

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-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-LD5-78SL-LN-UNV-L940-CD1-U  
Description: 4FT LINEAR SNLED LED FIXTURE  
NARROW LENS  
Light Source: -  
Ballast/Driver: -

**Summary**

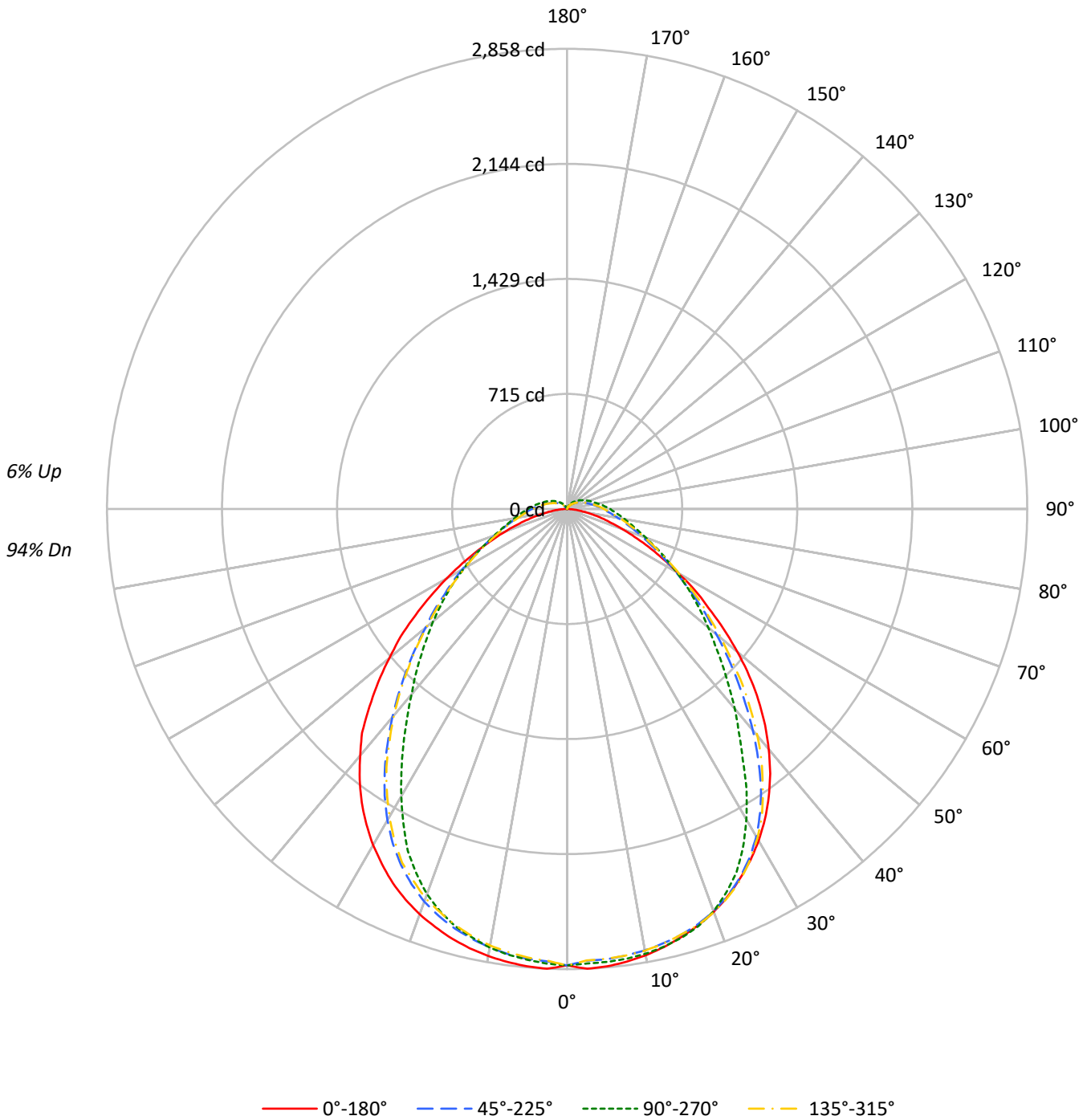
Lumens per Lamp: N/A  
Luminaire Lumens: 7174.0 lumens  
Efficiency: N/A  
Efficacy: 84.4 lumens/watt  
Spacing Criteria (0/90/45): 1.25 / 1.14 / 1.24  
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.12')  
CIE Type: Direct

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



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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°	22907	22907	22907	22907
5°	23071	22178	23071	22081
10°	22968	21589	23007	21289
15°	22820	20944	22924	20399
20°	22645	20115	22778	19265
25°	22282	18884	22528	17772
30°	21809	17076	22095	15809
35°	21074	14860	21481	13837
40°	20019	12997	20549	12058
45°	18628	11298	19233	10650
50°	16726	9927	17463	9426
55°	14469	8766	15519	8323
60°	12169	7697	13268	7255
65°	9976	6805	10982	6310
70°	7940	6039	8889	5587
75°	6235	5576	7018	5130
80°	4499	5380	5301	4917
85°	2767	5410	3730	4974



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	268.8	3.7
10°-20°	770.6	10.7
20°-30°	1142.1	15.9
30°-40°	1268.8	17.7
40°-50°	1150.2	16.0
50°-60°	891.3	12.4
60°-70°	605.2	8.4
70°-80°	385.1	5.4
80°-90°	246.2	3.4
90°-100°	166.0	2.3
100°-110°	113.7	1.6
110°-120°	75.8	1.1
120°-130°	47.2	0.7
130°-140°	26.1	0.4
140°-150°	12.2	0.2
150°-160°	4.5	0.1
160°-170°	0.3	0.0
170°-180°	0.0	0.0
0°-30°	2181.5	30.4
0°-40°	3450.3	48.1
0°-60°	5491.8	76.6
0°-90°	6728.2	93.8
90°-120°	355.5	5.0
90°-150°	441.0	6.1
90°-180°	446.0	6.2
0°-180°	7174.0	100.0

**CANDELA DISTRIBUTION:**

	0°	90°	180°	270°	360°	Flux
0°	2835	2835	2835	2835	2835	
5°	2852	2824	2852	2811	2852	271
15°	2750	2755	2763	2684	2750	776
25°	2535	2489	2563	2342	2535	1168
35°	2183	1902	2225	1771	2183	1362
45°	1681	1360	1736	1282	1681	1291
55°	1073	956	1151	908	1073	966
65°	557	642	613	596	557	558
75°	223	429	251	394	223	240
85°	40	309	55	284	40	49
90°	0	267	3	243	0	2
95°	2	228	0	212	2	1
105°	2	167	0	158	2	2
115°	2	126	0	117	2	2
125°	2	94	2	83	2	1
135°	2	66	2	53	2	1
145°	2	42	2	30	2	1
155°	2	23	2	11	2	1
165°	0	0	0	0	0	0
175°	0	0	0	0	0	0
180°	0	0	0	0	0	0



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-78SL-LN-UNV-L940-CD1-U

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	2834.7	2834.7	2834.7	2834.7	2834.7	2834.7	2834.7	2834.7	2834.7	2834.7	2834.7
2.5°	2858.1	2855.0	2851.9	2847.2	2851.9	2864.4	2856.6	2839.4	2836.3	2808.2	2820.7
5°	2851.9	2847.2	2844.1	2839.4	2845.7	2861.3	2853.5	2837.9	2833.2	2806.7	2820.7
7.5°	2836.3	2833.2	2828.5	2828.5	2834.7	2850.3	2844.1	2827.0	2823.8	2797.3	2812.9
10°	2814.5	2812.9	2809.8	2809.8	2816.0	2834.7	2827.0	2811.4	2808.2	2783.3	2800.4
12.5°	2786.4	2788.0	2783.3	2783.3	2792.6	2811.4	2805.1	2788.0	2784.9	2763.0	2780.2
15°	2750.5	2752.1	2749.0	2750.5	2759.9	2781.7	2773.9	2758.3	2755.2	2738.1	2752.1
17.5°	2710.0	2711.6	2711.6	2710.0	2720.9	2742.8	2736.5	2722.5	2717.8	2703.8	2720.9
20°	2663.2	2663.2	2663.2	2663.2	2675.7	2697.5	2689.7	2678.8	2669.5	2658.6	2672.6
22.5°	2605.5	2604.0	2605.5	2610.2	2622.7	2639.8	2635.2	2622.7	2608.7	2602.4	2613.3
25°	2535.4	2540.0	2541.6	2546.3	2561.9	2575.9	2571.2	2558.8	2536.9	2532.2	2535.4
27.5°	2462.1	2465.2	2469.9	2468.3	2490.1	2504.2	2494.8	2483.9	2452.7	2448.0	2444.9
30°	2379.4	2384.1	2387.2	2385.7	2402.8	2418.4	2409.1	2395.0	2352.9	2349.8	2324.9
32.5°	2285.9	2290.6	2293.7	2293.7	2318.6	2324.9	2307.7	2287.4	2242.2	2231.3	2209.5
35°	2183.0	2187.7	2189.2	2189.2	2214.2	2212.6	2190.8	2162.7	2112.8	2098.8	2061.4
37.5°	2072.3	2075.4	2076.9	2086.3	2097.2	2087.9	2059.8	2023.9	1986.5	1947.5	1907.0
40°	1947.5	1952.2	1955.3	1961.6	1972.5	1961.6	1921.0	1877.4	1836.8	1793.2	1752.6
42.5°	1819.7	1833.7	1830.6	1829.0	1835.3	1805.6	1774.4	1724.5	1684.0	1638.8	1598.2
45°	1680.9	1679.3	1687.1	1690.2	1688.7	1663.7	1620.1	1574.9	1534.3	1487.5	1453.2
47.5°	1534.3	1532.8	1539.0	1542.1	1532.8	1506.3	1471.9	1420.5	1386.2	1345.6	1319.1
50°	1380.0	1380.0	1389.3	1380.0	1375.3	1348.8	1320.7	1269.2	1242.7	1206.9	1191.3
52.5°	1225.6	1239.6	1230.3	1227.1	1222.5	1196.0	1174.1	1132.0	1110.2	1094.6	1075.9
55°	1072.8	1088.4	1082.1	1077.5	1075.9	1054.1	1033.8	1002.6	988.6	977.7	966.7
57.5°	943.4	941.8	938.7	934.0	935.6	918.4	898.1	881.0	874.7	870.1	873.2
60°	793.7	806.1	801.5	803.0	804.6	801.5	784.3	773.4	775.0	776.5	781.2
62.5°	670.5	681.4	689.2	683.0	686.1	690.8	681.4	678.3	684.5	690.8	697.0
65°	556.7	567.6	575.4	573.8	583.2	592.5	591.0	594.1	608.1	615.9	623.7
67.5°	453.7	464.7	475.6	477.1	491.2	505.2	511.4	522.4	537.9	548.9	558.2
70°	364.9	374.2	386.7	394.5	413.2	431.9	442.8	464.7	474.0	489.6	495.8
72.5°	285.3	293.1	310.3	329.0	344.6	368.0	389.8	408.5	422.6	439.7	447.5
75°	223.0	226.1	244.8	266.6	288.5	315.0	338.4	358.6	377.3	394.5	407.0
77.5°	163.7	168.4	185.6	215.2	240.1	268.2	294.7	316.5	336.8	354.0	371.1
80°	113.8	123.2	141.9	171.5	199.6	230.8	255.7	280.7	302.5	319.6	336.8
82.5°	73.3	81.1	107.6	137.2	166.8	198.0	224.5	249.5	272.9	291.6	307.2
85°	40.5	51.5	78.0	109.1	138.8	170.0	198.0	223.0	246.4	263.5	279.1
87.5°	15.6	31.2	56.1	85.8	115.4	145.0	174.6	198.0	221.4	240.1	254.2
90°	0.0	18.7	42.1	71.7	101.4	131.0	159.0	184.0	205.8	223.0	238.6
92.5°	1.6	12.5	32.7	57.7	85.8	113.8	140.3	165.3	187.1	204.3	218.3
95°	1.6	9.4	26.5	49.9	74.8	101.4	126.3	149.7	170.0	187.1	201.1
97.5°	1.6	6.2	21.8	43.7	65.5	92.0	115.4	137.2	155.9	173.1	184.0
100°	1.6	6.2	18.7	37.4	59.3	82.6	104.5	126.3	143.5	157.5	170.0
102.5°	1.6	4.7	15.6	32.7	53.0	73.3	95.1	115.4	131.0	145.0	157.5
105°	1.6	4.7	14.0	28.1	46.8	67.0	85.8	104.5	121.6	134.1	145.0
107.5°	1.6	3.1	12.5	23.4	40.5	60.8	79.5	95.1	110.7	123.2	134.1
110°	1.6	3.1	10.9	21.8	35.9	54.6	71.7	87.3	101.4	113.8	123.2



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	1.6	3.1	9.4	20.3	32.7	48.3	65.5	79.5	93.6	104.5	113.8
115°	1.6	3.1	9.4	18.7	29.6	42.1	57.7	73.3	84.2	96.7	104.5
117.5°	1.6	3.1	7.8	15.6	28.1	39.0	53.0	65.5	78.0	88.9	96.7
120°	1.6	3.1	7.8	14.0	24.9	35.9	46.8	59.3	71.7	79.5	87.3
122.5°	1.6	3.1	6.2	14.0	21.8	32.7	42.1	53.0	63.9	73.3	81.1
125°	1.6	3.1	6.2	12.5	20.3	29.6	39.0	46.8	57.7	65.5	73.3
127.5°	1.6	3.1	6.2	10.9	18.7	26.5	35.9	43.7	51.5	59.3	65.5
130°	1.6	3.1	4.7	9.4	17.2	23.4	31.2	40.5	46.8	53.0	59.3
132.5°	1.6	3.1	4.7	9.4	14.0	20.3	28.1	35.9	42.1	48.3	53.0
135°	1.6	3.1	4.7	7.8	12.5	18.7	23.4	31.2	37.4	43.7	48.3
137.5°	1.6	3.1	4.7	7.8	10.9	15.6	20.3	26.5	32.7	37.4	43.7
140°	1.6	3.1	4.7	6.2	9.4	14.0	18.7	21.8	28.1	32.7	37.4
142.5°	1.6	3.1	4.7	6.2	9.4	12.5	15.6	18.7	23.4	28.1	32.7
145°	1.6	3.1	4.7	6.2	7.8	10.9	14.0	17.2	18.7	23.4	26.5
147.5°	1.6	3.1	4.7	6.2	6.2	9.4	12.5	14.0	17.2	18.7	21.8
150°	1.6	3.1	4.7	4.7	6.2	7.8	10.9	12.5	14.0	17.2	18.7
152.5°	1.6	3.1	4.7	4.7	6.2	7.8	9.4	10.9	12.5	14.0	15.6
155°	1.6	3.1	4.7	4.7	4.7	6.2	7.8	9.4	10.9	12.5	14.0
157.5°	3.1	3.1	3.1	4.7	4.7	6.2	6.2	7.8	9.4	9.4	10.9
160°	3.1	3.1	3.1	4.7	4.7	4.7	6.2	6.2	7.8	7.8	9.4
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°	2834.7	2834.7	2834.7	2834.7	2834.7	2834.7	2834.7	2834.7	2834.7	2834.7	2834.7
2.5°	2817.6	2822.3	2836.3	2836.3	2833.2	2830.1	2830.1	2825.4	2828.5	2834.7	2831.6
5°	2817.6	2822.3	2836.3	2836.3	2833.2	2830.1	2828.5	2823.8	2828.5	2834.7	2831.6
7.5°	2808.2	2814.5	2828.5	2828.5	2825.4	2823.8	2820.7	2817.6	2822.3	2828.5	2825.4
10°	2795.8	2802.0	2816.0	2816.0	2812.9	2812.9	2808.2	2805.1	2811.4	2816.0	2814.5
12.5°	2777.1	2784.9	2797.3	2795.8	2792.6	2794.2	2789.5	2783.3	2789.5	2794.2	2795.8
15°	2750.5	2759.9	2772.4	2769.3	2764.6	2767.7	2759.9	2755.2	2759.9	2769.3	2767.7
17.5°	2716.2	2722.5	2731.8	2731.8	2727.2	2724.0	2720.9	2716.2	2719.4	2725.6	2727.2
20°	2667.9	2675.7	2680.4	2675.7	2674.1	2669.5	2663.2	2658.6	2664.8	2674.1	2675.7
22.5°	2604.0	2605.5	2616.4	2605.5	2597.7	2596.2	2589.9	2580.6	2589.9	2597.7	2599.3
25°	2524.5	2532.2	2527.6	2508.9	2508.9	2496.4	2493.3	2488.6	2490.1	2504.2	2510.4
27.5°	2423.1	2426.2	2413.7	2398.2	2384.1	2376.3	2365.4	2367.0	2367.0	2385.7	2391.9
30°	2312.4	2295.2	2284.3	2259.4	2248.5	2229.8	2226.6	2226.6	2223.5	2232.9	2260.9
32.5°	2179.9	2156.5	2139.3	2115.9	2097.2	2078.5	2069.1	2073.8	2072.3	2095.7	2105.0
35°	2034.8	2020.8	1984.9	1955.3	1944.4	1916.3	1916.3	1902.3	1911.7	1938.2	1949.1
37.5°	1882.0	1860.2	1830.6	1797.8	1790.0	1768.2	1760.4	1752.6	1772.9	1777.6	1788.5
40°	1726.1	1705.8	1677.8	1646.6	1646.6	1620.1	1620.1	1620.1	1621.6	1631.0	1651.3
42.5°	1578.0	1556.1	1531.2	1509.4	1506.3	1486.0	1486.0	1484.4	1487.5	1495.3	1514.0
45°	1434.5	1417.4	1390.9	1380.0	1381.5	1359.7	1364.4	1359.7	1365.9	1373.7	1380.0
47.5°	1302.0	1291.1	1280.2	1264.6	1259.9	1258.3	1250.5	1244.3	1255.2	1255.2	1264.6
50°	1178.8	1172.6	1166.3	1157.0	1158.5	1152.3	1142.9	1142.9	1150.7	1152.3	1158.5
52.5°	1071.2	1063.4	1055.6	1057.2	1058.7	1055.6	1050.9	1046.3	1050.9	1054.1	1061.9
55°	963.6	957.4	965.2	962.1	965.2	962.1	958.9	955.8	963.6	958.9	966.7
57.5°	867.0	873.2	876.3	870.1	874.7	871.6	873.2	868.5	874.7	877.9	876.3
60°	778.1	787.4	782.8	784.3	790.5	787.4	781.2	785.9	792.1	793.7	792.1
62.5°	697.0	707.9	712.6	709.5	711.0	707.9	712.6	706.3	714.1	717.3	712.6
65°	623.7	636.2	639.3	639.3	639.3	636.2	640.9	642.4	645.5	645.5	642.4
67.5°	561.3	572.3	575.4	578.5	575.4	572.3	572.3	573.8	580.0	583.2	580.0
70°	505.2	516.1	517.7	517.7	519.2	522.4	516.1	519.2	523.9	525.5	523.9
72.5°	456.9	467.8	470.9	469.3	470.9	472.5	472.5	469.3	474.0	477.1	477.1
75°	417.9	424.1	427.2	427.2	428.8	430.4	430.4	428.8	431.9	433.5	435.0
77.5°	382.0	386.7	391.4	391.4	392.9	391.4	394.5	394.5	396.1	397.6	399.2
80°	346.2	352.4	355.5	357.1	360.2	361.7	361.7	361.7	363.3	364.9	364.9
82.5°	318.1	322.8	327.4	332.1	332.1	333.7	333.7	333.7	335.2	335.2	336.8
85°	290.0	296.3	300.9	304.1	305.6	307.2	307.2	308.7	308.7	308.7	310.3
87.5°	265.1	272.9	276.0	279.1	280.7	283.8	283.8	283.8	285.3	285.3	285.3
90°	247.9	255.7	258.8	262.0	263.5	265.1	265.1	266.6	266.6	268.2	268.2
92.5°	227.7	235.4	241.7	241.7	243.2	246.4	244.8	244.8	246.4	247.9	247.9
95°	212.1	218.3	223.0	224.5	226.1	226.1	226.1	227.7	226.1	227.7	227.7
97.5°	193.3	199.6	204.3	207.4	208.9	208.9	208.9	210.5	208.9	210.5	210.5
100°	177.8	184.0	188.7	190.2	193.3	193.3	193.3	193.3	193.3	193.3	194.9
102.5°	165.3	171.5	174.6	176.2	177.8	179.3	179.3	179.3	179.3	180.9	180.9
105°	152.8	159.0	162.2	163.7	165.3	166.8	166.8	166.8	168.4	168.4	166.8
107.5°	141.9	146.6	149.7	152.8	154.4	154.4	155.9	155.9	155.9	155.9	155.9
110°	131.0	135.7	140.3	143.5	143.5	145.0	145.0	146.6	146.6	145.0	146.6





TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-78SL-LN-UNV-L940-CD1-U

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
112.5°	120.1	126.3	129.4	132.5	134.1	135.7	135.7	135.7	135.7	135.7	135.7
115°	110.7	116.9	120.1	123.2	124.7	126.3	126.3	126.3	126.3	126.3	126.3
117.5°	102.9	109.1	112.3	113.8	115.4	116.9	118.5	118.5	118.5	118.5	116.9
120°	95.1	99.8	102.9	106.0	107.6	109.1	109.1	109.1	109.1	109.1	109.1
122.5°	87.3	92.0	95.1	98.2	99.8	101.4	101.4	101.4	101.4	101.4	101.4
125°	79.5	84.2	87.3	90.4	92.0	93.6	93.6	93.6	93.6	93.6	93.6
127.5°	71.7	76.4	81.1	82.6	84.2	85.8	85.8	85.8	87.3	85.8	85.8
130°	63.9	68.6	73.3	74.8	76.4	78.0	79.5	79.5	79.5	79.5	78.0
132.5°	57.7	62.4	65.5	67.0	70.2	70.2	71.7	71.7	71.7	71.7	70.2
135°	53.0	56.1	59.3	60.8	63.9	63.9	63.9	65.5	65.5	63.9	62.4
137.5°	46.8	49.9	53.0	54.6	56.1	57.7	57.7	59.3	57.7	57.7	57.7
140°	43.7	45.2	48.3	49.9	51.5	51.5	51.5	53.0	53.0	51.5	51.5
142.5°	37.4	40.5	43.7	45.2	46.8	46.8	46.8	46.8	46.8	46.8	46.8
145°	31.2	35.9	37.4	40.5	40.5	42.1	42.1	42.1	42.1	42.1	40.5
147.5°	26.5	29.6	34.3	35.9	35.9	37.4	37.4	37.4	37.4	37.4	35.9
150°	20.3	23.4	28.1	31.2	31.2	32.7	32.7	32.7	32.7	31.2	31.2
152.5°	17.2	20.3	21.8	24.9	26.5	26.5	26.5	28.1	26.5	26.5	26.5
155°	15.6	17.2	18.7	20.3	21.8	23.4	23.4	23.4	23.4	21.8	21.8
157.5°	12.5	14.0	15.6	17.2	18.7	20.3	20.3	20.3	20.3	20.3	18.7
160°	9.4	10.9	12.5	12.5	14.0	15.6	17.2	15.6	15.6	15.6	15.6
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-L940-CD1-U

**CANDELA DISTRIBUTION (continued):**

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	2834.7	2834.7	2834.7	2834.7	2834.7	2834.7	2834.7	2834.7	2834.7	2834.7	2834.7
2.5°	2828.5	2827.0	2831.6	2823.8	2800.4	2806.7	2803.6	2817.6	2820.7	2823.8	2837.9
5°	2828.5	2827.0	2830.1	2823.8	2798.9	2803.6	2800.4	2814.5	2817.6	2819.2	2833.2
7.5°	2822.3	2820.7	2825.4	2817.6	2791.1	2797.3	2792.6	2806.7	2808.2	2809.8	2822.3
10°	2809.8	2808.2	2811.4	2805.1	2778.6	2784.9	2778.6	2792.6	2792.6	2795.8	2805.1
12.5°	2791.1	2788.0	2794.2	2786.4	2756.8	2764.6	2761.5	2770.8	2772.4	2773.9	2783.3
15°	2764.6	2761.5	2766.1	2761.5	2735.0	2736.5	2731.8	2745.9	2747.4	2744.3	2753.7
17.5°	2725.6	2722.5	2731.8	2728.7	2702.2	2708.4	2706.9	2710.0	2714.7	2706.9	2719.4
20°	2677.3	2680.4	2683.5	2685.1	2664.8	2664.8	2663.2	2669.5	2674.1	2667.9	2677.3
22.5°	2605.5	2613.3	2622.7	2625.8	2611.8	2610.2	2619.6	2616.4	2621.1	2618.0	2624.2
25°	2515.1	2530.7	2540.0	2549.4	2541.6	2544.7	2558.8	2561.9	2561.9	2560.3	2566.6
27.5°	2402.8	2423.1	2440.3	2460.5	2452.7	2459.0	2482.4	2485.5	2491.7	2485.5	2497.9
30°	2268.7	2287.4	2320.2	2349.8	2352.9	2362.3	2395.0	2398.2	2415.3	2409.1	2413.7
32.5°	2134.6	2144.0	2181.4	2211.0	2229.8	2253.1	2289.0	2295.2	2318.6	2323.3	2323.3
35°	1966.2	1992.7	2027.0	2069.1	2092.5	2117.5	2165.8	2175.2	2209.5	2220.4	2232.9
37.5°	1824.3	1849.3	1871.1	1914.8	1956.9	1984.9	2023.9	2047.3	2083.2	2103.5	2119.0
40°	1673.1	1693.4	1716.8	1760.4	1796.3	1838.4	1877.4	1905.4	1950.6	1974.0	1994.3
42.5°	1529.6	1545.2	1570.2	1601.4	1638.8	1685.6	1723.0	1755.7	1804.1	1836.8	1860.2
45°	1401.8	1411.1	1433.0	1456.4	1489.1	1537.4	1573.3	1615.4	1654.4	1688.7	1716.8
47.5°	1281.7	1294.2	1305.1	1320.7	1350.3	1380.0	1422.1	1462.6	1501.6	1539.0	1567.1
50°	1171.0	1171.0	1188.2	1199.1	1219.3	1245.9	1278.6	1306.7	1355.0	1381.5	1417.4
52.5°	1063.4	1069.7	1079.0	1085.2	1100.8	1118.0	1144.5	1167.9	1208.4	1233.4	1267.7
55°	968.3	974.5	979.2	982.3	991.7	1012.0	1021.3	1040.0	1068.1	1088.4	1118.0
57.5°	877.9	881.0	885.7	887.2	888.8	901.3	909.1	913.7	941.8	962.1	987.0
60°	795.2	795.2	799.9	798.3	796.8	803.0	801.5	806.1	823.3	835.8	846.7
62.5°	717.3	717.3	718.8	715.7	714.1	714.1	707.9	712.6	717.3	718.8	726.6
65°	645.5	653.3	647.1	648.7	639.3	636.2	633.1	623.7	622.1	615.9	619.0
67.5°	581.6	587.8	581.6	581.6	573.8	567.6	559.8	544.2	539.5	527.0	523.9
70°	530.2	525.5	528.6	523.9	514.6	506.8	495.8	483.4	467.8	452.2	441.3
72.5°	480.3	480.3	477.1	472.5	467.8	452.2	439.7	425.7	407.0	386.7	371.1
75°	431.9	433.5	433.5	428.8	421.0	407.0	392.9	372.7	352.4	329.0	308.7
77.5°	397.6	397.6	397.6	389.8	382.0	369.5	352.4	330.6	308.7	280.7	257.3
80°	364.9	363.3	363.3	354.0	346.2	332.1	315.0	293.1	269.8	240.1	213.6
82.5°	338.4	336.8	333.7	325.9	315.0	300.9	283.8	260.4	235.4	208.9	176.2
85°	310.3	308.7	305.6	297.8	286.9	274.4	255.7	232.3	207.4	177.8	146.6
87.5°	285.3	283.8	279.1	274.4	262.0	247.9	229.2	207.4	180.9	152.8	121.6
90°	268.2	265.1	262.0	255.7	244.8	229.2	210.5	187.1	160.6	132.5	101.4
92.5°	247.9	246.4	241.7	235.4	226.1	210.5	191.8	170.0	143.5	116.9	87.3
95°	227.7	226.1	223.0	216.7	207.4	193.3	176.2	154.4	129.4	102.9	76.4
97.5°	208.9	208.9	204.3	199.6	188.7	177.8	160.6	140.3	116.9	93.6	68.6
100°	193.3	193.3	188.7	182.4	174.6	163.7	146.6	127.9	106.0	84.2	59.3
102.5°	179.3	177.8	174.6	168.4	160.6	149.7	134.1	116.9	96.7	74.8	53.0
105°	166.8	165.3	162.2	155.9	149.7	137.2	124.7	107.6	87.3	67.0	46.8
107.5°	154.4	152.8	151.2	145.0	137.2	126.3	113.8	96.7	79.5	60.8	42.1
110°	143.5	141.9	138.8	132.5	124.7	115.4	102.9	88.9	71.7	54.6	37.4



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-78SL-LN-UNV-L940-CD1-U

**CANDELA DISTRIBUTION (continued):**

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
112.5°	134.1	132.5	129.4	123.2	116.9	106.0	95.1	79.5	65.5	49.9	32.7
115°	124.7	123.2	120.1	113.8	106.0	96.7	85.8	73.3	57.7	43.7	29.6
117.5°	115.4	113.8	110.7	106.0	98.2	88.9	78.0	65.5	51.5	40.5	26.5
120°	107.6	104.5	101.4	96.7	88.9	81.1	70.2	59.3	46.8	35.9	23.4
122.5°	99.8	96.7	93.6	88.9	81.1	73.3	62.4	53.0	43.7	32.7	21.8
125°	90.4	88.9	85.8	81.1	73.3	65.5	57.7	48.3	39.0	29.6	18.7
127.5°	82.6	81.1	78.0	71.7	65.5	59.3	51.5	43.7	34.3	24.9	17.2
130°	76.4	73.3	70.2	65.5	60.8	54.6	46.8	39.0	31.2	21.8	15.6
132.5°	68.6	65.5	62.4	59.3	54.6	48.3	42.1	34.3	28.1	20.3	14.0
135°	62.4	59.3	56.1	53.0	48.3	43.7	37.4	31.2	24.9	18.7	12.5
137.5°	54.6	53.0	51.5	48.3	43.7	39.0	34.3	26.5	21.8	17.2	10.9
140°	49.9	48.3	46.8	42.1	39.0	34.3	29.6	23.4	18.7	14.0	9.4
142.5°	45.2	43.7	40.5	37.4	34.3	31.2	24.9	21.8	17.2	12.5	9.4
145°	39.0	37.4	35.9	32.7	29.6	24.9	21.8	18.7	15.6	10.9	7.8
147.5°	35.9	34.3	31.2	28.1	24.9	21.8	20.3	17.2	12.5	9.4	6.2
150°	29.6	28.1	26.5	23.4	21.8	20.3	17.2	14.0	10.9	7.8	6.2
152.5°	24.9	23.4	21.8	21.8	18.7	17.2	14.0	12.5	9.4	7.8	4.7
155°	21.8	21.8	20.3	18.7	15.6	14.0	12.5	9.4	7.8	6.2	4.7
157.5°	18.7	17.2	15.6	15.6	14.0	12.5	9.4	7.8	6.2	6.2	4.7
160°	15.6	14.0	14.0	12.5	10.9	9.4	7.8	7.8	6.2	4.7	4.7
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-LD5-78SL-LN-UNV-L940-CD1-U

**CANDELA DISTRIBUTION (continued):**

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
0°	2834.7	2834.7	2834.7	2834.7	2834.7	2834.7	2834.7	2834.7	2834.7	2834.7	2834.7
2.5°	2839.4	2822.3	2837.9	2858.1	2858.1	2855.0	2851.9	2858.1	2873.7	2867.5	2848.8
5°	2834.7	2817.6	2831.6	2851.9	2851.9	2847.2	2844.1	2848.8	2865.9	2858.1	2841.0
7.5°	2825.4	2809.8	2819.2	2837.9	2837.9	2833.2	2830.1	2836.3	2850.3	2842.5	2823.8
10°	2808.2	2791.1	2802.0	2819.2	2817.6	2814.5	2809.8	2817.6	2830.1	2819.2	2797.3
12.5°	2786.4	2769.3	2778.6	2794.2	2792.6	2786.4	2783.3	2788.0	2798.9	2792.6	2769.3
15°	2756.8	2739.6	2747.4	2763.0	2758.3	2753.7	2747.4	2749.0	2763.0	2752.1	2727.2
17.5°	2720.9	2702.2	2708.4	2722.5	2717.8	2713.1	2705.3	2706.9	2722.5	2706.9	2680.4
20°	2677.3	2657.0	2661.7	2678.8	2671.0	2663.2	2655.4	2655.4	2671.0	2653.9	2624.2
22.5°	2630.5	2610.2	2613.3	2625.8	2619.6	2605.5	2597.7	2602.4	2610.2	2588.4	2557.2
25°	2572.8	2546.3	2551.0	2563.4	2558.8	2540.0	2532.2	2535.4	2532.2	2515.1	2482.4
27.5°	2505.7	2477.7	2480.8	2488.6	2482.4	2465.2	2455.8	2457.4	2451.2	2429.3	2391.9
30°	2421.5	2407.5	2405.9	2410.6	2401.3	2384.1	2373.2	2370.1	2368.5	2337.3	2292.1
32.5°	2335.8	2323.3	2315.5	2321.7	2310.8	2293.7	2275.0	2275.0	2259.4	2229.8	2190.8
35°	2248.5	2228.2	2220.4	2225.1	2212.6	2190.8	2175.2	2167.4	2144.0	2106.6	2064.5
37.5°	2136.2	2122.2	2112.8	2117.5	2103.5	2087.9	2058.2	2050.4	2025.5	1974.0	1921.0
40°	2014.6	2003.7	1994.3	1999.0	1983.4	1960.0	1933.5	1921.0	1893.0	1835.3	1793.2
42.5°	1883.6	1878.9	1868.0	1885.2	1854.0	1830.6	1804.1	1783.8	1755.7	1693.4	1645.0
45°	1744.8	1755.7	1730.8	1735.5	1715.2	1694.9	1666.9	1637.2	1609.2	1549.9	1495.3
47.5°	1598.2	1606.0	1588.9	1592.0	1570.2	1551.5	1526.5	1489.1	1457.9	1406.5	1358.1
50°	1447.0	1443.9	1443.9	1440.8	1423.6	1400.2	1375.3	1341.0	1309.8	1263.0	1222.5
52.5°	1286.4	1292.6	1295.8	1303.5	1281.7	1267.7	1228.7	1199.1	1175.7	1127.4	1093.0
55°	1132.0	1153.9	1147.6	1150.7	1125.8	1114.9	1083.7	1060.3	1026.0	997.9	976.1
57.5°	991.7	996.4	999.5	1004.2	993.3	971.4	946.5	927.8	901.3	877.9	862.3
60°	856.0	856.0	857.6	865.4	854.5	835.8	817.1	803.0	784.3	770.3	760.9
62.5°	728.2	739.1	740.7	734.4	720.4	711.0	698.6	690.8	678.3	673.6	670.5
65°	609.7	609.7	609.7	612.8	605.0	598.8	591.0	589.4	594.1	587.8	591.0
67.5°	509.9	505.2	502.1	503.6	500.5	497.4	495.8	500.5	509.9	509.9	517.7
70°	424.1	414.8	408.5	408.5	408.5	410.1	414.8	424.1	439.7	446.0	456.9
72.5°	354.0	333.7	324.3	324.3	325.9	332.1	346.2	363.3	377.3	389.8	403.9
75°	286.9	266.6	252.6	251.0	254.2	263.5	283.8	299.4	322.8	339.9	357.1
77.5°	232.3	207.4	190.2	188.7	193.3	207.4	232.3	252.6	279.1	297.8	316.5
80°	185.6	157.5	143.5	134.1	141.9	159.0	187.1	212.1	237.0	262.0	285.3
82.5°	148.1	121.6	99.8	90.4	99.8	123.2	149.7	179.3	204.3	230.8	254.2
85°	116.9	88.9	63.9	54.6	65.5	90.4	120.1	149.7	177.8	204.3	227.7
87.5°	92.0	63.9	39.0	26.5	40.5	67.0	95.1	124.7	154.4	180.9	204.3
90°	71.7	45.2	21.8	3.1	23.4	48.3	76.4	104.5	134.1	160.6	184.0
92.5°	60.8	34.3	12.5	0.0	14.0	35.9	62.4	90.4	116.9	143.5	166.8
95°	51.5	28.1	9.4	0.0	9.4	28.1	51.5	76.4	102.9	129.4	152.8
97.5°	43.7	21.8	6.2	0.0	6.2	21.8	42.1	67.0	90.4	115.4	137.2
100°	37.4	18.7	4.7	0.0	4.7	17.2	35.9	57.7	81.1	104.5	124.7
102.5°	32.7	15.6	3.1	0.0	3.1	14.0	29.6	49.9	70.2	92.0	112.3
105°	28.1	12.5	3.1	0.0	1.6	10.9	24.9	43.7	62.4	82.6	101.4
107.5°	24.9	10.9	3.1	0.0	1.6	9.4	21.8	37.4	56.1	73.3	90.4
110°	21.8	9.4	3.1	0.0	1.6	6.2	18.7	32.7	48.3	65.5	82.6



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-78SL-LN-UNV-L940-CD1-U

**CANDELA DISTRIBUTION (continued):**

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
112.5°	18.7	7.8	1.6	0.0	0.0	4.7	15.6	28.1	42.1	59.3	73.3
115°	17.2	7.8	1.6	0.0	0.0	3.1	12.5	24.9	37.4	53.0	65.5
117.5°	15.6	6.2	1.6	0.0	1.6	3.1	10.9	21.8	32.7	45.2	59.3
120°	14.0	6.2	1.6	0.0	1.6	1.6	7.8	18.7	28.1	40.5	51.5
122.5°	12.5	6.2	1.6	0.0	1.6	1.6	6.2	15.6	24.9	35.9	45.2
125°	10.9	4.7	3.1	1.6	1.6	1.6	4.7	12.5	21.8	29.6	40.5
127.5°	10.9	4.7	3.1	1.6	1.6	1.6	3.1	10.9	17.2	26.5	35.9
130°	9.4	4.7	3.1	1.6	1.6	1.6	1.6	7.8	15.6	21.8	29.6
132.5°	7.8	4.7	3.1	1.6	1.6	1.6	1.6	4.7	10.9	18.7	24.9
135°	7.8	4.7	3.1	1.6	1.6	1.6	1.6	3.1	7.8	14.0	20.3
137.5°	6.2	3.1	3.1	1.6	1.6	1.6	1.6	1.6	6.2	10.9	15.6
140°	6.2	3.1	3.1	1.6	1.6	1.6	1.6	1.6	4.7	7.8	12.5
142.5°	4.7	3.1	3.1	1.6	1.6	1.6	1.6	1.6	3.1	6.2	9.4
145°	4.7	3.1	3.1	1.6	1.6	1.6	1.6	1.6	1.6	3.1	6.2
147.5°	4.7	4.7	3.1	1.6	1.6	1.6	1.6	1.6	1.6	3.1	4.7
150°	4.7	3.1	3.1	1.6	1.6	1.6	1.6	1.6	1.6	1.6	3.1
152.5°	4.7	3.1	3.1	1.6	1.6	1.6	1.6	1.6	1.6	1.6	3.1
155°	4.7	3.1	3.1	1.6	1.6	1.6	1.6	1.6	1.6	3.1	3.1
157.5°	4.7	3.1	3.1	1.6	1.6	1.6	1.6	1.6	1.6	1.6	3.1
160°	4.7	3.1	3.1	1.6	3.1	1.6	3.1	3.1	3.1	3.1	3.1
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-L940-CD1-U

**CANDELA DISTRIBUTION (continued):**

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
0°	2834.7	2834.7	2834.7	2834.7	2834.7	2834.7	2834.7	2834.7	2834.7	2834.7	2834.7
2.5°	2842.5	2812.9	2828.5	2823.8	2830.1	2842.5	2841.0	2837.9	2837.9	2833.2	2827.0
5°	2833.2	2805.1	2819.2	2811.4	2819.2	2830.1	2828.5	2823.8	2827.0	2819.2	2811.4
7.5°	2814.5	2789.5	2802.0	2795.8	2802.0	2812.9	2808.2	2806.7	2809.8	2797.3	2792.6
10°	2792.6	2764.6	2778.6	2770.8	2778.6	2786.4	2783.3	2777.1	2783.3	2770.8	2766.1
12.5°	2758.3	2735.0	2744.3	2741.2	2745.9	2753.7	2747.4	2742.8	2745.9	2735.0	2725.6
15°	2720.9	2697.5	2705.3	2700.7	2703.8	2713.1	2702.2	2700.7	2697.5	2686.6	2683.5
17.5°	2672.6	2650.8	2658.6	2650.8	2655.4	2652.3	2650.8	2643.0	2643.0	2630.5	2621.1
20°	2613.3	2594.6	2589.9	2583.7	2589.9	2583.7	2574.3	2568.1	2566.6	2554.1	2546.3
22.5°	2544.7	2522.9	2526.0	2508.9	2510.4	2501.1	2485.5	2479.2	2473.0	2459.0	2448.0
25°	2462.1	2440.3	2424.7	2413.7	2399.7	2398.2	2377.9	2362.3	2360.7	2343.6	2342.0
27.5°	2368.5	2343.6	2331.1	2304.6	2287.4	2273.4	2256.3	2240.7	2232.9	2214.2	2201.7
30°	2260.9	2232.9	2201.7	2183.0	2156.5	2145.6	2115.9	2097.2	2091.0	2070.7	2061.4
32.5°	2139.3	2109.7	2084.7	2048.9	2019.3	2003.7	1974.0	1955.3	1947.5	1925.7	1913.2
35°	2006.8	1974.0	1944.4	1910.1	1886.7	1860.2	1824.3	1805.6	1788.5	1780.7	1771.3
37.5°	1868.0	1832.1	1797.8	1763.5	1743.3	1712.1	1680.9	1668.4	1648.1	1640.3	1631.0
40°	1724.5	1688.7	1655.9	1623.2	1599.8	1571.7	1543.7	1539.0	1517.2	1509.4	1503.1
42.5°	1582.7	1545.2	1507.8	1484.4	1467.3	1439.2	1420.5	1415.8	1397.1	1392.4	1392.4
45°	1454.8	1408.0	1376.8	1356.6	1342.5	1319.1	1303.5	1300.4	1284.8	1281.7	1281.7
47.5°	1317.6	1273.9	1250.5	1238.1	1225.6	1208.4	1199.1	1199.1	1183.5	1180.4	1178.8
50°	1189.7	1149.2	1132.0	1119.6	1118.0	1105.5	1097.7	1094.6	1094.6	1083.7	1085.2
52.5°	1068.1	1047.8	1033.8	1026.0	1016.6	1008.8	1002.6	1002.6	997.9	990.1	993.3
55°	955.8	932.4	934.0	927.8	923.1	918.4	920.0	910.6	909.1	902.8	907.5
57.5°	843.6	843.6	840.4	835.8	828.0	831.1	831.1	831.1	823.3	818.6	823.3
60°	748.4	753.1	745.3	750.0	746.9	748.4	745.3	745.3	740.7	739.1	740.7
62.5°	664.2	672.0	668.9	675.2	672.0	673.6	676.7	670.5	667.4	664.2	667.4
65°	589.4	598.8	597.2	601.9	603.4	605.0	606.6	603.4	600.3	597.2	595.6
67.5°	523.9	533.3	539.5	541.1	542.6	547.3	545.7	542.6	539.5	534.8	533.3
70°	464.7	477.1	484.9	488.1	494.3	491.2	491.2	489.6	486.5	481.8	480.3
72.5°	414.8	428.8	436.6	439.7	446.0	446.0	444.4	442.8	439.7	435.0	433.5
75°	371.1	383.6	394.5	400.7	405.4	405.4	403.9	402.3	399.2	396.1	394.5
77.5°	336.8	347.7	357.1	364.9	368.0	369.5	368.0	364.9	364.9	363.3	361.7
80°	302.5	315.0	324.3	332.1	336.8	336.8	335.2	336.8	333.7	332.1	330.6
82.5°	272.9	286.9	297.8	305.6	308.7	310.3	308.7	310.3	307.2	307.2	307.2
85°	246.4	260.4	272.9	279.1	283.8	285.3	285.3	285.3	283.8	283.8	283.8
87.5°	224.5	238.6	251.0	257.3	262.0	263.5	263.5	265.1	262.0	262.0	262.0
90°	204.3	218.3	230.8	237.0	241.7	244.8	244.8	246.4	244.8	243.2	243.2
92.5°	185.6	201.1	213.6	219.9	224.5	229.2	229.2	230.8	227.7	227.7	227.7
95°	170.0	185.6	196.5	204.3	208.9	212.1	213.6	213.6	212.1	212.1	212.1
97.5°	155.9	170.0	180.9	188.7	193.3	194.9	196.5	198.0	196.5	196.5	196.5
100°	141.9	155.9	166.8	173.1	179.3	180.9	182.4	184.0	184.0	182.4	182.4
102.5°	129.4	143.5	152.8	160.6	165.3	168.4	170.0	170.0	170.0	170.0	170.0
105°	116.9	131.0	140.3	148.1	152.8	155.9	157.5	159.0	159.0	157.5	157.5
107.5°	106.0	118.5	129.4	135.7	141.9	145.0	146.6	146.6	148.1	146.6	146.6
110°	95.1	109.1	118.5	124.7	131.0	134.1	135.7	137.2	137.2	137.2	137.2



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-78SL-LN-UNV-L940-CD1-U

**CANDELA DISTRIBUTION (continued):**

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
112.5°	87.3	98.2	107.6	113.8	120.1	123.2	124.7	126.3	127.9	126.3	126.3
115°	78.0	88.9	98.2	104.5	109.1	112.3	115.4	116.9	116.9	118.5	116.9
117.5°	70.2	79.5	88.9	95.1	99.8	104.5	106.0	107.6	109.1	107.6	107.6
120°	62.4	71.7	79.5	85.8	90.4	95.1	96.7	98.2	99.8	98.2	98.2
122.5°	56.1	63.9	71.7	78.0	82.6	85.8	88.9	88.9	90.4	90.4	90.4
125°	49.9	57.7	63.9	70.2	74.8	78.0	79.5	81.1	81.1	82.6	82.6
127.5°	43.7	49.9	57.7	62.4	67.0	70.2	71.7	73.3	73.3	74.8	74.8
130°	37.4	43.7	49.9	54.6	59.3	62.4	63.9	65.5	67.0	67.0	67.0
132.5°	32.7	39.0	43.7	48.3	51.5	54.6	57.7	59.3	59.3	59.3	59.3
135°	26.5	32.7	37.4	42.1	45.2	48.3	49.9	53.0	53.0	53.0	53.0
137.5°	21.8	28.1	32.7	35.9	39.0	42.1	43.7	45.2	46.8	46.8	46.8
140°	17.2	21.8	26.5	31.2	34.3	35.9	39.0	39.0	40.5	40.5	40.5
142.5°	12.5	17.2	20.3	24.9	28.1	31.2	32.7	34.3	34.3	34.3	34.3
145°	9.4	12.5	15.6	18.7	23.4	24.9	26.5	28.1	29.6	29.6	29.6
147.5°	6.2	9.4	10.9	14.0	17.2	20.3	21.8	23.4	24.9	24.9	24.9
150°	4.7	6.2	9.4	10.9	12.5	15.6	18.7	18.7	20.3	20.3	18.7
152.5°	3.1	4.7	6.2	7.8	9.4	10.9	14.0	14.0	15.6	15.6	15.6
155°	3.1	3.1	3.1	4.7	6.2	7.8	9.4	10.9	10.9	10.9	10.9
157.5°	3.1	3.1	3.1	3.1	3.1	4.7	6.2	7.8	7.8	7.8	7.8
160°	3.1	3.1	1.6	1.6	3.1	3.1	3.1	3.1	4.7	4.7	4.7
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-LD5-78SL-LN-UNV-L940-CD1-U

**CANDELA DISTRIBUTION (continued):**

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°
0°	2834.7	2834.7	2834.7	2834.7	2834.7	2834.7	2834.7	2834.7	2834.7	2834.7	2834.7
2.5°	2831.6	2834.7	2834.7	2831.6	2830.1	2836.3	2828.5	2798.9	2808.2	2811.4	2820.7
5°	2817.6	2820.7	2820.7	2820.7	2817.6	2823.8	2816.0	2786.4	2797.3	2802.0	2808.2
7.5°	2797.3	2798.9	2802.0	2800.4	2797.3	2806.7	2798.9	2769.3	2777.1	2784.9	2792.6
10°	2770.8	2770.8	2772.4	2775.5	2772.4	2780.2	2772.4	2745.9	2753.7	2758.3	2767.7
12.5°	2735.0	2738.1	2739.6	2738.1	2736.5	2742.8	2739.6	2714.7	2717.8	2727.2	2736.5
15°	2686.6	2686.6	2694.4	2691.3	2691.3	2697.5	2700.7	2672.6	2677.3	2691.3	2700.7
17.5°	2627.4	2628.9	2635.2	2638.3	2636.7	2647.6	2649.2	2627.4	2625.8	2643.0	2652.3
20°	2551.0	2554.1	2561.9	2568.1	2568.1	2580.6	2585.3	2571.2	2572.8	2591.5	2594.6
22.5°	2457.4	2457.4	2471.4	2480.8	2488.6	2496.4	2510.4	2497.9	2497.9	2522.9	2536.9
25°	2342.0	2352.9	2357.6	2376.3	2387.2	2409.1	2421.5	2423.1	2424.7	2448.0	2457.4
27.5°	2214.2	2217.3	2231.3	2253.1	2265.6	2285.9	2309.3	2314.0	2321.7	2352.9	2367.0
30°	2069.1	2078.5	2084.7	2115.9	2133.1	2159.6	2189.2	2200.1	2206.4	2248.5	2265.6
32.5°	1921.0	1924.1	1950.6	1967.8	1988.1	2016.1	2050.4	2070.7	2083.2	2126.8	2151.8
35°	1772.9	1779.1	1801.0	1822.8	1843.1	1871.1	1907.0	1935.1	1956.9	1995.9	2028.6
37.5°	1637.2	1652.8	1657.5	1679.3	1694.9	1723.0	1747.9	1788.5	1810.3	1850.8	1893.0
40°	1515.6	1520.3	1523.4	1545.2	1556.1	1582.7	1618.5	1645.0	1674.7	1704.3	1754.2
42.5°	1395.5	1398.7	1403.3	1415.8	1428.3	1447.0	1473.5	1500.0	1531.2	1574.9	1607.6
45°	1284.8	1288.0	1291.1	1298.9	1309.8	1326.9	1344.1	1362.8	1394.0	1431.4	1465.7
47.5°	1181.9	1188.2	1188.2	1189.7	1197.5	1211.6	1224.0	1247.4	1264.6	1284.8	1323.8
50°	1083.7	1088.4	1089.9	1089.9	1094.6	1104.0	1107.1	1122.7	1138.3	1157.0	1185.0
52.5°	991.7	991.7	990.1	996.4	996.4	1002.6	1004.2	1013.5	1024.4	1044.7	1057.2
55°	904.4	904.4	909.1	905.9	905.9	909.1	907.5	909.1	918.4	930.9	941.8
57.5°	820.2	818.6	823.3	820.2	818.6	821.7	824.9	818.6	820.2	832.6	832.6
60°	736.0	737.5	742.2	739.1	739.1	739.1	736.0	732.9	729.7	737.5	740.7
62.5°	668.9	664.2	668.9	664.2	667.4	665.8	662.7	656.5	658.0	654.9	651.8
65°	598.8	598.8	600.3	595.6	598.8	598.8	594.1	592.5	583.2	580.0	572.3
67.5°	537.9	537.9	539.5	536.4	536.4	537.9	533.3	528.6	519.2	514.6	503.6
70°	484.9	484.9	484.9	483.4	483.4	483.4	480.3	474.0	464.7	456.9	442.8
72.5°	436.6	438.2	436.6	436.6	441.3	436.6	431.9	425.7	417.9	402.3	389.8
75°	397.6	399.2	397.6	397.6	397.6	396.1	394.5	385.1	375.8	363.3	344.6
77.5°	363.3	363.3	364.9	363.3	363.3	361.7	357.1	349.3	338.4	327.4	305.6
80°	330.6	332.1	333.7	335.2	332.1	330.6	325.9	319.6	305.6	293.1	271.3
82.5°	307.2	305.6	307.2	308.7	305.6	304.1	299.4	291.6	280.7	263.5	241.7
85°	283.8	282.2	282.2	283.8	282.2	279.1	274.4	266.6	255.7	238.6	216.7
87.5°	260.4	262.0	263.5	262.0	260.4	257.3	252.6	244.8	232.3	218.3	194.9
90°	243.2	243.2	243.2	243.2	241.7	238.6	233.9	224.5	213.6	196.5	176.2
92.5°	227.7	227.7	227.7	227.7	226.1	221.4	216.7	208.9	196.5	179.3	160.6
95°	212.1	213.6	212.1	212.1	208.9	207.4	199.6	191.8	180.9	163.7	143.5
97.5°	194.9	196.5	194.9	194.9	193.3	190.2	185.6	176.2	165.3	149.7	131.0
100°	182.4	182.4	180.9	180.9	179.3	176.2	170.0	162.2	151.2	135.7	116.9
102.5°	168.4	170.0	168.4	168.4	165.3	162.2	157.5	149.7	138.8	123.2	106.0
105°	157.5	157.5	155.9	155.9	152.8	149.7	145.0	135.7	126.3	112.3	95.1
107.5°	146.6	146.6	145.0	145.0	141.9	138.8	132.5	124.7	115.4	101.4	85.8
110°	135.7	135.7	135.7	134.1	131.0	126.3	121.6	113.8	104.5	92.0	76.4





TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-78SL-LN-UNV-L940-CD1-U

**CANDELA DISTRIBUTION (continued):**

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°
112.5°	127.9	126.3	124.7	123.2	120.1	116.9	110.7	102.9	93.6	82.6	68.6
115°	116.9	116.9	115.4	113.8	110.7	106.0	101.4	95.1	85.8	73.3	60.8
117.5°	107.6	107.6	106.0	104.5	101.4	96.7	92.0	85.8	76.4	65.5	54.6
120°	98.2	98.2	96.7	95.1	92.0	87.3	84.2	76.4	68.6	57.7	48.3
122.5°	90.4	88.9	88.9	85.8	84.2	79.5	74.8	68.6	60.8	51.5	42.1
125°	81.1	81.1	79.5	78.0	76.4	71.7	67.0	60.8	53.0	45.2	37.4
127.5°	73.3	73.3	71.7	70.2	68.6	63.9	59.3	54.6	46.8	39.0	31.2
130°	65.5	65.5	63.9	62.4	60.8	56.1	53.0	46.8	40.5	34.3	26.5
132.5°	59.3	59.3	57.7	56.1	53.0	49.9	46.8	40.5	35.9	29.6	23.4
135°	53.0	51.5	51.5	49.9	46.8	43.7	40.5	35.9	29.6	24.9	18.7
137.5°	46.8	45.2	43.7	42.1	40.5	37.4	34.3	31.2	26.5	20.3	15.6
140°	40.5	39.0	39.0	37.4	34.3	32.7	29.6	24.9	21.8	17.2	12.5
142.5°	34.3	34.3	32.7	31.2	29.6	28.1	24.9	21.8	17.2	14.0	9.4
145°	29.6	28.1	28.1	26.5	24.9	21.8	20.3	17.2	14.0	10.9	7.8
147.5°	23.4	23.4	23.4	21.8	20.3	18.7	17.2	14.0	10.9	7.8	4.7
150°	18.7	18.7	18.7	17.2	15.6	14.0	12.5	10.9	7.8	4.7	3.1
152.5°	15.6	15.6	14.0	14.0	12.5	10.9	9.4	7.8	4.7	3.1	3.1
155°	10.9	10.9	10.9	9.4	9.4	7.8	6.2	4.7	3.1	3.1	3.1
157.5°	7.8	7.8	7.8	6.2	6.2	4.7	4.7	3.1	3.1	3.1	3.1
160°	4.7	4.7	4.7	4.7	3.1	3.1	3.1	3.1	3.1	3.1	3.1
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-L940-CD1-U

**CANDELA DISTRIBUTION (continued):**

	330°	335°	340°	345°	350°	355°	360°
0°	2834.7	2834.7	2834.7	2834.7	2834.7	2834.7	2834.7
2.5°	2816.0	2814.5	2827.0	2827.0	2812.9	2834.7	2858.1
5°	2806.7	2805.1	2817.6	2817.6	2805.1	2827.0	2851.9
7.5°	2788.0	2789.5	2802.0	2805.1	2789.5	2809.8	2836.3
10°	2767.7	2766.1	2780.2	2783.3	2770.8	2789.5	2814.5
12.5°	2735.0	2735.0	2749.0	2753.7	2741.2	2763.0	2786.4
15°	2700.7	2700.7	2710.0	2717.8	2706.9	2727.2	2750.5
17.5°	2657.0	2655.4	2664.8	2674.1	2663.2	2685.1	2710.0
20°	2600.9	2600.9	2611.8	2622.7	2614.9	2635.2	2663.2
22.5°	2541.6	2535.4	2554.1	2561.9	2557.2	2577.5	2605.5
25°	2466.8	2465.2	2483.9	2494.8	2488.6	2510.4	2535.4
27.5°	2385.7	2384.1	2402.8	2416.9	2413.7	2434.0	2462.1
30°	2287.4	2295.2	2312.4	2335.8	2328.0	2349.8	2379.4
32.5°	2184.5	2192.3	2212.6	2237.5	2239.1	2256.3	2285.9
35°	2061.4	2081.6	2095.7	2128.4	2134.6	2151.8	2183.0
37.5°	1931.9	1955.3	1984.9	2009.9	2022.4	2036.4	2072.3
40°	1786.9	1821.2	1854.0	1883.6	1899.2	1913.2	1947.5
42.5°	1655.9	1682.4	1713.6	1743.3	1771.3	1783.8	1819.7
45°	1507.8	1539.0	1567.1	1602.9	1631.0	1645.0	1680.9
47.5°	1362.8	1394.0	1431.4	1456.4	1486.0	1500.0	1534.3
50°	1224.0	1252.1	1283.3	1312.9	1337.9	1350.3	1380.0
52.5°	1086.8	1116.4	1146.1	1164.8	1191.3	1200.6	1225.6
55°	965.2	985.5	1012.0	1022.9	1049.4	1055.6	1072.8
57.5°	848.2	862.3	871.6	890.3	909.1	923.1	943.4
60°	742.2	748.4	754.7	765.6	781.2	785.9	793.7
62.5°	647.1	645.5	658.0	661.1	662.7	678.3	670.5
65°	562.9	564.5	553.5	548.9	555.1	559.8	556.7
67.5°	492.7	483.4	474.0	463.1	453.7	458.4	453.7
70°	424.1	416.3	400.7	385.1	378.9	369.5	364.9
72.5°	369.5	350.8	335.2	315.0	304.1	293.1	285.3
75°	327.4	300.9	279.1	257.3	241.7	226.1	223.0
77.5°	283.8	258.8	233.9	210.5	187.1	170.0	163.7
80°	249.5	226.1	196.5	168.4	143.5	121.6	113.8
82.5°	218.3	193.3	163.7	134.1	106.0	82.6	73.3
85°	191.8	165.3	135.7	106.0	78.0	53.0	40.5
87.5°	171.5	141.9	112.3	84.2	54.6	29.6	15.6
90°	152.8	124.7	96.7	67.0	39.0	15.6	0.0
92.5°	135.7	109.1	81.1	54.6	29.6	9.4	1.6
95°	120.1	96.7	68.6	43.7	21.8	6.2	1.6
97.5°	107.6	84.2	59.3	35.9	17.2	4.7	1.6
100°	96.7	73.3	51.5	29.6	14.0	3.1	1.6
102.5°	85.8	65.5	43.7	24.9	10.9	1.6	1.6
105°	76.4	57.7	37.4	21.8	9.4	1.6	1.6
107.5°	68.6	51.5	32.7	18.7	6.2	1.6	1.6
110°	60.8	43.7	28.1	15.6	4.7	1.6	1.6



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-78SL-LN-UNV-L940-CD1-U

**CANDELA DISTRIBUTION (continued):**

	330°	335°	340°	345°	350°	355°	360°
112.5°	54.6	39.0	24.9	12.5	3.1	1.6	1.6
115°	48.3	34.3	21.8	10.9	3.1	1.6	1.6
117.5°	42.1	29.6	18.7	7.8	1.6	1.6	1.6
120°	37.4	26.5	15.6	6.2	1.6	1.6	1.6
122.5°	32.7	21.8	12.5	4.7	1.6	1.6	1.6
125°	28.1	18.7	10.9	3.1	1.6	1.6	1.6
127.5°	23.4	15.6	7.8	3.1	1.6	1.6	1.6
130°	20.3	12.5	6.2	1.6	1.6	1.6	1.6
132.5°	17.2	9.4	4.7	1.6	1.6	1.6	1.6
135°	14.0	7.8	3.1	1.6	1.6	1.6	1.6
137.5°	10.9	6.2	3.1	1.6	1.6	1.6	1.6
140°	7.8	4.7	1.6	1.6	1.6	1.6	1.6
142.5°	6.2	3.1	1.6	1.6	1.6	1.6	1.6
145°	4.7	3.1	1.6	1.6	1.6	1.6	1.6
147.5°	3.1	3.1	3.1	3.1	1.6	1.6	1.6
150°	3.1	3.1	1.6	1.6	3.1	1.6	1.6
152.5°	3.1	1.6	1.6	1.6	3.1	1.6	1.6
155°	3.1	3.1	3.1	3.1	3.1	3.1	1.6
157.5°	3.1	3.1	3.1	3.1	3.1	3.1	3.1
160°	3.1	3.1	3.1	3.1	3.1	3.1	3.1
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)