5°	78.7	78.7	77.0	75.3	73.6	68.6	63.6	58.6	50.2	41.8	33.5
130°	70.3	70.3	68.6	66.9	65.3	60.2	56.9	50.2	43.5	36.8	28.5
132.5°	63.6	63.6	61.9	60.2	56.9	53.6	50.2	43.5	38.5	31.8	25.1
135°	56.9	55.2	55.2	53.6	50.2	46.9	43.5	38.5	31.8	26.8	20.1
137.5°	50.2	48.5	46.9	45.2	43.5	40.2	36.8	33.5	28.5	21.8	16.7
140°	43.5	41.8	41.8	40.2	36.8	35.1	31.8	26.8	23.4	18.4	13.4
142.5°	36.8	36.8	35.1	33.5	31.8	30.1	26.8	23.4	18.4	15.1	10.0
145°	31.8	30.1	30.1	28.5	26.8	23.4	21.8	18.4	15.1	11.7	8.4
147.5°	25.1	25.1	25.1	23.4	21.8	20.1	18.4	15.1	11.7	8.4	5.0
150°	20.1	20.1	20.1	18.4	16.7	15.1	13.4	11.7	8.4	5.0	3.3
152.5°	16.7	16.7	15.1	15.1	13.4	11.7	10.0	8.4	5.0	3.3	3.3
155°	11.7	11.7	11.7	10.0	10.0	8.4	6.7	5.0	3.3	3.3	3.3
157.5°	8.4	8.4	8.4	6.7	6.7	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-LD5-90HL-LN-UNV-L940-CD1-U

**CANDELA DISTRIBUTION (continued):**

	330°	335°	340°	345°	350°	355°	360°
0°	3042.6	3042.6	3042.6	3042.6	3042.6	3042.6	3042.6
2.5°	3022.5	3020.8	3034.2	3034.2	3019.2	3042.6	3067.7
5°	3012.5	3010.8	3024.2	3024.2	3010.8	3034.2	3061.0
7.5°	2992.4	2994.1	3007.4	3010.8	2994.1	3015.8	3044.3
10°	2970.6	2969.0	2984.0	2987.4	2974.0	2994.1	3020.8
12.5°	2935.5	2935.5	2950.5	2955.6	2942.2	2965.6	2990.7
15°	2898.7	2898.7	2908.7	2917.1	2905.4	2927.1	2952.2
17.5°	2851.8	2850.1	2860.2	2870.2	2858.5	2881.9	2908.7
20°	2791.6	2791.6	2803.3	2815.0	2806.6	2828.4	2858.5
22.5°	2728.0	2721.3	2741.3	2749.7	2744.7	2766.4	2796.6
25°	2647.6	2646.0	2666.0	2677.7	2671.1	2694.5	2721.3
27.5°	2560.6	2558.9	2579.0	2594.1	2590.7	2612.5	2642.6
30°	2455.2	2463.5	2481.9	2507.0	2498.7	2522.1	2553.9
32.5°	2344.7	2353.1	2374.8	2401.6	2403.3	2421.7	2453.5
35°	2212.5	2234.2	2249.3	2284.5	2291.1	2309.6	2343.0
37.5°	2073.6	2098.7	2130.5	2157.3	2170.7	2185.7	2224.2
40°	1917.9	1954.8	1989.9	2021.7	2038.4	2053.5	2090.3
42.5°	1777.4	1805.8	1839.3	1871.1	1901.2	1914.6	1953.1
45°	1618.4	1651.8	1682.0	1720.5	1750.6	1765.6	1804.1
47.5°	1462.7	1496.2	1536.4	1563.1	1594.9	1610.0	1646.8
50°	1313.8	1343.9	1377.4	1409.2	1435.9	1449.3	1481.1
52.5°	1166.5	1198.3	1230.1	1250.2	1278.6	1288.7	1315.4
55°	1036.0	1057.7	1086.2	1097.9	1126.3	1133.0	1151.4
57.5°	910.4	925.5	935.5	955.6	975.7	990.8	1012.5
60°	796.6	803.3	810.0	821.7	838.5	843.5	851.9
62.5°	694.5	692.9	706.3	709.6	711.3	728.0	719.6
65°	604.2	605.8	594.1	589.1	595.8	600.8	597.5
67.5°	528.9	518.8	508.8	497.1	487.0	492.0	487.0
70°	455.2	446.8	430.1	413.4	406.7	396.6	391.6
72.5°	396.6	376.6	359.8	338.1	326.4	314.6	306.3
75°	351.5	323.0	299.6	276.1	259.4	242.7	239.3
77.5°	304.6	277.8	251.0	225.9	200.8	182.4	175.7
80°	267.8	242.7	210.9	180.7	154.0	130.5	122.2
82.5°	234.3	207.5	175.7	143.9	113.8	88.7	78.7
85°	205.9	177.4	145.6	113.8	83.7	56.9	43.5
87.5°	184.1	152.3	120.5	90.4	58.6	31.8	16.7
90°	164.0	133.9	103.8	72.0	41.8	16.7	0.0
92.5°	145.6	117.2	87.0	58.6	31.8	10.0	1.7
95°	128.9	103.8	73.6	46.9	23.4	6.7	1.7
97.5°	115.5	90.4	63.6	38.5	18.4	5.0	1.7
100°	103.8	78.7	55.2	31.8	15.1	3.3	1.7
102.5°	92.0	70.3	46.9	26.8	11.7	1.7	1.7
105°	82.0	61.9	40.2	23.4	10.0	1.7	1.7
107.5°	73.6	55.2	35.1	20.1	6.7	1.7	1.7
110°	65.3	46.9	30.1	16.7	5.0	1.7	1.7



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-90HL-LN-UNV-L940-CD1-U

**CANDELA DISTRIBUTION (continued):**

	330°	335°	340°	345°	350°	355°	360°
112.5°	58.6	41.8	26.8	13.4	3.3	1.7	1.7
115°	51.9	36.8	23.4	11.7	3.3	1.7	1.7
117.5°	45.2	31.8	20.1	8.4	1.7	1.7	1.7
120°	40.2	28.5	16.7	6.7	1.7	1.7	1.7
122.5°	35.1	23.4	13.4	5.0	1.7	1.7	1.7
125°	30.1	20.1	11.7	3.3	1.7	1.7	1.7
127.5°	25.1	16.7	8.4	3.3	1.7	1.7	1.7
130°	21.8	13.4	6.7	1.7	1.7	1.7	1.7
132.5°	18.4	10.0	5.0	1.7	1.7	1.7	1.7
135°	15.1	8.4	3.3	1.7	1.7	1.7	1.7
137.5°	11.7	6.7	3.3	1.7	1.7	1.7	1.7
140°	8.4	5.0	1.7	1.7	1.7	1.7	1.7
142.5°	6.7	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)