

Scaled data based on original data using
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: METALUX

Report Number: P1213534

Luminaire Tested: 4SNLED-LD5-78SL-LN-UNV-L935-CD1-U

Issue Date: 3/29/2018

Test Information

Test Method: LM-79-2019
Report Number: P1213534
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P33519)
Test Lab: INNOVATIONS CENTER-P3
Issue Date: 3/29/2018
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: METALUX
Catalog Number: 4SNLED-LD5-78SL-LN-UNV-L935-CD1-U
Description: 4FT LINEAR SNLED LED FIXTURE
NARROW LENS
Light Source: -
Ballast/Driver: -

Summary

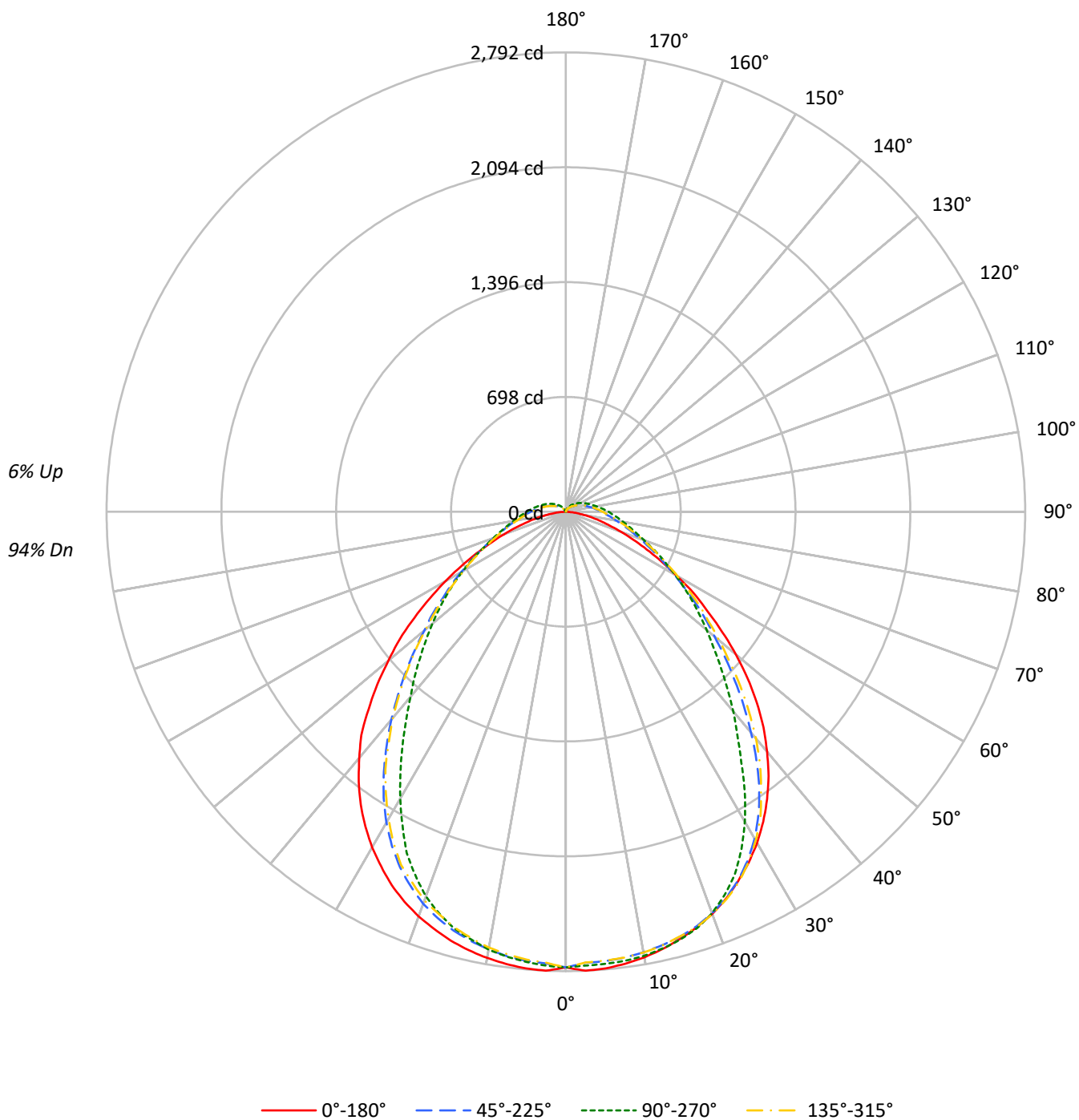
Lumens per Lamp: N/A
Luminaire Lumens: 7008.0 lumens
Efficiency: N/A
Efficacy: 82.4 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.14 / 1.24
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.12')
CIE Type: Direct

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: 24 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
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10
RCR																	
0	118	118	118	118	114	114	114	114	108	108	108	102	102	102	96	96	96
1	107	103	98	95	104	100	96	92	94	91	88	89	87	85	85	83	81
2	98	90	84	78	95	88	82	77	83	78	74	79	75	72	75	72	69
3	90	80	72	66	87	78	71	65	74	68	63	71	66	61	67	63	60
4	83	72	63	57	80	70	62	56	67	60	55	64	58	53	61	56	52
5	77	64	56	50	74	63	55	49	60	53	48	58	52	47	55	50	46
6	71	58	50	44	69	57	49	43	55	48	42	52	46	42	50	45	41
7	66	53	45	39	64	52	44	39	50	43	38	48	42	37	46	41	37
8	62	49	41	35	60	48	40	35	46	39	34	44	38	34	43	37	33
9	58	45	37	32	56	44	37	31	42	36	31	41	35	30	40	34	30
10	54	42	34	29	53	41	34	29	39	33	28	38	32	28	37	31	27

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	22378	22378	22378	22378
5°	22537	21665	22537	21569
10°	22437	21089	22474	20796
15°	22292	20459	22393	19927
20°	22121	19649	22250	18820
25°	21766	18447	22007	17360
30°	21305	16681	21584	15443
35°	20587	14517	20984	13517
40°	19557	12696	20073	11780
45°	18197	11036	18787	10404
50°	16338	9698	17058	9208
55°	14134	8564	15161	8131
60°	11887	7519	12962	7086
65°	9745	6649	10727	6164
70°	7755	5899	8684	5456
75°	6090	5448	6856	5012
80°	4396	5256	5179	4803
85°	2705	5286	3641	4858

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 180°

Vertical Angle: 45°

Luminance: 18787 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	262.5	3.7
10°-20°	752.8	10.7
20°-30°	1115.7	15.9
30°-40°	1239.5	17.7
40°-50°	1123.6	16.0
50°-60°	870.6	12.4
60°-70°	591.2	8.4
70°-80°	376.1	5.4
80°-90°	240.5	3.4
90°-100°	162.1	2.3
100°-110°	111.1	1.6
110°-120°	74.1	1.1
120°-130°	46.1	0.7
130°-140°	25.5	0.4
140°-150°	12.0	0.2
150°-160°	4.4	0.1
160°-170°	0.3	0.0
170°-180°	0.0	0.0
0°-30°	2131.0	30.4
0°-40°	3370.5	48.1
0°-60°	5364.7	76.6
0°-90°	6572.5	93.8
90°-120°	347.3	5.0
90°-150°	430.8	6.1
90°-180°	435.0	6.2
0°-180°	7008.0	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	2769	2769	2769	2769	2769	
5°	2786	2758	2786	2746	2786	265
15°	2687	2692	2699	2621	2687	758
25°	2477	2431	2504	2288	2477	1141
35°	2132	1858	2174	1730	2132	1330
45°	1642	1328	1695	1252	1642	1261
55°	1048	934	1124	886	1048	944
65°	544	628	599	582	544	545
75°	218	419	245	385	218	234
85°	40	302	53	277	40	47
90°	0	260	3	238	0	2
95°	2	222	0	207	2	1
105°	2	163	0	154	2	2
115°	2	123	0	114	2	1
125°	2	91	2	81	2	1
135°	2	64	2	52	2	1
145°	2	41	2	29	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

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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	2769.2	2769.2	2769.2	2769.2	2769.2	2769.2	2769.2	2769.2	2769.2	2769.2	2769.2
2.5°	2792.0	2789.0	2785.9	2781.3	2785.9	2798.1	2790.5	2773.7	2770.7	2743.3	2755.4
5°	2785.9	2781.3	2778.3	2773.7	2779.8	2795.0	2787.4	2772.2	2767.6	2741.7	2755.4
7.5°	2770.7	2767.6	2763.1	2763.1	2769.2	2784.4	2778.3	2761.5	2758.5	2732.6	2747.8
10°	2749.4	2747.8	2744.8	2744.8	2750.9	2769.2	2761.5	2746.3	2743.3	2718.9	2735.6
12.5°	2721.9	2723.5	2718.9	2718.9	2728.0	2746.3	2740.2	2723.5	2720.4	2699.1	2715.8
15°	2686.9	2688.4	2685.4	2686.9	2696.0	2717.4	2709.7	2694.5	2691.5	2674.7	2688.4
17.5°	2647.3	2648.8	2648.8	2647.3	2658.0	2679.3	2673.2	2659.5	2654.9	2641.2	2658.0
20°	2601.6	2601.6	2601.6	2601.6	2613.8	2635.1	2627.5	2616.8	2607.7	2597.0	2610.7
22.5°	2545.2	2543.7	2545.2	2549.8	2562.0	2578.8	2574.2	2562.0	2548.3	2542.2	2552.9
25°	2476.7	2481.3	2482.8	2487.4	2502.6	2516.3	2511.7	2499.5	2478.2	2473.7	2476.7
27.5°	2405.1	2408.2	2412.7	2411.2	2432.5	2446.2	2437.1	2426.4	2396.0	2391.4	2388.4
30°	2324.4	2329.0	2332.0	2330.5	2347.2	2362.5	2353.3	2339.6	2298.5	2295.4	2271.1
32.5°	2233.0	2237.6	2240.6	2240.6	2265.0	2271.1	2254.3	2234.5	2190.3	2179.7	2158.4
35°	2132.5	2137.0	2138.6	2138.6	2162.9	2161.4	2140.1	2112.7	2063.9	2050.2	2013.7
37.5°	2024.3	2027.4	2028.9	2038.0	2048.7	2039.5	2012.1	1977.1	1940.5	1902.5	1862.9
40°	1902.5	1907.0	1910.1	1916.2	1926.8	1916.2	1876.6	1833.9	1794.3	1751.7	1712.1
42.5°	1777.6	1791.3	1788.2	1786.7	1792.8	1763.9	1733.4	1684.6	1645.0	1600.9	1561.3
45°	1642.0	1640.5	1648.1	1651.1	1649.6	1625.2	1582.6	1538.4	1498.8	1453.1	1419.6
47.5°	1498.8	1497.3	1503.4	1506.4	1497.3	1471.4	1437.9	1387.6	1354.1	1314.5	1288.6
50°	1348.0	1348.0	1357.2	1348.0	1343.5	1317.6	1290.1	1239.9	1214.0	1178.9	1163.7
52.5°	1197.2	1210.9	1201.8	1198.7	1194.2	1168.3	1147.0	1105.8	1084.5	1069.3	1051.0
55°	1048.0	1063.2	1057.1	1052.5	1051.0	1029.7	1009.9	979.4	965.7	955.0	944.4
57.5°	921.5	920.0	917.0	912.4	913.9	897.2	877.4	860.6	854.5	849.9	853.0
60°	775.3	787.5	782.9	784.4	786.0	782.9	766.2	755.5	757.0	758.5	763.1
62.5°	655.0	665.6	673.2	667.2	670.2	674.8	665.6	662.6	668.7	674.8	680.9
65°	543.8	554.4	562.1	560.5	569.7	578.8	577.3	580.3	594.0	601.7	609.3
67.5°	443.2	453.9	464.6	466.1	479.8	493.5	499.6	510.3	525.5	536.2	545.3
70°	356.4	365.6	377.8	385.4	403.6	421.9	432.6	453.9	463.0	478.3	484.4
72.5°	278.7	286.4	303.1	321.4	336.6	359.5	380.8	399.1	412.8	429.5	437.2
75°	217.8	220.9	239.1	260.5	281.8	307.7	330.5	350.3	368.6	385.4	397.6
77.5°	159.9	164.5	181.3	210.2	234.6	262.0	287.9	309.2	329.0	345.8	362.5
80°	111.2	120.3	138.6	167.6	195.0	225.4	249.8	274.2	295.5	312.3	329.0
82.5°	71.6	79.2	105.1	134.0	163.0	193.4	219.3	243.7	266.6	284.8	300.1
85°	39.6	50.3	76.2	106.6	135.6	166.0	193.4	217.8	240.7	257.4	272.7
87.5°	15.2	30.5	54.8	83.8	112.7	141.7	170.6	193.4	216.3	234.6	248.3
90°	0.0	18.3	41.1	70.1	99.0	127.9	155.4	179.7	201.1	217.8	233.0
92.5°	1.5	12.2	32.0	56.4	83.8	111.2	137.1	161.5	182.8	199.5	213.2
95°	1.5	9.1	25.9	48.7	73.1	99.0	123.4	146.2	166.0	182.8	196.5
97.5°	1.5	6.1	21.3	42.6	64.0	89.9	112.7	134.0	152.3	169.1	179.7
100°	1.5	6.1	18.3	36.6	57.9	80.7	102.1	123.4	140.1	153.8	166.0
102.5°	1.5	4.6	15.2	32.0	51.8	71.6	92.9	112.7	127.9	141.7	153.8
105°	1.5	4.6	13.7	27.4	45.7	65.5	83.8	102.1	118.8	131.0	141.7
107.5°	1.5	3.0	12.2	22.8	39.6	59.4	77.7	92.9	108.1	120.3	131.0
110°	1.5	3.0	10.7	21.3	35.0	53.3	70.1	85.3	99.0	111.2	120.3

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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	1.5	3.0	9.1	19.8	32.0	47.2	64.0	77.7	91.4	102.1	111.2
115°	1.5	3.0	9.1	18.3	28.9	41.1	56.4	71.6	82.3	94.4	102.1
117.5°	1.5	3.0	7.6	15.2	27.4	38.1	51.8	64.0	76.2	86.8	94.4
120°	1.5	3.0	7.6	13.7	24.4	35.0	45.7	57.9	70.1	77.7	85.3
122.5°	1.5	3.0	6.1	13.7	21.3	32.0	41.1	51.8	62.5	71.6	79.2
125°	1.5	3.0	6.1	12.2	19.8	28.9	38.1	45.7	56.4	64.0	71.6
127.5°	1.5	3.0	6.1	10.7	18.3	25.9	35.0	42.6	50.3	57.9	64.0
130°	1.5	3.0	4.6	9.1	16.8	22.8	30.5	39.6	45.7	51.8	57.9
132.5°	1.5	3.0	4.6	9.1	13.7	19.8	27.4	35.0	41.1	47.2	51.8
135°	1.5	3.0	4.6	7.6	12.2	18.3	22.8	30.5	36.6	42.6	47.2
137.5°	1.5	3.0	4.6	7.6	10.7	15.2	19.8	25.9	32.0	36.6	42.6
140°	1.5	3.0	4.6	6.1	9.1	13.7	18.3	21.3	27.4	32.0	36.6
142.5°	1.5	3.0	4.6	6.1	9.1	12.2	15.2	18.3	22.8	27.4	32.0
145°	1.5	3.0	4.6	6.1	7.6	10.7	13.7	16.8	18.3	22.8	25.9
147.5°	1.5	3.0	4.6	6.1	6.1	9.1	12.2	13.7	16.8	18.3	21.3
150°	1.5	3.0	4.6	4.6	6.1	7.6	10.7	12.2	13.7	16.8	18.3
152.5°	1.5	3.0	4.6	4.6	6.1	7.6	9.1	10.7	12.2	13.7	15.2
155°	1.5	3.0	4.6	4.6	4.6	6.1	7.6	9.1	10.7	12.2	13.7
157.5°	3.0	3.0	3.0	4.6	4.6	6.1	6.1	7.6	9.1	9.1	10.7
160°	3.0	3.0	3.0	4.6	4.6	4.6	6.1	6.1	7.6	7.6	9.1
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

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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	2769.2	2769.2	2769.2	2769.2	2769.2	2769.2	2769.2	2769.2	2769.2	2769.2	2769.2
2.5°	2752.4	2757.0	2770.7	2770.7	2767.6	2764.6	2764.6	2760.0	2763.1	2769.2	2766.1
5°	2752.4	2757.0	2770.7	2770.7	2767.6	2764.6	2763.1	2758.5	2763.1	2769.2	2766.1
7.5°	2743.3	2749.4	2763.1	2763.1	2760.0	2758.5	2755.4	2752.4	2757.0	2763.1	2760.0
10°	2731.1	2737.2	2750.9	2750.9	2747.8	2747.8	2743.3	2740.2	2746.3	2750.9	2749.4
12.5°	2712.8	2720.4	2732.6	2731.1	2728.0	2729.6	2725.0	2718.9	2725.0	2729.6	2731.1
15°	2686.9	2696.0	2708.2	2705.2	2700.6	2703.7	2696.0	2691.5	2696.0	2705.2	2703.7
17.5°	2653.4	2659.5	2668.6	2668.6	2664.1	2661.0	2658.0	2653.4	2656.4	2662.5	2664.1
20°	2606.2	2613.8	2618.4	2613.8	2612.3	2607.7	2601.6	2597.0	2603.1	2612.3	2613.8
22.5°	2543.7	2545.2	2555.9	2545.2	2537.6	2536.1	2530.0	2520.9	2530.0	2537.6	2539.2
25°	2466.0	2473.7	2469.1	2450.8	2450.8	2438.6	2435.6	2431.0	2432.5	2446.2	2452.3
27.5°	2367.0	2370.1	2357.9	2342.7	2329.0	2321.3	2310.7	2312.2	2312.2	2330.5	2336.6
30°	2258.9	2242.1	2231.5	2207.1	2196.4	2178.2	2175.1	2175.1	2172.1	2181.2	2208.6
32.5°	2129.4	2106.6	2089.8	2067.0	2048.7	2030.4	2021.3	2025.8	2024.3	2047.2	2056.3
35°	1987.8	1974.1	1939.0	1910.1	1899.4	1872.0	1872.0	1858.3	1867.4	1893.3	1904.0
37.5°	1838.5	1817.2	1788.2	1756.2	1748.6	1727.3	1719.7	1712.1	1731.9	1736.4	1747.1
40°	1686.2	1666.4	1638.9	1608.5	1608.5	1582.6	1582.6	1582.6	1584.1	1593.3	1613.1
42.5°	1541.5	1520.1	1495.8	1474.4	1471.4	1451.6	1451.6	1450.1	1453.1	1460.7	1479.0
45°	1401.3	1384.6	1358.7	1348.0	1349.5	1328.2	1332.8	1328.2	1334.3	1341.9	1348.0
47.5°	1271.9	1261.2	1250.5	1235.3	1230.7	1229.2	1221.6	1215.5	1226.2	1226.2	1235.3
50°	1151.5	1145.4	1139.3	1130.2	1131.7	1125.6	1116.5	1116.5	1124.1	1125.6	1131.7
52.5°	1046.4	1038.8	1031.2	1032.7	1034.2	1031.2	1026.6	1022.1	1026.6	1029.7	1037.3
55°	941.3	935.2	942.9	939.8	942.9	939.8	936.8	933.7	941.3	936.8	944.4
57.5°	846.9	853.0	856.0	849.9	854.5	851.5	853.0	848.4	854.5	857.6	856.0
60°	760.1	769.2	764.6	766.2	772.3	769.2	763.1	767.7	773.8	775.3	773.8
62.5°	680.9	691.5	696.1	693.1	694.6	691.5	696.1	690.0	697.6	700.7	696.1
65°	609.3	621.5	624.5	624.5	624.5	621.5	626.0	627.6	630.6	630.6	627.6
67.5°	548.3	559.0	562.1	565.1	562.1	559.0	559.0	560.5	566.6	569.7	566.6
70°	493.5	504.2	505.7	505.7	507.2	510.3	504.2	507.2	511.8	513.3	511.8
72.5°	446.3	457.0	460.0	458.5	460.0	461.5	461.5	458.5	463.0	466.1	466.1
75°	408.2	414.3	417.4	417.4	418.9	420.4	420.4	418.9	421.9	423.4	425.0
77.5°	373.2	377.8	382.3	382.3	383.8	382.3	385.4	385.4	386.9	388.4	389.9
80°	338.1	344.2	347.3	348.8	351.9	353.4	353.4	353.4	354.9	356.4	356.4
82.5°	310.7	315.3	319.9	324.4	324.4	326.0	326.0	326.0	327.5	327.5	329.0
85°	283.3	289.4	294.0	297.0	298.5	300.1	300.1	301.6	301.6	301.6	303.1
87.5°	258.9	266.6	269.6	272.7	274.2	277.2	277.2	277.2	278.7	278.7	278.7
90°	242.2	249.8	252.8	255.9	257.4	258.9	258.9	260.5	260.5	262.0	262.0
92.5°	222.4	230.0	236.1	236.1	237.6	240.7	239.1	239.1	240.7	242.2	242.2
95°	207.2	213.2	217.8	219.3	220.9	220.9	220.9	222.4	220.9	222.4	222.4
97.5°	188.9	195.0	199.5	202.6	204.1	204.1	204.1	205.6	204.1	205.6	205.6
100°	173.6	179.7	184.3	185.8	188.9	188.9	188.9	188.9	188.9	188.9	190.4
102.5°	161.5	167.6	170.6	172.1	173.6	175.2	175.2	175.2	175.2	176.7	176.7
105°	149.3	155.4	158.4	159.9	161.5	163.0	163.0	163.0	164.5	164.5	163.0
107.5°	138.6	143.2	146.2	149.3	150.8	150.8	152.3	152.3	152.3	152.3	152.3
110°	127.9	132.5	137.1	140.1	140.1	141.7	141.7	143.2	143.2	141.7	143.2

TEST NUMBER: P1213534

CATALOG NUMBER: 4SNLED-LD5-78SL-LN-UNV-L935-CD1-U

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
112.5°	117.3	123.4	126.4	129.5	131.0	132.5	132.5	132.5	132.5	132.5	132.5
115°	108.1	114.2	117.3	120.3	121.9	123.4	123.4	123.4	123.4	123.4	123.4
117.5°	100.5	106.6	109.7	111.2	112.7	114.2	115.8	115.8	115.8	115.8	114.2
120°	92.9	97.5	100.5	103.6	105.1	106.6	106.6	106.6	106.6	106.6	106.6
122.5°	85.3	89.9	92.9	96.0	97.5	99.0	99.0	99.0	99.0	99.0	99.0
125°	77.7	82.3	85.3	88.3	89.9	91.4	91.4	91.4	91.4	91.4	91.4
127.5°	70.1	74.6	79.2	80.7	82.3	83.8	83.8	83.8	85.3	83.8	83.8
130°	62.5	67.0	71.6	73.1	74.6	76.2	77.7	77.7	77.7	77.7	76.2
132.5°	56.4	60.9	64.0	65.5	68.5	68.5	70.1	70.1	70.1	70.1	68.5
135°	51.8	54.8	57.9	59.4	62.5	62.5	62.5	64.0	64.0	62.5	60.9
137.5°	45.7	48.7	51.8	53.3	54.8	56.4	56.4	57.9	56.4	56.4	56.4
140°	42.6	44.2	47.2	48.7	50.3	50.3	50.3	51.8	51.8	50.3	50.3
142.5°	36.6	39.6	42.6	44.2	45.7	45.7	45.7	45.7	45.7	45.7	45.7
145°	30.5	35.0	36.6	39.6	39.6	41.1	41.1	41.1	41.1	41.1	39.6
147.5°	25.9	28.9	33.5	35.0	35.0	36.6	36.6	36.6	36.6	36.6	35.0
150°	19.8	22.8	27.4	30.5	30.5	32.0	32.0	32.0	32.0	30.5	30.5
152.5°	16.8	19.8	21.3	24.4	25.9	25.9	25.9	27.4	25.9	25.9	25.9
155°	15.2	16.8	18.3	19.8	21.3	22.8	22.8	22.8	22.8	21.3	21.3
157.5°	12.2	13.7	15.2	16.8	18.3	19.8	19.8	19.8	19.8	19.8	18.3
160°	9.1	10.7	12.2	12.2	13.7	15.2	16.8	15.2	15.2	15.2	15.2
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: P1213534

CATALOG NUMBER: 4SNLED-LD5-78SL-LN-UNV-L935-CD1-U

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	2769.2	2769.2	2769.2	2769.2	2769.2	2769.2	2769.2	2769.2	2769.2	2769.2	2769.2
2.5°	2763.1	2761.5	2766.1	2758.5	2735.6	2741.7	2738.7	2752.4	2755.4	2758.5	2772.2
5°	2763.1	2761.5	2764.6	2758.5	2734.1	2738.7	2735.6	2749.4	2752.4	2753.9	2767.6
7.5°	2757.0	2755.4	2760.0	2752.4	2726.5	2732.6	2728.0	2741.7	2743.3	2744.8	2757.0
10°	2744.8	2743.3	2746.3	2740.2	2714.3	2720.4	2714.3	2728.0	2728.0	2731.1	2740.2
12.5°	2726.5	2723.5	2729.6	2721.9	2693.0	2700.6	2697.6	2706.7	2708.2	2709.7	2718.9
15°	2700.6	2697.6	2702.1	2697.6	2671.7	2673.2	2668.6	2682.3	2683.9	2680.8	2689.9
17.5°	2662.5	2659.5	2668.6	2665.6	2639.7	2645.8	2644.3	2647.3	2651.9	2644.3	2656.4
20°	2615.3	2618.4	2621.4	2622.9	2603.1	2603.1	2601.6	2607.7	2612.3	2606.2	2615.3
22.5°	2545.2	2552.9	2562.0	2565.0	2551.3	2549.8	2559.0	2555.9	2560.5	2557.4	2563.5
25°	2456.9	2472.1	2481.3	2490.4	2482.8	2485.8	2499.5	2502.6	2502.6	2501.1	2507.2
27.5°	2347.2	2367.0	2383.8	2403.6	2396.0	2402.1	2424.9	2428.0	2434.1	2428.0	2440.1
30°	2216.2	2234.5	2266.5	2295.4	2298.5	2307.6	2339.6	2342.7	2359.4	2353.3	2357.9
32.5°	2085.2	2094.4	2130.9	2159.9	2178.2	2201.0	2236.0	2242.1	2265.0	2269.5	2269.5
35°	1920.7	1946.6	1980.1	2021.3	2044.1	2068.5	2115.7	2124.8	2158.4	2169.0	2181.2
37.5°	1782.1	1806.5	1827.8	1870.5	1911.6	1939.0	1977.1	1999.9	2035.0	2054.8	2070.0
40°	1634.4	1654.2	1677.0	1719.7	1754.7	1795.8	1833.9	1861.3	1905.5	1928.4	1948.2
42.5°	1494.2	1509.5	1533.8	1564.3	1600.9	1646.6	1683.1	1715.1	1762.3	1794.3	1817.2
45°	1369.3	1378.5	1399.8	1422.7	1454.6	1501.9	1536.9	1578.0	1616.1	1649.6	1677.0
47.5°	1252.1	1264.2	1274.9	1290.1	1319.1	1348.0	1389.1	1428.7	1466.8	1503.4	1530.8
50°	1143.9	1143.9	1160.7	1171.3	1191.1	1217.0	1249.0	1276.4	1323.6	1349.5	1384.6
52.5°	1038.8	1044.9	1054.0	1060.1	1075.4	1092.1	1118.0	1140.9	1180.5	1204.8	1238.4
55°	945.9	952.0	956.6	959.6	968.7	988.5	997.7	1016.0	1043.4	1063.2	1092.1
57.5°	857.6	860.6	865.2	866.7	868.2	880.4	888.0	892.6	920.0	939.8	964.2
60°	776.8	776.8	781.4	779.9	778.3	784.4	782.9	787.5	804.2	816.4	827.1
62.5°	700.7	700.7	702.2	699.1	697.6	697.6	691.5	696.1	700.7	702.2	709.8
65°	630.6	638.2	632.1	633.6	624.5	621.5	618.4	609.3	607.8	601.7	604.7
67.5°	568.1	574.2	568.1	568.1	560.5	554.4	546.8	531.6	527.0	514.8	511.8
70°	517.9	513.3	516.4	511.8	502.7	495.0	484.4	472.2	457.0	441.7	431.1
72.5°	469.1	469.1	466.1	461.5	457.0	441.7	429.5	415.8	397.6	377.8	362.5
75°	421.9	423.4	423.4	418.9	411.3	397.6	383.8	364.0	344.2	321.4	301.6
77.5°	388.4	388.4	388.4	380.8	373.2	361.0	344.2	322.9	301.6	274.2	251.3
80°	356.4	354.9	354.9	345.8	338.1	324.4	307.7	286.4	263.5	234.6	208.7
82.5°	330.5	329.0	326.0	318.3	307.7	294.0	277.2	254.4	230.0	204.1	172.1
85°	303.1	301.6	298.5	290.9	280.3	268.1	249.8	227.0	202.6	173.6	143.2
87.5°	278.7	277.2	272.7	268.1	255.9	242.2	223.9	202.6	176.7	149.3	118.8
90°	262.0	258.9	255.9	249.8	239.1	223.9	205.6	182.8	156.9	129.5	99.0
92.5°	242.2	240.7	236.1	230.0	220.9	205.6	187.4	166.0	140.1	114.2	85.3
95°	222.4	220.9	217.8	211.7	202.6	188.9	172.1	150.8	126.4	100.5	74.6
97.5°	204.1	204.1	199.5	195.0	184.3	173.6	156.9	137.1	114.2	91.4	67.0
100°	188.9	188.9	184.3	178.2	170.6	159.9	143.2	124.9	103.6	82.3	57.9
102.5°	175.2	173.6	170.6	164.5	156.9	146.2	131.0	114.2	94.4	73.1	51.8
105°	163.0	161.5	158.4	152.3	146.2	134.0	121.9	105.1	85.3	65.5	45.7
107.5°	150.8	149.3	147.7	141.7	134.0	123.4	111.2	94.4	77.7	59.4	41.1
110°	140.1	138.6	135.6	129.5	121.9	112.7	100.5	86.8	70.1	53.3	36.6

TEST NUMBER: P1213534

CATALOG NUMBER: 4SNLED-LD5-78SL-LN-UNV-L935-CD1-U

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
112.5°	131.0	129.5	126.4	120.3	114.2	103.6	92.9	77.7	64.0	48.7	32.0
115°	121.9	120.3	117.3	111.2	103.6	94.4	83.8	71.6	56.4	42.6	28.9
117.5°	112.7	111.2	108.1	103.6	96.0	86.8	76.2	64.0	50.3	39.6	25.9
120°	105.1	102.1	99.0	94.4	86.8	79.2	68.5	57.9	45.7	35.0	22.8
122.5°	97.5	94.4	91.4	86.8	79.2	71.6	60.9	51.8	42.6	32.0	21.3
125°	88.3	86.8	83.8	79.2	71.6	64.0	56.4	47.2	38.1	28.9	18.3
127.5°	80.7	79.2	76.2	70.1	64.0	57.9	50.3	42.6	33.5	24.4	16.8
130°	74.6	71.6	68.5	64.0	59.4	53.3	45.7	38.1	30.5	21.3	15.2
132.5°	67.0	64.0	60.9	57.9	53.3	47.2	41.1	33.5	27.4	19.8	13.7
135°	60.9	57.9	54.8	51.8	47.2	42.6	36.6	30.5	24.4	18.3	12.2
137.5°	53.3	51.8	50.3	47.2	42.6	38.1	33.5	25.9	21.3	16.8	10.7
140°	48.7	47.2	45.7	41.1	38.1	33.5	28.9	22.8	18.3	13.7	9.1
142.5°	44.2	42.6	39.6	36.6	33.5	30.5	24.4	21.3	16.8	12.2	9.1
145°	38.1	36.6	35.0	32.0	28.9	24.4	21.3	18.3	15.2	10.7	7.6
147.5°	35.0	33.5	30.5	27.4	24.4	21.3	19.8	16.8	12.2	9.1	6.1
150°	28.9	27.4	25.9	22.8	21.3	19.8	16.8	13.7	10.7	7.6	6.1
152.5°	24.4	22.8	21.3	21.3	18.3	16.8	13.7	12.2	9.1	7.6	4.6
155°	21.3	21.3	19.8	18.3	15.2	13.7	12.2	9.1	7.6	6.1	4.6
157.5°	18.3	16.8	15.2	15.2	13.7	12.2	9.1	7.6	6.1	6.1	4.6
160°	15.2	13.7	13.7	12.2	10.7	9.1	7.6	7.6	6.1	4.6	4.6
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: P1213534

CATALOG NUMBER: 4SNLED-LD5-78SL-LN-UNV-L935-CD1-U

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
0°	2769.2	2769.2	2769.2	2769.2	2769.2	2769.2	2769.2	2769.2	2769.2	2769.2	2769.2
2.5°	2773.7	2757.0	2772.2	2792.0	2792.0	2789.0	2785.9	2792.0	2807.2	2801.1	2782.9
5°	2769.2	2752.4	2766.1	2785.9	2785.9	2781.3	2778.3	2782.9	2799.6	2792.0	2775.2
7.5°	2760.0	2744.8	2753.9	2772.2	2772.2	2767.6	2764.6	2770.7	2784.4	2776.8	2758.5
10°	2743.3	2726.5	2737.2	2753.9	2752.4	2749.4	2744.8	2752.4	2764.6	2753.9	2732.6
12.5°	2721.9	2705.2	2714.3	2729.6	2728.0	2721.9	2718.9	2723.5	2734.1	2728.0	2705.2
15°	2693.0	2676.2	2683.9	2699.1	2694.5	2689.9	2683.9	2685.4	2699.1	2688.4	2664.1
17.5°	2658.0	2639.7	2645.8	2659.5	2654.9	2650.3	2642.7	2644.3	2659.5	2644.3	2618.4
20°	2615.3	2595.5	2600.1	2616.8	2609.2	2601.6	2594.0	2594.0	2609.2	2592.5	2563.5
22.5°	2569.6	2549.8	2552.9	2565.0	2559.0	2545.2	2537.6	2542.2	2549.8	2528.5	2498.0
25°	2513.3	2487.4	2491.9	2504.1	2499.5	2481.3	2473.7	2476.7	2473.7	2456.9	2424.9
27.5°	2447.8	2420.3	2423.4	2431.0	2424.9	2408.2	2399.0	2400.5	2394.4	2373.1	2336.6
30°	2365.5	2351.8	2350.3	2354.8	2345.7	2329.0	2318.3	2315.2	2313.7	2283.3	2239.1
32.5°	2281.7	2269.5	2261.9	2268.0	2257.4	2240.6	2222.3	2222.3	2207.1	2178.2	2140.1
35°	2196.4	2176.6	2169.0	2173.6	2161.4	2140.1	2124.8	2117.2	2094.4	2057.8	2016.7
37.5°	2086.8	2073.1	2063.9	2068.5	2054.8	2039.5	2010.6	2003.0	1978.6	1928.4	1876.6
40°	1968.0	1957.3	1948.2	1952.7	1937.5	1914.6	1888.8	1876.6	1849.1	1792.8	1751.7
42.5°	1840.0	1835.4	1824.8	1841.5	1811.1	1788.2	1762.3	1742.5	1715.1	1654.2	1607.0
45°	1704.4	1715.1	1690.7	1695.3	1675.5	1655.7	1628.3	1599.3	1571.9	1514.0	1460.7
47.5°	1561.3	1568.9	1552.1	1555.2	1533.8	1515.6	1491.2	1454.6	1424.2	1373.9	1326.7
50°	1413.5	1410.5	1410.5	1407.4	1390.7	1367.8	1343.5	1309.9	1279.5	1233.8	1194.2
52.5°	1256.6	1262.7	1265.8	1273.4	1252.1	1238.4	1200.3	1171.3	1148.5	1101.3	1067.8
55°	1105.8	1127.2	1121.1	1124.1	1099.7	1089.1	1058.6	1035.8	1002.3	974.8	953.5
57.5°	968.7	973.3	976.4	980.9	970.3	948.9	924.6	906.3	880.4	857.6	842.3
60°	836.2	836.2	837.8	845.4	834.7	816.4	798.1	784.4	766.2	752.5	743.3
62.5°	711.3	722.0	723.5	717.4	703.7	694.6	682.4	674.8	662.6	658.0	655.0
65°	595.6	595.6	595.6	598.6	591.0	584.9	577.3	575.8	580.3	574.2	577.3
67.5°	498.1	493.5	490.5	492.0	488.9	485.9	484.4	488.9	498.1	498.1	505.7
70°	414.3	405.2	399.1	399.1	399.1	400.6	405.2	414.3	429.5	435.6	446.3
72.5°	345.8	326.0	316.8	316.8	318.3	324.4	338.1	354.9	368.6	380.8	394.5
75°	280.3	260.5	246.8	245.2	248.3	257.4	277.2	292.5	315.3	332.1	348.8
77.5°	227.0	202.6	185.8	184.3	188.9	202.6	227.0	246.8	272.7	290.9	309.2
80°	181.3	153.8	140.1	131.0	138.6	155.4	182.8	207.2	231.5	255.9	278.7
82.5°	144.7	118.8	97.5	88.3	97.5	120.3	146.2	175.2	199.5	225.4	248.3
85°	114.2	86.8	62.5	53.3	64.0	88.3	117.3	146.2	173.6	199.5	222.4
87.5°	89.9	62.5	38.1	25.9	39.6	65.5	92.9	121.9	150.8	176.7	199.5
90°	70.1	44.2	21.3	3.0	22.8	47.2	74.6	102.1	131.0	156.9	179.7
92.5°	59.4	33.5	12.2	0.0	13.7	35.0	60.9	88.3	114.2	140.1	163.0
95°	50.3	27.4	9.1	0.0	9.1	27.4	50.3	74.6	100.5	126.4	149.3
97.5°	42.6	21.3	6.1	0.0	6.1	21.3	41.1	65.5	88.3	112.7	134.0
100°	36.6	18.3	4.6	0.0	4.6	16.8	35.0	56.4	79.2	102.1	121.9
102.5°	32.0	15.2	3.0	0.0	3.0	13.7	28.9	48.7	68.5	89.9	109.7
105°	27.4	12.2	3.0	0.0	1.5	10.7	24.4	42.6	60.9	80.7	99.0
107.5°	24.4	10.7	3.0	0.0	1.5	9.1	21.3	36.6	54.8	71.6	88.3
110°	21.3	9.1	3.0	0.0	1.5	6.1	18.3	32.0	47.2	64.0	80.7

TEST NUMBER: P1213534

CATALOG NUMBER: 4SNLED-LD5-78SL-LN-UNV-L935-CD1-U

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
112.5°	18.3	7.6	1.5	0.0	0.0	4.6	15.2	27.4	41.1	57.9	71.6
115°	16.8	7.6	1.5	0.0	0.0	3.0	12.2	24.4	36.6	51.8	64.0
117.5°	15.2	6.1	1.5	0.0	1.5	3.0	10.7	21.3	32.0	44.2	57.9
120°	13.7	6.1	1.5	0.0	1.5	1.5	7.6	18.3	27.4	39.6	50.3
122.5°	12.2	6.1	1.5	0.0	1.5	1.5	6.1	15.2	24.4	35.0	44.2
125°	10.7	4.6	3.0	1.5	1.5	1.5	4.6	12.2	21.3	28.9	39.6
127.5°	10.7	4.6	3.0	1.5	1.5	1.5	3.0	10.7	16.8	25.9	35.0
130°	9.1	4.6	3.0	1.5	1.5	1.5	1.5	7.6	15.2	21.3	28.9
132.5°	7.6	4.6	3.0	1.5	1.5	1.5	1.5	4.6	10.7	18.3	24.4
135°	7.6	4.6	3.0	1.5	1.5	1.5	1.5	3.0	7.6	13.7	19.8
137.5°	6.1	3.0	3.0	1.5	1.5	1.5	1.5	1.5	6.1	10.7	15.2
140°	6.1	3.0	3.0	1.5	1.5	1.5	1.5	1.5	4.6	7.6	12.2
142.5°	4.6	3.0	3.0	1.5	1.5	1.5	1.5	1.5	3.0	6.1	9.1
145°	4.6	3.0	3.0	1.5	1.5	1.5	1.5	1.5	1.5	3.0	6.1
147.5°	4.6	4.6	3.0	1.5	1.5	1.5	1.5	1.5	1.5	3.0	4.6
150°	4.6	3.0	3.0	1.5	1.5	1.5	1.5	1.5	1.5	1.5	3.0
152.5°	4.6	3.0	3.0	1.5	1.5	1.5	1.5	1.5	1.5	1.5	3.0
155°	4.6	3.0	3.0	1.5	1.5	1.5	1.5	1.5	1.5	3.0	3.0
157.5°	4.6	3.0	3.0	1.5	1.5	1.5	1.5	1.5	1.5	1.5	3.0
160°	4.6	3.0	3.0	1.5	3.0	1.5	3.0	3.0	3.0	3.0	3.0
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: P1213534

CATALOG NUMBER: 4SNLED-LD5-78SL-LN-UNV-L935-CD1-U

CANDELA DISTRIBUTION (continued):

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
0°	2769.2	2769.2	2769.2	2769.2	2769.2	2769.2	2769.2	2769.2	2769.2	2769.2	2769.2
2.5°	2776.8	2747.8	2763.1	2758.5	2764.6	2776.8	2775.2	2772.2	2772.2	2767.6	2761.5
5°	2767.6	2740.2	2753.9	2746.3	2753.9	2764.6	2763.1	2758.5	2761.5	2753.9	2746.3
7.5°	2749.4	2725.0	2737.2	2731.1	2737.2	2747.8	2743.3	2741.7	2744.8	2732.6	2728.0
10°	2728.0	2700.6	2714.3	2706.7	2714.3	2721.9	2718.9	2712.8	2718.9	2706.7	2702.1
12.5°	2694.5	2671.7	2680.8	2677.8	2682.3	2689.9	2683.9	2679.3	2682.3	2671.7	2662.5
15°	2658.0	2635.1	2642.7	2638.2	2641.2	2650.3	2639.7	2638.2	2635.1	2624.5	2621.4
17.5°	2610.7	2589.4	2597.0	2589.4	2594.0	2590.9	2589.4	2581.8	2581.8	2569.6	2560.5
20°	2552.9	2534.6	2530.0	2523.9	2530.0	2523.9	2514.8	2508.7	2507.2	2495.0	2487.4
22.5°	2485.8	2464.5	2467.6	2450.8	2452.3	2443.2	2428.0	2421.9	2415.8	2402.1	2391.4
25°	2405.1	2383.8	2368.6	2357.9	2344.2	2342.7	2322.9	2307.6	2306.1	2289.3	2287.8
27.5°	2313.7	2289.3	2277.2	2251.3	2234.5	2220.8	2204.1	2188.8	2181.2	2162.9	2150.7
30°	2208.6	2181.2	2150.7	2132.5	2106.6	2095.9	2067.0	2048.7	2042.6	2022.8	2013.7
32.5°	2089.8	2060.9	2036.5	2001.5	1972.5	1957.3	1928.4	1910.1	1902.5	1881.1	1869.0
35°	1960.3	1928.4	1899.4	1865.9	1843.1	1817.2	1782.1	1763.9	1747.1	1739.5	1730.3
37.5°	1824.8	1789.7	1756.2	1722.7	1702.9	1672.5	1642.0	1629.8	1610.0	1602.4	1593.3
40°	1684.6	1649.6	1617.6	1585.6	1562.8	1535.4	1508.0	1503.4	1482.1	1474.4	1468.4
42.5°	1546.0	1509.5	1472.9	1450.1	1433.3	1405.9	1387.6	1383.1	1364.8	1360.2	1360.2
45°	1421.1	1375.4	1345.0	1325.2	1311.5	1288.6	1273.4	1270.3	1255.1	1252.1	1252.1
47.5°	1287.1	1244.4	1221.6	1209.4	1197.2	1180.5	1171.3	1171.3	1156.1	1153.1	1151.5
50°	1162.2	1122.6	1105.8	1093.6	1092.1	1079.9	1072.3	1069.3	1069.3	1058.6	1060.1
52.5°	1043.4	1023.6	1009.9	1002.3	993.1	985.5	979.4	979.4	974.8	967.2	970.3
55°	933.7	910.9	912.4	906.3	901.7	897.2	898.7	889.5	888.0	881.9	886.5
57.5°	824.0	824.0	821.0	816.4	808.8	811.9	811.9	811.9	804.2	799.7	804.2
60°	731.1	735.7	728.1	732.7	729.6	731.1	728.1	728.1	723.5	722.0	723.5
62.5°	648.9	656.5	653.4	659.5	656.5	658.0	661.1	655.0	651.9	648.9	651.9
65°	575.8	584.9	583.4	588.0	589.5	591.0	592.5	589.5	586.4	583.4	581.9
67.5°	511.8	520.9	527.0	528.5	530.1	534.6	533.1	530.1	527.0	522.5	520.9
70°	453.9	466.1	473.7	476.8	482.9	479.8	479.8	478.3	475.2	470.7	469.1
72.5°	405.2	418.9	426.5	429.5	435.6	435.6	434.1	432.6	429.5	425.0	423.4
75°	362.5	374.7	385.4	391.5	396.0	396.0	394.5	393.0	389.9	386.9	385.4
77.5°	329.0	339.7	348.8	356.4	359.5	361.0	359.5	356.4	356.4	354.9	353.4
80°	295.5	307.7	316.8	324.4	329.0	329.0	327.5	329.0	326.0	324.4	322.9
82.5°	266.6	280.3	290.9	298.5	301.6	303.1	301.6	303.1	300.1	300.1	300.1
85°	240.7	254.4	266.6	272.7	277.2	278.7	278.7	278.7	277.2	277.2	277.2
87.5°	219.3	233.0	245.2	251.3	255.9	257.4	257.4	258.9	255.9	255.9	255.9
90°	199.5	213.2	225.4	231.5	236.1	239.1	239.1	240.7	239.1	237.6	237.6
92.5°	181.3	196.5	208.7	214.8	219.3	223.9	223.9	225.4	222.4	222.4	222.4
95°	166.0	181.3	191.9	199.5	204.1	207.2	208.7	208.7	207.2	207.2	207.2
97.5°	152.3	166.0	176.7	184.3	188.9	190.4	191.9	193.4	191.9	191.9	191.9
100°	138.6	152.3	163.0	169.1	175.2	176.7	178.2	179.7	179.7	178.2	178.2
102.5°	126.4	140.1	149.3	156.9	161.5	164.5	166.0	166.0	166.0	166.0	166.0
105°	114.2	127.9	137.1	144.7	149.3	152.3	153.8	155.4	155.4	153.8	153.8
107.5°	103.6	115.8	126.4	132.5	138.6	141.7	143.2	143.2	144.7	143.2	143.2
110°	92.9	106.6	115.8	121.9	127.9	131.0	132.5	134.0	134.0	134.0	134.0



TEST NUMBER: P1213534

CATALOG NUMBER: 4SNLED-LD5-78SL-LN-UNV-L935-CD1-U

CANDELA DISTRIBUTION (continued):

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
112.5°	85.3	96.0	105.1	111.2	117.3	120.3	121.9	123.4	124.9	123.4	123.4
115°	76.2	86.8	96.0	102.1	106.6	109.7	112.7	114.2	114.2	115.8	114.2
117.5°	68.5	77.7	86.8	92.9	97.5	102.1	103.6	105.1	106.6	105.1	105.1
120°	60.9	70.1	77.7	83.8	88.3	92.9	94.4	96.0	97.5	96.0	96.0
122.5°	54.8	62.5	70.1	76.2	80.7	83.8	86.8	86.8	88.3	88.3	88.3
125°	48.7	56.4	62.5	68.5	73.1	76.2	77.7	79.2	79.2	80.7	80.7
127.5°	42.6	48.7	56.4	60.9	65.5	68.5	70.1	71.6	71.6	73.1	73.1
130°	36.6	42.6	48.7	53.3	57.9	60.9	62.5	64.0	65.5	65.5	65.5
132.5°	32.0	38.1	42.6	47.2	50.3	53.3	56.4	57.9	57.9	57.9	57.9
135°	25.9	32.0	36.6	41.1	44.2	47.2	48.7	51.8	51.8	51.8	51.8
137.5°	21.3	27.4	32.0	35.0	38.1	41.1	42.6	44.2	45.7	45.7	45.7
140°	16.8	21.3	25.9	30.5	33.5	35.0	38.1	38.1	39.6	39.6	39.6
142.5°	12.2	16.8	19.8	24.4	27.4	30.5	32.0	33.5	33.5	33.5	33.5
145°	9.1	12.2	15.2	18.3	22.8	24.4	25.9	27.4	28.9	28.9	28.9
147.5°	6.1	9.1	10.7	13.7	16.8	19.8	21.3	22.8	24.4	24.4	24.4
150°	4.6	6.1	9.1	10.7	12.2	15.2	18.3	18.3	19.8	19.8	18.3
152.5°	3.0	4.6	6.1	7.6	9.1	10.7	13.7	13.7	15.2	15.2	15.2
155°	3.0	3.0	3.0	4.6	6.1	7.6	9.1	10.7	10.7	10.7	10.7
157.5°	3.0	3.0	3.0	3.0	3.0	4.6	6.1	7.6	7.6	7.6	7.6
160°	3.0	3.0	1.5	1.5	3.0	3.0	3.0	3.0	4.6	4.6	4.6
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: P1213534

CATALOG NUMBER: 4SNLED-LD5-78SL-LN-UNV-L935-CD1-U

CANDELA DISTRIBUTION (continued):

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°
0°	2769.2	2769.2	2769.2	2769.2	2769.2	2769.2	2769.2	2769.2	2769.2	2769.2	2769.2
2.5°	2766.1	2769.2	2769.2	2766.1	2764.6	2770.7	2763.1	2734.1	2743.3	2746.3	2755.4
5°	2752.4	2755.4	2755.4	2755.4	2752.4	2758.5	2750.9	2721.9	2732.6	2737.2	2743.3
7.5°	2732.6	2734.1	2737.2	2735.6	2732.6	2741.7	2734.1	2705.2	2712.8	2720.4	2728.0
10°	2706.7	2706.7	2708.2	2711.3	2708.2	2715.8	2708.2	2682.3	2689.9	2694.5	2703.7
12.5°	2671.7	2674.7	2676.2	2674.7	2673.2	2679.3	2676.2	2651.9	2654.9	2664.1	2673.2
15°	2624.5	2624.5	2632.1	2629.0	2629.0	2635.1	2638.2	2610.7	2615.3	2629.0	2638.2
17.5°	2566.6	2568.1	2574.2	2577.2	2575.7	2586.4	2587.9	2566.6	2565.0	2581.8	2590.9
20°	2491.9	2495.0	2502.6	2508.7	2508.7	2520.9	2525.4	2511.7	2513.3	2531.5	2534.6
22.5°	2400.5	2400.5	2414.3	2423.4	2431.0	2438.6	2452.3	2440.1	2440.1	2464.5	2478.2
25°	2287.8	2298.5	2303.1	2321.3	2332.0	2353.3	2365.5	2367.0	2368.6	2391.4	2400.5
27.5°	2162.9	2166.0	2179.7	2201.0	2213.2	2233.0	2255.8	2260.4	2268.0	2298.5	2312.2
30°	2021.3	2030.4	2036.5	2067.0	2083.7	2109.6	2138.6	2149.2	2155.3	2196.4	2213.2
32.5°	1876.6	1879.6	1905.5	1922.3	1942.1	1969.5	2003.0	2022.8	2035.0	2077.6	2102.0
35°	1731.9	1738.0	1759.3	1780.6	1800.4	1827.8	1862.9	1890.3	1911.6	1949.7	1981.7
37.5°	1599.3	1614.6	1619.1	1640.5	1655.7	1683.1	1707.5	1747.1	1768.4	1808.0	1849.1
40°	1480.5	1485.1	1488.2	1509.5	1520.1	1546.0	1581.1	1607.0	1635.9	1664.8	1713.6
42.5°	1363.3	1366.3	1370.9	1383.1	1395.2	1413.5	1439.4	1465.3	1495.8	1538.4	1570.4
45°	1255.1	1258.2	1261.2	1268.8	1279.5	1296.2	1313.0	1331.3	1361.7	1398.3	1431.8
47.5°	1154.6	1160.7	1160.7	1162.2	1169.8	1183.5	1195.7	1218.5	1235.3	1255.1	1293.2
50°	1058.6	1063.2	1064.7	1064.7	1069.3	1078.4	1081.5	1096.7	1111.9	1130.2	1157.6
52.5°	968.7	968.7	967.2	973.3	973.3	979.4	980.9	990.1	1000.7	1020.5	1032.7
55°	883.4	883.4	888.0	885.0	885.0	888.0	886.5	888.0	897.2	909.3	920.0
57.5°	801.2	799.7	804.2	801.2	799.7	802.7	805.8	799.7	801.2	813.4	813.4
60°	718.9	720.5	725.0	722.0	722.0	722.0	718.9	715.9	712.9	720.5	723.5
62.5°	653.4	648.9	653.4	648.9	651.9	650.4	647.4	641.3	642.8	639.7	636.7
65°	584.9	584.9	586.4	581.9	584.9	584.9	580.3	578.8	569.7	566.6	559.0
67.5°	525.5	525.5	527.0	524.0	524.0	525.5	520.9	516.4	507.2	502.7	492.0
70°	473.7	473.7	473.7	472.2	472.2	472.2	469.1	463.0	453.9	446.3	432.6
72.5°	426.5	428.0	426.5	426.5	431.1	426.5	421.9	415.8	408.2	393.0	380.8
75°	388.4	389.9	388.4	388.4	388.4	386.9	385.4	376.2	367.1	354.9	336.6
77.5°	354.9	354.9	356.4	354.9	354.9	353.4	348.8	341.2	330.5	319.9	298.5
80°	322.9	324.4	326.0	327.5	324.4	322.9	318.3	312.3	298.5	286.4	265.0
82.5°	300.1	298.5	300.1	301.6	298.5	297.0	292.5	284.8	274.2	257.4	236.1
85°	277.2	275.7	275.7	277.2	275.7	272.7	268.1	260.5	249.8	233.0	211.7
87.5°	254.4	255.9	257.4	255.9	254.4	251.3	246.8	239.1	227.0	213.2	190.4
90°	237.6	237.6	237.6	237.6	236.1	233.0	228.5	219.3	208.7	191.9	172.1
92.5°	222.4	222.4	222.4	222.4	220.9	216.3	211.7	204.1	191.9	175.2	156.9
95°	207.2	208.7	207.2	207.2	204.1	202.6	195.0	187.4	176.7	159.9	140.1
97.5°	190.4	191.9	190.4	190.4	188.9	185.8	181.3	172.1	161.5	146.2	127.9
100°	178.2	178.2	176.7	176.7	175.2	172.1	166.0	158.4	147.7	132.5	114.2
102.5°	164.5	166.0	164.5	164.5	161.5	158.4	153.8	146.2	135.6	120.3	103.6
105°	153.8	153.8	152.3	152.3	149.3	146.2	141.7	132.5	123.4	109.7	92.9
107.5°	143.2	143.2	141.7	141.7	138.6	135.6	129.5	121.9	112.7	99.0	83.8
110°	132.5	132.5	132.5	131.0	127.9	123.4	118.8	111.2	102.1	89.9	74.6

TEST NUMBER: P1213534

CATALOG NUMBER: 4SNLED-LD5-78SL-LN-UNV-L935-CD1-U

CANDELA DISTRIBUTION (continued):

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°
112.5°	124.9	123.4	121.9	120.3	117.3	114.2	108.1	100.5	91.4	80.7	67.0
115°	114.2	114.2	112.7	111.2	108.1	103.6	99.0	92.9	83.8	71.6	59.4
117.5°	105.1	105.1	103.6	102.1	99.0	94.4	89.9	83.8	74.6	64.0	53.3
120°	96.0	96.0	94.4	92.9	89.9	85.3	82.3	74.6	67.0	56.4	47.2
122.5°	88.3	86.8	86.8	83.8	82.3	77.7	73.1	67.0	59.4	50.3	41.1
125°	79.2	79.2	77.7	76.2	74.6	70.1	65.5	59.4	51.8	44.2	36.6
127.5°	71.6	71.6	70.1	68.5	67.0	62.5	57.9	53.3	45.7	38.1	30.5
130°	64.0	64.0	62.5	60.9	59.4	54.8	51.8	45.7	39.6	33.5	25.9
132.5°	57.9	57.9	56.4	54.8	51.8	48.7	45.7	39.6	35.0	28.9	22.8
135°	51.8	50.3	50.3	48.7	45.7	42.6	39.6	35.0	28.9	24.4	18.3
137.5°	45.7	44.2	42.6	41.1	39.6	36.6	33.5	30.5	25.9	19.8	15.2
140°	39.6	38.1	38.1	36.6	33.5	32.0	28.9	24.4	21.3	16.8	12.2
142.5°	33.5	33.5	32.0	30.5	28.9	27.4	24.4	21.3	16.8	13.7	9.1
145°	28.9	27.4	27.4	25.9	24.4	21.3	19.8	16.8	13.7	10.7	7.6
147.5°	22.8	22.8	22.8	21.3	19.8	18.3	16.8	13.7	10.7	7.6	4.6
150°	18.3	18.3	18.3	16.8	15.2	13.7	12.2	10.7	7.6	4.6	3.0
152.5°	15.2	15.2	13.7	13.7	12.2	10.7	9.1	7.6	4.6	3.0	3.0
155°	10.7	10.7	10.7	9.1	9.1	7.6	6.1	4.6	3.0	3.0	3.0
157.5°	7.6	7.6	7.6	6.1	6.1	4.6	4.6	3.0	3.0	3.0	3.0
160°	4.6	4.6	4.6	4.6	3.0	3.0	3.0	3.0	3.0	3.0	3.0
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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CATALOG NUMBER: 4SNLED-LD5-78SL-LN-UNV-L935-CD1-U

CANDELA DISTRIBUTION (continued):

	330°	335°	340°	345°	350°	355°	360°
0°	2769.2	2769.2	2769.2	2769.2	2769.2	2769.2	2769.2
2.5°	2750.9	2749.4	2761.5	2761.5	2747.8	2769.2	2792.0
5°	2741.7	2740.2	2752.4	2752.4	2740.2	2761.5	2785.9
7.5°	2723.5	2725.0	2737.2	2740.2	2725.0	2744.8	2770.7
10°	2703.7	2702.1	2715.8	2718.9	2706.7	2725.0	2749.4
12.5°	2671.7	2671.7	2685.4	2689.9	2677.8	2699.1	2721.9
15°	2638.2	2638.2	2647.3	2654.9	2644.3	2664.1	2686.9
17.5°	2595.5	2594.0	2603.1	2612.3	2601.6	2622.9	2647.3
20°	2540.7	2540.7	2551.3	2562.0	2554.4	2574.2	2601.6
22.5°	2482.8	2476.7	2495.0	2502.6	2498.0	2517.8	2545.2
25°	2409.7	2408.2	2426.4	2437.1	2431.0	2452.3	2476.7
27.5°	2330.5	2329.0	2347.2	2360.9	2357.9	2377.7	2405.1
30°	2234.5	2242.1	2258.9	2281.7	2274.1	2295.4	2324.4
32.5°	2134.0	2141.6	2161.4	2185.8	2187.3	2204.1	2233.0
35°	2013.7	2033.5	2047.2	2079.2	2085.2	2102.0	2132.5
37.5°	1887.2	1910.1	1939.0	1963.4	1975.6	1989.3	2024.3
40°	1745.6	1779.1	1811.1	1840.0	1855.2	1869.0	1902.5
42.5°	1617.6	1643.5	1674.0	1702.9	1730.3	1742.5	1777.6
45°	1472.9	1503.4	1530.8	1565.8	1593.3	1607.0	1642.0
47.5°	1331.3	1361.7	1398.3	1422.7	1451.6	1465.3	1498.8
50°	1195.7	1223.1	1253.6	1282.5	1306.9	1319.1	1348.0
52.5°	1061.7	1090.6	1119.5	1137.8	1163.7	1172.9	1197.2
55°	942.9	962.7	988.5	999.2	1025.1	1031.2	1048.0
57.5°	828.6	842.3	851.5	869.7	888.0	901.7	921.5
60°	725.0	731.1	737.2	747.9	763.1	767.7	775.3
62.5°	632.1	630.6	642.8	645.8	647.4	662.6	655.0
65°	549.9	551.4	540.7	536.2	542.3	546.8	543.8
67.5°	481.3	472.2	463.0	452.4	443.2	447.8	443.2
70°	414.3	406.7	391.5	376.2	370.1	361.0	356.4
72.5°	361.0	342.7	327.5	307.7	297.0	286.4	278.7
75°	319.9	294.0	272.7	251.3	236.1	220.9	217.8
77.5°	277.2	252.8	228.5	205.6	182.8	166.0	159.9
80°	243.7	220.9	191.9	164.5	140.1	118.8	111.2
82.5°	213.2	188.9	159.9	131.0	103.6	80.7	71.6
85°	187.4	161.5	132.5	103.6	76.2	51.8	39.6
87.5°	167.6	138.6	109.7	82.3	53.3	28.9	15.2
90°	149.3	121.9	94.4	65.5	38.1	15.2	0.0
92.5°	132.5	106.6	79.2	53.3	28.9	9.1	1.5
95°	117.3	94.4	67.0	42.6	21.3	6.1	1.5
97.5°	105.1	82.3	57.9	35.0	16.8	4.6	1.5
100°	94.4	71.6	50.3	28.9	13.7	3.0	1.5
102.5°	83.8	64.0	42.6	24.4	10.7	1.5	1.5
105°	74.6	56.4	36.6	21.3	9.1	1.5	1.5
107.5°	67.0	50.3	32.0	18.3	6.1	1.5	1.5
110°	59.4	42.6	27.4	15.2	4.6	1.5	1.5



TEST NUMBER: P1213534

CATALOG NUMBER: 4SNLED-LD5-78SL-LN-UNV-L935-CD1-U

CANDELA DISTRIBUTION (continued):

	330°	335°	340°	345°	350°	355°	360°
112.5°	53.3	38.1	24.4	12.2	3.0	1.5	1.5
115°	47.2	33.5	21.3	10.7	3.0	1.5	1.5
117.5°	41.1	28.9	18.3	7.6	1.5	1.5	1.5
120°	36.6	25.9	15.2	6.1	1.5	1.5	1.5
122.5°	32.0	21.3	12.2	4.6	1.5	1.5	1.5
125°	27.4	18.3	10.7	3.0	1.5	1.5	1.5
127.5°	22.8	15.2	7.6	3.0	1.5	1.5	1.5
130°	19.8	12.2	6.1	1.5	1.5	1.5	1.5
132.5°	16.8	9.1	4.6	1.5	1.5	1.5	1.5
135°	13.7	7.6	3.0	1.5	1.5	1.5	1.5
137.5°	10.7	6.1	3.0	1.5	1.5	1.5	1.5
140°	7.6	4.6	1.5	1.5	1.5	1.5	1.5
142.5°	6.1	3.0	1.5	1.5	1.5	1.5	1.5
145°	4.6	3.0	1.5	1.5	1.5	1.5	1.5
147.5°	3.0	3.0	3.0	3.0	1.5	1.5	1.5
150°	3.0	3.0	1.5	1.5	3.0	1.5	1.5
152.5°	3.0	1.5	1.5	1.5	3.0	1.5	1.5
155°	3.0	3.0	3.0	3.0	3.0	3.0	1.5
157.5°	3.0	3.0	3.0	3.0	3.0	3.0	3.0
160°	3.0	3.0	3.0	3.0	3.0	3.0	3.0
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)