

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: P1213170

Luminaire Tested: 4SNLED-LD5-72HL-RM-UNV-L930-CD1-U

Issue Date: 3/29/2018

Test Information

Test Method: LM-79-2019
Report Number: P1213170
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-LD5-72HL-RM-UNV-L930-CD1-U
Description: 4FT LINEAR SNLED LED FIXTURE
METALIC FINISH REFLECTOR
Light Source: -
Ballast/Driver: -

Summary

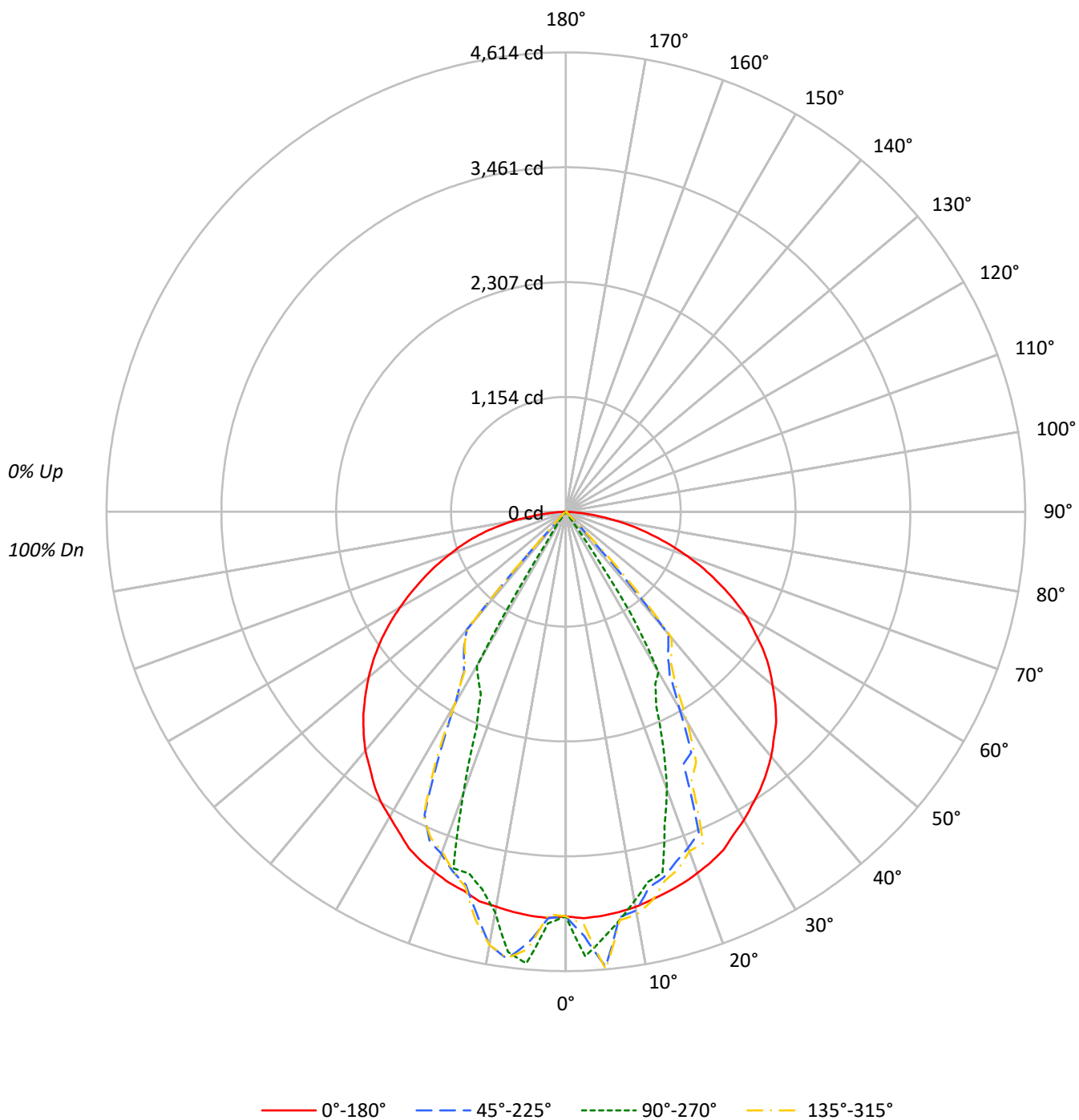
Lumens per Lamp: N/A
Luminaire Lumens: 5777.0 lumens
Efficiency: N/A
Efficacy: 93.2 lumens/watt
Spacing Criteria (0/90/45): 1.3 / 0.81 / 0.97
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.12')
CIE Type: Direct

Input Watts (W): 62
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

TEST NUMBER: P1213170

CATALOG NUMBER: 4SNLED-LD5-72HL-RM-UNV-L930-CD1-U

Luminous Intensity Polar Plot



TEST NUMBER: P1213170

CATALOG NUMBER: 4SNLED-LD5-72HL-RM-UNV-L930-CD1-U

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20			
RC	80				70				50				30				10			0
RW	70	50	30	10	70	50	30	10	50	30	10		50	30	10		50	30	10	0
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°	32832	32832	32832	32832
5°	32966	33767	32956	35759
10°	32887	30555	32867	31438
15°	32797	28520	32716	28594
20°	32835	22464	32742	22741
25°	32930	16257	32769	15341
30°	32780	14261	32433	13708
35°	32877	314	32394	381
40°	32990	68	32200	68
45°	33106	41	31863	31
50°	32854	32	31346	32
55°	32660	22	30653	22
60°	32043	24	29537	24
65°	30373	39	28210	25
70°	28176	43	26822	43
75°	24922	48	25333	48
80°	20244	55	21402	55
85°	11915	65	12160	65

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 2°

Vertical Angle: 45°

Luminance: 35747 cd/sqm

TEST NUMBER: P1213170

CATALOG NUMBER: 4SNLED-LD5-72HL-RM-UNV-L930-CD1-U

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	407.6	7.1
10°-20°	1111.8	19.2
20°-30°	1414.8	24.5
30°-40°	1195.1	20.7
40°-50°	781.3	13.5
50°-60°	492.3	8.5
60°-70°	262.1	4.5
70°-80°	95.6	1.7
80°-90°	16.5	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°	2934.2	50.8
0°-40°	4129.3	71.5
0°-60°	5403.0	93.5
0°-90°	5777.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5777.0	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	4063	4063	4063	4063	4063	
5°	4075	4299	4074	4553	4075	387
15°	3953	3752	3943	3762	3953	1118
25°	3747	2142	3729	2022	3747	1723
35°	3406	40	3356	49	3406	2130
45°	2987	5	2875	4	2987	2297
55°	2422	2	2273	2	2422	2158
65°	1695	4	1574	2	1695	1679
75°	891	4	906	4	891	946
85°	174	4	178	4	174	220
90°	0	0	0	0	0	

TEST NUMBER: P1213170

CATALOG NUMBER: 4SNLED-LD5-72HL-RM-UNV-L930-CD1-U

CANDELA DISTRIBUTION (FULL):

	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°	10°
0°	4062.8	4062.8	4062.8	4062.8	4062.8	4062.8	4062.8	4062.8	4062.8	4062.8	4062.8
2.5°	4086.0	4088.4	4089.6	4092.1	4095.7	4097.0	4099.4	4097.0	4097.0	4097.0	4097.0
5°	4075.0	4079.9	4083.5	4088.4	4097.0	4098.2	4107.9	4109.2	4114.0	4123.8	4131.1
7.5°	4056.7	4061.6	4068.9	4081.1	4093.3	4106.7	4123.8	4142.1	4167.7	4192.1	4222.6
10°	4029.9	4036.0	4044.5	4055.5	4115.2	4123.8	4161.6	4214.0	4228.6	4305.5	4362.8
12.5°	3990.9	4011.6	4033.6	4043.3	4100.6	4190.8	4317.7	4292.1	4264.0	4515.2	4511.5
15°	3953.1	3981.1	3970.1	4049.4	4101.8	4259.1	4205.5	4320.1	4529.8	4478.6	4481.0
17.5°	3912.8	3918.9	3979.9	4045.7	4139.6	4220.1	4286.0	4443.3	4484.7	4488.4	4443.3
20°	3861.6	3890.9	3979.9	4039.7	4198.2	4236.0	4378.6	4459.1	4442.0	4400.6	4323.8
22.5°	3809.2	3898.2	3988.4	4072.6	4183.5	4284.7	4355.5	4393.3	4304.2	4140.9	4053.1
25°	3747.0	3799.4	3917.7	4040.9	4179.9	4238.4	4279.9	4218.9	4103.1	3956.7	3809.2
27.5°	3650.7	3734.8	3886.0	4025.0	4150.6	4221.3	4154.3	4007.9	3821.4	3725.1	3658.0
30°	3576.3	3686.0	3810.4	3944.5	4075.0	4116.5	3945.8	3778.7	3650.7	3554.4	3539.7
32.5°	3486.1	3642.1	3760.4	3888.5	3998.2	3943.3	3777.5	3561.7	3455.6	3419.0	3433.6
35°	3405.6	3523.9	3678.7	3804.3	3883.6	3760.4	3498.3	3364.1	3312.9	3333.7	3306.8
37.5°	3309.3	3465.3	3608.0	3716.5	3689.7	3504.4	3282.4	3197.1	3203.2	3186.1	3134.9
40°	3209.3	3358.0	3506.8	3609.2	3515.3	3232.5	3084.9	3066.6	3070.3	3015.4	2942.3
42.5°	3092.2	3227.6	3376.3	3469.0	3266.6	3045.9	2945.9	2948.3	2916.6	2839.8	2800.8
45°	2987.4	3111.7	3266.6	3275.1	3026.4	2842.3	2813.0	2781.3	2710.6	2685.0	2655.7
47.5°	2853.2	2991.0	3119.1	3072.7	2791.1	2676.4	2654.5	2585.0	2549.6	2530.1	2505.7
50°	2710.6	2849.6	2966.6	2834.9	2569.1	2542.3	2470.4	2415.5	2391.1	2370.4	2348.4
52.5°	2575.2	2689.8	2809.3	2582.5	2398.4	2372.8	2291.1	2259.4	2235.0	2211.9	2207.0
55°	2421.6	2522.8	2604.5	2342.3	2235.0	2175.3	2116.8	2094.8	2071.6	2060.7	2079.0
57.5°	2247.2	2361.8	2349.7	2105.8	2058.2	1971.7	1949.7	1935.1	1918.0	1925.3	1772.9
60°	2089.9	2177.7	2118.0	1932.6	1852.2	1793.6	1774.1	1764.4	1774.1	1625.4	1429.1
62.5°	1896.1	1994.8	1874.1	1730.2	1644.9	1616.8	1599.8	1613.2	1470.5	1307.1	1259.6
65°	1694.9	1802.2	1624.2	1513.2	1459.5	1435.2	1433.9	1320.5	1180.3	1116.9	1116.9
67.5°	1501.0	1612.0	1382.7	1290.1	1269.3	1271.8	1201.0	1029.1	990.1	947.4	824.3
70°	1294.9	1392.5	1142.5	1086.4	1074.2	1065.7	893.8	847.4	801.1	687.7	677.9
72.5°	1090.1	1137.6	918.2	904.7	902.3	749.9	715.7	636.5	582.8	569.4	563.3
75°	891.3	876.7	725.5	737.7	621.9	568.2	513.3	467.0	459.7	454.8	113.4
77.5°	703.6	630.4	571.9	497.5	445.1	378.0	367.0	359.7	236.6	85.4	69.5
80°	512.1	408.5	380.4	323.1	275.6	264.6	270.7	82.9	65.8	54.9	47.6
82.5°	325.6	260.9	213.4	186.6	181.7	79.3	58.5	47.6	41.5	35.4	29.3
85°	174.4	115.8	107.3	90.2	53.7	36.6	30.5	23.2	19.5	15.9	14.6
87.5°	54.9	46.3	37.8	30.5	18.3	12.2	9.8	8.5	7.3	6.1	6.1
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: P1213170

CATALOG NUMBER: 4SNLED-LD5-72HL-RM-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	11°	12°	13°	14°	15°	16°	17°	18°	19°	20°	25°
0°	4062.8	4062.8	4062.8	4062.8	4062.8	4062.8	4062.8	4062.8	4062.8	4062.8	4062.8
2.5°	4094.5	4097.0	4095.7	4099.4	4099.4	4104.3	4107.9	4111.6	4118.9	4122.6	4150.6
5°	4147.0	4153.0	4171.3	4188.4	4209.1	4215.2	4250.6	4259.1	4300.6	4305.5	4442.0
7.5°	4264.0	4287.2	4331.1	4375.0	4418.9	4446.9	4495.7	4526.2	4559.1	4588.4	4696.9
10°	4405.5	4444.5	4487.1	4531.0	4556.6	4610.3	4639.6	4644.4	4635.9	4588.4	4412.8
12.5°	4544.5	4583.5	4565.2	4573.7	4604.2	4509.1	4522.5	4454.2	4501.8	4266.4	4092.1
15°	4524.9	4522.5	4477.4	4331.1	4355.5	4173.8	4100.6	4044.5	4089.6	4065.3	4038.4
17.5°	4466.4	4355.5	4277.4	4101.8	4027.5	3976.2	3977.5	3978.7	3956.7	3979.9	3911.6
20°	4218.9	4094.5	3978.7	3916.5	3894.6	3858.0	3876.3	3858.0	3859.2	3866.5	3761.6
22.5°	3889.7	3851.9	3784.8	3804.3	3797.0	3829.9	3805.5	3767.7	3779.9	3725.1	3645.8
25°	3756.8	3712.9	3710.4	3717.7	3706.8	3692.1	3670.2	3612.9	3609.2	3592.2	3555.6
27.5°	3622.6	3625.1	3632.4	3610.4	3571.4	3542.2	3509.2	3481.2	3492.2	3472.7	3422.7
30°	3530.0	3528.8	3484.9	3465.3	3393.4	3394.6	3386.1	3369.0	3358.0	3359.3	3327.6
32.5°	3398.3	3360.5	3310.5	3286.1	3280.0	3258.1	3241.0	3244.6	3253.2	3222.7	3255.6
35°	3262.9	3184.9	3177.6	3156.9	3137.3	3122.7	3128.8	3104.4	3103.2	3099.5	2831.3
37.5°	3081.3	3043.5	3039.8	3017.8	3004.4	3000.8	2977.6	2981.3	2992.2	3011.8	2414.3
40°	2931.3	2897.1	2888.6	2887.4	2858.1	2855.7	2861.8	2884.9	2900.8	2778.9	2300.9
42.5°	2770.3	2772.8	2745.9	2728.9	2732.5	2743.5	2772.8	2692.3	2332.6	2222.8	2103.3
45°	2632.5	2620.3	2605.7	2600.8	2632.5	2610.6	2288.7	2111.9	2069.2	2064.3	1729.0
47.5°	2488.7	2485.0	2478.9	2482.6	2302.1	2052.1	1979.0	1955.8	1963.1	1958.2	1485.1
50°	2343.6	2348.4	2348.4	2050.9	1882.7	1841.2	1847.3	1868.0	1738.8	1622.9	1383.9
52.5°	2218.0	2180.2	1868.0	1760.7	1722.9	1741.2	1697.3	1535.1	1418.1	1349.8	1280.3
55°	1985.1	1707.1	1637.6	1620.5	1633.9	1471.7	1371.7	1266.9	1236.4	1229.1	1188.8
57.5°	1562.0	1505.9	1512.0	1443.7	1288.8	1197.4	1157.1	1142.5	1129.1	1119.3	97.5
60°	1381.5	1397.4	1279.1	1132.8	1070.6	1058.4	1048.6	1035.2	1032.8	1015.7	62.2
62.5°	1264.4	1112.0	1009.6	973.0	958.4	954.7	936.4	930.4	790.1	108.5	46.3
65°	953.5	891.3	871.8	863.3	847.4	847.4	703.6	111.0	90.2	78.0	41.5
67.5°	777.9	773.1	763.3	752.3	512.1	107.3	93.9	81.7	70.7	62.2	36.6
70°	658.4	656.0	597.5	109.7	91.4	80.5	70.7	63.4	58.5	52.4	32.9
72.5°	540.2	109.7	92.7	80.5	69.5	63.4	57.3	51.2	46.3	42.7	26.8
75°	84.1	74.4	65.8	59.7	54.9	48.8	43.9	40.2	39.0	34.1	18.3
77.5°	61.0	52.4	47.6	42.7	37.8	34.1	29.3	25.6	23.2	19.5	13.4
80°	42.7	37.8	34.1	28.0	24.4	20.7	18.3	15.9	14.6	12.2	6.1
82.5°	24.4	20.7	18.3	14.6	13.4	11.0	9.8	8.5	8.5	6.1	6.1
85°	11.0	11.0	8.5	7.3	6.1	6.1	6.1	4.9	4.9	3.7	3.7
87.5°	4.9	4.9	4.9	4.9	4.9	3.7	3.7	3.7	3.7	3.7	2.4
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: P1213170

CATALOG NUMBER: 4SNLED-LD5-72HL-RM-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	30°	35°	40°	45°	50°	55°	60°	65°	70°	75°	80°
0°	4062.8	4062.8	4062.8	4062.8	4062.8	4062.8	4062.8	4062.8	4062.8	4062.8	4062.8
2.5°	4189.6	4205.5	4236.0	4267.7	4232.3	4359.1	4349.4	4392.0	4415.2	4426.2	4451.8
5°	4562.7	4633.5	4656.6	4587.1	4546.9	4505.4	4411.5	4340.8	4349.4	4326.2	4242.1
7.5°	4555.4	4404.2	4200.6	4107.9	4100.6	4089.6	4118.9	4136.0	4138.4	4137.2	4134.8
10°	4170.1	4092.1	4078.7	4066.5	4071.4	4026.2	4005.5	3947.0	3978.7	3961.6	3967.7
12.5°	4053.1	4034.8	3962.8	3862.8	3922.6	3877.5	3851.9	3868.9	3849.4	3831.1	3825.0
15°	3983.6	3865.3	3825.0	3800.7	3783.6	3773.8	3782.4	3762.9	3756.8	3753.1	3761.6
17.5°	3839.7	3792.1	3748.2	3683.6	3684.8	3681.2	3705.6	3742.1	3744.6	3556.8	3387.3
20°	3726.3	3687.3	3631.2	3590.9	3645.8	3548.3	3171.5	2992.2	2964.2	2964.2	2969.1
22.5°	3636.1	3549.5	3553.1	3489.7	2976.4	2871.5	2874.0	2884.9	2834.9	2664.2	2646.0
25°	3512.9	3499.5	3232.5	2793.5	2797.2	2715.5	2589.9	2413.1	2221.6	2221.6	2189.9
27.5°	3420.2	3136.1	2745.9	2727.6	2453.3	2280.2	2172.9	2010.7	1988.7	1968.0	1970.4
30°	3341.0	2653.3	2663.0	2280.2	2077.7	1933.9	1925.3	1898.5	1885.1	1881.4	1868.0
32.5°	2641.1	2583.8	2228.9	1941.2	1861.9	1838.8	1827.8	1797.3	1796.1	1772.9	1612.0
35°	2476.5	2268.0	1865.6	1787.5	1764.4	1742.4	1724.1	1157.1	136.6	54.9	47.6
37.5°	2288.7	1894.8	1725.4	1690.0	1668.0	1232.7	123.2	42.7	30.5	21.9	19.5
40°	1940.0	1692.4	1638.8	1599.8	659.7	42.7	26.8	20.7	12.2	11.0	9.8
42.5°	1636.3	1594.9	1537.6	468.2	48.8	20.7	13.4	9.8	8.5	8.5	7.3
45°	1531.5	1494.9	619.4	46.3	30.5	9.8	8.5	8.5	7.3	4.9	4.9
47.5°	1433.9	1262.0	56.1	29.3	19.5	8.5	7.3	4.9	4.9	4.9	3.7
50°	1330.3	69.5	39.0	21.9	12.2	4.9	4.9	4.9	4.9	3.7	3.7
52.5°	248.7	48.8	31.7	19.5	6.1	4.9	4.9	4.9	3.7	3.7	3.7
55°	58.5	39.0	29.3	17.1	4.9	4.9	4.9	3.7	3.7	3.7	2.4
57.5°	43.9	29.3	23.2	15.9	4.9	3.7	3.7	3.7	3.7	3.7	2.4
60°	36.6	20.7	18.3	14.6	3.7	3.7	3.7	3.7	3.7	3.7	2.4
62.5°	25.6	17.1	13.4	11.0	3.7	3.7	3.7	3.7	3.7	3.7	3.7
65°	20.7	13.4	11.0	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7
67.5°	18.3	11.0	7.3	2.4	3.7	3.7	3.7	3.7	3.7	3.7	3.7
70°	14.6	3.7	3.7	2.4	3.7	3.7	3.7	3.7	3.7	3.7	3.7
72.5°	12.2	3.7	2.4	2.4	3.7	3.7	3.7	3.7	3.7	3.7	3.7
75°	12.2	6.1	2.4	2.4	3.7	3.7	4.9	4.9	3.7	3.7	3.7
77.5°	8.5	6.1	2.4	2.4	3.7	3.7	4.9	4.9	3.7	3.7	3.7
80°	4.9	6.1	2.4	3.7	3.7	7.3	8.5	4.9	3.7	3.7	3.7
82.5°	4.9	6.1	7.3	7.3	3.7	6.1	7.3	6.1	4.9	3.7	3.7
85°	4.9	3.7	4.9	6.1	3.7	6.1	6.1	4.9	4.9	3.7	3.7
87.5°	2.4	3.7	3.7	4.9	4.9	4.9	6.1	4.9	4.9	4.9	3.7
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: P1213170

CATALOG NUMBER: 4SNLED-LD5-72HL-RM-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	85°	90°	95°	100°	105°	110°	115°	120°	125°	130°	135°
0°	4062.8	4062.8	4062.8	4062.8	4062.8	4062.8	4062.8	4062.8	4062.8	4062.8	4062.8
2.5°	4464.0	4468.9	4392.0	4365.2	4388.4	4383.5	4362.8	4286.0	4277.4	4226.2	4151.8
5°	4266.4	4299.4	4259.1	4328.6	4295.7	4328.6	4428.6	4475.0	4550.6	4596.9	4614.0
7.5°	4128.7	4136.0	4136.0	4142.1	4148.2	4149.4	4142.1	4137.2	4116.5	4090.9	4137.2
10°	3961.6	3970.1	3984.8	3982.3	3981.1	4006.7	4012.8	4065.3	4062.8	4072.6	4107.9
12.5°	3875.0	3809.2	3868.9	3853.1	3875.0	3840.9	3904.3	3893.3	3897.0	3926.3	4001.9
15°	3731.2	3751.9	3766.5	3766.5	3775.1	3767.7	3760.4	3810.4	3840.9	3842.1	3837.2
17.5°	3454.4	3297.1	3458.0	3416.6	3747.0	3755.5	3727.5	3704.3	3704.3	3722.6	3761.6
20°	2965.4	2969.1	2970.3	2986.1	3005.7	3004.4	3005.7	3486.1	3714.1	3661.7	3626.3
22.5°	2599.6	2554.5	2638.6	2632.5	2737.4	2853.2	2964.2	2953.2	2960.5	3299.5	3604.3
25°	2083.8	2142.4	2094.8	2115.5	2233.8	2371.6	2457.0	2680.1	2922.7	2905.7	2984.9
27.5°	1961.9	1946.1	1968.0	1968.0	1983.9	2002.1	2049.7	2175.3	2391.1	2617.9	2832.5
30°	1846.1	1859.5	1861.9	1883.9	1896.1	1908.3	1915.6	1963.1	2011.9	2169.2	2433.8
32.5°	1386.4	1215.7	1599.8	1703.4	1791.2	1811.9	1826.6	1846.1	1881.4	1904.6	2037.5
35°	40.2	40.2	42.7	48.8	62.2	419.5	1597.3	1760.7	1783.9	1813.1	1837.5
37.5°	19.5	14.6	17.1	18.3	21.9	30.5	43.9	136.6	1520.5	1719.3	1746.1
40°	8.5	8.5	8.5	8.5	9.8	12.2	18.3	30.5	46.3	1223.0	1649.8
42.5°	7.3	7.3	7.3	7.3	7.3	7.3	8.5	11.0	21.9	52.4	865.7
45°	4.9	4.9	3.7	4.9	4.9	6.1	7.3	7.3	9.8	32.9	59.7
47.5°	3.7	3.7	3.7	3.7	3.7	3.7	3.7	6.1	7.3	21.9	31.7
50°	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	17.1	21.9
52.5°	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	7.3	19.5
55°	2.4	2.4	2.4	2.4	2.4	2.4	2.4	3.7	3.7	4.9	17.1
57.5°	2.4	2.4	2.4	2.4	2.4	3.7	2.4	2.4	3.7	3.7	15.9
60°	2.4	2.4	2.4	2.4	2.4	3.7	3.7	3.7	3.7	3.7	14.6
62.5°	3.7	3.7	2.4	3.7	2.4	2.4	3.7	3.7	3.7	3.7	9.8
65°	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	2.4	3.7
67.5°	3.7	3.7	3.7	3.7	2.4	3.7	2.4	3.7	3.7	2.4	2.4
70°	3.7	3.7	3.7	3.7	3.7	3.7	3.7	2.4	2.4	2.4	2.4
72.5°	3.7	3.7	3.7	3.7	3.7	3.7	3.7	2.4	2.4	2.4	2.4
75°	3.7	3.7	3.7	3.7	3.7	3.7	4.9	4.9	2.4	2.4	2.4
77.5°	3.7	3.7	3.7	3.7	3.7	3.7	6.1	7.3	6.1	6.1	2.4
80°	3.7	3.7	3.7	3.7	3.7	3.7	6.1	6.1	6.1	6.1	8.5
82.5°	3.7	3.7	3.7	3.7	3.7	3.7	4.9	4.9	4.9	4.9	6.1
85°	3.7	3.7	3.7	3.7	3.7	3.7	4.9	4.9	4.9	3.7	4.9
87.5°	3.7	3.7	3.7	3.7	3.7	3.7	3.7	4.9	3.7	3.7	3.7
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: P1213170

CATALOG NUMBER: 4SNLED-LD5-72HL-RM-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	140°	145°	150°	155°	160°	161°	162°	163°	164°	165°	166°
0°	4062.8	4062.8	4062.8	4062.8	4062.8	4062.8	4062.8	4062.8	4062.8	4062.8	4062.8
2.5°	4157.9	4116.5	4103.1	4075.0	4072.6	4075.0	4068.9	4060.4	4065.3	4056.7	4049.4
5°	4623.7	4512.8	4440.8	4344.5	4211.6	4182.3	4175.0	4133.5	4118.9	4114.0	4094.5
7.5°	4246.9	4449.3	4571.3	4612.7	4456.7	4420.1	4377.4	4343.3	4310.3	4248.2	4210.4
10°	4079.9	4089.6	4206.7	4343.3	4565.2	4595.7	4618.8	4544.5	4523.7	4365.2	4331.1
12.5°	4040.9	4042.1	4055.5	4138.4	4312.8	4332.3	4414.0	4457.9	4511.5	4542.0	4517.6
15°	3862.8	3961.6	4034.8	4042.1	4057.9	4092.1	4116.5	4268.9	4333.5	4506.7	4496.9
17.5°	3779.9	3811.6	3917.7	4004.3	3989.7	3977.5	3997.0	4017.7	4079.9	4253.0	4250.6
20°	3642.1	3743.4	3800.7	3890.9	3972.6	3976.2	3954.3	3942.1	3917.7	3945.8	3971.4
22.5°	3583.6	3599.5	3706.8	3770.2	3862.8	3895.8	3900.6	3901.9	3888.5	3873.8	3866.5
25°	3577.5	3527.5	3582.4	3661.7	3729.9	3765.3	3805.5	3819.0	3814.1	3814.1	3806.8
27.5°	2927.6	3511.7	3482.4	3534.8	3617.8	3642.1	3662.9	3704.3	3729.9	3748.2	3756.8
30°	2788.6	2893.5	3404.4	3411.7	3495.8	3493.4	3516.6	3550.7	3583.6	3626.3	3637.3
32.5°	2466.7	2724.0	3116.6	3288.5	3376.3	3384.9	3397.1	3406.8	3437.3	3484.9	3526.3
35°	1976.5	2481.3	2670.3	3230.0	3245.9	3262.9	3270.3	3293.4	3303.2	3322.7	3359.3
37.5°	1788.8	2050.9	2561.8	2793.5	3095.9	3110.5	3149.5	3159.3	3175.1	3191.0	3219.0
40°	1680.2	1752.2	2132.6	2494.8	2975.2	2984.9	2998.3	3022.7	3023.9	3042.2	3067.8
42.5°	1593.7	1640.0	1751.0	2382.6	2889.8	2888.6	2856.9	2872.7	2880.1	2899.6	2934.9
45°	1273.0	1538.8	1609.5	1946.1	2300.9	2466.7	2785.0	2732.5	2731.3	2738.6	2776.4
47.5°	64.6	1447.3	1497.3	1605.9	2172.9	2178.9	2220.4	2569.1	2622.8	2605.7	2609.4
50°	43.9	100.0	1394.9	1444.9	1872.9	2024.1	2054.6	2070.4	2271.6	2496.0	2459.4
52.5°	34.1	57.3	854.8	1341.3	1521.7	1632.7	1829.0	1941.2	1953.4	2043.6	2349.7
55°	30.5	43.9	92.7	1237.6	1293.7	1318.1	1432.7	1629.0	1787.5	1835.1	1838.8
57.5°	26.8	40.2	63.4	559.7	1176.7	1181.5	1201.0	1269.3	1412.0	1542.5	1690.0
60°	24.4	35.4	50.0	96.3	1069.4	1081.5	1085.2	1103.5	1120.6	1209.6	1379.1
62.5°	14.6	28.0	43.9	69.5	846.2	971.8	970.6	982.8	998.6	1008.4	1042.5
65°	12.2	21.9	37.8	58.5	103.6	129.2	785.3	873.0	882.8	896.2	902.3
67.5°	11.0	19.5	28.0	46.3	78.0	89.0	102.4	126.8	692.6	780.4	792.6
70°	9.8	13.4	23.2	39.0	63.4	68.3	76.8	87.8	103.6	128.0	626.7
72.5°	6.1	9.8	15.9	28.0	48.8	54.9	59.7	67.1	74.4	89.0	102.4
75°	2.4	7.3	13.4	20.7	37.8	41.5	45.1	50.0	56.1	65.8	73.2
77.5°	2.4	6.1	11.0	14.6	24.4	28.0	32.9	36.6	41.5	46.3	53.7
80°	8.5	4.9	7.3	11.0	17.1	18.3	20.7	23.2	26.8	30.5	35.4
82.5°	6.1	7.3	8.5	7.3	8.5	11.0	12.2	14.6	15.9	18.3	19.5
85°	4.9	4.9	6.1	6.1	6.1	6.1	6.1	6.1	7.3	8.5	11.0
87.5°	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	4.9	4.9
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: P1213170

CATALOG NUMBER: 4SNLED-LD5-72HL-RM-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	167°	168°	169°	170°	171°	172°	173°	174°	175°	176°	177°
0°	4062.8	4062.8	4062.8	4062.8	4062.8	4062.8	4062.8	4062.8	4062.8	4062.8	4062.8
2.5°	4049.4	4047.0	4039.7	4039.7	4038.4	4043.3	4047.0	4050.6	4049.4	4056.7	4049.4
5°	4079.9	4073.8	4062.8	4053.1	4049.4	4051.8	4048.2	4051.8	4047.0	4053.1	4042.1
7.5°	4164.0	4143.3	4100.6	4083.5	4061.6	4060.4	4049.4	4047.0	4039.7	4039.7	4026.2
10°	4312.8	4212.8	4200.6	4149.4	4131.1	4042.1	4061.6	4028.7	4025.0	4009.2	4003.1
12.5°	4434.7	4356.7	4333.5	4288.4	4237.2	4056.7	4097.0	4026.2	4022.6	3990.9	3958.0
15°	4437.2	4482.3	4418.9	4294.5	4283.5	4159.1	4077.5	4053.1	4021.4	3926.3	3942.1
17.5°	4294.5	4398.1	4428.6	4401.8	4323.8	4239.6	4125.0	4076.2	3981.1	3938.4	3909.2
20°	4062.8	4167.7	4298.1	4306.7	4355.5	4295.7	4145.7	4066.5	3951.9	3877.5	3853.1
22.5°	3878.7	3955.5	4105.5	4175.0	4234.7	4255.5	4160.4	4043.3	3900.6	3828.7	3814.1
25°	3781.2	3798.2	3843.3	3925.0	4056.7	4151.8	4165.2	4040.9	3966.5	3809.2	3726.3
27.5°	3745.8	3731.2	3712.9	3754.3	3853.1	3968.9	4045.7	4066.5	3881.1	3731.2	3648.2
30°	3655.6	3664.1	3636.1	3621.4	3686.0	3805.5	3942.1	3976.2	3833.6	3678.7	3583.6
32.5°	3544.6	3559.2	3564.1	3538.5	3525.1	3608.0	3755.5	3837.2	3829.9	3604.3	3498.3
35°	3405.6	3447.1	3458.0	3459.2	3437.3	3423.9	3509.2	3678.7	3743.4	3570.2	3416.6
37.5°	3259.3	3271.5	3331.2	3347.1	3347.1	3306.8	3370.2	3505.6	3595.8	3493.4	3316.6
40°	3076.4	3115.4	3171.5	3199.5	3227.6	3231.2	3195.9	3291.0	3439.7	3414.1	3222.7
42.5°	2943.5	2969.1	3003.2	3041.0	3098.3	3113.0	3076.4	3093.4	3248.3	3315.4	3100.8
45°	2788.6	2822.8	2832.5	2874.0	2933.7	2976.4	2975.2	2939.8	3064.2	3147.1	3011.8
47.5°	2630.1	2663.0	2680.1	2700.8	2744.7	2799.6	2830.1	2814.2	2838.6	3000.8	2893.5
50°	2466.7	2485.0	2519.1	2542.3	2571.6	2603.3	2676.4	2691.1	2656.9	2786.2	2763.0
52.5°	2311.9	2318.0	2341.1	2364.3	2403.3	2426.5	2485.0	2528.9	2526.5	2564.3	2617.9
55°	2191.1	2164.3	2169.2	2187.5	2213.1	2248.5	2281.4	2349.7	2372.8	2380.1	2465.5
57.5°	1711.9	1987.5	2011.9	2010.7	2041.2	2057.0	2087.5	2132.6	2215.5	2197.2	2292.3
60°	1555.9	1586.4	1816.8	1843.6	1854.6	1869.2	1905.8	1947.3	2008.2	2047.3	2088.7
62.5°	1186.4	1371.7	1441.3	1644.9	1676.6	1685.1	1709.5	1729.0	1792.4	1881.4	1864.4
65°	918.2	997.4	1209.6	1292.5	1465.6	1487.6	1521.7	1542.5	1560.7	1663.2	1668.0
67.5°	793.8	806.0	863.3	1023.0	1132.8	1302.2	1323.0	1341.3	1369.3	1442.5	1487.6
70°	677.9	692.6	708.4	721.8	864.5	976.7	1134.0	1140.1	1158.4	1207.1	1309.6
72.5°	128.0	579.2	588.9	597.5	613.3	687.7	837.7	959.6	966.9	990.1	1084.0
75°	86.6	101.2	139.0	478.0	493.8	498.7	524.3	676.7	788.9	793.8	835.2
77.5°	62.2	69.5	84.1	100.0	254.8	382.9	389.0	417.0	532.8	617.0	624.3
80°	42.7	47.6	56.1	63.4	78.0	102.4	282.9	291.4	306.1	421.9	443.8
82.5°	24.4	28.0	32.9	40.2	46.3	58.5	75.6	97.5	198.8	212.2	281.7
85°	12.2	13.4	15.9	19.5	23.2	28.0	37.8	46.3	63.4	114.6	118.3
87.5°	6.1	6.1	6.1	6.1	9.8	11.0	13.4	17.1	21.9	32.9	42.7
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: P1213170

CATALOG NUMBER: 4SNLED-LD5-72HL-RM-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	178°	179°	180°	181°	182°	183°	184°	185°	186°	187°	188°
0°	4062.8	4062.8	4062.8	4062.8	4062.8	4062.8	4062.8	4062.8	4062.8	4062.8	4062.8
2.5°	4050.6	4067.7	4082.3	4086.0	4086.0	4088.4	4092.1	4094.5	4097.0	4099.4	4097.0
5°	4043.3	4061.6	4073.8	4077.5	4077.5	4084.8	4090.9	4098.2	4101.8	4101.8	4099.4
7.5°	4025.0	4038.4	4054.3	4064.0	4065.3	4077.5	4088.4	4087.2	4092.1	4094.5	4100.6
10°	4000.6	4000.6	4027.5	4034.8	4040.9	4054.3	4057.9	4065.3	4082.3	4084.8	4100.6
12.5°	3988.4	3976.2	4007.9	4011.6	4032.3	4015.3	4037.2	4044.5	4027.5	4050.6	4020.1
15°	3933.6	3948.2	3943.3	3954.3	3990.9	3971.4	4031.1	4011.6	4055.5	4003.1	4095.7
17.5°	3888.5	3886.0	3905.5	3915.3	3922.6	3964.1	3979.9	4001.9	4018.9	4004.3	4040.9
20°	3855.5	3836.0	3850.7	3861.6	3887.2	3918.9	3928.7	3895.8	3953.1	4050.6	4073.8
22.5°	3793.3	3779.9	3797.0	3797.0	3836.0	3831.1	3867.7	3847.0	3900.6	4014.0	4132.3
25°	3709.2	3710.4	3728.7	3750.7	3758.0	3812.9	3832.4	3859.2	3926.3	4061.6	4133.5
27.5°	3623.9	3616.5	3627.5	3672.6	3710.4	3750.7	3756.8	3848.2	3939.7	4032.3	4095.7
30°	3538.5	3531.2	3538.5	3571.4	3616.5	3643.4	3710.4	3832.4	3917.7	3981.1	4040.9
32.5°	3447.1	3439.7	3456.8	3481.2	3560.5	3564.1	3697.0	3811.6	3878.7	3925.0	3914.1
35°	3349.5	3339.8	3355.6	3393.4	3466.6	3493.4	3632.4	3717.7	3793.3	3815.3	3764.1
37.5°	3232.5	3215.4	3234.9	3287.3	3364.1	3442.2	3558.0	3656.8	3697.0	3638.5	3577.5
40°	3110.5	3098.3	3132.5	3159.3	3249.5	3358.0	3491.0	3560.5	3534.8	3467.8	3400.7
42.5°	3002.0	2976.4	3006.9	3058.1	3160.5	3283.7	3391.0	3430.0	3369.0	3270.3	3192.2
45°	2869.1	2838.6	2875.2	2943.5	3053.2	3193.4	3277.6	3264.2	3160.5	3075.2	2967.9
47.5°	2730.1	2693.5	2730.1	2811.8	2934.9	3083.7	3144.7	3083.7	2953.2	2845.9	2759.4
50°	2593.5	2550.8	2586.2	2709.4	2830.1	2944.7	2943.5	2825.2	2747.2	2630.1	2554.5
52.5°	2458.2	2397.2	2432.6	2566.7	2687.4	2817.9	2721.6	2611.8	2517.9	2415.5	2391.1
55°	2291.1	2225.3	2272.8	2467.9	2560.6	2637.4	2483.8	2387.5	2294.8	2243.6	2213.1
57.5°	2132.6	2060.7	2102.1	2332.6	2400.9	2420.4	2278.9	2142.4	2087.5	2070.4	2026.5
60°	1969.2	1887.5	1926.5	2192.4	2239.9	2160.7	2021.7	1915.6	1904.6	1870.5	1836.3
62.5°	1813.1	1722.9	1747.3	2018.0	2039.9	1896.1	1768.0	1740.0	1713.2	1679.0	1660.7
65°	1633.9	1540.0	1574.2	1832.7	1811.9	1626.6	1554.6	1548.6	1513.2	1485.1	1512.0
67.5°	1469.3	1358.3	1405.9	1630.2	1536.4	1385.2	1355.9	1341.3	1313.2	1329.1	1047.4
70°	1288.8	1168.1	1232.7	1412.0	1273.0	1173.0	1162.0	1140.1	1141.3	907.2	764.5
72.5°	1087.6	982.8	1076.7	1173.0	1007.2	977.9	962.1	959.6	774.3	629.2	593.8
75°	910.8	804.8	906.0	942.5	802.3	782.8	781.6	646.2	508.5	485.3	474.3
77.5°	710.9	629.2	725.5	670.6	615.8	593.8	532.8	399.9	382.9	367.0	137.8
80°	479.2	485.3	541.4	462.1	439.0	374.3	295.1	282.9	243.9	97.5	76.8
82.5°	291.4	365.8	345.1	289.0	282.9	203.6	186.6	95.1	70.7	56.1	48.8
85°	151.2	185.3	178.0	157.3	117.1	104.9	58.5	45.1	36.6	28.0	23.2
87.5°	51.2	68.3	65.8	52.4	40.2	31.7	20.7	17.1	12.2	9.8	8.5
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: P1213170

CATALOG NUMBER: 4SNLED-LD5-72HL-RM-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	189°	190°	191°	192°	193°	194°	195°	196°	197°	198°	199°
0°	4062.8	4062.8	4062.8	4062.8	4062.8	4062.8	4062.8	4062.8	4062.8	4062.8	4062.8
2.5°	4094.5	4094.5	4092.1	4094.5	4095.7	4093.3	4093.3	4095.7	4097.0	4098.2	4104.3
5°	4100.6	4103.1	4106.7	4114.0	4115.2	4129.9	4136.0	4139.6	4143.3	4144.5	4136.0
7.5°	4114.0	4122.6	4129.9	4128.7	4120.1	4097.0	4089.6	4083.5	4094.5	4122.6	4155.5
10°	4126.2	4087.2	4014.0	4114.0	4083.5	4111.6	4194.5	4212.8	4268.9	4348.1	4371.3
12.5°	4042.1	4149.4	4172.6	4060.4	4267.7	4190.8	4282.3	4362.8	4385.9	4466.4	4417.6
15°	4132.3	4184.8	4220.1	4332.3	4320.1	4385.9	4411.5	4395.7	4399.4	4420.1	4475.0
17.5°	4131.1	4236.0	4259.1	4334.7	4385.9	4387.2	4379.8	4372.5	4392.0	4407.9	4375.0
20°	4201.8	4236.0	4281.1	4311.6	4321.3	4333.5	4356.7	4338.4	4301.8	4266.4	4251.8
22.5°	4166.5	4243.3	4282.3	4287.2	4281.1	4243.3	4209.1	4157.9	4140.9	4122.6	4128.7
25°	4173.8	4209.1	4204.3	4184.8	4159.1	4088.4	4071.4	4049.4	4016.5	3937.2	3865.3
27.5°	4121.3	4103.1	4081.1	4033.6	3987.2	3949.4	3906.7	3836.0	3777.5	3692.1	3660.4
30°	4033.6	3960.4	3906.7	3878.7	3833.6	3770.2	3705.6	3619.0	3544.6	3527.5	3511.7
32.5°	3865.3	3793.3	3749.4	3681.2	3604.3	3528.8	3454.4	3420.2	3404.4	3406.8	3392.2
35°	3693.4	3630.0	3564.1	3461.7	3404.4	3328.8	3302.0	3294.6	3280.0	3264.2	3247.1
37.5°	3510.5	3436.1	3337.3	3276.3	3219.0	3188.6	3175.1	3164.2	3138.6	3110.5	3091.0
40°	3333.7	3199.5	3144.7	3084.9	3067.8	3054.4	3034.9	3008.1	2972.7	2967.9	2959.3
42.5°	3097.1	3000.8	2953.2	2941.0	2920.3	2897.1	2880.1	2850.8	2836.2	2845.9	2853.2
45°	2872.7	2824.0	2808.1	2793.5	2754.5	2721.6	2710.6	2700.8	2713.0	2766.7	2638.6
47.5°	2691.1	2671.6	2652.0	2627.7	2591.1	2566.7	2577.7	2587.4	2598.4	2204.6	2011.9
50°	2533.8	2506.9	2476.5	2449.6	2427.7	2425.3	2482.6	2310.6	1935.1	1925.3	1730.2
52.5°	2361.8	2321.6	2303.3	2287.5	2297.2	2333.8	1931.4	1792.4	1719.3	1493.7	1393.7
55°	2176.5	2141.1	2141.1	2155.8	2103.3	1704.6	1683.9	1455.9	1318.1	1279.1	1263.2
57.5°	1991.2	1987.5	2008.2	1836.3	1547.3	1483.9	1247.4	1197.4	1175.4	1170.6	1145.0
60°	1821.7	1855.8	1553.4	1429.1	1242.5	1120.6	1086.4	1080.3	1057.2	1048.6	1025.5
62.5°	1686.3	1398.6	1302.2	1063.3	1001.1	985.2	966.9	958.4	937.7	827.9	242.6
65°	1218.1	1151.1	934.0	893.8	888.9	865.7	858.4	771.8	181.7	121.9	103.6
67.5°	919.4	815.7	787.7	780.4	757.2	710.9	210.9	120.7	103.6	90.2	79.3
70°	706.0	687.7	667.0	649.9	191.4	119.5	103.6	87.8	75.6	67.1	61.0
72.5°	578.0	565.8	329.2	125.6	102.4	86.6	76.8	67.1	58.5	53.7	48.8
75°	452.4	125.6	103.6	86.6	74.4	63.4	56.1	50.0	45.1	41.5	37.8
77.5°	102.4	82.9	70.7	59.7	53.7	47.6	42.7	36.6	32.9	29.3	24.4
80°	63.4	54.9	46.3	42.7	36.6	30.5	26.8	24.4	19.5	18.3	15.9
82.5°	41.5	32.9	29.3	24.4	19.5	18.3	15.9	12.2	11.0	9.8	8.5
85°	18.3	15.9	13.4	11.0	8.5	7.3	6.1	4.9	4.9	4.9	4.9
87.5°	6.1	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	2.4	2.4
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: P1213170

CATALOG NUMBER: 4SNLED-LD5-72HL-RM-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	200°	205°	210°	215°	220°	225°	230°	235°	240°	245°	250°
0°	4062.8	4062.8	4062.8	4062.8	4062.8	4062.8	4062.8	4062.8	4062.8	4062.8	4062.8
2.5°	4106.7	4128.7	4149.4	4143.3	4121.3	4087.2	4077.5	4064.0	4073.8	4094.5	4103.1
5°	4136.0	4123.8	4167.7	4232.3	4337.2	4346.9	4420.1	4437.2	4495.7	4532.3	4531.0
7.5°	4177.4	4350.6	4422.5	4500.6	4535.9	4527.4	4538.4	4529.8	4516.4	4510.3	4503.0
10°	4388.4	4520.1	4546.9	4546.9	4492.0	4417.6	4385.9	4331.1	4221.3	4223.8	4205.5
12.5°	4511.5	4557.9	4494.5	4440.8	4220.1	4134.8	4042.1	3998.2	3972.6	3933.6	3948.2
15°	4446.9	4381.1	4343.3	4170.1	4034.8	3881.1	3883.6	3856.8	3828.7	3831.1	3812.9
17.5°	4351.8	4299.4	4031.1	3911.6	3845.8	3786.0	3775.1	3739.7	3721.4	3715.3	3714.1
20°	4221.3	4032.3	3832.4	3803.1	3723.8	3655.6	3644.6	3655.6	3711.7	3611.7	3272.7
22.5°	4068.9	3797.0	3738.5	3655.6	3601.9	3575.1	3642.1	3337.3	2876.4	2932.5	2872.7
25°	3810.4	3692.1	3592.2	3528.8	3522.7	3358.0	2798.4	2739.8	2443.5	2285.0	2107.0
27.5°	3621.4	3570.2	3465.3	3454.4	3375.1	2745.9	2454.5	2132.6	2014.3	1996.0	1957.0
30°	3506.8	3433.6	3370.2	3093.4	2693.5	2210.7	1969.2	1924.1	1903.4	1881.4	1847.3
32.5°	3369.0	3299.5	3330.0	2600.8	2147.2	1903.4	1854.6	1821.7	1783.9	1769.3	1646.1
35°	3228.8	3197.1	2602.1	2186.3	1846.1	1787.5	1751.0	1716.8	1365.7	330.4	112.2
37.5°	3078.8	3071.5	2338.7	1814.4	1729.0	1674.1	1570.5	324.3	76.8	52.4	39.0
40°	2961.8	2339.9	1848.5	1701.0	1631.5	1544.9	217.0	53.7	34.1	20.7	13.4
42.5°	2883.7	2104.6	1654.6	1596.1	1444.9	159.7	54.9	23.2	13.4	11.0	8.5
45°	2222.8	1662.0	1546.1	1485.1	182.9	54.9	31.7	11.0	8.5	7.3	4.9
47.5°	2050.9	1509.5	1441.3	324.3	61.0	29.3	21.9	7.3	4.9	4.9	4.9
50°	1553.4	1394.9	1147.4	79.3	39.0	20.7	15.9	4.9	4.9	4.9	3.7
52.5°	1362.0	1287.6	123.2	52.4	30.5	15.9	9.8	3.7	3.7	3.7	3.7
55°	1244.9	817.0	73.2	40.2	25.6	14.6	6.1	3.7	3.7	3.7	2.4
57.5°	1138.9	109.7	53.7	34.1	23.2	13.4	3.7	3.7	3.7	3.7	2.4
60°	965.7	79.3	43.9	30.5	21.9	12.2	3.7	3.7	3.7	3.7	3.7
62.5°	125.6	62.2	37.8	26.8	15.9	9.8	2.4	3.7	3.7	3.7	3.7
65°	91.4	48.8	34.1	18.3	9.8	3.7	2.4	3.7	3.7	3.7	3.7
67.5°	70.7	40.2	25.6	15.9	8.5	2.4	2.4	3.7	3.7	3.7	3.7
70°	56.1	34.1	20.7	13.4	7.3	2.4	2.4	3.7	3.7	3.7	3.7
72.5°	43.9	24.4	14.6	7.3	4.9	2.4	2.4	3.7	3.7	3.7	3.7
75°	32.9	19.5	11.0	6.1	2.4	2.4	2.4	3.7	3.7	3.7	3.7
77.5°	21.9	12.2	8.5	4.9	4.9	4.9	6.1	6.1	3.7	3.7	3.7
80°	14.6	8.5	6.1	6.1	6.1	4.9	6.1	6.1	3.7	6.1	3.7
82.5°	7.3	6.1	6.1	4.9	4.9	3.7	4.9	4.9	4.9	4.9	3.7
85°	4.9	3.7	3.7	3.7	3.7	3.7	3.7	3.7	4.9	4.9	3.7
87.5°	2.4	2.4	2.4	2.4	3.7	3.7	3.7	3.7	4.9	4.9	3.7
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: P1213170

CATALOG NUMBER: 4SNLED-LD5-72HL-RM-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	255°	260°	265°	270°	275°	280°	285°	290°	295°	300°	305°
0°	4062.8	4062.8	4062.8	4062.8	4062.8	4062.8	4062.8	4062.8	4062.8	4062.8	4062.8
2.5°	4092.1	4095.7	4086.0	4138.4	4111.6	4114.0	4125.0	4097.0	4103.1	4083.5	4070.1
5°	4535.9	4543.2	4550.6	4553.0	4557.9	4564.0	4556.6	4553.0	4545.7	4521.3	4495.7
7.5°	4466.4	4457.9	4454.2	4459.1	4467.6	4471.3	4465.2	4473.7	4505.4	4518.8	4527.4
10°	4100.6	4061.6	4088.4	4084.8	4054.3	4156.7	4128.7	4144.5	4155.5	4267.7	4335.9
12.5°	3926.3	3950.6	3904.3	3881.1	3911.6	3932.3	3953.1	3909.2	3970.1	3942.1	4032.3
15°	3779.9	3765.3	3760.4	3761.6	3755.5	3784.8	3792.1	3801.9	3810.4	3848.2	3862.8
17.5°	3714.1	3738.5	3748.2	3755.5	3743.4	3729.9	3716.5	3697.0	3703.1	3693.4	3721.4
20°	3044.7	2963.0	2958.1	3005.7	2953.2	2982.5	3053.2	3526.3	3510.5	3694.6	3632.4
22.5°	2541.1	2464.3	2398.4	2341.1	2422.8	2457.0	2588.6	2737.4	2978.8	2941.0	3203.2
25°	2075.3	2047.3	2030.2	2021.7	2027.8	2025.3	2054.6	2124.1	2233.8	2492.3	2826.4
27.5°	1941.2	1927.8	1921.7	1902.2	1916.8	1911.9	1935.1	1949.7	1982.6	2008.2	2116.8
30°	1835.1	1819.2	1808.3	1787.5	1802.2	1803.4	1810.7	1848.5	1861.9	1883.9	1918.0
32.5°	670.6	395.1	370.7	352.4	385.3	502.4	881.6	1541.2	1758.3	1775.3	1814.4
35°	65.8	54.9	48.8	48.8	50.0	54.9	73.2	192.7	352.4	1362.0	1704.6
37.5°	25.6	21.9	18.3	17.1	18.3	20.7	28.0	36.6	50.0	103.6	462.1
40°	11.0	9.8	8.5	8.5	8.5	8.5	9.8	12.2	18.3	34.1	53.7
42.5°	7.3	6.1	6.1	6.1	6.1	6.1	6.1	6.1	8.5	11.0	21.9
45°	4.9	3.7	3.7	3.7	3.7	3.7	3.7	3.7	4.9	6.1	9.8
47.5°	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	4.9
50°	3.7	3.7	3.7	3.7	2.4	3.7	2.4	3.7	3.7	3.7	3.7
52.5°	3.7	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	3.7	3.7
55°	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	3.7
57.5°	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4
60°	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4
62.5°	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	3.7	3.7	2.4
65°	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	3.7	2.4
67.5°	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4
70°	3.7	3.7	2.4	3.7	2.4	2.4	3.7	3.7	3.7	2.4	2.4
72.5°	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	7.3	7.3	4.9
75°	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	6.1	7.3	6.1
77.5°	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	6.1	6.1	6.1
80°	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	4.9	4.9	4.9
82.5°	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	4.9	4.9	4.9
85°	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7
87.5°	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7
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: P1213170

CATALOG NUMBER: 4SNLED-LD5-72HL-RM-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	310°	315°	320°	325°	330°	335°	340°	341°	342°	343°	344°
0°	4062.8	4062.8	4062.8	4062.8	4062.8	4062.8	4062.8	4062.8	4062.8	4062.8	4062.8
2.5°	4047.0	4045.7	4071.4	4090.9	4083.5	4090.9	4099.4	4100.6	4103.1	4093.3	4089.6
5°	4446.9	4409.1	4335.9	4283.5	4222.6	4111.6	4056.7	4062.8	4064.0	4060.4	4065.3
7.5°	4523.7	4520.1	4494.5	4483.5	4442.0	4362.8	4236.0	4214.0	4160.4	4126.2	4098.2
10°	4331.1	4418.9	4442.0	4481.0	4505.4	4490.8	4383.5	4367.7	4333.5	4294.5	4303.0
12.5°	4122.6	4194.5	4198.2	4410.3	4457.9	4462.8	4421.3	4443.3	4448.1	4360.3	4309.1
15°	3866.5	3900.6	3972.6	4170.1	4314.0	4404.2	4431.1	4443.3	4383.5	4379.8	4359.1
17.5°	3754.3	3776.3	3809.2	3920.2	4138.4	4271.3	4384.7	4376.2	4399.4	4382.3	4329.9
20°	3612.9	3631.2	3689.7	3745.8	3853.1	4029.9	4242.1	4257.9	4288.4	4284.7	4299.4
22.5°	3610.4	3545.8	3555.6	3599.5	3711.7	3870.2	4095.7	4148.2	4167.7	4181.1	4196.9
25°	2864.2	3377.6	3471.4	3499.5	3572.6	3665.3	3931.1	3950.6	3987.2	4047.0	4090.9
27.5°	2481.3	2830.1	3205.6	3400.7	3447.1	3523.9	3682.4	3711.7	3836.0	3850.7	3918.9
30°	1958.2	2227.7	2788.6	3258.1	3334.9	3388.5	3500.7	3559.2	3612.9	3671.4	3743.4
32.5°	1842.4	1885.1	2196.0	2695.9	3293.4	3253.2	3336.1	3371.5	3430.0	3481.2	3533.6
35°	1736.3	1765.6	1831.4	2208.2	2682.5	3142.2	3198.3	3221.5	3254.4	3293.4	3331.2
37.5°	1625.4	1669.3	1714.4	1815.6	2481.3	3054.4	3053.2	3080.0	3099.5	3132.5	3164.2
40°	295.1	1532.7	1605.9	1671.7	1924.1	2436.2	2916.6	2928.8	2942.3	2963.0	2995.9
42.5°	47.6	256.1	1504.7	1568.1	1640.0	2181.4	2854.5	2804.5	2795.9	2810.6	2839.8
45°	24.4	62.2	302.4	1464.4	1529.0	1740.0	2333.8	2717.9	2709.4	2681.3	2687.4
47.5°	18.3	39.0	74.4	506.0	1431.5	1493.7	2153.3	2130.2	2292.3	2603.3	2555.7
50°	15.9	26.8	43.9	103.6	1264.4	1375.4	1658.3	1937.5	2022.9	2033.8	2407.0
52.5°	14.6	18.3	31.7	67.1	265.8	1271.8	1348.6	1446.1	1590.0	1898.5	1891.2
55°	13.4	17.1	26.8	45.1	92.7	1146.2	1225.4	1243.7	1274.2	1421.7	1616.8
57.5°	7.3	15.9	25.6	39.0	69.5	209.7	1112.0	1126.7	1151.1	1157.1	1226.6
60°	3.7	14.6	23.2	34.1	51.2	97.5	999.9	1016.9	1031.6	1034.0	1055.9
62.5°	2.4	13.4	19.5	31.7	42.7	69.5	236.6	482.9	918.2	918.2	943.8
65°	2.4	9.8	12.2	20.7	39.0	57.3	100.0	115.8	225.6	554.8	827.9
67.5°	2.4	3.7	11.0	17.1	29.3	43.9	73.2	85.4	102.4	117.1	217.0
70°	2.4	2.4	9.8	11.0	18.3	32.9	52.4	59.7	69.5	79.3	91.4
72.5°	2.4	2.4	8.5	8.5	12.2	21.9	40.2	43.9	50.0	56.1	64.6
75°	6.1	4.9	7.3	7.3	8.5	17.1	30.5	34.1	36.6	41.5	47.6
77.5°	6.1	6.1	6.1	6.1	6.1	11.0	19.5	21.9	25.6	28.0	32.9
80°	4.9	4.9	4.9	6.1	6.1	7.3	12.2	13.4	14.6	18.3	19.5
82.5°	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	7.3	8.5	11.0
85°	3.7	3.7	3.7	3.7	3.7	3.7	3.7	4.9	4.9	4.9	4.9
87.5°	3.7	3.7	3.7	2.4	2.4	3.7	3.7	3.7	3.7	3.7	3.7
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: P1213170

CATALOG NUMBER: 4SNLED-LD5-72HL-RM-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	345°	346°	347°	348°	349°	350°	351°	352°	353°	354°	355°
0°	4062.8	4062.8	4062.8	4062.8	4062.8	4062.8	4062.8	4062.8	4062.8	4062.8	4062.8
2.5°	4088.4	4081.1	4075.0	4078.7	4067.7	4062.8	4066.5	4067.7	4070.1	4076.2	4077.5
5°	4077.5	4075.0	4086.0	4092.1	4089.6	4092.1	4092.1	4087.2	4079.9	4084.8	4073.8
7.5°	4070.1	4054.3	4042.1	4044.5	4032.3	4047.0	4060.4	4079.9	4086.0	4086.0	4073.8
10°	4195.7	4178.7	4110.4	4064.0	4033.6	4006.7	4070.1	4005.5	4036.0	3920.2	4053.1
12.5°	4299.4	4322.5	4292.1	4165.2	4143.3	4062.8	4109.2	4029.9	4006.7	3873.8	3916.5
15°	4340.8	4296.9	4287.2	4251.8	4204.3	4181.1	4056.7	4043.3	4005.5	4020.1	3964.1
17.5°	4304.2	4326.2	4296.9	4273.8	4225.0	4170.1	4095.7	4029.9	3977.5	3860.4	3959.2
20°	4268.9	4298.1	4210.4	4225.0	4229.9	4166.5	4127.4	4072.6	4006.7	3897.0	3811.6
22.5°	4210.4	4189.6	4196.9	4175.0	4156.7	4165.2	4111.6	4073.8	3962.8	3912.8	3797.0
25°	4115.2	4107.9	4127.4	4125.0	4081.1	4066.5	4039.7	3999.4	3955.5	3875.0	3779.9
27.5°	3960.4	3998.2	4032.3	4048.2	4025.0	3986.0	3971.4	3948.2	3917.7	3836.0	3765.3
30°	3797.0	3839.7	3878.7	3912.8	3933.6	3916.5	3903.1	3889.7	3843.3	3789.7	3710.4
32.5°	3610.4	3666.5	3720.2	3761.6	3806.8	3820.2	3810.4	3799.4	3760.4	3711.7	3648.2
35°	3394.6	3471.4	3549.5	3623.9	3643.4	3675.1	3706.8	3688.5	3667.8	3619.0	3560.5
37.5°	3211.7	3266.6	3322.7	3416.6	3484.9	3525.1	3581.2	3588.5	3553.1	3530.0	3453.2
40°	3022.7	3072.7	3154.4	3209.3	3303.2	3349.5	3409.3	3436.1	3427.5	3414.1	3347.1
42.5°	2874.0	2898.4	2952.0	3000.8	3093.4	3188.6	3241.0	3270.3	3300.7	3289.8	3255.6
45°	2715.5	2737.4	2755.7	2798.4	2888.6	2972.7	3037.4	3081.3	3136.1	3161.7	3120.3
47.5°	2558.2	2564.3	2586.2	2621.6	2675.2	2739.8	2848.4	2914.2	2965.4	3015.4	2988.6
50°	2437.4	2415.5	2419.2	2441.1	2485.0	2548.4	2626.4	2719.1	2777.6	2838.6	2844.7
52.5°	2130.2	2308.2	2265.5	2277.7	2300.9	2331.4	2413.1	2504.5	2576.5	2628.9	2681.3
55°	1787.5	1822.9	2165.5	2116.8	2131.4	2158.2	2196.0	2287.5	2357.0	2430.1	2503.3
57.5°	1386.4	1649.8	1663.2	1980.2	1972.9	1975.3	2007.0	2059.5	2129.0	2220.4	2282.6
60°	1077.9	1188.8	1404.7	1514.4	1792.4	1802.2	1820.5	1850.9	1910.7	1997.3	2096.0
62.5°	951.1	965.7	1042.5	1207.1	1387.6	1605.9	1644.9	1649.8	1676.6	1763.2	1877.8
65°	835.2	845.0	868.2	885.2	1036.4	1247.4	1435.2	1465.6	1482.7	1533.9	1631.5
67.5°	575.5	727.9	748.7	760.9	775.5	873.0	1105.9	1260.8	1280.3	1325.4	1410.8
70°	111.0	230.5	630.4	643.8	651.1	673.1	710.9	957.2	1086.4	1129.1	1168.1
72.5°	75.6	89.0	107.3	253.6	536.5	548.7	557.2	588.9	807.2	931.6	952.3
75°	54.9	61.0	71.9	89.0	109.7	357.3	442.6	458.5	474.3	654.8	759.6
77.5°	39.0	43.9	48.8	57.3	67.1	86.6	124.4	342.6	358.5	367.0	518.2
80°	21.9	26.8	32.9	37.8	42.7	48.8	63.4	79.3	176.8	258.5	271.9
82.5°	12.2	14.6	17.1	20.7	23.2	29.3	35.4	42.7	56.1	82.9	175.6
85°	6.1	6.1	6.1	8.5	9.8	13.4	15.9	18.3	25.6	35.4	48.8
87.5°	3.7	3.7	4.9	4.9	4.9	6.1	6.1	6.1	7.3	11.0	15.9
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: P1213170

CATALOG NUMBER: 4SNLED-LD5-72HL-RM-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	356°	357°	358°	359°	360°
0°	4062.8	4062.8	4062.8	4062.8	4062.8
2.5°	4078.7	4075.0	4075.0	4089.6	4086.0
5°	4071.4	4067.7	4066.5	4082.3	4075.0
7.5°	4065.3	4051.8	4048.2	4062.8	4056.7
10°	4040.9	4031.1	4037.2	4032.3	4029.9
12.5°	3999.4	3993.3	3967.7	3970.1	3990.9
15°	3925.0	3949.4	3905.5	3944.5	3953.1
17.5°	3788.5	3843.3	3886.0	3909.2	3912.8
20°	3849.4	3867.7	3845.8	3847.0	3861.6
22.5°	3770.2	3778.7	3784.8	3777.5	3809.2
25°	3643.4	3610.4	3681.2	3695.8	3747.0
27.5°	3604.3	3577.5	3610.4	3608.0	3650.7
30°	3572.6	3486.1	3500.7	3523.9	3576.3
32.5°	3527.5	3391.0	3376.3	3427.5	3486.1
35°	3448.3	3319.0	3284.9	3317.8	3405.6
37.5°	3381.2	3219.0	3150.8	3194.7	3309.3
40°	3281.2	3141.0	3034.9	3073.9	3209.3
42.5°	3161.7	3073.9	2910.5	2937.4	3092.2
45°	3041.0	2963.0	2789.8	2803.2	2987.4
47.5°	2917.9	2845.9	2664.2	2666.7	2853.2
50°	2797.2	2702.0	2552.1	2509.4	2710.6
52.5°	2639.9	2552.1	2438.7	2369.2	2575.2
55°	2491.1	2392.3	2309.4	2202.1	2421.6
57.5°	2346.0	2236.3	2180.2	2042.4	2247.2
60°	2147.2	2094.8	2011.9	1880.2	2089.9
62.5°	1943.6	1926.5	1842.4	1705.8	1896.1
65°	1705.8	1746.1	1659.5	1542.5	1694.9
67.5°	1481.5	1553.4	1458.3	1386.4	1501.0
70°	1242.5	1325.4	1271.8	1246.2	1294.9
72.5°	1007.2	1087.6	1092.5	1074.2	1090.1
75°	777.9	866.9	915.7	887.7	891.3
77.5°	590.2	632.8	686.5	708.4	703.6
80°	364.6	439.0	482.9	528.0	512.1
82.5°	184.1	246.3	300.0	348.7	325.6
85°	76.8	98.8	137.8	181.7	174.4
87.5°	23.2	39.0	41.5	58.5	54.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)