

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: P1213164

Luminaire Tested: 4SNLED-LD5-69SL-RM-UNV-L930-CD1-U

Issue Date: 3/29/2018

Test Information

Test Method: LM-79-2019
Report Number: P1213164
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-LD5-69SL-RM-UNV-L930-CD1-U
Description: 4FT LINEAR SNLED LED FIXTURE
METALIC FINISH REFLECTOR
Light Source: -
Ballast/Driver: -

Summary

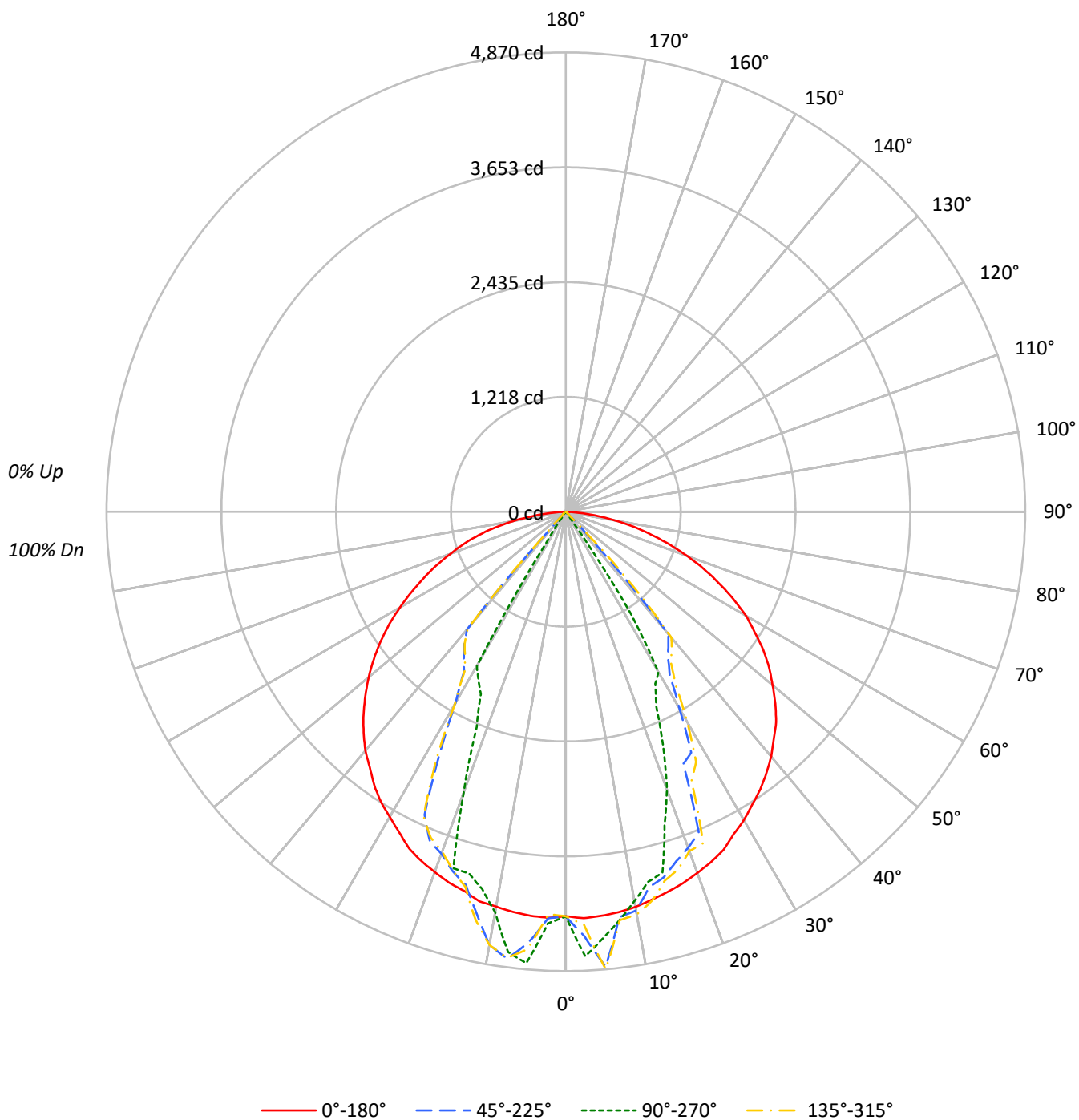
Lumens per Lamp: N/A
Luminaire Lumens: 6097.0 lumens
Efficiency: N/A
Efficacy: 87.1 lumens/watt
Spacing Criteria (0/90/45): 1.3 / 0.81 / 0.97
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.12')
CIE Type: Direct

Input Watts (W): 70
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			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°	34651	34651	34651	34651
5°	34792	35637	34781	37740
10°	34708	32248	34687	33179
15°	34613	30100	34529	30178
20°	34654	23708	34556	24000
25°	34754	17157	34585	16190
30°	34595	15051	34230	14468
35°	34698	332	34189	402
40°	34818	72	33984	72
45°	34939	42	33628	32
50°	34673	34	33083	34
55°	34468	24	32351	24
60°	33818	25	31175	25
65°	32056	41	29773	28
70°	29738	45	28309	45
75°	26303	51	26734	51
80°	21366	58	22588	58
85°	12570	68	12837	68

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 2°

Vertical Angle: 45°

Luminance: 37727 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	430.2	7.1
10°-20°	1173.4	19.2
20°-30°	1493.1	24.5
30°-40°	1261.3	20.7
40°-50°	824.6	13.5
50°-60°	519.6	8.5
60°-70°	276.6	4.5
70°-80°	100.8	1.7
80°-90°	17.4	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°	3096.7	50.8
0°-40°	4358.1	71.5
0°-60°	5702.2	93.5
0°-90°	6097.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6097.0	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	4288	4288	4288	4288	4288	
5°	4301	4538	4299	4805	4301	409
15°	4172	3960	4162	3970	4172	1179
25°	3955	2261	3935	2134	3955	1819
35°	3594	42	3542	52	3594	2248
45°	3153	5	3034	4	3153	2425
55°	2556	3	2399	3	2556	2277
65°	1789	4	1661	3	1789	1772
75°	941	4	956	4	941	998
85°	184	4	188	4	184	233
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°	4287.9	4287.9	4287.9	4287.9	4287.9	4287.9	4287.9	4287.9	4287.9	4287.9	4287.9
2.5°	4312.3	4314.9	4316.2	4318.8	4322.6	4323.9	4326.5	4323.9	4323.9	4323.9	4323.9
5°	4300.7	4305.9	4309.7	4314.9	4323.9	4325.2	4335.5	4336.8	4341.9	4352.2	4359.9
7.5°	4281.4	4286.6	4294.3	4307.2	4320.0	4334.2	4352.2	4371.5	4398.5	4424.3	4456.4
10°	4253.1	4259.6	4268.6	4280.1	4343.2	4352.2	4392.1	4447.4	4462.9	4544.0	4604.4
12.5°	4211.9	4233.8	4257.0	4267.3	4327.8	4423.0	4556.8	4529.8	4500.2	4765.3	4761.4
15°	4172.0	4201.6	4190.1	4273.7	4329.0	4495.1	4438.4	4559.4	4780.7	4726.7	4729.3
17.5°	4129.6	4136.0	4200.4	4269.9	4368.9	4453.9	4523.4	4689.4	4733.1	4737.0	4689.4
20°	4075.5	4106.4	4200.4	4263.4	4430.7	4470.6	4621.2	4706.1	4688.1	4644.3	4563.3
22.5°	4020.2	4114.1	4209.4	4298.2	4415.3	4522.1	4596.7	4636.6	4542.7	4370.2	4277.6
25°	3954.6	4009.9	4134.7	4264.7	4411.4	4473.2	4516.9	4452.6	4330.3	4175.9	4020.2
27.5°	3852.9	3941.7	4101.3	4248.0	4380.5	4455.2	4384.4	4230.0	4033.1	3931.4	3860.6
30°	3774.4	3890.2	4021.5	4163.0	4300.7	4344.5	4164.3	3988.0	3852.9	3751.2	3735.8
32.5°	3679.2	3843.9	3968.7	4103.8	4219.7	4161.8	3986.7	3759.0	3647.0	3608.4	3623.8
35°	3594.2	3719.1	3882.5	4015.0	4098.7	3968.7	3692.0	3550.5	3496.4	3518.3	3490.0
37.5°	3492.6	3657.3	3807.9	3922.4	3894.1	3698.5	3464.3	3374.2	3380.6	3362.6	3308.6
40°	3387.1	3544.1	3701.1	3809.1	3710.1	3411.5	3255.8	3236.5	3240.4	3182.4	3105.2
42.5°	3263.5	3406.4	3563.4	3661.2	3447.5	3214.6	3109.1	3111.7	3078.2	2997.1	2956.0
45°	3152.8	3284.1	3447.5	3456.5	3194.0	2999.7	2968.8	2935.4	2860.7	2833.7	2802.8
47.5°	3011.3	3156.7	3291.8	3242.9	2945.7	2824.7	2801.5	2728.2	2690.9	2670.3	2644.5
50°	2860.7	3007.4	3131.0	2992.0	2711.4	2683.1	2607.2	2549.3	2523.6	2501.7	2478.5
52.5°	2717.9	2838.8	2965.0	2725.6	2531.3	2504.3	2418.0	2384.6	2358.8	2334.4	2329.2
55°	2555.7	2662.5	2748.8	2472.1	2358.8	2295.8	2234.0	2210.9	2186.4	2174.8	2194.1
57.5°	2371.7	2492.7	2479.8	2222.4	2172.2	2080.9	2057.7	2042.3	2024.3	2032.0	1871.1
60°	2205.7	2298.4	2235.3	2039.7	1954.8	1893.0	1872.4	1862.1	1872.4	1715.4	1508.2
62.5°	2001.1	2105.3	1977.9	1826.1	1736.0	1706.4	1688.4	1702.5	1552.0	1379.5	1329.3
65°	1788.8	1902.0	1714.1	1597.0	1540.4	1514.7	1513.4	1393.7	1245.7	1178.8	1178.8
67.5°	1584.1	1701.2	1459.3	1361.5	1339.6	1342.2	1267.6	1086.1	1044.9	999.9	869.9
70°	1366.7	1469.6	1205.8	1146.6	1133.7	1124.7	943.3	894.4	845.5	725.8	715.5
72.5°	1150.5	1200.7	969.0	954.9	952.3	791.4	755.4	671.7	615.1	601.0	594.5
75°	940.7	925.3	765.7	778.6	656.3	599.7	541.8	492.9	485.2	480.0	119.7
77.5°	742.5	665.3	603.5	525.0	469.7	398.9	387.3	379.6	249.7	90.1	73.4
80°	540.5	431.1	401.5	341.0	290.8	279.3	285.7	87.5	69.5	57.9	50.2
82.5°	343.6	275.4	225.2	196.9	191.7	83.6	61.8	50.2	43.8	37.3	30.9
85°	184.0	122.3	113.2	95.2	56.6	38.6	32.2	24.5	20.6	16.7	15.4
87.5°	57.9	48.9	39.9	32.2	19.3	12.9	10.3	9.0	7.7	6.4	6.4
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°	4287.9	4287.9	4287.9	4287.9	4287.9	4287.9	4287.9	4287.9	4287.9	4287.9	4287.9
2.5°	4321.3	4323.9	4322.6	4326.5	4326.5	4331.6	4335.5	4339.3	4347.1	4350.9	4380.5
5°	4376.7	4383.1	4402.4	4420.4	4442.3	4448.7	4486.0	4495.1	4538.8	4544.0	4688.1
7.5°	4500.2	4524.7	4571.0	4617.3	4663.6	4693.2	4744.7	4776.9	4811.6	4842.5	4957.0
10°	4649.5	4690.7	4735.7	4782.0	4809.1	4865.7	4896.6	4901.7	4892.7	4842.5	4657.2
12.5°	4796.2	4837.4	4818.1	4827.1	4859.2	4758.9	4773.0	4701.0	4751.1	4502.8	4318.8
15°	4775.6	4773.0	4725.4	4571.0	4596.7	4405.0	4327.8	4268.6	4316.2	4290.4	4262.1
17.5°	4713.8	4596.7	4514.4	4329.0	4250.5	4196.5	4197.8	4199.1	4175.9	4200.4	4128.3
20°	4452.6	4321.3	4199.1	4133.4	4110.3	4071.7	4091.0	4071.7	4073.0	4080.7	3970.0
22.5°	4105.1	4065.2	3994.5	4015.0	4007.3	4042.1	4016.3	3976.4	3989.3	3931.4	3847.8
25°	3964.9	3918.5	3916.0	3923.7	3912.1	3896.7	3873.5	3813.0	3809.1	3791.1	3752.5
27.5°	3823.3	3825.9	3833.6	3810.4	3769.3	3738.4	3703.6	3674.0	3685.6	3665.0	3612.3
30°	3725.5	3724.2	3677.9	3657.3	3581.4	3582.7	3573.7	3555.6	3544.1	3545.3	3511.9
32.5°	3586.5	3546.6	3493.9	3468.1	3461.7	3438.5	3420.5	3424.4	3433.4	3401.2	3436.0
35°	3443.7	3361.3	3353.6	3331.7	3311.1	3295.7	3302.1	3276.4	3275.1	3271.2	2988.1
37.5°	3251.9	3212.0	3208.2	3185.0	3170.9	3167.0	3142.5	3146.4	3158.0	3178.6	2548.0
40°	3093.6	3057.6	3048.6	3047.3	3016.4	3013.9	3020.3	3044.7	3061.5	2932.8	2428.3
42.5°	2923.8	2926.4	2898.0	2880.0	2883.9	2895.5	2926.4	2841.4	2461.8	2346.0	2219.9
45°	2778.4	2765.5	2750.1	2744.9	2778.4	2755.2	2415.5	2228.9	2183.8	2178.7	1824.8
47.5°	2626.5	2622.7	2616.2	2620.1	2429.6	2165.8	2088.6	2064.1	2071.9	2066.7	1567.4
50°	2473.4	2478.5	2478.5	2164.5	1986.9	1943.2	1949.6	1971.5	1835.1	1712.8	1460.6
52.5°	2340.8	2300.9	1971.5	1858.2	1818.4	1837.7	1791.3	1620.2	1496.6	1424.6	1351.2
55°	2095.0	1801.6	1728.3	1710.3	1724.4	1553.3	1447.7	1337.1	1304.9	1297.2	1254.7
57.5°	1648.5	1589.3	1595.7	1523.7	1360.2	1263.7	1221.2	1205.8	1191.6	1181.4	102.9
60°	1458.0	1474.8	1349.9	1195.5	1129.9	1117.0	1106.7	1092.6	1090.0	1072.0	65.6
62.5°	1334.5	1173.6	1065.5	1026.9	1011.5	1007.6	988.3	981.9	833.9	114.5	48.9
65°	1006.3	940.7	920.1	911.1	894.4	894.4	742.5	117.1	95.2	82.4	43.8
67.5°	821.0	815.9	805.6	794.0	540.5	113.2	99.1	86.2	74.6	65.6	38.6
70°	694.9	692.3	630.6	115.8	96.5	84.9	74.6	66.9	61.8	55.3	34.7
72.5°	570.1	115.8	97.8	84.9	73.4	66.9	60.5	54.0	48.9	45.0	28.3
75°	88.8	78.5	69.5	63.1	57.9	51.5	46.3	42.5	41.2	36.0	19.3
77.5°	64.3	55.3	50.2	45.0	39.9	36.0	30.9	27.0	24.5	20.6	14.2
80°	45.0	39.9	36.0	29.6	25.7	21.9	19.3	16.7	15.4	12.9	6.4
82.5°	25.7	21.9	19.3	15.4	14.2	11.6	10.3	9.0	9.0	6.4	6.4
85°	11.6	11.6	9.0	7.7	6.4	6.4	6.4	5.1	5.1	3.9	3.9
87.5°	5.1	5.1	5.1	5.1	5.1	3.9	3.9	3.9	3.9	3.9	2.6
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°	4287.9	4287.9	4287.9	4287.9	4287.9	4287.9	4287.9	4287.9	4287.9	4287.9	4287.9
2.5°	4421.7	4438.4	4470.6	4504.1	4466.7	4600.6	4590.3	4635.3	4659.8	4671.4	4698.4
5°	4815.5	4890.1	4914.6	4841.2	4798.8	4755.0	4655.9	4581.3	4590.3	4565.8	4477.0
7.5°	4807.8	4648.2	4433.3	4335.5	4327.8	4316.2	4347.1	4365.1	4367.7	4366.4	4363.8
10°	4401.1	4318.8	4304.6	4291.7	4296.9	4249.3	4227.4	4165.6	4199.1	4181.1	4187.5
12.5°	4277.6	4258.3	4182.3	4076.8	4139.9	4092.3	4065.2	4083.3	4062.7	4043.4	4036.9
15°	4204.2	4079.4	4036.9	4011.2	3993.2	3982.9	3991.9	3971.3	3964.9	3961.0	3970.0
17.5°	4052.4	4002.2	3955.9	3887.6	3888.9	3885.1	3910.8	3949.4	3952.0	3753.8	3574.9
20°	3932.7	3891.5	3832.3	3789.8	3847.8	3744.8	3347.2	3158.0	3128.4	3128.4	3133.5
22.5°	3837.5	3746.1	3750.0	3683.0	3141.3	3030.6	3033.2	3044.7	2992.0	2811.8	2792.5
25°	3707.5	3693.3	3411.5	2948.2	2952.1	2865.9	2733.3	2546.7	2344.7	2344.7	2311.2
27.5°	3609.7	3309.8	2898.0	2878.7	2589.2	2406.5	2293.2	2122.1	2098.9	2077.0	2079.6
30°	3526.0	2800.2	2810.5	2406.5	2192.8	2041.0	2032.0	2003.7	1989.5	1985.6	1971.5
32.5°	2787.4	2726.9	2352.4	2048.7	1965.1	1940.6	1929.0	1896.9	1895.6	1871.1	1701.2
35°	2613.6	2393.6	1968.9	1886.6	1862.1	1838.9	1819.6	1221.2	144.1	57.9	50.2
37.5°	2415.5	1999.8	1820.9	1783.6	1760.4	1301.0	130.0	45.0	32.2	23.2	20.6
40°	2047.4	1786.2	1729.6	1688.4	696.2	45.0	28.3	21.9	12.9	11.6	10.3
42.5°	1727.0	1683.2	1622.7	494.2	51.5	21.9	14.2	10.3	9.0	9.0	7.7
45°	1616.3	1577.7	653.7	48.9	32.2	10.3	9.0	9.0	7.7	5.1	5.1
47.5°	1513.4	1331.9	59.2	30.9	20.6	9.0	7.7	5.1	5.1	5.1	3.9
50°	1404.0	73.4	41.2	23.2	12.9	5.1	5.1	5.1	5.1	3.9	3.9
52.5°	262.5	51.5	33.5	20.6	6.4	5.1	5.1	5.1	3.9	3.9	3.9
55°	61.8	41.2	30.9	18.0	5.1	5.1	5.1	3.9	3.9	3.9	2.6
57.5°	46.3	30.9	24.5	16.7	5.1	3.9	3.9	3.9	3.9	3.9	2.6
60°	38.6	21.9	19.3	15.4	3.9	3.9	3.9	3.9	3.9	3.9	2.6
62.5°	27.0	18.0	14.2	11.6	3.9	3.9	3.9	3.9	3.9	3.9	3.9
65°	21.9	14.2	11.6	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9
67.5°	19.3	11.6	7.7	2.6	3.9	3.9	3.9	3.9	3.9	3.9	3.9
70°	15.4	3.9	3.9	2.6	3.9	3.9	3.9	3.9	3.9	3.9	3.9
72.5°	12.9	3.9	2.6	2.6	3.9	3.9	3.9	3.9	3.9	3.9	3.9
75°	12.9	6.4	2.6	2.6	3.9	3.9	5.1	5.1	3.9	3.9	3.9
77.5°	9.0	6.4	2.6	2.6	3.9	3.9	5.1	5.1	3.9	3.9	3.9
80°	5.1	6.4	2.6	3.9	3.9	7.7	9.0	5.1	3.9	3.9	3.9
82.5°	5.1	6.4	7.7	7.7	3.9	6.4	7.7	6.4	5.1	3.9	3.9
85°	5.1	3.9	5.1	6.4	3.9	6.4	6.4	5.1	5.1	3.9	3.9
87.5°	2.6	3.9	3.9	5.1	5.1	5.1	6.4	5.1	5.1	5.1	3.9
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: P1213164

CATALOG NUMBER: 4SNLED-LD5-69SL-RM-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	85°	90°	95°	100°	105°	110°	115°	120°	125°	130°	135°
0°	4287.9	4287.9	4287.9	4287.9	4287.9	4287.9	4287.9	4287.9	4287.9	4287.9	4287.9
2.5°	4711.2	4716.4	4635.3	4607.0	4631.5	4626.3	4604.4	4523.4	4514.4	4460.3	4381.8
5°	4502.8	4537.5	4495.1	4568.4	4533.7	4568.4	4673.9	4722.8	4802.6	4851.5	4869.5
7.5°	4357.4	4365.1	4365.1	4371.5	4377.9	4379.2	4371.5	4366.4	4344.5	4317.5	4366.4
10°	4181.1	4190.1	4205.5	4202.9	4201.6	4228.7	4235.1	4290.4	4287.9	4298.2	4335.5
12.5°	4089.7	4020.2	4083.3	4066.5	4089.7	4053.7	4120.6	4109.0	4112.9	4143.7	4223.5
15°	3937.8	3959.7	3975.2	3975.2	3984.2	3976.4	3968.7	4021.5	4053.7	4054.9	4049.8
17.5°	3645.7	3479.7	3649.6	3605.8	3954.6	3963.6	3934.0	3909.5	3909.5	3928.8	3970.0
20°	3129.7	3133.5	3134.8	3151.6	3172.1	3170.9	3172.1	3679.2	3919.8	3864.5	3827.2
22.5°	2743.6	2696.0	2784.8	2778.4	2889.0	3011.3	3128.4	3116.8	3124.5	3482.3	3804.0
25°	2199.3	2261.0	2210.9	2232.7	2357.6	2503.0	2593.1	2828.6	3084.6	3066.6	3150.3
27.5°	2070.6	2053.9	2077.0	2077.0	2093.7	2113.0	2163.2	2295.8	2523.6	2762.9	2989.4
30°	1948.3	1962.5	1965.1	1988.2	2001.1	2014.0	2021.7	2071.9	2123.3	2289.4	2568.6
32.5°	1463.2	1283.0	1688.4	1797.8	1890.4	1912.3	1927.7	1948.3	1985.6	2010.1	2150.4
35°	42.5	42.5	45.0	51.5	65.6	442.7	1685.8	1858.2	1882.7	1913.6	1939.3
37.5°	20.6	15.4	18.0	19.3	23.2	32.2	46.3	144.1	1604.7	1814.5	1842.8
40°	9.0	9.0	9.0	9.0	10.3	12.9	19.3	32.2	48.9	1290.7	1741.1
42.5°	7.7	7.7	7.7	7.7	7.7	7.7	9.0	11.6	23.2	55.3	913.7
45°	5.1	5.1	3.9	5.1	5.1	6.4	7.7	7.7	10.3	34.7	63.1
47.5°	3.9	3.9	3.9	3.9	3.9	3.9	3.9	6.4	7.7	23.2	33.5
50°	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	18.0	23.2
52.5°	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	7.7	20.6
55°	2.6	2.6	2.6	2.6	2.6	2.6	2.6	3.9	3.9	5.1	18.0
57.5°	2.6	2.6	2.6	2.6	2.6	3.9	2.6	2.6	3.9	3.9	16.7
60°	2.6	2.6	2.6	2.6	2.6	3.9	3.9	3.9	3.9	3.9	15.4
62.5°	3.9	3.9	2.6	3.9	2.6	2.6	3.9	3.9	3.9	3.9	10.3
65°	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	2.6	3.9
67.5°	3.9	3.9	3.9	3.9	2.6	3.9	2.6	3.9	3.9	2.6	2.6
70°	3.9	3.9	3.9	3.9	3.9	3.9	3.9	2.6	2.6	2.6	2.6
72.5°	3.9	3.9	3.9	3.9	3.9	3.9	3.9	2.6	2.6	2.6	2.6
75°	3.9	3.9	3.9	3.9	3.9	3.9	5.1	5.1	2.6	2.6	2.6
77.5°	3.9	3.9	3.9	3.9	3.9	3.9	6.4	7.7	6.4	6.4	2.6
80°	3.9	3.9	3.9	3.9	3.9	3.9	6.4	6.4	6.4	6.4	9.0
82.5°	3.9	3.9	3.9	3.9	3.9	3.9	5.1	5.1	5.1	5.1	6.4
85°	3.9	3.9	3.9	3.9	3.9	3.9	5.1	5.1	5.1	3.9	5.1
87.5°	3.9	3.9	3.9	3.9	3.9	3.9	3.9	5.1	3.9	3.9	3.9
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: P1213164

CATALOG NUMBER: 4SNLED-LD5-69SL-RM-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	140°	145°	150°	155°	160°	161°	162°	163°	164°	165°	166°
0°	4287.9	4287.9	4287.9	4287.9	4287.9	4287.9	4287.9	4287.9	4287.9	4287.9	4287.9
2.5°	4388.2	4344.5	4330.3	4300.7	4298.2	4300.7	4294.3	4285.3	4290.4	4281.4	4273.7
5°	4879.8	4762.7	4686.8	4585.1	4444.9	4414.0	4406.3	4362.5	4347.1	4341.9	4321.3
7.5°	4482.2	4695.8	4824.5	4868.2	4703.5	4664.9	4619.9	4583.8	4549.1	4483.5	4443.6
10°	4305.9	4316.2	4439.7	4583.8	4818.1	4850.2	4874.7	4796.2	4774.3	4607.0	4571.0
12.5°	4264.7	4266.0	4280.1	4367.7	4551.7	4572.3	4658.5	4704.8	4761.4	4793.6	4767.9
15°	4076.8	4181.1	4258.3	4266.0	4282.7	4318.8	4344.5	4505.3	4573.6	4756.3	4746.0
17.5°	3989.3	4022.8	4134.7	4226.1	4210.7	4197.8	4218.4	4240.3	4305.9	4488.6	4486.0
20°	3843.9	3950.7	4011.2	4106.4	4192.6	4196.5	4173.3	4160.5	4134.7	4164.3	4191.4
22.5°	3782.1	3798.9	3912.1	3979.0	4076.8	4111.6	4116.7	4118.0	4103.8	4088.4	4080.7
25°	3775.7	3722.9	3780.8	3864.5	3936.5	3973.9	4016.3	4030.5	4025.3	4025.3	4017.6
27.5°	3089.8	3706.2	3675.3	3730.6	3818.2	3843.9	3865.8	3909.5	3936.5	3955.9	3964.9
30°	2943.1	3053.8	3593.0	3600.7	3689.5	3686.9	3711.3	3747.4	3782.1	3827.2	3838.7
32.5°	2603.3	2874.9	3289.3	3470.7	3563.4	3572.4	3585.2	3595.5	3627.7	3677.9	3721.6
35°	2086.0	2618.8	2818.3	3408.9	3425.7	3443.7	3451.4	3475.8	3486.1	3506.7	3545.3
37.5°	1887.8	2164.5	2703.7	2948.2	3267.4	3282.8	3324.0	3334.3	3351.0	3367.8	3397.3
40°	1773.3	1849.2	2250.7	2632.9	3140.0	3150.3	3164.4	3190.2	3191.4	3210.8	3237.8
42.5°	1681.9	1730.8	1848.0	2514.6	3049.9	3048.6	3015.1	3031.9	3039.6	3060.2	3097.5
45°	1343.5	1624.0	1698.7	2053.9	2428.3	2603.3	2939.2	2883.9	2882.6	2890.3	2930.2
47.5°	68.2	1527.5	1580.3	1694.8	2293.2	2299.6	2343.4	2711.4	2768.1	2750.1	2753.9
50°	46.3	105.5	1472.2	1524.9	1976.6	2136.2	2168.4	2185.1	2397.4	2634.2	2595.6
52.5°	36.0	60.5	902.1	1415.6	1606.0	1723.1	1930.3	2048.7	2061.6	2156.8	2479.8
55°	32.2	46.3	97.8	1306.2	1365.4	1391.1	1512.1	1719.3	1886.6	1936.7	1940.6
57.5°	28.3	42.5	66.9	590.7	1241.8	1247.0	1267.6	1339.6	1490.2	1627.9	1783.6
60°	25.7	37.3	52.8	101.7	1128.6	1141.5	1145.3	1164.6	1182.6	1276.6	1455.5
62.5°	15.4	29.6	46.3	73.4	893.1	1025.6	1024.4	1037.2	1054.0	1064.2	1100.3
65°	12.9	23.2	39.9	61.8	109.4	136.4	828.7	921.4	931.7	945.9	952.3
67.5°	11.6	20.6	29.6	48.9	82.4	93.9	108.1	133.8	730.9	823.6	836.5
70°	10.3	14.2	24.5	41.2	66.9	72.1	81.1	92.7	109.4	135.1	661.5
72.5°	6.4	10.3	16.7	29.6	51.5	57.9	63.1	70.8	78.5	93.9	108.1
75°	2.6	7.7	14.2	21.9	39.9	43.8	47.6	52.8	59.2	69.5	77.2
77.5°	2.6	6.4	11.6	15.4	25.7	29.6	34.7	38.6	43.8	48.9	56.6
80°	9.0	5.1	7.7	11.6	18.0	19.3	21.9	24.5	28.3	32.2	37.3
82.5°	6.4	7.7	9.0	7.7	9.0	11.6	12.9	15.4	16.7	19.3	20.6
85°	5.1	5.1	6.4	6.4	6.4	6.4	6.4	6.4	7.7	9.0	11.6
87.5°	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	5.1	5.1
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: P1213164

CATALOG NUMBER: 4SNLED-LD5-69SL-RM-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	167°	168°	169°	170°	171°	172°	173°	174°	175°	176°	177°
0°	4287.9	4287.9	4287.9	4287.9	4287.9	4287.9	4287.9	4287.9	4287.9	4287.9	4287.9
2.5°	4273.7	4271.1	4263.4	4263.4	4262.1	4267.3	4271.1	4275.0	4273.7	4281.4	4273.7
5°	4305.9	4299.4	4287.9	4277.6	4273.7	4276.3	4272.4	4276.3	4271.1	4277.6	4266.0
7.5°	4394.7	4372.8	4327.8	4309.7	4286.6	4285.3	4273.7	4271.1	4263.4	4263.4	4249.3
10°	4551.7	4446.2	4433.3	4379.2	4359.9	4266.0	4286.6	4251.8	4248.0	4231.2	4224.8
12.5°	4680.4	4598.0	4573.6	4525.9	4471.9	4281.4	4323.9	4249.3	4245.4	4211.9	4177.2
15°	4682.9	4730.6	4663.6	4532.4	4520.8	4389.5	4303.3	4277.6	4244.1	4143.7	4160.5
17.5°	4532.4	4641.8	4673.9	4645.6	4563.3	4474.5	4353.5	4302.0	4201.6	4156.6	4125.7
20°	4287.9	4398.5	4536.2	4545.2	4596.7	4533.7	4375.4	4291.7	4170.8	4092.3	4066.5
22.5°	4093.5	4174.6	4332.9	4406.3	4469.3	4491.2	4390.8	4267.3	4116.7	4040.8	4025.3
25°	3990.6	4008.6	4056.2	4142.4	4281.4	4381.8	4396.0	4264.7	4186.2	4020.2	3932.7
27.5°	3953.3	3937.8	3918.5	3962.3	4066.5	4188.8	4269.9	4291.7	4096.1	3937.8	3850.3
30°	3858.1	3867.1	3837.5	3822.0	3890.2	4016.3	4160.5	4196.5	4045.9	3882.5	3782.1
32.5°	3740.9	3756.4	3761.5	3734.5	3720.4	3807.9	3963.6	4049.8	4042.1	3804.0	3692.0
35°	3594.2	3638.0	3649.6	3650.9	3627.7	3613.5	3703.6	3882.5	3950.7	3768.0	3605.8
37.5°	3439.8	3452.7	3515.7	3532.5	3532.5	3490.0	3556.9	3699.8	3795.0	3686.9	3500.3
40°	3246.8	3288.0	3347.2	3376.8	3406.4	3410.2	3372.9	3473.3	3630.3	3603.2	3401.2
42.5°	3106.5	3133.5	3169.6	3209.5	3269.9	3285.4	3246.8	3264.8	3428.2	3499.0	3272.5
45°	2943.1	2979.1	2989.4	3033.2	3096.2	3141.3	3140.0	3102.7	3233.9	3321.4	3178.6
47.5°	2775.8	2810.5	2828.6	2850.4	2896.8	2954.7	2986.8	2970.1	2995.8	3167.0	3053.8
50°	2603.3	2622.7	2658.7	2683.1	2714.0	2747.5	2824.7	2840.1	2804.1	2940.5	2916.1
52.5°	2439.9	2446.3	2470.8	2495.3	2536.4	2560.9	2622.7	2669.0	2666.4	2706.3	2762.9
55°	2312.5	2284.2	2289.4	2308.7	2335.7	2373.0	2407.7	2479.8	2504.3	2512.0	2602.1
57.5°	1806.8	2097.6	2123.3	2122.1	2154.2	2171.0	2203.1	2250.7	2338.3	2318.9	2419.3
60°	1642.1	1674.2	1917.4	1945.8	1957.3	1972.8	2011.4	2055.1	2119.5	2160.7	2204.4
62.5°	1252.1	1447.7	1521.1	1736.0	1769.5	1778.5	1804.2	1824.8	1891.7	1985.6	1967.6
65°	969.0	1052.7	1276.6	1364.1	1546.8	1570.0	1606.0	1627.9	1647.2	1755.3	1760.4
67.5°	837.8	850.6	911.1	1079.7	1195.5	1374.4	1396.3	1415.6	1445.2	1522.4	1570.0
70°	715.5	730.9	747.7	761.8	912.4	1030.8	1196.8	1203.2	1222.5	1274.0	1382.1
72.5°	135.1	611.3	621.6	630.6	647.3	725.8	884.1	1012.8	1020.5	1044.9	1144.0
75°	91.4	106.8	146.7	504.5	521.2	526.3	553.4	714.2	832.6	837.8	881.5
77.5°	65.6	73.4	88.8	105.5	269.0	404.1	410.5	440.1	562.4	651.2	658.9
80°	45.0	50.2	59.2	66.9	82.4	108.1	298.6	307.6	323.0	445.3	468.4
82.5°	25.7	29.6	34.7	42.5	48.9	61.8	79.8	102.9	209.8	223.9	297.3
85°	12.9	14.2	16.7	20.6	24.5	29.6	39.9	48.9	66.9	121.0	124.8
87.5°	6.4	6.4	6.4	6.4	10.3	11.6	14.2	18.0	23.2	34.7	45.0
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: P1213164

CATALOG NUMBER: 4SNLED-LD5-69SL-RM-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	178°	179°	180°	181°	182°	183°	184°	185°	186°	187°	188°
0°	4287.9	4287.9	4287.9	4287.9	4287.9	4287.9	4287.9	4287.9	4287.9	4287.9	4287.9
2.5°	4275.0	4293.0	4308.5	4312.3	4312.3	4314.9	4318.8	4321.3	4323.9	4326.5	4323.9
5°	4267.3	4286.6	4299.4	4303.3	4303.3	4311.0	4317.5	4325.2	4329.0	4329.0	4326.5
7.5°	4248.0	4262.1	4278.9	4289.2	4290.4	4303.3	4314.9	4313.6	4318.8	4321.3	4327.8
10°	4222.2	4222.2	4250.5	4258.3	4264.7	4278.9	4282.7	4290.4	4308.5	4311.0	4327.8
12.5°	4209.4	4196.5	4230.0	4233.8	4255.7	4237.7	4260.8	4268.6	4250.5	4275.0	4242.8
15°	4151.5	4166.9	4161.8	4173.3	4211.9	4191.4	4254.4	4233.8	4280.1	4224.8	4322.6
17.5°	4103.8	4101.3	4121.9	4132.2	4139.9	4183.6	4200.4	4223.5	4241.5	4226.1	4264.7
20°	4069.1	4048.5	4064.0	4075.5	4102.6	4136.0	4146.3	4111.6	4172.0	4275.0	4299.4
22.5°	4003.5	3989.3	4007.3	4007.3	4048.5	4043.4	4082.0	4060.1	4116.7	4236.4	4361.2
25°	3914.7	3916.0	3935.3	3958.4	3966.1	4024.1	4044.6	4073.0	4143.7	4286.6	4362.5
27.5°	3824.6	3816.9	3828.5	3876.1	3916.0	3958.4	3964.9	4061.4	4157.9	4255.7	4322.6
30°	3734.5	3726.8	3734.5	3769.3	3816.9	3845.2	3916.0	4044.6	4134.7	4201.6	4264.7
32.5°	3638.0	3630.3	3648.3	3674.0	3757.7	3761.5	3901.8	4022.8	4093.5	4142.4	4130.9
35°	3535.0	3524.7	3541.5	3581.4	3658.6	3686.9	3833.6	3923.7	4003.5	4026.6	3972.6
37.5°	3411.5	3393.5	3414.1	3469.4	3550.5	3632.8	3755.1	3859.3	3901.8	3840.0	3775.7
40°	3282.8	3269.9	3306.0	3334.3	3429.5	3544.1	3684.3	3757.7	3730.6	3659.9	3589.1
42.5°	3168.3	3141.3	3173.4	3227.5	3335.6	3465.6	3578.8	3620.0	3555.6	3451.4	3369.0
45°	3028.0	2995.8	3034.5	3106.5	3222.3	3370.3	3459.1	3445.0	3335.6	3245.5	3132.3
47.5°	2881.3	2842.7	2881.3	2967.5	3097.5	3254.5	3318.8	3254.5	3116.8	3003.6	2912.2
50°	2737.2	2692.1	2729.5	2859.4	2986.8	3107.8	3106.5	2981.7	2899.3	2775.8	2696.0
52.5°	2594.3	2530.0	2567.3	2708.9	2836.3	2974.0	2872.3	2756.5	2657.4	2549.3	2523.6
55°	2418.0	2348.5	2398.7	2604.6	2702.4	2783.5	2621.4	2519.7	2421.9	2367.8	2335.7
57.5°	2250.7	2174.8	2218.6	2461.8	2533.9	2554.4	2405.2	2261.0	2203.1	2185.1	2138.8
60°	2078.3	1992.1	2033.3	2313.8	2364.0	2280.3	2133.6	2021.7	2010.1	1974.1	1938.0
62.5°	1913.6	1818.4	1844.1	2129.8	2152.9	2001.1	1866.0	1836.4	1808.1	1772.0	1752.7
65°	1724.4	1625.3	1661.4	1934.2	1912.3	1716.7	1640.8	1634.3	1597.0	1567.4	1595.7
67.5°	1550.7	1433.6	1483.8	1720.6	1621.5	1461.9	1431.0	1415.6	1386.0	1402.7	1105.4
70°	1360.2	1232.8	1301.0	1490.2	1343.5	1238.0	1226.4	1203.2	1204.5	957.4	806.9
72.5°	1147.9	1037.2	1136.3	1238.0	1063.0	1032.1	1015.3	1012.8	817.2	664.0	626.7
75°	961.3	849.3	956.1	994.8	846.8	826.2	824.9	682.0	536.6	512.2	500.6
77.5°	750.2	664.0	765.7	707.8	649.9	626.7	562.4	422.1	404.1	387.3	145.4
80°	505.7	512.2	571.4	487.7	463.3	395.1	311.4	298.6	257.4	102.9	81.1
82.5°	307.6	386.1	364.2	305.0	298.6	214.9	196.9	100.4	74.6	59.2	51.5
85°	159.6	195.6	187.9	166.0	123.5	110.7	61.8	47.6	38.6	29.6	24.5
87.5°	54.0	72.1	69.5	55.3	42.5	33.5	21.9	18.0	12.9	10.3	9.0
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: P1213164

CATALOG NUMBER: 4SNLED-LD5-69SL-RM-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	189°	190°	191°	192°	193°	194°	195°	196°	197°	198°	199°
0°	4287.9	4287.9	4287.9	4287.9	4287.9	4287.9	4287.9	4287.9	4287.9	4287.9	4287.9
2.5°	4321.3	4321.3	4318.8	4321.3	4322.6	4320.0	4320.0	4322.6	4323.9	4325.2	4331.6
5°	4327.8	4330.3	4334.2	4341.9	4343.2	4358.6	4365.1	4368.9	4372.8	4374.1	4365.1
7.5°	4341.9	4350.9	4358.6	4357.4	4348.3	4323.9	4316.2	4309.7	4321.3	4350.9	4385.7
10°	4354.8	4313.6	4236.4	4341.9	4309.7	4339.3	4426.8	4446.2	4505.3	4589.0	4613.4
12.5°	4266.0	4379.2	4403.7	4285.3	4504.1	4423.0	4519.5	4604.4	4628.9	4713.8	4662.3
15°	4361.2	4416.6	4453.9	4572.3	4559.4	4628.9	4655.9	4639.2	4643.0	4664.9	4722.8
17.5°	4359.9	4470.6	4495.1	4574.8	4628.9	4630.2	4622.5	4614.7	4635.3	4652.1	4617.3
20°	4434.6	4470.6	4518.2	4550.4	4560.7	4573.6	4598.0	4578.7	4540.1	4502.8	4487.3
22.5°	4397.3	4478.3	4519.5	4524.7	4518.2	4478.3	4442.3	4388.2	4370.2	4350.9	4357.4
25°	4405.0	4442.3	4437.1	4416.6	4389.5	4314.9	4296.9	4273.7	4239.0	4155.3	4079.4
27.5°	4349.6	4330.3	4307.2	4257.0	4208.1	4168.2	4123.1	4048.5	3986.7	3896.7	3863.2
30°	4257.0	4179.8	4123.1	4093.5	4045.9	3979.0	3910.8	3819.4	3740.9	3722.9	3706.2
32.5°	4079.4	4003.5	3957.1	3885.1	3804.0	3724.2	3645.7	3609.7	3593.0	3595.5	3580.1
35°	3897.9	3831.0	3761.5	3653.4	3593.0	3513.2	3484.9	3477.1	3461.7	3445.0	3426.9
37.5°	3704.9	3626.4	3522.2	3457.8	3397.3	3365.2	3351.0	3339.4	3312.4	3282.8	3262.2
40°	3518.3	3376.8	3318.8	3255.8	3237.8	3223.6	3203.0	3174.7	3137.4	3132.3	3123.2
42.5°	3268.7	3167.0	3116.8	3103.9	3082.1	3057.6	3039.6	3008.7	2993.3	3003.6	3011.3
45°	3031.9	2980.4	2963.7	2948.2	2907.0	2872.3	2860.7	2850.4	2863.3	2919.9	2784.8
47.5°	2840.1	2819.5	2799.0	2773.2	2734.6	2708.9	2720.5	2730.7	2742.3	2326.7	2123.3
50°	2674.1	2645.8	2613.6	2585.3	2562.2	2559.6	2620.1	2438.6	2042.3	2032.0	1826.1
52.5°	2492.7	2450.2	2430.9	2414.2	2424.5	2463.1	2038.4	1891.7	1814.5	1576.4	1470.9
55°	2297.1	2259.8	2259.8	2275.2	2219.9	1799.1	1777.2	1536.5	1391.1	1349.9	1333.2
57.5°	2101.5	2097.6	2119.5	1938.0	1633.0	1566.1	1316.5	1263.7	1240.5	1235.4	1208.4
60°	1922.6	1958.6	1639.5	1508.2	1311.3	1182.6	1146.6	1140.2	1115.7	1106.7	1082.3
62.5°	1779.7	1476.0	1374.4	1122.2	1056.5	1039.8	1020.5	1011.5	989.6	873.8	256.1
65°	1285.6	1214.8	985.7	943.3	938.1	913.7	906.0	814.6	191.7	128.7	109.4
67.5°	970.3	860.9	831.3	823.6	799.1	750.2	222.6	127.4	109.4	95.2	83.6
70°	745.1	725.8	703.9	685.9	202.0	126.1	109.4	92.7	79.8	70.8	64.3
72.5°	610.0	597.1	347.5	132.5	108.1	91.4	81.1	70.8	61.8	56.6	51.5
75°	477.4	132.5	109.4	91.4	78.5	66.9	59.2	52.8	47.6	43.8	39.9
77.5°	108.1	87.5	74.6	63.1	56.6	50.2	45.0	38.6	34.7	30.9	25.7
80°	66.9	57.9	48.9	45.0	38.6	32.2	28.3	25.7	20.6	19.3	16.7
82.5°	43.8	34.7	30.9	25.7	20.6	19.3	16.7	12.9	11.6	10.3	9.0
85°	19.3	16.7	14.2	11.6	9.0	7.7	6.4	5.1	5.1	5.1	5.1
87.5°	6.4	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	2.6	2.6
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: P1213164

CATALOG NUMBER: 4SNLED-LD5-69SL-RM-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	200°	205°	210°	215°	220°	225°	230°	235°	240°	245°	250°
0°	4287.9	4287.9	4287.9	4287.9	4287.9	4287.9	4287.9	4287.9	4287.9	4287.9	4287.9
2.5°	4334.2	4357.4	4379.2	4372.8	4349.6	4313.6	4303.3	4289.2	4299.4	4321.3	4330.3
5°	4365.1	4352.2	4398.5	4466.7	4577.4	4587.7	4664.9	4682.9	4744.7	4783.3	4782.0
7.5°	4408.8	4591.6	4667.5	4749.9	4787.2	4778.2	4789.7	4780.7	4766.6	4760.1	4752.4
10°	4631.5	4770.4	4798.8	4798.8	4740.8	4662.3	4628.9	4571.0	4455.2	4457.7	4438.4
12.5°	4761.4	4810.3	4743.4	4686.8	4453.9	4363.8	4266.0	4219.7	4192.6	4151.5	4166.9
15°	4693.2	4623.7	4583.8	4401.1	4258.3	4096.1	4098.7	4070.4	4040.8	4043.4	4024.1
17.5°	4592.9	4537.5	4254.4	4128.3	4058.8	3995.7	3984.2	3946.8	3927.5	3921.1	3919.8
20°	4455.2	4255.7	4044.6	4013.8	3930.1	3858.1	3846.5	3858.1	3917.2	3811.7	3454.0
22.5°	4294.3	4007.3	3945.6	3858.1	3801.4	3773.1	3843.9	3522.2	3035.7	3094.9	3031.9
25°	4021.5	3896.7	3791.1	3724.2	3717.8	3544.1	2953.4	2891.6	2578.9	2411.6	2223.7
27.5°	3822.0	3768.0	3657.3	3645.7	3562.1	2898.0	2590.5	2250.7	2125.9	2106.6	2065.4
30°	3701.1	3623.8	3556.9	3264.8	2842.7	2333.1	2078.3	2030.7	2008.8	1985.6	1949.6
32.5°	3555.6	3482.3	3514.5	2744.9	2266.2	2008.8	1957.3	1922.6	1882.7	1867.3	1737.3
35°	3407.6	3374.2	2746.2	2307.4	1948.3	1886.6	1848.0	1811.9	1441.3	348.7	118.4
37.5°	3249.4	3241.6	2468.2	1914.9	1824.8	1766.9	1657.5	342.3	81.1	55.3	41.2
40°	3125.8	2469.5	1950.9	1795.2	1721.8	1630.5	229.1	56.6	36.0	21.9	14.2
42.5°	3043.5	2221.1	1746.3	1684.5	1524.9	168.6	57.9	24.5	14.2	11.6	9.0
45°	2346.0	1754.0	1631.8	1567.4	193.0	57.9	33.5	11.6	9.0	7.7	5.1
47.5°	2164.5	1593.2	1521.1	342.3	64.3	30.9	23.2	7.7	5.1	5.1	5.1
50°	1639.5	1472.2	1210.9	83.6	41.2	21.9	16.7	5.1	5.1	5.1	3.9
52.5°	1437.4	1358.9	130.0	55.3	32.2	16.7	10.3	3.9	3.9	3.9	3.9
55°	1313.9	862.2	77.2	42.5	27.0	15.4	6.4	3.9	3.9	3.9	2.6
57.5°	1201.9	115.8	56.6	36.0	24.5	14.2	3.9	3.9	3.9	3.9	2.6
60°	1019.2	83.6	46.3	32.2	23.2	12.9	3.9	3.9	3.9	3.9	3.9
62.5°	132.5	65.6	39.9	28.3	16.7	10.3	2.6	3.9	3.9	3.9	3.9
65°	96.5	51.5	36.0	19.3	10.3	3.9	2.6	3.9	3.9	3.9	3.9
67.5°	74.6	42.5	27.0	16.7	9.0	2.6	2.6	3.9	3.9	3.9	3.9
70°	59.2	36.0	21.9	14.2	7.7	2.6	2.6	3.9	3.9	3.9	3.9
72.5°	46.3	25.7	15.4	7.7	5.1	2.6	2.6	3.9	3.9	3.9	3.9
75°	34.7	20.6	11.6	6.4	2.6	2.6	2.6	3.9	3.9	3.9	3.9
77.5°	23.2	12.9	9.0	5.1	5.1	5.1	6.4	6.4	3.9	3.9	3.9
80°	15.4	9.0	6.4	6.4	6.4	5.1	6.4	6.4	3.9	6.4	3.9
82.5°	7.7	6.4	6.4	5.1	5.1	3.9	5.1	5.1	5.1	5.1	3.9
85°	5.1	3.9	3.9	3.9	3.9	3.9	3.9	3.9	5.1	5.1	3.9
87.5°	2.6	2.6	2.6	2.6	3.9	3.9	3.9	3.9	5.1	5.1	3.9
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: P1213164

CATALOG NUMBER: 4SNLED-LD5-69SL-RM-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	255°	260°	265°	270°	275°	280°	285°	290°	295°	300°	305°
0°	4287.9	4287.9	4287.9	4287.9	4287.9	4287.9	4287.9	4287.9	4287.9	4287.9	4287.9
2.5°	4318.8	4322.6	4312.3	4367.7	4339.3	4341.9	4353.5	4323.9	4330.3	4309.7	4295.6
5°	4787.2	4794.9	4802.6	4805.2	4810.3	4816.8	4809.1	4805.2	4797.5	4771.7	4744.7
7.5°	4713.8	4704.8	4701.0	4706.1	4715.1	4719.0	4712.5	4721.5	4755.0	4769.2	4778.2
10°	4327.8	4286.6	4314.9	4311.0	4278.9	4387.0	4357.4	4374.1	4385.7	4504.1	4576.1
12.5°	4143.7	4169.5	4120.6	4096.1	4128.3	4150.2	4172.0	4125.7	4190.1	4160.5	4255.7
15°	3989.3	3973.9	3968.7	3970.0	3963.6	3994.5	4002.2	4012.5	4021.5	4061.4	4076.8
17.5°	3919.8	3945.6	3955.9	3963.6	3950.7	3936.5	3922.4	3901.8	3908.2	3897.9	3927.5
20°	3213.3	3127.1	3122.0	3172.1	3116.8	3147.7	3222.3	3721.6	3704.9	3899.2	3833.6
22.5°	2681.8	2600.8	2531.3	2470.8	2557.0	2593.1	2732.0	2889.0	3143.8	3103.9	3380.6
25°	2190.3	2160.7	2142.6	2133.6	2140.1	2137.5	2168.4	2241.7	2357.6	2630.4	2983.0
27.5°	2048.7	2034.5	2028.1	2007.5	2023.0	2017.8	2042.3	2057.7	2092.5	2119.5	2234.0
30°	1936.7	1920.0	1908.4	1886.6	1902.0	1903.3	1911.0	1950.9	1965.1	1988.2	2024.3
32.5°	707.8	416.9	391.2	371.9	406.7	530.2	930.4	1626.6	1855.7	1873.7	1914.9
35°	69.5	57.9	51.5	51.5	52.8	57.9	77.2	203.3	371.9	1437.4	1799.1
37.5°	27.0	23.2	19.3	18.0	19.3	21.9	29.6	38.6	52.8	109.4	487.7
40°	11.6	10.3	9.0	9.0	9.0	9.0	10.3	12.9	19.3	36.0	56.6
42.5°	7.7	6.4	6.4	6.4	6.4	6.4	6.4	6.4	9.0	11.6	23.2
45°	5.1	3.9	3.9	3.9	3.9	3.9	3.9	3.9	5.1	6.4	10.3
47.5°	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	5.1
50°	3.9	3.9	3.9	3.9	2.6	3.9	2.6	3.9	3.9	3.9	3.9
52.5°	3.9	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	3.9	3.9
55°	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	3.9
57.5°	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6
60°	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6
62.5°	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	3.9	3.9	2.6
65°	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	3.9	2.6
67.5°	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6
70°	3.9	3.9	2.6	3.9	2.6	2.6	3.9	3.9	3.9	2.6	2.6
72.5°	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	7.7	7.7	5.1
75°	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	6.4	7.7	6.4
77.5°	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	6.4	6.4	6.4
80°	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	5.1	5.1	5.1
82.5°	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	5.1	5.1	5.1
85°	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9
87.5°	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9
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: P1213164

CATALOG NUMBER: 4SNLED-LD5-69SL-RM-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	310°	315°	320°	325°	330°	335°	340°	341°	342°	343°	344°
0°	4287.9	4287.9	4287.9	4287.9	4287.9	4287.9	4287.9	4287.9	4287.9	4287.9	4287.9
2.5°	4271.1	4269.9	4296.9	4317.5	4309.7	4317.5	4326.5	4327.8	4330.3	4320.0	4316.2
5°	4693.2	4653.3	4576.1	4520.8	4456.4	4339.3	4281.4	4287.9	4289.2	4285.3	4290.4
7.5°	4774.3	4770.4	4743.4	4731.8	4688.1	4604.4	4470.6	4447.4	4390.8	4354.8	4325.2
10°	4571.0	4663.6	4688.1	4729.3	4755.0	4739.6	4626.3	4609.6	4573.6	4532.4	4541.4
12.5°	4350.9	4426.8	4430.7	4654.6	4704.8	4710.0	4666.2	4689.4	4694.5	4601.9	4547.8
15°	4080.7	4116.7	4192.6	4401.1	4553.0	4648.2	4676.5	4689.4	4626.3	4622.5	4600.6
17.5°	3962.3	3985.5	4020.2	4137.3	4367.7	4507.9	4627.6	4618.6	4643.0	4625.0	4569.7
20°	3813.0	3832.3	3894.1	3953.3	4066.5	4253.1	4477.0	4493.8	4525.9	4522.1	4537.5
22.5°	3810.4	3742.2	3752.5	3798.9	3917.2	4084.5	4322.6	4377.9	4398.5	4412.7	4429.4
25°	3022.9	3564.6	3663.7	3693.3	3770.5	3868.3	4148.9	4169.5	4208.1	4271.1	4317.5
27.5°	2618.8	2986.8	3383.2	3589.1	3638.0	3719.1	3886.4	3917.2	4048.5	4064.0	4136.0
30°	2066.7	2351.1	2943.1	3438.5	3519.6	3576.2	3694.6	3756.4	3813.0	3874.8	3950.7
32.5°	1944.5	1989.5	2317.7	2845.3	3475.8	3433.4	3520.9	3558.2	3620.0	3674.0	3729.4
35°	1832.5	1863.4	1932.9	2330.5	2831.1	3316.3	3375.5	3399.9	3434.7	3475.8	3515.7
37.5°	1715.4	1761.7	1809.3	1916.2	2618.8	3223.6	3222.3	3250.6	3271.2	3306.0	3339.4
40°	311.4	1617.6	1694.8	1764.3	2030.7	2571.2	3078.2	3091.1	3105.2	3127.1	3161.9
42.5°	50.2	270.2	1588.0	1654.9	1730.8	2302.2	3012.6	2959.8	2950.8	2966.2	2997.1
45°	25.7	65.6	319.1	1545.5	1613.7	1836.4	2463.1	2868.4	2859.4	2829.8	2836.3
47.5°	19.3	41.2	78.5	534.1	1510.8	1576.4	2272.6	2248.2	2419.3	2747.5	2697.3
50°	16.7	28.3	46.3	109.4	1334.5	1451.6	1750.1	2044.8	2134.9	2146.5	2540.3
52.5°	15.4	19.3	33.5	70.8	280.5	1342.2	1423.3	1526.2	1678.1	2003.7	1995.9
55°	14.2	18.0	28.3	47.6	97.8	1209.7	1293.3	1312.6	1344.8	1500.5	1706.4
57.5°	7.7	16.7	27.0	41.2	73.4	221.3	1173.6	1189.1	1214.8	1221.2	1294.6
60°	3.9	15.4	24.5	36.0	54.0	102.9	1055.2	1073.3	1088.7	1091.3	1114.4
62.5°	2.6	14.2	20.6	33.5	45.0	73.4	249.7	509.6	969.0	969.0	996.0
65°	2.6	10.3	12.9	21.9	41.2	60.5	105.5	122.3	238.1	585.5	873.8
67.5°	2.6	3.9	11.6	18.0	30.9	46.3	77.2	90.1	108.1	123.5	229.1
70°	2.6	2.6	10.3	11.6	19.3	34.7	55.3	63.1	73.4	83.6	96.5
72.5°	2.6	2.6	9.0	9.0	12.9	23.2	42.5	46.3	52.8	59.2	68.2
75°	6.4	5.1	7.7	7.7	9.0	18.0	32.2	36.0	38.6	43.8	50.2
77.5°	6.4	6.4	6.4	6.4	6.4	11.6	20.6	23.2	27.0	29.6	34.7
80°	5.1	5.1	5.1	6.4	6.4	7.7	12.9	14.2	15.4	19.3	20.6
82.5°	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	7.7	9.0	11.6
85°	3.9	3.9	3.9	3.9	3.9	3.9	3.9	5.1	5.1	5.1	5.1
87.5°	3.9	3.9	3.9	2.6	2.6	3.9	3.9	3.9	3.9	3.9	3.9
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: P1213164

CATALOG NUMBER: 4SNLED-LD5-69SL-RM-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	345°	346°	347°	348°	349°	350°	351°	352°	353°	354°	355°
0°	4287.9	4287.9	4287.9	4287.9	4287.9	4287.9	4287.9	4287.9	4287.9	4287.9	4287.9
2.5°	4314.9	4307.2	4300.7	4304.6	4293.0	4287.9	4291.7	4293.0	4295.6	4302.0	4303.3
5°	4303.3	4300.7	4312.3	4318.8	4316.2	4318.8	4318.8	4313.6	4305.9	4311.0	4299.4
7.5°	4295.6	4278.9	4266.0	4268.6	4255.7	4271.1	4285.3	4305.9	4312.3	4312.3	4299.4
10°	4428.1	4410.1	4338.1	4289.2	4257.0	4228.7	4295.6	4227.4	4259.6	4137.3	4277.6
12.5°	4537.5	4562.0	4529.8	4396.0	4372.8	4287.9	4336.8	4253.1	4228.7	4088.4	4133.4
15°	4581.3	4534.9	4524.7	4487.3	4437.1	4412.7	4281.4	4267.3	4227.4	4242.8	4183.6
17.5°	4542.7	4565.8	4534.9	4510.5	4459.0	4401.1	4322.6	4253.1	4197.8	4074.2	4178.5
20°	4505.3	4536.2	4443.6	4459.0	4464.2	4397.3	4356.1	4298.2	4228.7	4112.9	4022.8
22.5°	4443.6	4421.7	4429.4	4406.3	4387.0	4396.0	4339.3	4299.4	4182.3	4129.6	4007.3
25°	4343.2	4335.5	4356.1	4353.5	4307.2	4291.7	4263.4	4220.9	4174.6	4089.7	3989.3
27.5°	4179.8	4219.7	4255.7	4272.4	4248.0	4206.8	4191.4	4166.9	4134.7	4048.5	3973.9
30°	4007.3	4052.4	4093.5	4129.6	4151.5	4133.4	4119.3	4105.1	4056.2	3999.6	3916.0
32.5°	3810.4	3869.6	3926.3	3970.0	4017.6	4031.8	4021.5	4009.9	3968.7	3917.2	3850.3
35°	3582.7	3663.7	3746.1	3824.6	3845.2	3878.6	3912.1	3892.8	3870.9	3819.4	3757.7
37.5°	3389.6	3447.5	3506.7	3605.8	3677.9	3720.4	3779.6	3787.3	3750.0	3725.5	3644.4
40°	3190.2	3242.9	3329.1	3387.1	3486.1	3535.0	3598.1	3626.4	3617.4	3603.2	3532.5
42.5°	3033.2	3058.9	3115.5	3167.0	3264.8	3365.2	3420.5	3451.4	3483.6	3472.0	3436.0
45°	2865.9	2889.0	2908.3	2953.4	3048.6	3137.4	3205.6	3251.9	3309.8	3336.9	3293.1
47.5°	2699.9	2706.3	2729.5	2766.8	2823.4	2891.6	3006.1	3075.6	3129.7	3182.4	3154.1
50°	2572.5	2549.3	2553.2	2576.3	2622.7	2689.6	2771.9	2869.7	2931.5	2995.8	3002.3
52.5°	2248.2	2436.1	2391.0	2403.9	2428.3	2460.5	2546.7	2643.2	2719.2	2774.5	2829.8
55°	1886.6	1923.9	2285.5	2234.0	2249.5	2277.8	2317.7	2414.2	2487.5	2564.7	2642.0
57.5°	1463.2	1741.1	1755.3	2089.9	2082.2	2084.7	2118.2	2173.5	2246.9	2343.4	2409.0
60°	1137.6	1254.7	1482.5	1598.3	1891.7	1902.0	1921.3	1953.5	2016.5	2107.9	2212.1
62.5°	1003.8	1019.2	1100.3	1274.0	1464.5	1694.8	1736.0	1741.1	1769.5	1860.8	1981.8
65°	881.5	891.8	916.3	934.3	1093.8	1316.5	1514.7	1546.8	1564.8	1618.9	1721.8
67.5°	607.4	768.3	790.1	803.0	818.5	921.4	1167.2	1330.6	1351.2	1398.8	1488.9
70°	117.1	243.2	665.3	679.5	687.2	710.4	750.2	1010.2	1146.6	1191.6	1232.8
72.5°	79.8	93.9	113.2	267.7	566.2	579.1	588.1	621.6	851.9	983.2	1005.0
75°	57.9	64.3	75.9	93.9	115.8	377.1	467.1	483.9	500.6	691.1	801.7
77.5°	41.2	46.3	51.5	60.5	70.8	91.4	131.3	361.6	378.3	387.3	546.9
80°	23.2	28.3	34.7	39.9	45.0	51.5	66.9	83.6	186.6	272.8	287.0
82.5°	12.9	15.4	18.0	21.9	24.5	30.9	37.3	45.0	59.2	87.5	185.3
85°	6.4	6.4	6.4	9.0	10.3	14.2	16.7	19.3	27.0	37.3	51.5
87.5°	3.9	3.9	5.1	5.1	5.1	6.4	6.4	6.4	7.7	11.6	16.7
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: P1213164

CATALOG NUMBER: 4SNLED-LD5-69SL-RM-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	356°	357°	358°	359°	360°
0°	4287.9	4287.9	4287.9	4287.9	4287.9
2.5°	4304.6	4300.7	4300.7	4316.2	4312.3
5°	4296.9	4293.0	4291.7	4308.5	4300.7
7.5°	4290.4	4276.3	4272.4	4287.9	4281.4
10°	4264.7	4254.4	4260.8	4255.7	4253.1
12.5°	4220.9	4214.5	4187.5	4190.1	4211.9
15°	4142.4	4168.2	4121.9	4163.0	4172.0
17.5°	3998.3	4056.2	4101.3	4125.7	4129.6
20°	4062.7	4082.0	4058.8	4060.1	4075.5
22.5°	3979.0	3988.0	3994.5	3986.7	4020.2
25°	3845.2	3810.4	3885.1	3900.5	3954.6
27.5°	3804.0	3775.7	3810.4	3807.9	3852.9
30°	3770.5	3679.2	3694.6	3719.1	3774.4
32.5°	3722.9	3578.8	3563.4	3617.4	3679.2
35°	3639.3	3502.9	3466.8	3501.6	3594.2
37.5°	3568.5	3397.3	3325.3	3371.6	3492.6
40°	3463.0	3315.0	3203.0	3244.2	3387.1
42.5°	3336.9	3244.2	3071.8	3100.1	3263.5
45°	3209.5	3127.1	2944.4	2958.5	3152.8
47.5°	3079.5	3003.6	2811.8	2814.4	3011.3
50°	2952.1	2851.7	2693.4	2648.4	2860.7
52.5°	2786.1	2693.4	2573.7	2500.4	2717.9
55°	2629.1	2524.8	2437.3	2324.1	2555.7
57.5°	2475.9	2360.1	2300.9	2155.5	2371.7
60°	2266.2	2210.9	2123.3	1984.4	2205.7
62.5°	2051.3	2033.3	1944.5	1800.3	2001.1
65°	1800.3	1842.8	1751.4	1627.9	1788.8
67.5°	1563.6	1639.5	1539.1	1463.2	1584.1
70°	1311.3	1398.8	1342.2	1315.2	1366.7
72.5°	1063.0	1147.9	1153.0	1133.7	1150.5
75°	821.0	915.0	966.4	936.8	940.7
77.5°	622.8	667.9	724.5	747.7	742.5
80°	384.8	463.3	509.6	557.2	540.5
82.5°	194.3	259.9	316.6	368.0	343.6
85°	81.1	104.2	145.4	191.7	184.0
87.5°	24.5	41.2	43.8	61.8	57.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)