

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: P1213195

Luminaire Tested: 4SNLED-LD5-92HL-LC-UNV-L930-CD1-U

Issue Date: 3/29/2018

Test Information

Test Method: LM-79-2019
Report Number: P1213195
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P33518)
Test Lab: INNOVATIONS CENTER-P3
Issue Date: 3/29/2018
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: METALUX
Catalog Number: 4SNLED-LD5-92HL-LC-UNV-L930-CD1-U
Description: 4FT LINEAR SNLED LED FIXTURE
CLEAR LENSED
Light Source: -
Ballast/Driver: -

Summary

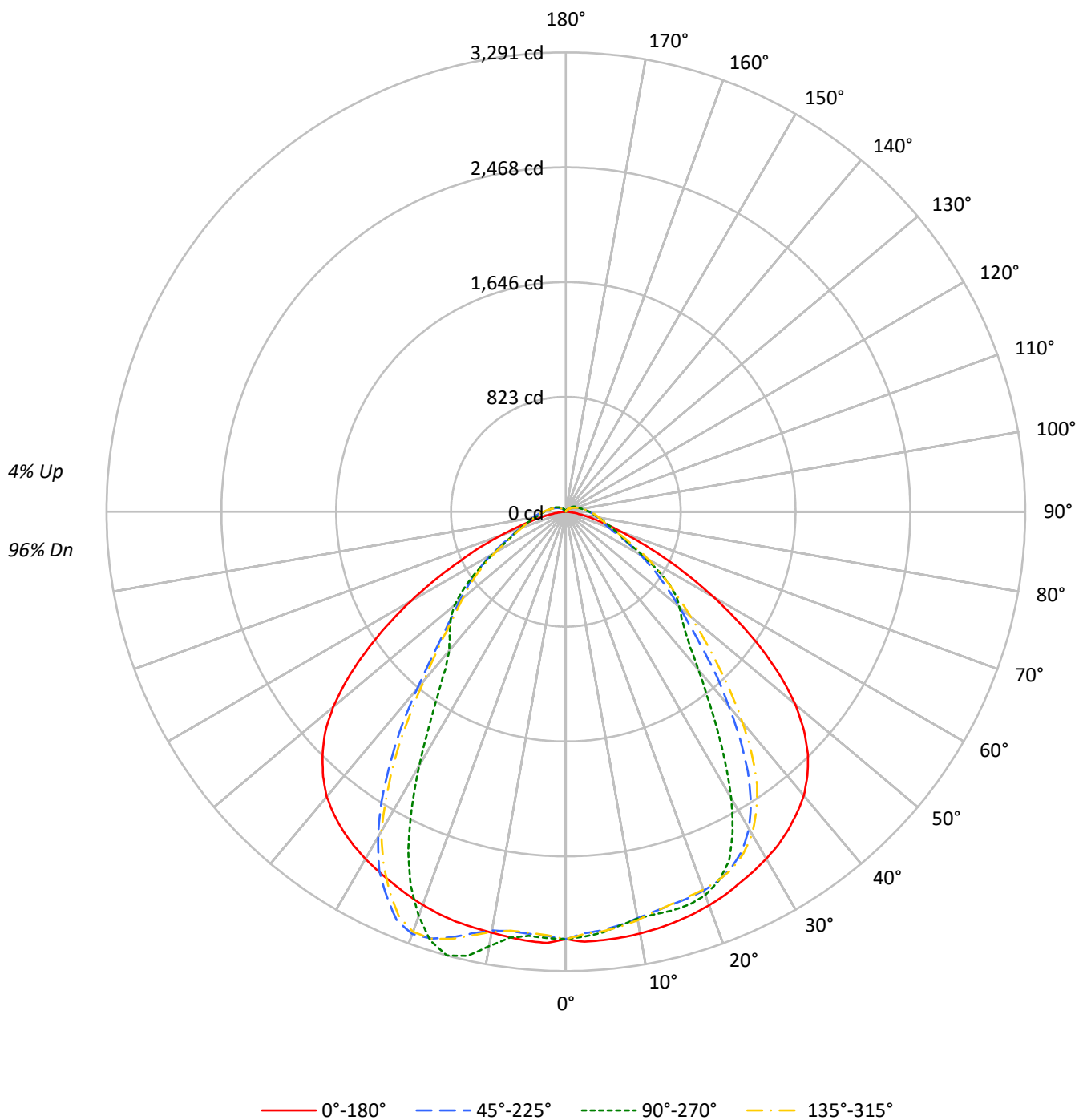
Lumens per Lamp: N/A
Luminaire Lumens: 7299.0 lumens
Efficiency: N/A
Efficacy: 92.4 lumens/watt
Spacing Criteria (0/90/45): 1.4 / 1.12 / 1.19
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.12')
CIE Type: Direct

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: 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					0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10
RCR																				
0	118	118	118	118	115	115	115	115	109	109	109	103	103	103	98	98	98	98	98	96
1	109	104	100	97	106	102	98	95	97	94	91	92	90	88	88	86	84	84	84	82
2	100	93	86	81	97	90	85	80	86	82	77	82	79	75	79	76	73	73	73	71
3	92	83	75	69	89	81	74	68	77	71	67	74	69	65	71	67	63	63	63	61
4	85	74	66	60	83	73	65	59	70	63	58	67	61	57	64	60	56	56	56	54
5	79	67	59	52	76	66	58	52	63	56	51	61	55	50	59	53	49	49	49	47
6	73	61	52	46	71	60	52	46	57	51	45	55	49	45	54	48	44	44	44	42
7	68	55	47	42	66	54	47	41	53	46	41	51	45	40	49	44	40	40	40	38
8	64	51	43	37	62	50	42	37	48	42	37	47	41	36	45	40	36	36	36	34
9	60	47	39	34	58	46	39	34	45	38	33	43	37	33	42	37	33	33	33	31
10	56	43	36	31	54	43	36	31	42	35	30	40	34	30	39	34	30	30	30	28

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	24742	24742	24742	24742
5°	24922	23761	24973	23947
10°	25038	22773	24986	24319
15°	25232	22469	25218	25017
20°	25510	22112	25482	23308
25°	25824	20977	25810	20269
30°	26309	18180	26324	16107
35°	26825	14702	26901	12441
40°	27279	11837	27393	10429
45°	27183	10027	27323	9763
50°	26012	9232	26375	9025
55°	23079	8297	23655	7543
60°	18719	6351	19713	5824
65°	13915	4858	14992	4607
70°	9463	4194	10668	4011
75°	6191	3784	7208	3579
80°	4001	3528	4688	3245
85°	2050	3519	2699	3216

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 180°

Vertical Angle: 45°

Luminance: 27323 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	290.8	4.0
10°-20°	865.3	11.9
20°-30°	1315.5	18.0
30°-40°	1411.2	19.3
40°-50°	1224.8	16.8
50°-60°	907.7	12.4
60°-70°	520.1	7.1
70°-80°	288.0	3.9
80°-90°	175.4	2.4
90°-100°	114.0	1.6
100°-110°	76.4	1.0
110°-120°	51.6	0.7
120°-130°	31.6	0.4
130°-140°	16.6	0.2
140°-150°	7.6	0.1
150°-160°	2.2	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	2471.7	33.9
0°-40°	3882.9	53.2
0°-60°	6015.4	82.4
0°-90°	6998.9	95.9
90°-120°	242.0	3.3
90°-150°	297.9	4.1
90°-180°	300.0	4.1
0°-180°	7299.0	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	3062	3062	3062	3062	3062	
5°	3081	3025	3087	3049	3081	294
15°	3041	2956	3040	3291	3041	860
25°	2938	2764	2937	2671	2938	1358
35°	2779	1882	2787	1593	2779	1739
45°	2453	1207	2466	1175	2453	1878
55°	1711	905	1754	822	1711	1517
65°	776	459	837	435	776	783
75°	221	291	258	275	221	253
85°	30	201	40	184	30	40
90°	0	168	3	155	0	1
95°	2	138	0	131	2	1
105°	2	103	2	98	2	2
115°	2	84	2	76	2	2
125°	2	63	2	52	2	1
135°	2	40	2	33	2	1
145°	2	24	3	19	2	1
155°	3	11	3	10	3	1
165°	0	0	0	0	0	0
175°	0	0	0	0	0	0
180°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	3061.7	3061.7	3061.7	3061.7	3061.7	3061.7	3061.7	3061.7	3061.7	3061.7	3061.7
2.5°	3083.9	3076.0	3072.8	3066.5	3071.2	3090.2	3077.6	3057.0	3058.6	3022.2	3041.2
5°	3080.7	3071.2	3066.5	3060.2	3063.3	3080.7	3068.1	3047.5	3045.9	3009.6	3027.0
7.5°	3076.0	3066.5	3058.6	3053.8	3055.4	3069.7	3053.8	3030.1	3025.4	2985.8	3001.6
10°	3068.1	3061.7	3050.7	3042.8	3041.2	3057.0	3031.7	3008.0	2996.9	2955.8	2971.6
12.5°	3057.0	3047.5	3036.4	3022.2	3020.6	3030.1	3009.6	2976.3	2965.3	2932.1	2949.5
15°	3041.2	3030.1	3017.5	3001.6	2993.7	3000.1	2974.8	2944.7	2943.1	2914.7	2938.4
17.5°	3023.8	3008.0	2993.7	2971.6	2960.5	2965.3	2944.7	2917.8	2921.0	2903.6	2930.5
20°	3000.1	2982.7	2960.5	2938.4	2922.6	2930.5	2916.2	2895.7	2900.4	2887.8	2911.5
22.5°	2973.2	2949.5	2922.6	2897.3	2884.6	2895.7	2884.6	2867.2	2868.8	2860.9	2875.1
25°	2938.4	2911.5	2879.9	2848.2	2841.9	2849.8	2843.5	2829.3	2822.9	2810.3	2816.6
27.5°	2906.8	2876.7	2837.2	2804.0	2792.9	2808.7	2794.5	2770.8	2753.4	2736.0	2723.3
30°	2870.4	2834.0	2789.7	2751.8	2742.3	2748.6	2728.1	2691.7	2645.8	2623.7	2588.9
32.5°	2830.8	2783.4	2728.1	2685.4	2679.0	2674.3	2636.3	2584.1	2513.0	2468.7	2414.9
35°	2778.7	2726.5	2660.0	2607.9	2598.4	2571.5	2509.8	2440.2	2348.5	2272.6	2180.9
37.5°	2720.1	2658.5	2588.9	2519.3	2492.4	2438.6	2351.7	2278.9	2139.7	2048.0	1937.3
40°	2653.7	2579.4	2494.0	2410.2	2365.9	2278.9	2179.3	2071.7	1937.3	1814.0	1720.7
42.5°	2562.0	2482.9	2381.7	2288.4	2212.5	2097.0	1980.0	1828.2	1704.8	1600.5	1505.6
45°	2452.9	2358.0	2241.0	2128.7	2032.2	1894.6	1757.0	1605.2	1502.4	1380.6	1315.8
47.5°	2312.1	2209.3	2084.4	1959.5	1832.9	1681.1	1537.2	1391.7	1288.9	1201.9	1154.5
50°	2146.1	2051.2	1913.6	1764.9	1625.8	1467.6	1323.7	1214.6	1114.9	1061.2	1024.8
52.5°	1940.5	1851.9	1711.2	1549.9	1415.4	1260.4	1129.2	1040.6	969.4	929.9	917.3
55°	1711.2	1633.7	1494.5	1344.3	1206.7	1064.3	964.7	887.2	841.3	817.6	819.2
57.5°	1466.0	1405.9	1274.7	1140.2	1010.6	903.0	812.9	751.2	716.4	714.8	719.6
60°	1220.9	1176.6	1062.8	947.3	833.4	746.5	680.0	637.3	615.2	616.8	615.2
62.5°	986.8	945.7	863.5	768.6	678.5	619.9	559.8	542.4	523.5	521.9	521.9
65°	776.5	744.9	678.5	610.5	542.4	504.5	474.4	453.9	439.7	436.5	438.1
67.5°	583.6	570.9	525.1	479.2	436.5	412.8	387.5	382.7	371.6	371.6	374.8
70°	434.9	425.4	400.1	373.2	355.8	340.0	327.4	327.4	325.8	324.2	332.1
72.5°	314.7	316.3	308.4	287.8	286.2	283.1	279.9	284.7	286.2	291.0	300.5
75°	221.4	226.2	226.2	223.0	229.3	237.2	242.0	249.9	259.4	265.7	276.8
77.5°	156.6	156.6	164.5	174.0	186.6	200.8	213.5	224.6	237.2	245.1	254.6
80°	101.2	106.0	118.6	136.0	153.4	172.4	189.8	204.0	216.7	229.3	235.6
82.5°	60.1	68.0	83.8	106.0	128.1	151.8	169.2	186.6	200.8	213.5	218.2
85°	30.0	41.1	60.1	83.8	107.5	132.8	155.0	170.8	186.6	197.7	204.0
87.5°	9.5	22.1	42.7	64.8	90.1	115.4	139.2	156.6	170.8	180.3	186.6
90°	0.0	11.1	30.0	53.8	77.5	102.8	124.9	143.9	158.1	166.1	170.8
92.5°	0.0	6.3	23.7	44.3	66.4	91.7	113.9	131.3	143.9	151.8	155.0
95°	1.6	4.7	17.4	36.4	58.5	82.2	102.8	118.6	131.3	139.2	140.8
97.5°	1.6	3.2	14.2	30.0	50.6	72.7	93.3	109.1	118.6	126.5	128.1
100°	1.6	3.2	11.1	26.9	44.3	64.8	83.8	98.1	109.1	115.4	117.0
102.5°	1.6	1.6	9.5	22.1	39.5	56.9	74.3	88.6	98.1	104.4	107.5
105°	1.6	1.6	7.9	19.0	34.8	50.6	66.4	80.7	88.6	94.9	98.1
107.5°	1.6	1.6	6.3	15.8	30.0	44.3	60.1	71.2	80.7	87.0	90.1
110°	1.6	1.6	4.7	14.2	25.3	39.5	52.2	63.3	72.7	79.1	82.2

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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	1.6	1.6	4.7	12.7	22.1	34.8	45.9	56.9	64.8	71.2	75.9
115°	1.6	1.6	4.7	11.1	20.6	30.0	41.1	50.6	58.5	64.8	69.6
117.5°	1.6	1.6	4.7	9.5	17.4	26.9	36.4	45.9	52.2	58.5	63.3
120°	1.6	1.6	3.2	7.9	15.8	23.7	31.6	39.5	47.4	53.8	58.5
122.5°	1.6	1.6	3.2	7.9	12.7	20.6	28.5	34.8	42.7	47.4	52.2
125°	1.6	1.6	3.2	6.3	11.1	19.0	25.3	31.6	36.4	42.7	47.4
127.5°	1.6	1.6	3.2	6.3	9.5	15.8	22.1	28.5	33.2	38.0	41.1
130°	1.6	1.6	3.2	4.7	7.9	12.7	19.0	23.7	30.0	33.2	36.4
132.5°	1.6	1.6	1.6	4.7	6.3	9.5	14.2	20.6	25.3	30.0	31.6
135°	1.6	1.6	1.6	3.2	6.3	7.9	11.1	15.8	20.6	25.3	28.5
137.5°	1.6	1.6	1.6	3.2	4.7	7.9	9.5	12.7	17.4	20.6	25.3
140°	1.6	1.6	1.6	3.2	4.7	6.3	7.9	11.1	14.2	17.4	20.6
142.5°	1.6	1.6	1.6	3.2	3.2	4.7	6.3	9.5	11.1	14.2	17.4
145°	1.6	1.6	1.6	3.2	3.2	4.7	6.3	7.9	9.5	11.1	14.2
147.5°	1.6	1.6	1.6	3.2	3.2	3.2	4.7	6.3	7.9	9.5	11.1
150°	3.2	3.2	3.2	3.2	3.2	3.2	4.7	4.7	6.3	7.9	9.5
152.5°	3.2	3.2	3.2	3.2	3.2	3.2	4.7	4.7	4.7	6.3	7.9
155°	3.2	3.2	3.2	3.2	3.2	3.2	3.2	4.7	4.7	6.3	6.3
157.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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°	3061.7	3061.7	3061.7	3061.7	3061.7	3061.7	3061.7	3061.7	3061.7	3061.7	3061.7
2.5°	3034.9	3038.0	3057.0	3055.4	3052.3	3049.1	3049.1	3045.9	3049.1	3057.0	3053.8
5°	3019.0	3023.8	3038.0	3036.4	3033.3	3031.7	3030.1	3025.4	3028.5	3039.6	3036.4
7.5°	2990.6	2995.3	3008.0	3001.6	2996.9	3000.1	2992.2	2987.4	2993.7	3004.8	3003.2
10°	2960.5	2963.7	2979.5	2976.3	2968.4	2970.0	2962.1	2958.9	2966.9	2973.2	2974.8
12.5°	2940.0	2951.0	2965.3	2963.7	2962.1	2963.7	2955.8	2952.6	2957.4	2963.7	2962.1
15°	2935.2	2949.5	2965.3	2965.3	2966.9	2968.4	2960.5	2955.8	2960.5	2965.3	2963.7
17.5°	2930.5	2947.9	2962.1	2960.5	2962.1	2965.3	2952.6	2949.5	2955.8	2962.1	2958.9
20°	2914.7	2930.5	2940.0	2936.8	2936.8	2938.4	2922.6	2922.6	2932.1	2936.8	2938.4
22.5°	2870.4	2889.4	2889.4	2881.5	2881.5	2875.1	2870.4	2860.9	2872.0	2879.9	2886.2
25°	2804.0	2811.9	2802.4	2785.0	2775.5	2767.6	2745.4	2764.4	2764.4	2788.1	2796.1
27.5°	2710.7	2693.3	2666.4	2630.0	2622.1	2596.8	2582.6	2587.3	2595.2	2628.4	2653.7
30°	2557.3	2505.1	2459.2	2443.4	2408.6	2383.3	2358.0	2370.6	2384.9	2403.8	2456.0
32.5°	2354.8	2304.2	2229.9	2203.0	2166.6	2135.0	2104.9	2123.9	2149.2	2161.9	2218.8
35°	2122.3	2062.2	1994.2	1948.4	1910.4	1893.0	1855.1	1882.0	1908.8	1918.3	1967.4
37.5°	1875.6	1814.0	1753.9	1714.3	1678.0	1666.9	1641.6	1660.6	1681.1	1695.3	1736.5
40°	1641.6	1584.6	1538.8	1511.9	1486.6	1477.1	1467.6	1475.5	1491.3	1502.4	1534.0
42.5°	1440.7	1394.9	1363.2	1347.4	1330.0	1317.4	1319.0	1322.1	1330.0	1353.7	1368.0
45°	1265.2	1238.3	1217.7	1214.6	1203.5	1201.9	1200.3	1206.7	1211.4	1225.6	1236.7
47.5°	1124.4	1113.4	1108.6	1114.9	1119.7	1113.4	1116.5	1124.4	1133.9	1133.9	1132.3
50°	1013.7	1016.9	1023.2	1037.5	1046.9	1050.1	1053.3	1062.8	1064.3	1067.5	1062.8
52.5°	923.6	926.7	944.1	966.3	977.4	982.1	988.4	997.9	997.9	1001.1	994.8
55°	831.9	836.6	854.0	876.1	885.6	892.0	898.3	904.6	909.4	915.7	910.9
57.5°	730.6	744.9	755.9	762.3	768.6	773.3	778.1	779.7	789.2	790.7	798.6
60°	623.1	626.3	637.3	635.8	631.0	643.7	637.3	648.4	659.5	673.7	675.3
62.5°	520.3	521.9	529.8	526.6	533.0	531.4	536.1	536.1	544.0	550.4	558.3
65°	439.7	441.2	447.6	447.6	446.0	450.7	455.5	458.6	458.6	463.4	469.7
67.5°	379.6	384.3	390.6	393.8	397.0	397.0	401.7	403.3	406.4	408.0	411.2
70°	338.4	344.8	351.1	354.3	355.8	359.0	360.6	360.6	363.7	365.3	368.5
72.5°	308.4	314.7	319.5	319.5	322.6	324.2	324.2	325.8	327.4	330.5	333.7
75°	283.1	287.8	291.0	289.4	289.4	289.4	291.0	291.0	294.2	297.3	300.5
77.5°	259.4	264.1	264.1	260.9	260.9	260.9	260.9	262.5	264.1	267.3	270.4
80°	242.0	242.0	240.4	240.4	237.2	235.6	235.6	237.2	237.2	240.4	245.1
82.5°	223.0	223.0	221.4	219.8	218.2	216.7	216.7	218.2	219.8	221.4	224.6
85°	205.6	205.6	202.4	202.4	200.8	200.8	200.8	200.8	202.4	204.0	207.2
87.5°	188.2	186.6	185.0	183.5	183.5	183.5	183.5	183.5	185.0	188.2	189.8
90°	170.8	169.2	167.6	167.6	166.1	166.1	167.6	167.6	169.2	170.8	172.4
92.5°	155.0	153.4	151.8	151.8	150.2	150.2	151.8	150.2	153.4	153.4	155.0
95°	140.8	139.2	137.6	137.6	137.6	137.6	137.6	137.6	139.2	139.2	140.8
97.5°	128.1	126.5	124.9	124.9	126.5	124.9	126.5	126.5	126.5	128.1	129.7
100°	117.0	115.4	115.4	117.0	115.4	115.4	117.0	117.0	117.0	117.0	118.6
102.5°	107.5	107.5	107.5	107.5	107.5	107.5	109.1	109.1	109.1	109.1	110.7
105°	98.1	99.6	99.6	99.6	101.2	101.2	101.2	102.8	102.8	102.8	102.8
107.5°	91.7	93.3	93.3	94.9	94.9	96.5	96.5	96.5	96.5	98.1	98.1
110°	85.4	87.0	88.6	90.1	90.1	91.7	91.7	91.7	91.7	91.7	91.7

TEST NUMBER: P1213195

CATALOG NUMBER: 4SNLED-LD5-92HL-LC-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
112.5°	79.1	80.7	82.2	85.4	87.0	87.0	87.0	87.0	88.6	88.6	87.0
115°	72.7	75.9	77.5	80.7	82.2	82.2	83.8	83.8	83.8	83.8	82.2
117.5°	66.4	71.2	72.7	75.9	77.5	77.5	79.1	79.1	79.1	79.1	77.5
120°	61.7	64.8	68.0	69.6	71.2	72.7	72.7	74.3	74.3	74.3	72.7
122.5°	56.9	60.1	63.3	64.8	66.4	68.0	68.0	68.0	68.0	68.0	68.0
125°	50.6	53.8	56.9	58.5	60.1	61.7	61.7	63.3	63.3	63.3	61.7
127.5°	45.9	49.0	50.6	53.8	55.4	55.4	56.9	56.9	56.9	56.9	55.4
130°	39.5	42.7	45.9	47.4	49.0	49.0	50.6	50.6	50.6	50.6	50.6
132.5°	34.8	38.0	39.5	42.7	42.7	44.3	44.3	45.9	45.9	45.9	44.3
135°	31.6	33.2	34.8	38.0	38.0	39.5	39.5	39.5	39.5	39.5	39.5
137.5°	28.5	30.0	31.6	33.2	33.2	34.8	34.8	34.8	34.8	36.4	34.8
140°	23.7	26.9	28.5	28.5	30.0	30.0	30.0	31.6	31.6	31.6	30.0
142.5°	20.6	22.1	23.7	25.3	26.9	26.9	26.9	26.9	28.5	26.9	26.9
145°	15.8	19.0	20.6	22.1	23.7	23.7	23.7	23.7	23.7	23.7	23.7
147.5°	12.7	14.2	17.4	19.0	19.0	20.6	20.6	20.6	20.6	20.6	20.6
150°	11.1	11.1	14.2	15.8	17.4	17.4	17.4	17.4	17.4	17.4	17.4
152.5°	7.9	9.5	11.1	12.7	14.2	14.2	14.2	14.2	14.2	14.2	14.2
155°	7.9	7.9	9.5	9.5	11.1	11.1	11.1	11.1	12.7	11.1	11.1
157.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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: P1213195

CATALOG NUMBER: 4SNLED-LD5-92HL-LC-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	3061.7	3061.7	3061.7	3061.7	3061.7	3061.7	3061.7	3061.7	3061.7	3061.7	3061.7
2.5°	3049.1	3047.5	3053.8	3047.5	3015.9	3028.5	3023.8	3041.2	3042.8	3047.5	3063.3
5°	3033.3	3033.3	3041.2	3034.9	3004.8	3017.5	3015.9	3033.3	3036.4	3039.6	3057.0
7.5°	3001.6	3003.2	3014.3	3009.6	2977.9	2996.9	2995.3	3015.9	3022.2	3028.5	3044.3
10°	2971.6	2970.0	2982.7	2977.9	2947.9	2970.0	2968.4	2989.0	2998.5	3009.6	3028.5
12.5°	2955.8	2951.0	2955.8	2951.0	2917.8	2935.2	2936.8	2960.5	2971.6	2985.8	3008.0
15°	2955.8	2947.9	2947.9	2938.4	2900.4	2911.5	2913.1	2928.9	2943.1	2957.4	2984.3
17.5°	2952.6	2944.7	2943.1	2935.2	2894.1	2894.1	2892.5	2903.6	2911.5	2925.7	2954.2
20°	2935.2	2932.1	2930.5	2925.7	2887.8	2881.5	2878.3	2878.3	2883.0	2887.8	2916.2
22.5°	2889.4	2892.5	2895.7	2898.9	2868.8	2857.7	2859.3	2856.2	2851.4	2851.4	2875.1
25°	2804.0	2819.8	2832.4	2846.7	2829.3	2821.4	2830.8	2826.1	2818.2	2811.9	2832.4
27.5°	2668.0	2701.2	2728.1	2762.8	2764.4	2758.1	2783.4	2780.2	2778.7	2769.2	2785.0
30°	2479.8	2531.9	2568.3	2618.9	2661.6	2668.0	2710.7	2717.0	2723.3	2718.6	2734.4
32.5°	2252.0	2323.2	2384.9	2463.9	2505.1	2541.4	2601.5	2626.8	2652.1	2660.0	2677.4
35°	2003.7	2084.4	2157.1	2244.1	2309.0	2388.0	2460.8	2498.7	2555.7	2577.8	2603.1
37.5°	1768.1	1844.0	1915.2	2002.2	2106.5	2188.8	2278.9	2364.3	2441.8	2473.4	2511.4
40°	1559.3	1621.0	1689.0	1764.9	1859.8	1967.4	2065.4	2184.0	2275.7	2339.0	2394.4
42.5°	1401.2	1431.2	1489.8	1557.8	1633.7	1742.8	1842.4	1975.3	2086.0	2176.1	2267.8
45°	1260.4	1274.7	1317.4	1353.7	1431.2	1527.7	1633.7	1763.4	1878.8	1994.2	2104.9
47.5°	1140.2	1157.6	1178.2	1200.3	1255.7	1336.4	1428.1	1545.1	1660.6	1795.0	1921.5
50°	1059.6	1064.3	1067.5	1077.0	1110.2	1165.6	1239.9	1339.5	1450.2	1594.1	1728.6
52.5°	988.4	988.4	978.9	974.2	986.8	1021.6	1064.3	1135.5	1249.4	1382.2	1524.5
55°	912.5	898.3	895.1	879.3	882.5	898.3	918.8	974.2	1067.5	1181.4	1319.0
57.5°	806.6	800.2	800.2	793.9	781.3	789.2	793.9	833.4	899.9	997.9	1118.1
60°	684.8	681.6	689.5	691.1	680.0	684.8	683.2	706.9	754.4	833.4	933.1
62.5°	563.0	577.2	578.8	585.1	578.8	577.2	585.1	605.7	629.4	689.5	767.0
65°	472.9	480.8	482.4	490.3	487.1	487.1	493.4	509.2	523.5	564.6	624.7
67.5°	414.3	411.2	412.8	417.5	412.8	411.2	415.9	425.4	436.5	461.8	504.5
70°	368.5	365.3	365.3	365.3	359.0	354.3	355.8	359.0	363.7	378.0	404.9
72.5°	333.7	333.7	328.9	324.2	319.5	316.3	313.1	310.0	308.4	313.1	327.4
75°	302.1	303.6	302.1	297.3	291.0	284.7	278.3	272.0	264.1	260.9	262.5
77.5°	273.6	275.2	276.8	275.2	268.9	260.9	251.5	242.0	230.9	219.8	213.5
80°	248.3	251.5	253.0	251.5	246.7	240.4	229.3	218.2	202.4	188.2	172.4
82.5°	226.2	230.9	232.5	232.5	229.3	223.0	210.3	197.7	180.3	161.3	140.8
85°	208.8	211.9	215.1	215.1	213.5	207.2	194.5	180.3	162.9	140.8	118.6
87.5°	191.4	192.9	196.1	199.3	196.1	189.8	178.7	162.9	145.5	123.4	98.1
90°	174.0	175.5	178.7	181.9	180.3	174.0	164.5	150.2	131.3	107.5	82.2
92.5°	156.6	159.7	161.3	162.9	164.5	159.7	151.8	137.6	118.6	94.9	71.2
95°	143.9	143.9	147.1	148.7	150.2	145.5	139.2	124.9	107.5	85.4	61.7
97.5°	131.3	131.3	134.4	134.4	136.0	132.8	126.5	113.9	96.5	75.9	52.2
100°	118.6	120.2	121.8	123.4	123.4	121.8	115.4	102.8	87.0	68.0	45.9
102.5°	110.7	110.7	112.3	112.3	113.9	110.7	104.4	93.3	77.5	60.1	39.5
105°	102.8	102.8	104.4	104.4	102.8	99.6	93.3	83.8	69.6	52.2	34.8
107.5°	96.5	96.5	96.5	96.5	94.9	91.7	85.4	74.3	61.7	47.4	31.6
110°	91.7	90.1	90.1	88.6	87.0	82.2	75.9	66.4	55.4	41.1	26.9

TEST NUMBER: P1213195

CATALOG NUMBER: 4SNLED-LD5-92HL-LC-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
112.5°	87.0	85.4	83.8	82.2	79.1	74.3	68.0	60.1	49.0	36.4	23.7
115°	82.2	80.7	79.1	75.9	72.7	68.0	61.7	53.8	42.7	31.6	20.6
117.5°	77.5	75.9	72.7	69.6	66.4	61.7	55.4	47.4	38.0	28.5	19.0
120°	71.2	69.6	68.0	64.8	61.7	55.4	49.0	42.7	33.2	25.3	15.8
122.5°	66.4	64.8	61.7	60.1	55.4	50.6	44.3	38.0	30.0	22.1	14.2
125°	60.1	58.5	56.9	53.8	50.6	44.3	39.5	33.2	26.9	19.0	11.1
127.5°	55.4	53.8	50.6	47.4	44.3	39.5	34.8	30.0	23.7	15.8	11.1
130°	49.0	47.4	45.9	42.7	39.5	34.8	31.6	25.3	20.6	14.2	9.5
132.5°	42.7	42.7	41.1	38.0	34.8	31.6	26.9	22.1	17.4	12.7	7.9
135°	39.5	38.0	36.4	33.2	31.6	26.9	23.7	19.0	14.2	11.1	6.3
137.5°	34.8	33.2	31.6	30.0	26.9	23.7	20.6	15.8	12.7	9.5	6.3
140°	30.0	28.5	28.5	25.3	23.7	20.6	17.4	14.2	11.1	7.9	4.7
142.5°	26.9	25.3	23.7	22.1	20.6	17.4	14.2	11.1	9.5	6.3	4.7
145°	23.7	22.1	20.6	19.0	17.4	14.2	12.7	9.5	7.9	6.3	4.7
147.5°	19.0	19.0	17.4	15.8	14.2	12.7	11.1	9.5	6.3	4.7	3.2
150°	15.8	15.8	14.2	12.7	12.7	11.1	9.5	7.9	6.3	4.7	3.2
152.5°	14.2	12.7	12.7	11.1	11.1	9.5	7.9	6.3	4.7	4.7	3.2
155°	11.1	11.1	11.1	9.5	9.5	7.9	6.3	6.3	4.7	3.2	3.2
157.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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: P1213195

CATALOG NUMBER: 4SNLED-LD5-92HL-LC-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
0°	3061.7	3061.7	3061.7	3061.7	3061.7	3061.7	3061.7	3061.7	3061.7	3061.7	3061.7
2.5°	3066.5	3047.5	3063.3	3091.8	3088.6	3085.5	3082.3	3088.6	3109.2	3098.1	3080.7
5°	3061.7	3042.8	3060.2	3087.0	3085.5	3080.7	3077.6	3083.9	3104.4	3093.4	3074.4
7.5°	3052.3	3034.9	3047.5	3074.4	3074.4	3071.2	3068.1	3074.4	3093.4	3083.9	3064.9
10°	3036.4	3023.8	3036.4	3061.7	3063.3	3057.0	3053.8	3061.7	3080.7	3076.0	3060.2
12.5°	3023.8	3011.1	3025.4	3050.7	3052.3	3045.9	3041.2	3050.7	3076.0	3079.1	3074.4
15°	3006.4	2995.3	3012.7	3039.6	3039.6	3034.9	3034.9	3047.5	3082.3	3096.5	3104.4
17.5°	2981.1	2973.2	2993.7	3020.6	3022.2	3019.0	3020.6	3045.9	3091.8	3126.6	3148.7
20°	2949.5	2946.3	2968.4	2996.9	3001.6	3003.2	3011.1	3049.1	3112.4	3159.8	3181.9
22.5°	2911.5	2913.1	2938.4	2968.4	2974.8	2979.5	2995.3	3049.1	3128.2	3178.8	3188.3
25°	2868.8	2873.5	2900.4	2936.8	2944.7	2954.2	2981.1	3050.7	3132.9	3166.1	3150.3
27.5°	2822.9	2832.4	2867.2	2905.2	2914.7	2930.5	2965.3	3041.2	3110.8	3112.4	3053.8
30°	2775.5	2786.6	2827.7	2872.0	2887.8	2903.6	2946.3	3019.0	3057.0	3006.4	2903.6
32.5°	2721.7	2737.5	2778.7	2832.4	2851.4	2872.0	2914.7	2976.3	2962.1	2853.0	2705.9
35°	2653.7	2675.9	2723.3	2786.6	2804.0	2830.8	2860.9	2875.1	2811.9	2656.9	2490.8
37.5°	2569.9	2603.1	2658.5	2731.2	2750.2	2767.6	2775.5	2736.0	2609.4	2441.8	2269.4
40°	2473.4	2524.0	2584.1	2664.8	2683.8	2683.8	2655.3	2571.5	2411.8	2191.9	2000.6
42.5°	2356.4	2418.1	2494.0	2574.6	2593.6	2571.5	2503.5	2356.4	2174.5	1929.4	1727.0
45°	2214.1	2296.3	2381.7	2465.5	2475.0	2426.0	2304.2	2117.6	1893.0	1665.3	1472.4
47.5°	2044.9	2152.4	2245.7	2340.6	2327.9	2245.7	2082.8	1870.9	1633.7	1418.6	1263.6
50°	1855.1	1981.6	2086.0	2176.1	2149.2	2035.4	1844.0	1622.6	1387.0	1203.5	1075.4
52.5°	1652.6	1798.1	1902.5	1975.3	1938.9	1802.9	1592.6	1380.6	1187.7	1020.1	934.7
55°	1442.3	1589.4	1696.9	1753.9	1706.4	1559.3	1352.2	1159.2	977.4	868.2	817.6
57.5°	1238.3	1375.9	1477.1	1523.0	1462.9	1315.8	1124.4	961.5	830.3	738.6	713.2
60°	1042.2	1154.5	1251.0	1285.7	1220.9	1084.9	920.4	790.7	694.3	631.0	618.4
62.5°	860.3	952.1	1028.0	1054.8	991.6	885.6	743.3	646.8	578.8	547.2	531.4
65°	710.1	763.9	841.3	836.6	798.6	700.6	596.2	528.2	483.9	463.4	453.9
67.5°	558.3	607.3	656.3	662.6	615.2	547.2	479.2	430.2	406.4	395.4	390.6
70°	431.7	468.1	498.2	490.3	465.0	422.3	379.6	352.7	343.2	338.4	338.4
72.5°	335.3	354.3	368.5	359.0	343.2	321.0	300.5	289.4	291.0	294.2	297.3
75°	259.4	264.1	267.3	257.8	254.6	240.4	238.8	240.4	249.9	259.4	264.1
77.5°	199.3	192.9	188.2	178.7	180.3	178.7	186.6	199.3	213.5	227.7	240.4
80°	153.4	139.2	128.1	118.6	123.4	131.3	147.1	166.1	185.0	200.8	216.7
82.5°	118.6	98.1	82.2	72.7	82.2	94.9	115.4	139.2	161.3	178.7	196.1
85°	91.7	68.0	49.0	39.5	49.0	68.0	90.1	117.0	140.8	159.7	177.1
87.5°	71.2	49.0	26.9	15.8	26.9	47.4	72.7	98.1	121.8	143.9	161.3
90°	56.9	33.2	12.7	3.2	14.2	33.2	56.9	82.2	106.0	129.7	147.1
92.5°	45.9	23.7	6.3	0.0	7.9	25.3	47.4	71.2	94.9	117.0	134.4
95°	38.0	19.0	4.7	0.0	6.3	19.0	38.0	61.7	83.8	106.0	120.2
97.5°	31.6	14.2	3.2	0.0	3.2	15.8	31.6	52.2	74.3	94.9	109.1
100°	26.9	12.7	3.2	0.0	3.2	12.7	26.9	45.9	64.8	83.8	98.1
102.5°	22.1	9.5	1.6	1.6	1.6	9.5	23.7	39.5	56.9	74.3	88.6
105°	20.6	7.9	1.6	1.6	1.6	7.9	20.6	34.8	50.6	66.4	79.1
107.5°	17.4	6.3	1.6	1.6	1.6	6.3	17.4	30.0	45.9	60.1	71.2
110°	14.2	6.3	1.6	1.6	1.6	6.3	14.2	26.9	39.5	52.2	63.3



TEST NUMBER: P1213195

CATALOG NUMBER: 4SNLED-LD5-92HL-LC-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
112.5°	12.7	4.7	1.6	1.6	1.6	4.7	12.7	23.7	34.8	47.4	56.9
115°	11.1	4.7	1.6	1.6	1.6	4.7	11.1	20.6	30.0	41.1	50.6
117.5°	9.5	4.7	1.6	1.6	1.6	3.2	9.5	17.4	26.9	36.4	45.9
120°	7.9	3.2	1.6	1.6	1.6	3.2	7.9	15.8	23.7	31.6	39.5
122.5°	7.9	3.2	1.6	1.6	1.6	3.2	6.3	12.7	20.6	26.9	34.8
125°	6.3	3.2	1.6	1.6	1.6	1.6	6.3	11.1	17.4	23.7	30.0
127.5°	6.3	3.2	1.6	1.6	1.6	1.6	4.7	9.5	14.2	20.6	26.9
130°	4.7	3.2	1.6	1.6	1.6	1.6	3.2	7.9	12.7	17.4	22.1
132.5°	4.7	3.2	1.6	1.6	1.6	1.6	3.2	6.3	9.5	14.2	19.0
135°	4.7	1.6	1.6	1.6	1.6	1.6	1.6	4.7	7.9	11.1	14.2
137.5°	3.2	1.6	1.6	1.6	1.6	1.6	1.6	3.2	6.3	7.9	12.7
140°	3.2	1.6	1.6	1.6	1.6	1.6	1.6	3.2	4.7	6.3	9.5
142.5°	3.2	1.6	1.6	1.6	1.6	1.6	1.6	1.6	3.2	4.7	7.9
145°	3.2	1.6	1.6	3.2	3.2	1.6	1.6	3.2	3.2	4.7	6.3
147.5°	3.2	1.6	1.6	1.6	1.6	1.6	1.6	1.6	3.2	3.2	4.7
150°	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	4.7
152.5°	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
155°	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
157.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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: P1213195

CATALOG NUMBER: 4SNLED-LD5-92HL-LC-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
0°	3061.7	3061.7	3061.7	3061.7	3061.7	3061.7	3061.7	3061.7	3061.7	3061.7	3061.7
2.5°	3077.6	3041.2	3060.2	3053.8	3060.2	3076.0	3074.4	3069.7	3072.8	3064.9	3057.0
5°	3071.2	3034.9	3053.8	3045.9	3053.8	3069.7	3066.5	3061.7	3066.5	3057.0	3049.1
7.5°	3063.3	3030.1	3052.3	3050.7	3064.9	3085.5	3087.0	3087.0	3098.1	3083.9	3077.6
10°	3063.3	3045.9	3076.0	3087.0	3123.4	3150.3	3153.5	3159.8	3178.8	3175.6	3159.8
12.5°	3096.5	3093.4	3137.7	3164.5	3197.8	3235.7	3256.3	3262.6	3275.2	3265.8	3259.4
15°	3139.2	3155.1	3204.1	3234.1	3270.5	3299.0	3303.7	3306.9	3316.4	3302.1	3291.1
17.5°	3196.2	3205.7	3245.2	3257.8	3281.6	3286.3	3280.0	3264.2	3264.2	3232.5	3223.1
20°	3223.1	3218.3	3234.1	3213.6	3204.1	3175.6	3148.7	3118.7	3117.1	3083.9	3080.7
22.5°	3199.3	3167.7	3134.5	3083.9	3061.7	3020.6	2984.3	2966.9	2955.8	2913.1	2902.0
25°	3115.5	3038.0	2989.0	2928.9	2875.1	2827.7	2792.9	2756.5	2721.7	2686.9	2671.1
27.5°	2970.0	2897.3	2818.2	2734.4	2660.0	2587.3	2528.8	2492.4	2459.2	2413.3	2389.6
30°	2791.3	2690.1	2603.1	2522.5	2400.7	2312.1	2263.1	2190.3	2165.0	2144.5	2100.2
32.5°	2581.0	2459.2	2340.6	2231.5	2106.5	2024.3	1959.5	1905.7	1889.9	1836.1	1823.4
35°	2348.5	2188.8	2054.3	1946.8	1856.7	1757.0	1703.3	1666.9	1635.3	1598.9	1592.6
37.5°	2074.9	1931.0	1779.2	1684.3	1613.1	1527.7	1486.6	1461.3	1447.1	1420.2	1415.4
40°	1799.7	1655.8	1551.4	1456.5	1412.3	1366.4	1336.4	1325.3	1319.0	1309.5	1300.0
42.5°	1549.9	1423.3	1349.0	1285.7	1266.8	1244.6	1236.7	1243.0	1236.7	1233.6	1232.0
45°	1337.9	1241.5	1189.3	1170.3	1165.6	1159.2	1165.6	1176.6	1178.2	1175.0	1175.0
47.5°	1145.0	1099.1	1077.0	1080.2	1088.1	1092.8	1103.9	1118.1	1121.3	1113.4	1116.5
50°	1018.5	991.6	986.8	999.5	1016.9	1023.2	1035.9	1046.9	1045.4	1042.2	1039.0
52.5°	899.9	892.0	904.6	917.3	936.2	939.4	944.1	948.9	947.3	941.0	937.8
55°	800.2	806.6	817.6	822.4	836.6	835.0	836.6	836.6	830.3	827.1	822.4
57.5°	710.1	711.7	718.0	719.6	727.5	724.3	722.7	719.6	710.1	708.5	703.8
60°	618.4	615.2	629.4	618.4	624.7	618.4	616.8	608.9	599.4	597.8	594.6
62.5°	531.4	525.1	534.5	529.8	533.0	526.6	523.5	514.0	506.1	504.5	502.9
65°	453.9	450.7	460.2	458.6	461.8	453.9	450.7	444.4	438.1	436.5	434.9
67.5°	389.0	397.0	401.7	401.7	404.9	403.3	395.4	393.8	392.2	385.9	385.9
70°	341.6	346.3	355.8	357.4	355.8	359.0	352.7	351.1	349.5	346.3	344.8
72.5°	303.6	310.0	319.5	321.0	319.5	319.5	316.3	314.7	314.7	310.0	310.0
75°	273.6	281.5	289.4	289.4	289.4	286.2	283.1	283.1	279.9	278.3	275.2
77.5°	248.3	257.8	264.1	262.5	260.9	257.8	257.8	253.0	248.3	248.3	245.1
80°	229.3	235.6	240.4	238.8	237.2	232.5	230.9	226.2	223.0	218.2	218.2
82.5°	208.8	216.7	219.8	218.2	215.1	210.3	208.8	205.6	202.4	200.8	197.7
85°	191.4	199.3	200.8	197.7	194.5	191.4	189.8	188.2	186.6	183.5	183.5
87.5°	174.0	181.9	181.9	180.3	177.1	175.5	174.0	172.4	170.8	169.2	167.6
90°	159.7	166.1	166.1	164.5	162.9	161.3	159.7	158.1	156.6	155.0	155.0
92.5°	145.5	151.8	151.8	150.2	148.7	147.1	147.1	145.5	143.9	142.3	140.8
95°	132.8	139.2	139.2	139.2	137.6	136.0	136.0	134.4	132.8	132.8	131.3
97.5°	120.2	126.5	126.5	126.5	124.9	123.4	123.4	121.8	121.8	121.8	120.2
100°	109.1	113.9	115.4	115.4	113.9	113.9	113.9	112.3	112.3	112.3	110.7
102.5°	98.1	102.8	106.0	106.0	106.0	104.4	104.4	104.4	104.4	104.4	102.8
105°	88.6	93.3	96.5	98.1	98.1	98.1	98.1	98.1	98.1	98.1	98.1
107.5°	80.7	85.4	88.6	90.1	91.7	91.7	93.3	93.3	93.3	93.3	93.3
110°	72.7	77.5	82.2	83.8	85.4	87.0	87.0	88.6	87.0	87.0	87.0

TEST NUMBER: P1213195

CATALOG NUMBER: 4SNLED-LD5-92HL-LC-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
112.5°	64.8	71.2	74.3	77.5	79.1	80.7	82.2	82.2	82.2	82.2	82.2
115°	58.5	64.8	68.0	71.2	74.3	75.9	75.9	77.5	77.5	77.5	75.9
117.5°	52.2	58.5	61.7	64.8	66.4	69.6	71.2	71.2	71.2	71.2	69.6
120°	47.4	52.2	55.4	58.5	61.7	63.3	64.8	64.8	64.8	64.8	64.8
122.5°	41.1	45.9	50.6	53.8	55.4	56.9	58.5	58.5	58.5	58.5	58.5
125°	36.4	41.1	44.3	47.4	49.0	52.2	52.2	52.2	52.2	52.2	52.2
127.5°	31.6	36.4	39.5	42.7	44.3	45.9	47.4	47.4	47.4	47.4	47.4
130°	26.9	31.6	34.8	38.0	39.5	41.1	41.1	42.7	42.7	42.7	42.7
132.5°	23.7	26.9	30.0	33.2	34.8	36.4	36.4	38.0	38.0	38.0	38.0
135°	19.0	23.7	25.3	28.5	30.0	31.6	31.6	33.2	33.2	33.2	33.2
137.5°	15.8	19.0	22.1	25.3	26.9	26.9	28.5	28.5	30.0	30.0	30.0
140°	12.7	14.2	19.0	20.6	22.1	23.7	25.3	25.3	25.3	25.3	25.3
142.5°	9.5	12.7	14.2	17.4	19.0	20.6	22.1	22.1	22.1	22.1	22.1
145°	7.9	9.5	11.1	14.2	15.8	17.4	19.0	19.0	19.0	19.0	19.0
147.5°	6.3	7.9	9.5	11.1	12.7	14.2	15.8	15.8	15.8	15.8	15.8
150°	4.7	6.3	7.9	7.9	9.5	11.1	12.7	14.2	14.2	14.2	14.2
152.5°	4.7	4.7	6.3	6.3	7.9	9.5	11.1	11.1	11.1	11.1	11.1
155°	3.2	4.7	4.7	4.7	6.3	6.3	7.9	9.5	9.5	9.5	9.5
157.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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: P1213195

CATALOG NUMBER: 4SNLED-LD5-92HL-LC-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°
0°	3061.7	3061.7	3061.7	3061.7	3061.7	3061.7	3061.7	3061.7	3061.7	3061.7	3061.7
2.5°	3061.7	3068.1	3064.9	3060.2	3058.6	3066.5	3058.6	3022.2	3036.4	3038.0	3049.1
5°	3057.0	3061.7	3058.6	3055.4	3050.7	3060.2	3050.7	3012.7	3027.0	3028.5	3039.6
7.5°	3088.6	3090.2	3090.2	3082.3	3069.7	3074.4	3061.7	3019.0	3027.0	3027.0	3034.9
10°	3167.7	3170.9	3175.6	3155.1	3139.2	3126.6	3109.2	3057.0	3055.4	3042.8	3042.8
12.5°	3270.5	3262.6	3254.7	3245.2	3232.5	3216.7	3191.4	3129.7	3109.2	3088.6	3068.1
15°	3300.5	3297.4	3295.8	3291.1	3283.2	3278.4	3259.4	3197.8	3167.7	3142.4	3106.0
17.5°	3221.5	3227.8	3248.4	3249.9	3259.4	3278.4	3275.2	3232.5	3205.7	3194.6	3150.3
20°	3079.1	3080.7	3106.0	3117.1	3158.2	3189.8	3213.6	3208.8	3202.5	3215.1	3181.9
22.5°	2908.3	2919.4	2946.3	2963.7	3003.2	3039.6	3077.6	3098.1	3131.3	3183.5	3177.2
25°	2675.9	2690.1	2728.1	2756.5	2811.9	2867.2	2917.8	2954.2	2993.7	3093.4	3126.6
27.5°	2397.5	2419.7	2468.7	2497.2	2574.6	2631.6	2704.3	2775.5	2830.8	2944.7	3012.7
30°	2104.9	2123.9	2176.1	2215.7	2282.1	2359.6	2451.3	2552.5	2644.2	2759.7	2845.1
32.5°	1831.4	1851.9	1894.6	1929.4	2003.7	2068.6	2169.8	2294.7	2380.1	2539.9	2653.7
35°	1592.6	1611.5	1641.6	1671.6	1733.3	1799.7	1886.7	2008.5	2117.6	2283.7	2427.6
37.5°	1424.9	1428.1	1445.5	1462.9	1508.7	1559.3	1627.3	1734.9	1836.1	2014.8	2173.0
40°	1304.7	1304.7	1314.2	1319.0	1339.5	1369.6	1412.3	1496.1	1579.9	1715.9	1908.8
42.5°	1230.4	1227.2	1227.2	1228.8	1227.2	1241.5	1266.8	1306.3	1380.6	1492.9	1643.2
45°	1175.0	1168.7	1164.0	1152.9	1146.6	1146.6	1148.2	1162.4	1205.1	1277.8	1399.6
47.5°	1113.4	1111.8	1103.9	1091.2	1080.2	1072.2	1059.6	1054.8	1067.5	1108.6	1190.9
50°	1042.2	1034.3	1026.4	1016.9	1004.2	996.3	972.6	974.2	963.1	982.1	1024.8
52.5°	937.8	931.5	928.3	920.4	915.7	912.5	893.5	874.6	869.8	873.0	888.8
55°	822.4	825.5	812.9	819.2	817.6	803.4	795.5	781.3	776.5	774.9	782.8
57.5°	702.2	705.3	697.4	703.8	703.8	695.9	691.1	691.1	680.0	670.5	681.6
60°	593.1	586.7	591.5	599.4	599.4	594.6	591.5	591.5	583.6	580.4	588.3
62.5°	504.5	498.2	502.9	510.8	512.4	509.2	506.1	506.1	496.6	496.6	502.9
65°	436.5	438.1	436.5	442.8	442.8	444.4	441.2	438.1	427.0	431.7	430.2
67.5°	387.5	385.9	385.9	392.2	390.6	393.8	390.6	385.9	378.0	371.6	370.1
70°	346.3	344.8	344.8	347.9	349.5	349.5	347.9	344.8	333.7	327.4	322.6
72.5°	310.0	308.4	310.0	311.6	313.1	314.7	313.1	310.0	300.5	292.6	284.7
75°	276.8	275.2	279.9	279.9	281.5	281.5	283.1	281.5	273.6	264.1	254.6
77.5°	243.5	245.1	249.9	251.5	254.6	256.2	257.8	257.8	249.9	242.0	229.3
80°	216.7	219.8	223.0	224.6	227.7	232.5	234.1	235.6	229.3	221.4	207.2
82.5°	197.7	199.3	202.4	204.0	208.8	210.3	211.9	215.1	211.9	204.0	188.2
85°	181.9	183.5	186.6	186.6	189.8	192.9	194.5	196.1	194.5	186.6	170.8
87.5°	167.6	169.2	170.8	172.4	174.0	175.5	177.1	178.7	177.1	169.2	155.0
90°	155.0	155.0	156.6	156.6	158.1	159.7	162.9	162.9	161.3	155.0	140.8
92.5°	140.8	142.3	142.3	143.9	145.5	147.1	148.7	148.7	147.1	140.8	128.1
95°	131.3	131.3	132.8	132.8	134.4	134.4	136.0	136.0	134.4	128.1	115.4
97.5°	120.2	120.2	120.2	120.2	121.8	121.8	123.4	123.4	121.8	115.4	104.4
100°	110.7	110.7	110.7	110.7	110.7	112.3	112.3	112.3	110.7	104.4	93.3
102.5°	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	99.6	94.9	83.8
105°	98.1	98.1	98.1	96.5	96.5	96.5	94.9	94.9	90.1	85.4	75.9
107.5°	91.7	91.7	91.7	90.1	90.1	88.6	87.0	87.0	82.2	77.5	68.0
110°	87.0	87.0	87.0	85.4	83.8	82.2	80.7	79.1	74.3	68.0	60.1

TEST NUMBER: P1213195

CATALOG NUMBER: 4SNLED-LD5-92HL-LC-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°
112.5°	82.2	82.2	80.7	80.7	79.1	77.5	74.3	72.7	68.0	61.7	53.8
115°	75.9	75.9	75.9	74.3	72.7	71.2	69.6	66.4	61.7	55.4	47.4
117.5°	69.6	69.6	69.6	68.0	66.4	64.8	63.3	60.1	55.4	49.0	42.7
120°	63.3	63.3	63.3	61.7	60.1	58.5	56.9	53.8	49.0	44.3	36.4
122.5°	58.5	58.5	56.9	55.4	53.8	52.2	50.6	47.4	44.3	38.0	31.6
125°	52.2	52.2	50.6	50.6	49.0	47.4	45.9	42.7	38.0	33.2	28.5
127.5°	47.4	45.9	45.9	45.9	44.3	42.7	39.5	38.0	33.2	28.5	23.7
130°	41.1	41.1	41.1	39.5	39.5	38.0	34.8	31.6	28.5	25.3	20.6
132.5°	36.4	36.4	36.4	36.4	34.8	33.2	30.0	28.5	25.3	20.6	17.4
135°	33.2	33.2	31.6	31.6	30.0	28.5	26.9	23.7	20.6	17.4	14.2
137.5°	28.5	28.5	28.5	26.9	26.9	25.3	22.1	20.6	19.0	15.8	12.7
140°	25.3	25.3	23.7	23.7	22.1	22.1	20.6	17.4	15.8	12.7	11.1
142.5°	22.1	22.1	20.6	20.6	19.0	19.0	17.4	15.8	12.7	11.1	7.9
145°	19.0	19.0	17.4	17.4	17.4	15.8	14.2	12.7	11.1	9.5	7.9
147.5°	15.8	15.8	15.8	14.2	14.2	12.7	12.7	11.1	9.5	7.9	6.3
150°	14.2	14.2	12.7	12.7	12.7	11.1	9.5	9.5	7.9	6.3	4.7
152.5°	11.1	11.1	11.1	11.1	9.5	9.5	7.9	7.9	6.3	4.7	4.7
155°	9.5	9.5	9.5	7.9	7.9	7.9	6.3	6.3	4.7	4.7	3.2
157.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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: P1213195

CATALOG NUMBER: 4SNLED-LD5-92HL-LC-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	330°	335°	340°	345°	350°	355°	360°
0°	3061.7	3061.7	3061.7	3061.7	3061.7	3061.7	3061.7
2.5°	3044.3	3042.8	3057.0	3055.4	3036.4	3064.9	3083.9
5°	3036.4	3034.9	3047.5	3050.7	3030.1	3060.2	3080.7
7.5°	3030.1	3028.5	3042.8	3047.5	3027.0	3053.8	3076.0
10°	3031.7	3023.8	3036.4	3039.6	3020.6	3049.1	3068.1
12.5°	3042.8	3023.8	3028.5	3028.5	3011.1	3036.4	3057.0
15°	3069.7	3030.1	3023.8	3019.0	2996.9	3020.6	3041.2
17.5°	3099.7	3045.9	3023.8	3008.0	2981.1	3001.6	3023.8
20°	3129.7	3063.3	3027.0	3001.6	2965.3	2984.3	3000.1
22.5°	3144.0	3079.1	3030.1	2992.2	2946.3	2955.8	2973.2
25°	3125.0	3072.8	3023.8	2977.9	2922.6	2924.2	2938.4
27.5°	3055.4	3041.2	3009.6	2963.7	2903.6	2895.7	2906.8
30°	2936.8	2976.3	2977.9	2944.7	2881.5	2865.6	2870.4
32.5°	2770.8	2859.3	2911.5	2905.2	2849.8	2827.7	2830.8
35°	2579.4	2690.1	2804.0	2841.9	2802.4	2785.0	2778.7
37.5°	2350.1	2498.7	2650.6	2743.9	2737.5	2726.5	2720.1
40°	2097.0	2275.7	2456.0	2604.7	2650.6	2650.6	2653.7
42.5°	1826.6	2035.4	2233.0	2421.2	2528.8	2552.5	2562.0
45°	1565.7	1776.0	1991.1	2207.7	2351.7	2426.0	2452.9
47.5°	1328.4	1540.4	1744.4	1981.6	2173.0	2269.4	2312.1
50°	1126.0	1284.2	1499.2	1734.9	1943.6	2062.2	2146.1
52.5°	958.4	1081.7	1269.9	1489.8	1700.1	1863.0	1940.5
55°	817.6	901.4	1061.2	1251.0	1451.8	1621.0	1711.2
57.5°	699.0	765.4	874.6	1032.7	1201.9	1369.6	1466.0
60°	594.6	640.5	714.8	839.8	983.7	1127.6	1220.9
62.5°	504.5	534.5	583.6	675.3	787.6	899.9	986.8
65°	434.9	447.6	474.4	531.4	616.8	702.2	776.5
67.5°	366.9	374.8	395.4	430.2	472.9	534.5	583.6
70°	316.3	316.3	317.9	338.4	360.6	400.1	434.9
72.5°	275.2	270.4	260.9	265.7	270.4	292.6	314.7
75°	242.0	230.9	215.1	208.8	205.6	208.8	221.4
77.5°	213.5	197.7	178.7	162.9	150.2	145.5	156.6
80°	189.8	170.8	148.7	128.1	107.5	96.5	101.2
82.5°	170.8	147.1	123.4	99.6	75.9	60.1	60.1
85°	150.2	128.1	102.8	77.5	53.8	33.2	30.0
87.5°	136.0	112.3	85.4	61.7	38.0	17.4	9.5
90°	121.8	98.1	72.7	49.0	26.9	7.9	0.0
92.5°	109.1	87.0	63.3	39.5	19.0	4.7	0.0
95°	98.1	77.5	53.8	33.2	15.8	3.2	1.6
97.5°	87.0	68.0	47.4	26.9	11.1	3.2	1.6
100°	79.1	60.1	41.1	22.1	9.5	1.6	1.6
102.5°	69.6	53.8	34.8	19.0	7.9	1.6	1.6
105°	61.7	47.4	30.0	15.8	6.3	1.6	1.6
107.5°	55.4	41.1	26.9	14.2	6.3	1.6	1.6
110°	49.0	36.4	23.7	12.7	4.7	1.6	1.6



TEST NUMBER: P1213195

CATALOG NUMBER: 4SNLED-LD5-92HL-LC-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	330°	335°	340°	345°	350°	355°	360°
112.5°	44.3	31.6	20.6	11.1	3.2	1.6	1.6
115°	38.0	28.5	17.4	9.5	3.2	1.6	1.6
117.5°	33.2	23.7	15.8	7.9	3.2	1.6	1.6
120°	28.5	20.6	12.7	6.3	1.6	1.6	1.6
122.5°	25.3	17.4	11.1	6.3	1.6	1.6	1.6
125°	22.1	15.8	9.5	4.7	1.6	1.6	1.6
127.5°	19.0	12.7	7.9	3.2	1.6	1.6	1.6
130°	15.8	11.1	6.3	3.2	1.6	1.6	1.6
132.5°	12.7	9.5	6.3	3.2	1.6	1.6	1.6
135°	11.1	7.9	4.7	3.2	1.6	1.6	1.6
137.5°	9.5	6.3	3.2	3.2	3.2	1.6	1.6
140°	7.9	4.7	3.2	3.2	3.2	3.2	1.6
142.5°	6.3	4.7	3.2	3.2	3.2	3.2	1.6
145°	4.7	3.2	3.2	3.2	3.2	3.2	1.6
147.5°	4.7	3.2	3.2	3.2	3.2	3.2	1.6
150°	3.2	3.2	3.2	3.2	3.2	3.2	3.2
152.5°	3.2	3.2	3.2	3.2	3.2	3.2	3.2
155°	3.2	3.2	3.2	3.2	3.2	3.2	3.2
157.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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)