

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: P1213491

Luminaire Tested: 4SNLED-LD5-61HL-RM-UNV-L935-CD1-U

Issue Date: 3/29/2018

Test Information

Test Method: LM-79-2019
Report Number: P1213491
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P33524)
Test Lab: INNOVATIONS CENTER-P3
Issue Date: 3/29/2018
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: METALUX
Catalog Number: 4SNLED-LD5-61HL-RM-UNV-L935-CD1-U
Description: 4FT LINEAR SNLED LED FIXTURE
METALIC FINISH REFLECTOR
Light Source: -
Ballast/Driver: -

Summary

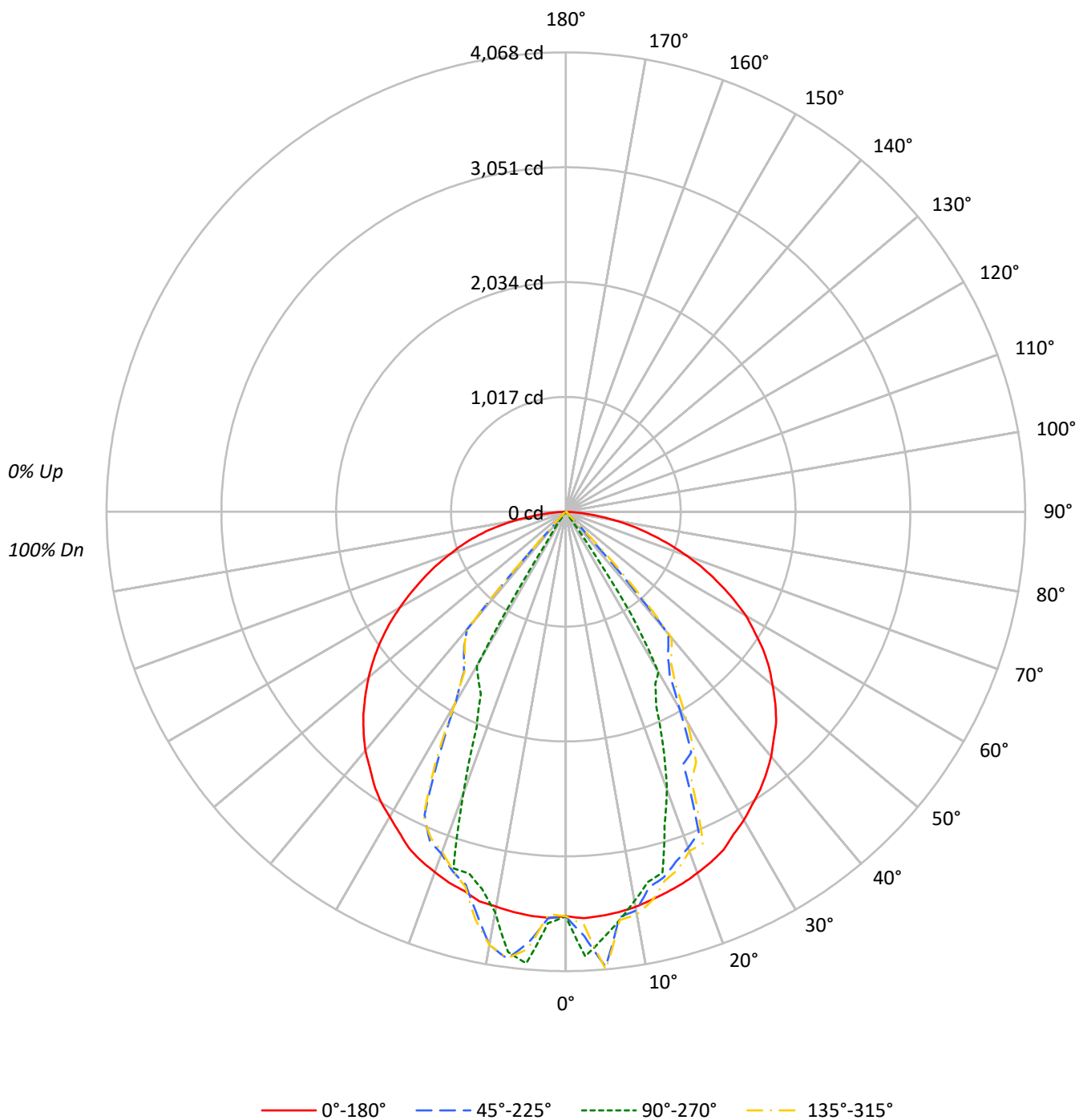
Lumens per Lamp: N/A
Luminaire Lumens: 5092.9 lumens
Efficiency: N/A
Efficacy: 106.1 lumens/watt
Spacing Criteria (0/90/45): 1.3 / 0.81 / 0.97
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.12')
CIE Type: Direct

Input Watts (W): 48
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	50	30	10
RCR																				
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100		
1	112	108	105	103	109	106	103	101	102	100	98	98	96	95	95	93	92	90		
2	105	98	93	89	102	97	92	88	93	89	86	90	87	84	87	85	82	81		
3	98	90	83	78	95	88	82	78	85	80	76	83	79	75	80	77	74	72		
4	91	82	75	70	89	81	74	69	78	73	69	76	72	68	74	70	67	65		
5	85	75	68	63	84	74	68	63	72	66	62	71	65	61	69	64	61	59		
6	80	69	62	57	79	69	62	57	67	61	56	65	60	56	64	59	55	54		
7	75	64	57	52	74	64	57	52	62	56	52	61	55	51	60	55	51	49		
8	71	60	53	48	70	59	52	48	58	52	47	57	51	47	56	51	47	45		
9	67	56	49	44	66	55	49	44	54	48	44	53	48	44	52	47	44	42		
10	63	52	45	41	62	52	45	41	51	45	41	50	44	41	49	44	40	39		

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	28945	28945	28945	28945
5°	29062	29769	29054	31525
10°	28993	26938	28975	27715
15°	28914	25144	28842	25209
20°	28947	19804	28865	20048
25°	29031	14332	28889	13524
30°	28899	12572	28593	12086
35°	28985	277	28559	336
40°	29084	60	28388	60
45°	29187	36	28091	27
50°	28963	28	27635	28
55°	28793	19	27024	19
60°	28249	21	26040	21
65°	26777	34	24870	22
70°	24840	37	23648	37
75°	21972	42	22333	42
80°	17848	48	18868	48
85°	10500	56	10719	56

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 2°

Vertical Angle: 45°

Luminance: 31514 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	359.4	7.1
10°-20°	980.2	19.2
20°-30°	1247.3	24.5
30°-40°	1053.6	20.7
40°-50°	688.8	13.5
50°-60°	434.0	8.5
60°-70°	231.0	4.5
70°-80°	84.2	1.7
80°-90°	14.5	0.3
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	2586.8	50.8
0°-40°	3640.4	71.5
0°-60°	4763.2	93.5
0°-90°	5092.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5092.9	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	3582	3582	3582	3582	3582	
5°	3592	3790	3592	4014	3592	342
15°	3485	3308	3476	3316	3485	985
25°	3303	1889	3287	1782	3303	1519
35°	3002	36	2958	43	3002	1878
45°	2634	4	2535	3	2634	2025
55°	2135	2	2004	2	2135	1902
65°	1494	3	1388	2	1494	1480
75°	786	3	799	3	786	834
85°	154	3	157	3	154	194
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°	10°
0°	3581.8	3581.8	3581.8	3581.8	3581.8	3581.8	3581.8	3581.8	3581.8	3581.8	3581.8
2.5°	3602.2	3604.4	3605.4	3607.6	3610.8	3611.9	3614.0	3611.9	3611.9	3611.9	3611.9
5°	3592.5	3596.8	3600.1	3604.4	3611.9	3613.0	3621.6	3622.6	3626.9	3635.5	3642.0
7.5°	3576.4	3580.7	3587.2	3597.9	3608.7	3620.5	3635.5	3651.7	3674.2	3695.7	3722.6
10°	3552.8	3558.1	3565.7	3575.3	3628.0	3635.5	3668.9	3715.1	3728.0	3795.7	3846.2
12.5°	3518.4	3536.6	3556.0	3564.6	3615.1	3694.6	3806.4	3783.9	3759.1	3980.6	3977.4
15°	3485.0	3509.8	3500.1	3570.0	3616.2	3754.8	3707.5	3808.6	3993.5	3948.3	3950.5
17.5°	3449.6	3454.9	3508.7	3566.7	3649.5	3720.4	3778.5	3917.2	3953.7	3956.9	3917.2
20°	3404.4	3430.2	3508.7	3561.4	3701.1	3734.4	3860.2	3931.1	3916.1	3879.5	3811.8
22.5°	3358.2	3436.7	3516.2	3590.4	3688.2	3777.4	3839.8	3873.1	3794.6	3650.6	3573.2
25°	3303.4	3349.6	3453.9	3562.4	3685.0	3736.6	3773.1	3719.4	3617.3	3488.3	3358.2
27.5°	3218.4	3292.6	3425.9	3548.5	3659.2	3721.5	3662.4	3533.4	3368.9	3284.0	3224.9
30°	3152.9	3249.6	3359.3	3477.5	3592.5	3629.1	3478.6	3331.3	3218.4	3133.5	3120.6
32.5°	3073.3	3210.9	3315.2	3428.1	3524.8	3476.4	3330.2	3140.0	3046.4	3014.2	3027.1
35°	3002.4	3106.6	3243.2	3353.9	3423.8	3315.2	3084.1	2965.8	2920.7	2939.0	2915.3
37.5°	2917.5	3055.0	3180.8	3276.5	3252.8	3089.4	2893.8	2818.6	2823.9	2808.9	2763.7
40°	2829.3	2960.4	3091.6	3181.9	3099.1	2849.7	2719.7	2703.5	2706.8	2658.4	2593.9
42.5°	2726.1	2845.4	2976.6	3058.3	2879.8	2685.3	2597.1	2599.3	2571.3	2503.6	2469.2
45°	2633.7	2743.3	2879.8	2887.4	2668.1	2505.7	2479.9	2452.0	2389.6	2367.1	2341.3
47.5°	2515.4	2636.9	2749.8	2708.9	2460.6	2359.5	2340.2	2278.9	2247.7	2230.5	2209.1
50°	2389.6	2512.2	2615.4	2499.3	2264.9	2241.3	2177.9	2129.5	2108.0	2089.7	2070.4
52.5°	2270.3	2371.4	2476.7	2276.8	2114.5	2091.9	2019.9	1991.9	1970.4	1950.0	1945.7
55°	2134.9	2224.1	2296.1	2065.0	1970.4	1917.7	1866.1	1846.8	1826.4	1816.7	1832.8
57.5°	1981.2	2082.2	2071.5	1856.5	1814.5	1738.2	1718.9	1706.0	1690.9	1697.4	1563.0
60°	1842.5	1919.9	1867.2	1703.8	1632.9	1581.3	1564.1	1555.5	1564.1	1432.9	1259.9
62.5°	1671.6	1758.6	1652.2	1525.4	1450.1	1425.4	1410.4	1422.2	1296.4	1152.4	1110.4
65°	1494.2	1588.8	1431.9	1334.0	1286.7	1265.2	1264.2	1164.2	1040.6	984.7	984.7
67.5°	1323.3	1421.1	1219.0	1137.3	1119.0	1121.2	1058.8	907.3	872.9	835.2	726.7
70°	1141.6	1227.6	1007.2	957.8	947.0	939.5	787.9	747.1	706.3	606.3	597.7
72.5°	961.0	1002.9	809.4	797.6	795.5	661.1	631.0	561.1	513.8	502.0	496.6
75°	785.8	772.9	639.6	650.4	548.2	500.9	452.6	411.7	405.3	401.0	100.0
77.5°	620.3	555.8	504.2	438.6	392.4	333.2	323.6	317.1	208.5	75.2	61.3
80°	451.5	360.1	335.4	284.9	242.9	233.3	238.6	73.1	58.0	48.4	41.9
82.5°	287.0	230.0	188.1	164.5	160.2	69.9	51.6	41.9	36.5	31.2	25.8
85°	153.7	102.1	94.6	79.5	47.3	32.2	26.9	20.4	17.2	14.0	12.9
87.5°	48.4	40.8	33.3	26.9	16.1	10.7	8.6	7.5	6.4	5.4	5.4
90°	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):

	11°	12°	13°	14°	15°	16°	17°	18°	19°	20°	25°
0°	3581.8	3581.8	3581.8	3581.8	3581.8	3581.8	3581.8	3581.8	3581.8	3581.8	3581.8
2.5°	3609.7	3611.9	3610.8	3614.0	3614.0	3618.3	3621.6	3624.8	3631.2	3634.5	3659.2
5°	3656.0	3661.3	3677.5	3692.5	3710.8	3716.1	3747.3	3754.8	3791.4	3795.7	3916.1
7.5°	3759.1	3779.6	3818.3	3857.0	3895.7	3920.4	3963.4	3990.3	4019.3	4045.1	4140.8
10°	3883.8	3918.2	3955.9	3994.6	4017.1	4064.4	4090.2	4094.5	4087.0	4045.1	3890.3
12.5°	4006.4	4040.8	4024.7	4032.2	4059.1	3975.2	3987.0	3926.8	3968.8	3761.3	3607.6
15°	3989.2	3987.0	3947.3	3818.3	3839.8	3679.6	3615.1	3565.7	3605.4	3583.9	3560.3
17.5°	3937.6	3839.8	3771.0	3616.2	3550.6	3505.5	3506.5	3507.6	3488.3	3508.7	3448.5
20°	3719.4	3609.7	3507.6	3452.8	3433.4	3401.2	3417.3	3401.2	3402.3	3408.7	3316.3
22.5°	3429.1	3395.8	3336.7	3353.9	3347.4	3376.5	3355.0	3321.6	3332.4	3284.0	3214.1
25°	3312.0	3273.3	3271.1	3277.6	3267.9	3255.0	3235.6	3185.1	3181.9	3166.8	3134.6
27.5°	3193.7	3195.9	3202.3	3183.0	3148.6	3122.8	3093.7	3069.0	3078.7	3061.5	3017.4
30°	3112.0	3110.9	3072.2	3055.0	2991.6	2992.7	2985.2	2970.1	2960.4	2961.5	2933.6
32.5°	2995.9	2962.6	2918.5	2897.0	2891.7	2872.3	2857.3	2860.5	2868.0	2841.1	2870.2
35°	2876.6	2807.8	2801.4	2783.1	2765.9	2753.0	2758.4	2736.9	2735.8	2732.6	2496.1
37.5°	2716.4	2683.1	2679.9	2660.5	2648.7	2645.5	2625.1	2628.3	2638.0	2655.2	2128.4
40°	2584.2	2554.1	2546.6	2545.5	2519.7	2517.6	2522.9	2543.4	2557.3	2449.8	2028.5
42.5°	2442.3	2444.5	2420.8	2405.8	2409.0	2418.7	2444.5	2373.5	2056.4	1959.7	1854.3
45°	2320.8	2310.1	2297.2	2292.9	2320.8	2301.5	2017.7	1861.8	1824.2	1819.9	1524.3
47.5°	2194.0	2190.8	2185.4	2188.6	2029.5	1809.2	1744.7	1724.2	1730.7	1726.4	1309.3
50°	2066.1	2070.4	2070.4	1808.1	1659.7	1623.2	1628.6	1646.8	1532.9	1430.8	1220.1
52.5°	1955.4	1922.0	1646.8	1552.2	1518.9	1535.0	1496.3	1353.4	1250.2	1190.0	1128.7
55°	1750.0	1504.9	1443.7	1428.6	1440.5	1297.5	1209.3	1116.9	1090.0	1083.6	1048.1
57.5°	1377.0	1327.6	1333.0	1272.8	1136.2	1055.6	1020.1	1007.2	995.4	986.8	86.0
60°	1217.9	1231.9	1127.6	998.6	943.8	933.1	924.5	912.6	910.5	895.4	54.8
62.5°	1114.7	980.4	890.1	857.8	844.9	841.7	825.6	820.2	696.6	95.7	40.8
65°	840.6	785.8	768.6	761.1	747.1	747.1	620.3	97.8	79.5	68.8	36.5
67.5°	685.8	681.5	672.9	663.3	451.5	94.6	82.8	72.0	62.3	54.8	32.2
70°	580.5	578.3	526.7	96.7	80.6	70.9	62.3	55.9	51.6	46.2	29.0
72.5°	476.2	96.7	81.7	70.9	61.3	55.9	50.5	45.1	40.8	37.6	23.6
75°	74.2	65.6	58.0	52.7	48.4	43.0	38.7	35.5	34.4	30.1	16.1
77.5°	53.7	46.2	41.9	37.6	33.3	30.1	25.8	22.6	20.4	17.2	11.8
80°	37.6	33.3	30.1	24.7	21.5	18.3	16.1	14.0	12.9	10.7	5.4
82.5°	21.5	18.3	16.1	12.9	11.8	9.7	8.6	7.5	7.5	5.4	5.4
85°	9.7	9.7	7.5	6.4	5.4	5.4	5.4	4.3	4.3	3.2	3.2
87.5°	4.3	4.3	4.3	4.3	4.3	3.2	3.2	3.2	3.2	3.2	2.1
90°	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):

	30°	35°	40°	45°	50°	55°	60°	65°	70°	75°	80°
0°	3581.8	3581.8	3581.8	3581.8	3581.8	3581.8	3581.8	3581.8	3581.8	3581.8	3581.8
2.5°	3693.6	3707.5	3734.4	3762.4	3731.2	3843.0	3834.4	3872.0	3892.4	3902.1	3924.7
5°	4022.5	4084.9	4105.3	4044.0	4008.5	3972.0	3889.2	3826.9	3834.4	3814.0	3739.8
7.5°	4016.1	3882.8	3703.2	3621.6	3615.1	3605.4	3631.2	3646.3	3648.4	3647.4	3645.2
10°	3676.4	3607.6	3595.8	3585.0	3589.3	3549.5	3531.3	3479.7	3507.6	3492.6	3497.9
12.5°	3573.2	3557.1	3493.6	3405.5	3458.2	3418.4	3395.8	3410.9	3393.7	3377.5	3372.2
15°	3511.9	3407.6	3372.2	3350.7	3335.6	3327.0	3334.5	3317.3	3312.0	3308.7	3316.3
17.5°	3385.1	3343.1	3304.4	3247.5	3248.5	3245.3	3266.8	3299.1	3301.2	3135.7	2986.2
20°	3285.1	3250.7	3201.2	3165.8	3214.1	3128.1	2796.0	2638.0	2613.2	2613.2	2617.5
22.5°	3205.5	3129.2	3132.4	3076.5	2624.0	2531.5	2533.7	2543.4	2499.3	2348.8	2332.7
25°	3097.0	3085.1	2849.7	2462.7	2466.0	2393.9	2283.2	2127.4	1958.6	1958.6	1930.6
27.5°	3015.3	2764.8	2420.8	2404.7	2162.8	2010.2	1915.6	1772.6	1753.3	1735.0	1737.1
30°	2945.4	2339.1	2347.7	2010.2	1831.7	1704.9	1697.4	1673.7	1661.9	1658.7	1646.8
32.5°	2328.4	2277.8	1965.0	1711.3	1641.5	1621.0	1611.4	1584.5	1583.4	1563.0	1421.1
35°	2183.3	1999.4	1644.7	1575.9	1555.5	1536.1	1520.0	1020.1	120.4	48.4	41.9
37.5°	2017.7	1670.5	1521.1	1489.9	1470.6	1086.8	108.6	37.6	26.9	19.3	17.2
40°	1710.3	1492.0	1444.8	1410.4	581.6	37.6	23.6	18.3	10.7	9.7	8.6
42.5°	1442.6	1406.1	1355.5	412.8	43.0	18.3	11.8	8.6	7.5	7.5	6.4
45°	1350.2	1317.9	546.1	40.8	26.9	8.6	7.5	7.5	6.4	4.3	4.3
47.5°	1264.2	1112.6	49.4	25.8	17.2	7.5	6.4	4.3	4.3	4.3	3.2
50°	1172.8	61.3	34.4	19.3	10.7	4.3	4.3	4.3	4.3	3.2	3.2
52.5°	219.3	43.0	27.9	17.2	5.4	4.3	4.3	4.3	3.2	3.2	3.2
55°	51.6	34.4	25.8	15.0	4.3	4.3	4.3	3.2	3.2	3.2	2.1
57.5°	38.7	25.8	20.4	14.0	4.3	3.2	3.2	3.2	3.2	3.2	2.1
60°	32.2	18.3	16.1	12.9	3.2	3.2	3.2	3.2	3.2	3.2	2.1
62.5°	22.6	15.0	11.8	9.7	3.2	3.2	3.2	3.2	3.2	3.2	3.2
65°	18.3	11.8	9.7	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
67.5°	16.1	9.7	6.4	2.1	3.2	3.2	3.2	3.2	3.2	3.2	3.2
70°	12.9	3.2	3.2	2.1	3.2	3.2	3.2	3.2	3.2	3.2	3.2
72.5°	10.7	3.2	2.1	2.1	3.2	3.2	3.2	3.2	3.2	3.2	3.2
75°	10.7	5.4	2.1	2.1	3.2	3.2	4.3	4.3	3.2	3.2	3.2
77.5°	7.5	5.4	2.1	2.1	3.2	3.2	4.3	4.3	3.2	3.2	3.2
80°	4.3	5.4	2.1	3.2	3.2	6.4	7.5	4.3	3.2	3.2	3.2
82.5°	4.3	5.4	6.4	6.4	3.2	5.4	6.4	5.4	4.3	3.2	3.2
85°	4.3	3.2	4.3	5.4	3.2	5.4	5.4	4.3	4.3	3.2	3.2
87.5°	2.1	3.2	3.2	4.3	4.3	4.3	5.4	4.3	4.3	4.3	3.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

TEST NUMBER: P1213491

CATALOG NUMBER: 4SNLED-LD5-61HL-RM-UNV-L935-CD1-U

CANDELA DISTRIBUTION (continued):

	85°	90°	95°	100°	105°	110°	115°	120°	125°	130°	135°
0°	3581.8	3581.8	3581.8	3581.8	3581.8	3581.8	3581.8	3581.8	3581.8	3581.8	3581.8
2.5°	3935.4	3939.7	3872.0	3848.4	3868.8	3864.5	3846.2	3778.5	3771.0	3725.8	3660.3
5°	3761.3	3790.3	3754.8	3816.1	3787.1	3816.1	3904.3	3945.1	4011.8	4052.6	4067.7
7.5°	3639.8	3646.3	3646.3	3651.7	3657.0	3658.1	3651.7	3647.4	3629.1	3606.5	3647.4
10°	3492.6	3500.1	3513.0	3510.8	3509.8	3532.3	3537.7	3583.9	3581.8	3590.4	3621.6
12.5°	3416.2	3358.2	3410.9	3396.9	3416.2	3386.1	3442.0	3432.4	3435.6	3461.4	3528.0
15°	3289.4	3307.7	3320.6	3320.6	3328.1	3321.6	3315.2	3359.3	3386.1	3387.2	3382.9
17.5°	3045.4	2906.7	3048.6	3012.0	3303.4	3310.9	3286.2	3265.7	3265.7	3281.9	3316.3
20°	2614.3	2617.5	2618.6	2632.6	2649.8	2648.7	2649.8	3073.3	3274.3	3228.1	3196.9
22.5°	2291.8	2252.0	2326.2	2320.8	2413.3	2515.4	2613.2	2603.6	2610.0	2908.9	3177.6
25°	1837.1	1888.7	1846.8	1865.1	1969.3	2090.8	2166.1	2362.8	2576.7	2561.6	2631.5
27.5°	1729.6	1715.6	1735.0	1735.0	1749.0	1765.1	1807.0	1917.7	2108.0	2307.9	2497.1
30°	1627.5	1639.3	1641.5	1660.8	1671.6	1682.3	1688.8	1730.7	1773.7	1912.4	2145.6
32.5°	1222.2	1071.7	1410.4	1501.7	1579.1	1597.4	1610.3	1627.5	1658.7	1679.1	1796.3
35°	35.5	35.5	37.6	43.0	54.8	369.8	1408.2	1552.2	1572.7	1598.5	1620.0
37.5°	17.2	12.9	15.0	16.1	19.3	26.9	38.7	120.4	1340.5	1515.7	1539.3
40°	7.5	7.5	7.5	7.5	8.6	10.7	16.1	26.9	40.8	1078.2	1454.4
42.5°	6.4	6.4	6.4	6.4	6.4	6.4	7.5	9.7	19.3	46.2	763.2
45°	4.3	4.3	3.2	4.3	4.3	5.4	6.4	6.4	8.6	29.0	52.7
47.5°	3.2	3.2	3.2	3.2	3.2	3.2	3.2	5.4	6.4	19.3	27.9
50°	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	15.0	19.3
52.5°	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	6.4	17.2
55°	2.1	2.1	2.1	2.1	2.1	2.1	2.1	3.2	3.2	4.3	15.0
57.5°	2.1	2.1	2.1	2.1	2.1	3.2	2.1	2.1	3.2	3.2	14.0
60°	2.1	2.1	2.1	2.1	2.1	3.2	3.2	3.2	3.2	3.2	12.9
62.5°	3.2	3.2	2.1	3.2	2.1	2.1	3.2	3.2	3.2	3.2	8.6
65°	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	2.1	3.2
67.5°	3.2	3.2	3.2	3.2	2.1	3.2	2.1	3.2	3.2	2.1	2.1
70°	3.2	3.2	3.2	3.2	3.2	3.2	3.2	2.1	2.1	2.1	2.1
72.5°	3.2	3.2	3.2	3.2	3.2	3.2	3.2	2.1	2.1	2.1	2.1
75°	3.2	3.2	3.2	3.2	3.2	3.2	4.3	4.3	2.1	2.1	2.1
77.5°	3.2	3.2	3.2	3.2	3.2	3.2	5.4	6.4	5.4	5.4	2.1
80°	3.2	3.2	3.2	3.2	3.2	3.2	5.4	5.4	5.4	5.4	7.5
82.5°	3.2	3.2	3.2	3.2	3.2	3.2	4.3	4.3	4.3	4.3	5.4
85°	3.2	3.2	3.2	3.2	3.2	3.2	4.3	4.3	4.3	3.2	4.3
87.5°	3.2	3.2	3.2	3.2	3.2	3.2	3.2	4.3	3.2	3.2	3.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

TEST NUMBER: P1213491

CATALOG NUMBER: 4SNLED-LD5-61HL-RM-UNV-L935-CD1-U

CANDELA DISTRIBUTION (continued):

	140°	145°	150°	155°	160°	161°	162°	163°	164°	165°	166°
0°	3581.8	3581.8	3581.8	3581.8	3581.8	3581.8	3581.8	3581.8	3581.8	3581.8	3581.8
2.5°	3665.6	3629.1	3617.3	3592.5	3590.4	3592.5	3587.2	3579.6	3583.9	3576.4	3570.0
5°	4076.3	3978.4	3915.0	3830.1	3712.9	3687.1	3680.7	3644.1	3631.2	3626.9	3609.7
7.5°	3744.1	3922.5	4030.0	4066.6	3929.0	3896.7	3859.1	3829.0	3800.0	3745.2	3711.8
10°	3596.8	3605.4	3708.6	3829.0	4024.7	4051.5	4072.0	4006.4	3988.1	3848.4	3818.3
12.5°	3562.4	3563.5	3575.3	3648.4	3802.1	3819.3	3891.4	3930.1	3977.4	4004.2	3982.7
15°	3405.5	3492.6	3557.1	3563.5	3577.5	3607.6	3629.1	3763.4	3820.4	3973.1	3964.5
17.5°	3332.4	3360.3	3453.9	3530.2	3517.3	3506.5	3523.7	3542.0	3596.8	3749.5	3747.3
20°	3210.9	3300.1	3350.7	3430.2	3502.2	3505.5	3486.1	3475.4	3453.9	3478.6	3501.2
22.5°	3159.3	3173.3	3267.9	3323.8	3405.5	3434.5	3438.8	3439.9	3428.1	3415.2	3408.7
25°	3153.9	3109.9	3158.2	3228.1	3288.3	3319.5	3355.0	3366.8	3362.5	3362.5	3356.0
27.5°	2581.0	3095.9	3070.1	3116.3	3189.4	3210.9	3229.2	3265.7	3288.3	3304.4	3312.0
30°	2458.4	2550.9	3001.3	3007.7	3081.9	3079.8	3100.2	3130.3	3159.3	3196.9	3206.6
32.5°	2174.7	2401.5	2747.6	2899.2	2976.6	2984.1	2994.8	3003.4	3030.3	3072.2	3108.8
35°	1742.5	2187.6	2354.2	2847.6	2861.6	2876.6	2883.1	2903.5	2912.1	2929.3	2961.5
37.5°	1577.0	1808.1	2258.5	2462.7	2729.3	2742.2	2776.6	2785.2	2799.2	2813.2	2837.9
40°	1481.3	1544.7	1880.1	2199.4	2622.9	2631.5	2643.3	2664.8	2665.9	2682.0	2704.6
42.5°	1405.0	1445.8	1543.6	2100.5	2547.7	2546.6	2518.6	2532.6	2539.1	2556.3	2587.4
45°	1122.3	1356.6	1419.0	1715.6	2028.5	2174.7	2455.2	2409.0	2407.9	2414.4	2447.7
47.5°	57.0	1276.0	1320.1	1415.7	1915.6	1921.0	1957.5	2264.9	2312.2	2297.2	2300.4
50°	38.7	88.1	1229.8	1273.8	1651.1	1784.4	1811.3	1825.3	2002.7	2200.5	2168.2
52.5°	30.1	50.5	753.5	1182.5	1341.6	1439.4	1612.4	1711.3	1722.1	1801.6	2071.5
55°	26.9	38.7	81.7	1091.1	1140.5	1162.0	1263.1	1436.2	1575.9	1617.8	1621.0
57.5°	23.6	35.5	55.9	493.4	1037.3	1041.6	1058.8	1119.0	1244.8	1359.8	1489.9
60°	21.5	31.2	44.1	84.9	942.7	953.5	956.7	972.8	987.9	1066.4	1215.8
62.5°	12.9	24.7	38.7	61.3	746.0	856.7	855.7	866.4	880.4	889.0	919.1
65°	10.7	19.3	33.3	51.6	91.4	113.9	692.3	769.7	778.3	790.1	795.5
67.5°	9.7	17.2	24.7	40.8	68.8	78.5	90.3	111.8	610.6	688.0	698.7
70°	8.6	11.8	20.4	34.4	55.9	60.2	67.7	77.4	91.4	112.9	552.5
72.5°	5.4	8.6	14.0	24.7	43.0	48.4	52.7	59.1	65.6	78.5	90.3
75°	2.1	6.4	11.8	18.3	33.3	36.5	39.8	44.1	49.4	58.0	64.5
77.5°	2.1	5.4	9.7	12.9	21.5	24.7	29.0	32.2	36.5	40.8	47.3
80°	7.5	4.3	6.4	9.7	15.0	16.1	18.3	20.4	23.6	26.9	31.2
82.5°	5.4	6.4	7.5	6.4	7.5	9.7	10.7	12.9	14.0	16.1	17.2
85°	4.3	4.3	5.4	5.4	5.4	5.4	5.4	5.4	6.4	7.5	9.7
87.5°	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	4.3	4.3
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

TEST NUMBER: P1213491

CATALOG NUMBER: 4SNLED-LD5-61HL-RM-UNV-L935-CD1-U

CANDELA DISTRIBUTION (continued):

	167°	168°	169°	170°	171°	172°	173°	174°	175°	176°	177°
0°	3581.8	3581.8	3581.8	3581.8	3581.8	3581.8	3581.8	3581.8	3581.8	3581.8	3581.8
2.5°	3570.0	3567.8	3561.4	3561.4	3560.3	3564.6	3567.8	3571.0	3570.0	3576.4	3570.0
5°	3596.8	3591.5	3581.8	3573.2	3570.0	3572.1	3568.9	3572.1	3567.8	3573.2	3563.5
7.5°	3671.0	3652.7	3615.1	3600.1	3580.7	3579.6	3570.0	3567.8	3561.4	3561.4	3549.5
10°	3802.1	3714.0	3703.2	3658.1	3642.0	3563.5	3580.7	3551.7	3548.5	3534.5	3529.1
12.5°	3909.6	3840.8	3820.4	3780.6	3735.5	3576.4	3611.9	3549.5	3546.3	3518.4	3489.3
15°	3911.8	3951.6	3895.7	3786.0	3776.3	3666.7	3594.7	3573.2	3545.2	3461.4	3475.4
17.5°	3786.0	3877.4	3904.3	3880.6	3811.8	3737.6	3636.6	3593.6	3509.8	3472.1	3446.3
20°	3581.8	3674.2	3789.2	3796.8	3839.8	3787.1	3654.9	3585.0	3484.0	3418.4	3396.9
22.5°	3419.5	3487.2	3619.4	3680.7	3733.3	3751.6	3667.8	3564.6	3438.8	3375.4	3362.5
25°	3333.5	3348.5	3388.3	3460.3	3576.4	3660.3	3672.1	3562.4	3496.9	3358.2	3285.1
27.5°	3302.3	3289.4	3273.3	3309.8	3396.9	3499.0	3566.7	3585.0	3421.6	3289.4	3216.3
30°	3222.7	3230.3	3205.5	3192.6	3249.6	3355.0	3475.4	3505.5	3379.7	3243.2	3159.3
32.5°	3124.9	3137.8	3142.1	3119.5	3107.7	3180.8	3310.9	3382.9	3376.5	3177.6	3084.1
35°	3002.4	3038.9	3048.6	3049.7	3030.3	3018.5	3093.7	3243.2	3300.1	3147.5	3012.0
37.5°	2873.4	2884.1	2936.8	2950.8	2950.8	2915.3	2971.2	3090.5	3170.1	3079.8	2923.9
40°	2712.1	2746.5	2796.0	2820.7	2845.4	2848.7	2817.5	2901.3	3032.5	3009.9	2841.1
42.5°	2595.0	2617.5	2647.6	2681.0	2731.5	2744.4	2712.1	2727.2	2863.7	2922.8	2733.6
45°	2458.4	2488.5	2497.1	2533.7	2586.4	2624.0	2622.9	2591.7	2701.4	2774.5	2655.2
47.5°	2318.7	2347.7	2362.8	2381.0	2419.7	2468.1	2495.0	2481.0	2502.5	2645.5	2550.9
50°	2174.7	2190.8	2220.9	2241.3	2267.1	2295.0	2359.5	2372.4	2342.3	2456.3	2435.9
52.5°	2038.1	2043.5	2063.9	2084.4	2118.8	2139.2	2190.8	2229.5	2227.3	2260.6	2307.9
55°	1931.7	1908.1	1912.4	1928.5	1951.1	1982.2	2011.3	2071.5	2091.9	2098.3	2173.6
57.5°	1509.2	1752.2	1773.7	1772.6	1799.5	1813.5	1840.3	1880.1	1953.2	1937.1	2020.9
60°	1371.7	1398.5	1601.7	1625.3	1635.0	1647.9	1680.2	1716.7	1770.5	1804.9	1841.4
62.5°	1045.9	1209.3	1270.6	1450.1	1478.1	1485.6	1507.1	1524.3	1580.2	1658.7	1643.6
65°	809.4	879.3	1066.4	1139.5	1292.1	1311.5	1341.6	1359.8	1376.0	1466.3	1470.6
67.5°	699.8	710.6	761.1	901.9	998.6	1148.1	1166.3	1182.5	1207.2	1271.7	1311.5
70°	597.7	610.6	624.6	636.4	762.1	861.0	999.7	1005.1	1021.2	1064.2	1154.5
72.5°	112.9	510.6	519.2	526.7	540.7	606.3	738.5	846.0	852.4	872.9	955.6
75°	76.3	89.2	122.5	421.4	435.4	439.7	462.2	596.6	695.5	699.8	736.4
77.5°	54.8	61.3	74.2	88.1	224.7	337.5	342.9	367.6	469.8	543.9	550.4
80°	37.6	41.9	49.4	55.9	68.8	90.3	249.4	256.9	269.8	371.9	391.3
82.5°	21.5	24.7	29.0	35.5	40.8	51.6	66.6	86.0	175.2	187.0	248.3
85°	10.7	11.8	14.0	17.2	20.4	24.7	33.3	40.8	55.9	101.0	104.3
87.5°	5.4	5.4	5.4	5.4	8.6	9.7	11.8	15.0	19.3	29.0	37.6
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

TEST NUMBER: P1213491

CATALOG NUMBER: 4SNLED-LD5-61HL-RM-UNV-L935-CD1-U

CANDELA DISTRIBUTION (continued):

	178°	179°	180°	181°	182°	183°	184°	185°	186°	187°	188°
0°	3581.8	3581.8	3581.8	3581.8	3581.8	3581.8	3581.8	3581.8	3581.8	3581.8	3581.8
2.5°	3571.0	3586.1	3599.0	3602.2	3602.2	3604.4	3607.6	3609.7	3611.9	3614.0	3611.9
5°	3564.6	3580.7	3591.5	3594.7	3594.7	3601.1	3606.5	3613.0	3616.2	3616.2	3614.0
7.5°	3548.5	3560.3	3574.3	3582.9	3583.9	3594.7	3604.4	3603.3	3607.6	3609.7	3615.1
10°	3527.0	3527.0	3550.6	3557.1	3562.4	3574.3	3577.5	3583.9	3599.0	3601.1	3615.1
12.5°	3516.2	3505.5	3533.4	3536.6	3554.9	3539.9	3559.2	3565.7	3550.6	3571.0	3544.2
15°	3467.8	3480.7	3476.4	3486.1	3518.4	3501.2	3553.8	3536.6	3575.3	3529.1	3610.8
17.5°	3428.1	3425.9	3443.1	3451.7	3458.2	3494.7	3508.7	3528.0	3543.1	3530.2	3562.4
20°	3399.0	3381.8	3394.7	3404.4	3427.0	3454.9	3463.5	3434.5	3485.0	3571.0	3591.5
22.5°	3344.2	3332.4	3347.4	3347.4	3381.8	3377.5	3409.8	3391.5	3438.8	3538.8	3643.1
25°	3270.0	3271.1	3287.2	3306.6	3313.0	3361.4	3378.6	3402.3	3461.4	3580.7	3644.1
27.5°	3194.8	3188.3	3198.0	3237.8	3271.1	3306.6	3312.0	3392.6	3473.2	3554.9	3610.8
30°	3119.5	3113.1	3119.5	3148.6	3188.3	3212.0	3271.1	3378.6	3453.9	3509.8	3562.4
32.5°	3038.9	3032.5	3047.5	3069.0	3138.9	3142.1	3259.3	3360.3	3419.5	3460.3	3450.6
35°	2952.9	2944.3	2958.3	2991.6	3056.1	3079.8	3202.3	3277.6	3344.2	3363.6	3318.4
37.5°	2849.7	2834.7	2851.9	2898.1	2965.8	3034.6	3136.7	3223.8	3259.3	3207.7	3153.9
40°	2742.2	2731.5	2761.6	2785.2	2864.8	2960.4	3077.6	3138.9	3116.3	3057.2	2998.1
42.5°	2646.6	2624.0	2650.9	2696.0	2786.3	2894.9	2989.5	3023.9	2970.1	2883.1	2814.3
45°	2529.4	2502.5	2534.8	2595.0	2691.7	2815.3	2889.5	2877.7	2786.3	2711.1	2616.5
47.5°	2406.8	2374.6	2406.8	2478.9	2587.4	2718.6	2772.3	2718.6	2603.6	2509.0	2432.6
50°	2286.4	2248.8	2280.0	2388.6	2495.0	2596.0	2595.0	2490.7	2421.9	2318.7	2252.0
52.5°	2167.1	2113.4	2144.6	2262.8	2369.2	2484.2	2399.3	2302.6	2219.8	2129.5	2108.0
55°	2019.9	1961.8	2003.7	2175.7	2257.4	2325.1	2189.7	2104.8	2023.1	1977.9	1951.1
57.5°	1880.1	1816.7	1853.2	2056.4	2116.6	2133.8	2009.1	1888.7	1840.3	1825.3	1786.6
60°	1736.1	1664.0	1698.4	1932.8	1974.7	1904.8	1782.3	1688.8	1679.1	1649.0	1618.9
62.5°	1598.5	1518.9	1540.4	1779.1	1798.4	1671.6	1558.7	1534.0	1510.3	1480.2	1464.1
65°	1440.5	1357.7	1387.8	1615.7	1597.4	1434.0	1370.6	1365.2	1334.0	1309.3	1333.0
67.5°	1295.3	1197.5	1239.4	1437.2	1354.5	1221.2	1195.4	1182.5	1157.7	1171.7	923.4
70°	1136.2	1029.8	1086.8	1244.8	1122.3	1034.1	1024.4	1005.1	1006.2	799.8	674.0
72.5°	958.9	866.4	949.2	1034.1	887.9	862.1	848.1	846.0	682.6	554.7	523.5
75°	803.0	709.5	798.7	830.9	707.3	690.1	689.1	569.7	448.3	427.8	418.2
77.5°	626.7	554.7	639.6	591.2	542.9	523.5	469.8	352.6	337.5	323.6	121.5
80°	422.5	427.8	477.3	407.4	387.0	330.0	260.1	249.4	215.0	86.0	67.7
82.5°	256.9	322.5	304.2	254.8	249.4	179.5	164.5	83.8	62.3	49.4	43.0
85°	133.3	163.4	156.9	138.7	103.2	92.4	51.6	39.8	32.2	24.7	20.4
87.5°	45.1	60.2	58.0	46.2	35.5	27.9	18.3	15.0	10.7	8.6	7.5
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

TEST NUMBER: P1213491

CATALOG NUMBER: 4SNLED-LD5-61HL-RM-UNV-L935-CD1-U

CANDELA DISTRIBUTION (continued):

	189°	190°	191°	192°	193°	194°	195°	196°	197°	198°	199°
0°	3581.8	3581.8	3581.8	3581.8	3581.8	3581.8	3581.8	3581.8	3581.8	3581.8	3581.8
2.5°	3609.7	3609.7	3607.6	3609.7	3610.8	3608.7	3608.7	3610.8	3611.9	3613.0	3618.3
5°	3615.1	3617.3	3620.5	3626.9	3628.0	3640.9	3646.3	3649.5	3652.7	3653.8	3646.3
7.5°	3626.9	3634.5	3640.9	3639.8	3632.3	3611.9	3605.4	3600.1	3609.7	3634.5	3663.5
10°	3637.7	3603.3	3538.8	3626.9	3600.1	3624.8	3697.9	3714.0	3763.4	3833.3	3853.7
12.5°	3563.5	3658.1	3678.5	3579.6	3762.4	3694.6	3775.3	3846.2	3866.6	3937.6	3894.6
15°	3643.1	3689.3	3720.4	3819.3	3808.6	3866.6	3889.2	3875.2	3878.5	3896.7	3945.1
17.5°	3642.0	3734.4	3754.8	3821.5	3866.6	3867.7	3861.3	3854.8	3872.0	3886.0	3857.0
20°	3704.3	3734.4	3774.2	3801.1	3809.7	3820.4	3840.8	3824.7	3792.5	3761.3	3748.4
22.5°	3673.2	3740.9	3775.3	3779.6	3774.2	3740.9	3710.8	3665.6	3650.6	3634.5	3639.8
25°	3679.6	3710.8	3706.5	3689.3	3666.7	3604.4	3589.3	3570.0	3540.9	3471.1	3407.6
27.5°	3633.4	3617.3	3597.9	3556.0	3515.1	3481.8	3444.2	3381.8	3330.2	3255.0	3227.0
30°	3556.0	3491.5	3444.2	3419.5	3379.7	3323.8	3266.8	3190.5	3124.9	3109.9	3095.9
32.5°	3407.6	3344.2	3305.5	3245.3	3177.6	3110.9	3045.4	3015.3	3001.3	3003.4	2990.5
35°	3256.1	3200.2	3142.1	3051.8	3001.3	2934.7	2911.0	2904.6	2891.7	2877.7	2862.6
37.5°	3094.8	3029.2	2942.2	2888.4	2837.9	2811.0	2799.2	2789.5	2767.0	2742.2	2725.0
40°	2939.0	2820.7	2772.3	2719.7	2704.6	2692.8	2675.6	2651.9	2620.8	2616.5	2608.9
42.5°	2730.4	2645.5	2603.6	2592.8	2574.5	2554.1	2539.1	2513.3	2500.4	2509.0	2515.4
45°	2532.6	2489.6	2475.6	2462.7	2428.3	2399.3	2389.6	2381.0	2391.8	2439.1	2326.2
47.5°	2372.4	2355.2	2338.0	2316.5	2284.3	2262.8	2272.5	2281.1	2290.7	1943.5	1773.7
50°	2233.8	2210.1	2183.3	2159.6	2140.3	2138.1	2188.6	2037.1	1706.0	1697.4	1525.4
52.5°	2082.2	2046.7	2030.6	2016.6	2025.2	2057.5	1702.7	1580.2	1515.7	1316.8	1228.7
55°	1918.8	1887.6	1887.6	1900.5	1854.3	1502.8	1484.5	1283.5	1162.0	1127.6	1113.7
57.5°	1755.4	1752.2	1770.5	1618.9	1364.1	1308.2	1099.7	1055.6	1036.3	1032.0	1009.4
60°	1606.0	1636.1	1369.5	1259.9	1095.4	987.9	957.8	952.4	932.0	924.5	904.0
62.5°	1486.7	1233.0	1148.1	937.4	882.5	868.6	852.4	844.9	826.6	729.9	213.9
65°	1073.9	1014.8	823.4	787.9	783.6	763.2	756.8	680.5	160.2	107.5	91.4
67.5°	810.5	719.2	694.4	688.0	667.6	626.7	186.0	106.4	91.4	79.5	69.9
70°	622.4	606.3	588.0	573.0	168.8	105.3	91.4	77.4	66.6	59.1	53.7
72.5°	509.5	498.8	290.2	110.7	90.3	76.3	67.7	59.1	51.6	47.3	43.0
75°	398.8	110.7	91.4	76.3	65.6	55.9	49.4	44.1	39.8	36.5	33.3
77.5°	90.3	73.1	62.3	52.7	47.3	41.9	37.6	32.2	29.0	25.8	21.5
80°	55.9	48.4	40.8	37.6	32.2	26.9	23.6	21.5	17.2	16.1	14.0
82.5°	36.5	29.0	25.8	21.5	17.2	16.1	14.0	10.7	9.7	8.6	7.5
85°	16.1	14.0	11.8	9.7	7.5	6.4	5.4	4.3	4.3	4.3	4.3
87.5°	5.4	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	2.1	2.1
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

TEST NUMBER: P1213491

CATALOG NUMBER: 4SNLED-LD5-61HL-RM-UNV-L935-CD1-U

CANDELA DISTRIBUTION (continued):

	200°	205°	210°	215°	220°	225°	230°	235°	240°	245°	250°
0°	3581.8	3581.8	3581.8	3581.8	3581.8	3581.8	3581.8	3581.8	3581.8	3581.8	3581.8
2.5°	3620.5	3639.8	3658.1	3652.7	3633.4	3603.3	3594.7	3582.9	3591.5	3609.7	3617.3
5°	3646.3	3635.5	3674.2	3731.2	3823.6	3832.2	3896.7	3911.8	3963.4	3995.6	3994.6
7.5°	3682.8	3835.5	3898.9	3967.7	3998.9	3991.3	4001.0	3993.5	3981.7	3976.3	3969.8
10°	3868.8	3984.9	4008.5	4008.5	3960.2	3894.6	3866.6	3818.3	3721.5	3723.7	3707.5
12.5°	3977.4	4018.2	3962.3	3915.0	3720.4	3645.2	3563.5	3524.8	3502.2	3467.8	3480.7
15°	3920.4	3862.3	3829.0	3676.4	3557.1	3421.6	3423.8	3400.1	3375.4	3377.5	3361.4
17.5°	3836.5	3790.3	3553.8	3448.5	3390.4	3337.8	3328.1	3296.9	3280.8	3275.4	3274.3
20°	3721.5	3554.9	3378.6	3352.8	3282.9	3222.7	3213.1	3222.7	3272.2	3184.0	2885.2
22.5°	3587.2	3347.4	3295.8	3222.7	3175.4	3151.8	3210.9	2942.2	2535.8	2585.3	2532.6
25°	3359.3	3255.0	3166.8	3110.9	3105.6	2960.4	2467.0	2415.4	2154.2	2014.5	1857.5
27.5°	3192.6	3147.5	3055.0	3045.4	2975.5	2420.8	2163.9	1880.1	1775.8	1759.7	1725.3
30°	3091.6	3027.1	2971.2	2727.2	2374.6	1948.9	1736.1	1696.3	1678.0	1658.7	1628.6
32.5°	2970.1	2908.9	2935.7	2292.9	1893.0	1678.0	1635.0	1606.0	1572.7	1559.8	1451.2
35°	2846.5	2818.6	2294.0	1927.4	1627.5	1575.9	1543.6	1513.5	1204.0	291.3	98.9
37.5°	2714.3	2707.8	2061.8	1599.5	1524.3	1475.9	1384.6	285.9	67.7	46.2	34.4
40°	2611.1	2062.9	1629.6	1499.6	1438.3	1362.0	191.3	47.3	30.1	18.3	11.8
42.5°	2542.3	1855.4	1458.7	1407.1	1273.8	140.8	48.4	20.4	11.8	9.7	7.5
45°	1959.7	1465.2	1363.1	1309.3	161.2	48.4	27.9	9.7	7.5	6.4	4.3
47.5°	1808.1	1330.8	1270.6	285.9	53.7	25.8	19.3	6.4	4.3	4.3	4.3
50°	1369.5	1229.8	1011.5	69.9	34.4	18.3	14.0	4.3	4.3	4.3	3.2
52.5°	1200.7	1135.2	108.6	46.2	26.9	14.0	8.6	3.2	3.2	3.2	3.2
55°	1097.5	720.2	64.5	35.5	22.6	12.9	5.4	3.2	3.2	3.2	2.1
57.5°	1004.0	96.7	47.3	30.1	20.4	11.8	3.2	3.2	3.2	3.2	2.1
60°	851.4	69.9	38.7	26.9	19.3	10.7	3.2	3.2	3.2	3.2	3.2
62.5°	110.7	54.8	33.3	23.6	14.0	8.6	2.1	3.2	3.2	3.2	3.2
65°	80.6	43.0	30.1	16.1	8.6	3.2	2.1	3.2	3.2	3.2	3.2
67.5°	62.3	35.5	22.6	14.0	7.5	2.1	2.1	3.2	3.2	3.2	3.2
70°	49.4	30.1	18.3	11.8	6.4	2.1	2.1	3.2	3.2	3.2	3.2
72.5°	38.7	21.5	12.9	6.4	4.3	2.1	2.1	3.2	3.2	3.2	3.2
75°	29.0	17.2	9.7	5.4	2.1	2.1	2.1	3.2	3.2	3.2	3.2
77.5°	19.3	10.7	7.5	4.3	4.3	4.3	5.4	5.4	3.2	3.2	3.2
80°	12.9	7.5	5.4	5.4	5.4	4.3	5.4	5.4	3.2	5.4	3.2
82.5°	6.4	5.4	5.4	4.3	4.3	3.2	4.3	4.3	4.3	4.3	3.2
85°	4.3	3.2	3.2	3.2	3.2	3.2	3.2	3.2	4.3	4.3	3.2
87.5°	2.1	2.1	2.1	2.1	3.2	3.2	3.2	3.2	4.3	4.3	3.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

TEST NUMBER: P1213491

CATALOG NUMBER: 4SNLED-LD5-61HL-RM-UNV-L935-CD1-U

CANDELA DISTRIBUTION (continued):

	255°	260°	265°	270°	275°	280°	285°	290°	295°	300°	305°
0°	3581.8	3581.8	3581.8	3581.8	3581.8	3581.8	3581.8	3581.8	3581.8	3581.8	3581.8
2.5°	3607.6	3610.8	3602.2	3648.4	3624.8	3626.9	3636.6	3611.9	3617.3	3600.1	3588.2
5°	3998.9	4005.3	4011.8	4013.9	4018.2	4023.6	4017.1	4013.9	4007.5	3986.0	3963.4
7.5°	3937.6	3930.1	3926.8	3931.1	3938.7	3941.9	3936.5	3944.0	3972.0	3983.8	3991.3
10°	3615.1	3580.7	3604.4	3601.1	3574.3	3664.6	3639.8	3653.8	3663.5	3762.4	3822.6
12.5°	3461.4	3482.9	3442.0	3421.6	3448.5	3466.8	3485.0	3446.3	3500.1	3475.4	3554.9
15°	3332.4	3319.5	3315.2	3316.3	3310.9	3336.7	3343.1	3351.7	3359.3	3392.6	3405.5
17.5°	3274.3	3295.8	3304.4	3310.9	3300.1	3288.3	3276.5	3259.3	3264.7	3256.1	3280.8
20°	2684.2	2612.2	2607.9	2649.8	2603.6	2629.4	2691.7	3108.8	3094.8	3257.1	3202.3
22.5°	2240.2	2172.5	2114.5	2063.9	2136.0	2166.1	2282.1	2413.3	2626.1	2592.8	2823.9
25°	1829.6	1804.9	1789.8	1782.3	1787.7	1785.5	1811.3	1872.6	1969.3	2197.2	2491.8
27.5°	1711.3	1699.5	1694.1	1676.9	1689.8	1685.5	1706.0	1718.9	1747.9	1770.5	1866.1
30°	1617.8	1603.8	1594.2	1575.9	1588.8	1589.9	1596.3	1629.6	1641.5	1660.8	1690.9
32.5°	591.2	348.3	326.8	310.7	339.7	442.9	777.2	1358.8	1550.1	1565.1	1599.5
35°	58.0	48.4	43.0	43.0	44.1	48.4	64.5	169.8	310.7	1200.7	1502.8
37.5°	22.6	19.3	16.1	15.0	16.1	18.3	24.7	32.2	44.1	91.4	407.4
40°	9.7	8.6	7.5	7.5	7.5	7.5	8.6	10.7	16.1	30.1	47.3
42.5°	6.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	7.5	9.7	19.3
45°	4.3	3.2	3.2	3.2	3.2	3.2	3.2	3.2	4.3	5.4	8.6
47.5°	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	4.3
50°	3.2	3.2	3.2	3.2	2.1	3.2	2.1	3.2	3.2	3.2	3.2
52.5°	3.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	3.2	3.2
55°	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	3.2
57.5°	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
60°	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
62.5°	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	3.2	3.2	2.1
65°	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	3.2	2.1
67.5°	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
70°	3.2	3.2	2.1	3.2	2.1	2.1	3.2	3.2	3.2	2.1	2.1
72.5°	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	6.4	6.4	4.3
75°	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	5.4	6.4	5.4
77.5°	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	5.4	5.4	5.4
80°	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	4.3	4.3	4.3
82.5°	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	4.3	4.3	4.3
85°	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
87.5°	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

TEST NUMBER: P1213491

CATALOG NUMBER: 4SNLED-LD5-61HL-RM-UNV-L935-CD1-U

CANDELA DISTRIBUTION (continued):

	310°	315°	320°	325°	330°	335°	340°	341°	342°	343°	344°
0°	3581.8	3581.8	3581.8	3581.8	3581.8	3581.8	3581.8	3581.8	3581.8	3581.8	3581.8
2.5°	3567.8	3566.7	3589.3	3606.5	3600.1	3606.5	3614.0	3615.1	3617.3	3608.7	3605.4
5°	3920.4	3887.1	3822.6	3776.3	3722.6	3624.8	3576.4	3581.8	3582.9	3579.6	3583.9
7.5°	3988.1	3984.9	3962.3	3952.6	3916.1	3846.2	3734.4	3715.1	3667.8	3637.7	3613.0
10°	3818.3	3895.7	3916.1	3950.5	3972.0	3959.1	3864.5	3850.5	3820.4	3786.0	3793.5
12.5°	3634.5	3697.9	3701.1	3888.1	3930.1	3934.4	3897.8	3917.2	3921.5	3844.1	3798.9
15°	3408.7	3438.8	3502.2	3676.4	3803.2	3882.8	3906.4	3917.2	3864.5	3861.3	3843.0
17.5°	3309.8	3329.2	3358.2	3456.0	3648.4	3765.6	3865.6	3858.0	3878.5	3863.4	3817.2
20°	3185.1	3201.2	3252.8	3302.3	3396.9	3552.8	3739.8	3753.8	3780.6	3777.4	3790.3
22.5°	3183.0	3126.0	3134.6	3173.3	3272.2	3411.9	3610.8	3657.0	3674.2	3686.1	3700.0
25°	2525.1	2977.6	3060.4	3085.1	3149.6	3231.3	3465.7	3482.9	3515.1	3567.8	3606.5
27.5°	2187.6	2495.0	2826.1	2998.1	3038.9	3106.6	3246.4	3272.2	3381.8	3394.7	3454.9
30°	1726.4	1964.0	2458.4	2872.3	2940.0	2987.3	3086.2	3137.8	3185.1	3236.7	3300.1
32.5°	1624.3	1661.9	1936.0	2376.7	2903.5	2868.0	2941.1	2972.3	3023.9	3069.0	3115.2
35°	1530.7	1556.5	1614.6	1946.8	2364.9	2770.2	2819.6	2840.1	2869.1	2903.5	2936.8
37.5°	1432.9	1471.6	1511.4	1600.6	2187.6	2692.8	2691.7	2715.4	2732.6	2761.6	2789.5
40°	260.1	1351.2	1415.7	1473.8	1696.3	2147.8	2571.3	2582.1	2593.9	2612.2	2641.2
42.5°	41.9	225.7	1326.5	1382.4	1445.8	1923.1	2516.5	2472.4	2464.9	2477.8	2503.6
45°	21.5	54.8	266.6	1291.0	1348.0	1534.0	2057.5	2396.1	2388.6	2363.8	2369.2
47.5°	16.1	34.4	65.6	446.1	1262.0	1316.8	1898.4	1878.0	2020.9	2295.0	2253.1
50°	14.0	23.6	38.7	91.4	1114.7	1212.6	1462.0	1708.1	1783.4	1793.0	2122.0
52.5°	12.9	16.1	27.9	59.1	234.3	1121.2	1188.9	1274.9	1401.8	1673.7	1667.3
55°	11.8	15.0	23.6	39.8	81.7	1010.5	1080.3	1096.5	1123.3	1253.4	1425.4
57.5°	6.4	14.0	22.6	34.4	61.3	184.9	980.4	993.3	1014.8	1020.1	1081.4
60°	3.2	12.9	20.4	30.1	45.1	86.0	881.5	896.5	909.4	911.6	930.9
62.5°	2.1	11.8	17.2	27.9	37.6	61.3	208.5	425.7	809.4	809.4	832.0
65°	2.1	8.6	10.7	18.3	34.4	50.5	88.1	102.1	198.9	489.1	729.9
67.5°	2.1	3.2	9.7	15.0	25.8	38.7	64.5	75.2	90.3	103.2	191.3
70°	2.1	2.1	8.6	9.7	16.1	29.0	46.2	52.7	61.3	69.9	80.6
72.5°	2.1	2.1	7.5	7.5	10.7	19.3	35.5	38.7	44.1	49.4	57.0
75°	5.4	4.3	6.4	6.4	7.5	15.0	26.9	30.1	32.2	36.5	41.9
77.5°	5.4	5.4	5.4	5.4	5.4	9.7	17.2	19.3	22.6	24.7	29.0
80°	4.3	4.3	4.3	5.4	5.4	6.4	10.7	11.8	12.9	16.1	17.2
82.5°	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	6.4	7.5	9.7
85°	3.2	3.2	3.2	3.2	3.2	3.2	3.2	4.3	4.3	4.3	4.3
87.5°	3.2	3.2	3.2	2.1	2.1	3.2	3.2	3.2	3.2	3.2	3.2
90°	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-LD5-61HL-RM-UNV-L935-CD1-U

CANDELA DISTRIBUTION (continued):

	345°	346°	347°	348°	349°	350°	351°	352°	353°	354°	355°
0°	3581.8	3581.8	3581.8	3581.8	3581.8	3581.8	3581.8	3581.8	3581.8	3581.8	3581.8
2.5°	3604.4	3597.9	3592.5	3595.8	3586.1	3581.8	3585.0	3586.1	3588.2	3593.6	3594.7
5°	3594.7	3592.5	3602.2	3607.6	3605.4	3607.6	3607.6	3603.3	3596.8	3601.1	3591.5
7.5°	3588.2	3574.3	3563.5	3565.7	3554.9	3567.8	3579.6	3596.8	3602.2	3602.2	3591.5
10°	3698.9	3683.9	3623.7	3582.9	3556.0	3532.3	3588.2	3531.3	3558.1	3456.0	3573.2
12.5°	3790.3	3810.7	3783.9	3672.1	3652.7	3581.8	3622.6	3552.8	3532.3	3415.2	3452.8
15°	3826.9	3788.2	3779.6	3748.4	3706.5	3686.1	3576.4	3564.6	3531.3	3544.2	3494.7
17.5°	3794.6	3814.0	3788.2	3767.7	3724.7	3676.4	3610.8	3552.8	3506.5	3403.3	3490.4
20°	3763.4	3789.2	3711.8	3724.7	3729.0	3673.2	3638.8	3590.4	3532.3	3435.6	3360.3
22.5°	3711.8	3693.6	3700.0	3680.7	3664.6	3672.1	3624.8	3591.5	3493.6	3449.6	3347.4
25°	3628.0	3621.6	3638.8	3636.6	3597.9	3585.0	3561.4	3525.9	3487.2	3416.2	3332.4
27.5°	3491.5	3524.8	3554.9	3568.9	3548.5	3514.1	3501.2	3480.7	3453.9	3381.8	3319.5
30°	3347.4	3385.1	3419.5	3449.6	3467.8	3452.8	3441.0	3429.1	3388.3	3341.0	3271.1
32.5°	3183.0	3232.4	3279.7	3316.3	3356.0	3367.9	3359.3	3349.6	3315.2	3272.2	3216.3
35°	2992.7	3060.4	3129.2	3194.8	3212.0	3239.9	3267.9	3251.8	3233.5	3190.5	3138.9
37.5°	2831.5	2879.8	2929.3	3012.0	3072.2	3107.7	3157.2	3163.6	3132.4	3112.0	3044.3
40°	2664.8	2708.9	2780.9	2829.3	2912.1	2952.9	3005.6	3029.2	3021.7	3009.9	2950.8
42.5°	2533.7	2555.2	2602.5	2645.5	2727.2	2811.0	2857.3	2883.1	2909.9	2900.3	2870.2
45°	2393.9	2413.3	2429.4	2467.0	2546.6	2620.8	2677.7	2716.4	2764.8	2787.4	2750.8
47.5°	2255.3	2260.6	2280.0	2311.2	2358.5	2415.4	2511.1	2569.2	2614.3	2658.4	2634.7
50°	2148.9	2129.5	2132.7	2152.1	2190.8	2246.7	2315.5	2397.2	2448.8	2502.5	2507.9
52.5°	1878.0	2034.9	1997.3	2008.0	2028.5	2055.3	2127.4	2208.0	2271.4	2317.6	2363.8
55°	1575.9	1607.1	1909.1	1866.1	1879.0	1902.7	1936.0	2016.6	2077.9	2142.4	2206.9
57.5°	1222.2	1454.4	1466.3	1745.7	1739.3	1741.4	1769.4	1815.6	1876.9	1957.5	2012.3
60°	950.3	1048.1	1238.4	1335.1	1580.2	1588.8	1604.9	1631.8	1684.5	1760.8	1847.9
62.5°	838.5	851.4	919.1	1064.2	1223.3	1415.7	1450.1	1454.4	1478.1	1554.4	1655.4
65°	736.4	744.9	765.4	780.4	913.7	1099.7	1265.2	1292.1	1307.2	1352.3	1438.3
67.5°	507.4	641.8	660.0	670.8	683.7	769.7	975.0	1111.5	1128.7	1168.5	1243.7
70°	97.8	203.2	555.8	567.6	574.0	593.4	626.7	843.8	957.8	995.4	1029.8
72.5°	66.6	78.5	94.6	223.6	473.0	483.7	491.3	519.2	711.6	821.3	839.5
75°	48.4	53.7	63.4	78.5	96.7	315.0	390.2	404.2	418.2	577.3	669.7
77.5°	34.4	38.7	43.0	50.5	59.1	76.3	109.6	302.1	316.0	323.6	456.9
80°	19.3	23.6	29.0	33.3	37.6	43.0	55.9	69.9	155.9	227.9	239.7
82.5°	10.7	12.9	15.0	18.3	20.4	25.8	31.2	37.6	49.4	73.1	154.8
85°	5.4	5.4	5.4	7.5	8.6	11.8	14.0	16.1	22.6	31.2	43.0
87.5°	3.2	3.2	4.3	4.3	4.3	5.4	5.4	5.4	6.4	9.7	14.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

TEST NUMBER: P1213491

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CANDELA DISTRIBUTION (continued):

	356°	357°	358°	359°	360°
0°	3581.8	3581.8	3581.8	3581.8	3581.8
2.5°	3595.8	3592.5	3592.5	3605.4	3602.2
5°	3589.3	3586.1	3585.0	3599.0	3592.5
7.5°	3583.9	3572.1	3568.9	3581.8	3576.4
10°	3562.4	3553.8	3559.2	3554.9	3552.8
12.5°	3525.9	3520.5	3497.9	3500.1	3518.4
15°	3460.3	3481.8	3443.1	3477.5	3485.0
17.5°	3339.9	3388.3	3425.9	3446.3	3449.6
20°	3393.7	3409.8	3390.4	3391.5	3404.4
22.5°	3323.8	3331.3	3336.7	3330.2	3358.2
25°	3212.0	3183.0	3245.3	3258.2	3303.4
27.5°	3177.6	3153.9	3183.0	3180.8	3218.4
30°	3149.6	3073.3	3086.2	3106.6	3152.9
32.5°	3109.9	2989.5	2976.6	3021.7	3073.3
35°	3040.0	2926.1	2896.0	2925.0	3002.4
37.5°	2980.9	2837.9	2777.7	2816.4	2917.5
40°	2892.7	2769.1	2675.6	2710.0	2829.3
42.5°	2787.4	2710.0	2565.9	2589.6	2726.1
45°	2681.0	2612.2	2459.5	2471.3	2633.7
47.5°	2572.4	2509.0	2348.8	2350.9	2515.4
50°	2466.0	2382.1	2249.9	2212.3	2389.6
52.5°	2327.3	2249.9	2149.9	2088.7	2270.3
55°	2196.2	2109.1	2036.0	1941.4	2134.9
57.5°	2068.2	1971.5	1922.0	1800.6	1981.2
60°	1893.0	1846.8	1773.7	1657.6	1842.5
62.5°	1713.5	1698.4	1624.3	1503.9	1671.6
65°	1503.9	1539.3	1463.0	1359.8	1494.2
67.5°	1306.1	1369.5	1285.7	1222.2	1323.3
70°	1095.4	1168.5	1121.2	1098.6	1141.6
72.5°	887.9	958.9	963.2	947.0	961.0
75°	685.8	764.3	807.3	782.6	785.8
77.5°	520.3	557.9	605.2	624.6	620.3
80°	321.4	387.0	425.7	465.5	451.5
82.5°	162.3	217.1	264.4	307.4	287.0
85°	67.7	87.1	121.5	160.2	153.7
87.5°	20.4	34.4	36.5	51.6	48.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)