

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: P1213189

Luminaire Tested: 4SNLED-LD5-85SL-LC-UNV-L930-CD1-U

Issue Date: 3/29/2018

Test Information

Test Method: LM-79-2019
Report Number: P1213189
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-LD5-85SL-LC-UNV-L930-CD1-U
Description: 4FT LINEAR SNLED LED FIXTURE
CLEAR LENSED
Light Source: -
Ballast/Driver: -

Summary

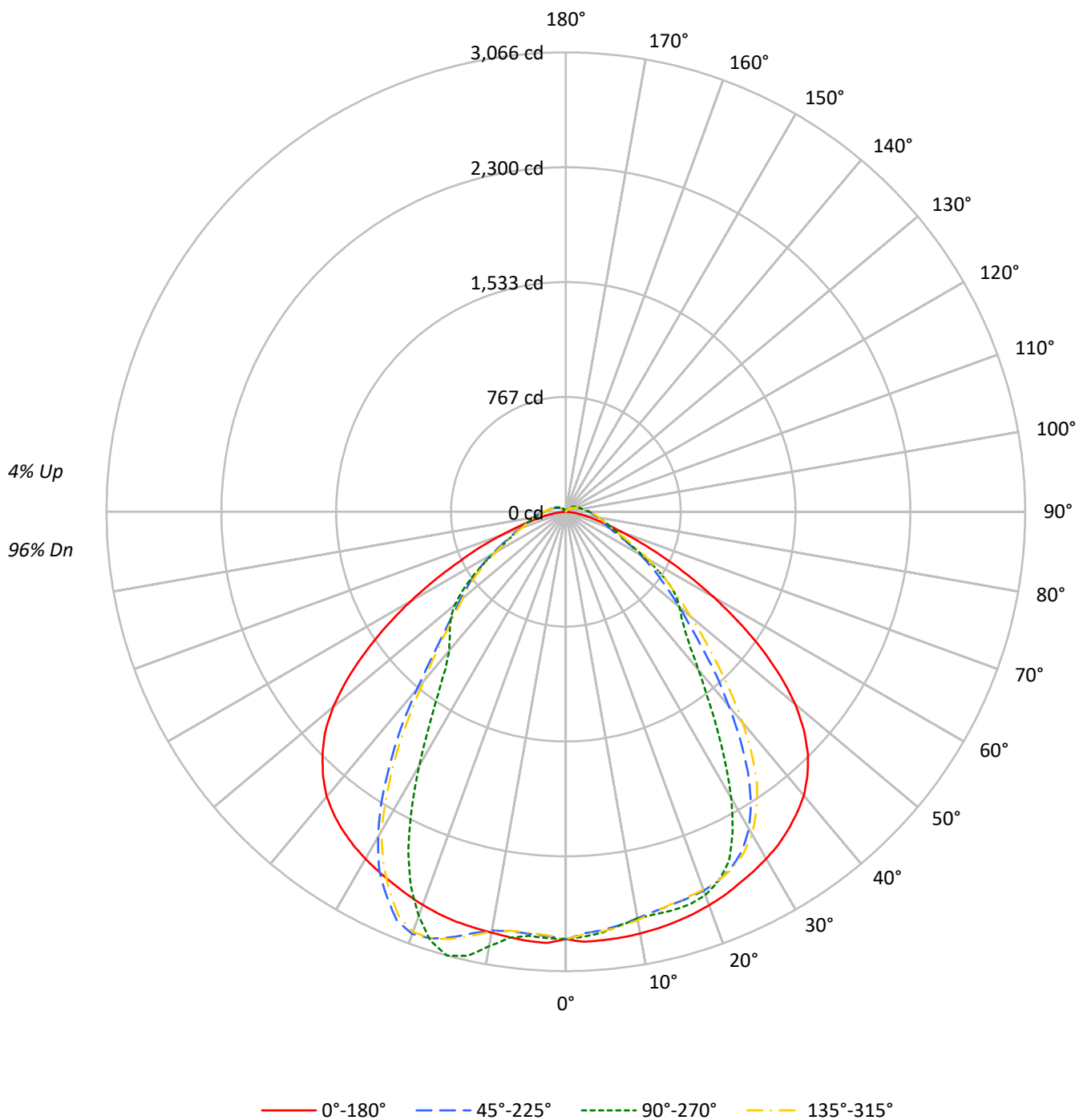
Lumens per Lamp: N/A
Luminaire Lumens: 6800.0 lumens
Efficiency: N/A
Efficacy: 80.0 lumens/watt
Spacing Criteria (0/90/45): 1.4 / 1.12 / 1.19
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.12')
CIE Type: Direct

Input Watts (W): 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					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°	23050	23050	23050	23050
5°	23218	22136	23266	22310
10°	23326	21216	23278	22656
15°	23507	20932	23494	23307
20°	23766	20601	23740	21715
25°	24058	19543	24045	18883
30°	24511	16938	24524	15005
35°	24991	13696	25062	11590
40°	25414	11027	25520	9716
45°	25325	9341	25455	9096
50°	24234	8600	24572	8408
55°	21501	7730	22038	7027
60°	17439	5917	18365	5426
65°	12964	4527	13967	4293
70°	8817	3907	9937	3736
75°	5768	3526	6716	3334
80°	3728	3287	4368	3024
85°	1913	3279	2514	2995

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 180°

Vertical Angle: 45°

Luminance: 25455 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	270.9	4.0
10°-20°	806.2	11.9
20°-30°	1225.6	18.0
30°-40°	1314.8	19.3
40°-50°	1141.1	16.8
50°-60°	845.6	12.4
60°-70°	484.5	7.1
70°-80°	268.3	3.9
80°-90°	163.4	2.4
90°-100°	106.2	1.6
100°-110°	71.2	1.0
110°-120°	48.1	0.7
120°-130°	29.5	0.4
130°-140°	15.5	0.2
140°-150°	7.1	0.1
150°-160°	2.1	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	2302.7	33.9
0°-40°	3617.5	53.2
0°-60°	5604.2	82.4
0°-90°	6520.4	95.9
90°-120°	225.5	3.3
90°-150°	277.5	4.1
90°-180°	280.0	4.1
0°-180°	6800.0	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	2852	2852	2852	2852	2852	
5°	2870	2818	2876	2841	2870	274
15°	2833	2754	2832	3066	2833	802
25°	2738	2575	2736	2488	2738	1265
35°	2589	1753	2596	1484	2589	1620
45°	2285	1124	2297	1095	2285	1750
55°	1594	843	1634	766	1594	1414
65°	723	427	779	405	723	729
75°	206	271	240	256	206	236
85°	28	187	37	171	28	37
90°	0	156	3	144	0	1
95°	2	128	0	122	2	1
105°	2	96	2	91	2	2
115°	2	78	2	71	2	1
125°	2	59	2	49	2	1
135°	2	37	2	31	2	1
145°	2	22	3	18	2	1
155°	3	10	3	9	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°	2852.4	2852.4	2852.4	2852.4	2852.4	2852.4	2852.4	2852.4	2852.4	2852.4	2852.4
2.5°	2873.1	2865.7	2862.7	2856.8	2861.3	2878.9	2867.2	2848.0	2849.5	2815.6	2833.3
5°	2870.1	2861.3	2856.8	2851.0	2853.9	2870.1	2858.3	2839.2	2837.7	2803.8	2820.0
7.5°	2865.7	2856.8	2849.5	2845.1	2846.5	2859.8	2845.1	2823.0	2818.5	2781.7	2796.4
10°	2858.3	2852.4	2842.1	2834.7	2833.3	2848.0	2824.4	2802.3	2792.0	2753.7	2768.4
12.5°	2848.0	2839.2	2828.9	2815.6	2814.1	2823.0	2803.8	2772.9	2762.6	2731.6	2747.8
15°	2833.3	2823.0	2811.2	2796.4	2789.1	2795.0	2771.4	2743.4	2741.9	2715.4	2737.5
17.5°	2817.1	2802.3	2789.1	2768.4	2758.1	2762.6	2743.4	2718.4	2721.3	2705.1	2730.1
20°	2795.0	2778.8	2758.1	2737.5	2722.8	2730.1	2716.9	2697.7	2702.1	2690.4	2712.5
22.5°	2769.9	2747.8	2722.8	2699.2	2687.4	2697.7	2687.4	2671.2	2672.7	2665.3	2678.6
25°	2737.5	2712.5	2683.0	2653.5	2647.6	2655.0	2649.1	2635.8	2629.9	2618.2	2624.1
27.5°	2708.0	2680.0	2643.2	2612.3	2602.0	2616.7	2603.4	2581.3	2565.1	2548.9	2537.1
30°	2674.2	2640.3	2599.0	2563.6	2554.8	2560.7	2541.5	2507.7	2464.9	2444.3	2411.9
32.5°	2637.3	2593.1	2541.5	2501.8	2495.9	2491.5	2456.1	2407.5	2341.2	2299.9	2249.8
35°	2588.7	2540.1	2478.2	2429.6	2420.7	2395.7	2338.2	2273.4	2187.9	2117.2	2031.8
37.5°	2534.2	2476.7	2411.9	2347.1	2322.0	2271.9	2190.9	2123.1	1993.5	1908.0	1804.9
40°	2472.3	2403.1	2323.5	2245.4	2204.1	2123.1	2030.3	1930.1	1804.9	1689.9	1603.0
42.5°	2386.8	2313.2	2218.9	2132.0	2061.2	1953.7	1844.6	1703.2	1588.3	1491.0	1402.6
45°	2285.2	2196.8	2087.8	1983.1	1893.3	1765.1	1636.9	1495.5	1399.7	1286.2	1225.8
47.5°	2154.1	2058.3	1941.9	1825.5	1707.6	1566.2	1432.1	1296.6	1200.8	1119.8	1075.6
50°	1999.4	1910.9	1782.8	1644.3	1514.6	1367.3	1233.2	1131.5	1038.7	988.6	954.7
52.5°	1807.8	1725.3	1594.2	1443.9	1318.7	1174.3	1052.0	969.5	903.2	866.3	854.5
55°	1594.2	1522.0	1392.3	1252.4	1124.2	991.6	898.8	826.6	783.8	761.7	763.2
57.5°	1365.8	1309.8	1187.5	1062.3	941.5	841.3	757.3	699.8	667.4	666.0	670.4
60°	1137.4	1096.2	990.1	882.5	776.5	695.4	633.5	593.8	573.1	574.6	573.1
62.5°	919.4	881.1	804.5	716.1	632.1	577.6	521.6	505.4	487.7	486.2	486.2
65°	723.4	694.0	632.1	568.7	505.4	470.0	442.0	422.9	409.6	406.6	408.1
67.5°	543.7	531.9	489.2	446.4	406.6	384.5	361.0	356.6	346.2	346.2	349.2
70°	405.2	396.3	372.8	347.7	331.5	316.8	305.0	305.0	303.5	302.0	309.4
72.5°	293.2	294.7	287.3	268.2	266.7	263.7	260.8	265.2	266.7	271.1	279.9
75°	206.3	210.7	210.7	207.7	213.6	221.0	225.4	232.8	241.6	247.5	257.8
77.5°	145.9	145.9	153.2	162.1	173.9	187.1	198.9	209.2	221.0	228.4	237.2
80°	94.3	98.7	110.5	126.7	142.9	160.6	176.8	190.1	201.9	213.6	219.5
82.5°	56.0	63.4	78.1	98.7	119.3	141.4	157.6	173.9	187.1	198.9	203.3
85°	28.0	38.3	56.0	78.1	100.2	123.8	144.4	159.1	173.9	184.2	190.1
87.5°	8.8	20.6	39.8	60.4	84.0	107.6	129.7	145.9	159.1	168.0	173.9
90°	0.0	10.3	28.0	50.1	72.2	95.8	116.4	134.1	147.3	154.7	159.1
92.5°	0.0	5.9	22.1	41.3	61.9	85.5	106.1	122.3	134.1	141.4	144.4
95°	1.5	4.4	16.2	33.9	54.5	76.6	95.8	110.5	122.3	129.7	131.1
97.5°	1.5	2.9	13.3	28.0	47.1	67.8	86.9	101.7	110.5	117.9	119.3
100°	1.5	2.9	10.3	25.0	41.3	60.4	78.1	91.3	101.7	107.6	109.0
102.5°	1.5	1.5	8.8	20.6	36.8	53.0	69.2	82.5	91.3	97.2	100.2
105°	1.5	1.5	7.4	17.7	32.4	47.1	61.9	75.1	82.5	88.4	91.3
107.5°	1.5	1.5	5.9	14.7	28.0	41.3	56.0	66.3	75.1	81.0	84.0
110°	1.5	1.5	4.4	13.3	23.6	36.8	48.6	58.9	67.8	73.7	76.6

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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	1.5	1.5	4.4	11.8	20.6	32.4	42.7	53.0	60.4	66.3	70.7
115°	1.5	1.5	4.4	10.3	19.2	28.0	38.3	47.1	54.5	60.4	64.8
117.5°	1.5	1.5	4.4	8.8	16.2	25.0	33.9	42.7	48.6	54.5	58.9
120°	1.5	1.5	2.9	7.4	14.7	22.1	29.5	36.8	44.2	50.1	54.5
122.5°	1.5	1.5	2.9	7.4	11.8	19.2	26.5	32.4	39.8	44.2	48.6
125°	1.5	1.5	2.9	5.9	10.3	17.7	23.6	29.5	33.9	39.8	44.2
127.5°	1.5	1.5	2.9	5.9	8.8	14.7	20.6	26.5	30.9	35.4	38.3
130°	1.5	1.5	2.9	4.4	7.4	11.8	17.7	22.1	28.0	30.9	33.9
132.5°	1.5	1.5	1.5	4.4	5.9	8.8	13.3	19.2	23.6	28.0	29.5
135°	1.5	1.5	1.5	2.9	5.9	7.4	10.3	14.7	19.2	23.6	26.5
137.5°	1.5	1.5	1.5	2.9	4.4	7.4	8.8	11.8	16.2	19.2	23.6
140°	1.5	1.5	1.5	2.9	4.4	5.9	7.4	10.3	13.3	16.2	19.2
142.5°	1.5	1.5	1.5	2.9	2.9	4.4	5.9	8.8	10.3	13.3	16.2
145°	1.5	1.5	1.5	2.9	2.9	4.4	5.9	7.4	8.8	10.3	13.3
147.5°	1.5	1.5	1.5	2.9	2.9	2.9	4.4	5.9	7.4	8.8	10.3
150°	2.9	2.9	2.9	2.9	2.9	2.9	4.4	4.4	5.9	7.4	8.8
152.5°	2.9	2.9	2.9	2.9	2.9	2.9	4.4	4.4	4.4	5.9	7.4
155°	2.9	2.9	2.9	2.9	2.9	2.9	2.9	4.4	4.4	5.9	5.9
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°	2852.4	2852.4	2852.4	2852.4	2852.4	2852.4	2852.4	2852.4	2852.4	2852.4	2852.4
2.5°	2827.4	2830.3	2848.0	2846.5	2843.6	2840.6	2840.6	2837.7	2840.6	2848.0	2845.1
5°	2812.6	2817.1	2830.3	2828.9	2825.9	2824.4	2823.0	2818.5	2821.5	2831.8	2828.9
7.5°	2786.1	2790.5	2802.3	2796.4	2792.0	2795.0	2787.6	2783.2	2789.1	2799.4	2797.9
10°	2758.1	2761.1	2775.8	2772.9	2765.5	2767.0	2759.6	2756.7	2764.0	2769.9	2771.4
12.5°	2739.0	2749.3	2762.6	2761.1	2759.6	2761.1	2753.7	2750.8	2755.2	2761.1	2759.6
15°	2734.6	2747.8	2762.6	2762.6	2764.0	2765.5	2758.1	2753.7	2758.1	2762.6	2761.1
17.5°	2730.1	2746.3	2759.6	2758.1	2759.6	2762.6	2750.8	2747.8	2753.7	2759.6	2756.7
20°	2715.4	2730.1	2739.0	2736.0	2736.0	2737.5	2722.8	2722.8	2731.6	2736.0	2737.5
22.5°	2674.2	2691.8	2691.8	2684.5	2684.5	2678.6	2674.2	2665.3	2675.6	2683.0	2688.9
25°	2612.3	2619.6	2610.8	2594.6	2585.7	2578.4	2557.8	2575.4	2575.4	2597.5	2604.9
27.5°	2525.3	2509.1	2484.1	2450.2	2442.8	2419.3	2406.0	2410.4	2417.8	2448.7	2472.3
30°	2382.4	2333.8	2291.1	2276.3	2243.9	2220.4	2196.8	2208.6	2221.8	2239.5	2288.1
32.5°	2193.8	2146.7	2077.4	2052.4	2018.5	1989.0	1961.0	1978.7	2002.3	2014.1	2067.1
35°	1977.3	1921.3	1857.9	1815.2	1779.8	1763.6	1728.3	1753.3	1778.3	1787.2	1832.9
37.5°	1747.4	1689.9	1634.0	1597.1	1563.2	1552.9	1529.3	1547.0	1566.2	1579.4	1617.8
40°	1529.3	1476.3	1433.6	1408.5	1385.0	1376.1	1367.3	1374.6	1389.4	1399.7	1429.2
42.5°	1342.2	1299.5	1270.0	1255.3	1239.1	1227.3	1228.8	1231.7	1239.1	1261.2	1274.5
45°	1178.7	1153.6	1134.5	1131.5	1121.2	1119.8	1118.3	1124.2	1128.6	1141.9	1152.2
47.5°	1047.6	1037.2	1032.8	1038.7	1043.1	1037.2	1040.2	1047.6	1056.4	1056.4	1054.9
50°	944.4	947.4	953.3	966.5	975.4	978.3	981.3	990.1	991.6	994.5	990.1
52.5°	860.4	863.4	879.6	900.2	910.5	915.0	920.9	929.7	929.7	932.6	926.7
55°	775.0	779.4	795.6	816.2	825.1	831.0	836.9	842.8	847.2	853.1	848.7
57.5°	680.7	694.0	704.3	710.2	716.1	720.5	724.9	726.4	735.2	736.7	744.0
60°	580.5	583.5	593.8	592.3	587.9	599.7	593.8	604.1	614.4	627.7	629.1
62.5°	484.7	486.2	493.6	490.6	496.5	495.0	499.5	499.5	506.8	512.7	520.1
65°	409.6	411.1	417.0	417.0	415.5	419.9	424.3	427.3	427.3	431.7	437.6
67.5°	353.6	358.0	363.9	366.9	369.8	369.8	374.2	375.7	378.7	380.1	383.1
70°	315.3	321.2	327.1	330.0	331.5	334.5	335.9	335.9	338.9	340.3	343.3
72.5°	287.3	293.2	297.6	297.6	300.6	302.0	302.0	303.5	305.0	307.9	310.9
75°	263.7	268.2	271.1	269.6	269.6	269.6	271.1	271.1	274.0	277.0	279.9
77.5°	241.6	246.1	246.1	243.1	243.1	243.1	243.1	244.6	246.1	249.0	251.9
80°	225.4	225.4	224.0	224.0	221.0	219.5	219.5	221.0	221.0	224.0	228.4
82.5°	207.7	207.7	206.3	204.8	203.3	201.9	201.9	203.3	204.8	206.3	209.2
85°	191.5	191.5	188.6	188.6	187.1	187.1	187.1	187.1	188.6	190.1	193.0
87.5°	175.3	173.9	172.4	170.9	170.9	170.9	170.9	170.9	172.4	175.3	176.8
90°	159.1	157.6	156.2	156.2	154.7	154.7	156.2	156.2	157.6	159.1	160.6
92.5°	144.4	142.9	141.4	141.4	140.0	140.0	141.4	140.0	142.9	142.9	144.4
95°	131.1	129.7	128.2	128.2	128.2	128.2	128.2	128.2	129.7	129.7	131.1
97.5°	119.3	117.9	116.4	116.4	117.9	116.4	117.9	117.9	117.9	119.3	120.8
100°	109.0	107.6	107.6	109.0	107.6	107.6	109.0	109.0	109.0	109.0	110.5
102.5°	100.2	100.2	100.2	100.2	100.2	100.2	101.7	101.7	101.7	101.7	103.1
105°	91.3	92.8	92.8	92.8	94.3	94.3	94.3	95.8	95.8	95.8	95.8
107.5°	85.5	86.9	86.9	88.4	88.4	89.9	89.9	89.9	89.9	91.3	91.3
110°	79.6	81.0	82.5	84.0	84.0	85.5	85.5	85.5	85.5	85.5	85.5

TEST NUMBER: P1213189

CATALOG NUMBER: 4SNLED-LD5-85SL-LC-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
112.5°	73.7	75.1	76.6	79.6	81.0	81.0	81.0	81.0	82.5	82.5	81.0
115°	67.8	70.7	72.2	75.1	76.6	76.6	78.1	78.1	78.1	78.1	76.6
117.5°	61.9	66.3	67.8	70.7	72.2	72.2	73.7	73.7	73.7	73.7	72.2
120°	57.5	60.4	63.4	64.8	66.3	67.8	67.8	69.2	69.2	69.2	67.8
122.5°	53.0	56.0	58.9	60.4	61.9	63.4	63.4	63.4	63.4	63.4	63.4
125°	47.1	50.1	53.0	54.5	56.0	57.5	57.5	58.9	58.9	58.9	57.5
127.5°	42.7	45.7	47.1	50.1	51.6	51.6	53.0	53.0	53.0	53.0	51.6
130°	36.8	39.8	42.7	44.2	45.7	45.7	47.1	47.1	47.1	47.1	47.1
132.5°	32.4	35.4	36.8	39.8	39.8	41.3	41.3	42.7	42.7	42.7	41.3
135°	29.5	30.9	32.4	35.4	35.4	36.8	36.8	36.8	36.8	36.8	36.8
137.5°	26.5	28.0	29.5	30.9	30.9	32.4	32.4	32.4	32.4	33.9	32.4
140°	22.1	25.0	26.5	26.5	28.0	28.0	28.0	29.5	29.5	29.5	28.0
142.5°	19.2	20.6	22.1	23.6	25.0	25.0	25.0	25.0	26.5	25.0	25.0
145°	14.7	17.7	19.2	20.6	22.1	22.1	22.1	22.1	22.1	22.1	22.1
147.5°	11.8	13.3	16.2	17.7	17.7	19.2	19.2	19.2	19.2	19.2	19.2
150°	10.3	10.3	13.3	14.7	16.2	16.2	16.2	16.2	16.2	16.2	16.2
152.5°	7.4	8.8	10.3	11.8	13.3	13.3	13.3	13.3	13.3	13.3	13.3
155°	7.4	7.4	8.8	8.8	10.3	10.3	10.3	10.3	11.8	10.3	10.3
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

TEST NUMBER: P1213189

CATALOG NUMBER: 4SNLED-LD5-85SL-LC-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	2852.4	2852.4	2852.4	2852.4	2852.4	2852.4	2852.4	2852.4	2852.4	2852.4	2852.4
2.5°	2840.6	2839.2	2845.1	2839.2	2809.7	2821.5	2817.1	2833.3	2834.7	2839.2	2853.9
5°	2825.9	2825.9	2833.3	2827.4	2799.4	2811.2	2809.7	2825.9	2828.9	2831.8	2848.0
7.5°	2796.4	2797.9	2808.2	2803.8	2774.3	2792.0	2790.5	2809.7	2815.6	2821.5	2836.2
10°	2768.4	2767.0	2778.8	2774.3	2746.3	2767.0	2765.5	2784.7	2793.5	2803.8	2821.5
12.5°	2753.7	2749.3	2753.7	2749.3	2718.4	2734.6	2736.0	2758.1	2768.4	2781.7	2802.3
15°	2753.7	2746.3	2746.3	2737.5	2702.1	2712.5	2713.9	2728.7	2741.9	2755.2	2780.2
17.5°	2750.8	2743.4	2741.9	2734.6	2696.3	2696.3	2694.8	2705.1	2712.5	2725.7	2752.2
20°	2734.6	2731.6	2730.1	2725.7	2690.4	2684.5	2681.5	2681.5	2685.9	2690.4	2716.9
22.5°	2691.8	2694.8	2697.7	2700.7	2672.7	2662.4	2663.8	2660.9	2656.5	2656.5	2678.6
25°	2612.3	2627.0	2638.8	2652.1	2635.8	2628.5	2637.3	2632.9	2625.5	2619.6	2638.8
27.5°	2485.6	2516.5	2541.5	2574.0	2575.4	2569.5	2593.1	2590.2	2588.7	2579.9	2594.6
30°	2310.2	2358.9	2392.7	2439.9	2479.7	2485.6	2525.3	2531.2	2537.1	2532.7	2547.4
32.5°	2098.1	2164.4	2221.8	2295.5	2333.8	2367.7	2423.7	2447.3	2470.8	2478.2	2494.4
35°	1866.7	1941.9	2009.7	2090.7	2151.1	2224.8	2292.6	2327.9	2381.0	2401.6	2425.2
37.5°	1647.2	1717.9	1784.2	1865.3	1962.5	2039.1	2123.1	2202.7	2274.9	2304.3	2339.7
40°	1452.7	1510.2	1573.5	1644.3	1732.7	1832.9	1924.2	2034.7	2120.2	2179.1	2230.7
42.5°	1305.4	1333.4	1387.9	1451.3	1522.0	1623.6	1716.5	1840.2	1943.4	2027.3	2112.8
45°	1174.3	1187.5	1227.3	1261.2	1333.4	1423.3	1522.0	1642.8	1750.4	1857.9	1961.0
47.5°	1062.3	1078.5	1097.7	1118.3	1169.8	1245.0	1330.4	1439.5	1547.0	1672.3	1790.1
50°	987.2	991.6	994.5	1003.4	1034.3	1085.9	1155.1	1247.9	1351.1	1485.1	1610.4
52.5°	920.9	920.9	912.0	907.6	919.4	951.8	991.6	1057.9	1164.0	1287.7	1420.3
55°	850.1	836.9	833.9	819.2	822.1	836.9	856.0	907.6	994.5	1100.6	1228.8
57.5°	751.4	745.5	745.5	739.6	727.8	735.2	739.6	776.5	838.3	929.7	1041.7
60°	638.0	635.0	642.4	643.9	633.5	638.0	636.5	658.6	702.8	776.5	869.3
62.5°	524.5	537.8	539.3	545.1	539.3	537.8	545.1	564.3	586.4	642.4	714.6
65°	440.5	447.9	449.4	456.7	453.8	453.8	459.7	474.4	487.7	526.0	582.0
67.5°	386.0	383.1	384.5	389.0	384.5	383.1	387.5	396.3	406.6	430.2	470.0
70°	343.3	340.3	340.3	340.3	334.5	330.0	331.5	334.5	338.9	352.1	377.2
72.5°	310.9	310.9	306.5	302.0	297.6	294.7	291.7	288.8	287.3	291.7	305.0
75°	281.4	282.9	281.4	277.0	271.1	265.2	259.3	253.4	246.1	243.1	244.6
77.5°	254.9	256.4	257.8	256.4	250.5	243.1	234.3	225.4	215.1	204.8	198.9
80°	231.3	234.3	235.7	234.3	229.8	224.0	213.6	203.3	188.6	175.3	160.6
82.5°	210.7	215.1	216.6	216.6	213.6	207.7	196.0	184.2	168.0	150.3	131.1
85°	194.5	197.4	200.4	200.4	198.9	193.0	181.2	168.0	151.8	131.1	110.5
87.5°	178.3	179.8	182.7	185.6	182.7	176.8	166.5	151.8	135.5	114.9	91.3
90°	162.1	163.5	166.5	169.4	168.0	162.1	153.2	140.0	122.3	100.2	76.6
92.5°	145.9	148.8	150.3	151.8	153.2	148.8	141.4	128.2	110.5	88.4	66.3
95°	134.1	134.1	137.0	138.5	140.0	135.5	129.7	116.4	100.2	79.6	57.5
97.5°	122.3	122.3	125.2	125.2	126.7	123.8	117.9	106.1	89.9	70.7	48.6
100°	110.5	112.0	113.4	114.9	114.9	113.4	107.6	95.8	81.0	63.4	42.7
102.5°	103.1	103.1	104.6	104.6	106.1	103.1	97.2	86.9	72.2	56.0	36.8
105°	95.8	95.8	97.2	97.2	95.8	92.8	86.9	78.1	64.8	48.6	32.4
107.5°	89.9	89.9	89.9	89.9	88.4	85.5	79.6	69.2	57.5	44.2	29.5
110°	85.5	84.0	84.0	82.5	81.0	76.6	70.7	61.9	51.6	38.3	25.0



TEST NUMBER: P1213189

CATALOG NUMBER: 4SNLED-LD5-85SL-LC-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
112.5°	81.0	79.6	78.1	76.6	73.7	69.2	63.4	56.0	45.7	33.9	22.1
115°	76.6	75.1	73.7	70.7	67.8	63.4	57.5	50.1	39.8	29.5	19.2
117.5°	72.2	70.7	67.8	64.8	61.9	57.5	51.6	44.2	35.4	26.5	17.7
120°	66.3	64.8	63.4	60.4	57.5	51.6	45.7	39.8	30.9	23.6	14.7
122.5°	61.9	60.4	57.5	56.0	51.6	47.1	41.3	35.4	28.0	20.6	13.3
125°	56.0	54.5	53.0	50.1	47.1	41.3	36.8	30.9	25.0	17.7	10.3
127.5°	51.6	50.1	47.1	44.2	41.3	36.8	32.4	28.0	22.1	14.7	10.3
130°	45.7	44.2	42.7	39.8	36.8	32.4	29.5	23.6	19.2	13.3	8.8
132.5°	39.8	39.8	38.3	35.4	32.4	29.5	25.0	20.6	16.2	11.8	7.4
135°	36.8	35.4	33.9	30.9	29.5	25.0	22.1	17.7	13.3	10.3	5.9
137.5°	32.4	30.9	29.5	28.0	25.0	22.1	19.2	14.7	11.8	8.8	5.9
140°	28.0	26.5	26.5	23.6	22.1	19.2	16.2	13.3	10.3	7.4	4.4
142.5°	25.0	23.6	22.1	20.6	19.2	16.2	13.3	10.3	8.8	5.9	4.4
145°	22.1	20.6	19.2	17.7	16.2	13.3	11.8	8.8	7.4	5.9	4.4
147.5°	17.7	17.7	16.2	14.7	13.3	11.8	10.3	8.8	5.9	4.4	2.9
150°	14.7	14.7	13.3	11.8	11.8	10.3	8.8	7.4	5.9	4.4	2.9
152.5°	13.3	11.8	11.8	10.3	10.3	8.8	7.4	5.9	4.4	4.4	2.9
155°	10.3	10.3	10.3	8.8	8.8	7.4	5.9	5.9	4.4	2.9	2.9
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: P1213189

CATALOG NUMBER: 4SNLED-LD5-85SL-LC-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
0°	2852.4	2852.4	2852.4	2852.4	2852.4	2852.4	2852.4	2852.4	2852.4	2852.4	2852.4
2.5°	2856.8	2839.2	2853.9	2880.4	2877.5	2874.5	2871.6	2877.5	2896.6	2886.3	2870.1
5°	2852.4	2834.7	2851.0	2876.0	2874.5	2870.1	2867.2	2873.1	2892.2	2881.9	2864.2
7.5°	2843.6	2827.4	2839.2	2864.2	2864.2	2861.3	2858.3	2864.2	2881.9	2873.1	2855.4
10°	2828.9	2817.1	2828.9	2852.4	2853.9	2848.0	2845.1	2852.4	2870.1	2865.7	2851.0
12.5°	2817.1	2805.3	2818.5	2842.1	2843.6	2837.7	2833.3	2842.1	2865.7	2868.6	2864.2
15°	2800.9	2790.5	2806.8	2831.8	2831.8	2827.4	2827.4	2839.2	2871.6	2884.8	2892.2
17.5°	2777.3	2769.9	2789.1	2814.1	2815.6	2812.6	2814.1	2837.7	2880.4	2912.8	2933.5
20°	2747.8	2744.9	2765.5	2792.0	2796.4	2797.9	2805.3	2840.6	2899.6	2943.8	2964.4
22.5°	2712.5	2713.9	2737.5	2765.5	2771.4	2775.8	2790.5	2840.6	2914.3	2961.5	2970.3
25°	2672.7	2677.1	2702.1	2736.0	2743.4	2752.2	2777.3	2842.1	2918.7	2949.7	2934.9
27.5°	2629.9	2638.8	2671.2	2706.6	2715.4	2730.1	2762.6	2833.3	2898.1	2899.6	2845.1
30°	2585.7	2596.1	2634.4	2675.6	2690.4	2705.1	2744.9	2812.6	2848.0	2800.9	2705.1
32.5°	2535.7	2550.4	2588.7	2638.8	2656.5	2675.6	2715.4	2772.9	2759.6	2657.9	2520.9
35°	2472.3	2492.9	2537.1	2596.1	2612.3	2637.3	2665.3	2678.6	2619.6	2475.2	2320.5
37.5°	2394.2	2425.2	2476.7	2544.5	2562.2	2578.4	2585.7	2548.9	2431.0	2274.9	2114.3
40°	2304.3	2351.5	2407.5	2482.6	2500.3	2500.3	2473.8	2395.7	2246.9	2042.1	1863.8
42.5°	2195.3	2252.8	2323.5	2398.6	2416.3	2395.7	2332.3	2195.3	2025.9	1797.5	1608.9
45°	2062.7	2139.3	2218.9	2297.0	2305.8	2260.1	2146.7	1972.8	1763.6	1551.4	1371.7
47.5°	1905.1	2005.2	2092.2	2180.6	2168.8	2092.2	1940.4	1743.0	1522.0	1321.6	1177.2
50°	1728.3	1846.1	1943.4	2027.3	2002.3	1896.2	1717.9	1511.7	1292.1	1121.2	1001.9
52.5°	1539.7	1675.2	1772.5	1840.2	1806.3	1679.6	1483.7	1286.2	1106.5	950.3	870.8
55°	1343.7	1480.7	1580.9	1634.0	1589.8	1452.7	1259.7	1080.0	910.5	808.9	761.7
57.5°	1153.6	1281.8	1376.1	1418.8	1362.9	1225.8	1047.6	895.8	773.5	688.1	664.5
60°	970.9	1075.6	1165.4	1197.8	1137.4	1010.7	857.5	736.7	646.8	587.9	576.1
62.5°	801.5	887.0	957.7	982.7	923.8	825.1	692.5	602.6	539.3	509.8	495.0
65°	661.5	711.6	783.8	779.4	744.0	652.7	555.5	492.1	450.8	431.7	422.9
67.5°	520.1	565.8	611.4	617.3	573.1	509.8	446.4	400.8	378.7	368.3	363.9
70°	402.2	436.1	464.1	456.7	433.2	393.4	353.6	328.6	319.7	315.3	315.3
72.5°	312.4	330.0	343.3	334.5	319.7	299.1	279.9	269.6	271.1	274.0	277.0
75°	241.6	246.1	249.0	240.2	237.2	224.0	222.5	224.0	232.8	241.6	246.1
77.5°	185.6	179.8	175.3	166.5	168.0	166.5	173.9	185.6	198.9	212.2	224.0
80°	142.9	129.7	119.3	110.5	114.9	122.3	137.0	154.7	172.4	187.1	201.9
82.5°	110.5	91.3	76.6	67.8	76.6	88.4	107.6	129.7	150.3	166.5	182.7
85°	85.5	63.4	45.7	36.8	45.7	63.4	84.0	109.0	131.1	148.8	165.0
87.5°	66.3	45.7	25.0	14.7	25.0	44.2	67.8	91.3	113.4	134.1	150.3
90°	53.0	30.9	11.8	2.9	13.3	30.9	53.0	76.6	98.7	120.8	137.0
92.5°	42.7	22.1	5.9	0.0	7.4	23.6	44.2	66.3	88.4	109.0	125.2
95°	35.4	17.7	4.4	0.0	5.9	17.7	35.4	57.5	78.1	98.7	112.0
97.5°	29.5	13.3	2.9	0.0	2.9	14.7	29.5	48.6	69.2	88.4	101.7
100°	25.0	11.8	2.9	0.0	2.9	11.8	25.0	42.7	60.4	78.1	91.3
102.5°	20.6	8.8	1.5	1.5	1.5	8.8	22.1	36.8	53.0	69.2	82.5
105°	19.2	7.4	1.5	1.5	1.5	7.4	19.2	32.4	47.1	61.9	73.7
107.5°	16.2	5.9	1.5	1.5	1.5	5.9	16.2	28.0	42.7	56.0	66.3
110°	13.3	5.9	1.5	1.5	1.5	5.9	13.3	25.0	36.8	48.6	58.9

TEST NUMBER: P1213189

CATALOG NUMBER: 4SNLED-LD5-85SL-LC-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
112.5°	11.8	4.4	1.5	1.5	1.5	4.4	11.8	22.1	32.4	44.2	53.0
115°	10.3	4.4	1.5	1.5	1.5	4.4	10.3	19.2	28.0	38.3	47.1
117.5°	8.8	4.4	1.5	1.5	1.5	2.9	8.8	16.2	25.0	33.9	42.7
120°	7.4	2.9	1.5	1.5	1.5	2.9	7.4	14.7	22.1	29.5	36.8
122.5°	7.4	2.9	1.5	1.5	1.5	2.9	5.9	11.8	19.2	25.0	32.4
125°	5.9	2.9	1.5	1.5	1.5	1.5	5.9	10.3	16.2	22.1	28.0
127.5°	5.9	2.9	1.5	1.5	1.5	1.5	4.4	8.8	13.3	19.2	25.0
130°	4.4	2.9	1.5	1.5	1.5	1.5	2.9	7.4	11.8	16.2	20.6
132.5°	4.4	2.9	1.5	1.5	1.5	1.5	2.9	5.9	8.8	13.3	17.7
135°	4.4	1.5	1.5	1.5	1.5	1.5	1.5	4.4	7.4	10.3	13.3
137.5°	2.9	1.5	1.5	1.5	1.5	1.5	1.5	2.9	5.9	7.4	11.8
140°	2.9	1.5	1.5	1.5	1.5	1.5	1.5	2.9	4.4	5.9	8.8
142.5°	2.9	1.5	1.5	1.5	1.5	1.5	1.5	1.5	2.9	4.4	7.4
145°	2.9	1.5	1.5	2.9	2.9	1.5	1.5	2.9	2.9	4.4	5.9
147.5°	2.9	1.5	1.5	1.5	1.5	1.5	1.5	1.5	2.9	2.9	4.4
150°	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	4.4
152.5°	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9
155°	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9
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: P1213189

CATALOG NUMBER: 4SNLED-LD5-85SL-LC-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
0°	2852.4	2852.4	2852.4	2852.4	2852.4	2852.4	2852.4	2852.4	2852.4	2852.4	2852.4
2.5°	2867.2	2833.3	2851.0	2845.1	2851.0	2865.7	2864.2	2859.8	2862.7	2855.4	2848.0
5°	2861.3	2827.4	2845.1	2837.7	2845.1	2859.8	2856.8	2852.4	2856.8	2848.0	2840.6
7.5°	2853.9	2823.0	2843.6	2842.1	2855.4	2874.5	2876.0	2876.0	2886.3	2873.1	2867.2
10°	2853.9	2837.7	2865.7	2876.0	2909.9	2934.9	2937.9	2943.8	2961.5	2958.5	2943.8
12.5°	2884.8	2881.9	2923.1	2948.2	2979.1	3014.5	3033.7	3039.5	3051.3	3042.5	3036.6
15°	2924.6	2939.4	2985.0	3013.0	3046.9	3073.4	3077.9	3080.8	3089.6	3076.4	3066.1
17.5°	2977.7	2986.5	3023.3	3035.1	3057.2	3061.6	3055.8	3041.0	3041.0	3011.6	3002.7
20°	3002.7	2998.3	3013.0	2993.9	2985.0	2958.5	2933.5	2905.5	2904.0	2873.1	2870.1
22.5°	2980.6	2951.1	2920.2	2873.1	2852.4	2814.1	2780.2	2764.0	2753.7	2713.9	2703.6
25°	2902.5	2830.3	2784.7	2728.7	2678.6	2634.4	2602.0	2568.1	2535.7	2503.2	2488.5
27.5°	2767.0	2699.2	2625.5	2547.4	2478.2	2410.4	2355.9	2322.0	2291.1	2248.3	2226.2
30°	2600.5	2506.2	2425.2	2350.0	2236.6	2154.1	2108.4	2040.6	2017.0	1997.9	1956.6
32.5°	2404.5	2291.1	2180.6	2078.9	1962.5	1885.9	1825.5	1775.4	1760.7	1710.6	1698.8
35°	2187.9	2039.1	1913.9	1813.7	1729.7	1636.9	1586.8	1552.9	1523.5	1489.6	1483.7
37.5°	1933.1	1799.0	1657.5	1569.1	1502.8	1423.3	1385.0	1361.4	1348.1	1323.1	1318.7
40°	1676.7	1542.6	1445.4	1357.0	1315.7	1273.0	1245.0	1234.7	1228.8	1219.9	1211.1
42.5°	1443.9	1326.0	1256.8	1197.8	1180.2	1159.5	1152.2	1158.1	1152.2	1149.2	1147.7
45°	1246.5	1156.6	1108.0	1090.3	1085.9	1080.0	1085.9	1096.2	1097.7	1094.7	1094.7
47.5°	1066.7	1024.0	1003.4	1006.3	1013.7	1018.1	1028.4	1041.7	1044.6	1037.2	1040.2
50°	948.8	923.8	919.4	931.2	947.4	953.3	965.1	975.4	973.9	970.9	968.0
52.5°	838.3	831.0	842.8	854.5	872.2	875.2	879.6	884.0	882.5	876.6	873.7
55°	745.5	751.4	761.7	766.1	779.4	777.9	779.4	779.4	773.5	770.6	766.1
57.5°	661.5	663.0	668.9	670.4	677.7	674.8	673.3	670.4	661.5	660.1	655.6
60°	576.1	573.1	586.4	576.1	582.0	576.1	574.6	567.2	558.4	556.9	554.0
62.5°	495.0	489.2	498.0	493.6	496.5	490.6	487.7	478.8	471.5	470.0	468.5
65°	422.9	419.9	428.7	427.3	430.2	422.9	419.9	414.0	408.1	406.6	405.2
67.5°	362.4	369.8	374.2	374.2	377.2	375.7	368.3	366.9	365.4	359.5	359.5
70°	318.2	322.7	331.5	333.0	331.5	334.5	328.6	327.1	325.6	322.7	321.2
72.5°	282.9	288.8	297.6	299.1	297.6	297.6	294.7	293.2	293.2	288.8	288.8
75°	254.9	262.3	269.6	269.6	269.6	266.7	263.7	263.7	260.8	259.3	256.4
77.5°	231.3	240.2	246.1	244.6	243.1	240.2	240.2	235.7	231.3	231.3	228.4
80°	213.6	219.5	224.0	222.5	221.0	216.6	215.1	210.7	207.7	203.3	203.3
82.5°	194.5	201.9	204.8	203.3	200.4	196.0	194.5	191.5	188.6	187.1	184.2
85°	178.3	185.6	187.1	184.2	181.2	178.3	176.8	175.3	173.9	170.9	170.9
87.5°	162.1	169.4	169.4	168.0	165.0	163.5	162.1	160.6	159.1	157.6	156.2
90°	148.8	154.7	154.7	153.2	151.8	150.3	148.8	147.3	145.9	144.4	144.4
92.5°	135.5	141.4	141.4	140.0	138.5	137.0	137.0	135.5	134.1	132.6	131.1
95°	123.8	129.7	129.7	129.7	128.2	126.7	126.7	125.2	123.8	123.8	122.3
97.5°	112.0	117.9	117.9	117.9	116.4	114.9	114.9	113.4	113.4	113.4	112.0
100°	101.7	106.1	107.6	107.6	106.1	106.1	106.1	104.6	104.6	104.6	103.1
102.5°	91.3	95.8	98.7	98.7	98.7	97.2	97.2	97.2	97.2	97.2	95.8
105°	82.5	86.9	89.9	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3
107.5°	75.1	79.6	82.5	84.0	85.5	85.5	86.9	86.9	86.9	86.9	86.9
110°	67.8	72.2	76.6	78.1	79.6	81.0	81.0	82.5	81.0	81.0	81.0

TEST NUMBER: P1213189

CATALOG NUMBER: 4SNLED-LD5-85SL-LC-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
112.5°	60.4	66.3	69.2	72.2	73.7	75.1	76.6	76.6	76.6	76.6	76.6
115°	54.5	60.4	63.4	66.3	69.2	70.7	70.7	72.2	72.2	72.2	70.7
117.5°	48.6	54.5	57.5	60.4	61.9	64.8	66.3	66.3	66.3	66.3	64.8
120°	44.2	48.6	51.6	54.5	57.5	58.9	60.4	60.4	60.4	60.4	60.4
122.5°	38.3	42.7	47.1	50.1	51.6	53.0	54.5	54.5	54.5	54.5	54.5
125°	33.9	38.3	41.3	44.2	45.7	48.6	48.6	48.6	48.6	48.6	48.6
127.5°	29.5	33.9	36.8	39.8	41.3	42.7	44.2	44.2	44.2	44.2	44.2
130°	25.0	29.5	32.4	35.4	36.8	38.3	38.3	39.8	39.8	39.8	39.8
132.5°	22.1	25.0	28.0	30.9	32.4	33.9	33.9	35.4	35.4	35.4	35.4
135°	17.7	22.1	23.6	26.5	28.0	29.5	29.5	30.9	30.9	30.9	30.9
137.5°	14.7	17.7	20.6	23.6	25.0	25.0	26.5	26.5	28.0	28.0	28.0
140°	11.8	13.3	17.7	19.2	20.6	22.1	23.6	23.6	23.6	23.6	23.6
142.5°	8.8	11.8	13.3	16.2	17.7	19.2	20.6	20.6	20.6	20.6	20.6
145°	7.4	8.8	10.3	13.3	14.7	16.2	17.7	17.7	17.7	17.7	17.7
147.5°	5.9	7.4	8.8	10.3	11.8	13.3	14.7	14.7	14.7	14.7	14.7
150°	4.4	5.9	7.4	7.4	8.8	10.3	11.8	13.3	13.3	13.3	13.3
152.5°	4.4	4.4	5.9	5.9	7.4	8.8	10.3	10.3	10.3	10.3	10.3
155°	2.9	4.4	4.4	4.4	5.9	5.9	7.4	8.8	8.8	8.8	8.8
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: P1213189

CATALOG NUMBER: 4SNLED-LD5-85SL-LC-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°
0°	2852.4	2852.4	2852.4	2852.4	2852.4	2852.4	2852.4	2852.4	2852.4	2852.4	2852.4
2.5°	2852.4	2858.3	2855.4	2851.0	2849.5	2856.8	2849.5	2815.6	2828.9	2830.3	2840.6
5°	2848.0	2852.4	2849.5	2846.5	2842.1	2851.0	2842.1	2806.8	2820.0	2821.5	2831.8
7.5°	2877.5	2878.9	2878.9	2871.6	2859.8	2864.2	2852.4	2812.6	2820.0	2820.0	2827.4
10°	2951.1	2954.1	2958.5	2939.4	2924.6	2912.8	2896.6	2848.0	2846.5	2834.7	2834.7
12.5°	3046.9	3039.5	3032.2	3023.3	3011.6	2996.8	2973.2	2915.8	2896.6	2877.5	2858.3
15°	3074.9	3072.0	3070.5	3066.1	3058.7	3054.3	3036.6	2979.1	2951.1	2927.6	2893.7
17.5°	3001.2	3007.1	3026.3	3027.8	3036.6	3054.3	3051.3	3011.6	2986.5	2976.2	2934.9
20°	2868.6	2870.1	2893.7	2904.0	2942.3	2971.8	2993.9	2989.5	2983.6	2995.3	2964.4
22.5°	2709.5	2719.8	2744.9	2761.1	2797.9	2831.8	2867.2	2886.3	2917.3	2965.9	2960.0
25°	2492.9	2506.2	2541.5	2568.1	2619.6	2671.2	2718.4	2752.2	2789.1	2881.9	2912.8
27.5°	2233.6	2254.2	2299.9	2326.4	2398.6	2451.7	2519.4	2585.7	2637.3	2743.4	2806.8
30°	1961.0	1978.7	2027.3	2064.2	2126.1	2198.3	2283.7	2378.0	2463.5	2571.0	2650.6
32.5°	1706.2	1725.3	1765.1	1797.5	1866.7	1927.2	2021.5	2137.8	2217.4	2366.2	2472.3
35°	1483.7	1501.4	1529.3	1557.3	1614.8	1676.7	1757.7	1871.2	1972.8	2127.5	2261.6
37.5°	1327.5	1330.4	1346.7	1362.9	1405.6	1452.7	1516.1	1616.3	1710.6	1877.1	2024.4
40°	1215.5	1215.5	1224.4	1228.8	1247.9	1275.9	1315.7	1393.8	1471.9	1598.6	1778.3
42.5°	1146.3	1143.3	1143.3	1144.8	1143.3	1156.6	1180.2	1217.0	1286.2	1390.9	1530.8
45°	1094.7	1088.8	1084.4	1074.1	1068.2	1068.2	1069.7	1082.9	1122.7	1190.5	1303.9
47.5°	1037.2	1035.8	1028.4	1016.6	1006.3	998.9	987.2	982.7	994.5	1032.8	1109.4
50°	970.9	963.6	956.2	947.4	935.6	928.2	906.1	907.6	897.3	915.0	954.7
52.5°	873.7	867.8	864.9	857.5	853.1	850.1	832.4	814.8	810.3	813.3	828.0
55°	766.1	769.1	757.3	763.2	761.7	748.5	741.1	727.8	723.4	721.9	729.3
57.5°	654.2	657.1	649.8	655.6	655.6	648.3	643.9	643.9	633.5	624.7	635.0
60°	552.5	546.6	551.0	558.4	558.4	554.0	551.0	551.0	543.7	540.7	548.1
62.5°	470.0	464.1	468.5	475.9	477.4	474.4	471.5	471.5	462.6	462.6	468.5
65°	406.6	408.1	406.6	412.5	412.5	414.0	411.1	408.1	397.8	402.2	400.8
67.5°	361.0	359.5	359.5	365.4	363.9	366.9	363.9	359.5	352.1	346.2	344.8
70°	322.7	321.2	321.2	324.1	325.6	325.6	324.1	321.2	310.9	305.0	300.6
72.5°	288.8	287.3	288.8	290.3	291.7	293.2	291.7	288.8	279.9	272.6	265.2
75°	257.8	256.4	260.8	260.8	262.3	262.3	263.7	262.3	254.9	246.1	237.2
77.5°	226.9	228.4	232.8	234.3	237.2	238.7	240.2	240.2	232.8	225.4	213.6
80°	201.9	204.8	207.7	209.2	212.2	216.6	218.1	219.5	213.6	206.3	193.0
82.5°	184.2	185.6	188.6	190.1	194.5	196.0	197.4	200.4	197.4	190.1	175.3
85°	169.4	170.9	173.9	173.9	176.8	179.8	181.2	182.7	181.2	173.9	159.1
87.5°	156.2	157.6	159.1	160.6	162.1	163.5	165.0	166.5	165.0	157.6	144.4
90°	144.4	144.4	145.9	145.9	147.3	148.8	151.8	151.8	150.3	144.4	131.1
92.5°	131.1	132.6	132.6	134.1	135.5	137.0	138.5	138.5	137.0	131.1	119.3
95°	122.3	122.3	123.8	123.8	125.2	125.2	126.7	126.7	125.2	119.3	107.6
97.5°	112.0	112.0	112.0	112.0	113.4	113.4	114.9	114.9	113.4	107.6	97.2
100°	103.1	103.1	103.1	103.1	103.1	104.6	104.6	104.6	103.1	97.2	86.9
102.5°	95.8	95.8	95.8	95.8	95.8	95.8	95.8	95.8	92.8	88.4	78.1
105°	91.3	91.3	91.3	89.9	89.9	89.9	88.4	88.4	84.0	79.6	70.7
107.5°	85.5	85.5	85.5	84.0	84.0	82.5	81.0	81.0	76.6	72.2	63.4
110°	81.0	81.0	81.0	79.6	78.1	76.6	75.1	73.7	69.2	63.4	56.0

TEST NUMBER: P1213189

CATALOG NUMBER: 4SNLED-LD5-85SL-LC-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°
112.5°	76.6	76.6	75.1	75.1	73.7	72.2	69.2	67.8	63.4	57.5	50.1
115°	70.7	70.7	70.7	69.2	67.8	66.3	64.8	61.9	57.5	51.6	44.2
117.5°	64.8	64.8	64.8	63.4	61.9	60.4	58.9	56.0	51.6	45.7	39.8
120°	58.9	58.9	58.9	57.5	56.0	54.5	53.0	50.1	45.7	41.3	33.9
122.5°	54.5	54.5	53.0	51.6	50.1	48.6	47.1	44.2	41.3	35.4	29.5
125°	48.6	48.6	47.1	47.1	45.7	44.2	42.7	39.8	35.4	30.9	26.5
127.5°	44.2	42.7	42.7	42.7	41.3	39.8	36.8	35.4	30.9	26.5	22.1
130°	38.3	38.3	38.3	36.8	36.8	35.4	32.4	29.5	26.5	23.6	19.2
132.5°	33.9	33.9	33.9	33.9	32.4	30.9	28.0	26.5	23.6	19.2	16.2
135°	30.9	30.9	29.5	29.5	28.0	26.5	25.0	22.1	19.2	16.2	13.3
137.5°	26.5	26.5	26.5	25.0	25.0	23.6	20.6	19.2	17.7	14.7	11.8
140°	23.6	23.6	22.1	22.1	20.6	20.6	19.2	16.2	14.7	11.8	10.3
142.5°	20.6	20.6	19.2	19.2	17.7	17.7	16.2	14.7	11.8	10.3	7.4
145°	17.7	17.7	16.2	16.2	16.2	14.7	13.3	11.8	10.3	8.8	7.4
147.5°	14.7	14.7	14.7	13.3	13.3	11.8	11.8	10.3	8.8	7.4	5.9
150°	13.3	13.3	11.8	11.8	11.8	10.3	8.8	8.8	7.4	5.9	4.4
152.5°	10.3	10.3	10.3	10.3	8.8	8.8	7.4	7.4	5.9	4.4	4.4
155°	8.8	8.8	8.8	7.4	7.4	7.4	5.9	5.9	4.4	4.4	2.9
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: P1213189

CATALOG NUMBER: 4SNLED-LD5-85SL-LC-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	330°	335°	340°	345°	350°	355°	360°
0°	2852.4	2852.4	2852.4	2852.4	2852.4	2852.4	2852.4
2.5°	2836.2	2834.7	2848.0	2846.5	2828.9	2855.4	2873.1
5°	2828.9	2827.4	2839.2	2842.1	2823.0	2851.0	2870.1
7.5°	2823.0	2821.5	2834.7	2839.2	2820.0	2845.1	2865.7
10°	2824.4	2817.1	2828.9	2831.8	2814.1	2840.6	2858.3
12.5°	2834.7	2817.1	2821.5	2821.5	2805.3	2828.9	2848.0
15°	2859.8	2823.0	2817.1	2812.6	2792.0	2814.1	2833.3
17.5°	2887.8	2837.7	2817.1	2802.3	2777.3	2796.4	2817.1
20°	2915.8	2853.9	2820.0	2796.4	2762.6	2780.2	2795.0
22.5°	2929.0	2868.6	2823.0	2787.6	2744.9	2753.7	2769.9
25°	2911.4	2862.7	2817.1	2774.3	2722.8	2724.2	2737.5
27.5°	2846.5	2833.3	2803.8	2761.1	2705.1	2697.7	2708.0
30°	2736.0	2772.9	2774.3	2743.4	2684.5	2669.7	2674.2
32.5°	2581.3	2663.8	2712.5	2706.6	2655.0	2634.4	2637.3
35°	2403.1	2506.2	2612.3	2647.6	2610.8	2594.6	2588.7
37.5°	2189.4	2327.9	2469.4	2556.3	2550.4	2540.1	2534.2
40°	1953.7	2120.2	2288.1	2426.6	2469.4	2469.4	2472.3
42.5°	1701.7	1896.2	2080.4	2255.7	2355.9	2378.0	2386.8
45°	1458.6	1654.6	1855.0	2056.8	2190.9	2260.1	2285.2
47.5°	1237.6	1435.1	1625.1	1846.1	2024.4	2114.3	2154.1
50°	1049.0	1196.4	1396.7	1616.3	1810.8	1921.3	1999.4
52.5°	892.9	1007.8	1183.1	1387.9	1583.9	1735.6	1807.8
55°	761.7	839.8	988.6	1165.4	1352.5	1510.2	1594.2
57.5°	651.2	713.1	814.8	962.1	1119.8	1275.9	1365.8
60°	554.0	596.7	666.0	782.4	916.4	1050.5	1137.4
62.5°	470.0	498.0	543.7	629.1	733.7	838.3	919.4
65°	405.2	417.0	442.0	495.0	574.6	654.2	723.4
67.5°	341.8	349.2	368.3	400.8	440.5	498.0	543.7
70°	294.7	294.7	296.1	315.3	335.9	372.8	405.2
72.5°	256.4	251.9	243.1	247.5	251.9	272.6	293.2
75°	225.4	215.1	200.4	194.5	191.5	194.5	206.3
77.5°	198.9	184.2	166.5	151.8	140.0	135.5	145.9
80°	176.8	159.1	138.5	119.3	100.2	89.9	94.3
82.5°	159.1	137.0	114.9	92.8	70.7	56.0	56.0
85°	140.0	119.3	95.8	72.2	50.1	30.9	28.0
87.5°	126.7	104.6	79.6	57.5	35.4	16.2	8.8
90°	113.4	91.3	67.8	45.7	25.0	7.4	0.0
92.5°	101.7	81.0	58.9	36.8	17.7	4.4	0.0
95°	91.3	72.2	50.1	30.9	14.7	2.9	1.5
97.5°	81.0	63.4	44.2	25.0	10.3	2.9	1.5
100°	73.7	56.0	38.3	20.6	8.8	1.5	1.5
102.5°	64.8	50.1	32.4	17.7	7.4	1.5	1.5
105°	57.5	44.2	28.0	14.7	5.9	1.5	1.5
107.5°	51.6	38.3	25.0	13.3	5.9	1.5	1.5
110°	45.7	33.9	22.1	11.8	4.4	1.5	1.5

TEST NUMBER: P1213189

CATALOG NUMBER: 4SNLED-LD5-85SL-LC-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	330°	335°	340°	345°	350°	355°	360°
112.5°	41.3	29.5	19.2	10.3	2.9	1.5	1.5
115°	35.4	26.5	16.2	8.8	2.9	1.5	1.5
117.5°	30.9	22.1	14.7	7.4	2.9	1.5	1.5
120°	26.5	19.2	11.8	5.9	1.5	1.5	1.5
122.5°	23.6	16.2	10.3	5.9	1.5	1.5	1.5
125°	20.6	14.7	8.8	4.4	1.5	1.5	1.5
127.5°	17.7	11.8	7.4	2.9	1.5	1.5	1.5
130°	14.7	10.3	5.9	2.9	1.5	1.5	1.5
132.5°	11.8	8.8	5.9	2.9	1.5	1.5	1.5
135°	10.3	7.4	4.4	2.9	1.5	1.5	1.5
137.5°	8.8	5.9	2.9	2.9	2.9	1.5	1.5
140°	7.4	4.4	2.9	2.9	2.9	2.9	1.5
142.5°	5.9	4.4	2.9	2.9	2.9	2.9	1.5
145°	4.4	2.9	2.9	2.9	2.9	2.9	1.5
147.5°	4.4	2.9	2.9	2.9	2.9	2.9	1.5
150°	2.9	2.9	2.9	2.9	2.9	2.9	2.9
152.5°	2.9	2.9	2.9	2.9	2.9	2.9	2.9
155°	2.9	2.9	2.9	2.9	2.9	2.9	2.9
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)