

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: P1213542

Luminaire Tested: 4SNLED-LD5-87HL-RM-UNV-L935-CD1-U

Issue Date: 3/29/2018

Test Information

Test Method: LM-79-2019
Report Number: P1213542
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-LD5-87HL-RM-UNV-L935-CD1-U
Description: 4FT LINEAR SNLED LED FIXTURE
METALIC FINISH REFLECTOR
Light Source: -
Ballast/Driver: -

Summary

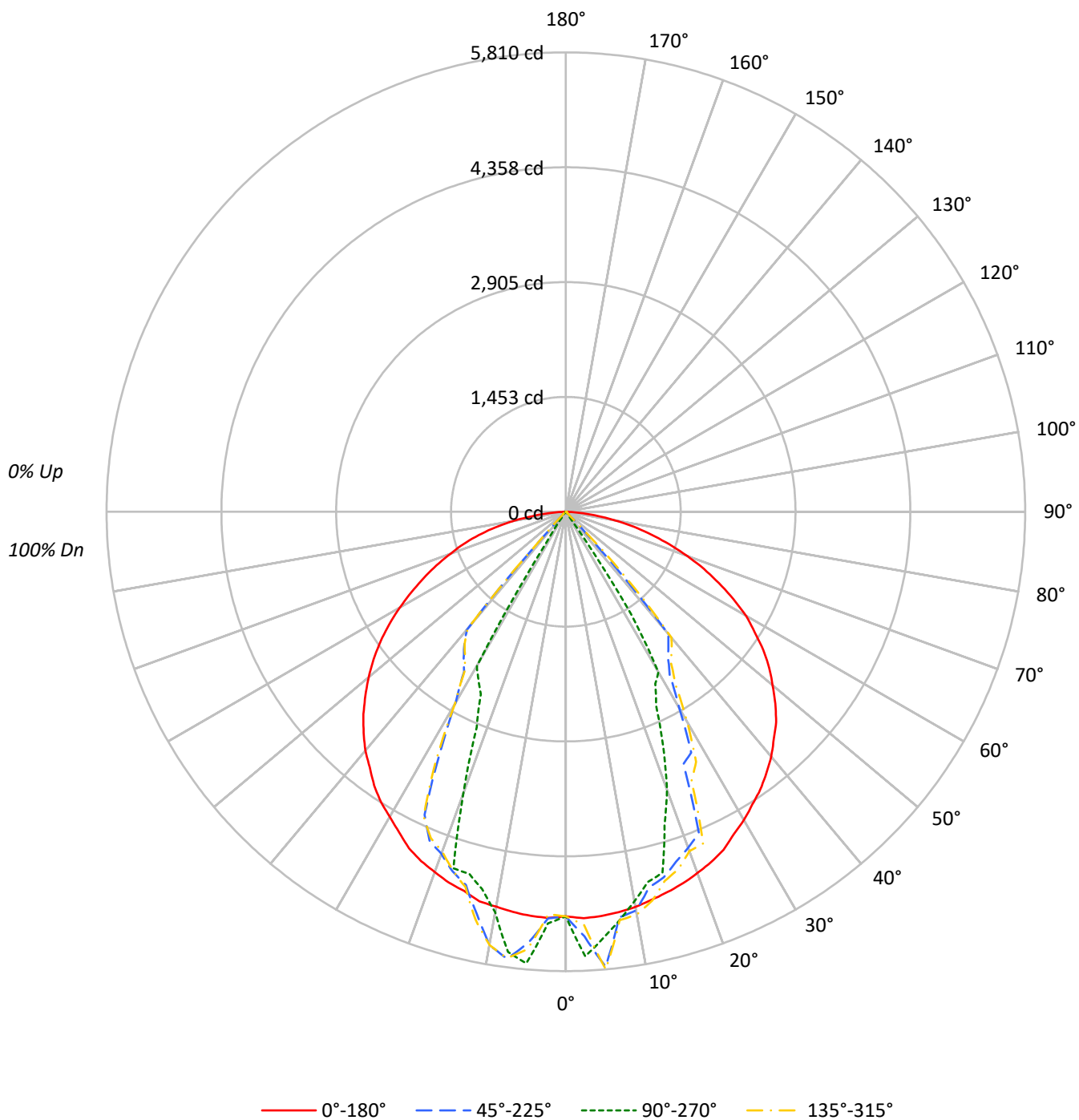
Lumens per Lamp: N/A
Luminaire Lumens: 7275.0 lumens
Efficiency: N/A
Efficacy: 92.1 lumens/watt
Spacing Criteria (0/90/45): 1.3 / 0.81 / 0.97
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.12')
CIE Type: Direct

Input Watts (W): 79
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT

TEST NUMBER: P1213542

CATALOG NUMBER: 4SNLED-LD5-87HL-RM-UNV-L935-CD1-U

Luminous Intensity Polar Plot



TEST NUMBER: P1213542

CATALOG NUMBER: 4SNLED-LD5-87HL-RM-UNV-L935-CD1-U

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

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	41345	41345	41345	41345
5°	41514	42523	41501	45031
10°	41415	38478	41390	39590
15°	41301	35916	41199	36009
20°	41350	28289	41232	28637
25°	41469	20472	41267	19319
30°	41280	17959	40844	17264
35°	41403	396	40794	480
40°	41544	86	40549	86
45°	41690	51	40124	38
50°	41372	40	39474	40
55°	41128	28	38602	28
60°	40353	30	37197	30
65°	38249	49	35524	33
70°	35483	54	33779	54
75°	31387	60	31901	60
80°	25493	68	26952	68
85°	15002	81	15317	81

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 2°

Vertical Angle: 45°

Luminance: 45016 cd/sqm

TEST NUMBER: P1213542

CATALOG NUMBER: 4SNLED-LD5-87HL-RM-UNV-L935-CD1-U

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	513.3	7.1
10°-20°	1400.1	19.2
20°-30°	1781.6	24.5
30°-40°	1505.0	20.7
40°-50°	983.9	13.5
50°-60°	620.0	8.5
60°-70°	330.0	4.5
70°-80°	120.3	1.7
80°-90°	20.7	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°	3695.1	50.8
0°-40°	5200.1	71.5
0°-60°	6804.0	93.5
0°-90°	7275.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7275.0	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	5116	5116	5116	5116	5116	
5°	5132	5414	5130	5734	5132	488
15°	4978	4725	4966	4737	4978	1407
25°	4719	2698	4696	2546	4719	2170
35°	4289	51	4226	61	4289	2683
45°	3762	6	3621	5	3762	2893
55°	3050	3	2862	3	3050	2717
65°	2134	5	1982	3	2134	2114
75°	1122	5	1141	5	1122	1191
85°	220	5	224	5	220	278
90°	0	0	0	0	0	

TEST NUMBER: P1213542

CATALOG NUMBER: 4SNLED-LD5-87HL-RM-UNV-L935-CD1-U

CANDELA DISTRIBUTION (FULL):

	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°	10°
0°	5116.3	5116.3	5116.3	5116.3	5116.3	5116.3	5116.3	5116.3	5116.3	5116.3	5116.3
2.5°	5145.5	5148.6	5150.1	5153.2	5157.8	5159.3	5162.4	5159.3	5159.3	5159.3	5159.3
5°	5131.7	5137.8	5142.4	5148.6	5159.3	5160.9	5173.1	5174.7	5180.8	5193.1	5202.3
7.5°	5108.6	5114.8	5124.0	5139.4	5154.7	5171.6	5193.1	5216.1	5248.4	5279.1	5317.5
10°	5074.9	5082.5	5093.3	5107.1	5182.4	5193.1	5240.7	5306.7	5325.2	5421.9	5494.1
12.5°	5025.7	5051.8	5079.5	5091.8	5163.9	5277.6	5437.2	5405.0	5369.7	5686.0	5681.4
15°	4978.1	5013.4	4999.6	5099.4	5165.5	5363.5	5296.0	5440.3	5704.4	5639.9	5643.0
17.5°	4927.5	4935.1	5011.9	5094.8	5213.1	5314.4	5397.3	5595.4	5647.6	5652.2	5595.4
20°	4863.0	4899.8	5011.9	5087.1	5286.8	5334.4	5514.0	5615.4	5593.9	5541.7	5444.9
22.5°	4796.9	4909.0	5022.7	5128.6	5268.3	5395.8	5484.8	5532.4	5420.4	5214.6	5104.0
25°	4718.6	4784.7	4933.6	5088.7	5263.7	5337.4	5389.6	5312.9	5167.0	4982.7	4796.9
27.5°	4597.3	4703.3	4893.7	5068.7	5226.9	5315.9	5231.5	5047.2	4812.3	4691.0	4606.5
30°	4503.7	4641.9	4798.5	4967.4	5131.7	5183.9	4968.9	4758.5	4597.3	4476.0	4457.6
32.5°	4390.0	4586.6	4735.5	4896.7	5034.9	4965.8	4757.0	4485.2	4351.6	4305.6	4324.0
35°	4288.7	4437.6	4632.6	4790.8	4890.6	4735.5	4405.4	4236.5	4172.0	4198.1	4164.3
37.5°	4167.4	4363.9	4543.6	4680.2	4646.5	4413.1	4133.6	4026.1	4033.8	4012.3	3947.8
40°	4041.5	4228.8	4416.1	4545.1	4426.9	4070.6	3884.8	3861.8	3866.4	3797.3	3705.2
42.5°	3894.1	4064.5	4251.8	4368.5	4113.6	3835.7	3709.8	3712.9	3672.9	3576.2	3527.1
45°	3762.0	3918.6	4113.6	4124.4	3811.1	3579.3	3542.4	3502.5	3413.4	3381.2	3344.3
47.5°	3593.1	3766.6	3927.8	3869.5	3514.8	3370.4	3342.8	3255.3	3210.8	3186.2	3155.5
50°	3413.4	3588.5	3735.9	3570.1	3235.3	3201.5	3110.9	3041.8	3011.1	2985.0	2957.4
52.5°	3243.0	3387.3	3537.8	3252.2	3020.4	2988.1	2885.2	2845.3	2814.6	2785.4	2779.3
55°	3049.5	3177.0	3279.9	2949.7	2814.6	2739.4	2665.6	2638.0	2608.8	2595.0	2618.0
57.5°	2829.9	2974.3	2958.9	2651.8	2591.9	2482.9	2455.3	2436.9	2415.4	2424.6	2232.6
60°	2631.9	2742.4	2667.2	2433.8	2332.4	2258.7	2234.2	2221.9	2234.2	2046.8	1799.6
62.5°	2387.7	2512.1	2360.1	2178.9	2071.4	2036.1	2014.6	2031.5	1851.8	1646.1	1586.2
65°	2134.4	2269.5	2045.3	1905.6	1838.0	1807.3	1805.8	1663.0	1486.4	1406.5	1406.5
67.5°	1890.2	2029.9	1741.3	1624.6	1598.5	1601.5	1512.5	1296.0	1246.8	1193.1	1038.0
70°	1630.7	1753.6	1438.8	1368.1	1352.8	1342.0	1125.5	1067.2	1008.8	866.0	853.7
72.5°	1372.7	1432.6	1156.2	1139.3	1136.3	944.3	901.3	801.5	734.0	717.1	709.4
75°	1122.5	1104.0	913.6	929.0	783.1	715.5	646.5	588.1	578.9	572.7	142.8
77.5°	886.0	793.9	720.2	626.5	560.5	476.0	462.2	453.0	297.9	107.5	87.5
80°	644.9	514.4	479.1	406.9	347.0	333.2	340.9	104.4	82.9	69.1	59.9
82.5°	410.0	328.6	268.7	234.9	228.8	99.8	73.7	59.9	52.2	44.5	36.9
85°	219.6	145.9	135.1	113.6	67.6	46.1	38.4	29.2	24.6	20.0	18.4
87.5°	69.1	58.3	47.6	38.4	23.0	15.4	12.3	10.7	9.2	7.7	7.7
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: P1213542

CATALOG NUMBER: 4SNLED-LD5-87HL-RM-UNV-L935-CD1-U

CANDELA DISTRIBUTION (continued):

	11°	12°	13°	14°	15°	16°	17°	18°	19°	20°	25°
0°	5116.3	5116.3	5116.3	5116.3	5116.3	5116.3	5116.3	5116.3	5116.3	5116.3	5116.3
2.5°	5156.2	5159.3	5157.8	5162.4	5162.4	5168.5	5173.1	5177.7	5187.0	5191.6	5226.9
5°	5222.3	5230.0	5253.0	5274.5	5300.6	5308.3	5352.8	5363.5	5415.7	5421.9	5593.9
7.5°	5369.7	5398.9	5454.1	5509.4	5564.7	5600.0	5661.4	5699.8	5741.3	5778.1	5914.8
10°	5547.8	5596.9	5650.7	5706.0	5738.2	5805.8	5842.6	5848.8	5838.0	5778.1	5557.0
12.5°	5722.9	5772.0	5749.0	5759.7	5798.1	5678.3	5695.2	5609.2	5669.1	5372.8	5153.2
15°	5698.3	5695.2	5638.4	5454.1	5484.8	5256.1	5163.9	5093.3	5150.1	5119.4	5085.6
17.5°	5624.6	5484.8	5386.6	5165.5	5071.8	5007.3	5008.8	5010.4	4982.7	5011.9	4925.9
20°	5312.9	5156.2	5010.4	4932.1	4904.4	4858.4	4881.4	4858.4	4859.9	4869.1	4737.1
22.5°	4898.3	4850.7	4766.2	4790.8	4781.6	4823.0	4792.3	4744.7	4760.1	4691.0	4591.2
25°	4730.9	4675.6	4672.6	4681.8	4668.0	4649.5	4621.9	4549.7	4545.1	4523.6	4477.6
27.5°	4562.0	4565.1	4574.3	4546.6	4497.5	4460.7	4419.2	4383.9	4397.7	4373.1	4310.2
30°	4445.3	4443.8	4388.5	4363.9	4273.3	4274.9	4264.1	4242.6	4228.8	4230.3	4190.4
32.5°	4279.5	4231.9	4168.9	4138.2	4130.5	4102.9	4081.4	4086.0	4096.7	4058.4	4099.8
35°	4109.0	4010.8	4001.5	3975.4	3950.9	3932.4	3940.1	3909.4	3907.9	3903.3	3565.5
37.5°	3880.2	3832.6	3828.0	3800.4	3783.5	3778.9	3749.7	3754.3	3768.1	3792.7	3040.3
40°	3691.4	3648.4	3637.6	3636.1	3599.2	3596.2	3603.8	3633.0	3653.0	3499.4	2897.5
42.5°	3488.7	3491.8	3458.0	3436.5	3441.1	3454.9	3491.8	3390.4	2937.4	2799.2	2648.8
45°	3315.2	3299.8	3281.4	3275.2	3315.2	3287.5	2882.2	2659.5	2605.8	2599.6	2177.4
47.5°	3134.0	3129.4	3121.7	3126.3	2899.0	2584.3	2492.1	2463.0	2472.2	2466.0	1870.3
50°	2951.3	2957.4	2957.4	2582.7	2370.8	2318.6	2326.3	2352.4	2189.6	2043.8	1742.8
52.5°	2793.1	2745.5	2352.4	2217.3	2169.7	2192.7	2137.4	1933.2	1785.8	1699.8	1612.3
55°	2499.8	2149.7	2062.2	2040.7	2057.6	1853.4	1727.5	1595.4	1557.0	1547.8	1497.1
57.5°	1967.0	1896.4	1904.0	1818.0	1623.0	1507.9	1457.2	1438.8	1421.9	1409.6	122.8
60°	1739.7	1759.7	1610.8	1426.5	1348.2	1332.8	1320.5	1303.6	1300.6	1279.1	78.3
62.5°	1592.3	1400.4	1271.4	1225.3	1206.9	1202.3	1179.3	1171.6	995.0	136.7	58.3
65°	1200.8	1122.5	1097.9	1087.1	1067.2	1067.2	886.0	139.7	113.6	98.3	52.2
67.5°	979.7	973.5	961.2	947.4	644.9	135.1	118.2	102.9	89.1	78.3	46.1
70°	829.2	826.1	752.4	138.2	115.2	101.3	89.1	79.8	73.7	66.0	41.5
72.5°	680.2	138.2	116.7	101.3	87.5	79.8	72.2	64.5	58.3	53.7	33.8
75°	106.0	93.7	82.9	75.2	69.1	61.4	55.3	50.7	49.1	43.0	23.0
77.5°	76.8	66.0	59.9	53.7	47.6	43.0	36.9	32.2	29.2	24.6	16.9
80°	53.7	47.6	43.0	35.3	30.7	26.1	23.0	20.0	18.4	15.4	7.7
82.5°	30.7	26.1	23.0	18.4	16.9	13.8	12.3	10.7	10.7	7.7	7.7
85°	13.8	13.8	10.7	9.2	7.7	7.7	7.7	6.1	6.1	4.6	4.6
87.5°	6.1	6.1	6.1	6.1	6.1	4.6	4.6	4.6	4.6	4.6	3.1
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: P1213542

CATALOG NUMBER: 4SNLED-LD5-87HL-RM-UNV-L935-CD1-U

CANDELA DISTRIBUTION (continued):

	30°	35°	40°	45°	50°	55°	60°	65°	70°	75°	80°
0°	5116.3	5116.3	5116.3	5116.3	5116.3	5116.3	5116.3	5116.3	5116.3	5116.3	5116.3
2.5°	5276.0	5296.0	5334.4	5374.3	5329.8	5489.5	5477.2	5530.9	5560.1	5573.9	5606.2
5°	5745.9	5834.9	5864.1	5776.6	5725.9	5673.7	5555.5	5466.4	5477.2	5448.0	5342.0
7.5°	5736.7	5546.3	5289.8	5173.1	5163.9	5150.1	5187.0	5208.5	5211.5	5210.0	5206.9
10°	5251.4	5153.2	5136.3	5120.9	5127.1	5070.3	5044.2	4970.5	5010.4	4988.9	4996.6
12.5°	5104.0	5081.0	4990.4	4864.5	4939.7	4882.9	4850.7	4872.2	4847.6	4824.6	4816.9
15°	5016.5	4867.6	4816.9	4786.2	4764.7	4752.4	4763.2	4738.6	4730.9	4726.3	4737.1
17.5°	4835.3	4775.4	4720.2	4638.8	4640.3	4635.7	4666.4	4712.5	4715.6	4479.1	4265.7
20°	4692.5	4643.4	4572.8	4522.1	4591.2	4468.3	3993.9	3768.1	3732.8	3732.8	3739.0
22.5°	4578.9	4469.9	4474.5	4394.6	3748.2	3616.1	3619.2	3633.0	3570.1	3355.1	3332.1
25°	4423.8	4406.9	4070.6	3517.9	3522.5	3419.6	3261.4	3038.8	2797.7	2797.7	2757.8
27.5°	4307.1	3949.3	3458.0	3434.9	3089.4	2871.4	2736.3	2532.1	2504.4	2478.3	2481.4
30°	4207.3	3341.3	3353.6	2871.4	2616.5	2435.3	2424.6	2390.8	2373.9	2369.3	2352.4
32.5°	3325.9	3253.7	2806.9	2444.5	2344.7	2315.6	2301.7	2263.3	2261.8	2232.6	2029.9
35°	3118.6	2856.1	2349.3	2251.1	2221.9	2194.2	2171.2	1457.2	172.0	69.1	59.9
37.5°	2882.2	2386.2	2172.7	2128.2	2100.6	1552.4	155.1	53.7	38.4	27.6	24.6
40°	2443.0	2131.3	2063.7	2014.6	830.7	53.7	33.8	26.1	15.4	13.8	12.3
42.5°	2060.7	2008.4	1936.3	589.6	61.4	26.1	16.9	12.3	10.7	10.7	9.2
45°	1928.6	1882.5	780.0	58.3	38.4	12.3	10.7	10.7	9.2	6.1	6.1
47.5°	1805.8	1589.3	70.6	36.9	24.6	10.7	9.2	6.1	6.1	6.1	4.6
50°	1675.2	87.5	49.1	27.6	15.4	6.1	6.1	6.1	6.1	4.6	4.6
52.5°	313.2	61.4	39.9	24.6	7.7	6.1	6.1	6.1	4.6	4.6	4.6
55°	73.7	49.1	36.9	21.5	6.1	6.1	6.1	4.6	4.6	4.6	3.1
57.5°	55.3	36.9	29.2	20.0	6.1	4.6	4.6	4.6	4.6	4.6	3.1
60°	46.1	26.1	23.0	18.4	4.6	4.6	4.6	4.6	4.6	4.6	3.1
62.5°	32.2	21.5	16.9	13.8	4.6	4.6	4.6	4.6	4.6	4.6	4.6
65°	26.1	16.9	13.8	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6
67.5°	23.0	13.8	9.2	3.1	4.6	4.6	4.6	4.6	4.6	4.6	4.6
70°	18.4	4.6	4.6	3.1	4.6	4.6	4.6	4.6	4.6	4.6	4.6
72.5°	15.4	4.6	3.1	3.1	4.6	4.6	4.6	4.6	4.6	4.6	4.6
75°	15.4	7.7	3.1	3.1	4.6	4.6	6.1	6.1	4.6	4.6	4.6
77.5°	10.7	7.7	3.1	3.1	4.6	4.6	6.1	6.1	4.6	4.6	4.6
80°	6.1	7.7	3.1	4.6	4.6	9.2	10.7	6.1	4.6	4.6	4.6
82.5°	6.1	7.7	9.2	9.2	4.6	7.7	9.2	7.7	6.1	4.6	4.6
85°	6.1	4.6	6.1	7.7	4.6	7.7	7.7	6.1	6.1	4.6	4.6
87.5°	3.1	4.6	4.6	6.1	6.1	6.1	7.7	6.1	6.1	6.1	4.6
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: P1213542

CATALOG NUMBER: 4SNLED-LD5-87HL-RM-UNV-L935-CD1-U

CANDELA DISTRIBUTION (continued):

	85°	90°	95°	100°	105°	110°	115°	120°	125°	130°	135°
0°	5116.3	5116.3	5116.3	5116.3	5116.3	5116.3	5116.3	5116.3	5116.3	5116.3	5116.3
2.5°	5621.5	5627.6	5530.9	5497.1	5526.3	5520.2	5494.1	5397.3	5386.6	5322.1	5228.4
5°	5372.8	5414.2	5363.5	5451.1	5409.6	5451.1	5577.0	5635.3	5730.5	5788.9	5810.4
7.5°	5199.2	5208.5	5208.5	5216.1	5223.8	5225.3	5216.1	5210.0	5183.9	5151.6	5210.0
10°	4988.9	4999.6	5018.1	5015.0	5013.4	5045.7	5053.4	5119.4	5116.3	5128.6	5173.1
12.5°	4879.9	4796.9	4872.2	4852.2	4879.9	4836.9	4916.7	4902.9	4907.5	4944.3	5039.5
15°	4698.7	4724.8	4743.2	4743.2	4753.9	4744.7	4735.5	4798.5	4836.9	4838.4	4832.3
17.5°	4350.1	4152.0	4354.7	4302.5	4718.6	4729.4	4694.1	4664.9	4664.9	4687.9	4737.1
20°	3734.4	3739.0	3740.5	3760.5	3785.0	3783.5	3785.0	4390.0	4677.2	4611.1	4566.6
22.5°	3273.7	3216.9	3322.8	3315.2	3447.2	3593.1	3732.8	3719.0	3728.2	4155.1	4539.0
25°	2624.2	2697.9	2638.0	2664.1	2813.1	2986.6	3094.1	3375.1	3680.6	3659.1	3758.9
27.5°	2470.6	2450.7	2478.3	2478.3	2498.3	2521.3	2581.2	2739.4	3011.1	3296.7	3567.0
30°	2324.8	2341.7	2344.7	2372.4	2387.7	2403.1	2412.3	2472.2	2533.6	2731.7	3064.9
32.5°	1745.9	1530.9	2014.6	2145.1	2255.7	2281.8	2300.2	2324.8	2369.3	2398.5	2565.8
35°	50.7	50.7	53.7	61.4	78.3	528.2	2011.5	2217.3	2246.5	2283.3	2314.0
37.5°	24.6	18.4	21.5	23.0	27.6	38.4	55.3	172.0	1914.8	2165.1	2198.9
40°	10.7	10.7	10.7	10.7	12.3	15.4	23.0	38.4	58.3	1540.1	2077.5
42.5°	9.2	9.2	9.2	9.2	9.2	9.2	10.7	13.8	27.6	66.0	1090.2
45°	6.1	6.1	4.6	6.1	6.1	7.7	9.2	9.2	12.3	41.5	75.2
47.5°	4.6	4.6	4.6	4.6	4.6	4.6	4.6	7.7	9.2	27.6	39.9
50°	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	21.5	27.6
52.5°	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	9.2	24.6
55°	3.1	3.1	3.1	3.1	3.1	3.1	3.1	4.6	4.6	6.1	21.5
57.5°	3.1	3.1	3.1	3.1	3.1	4.6	3.1	3.1	4.6	4.6	20.0
60°	3.1	3.1	3.1	3.1	3.1	4.6	4.6	4.6	4.6	4.6	18.4
62.5°	4.6	4.6	3.1	4.6	3.1	3.1	4.6	4.6	4.6	4.6	12.3
65°	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	3.1	4.6
67.5°	4.6	4.6	4.6	4.6	3.1	4.6	3.1	4.6	4.6	3.1	3.1
70°	4.6	4.6	4.6	4.6	4.6	4.6	4.6	3.1	3.1	3.1	3.1
72.5°	4.6	4.6	4.6	4.6	4.6	4.6	4.6	3.1	3.1	3.1	3.1
75°	4.6	4.6	4.6	4.6	4.6	4.6	6.1	6.1	3.1	3.1	3.1
77.5°	4.6	4.6	4.6	4.6	4.6	4.6	7.7	9.2	7.7	7.7	3.1
80°	4.6	4.6	4.6	4.6	4.6	4.6	7.7	7.7	7.7	7.7	10.7
82.5°	4.6	4.6	4.6	4.6	4.6	4.6	6.1	6.1	6.1	6.1	7.7
85°	4.6	4.6	4.6	4.6	4.6	4.6	6.1	6.1	6.1	4.6	6.1
87.5°	4.6	4.6	4.6	4.6	4.6	4.6	4.6	6.1	4.6	4.6	4.6
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: P1213542

CATALOG NUMBER: 4SNLED-LD5-87HL-RM-UNV-L935-CD1-U

CANDELA DISTRIBUTION (continued):

	140°	145°	150°	155°	160°	161°	162°	163°	164°	165°	166°
0°	5116.3	5116.3	5116.3	5116.3	5116.3	5116.3	5116.3	5116.3	5116.3	5116.3	5116.3
2.5°	5236.1	5183.9	5167.0	5131.7	5128.6	5131.7	5124.0	5113.3	5119.4	5108.6	5099.4
5°	5822.7	5682.9	5592.3	5471.0	5303.7	5266.8	5257.6	5205.4	5187.0	5180.8	5156.2
7.5°	5348.2	5603.1	5756.6	5808.8	5612.3	5566.2	5512.5	5469.5	5428.0	5349.7	5302.1
10°	5137.8	5150.1	5297.5	5469.5	5749.0	5787.3	5816.5	5722.9	5696.7	5497.1	5454.1
12.5°	5088.7	5090.2	5107.1	5211.5	5431.1	5455.7	5558.6	5613.8	5681.4	5719.8	5689.1
15°	4864.5	4988.9	5081.0	5090.2	5110.2	5153.2	5183.9	5375.8	5457.2	5675.3	5663.0
17.5°	4760.1	4800.0	4933.6	5042.6	5024.2	5008.8	5033.4	5059.5	5137.8	5355.9	5352.8
20°	4586.6	4714.0	4786.2	4899.8	5002.7	5007.3	4979.7	4964.3	4933.6	4968.9	5001.2
22.5°	4512.9	4532.8	4668.0	4747.8	4864.5	4906.0	4912.1	4913.6	4896.7	4878.3	4869.1
25°	4505.2	4442.2	4511.3	4611.1	4697.1	4741.7	4792.3	4809.2	4803.1	4803.1	4793.9
27.5°	3686.8	4422.3	4385.4	4451.4	4555.9	4586.6	4612.7	4664.9	4697.1	4720.2	4730.9
30°	3511.7	3643.8	4287.1	4296.4	4402.3	4399.2	4428.4	4471.4	4512.9	4566.6	4580.4
32.5°	3106.3	3430.3	3924.8	4141.3	4251.8	4262.6	4277.9	4290.2	4328.6	4388.5	4440.7
35°	2489.1	3124.8	3362.8	4067.6	4087.5	4109.0	4118.2	4147.4	4159.7	4184.3	4230.3
37.5°	2252.6	2582.7	3226.1	3517.9	3898.7	3917.1	3966.2	3978.5	3998.5	4018.4	4053.8
40°	2115.9	2206.5	2685.6	3141.7	3746.6	3758.9	3775.8	3806.5	3808.1	3831.1	3863.3
42.5°	2006.9	2065.3	2205.0	3000.4	3639.2	3637.6	3597.7	3617.7	3626.9	3651.4	3696.0
45°	1603.1	1937.8	2026.9	2450.7	2897.5	3106.3	3507.1	3441.1	3439.5	3448.8	3496.4
47.5°	81.4	1822.7	1885.6	2022.3	2736.3	2744.0	2796.2	3235.3	3302.9	3281.4	3286.0
50°	55.3	125.9	1756.6	1819.6	2358.5	2548.9	2587.3	2607.3	2860.7	3143.2	3097.1
52.5°	43.0	72.2	1076.4	1689.1	1916.3	2056.0	2303.3	2444.5	2459.9	2573.5	2958.9
55°	38.4	55.3	116.7	1558.5	1629.2	1659.9	1804.2	2051.4	2251.1	2310.9	2315.6
57.5°	33.8	50.7	79.8	704.8	1481.8	1487.9	1512.5	1598.5	1778.1	1942.4	2128.2
60°	30.7	44.5	63.0	121.3	1346.6	1362.0	1366.6	1389.6	1411.1	1523.2	1736.7
62.5°	18.4	35.3	55.3	87.5	1065.6	1223.8	1222.3	1237.6	1257.6	1269.9	1312.9
65°	15.4	27.6	47.6	73.7	130.5	162.8	988.9	1099.4	1111.7	1128.6	1136.3
67.5°	13.8	24.6	35.3	58.3	98.3	112.1	129.0	159.7	872.2	982.7	998.1
70°	12.3	16.9	29.2	49.1	79.8	86.0	96.7	110.6	130.5	161.2	789.3
72.5°	7.7	12.3	20.0	35.3	61.4	69.1	75.2	84.5	93.7	112.1	129.0
75°	3.1	9.2	16.9	26.1	47.6	52.2	56.8	63.0	70.6	82.9	92.1
77.5°	3.1	7.7	13.8	18.4	30.7	35.3	41.5	46.1	52.2	58.3	67.6
80°	10.7	6.1	9.2	13.8	21.5	23.0	26.1	29.2	33.8	38.4	44.5
82.5°	7.7	9.2	10.7	9.2	10.7	13.8	15.4	18.4	20.0	23.0	24.6
85°	6.1	6.1	7.7	7.7	7.7	7.7	7.7	7.7	9.2	10.7	13.8
87.5°	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	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: P1213542

CATALOG NUMBER: 4SNLED-LD5-87HL-RM-UNV-L935-CD1-U

CANDELA DISTRIBUTION (continued):

	167°	168°	169°	170°	171°	172°	173°	174°	175°	176°	177°
0°	5116.3	5116.3	5116.3	5116.3	5116.3	5116.3	5116.3	5116.3	5116.3	5116.3	5116.3
2.5°	5099.4	5096.4	5087.1	5087.1	5085.6	5091.8	5096.4	5101.0	5099.4	5108.6	5099.4
5°	5137.8	5130.1	5116.3	5104.0	5099.4	5102.5	5097.9	5102.5	5096.4	5104.0	5090.2
7.5°	5243.8	5217.7	5163.9	5142.4	5114.8	5113.3	5099.4	5096.4	5087.1	5087.1	5070.3
10°	5431.1	5305.2	5289.8	5225.3	5202.3	5090.2	5114.8	5073.3	5068.7	5048.8	5041.1
12.5°	5584.7	5486.4	5457.2	5400.4	5335.9	5108.6	5159.3	5070.3	5065.7	5025.7	4984.3
15°	5587.7	5644.5	5564.7	5408.1	5394.3	5237.6	5134.8	5104.0	5064.1	4944.3	4964.3
17.5°	5408.1	5538.6	5577.0	5543.2	5444.9	5339.0	5194.6	5133.2	5013.4	4959.7	4922.8
20°	5116.3	5248.4	5412.7	5423.4	5484.8	5409.6	5220.7	5120.9	4976.6	4882.9	4852.2
22.5°	4884.5	4981.2	5170.1	5257.6	5332.8	5358.9	5239.2	5091.8	4912.1	4821.5	4803.1
25°	4761.6	4783.1	4839.9	4942.8	5108.6	5228.4	5245.3	5088.7	4995.0	4796.9	4692.5
27.5°	4717.1	4698.7	4675.6	4727.8	4852.2	4998.1	5094.8	5120.9	4887.5	4698.7	4594.3
30°	4603.5	4614.2	4578.9	4560.5	4641.9	4792.3	4964.3	5007.3	4827.6	4632.6	4512.9
32.5°	4463.7	4482.2	4488.3	4456.1	4439.2	4543.6	4729.4	4832.3	4823.0	4539.0	4405.4
35°	4288.7	4340.9	4354.7	4356.2	4328.6	4311.7	4419.2	4632.6	4714.0	4496.0	4302.5
37.5°	4104.4	4119.8	4195.0	4215.0	4215.0	4164.3	4244.2	4414.6	4528.2	4399.2	4176.6
40°	3874.1	3923.2	3993.9	4029.2	4064.5	4069.1	4024.6	4144.3	4331.7	4299.4	4058.4
42.5°	3706.7	3739.0	3782.0	3829.6	3901.7	3920.2	3874.1	3895.6	4090.6	4175.1	3904.8
45°	3511.7	3554.7	3567.0	3619.2	3694.4	3748.2	3746.6	3702.1	3858.7	3963.2	3792.7
47.5°	3312.1	3353.6	3375.1	3401.2	3456.4	3525.5	3563.9	3544.0	3574.7	3778.9	3643.8
50°	3106.3	3129.4	3172.4	3201.5	3238.4	3278.3	3370.4	3388.9	3345.9	3508.6	3479.5
52.5°	2911.3	2919.0	2948.2	2977.4	3026.5	3055.7	3129.4	3184.7	3181.6	3229.2	3296.7
55°	2759.3	2725.5	2731.7	2754.7	2787.0	2831.5	2872.9	2958.9	2988.1	2997.3	3104.8
57.5°	2155.9	2502.9	2533.6	2532.1	2570.4	2590.4	2628.8	2685.6	2790.0	2767.0	2886.8
60°	1959.3	1997.7	2287.9	2321.7	2335.5	2353.9	2400.0	2452.2	2529.0	2578.1	2630.3
62.5°	1494.1	1727.5	1815.0	2071.4	2111.3	2122.1	2152.8	2177.4	2257.2	2369.3	2347.8
65°	1156.2	1256.0	1523.2	1627.6	1845.7	1873.3	1916.3	1942.4	1965.5	2094.4	2100.6
67.5°	999.6	1015.0	1087.1	1288.3	1426.5	1639.9	1666.0	1689.1	1724.4	1816.5	1873.3
70°	853.7	872.2	892.1	909.0	1088.7	1229.9	1428.0	1435.7	1458.7	1520.2	1649.1
72.5°	161.2	729.4	741.7	752.4	772.4	866.0	1054.9	1208.4	1217.7	1246.8	1365.1
75°	109.0	127.4	175.0	601.9	621.9	628.0	660.3	852.2	993.5	999.6	1051.8
77.5°	78.3	87.5	106.0	125.9	320.9	482.2	489.8	525.1	671.0	777.0	786.2
80°	53.7	59.9	70.6	79.8	98.3	129.0	356.2	367.0	385.4	531.3	558.9
82.5°	30.7	35.3	41.5	50.7	58.3	73.7	95.2	122.8	250.3	267.2	354.7
85°	15.4	16.9	20.0	24.6	29.2	35.3	47.6	58.3	79.8	144.3	148.9
87.5°	7.7	7.7	7.7	7.7	12.3	13.8	16.9	21.5	27.6	41.5	53.7
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: P1213542

CATALOG NUMBER: 4SNLED-LD5-87HL-RM-UNV-L935-CD1-U

CANDELA DISTRIBUTION (continued):

	178°	179°	180°	181°	182°	183°	184°	185°	186°	187°	188°
0°	5116.3	5116.3	5116.3	5116.3	5116.3	5116.3	5116.3	5116.3	5116.3	5116.3	5116.3
2.5°	5101.0	5122.5	5140.9	5145.5	5145.5	5148.6	5153.2	5156.2	5159.3	5162.4	5159.3
5°	5091.8	5114.8	5130.1	5134.8	5134.8	5144.0	5151.6	5160.9	5165.5	5165.5	5162.4
7.5°	5068.7	5085.6	5105.6	5117.9	5119.4	5134.8	5148.6	5147.0	5153.2	5156.2	5163.9
10°	5038.0	5038.0	5071.8	5081.0	5088.7	5105.6	5110.2	5119.4	5140.9	5144.0	5163.9
12.5°	5022.7	5007.3	5047.2	5051.8	5077.9	5056.4	5084.1	5093.3	5071.8	5101.0	5062.6
15°	4953.6	4972.0	4965.8	4979.7	5025.7	5001.2	5076.4	5051.8	5107.1	5041.1	5157.8
17.5°	4896.7	4893.7	4918.2	4930.5	4939.7	4991.9	5011.9	5039.5	5061.0	5042.6	5088.7
20°	4855.3	4830.7	4849.1	4863.0	4895.2	4935.1	4947.4	4906.0	4978.1	5101.0	5130.1
22.5°	4777.0	4760.1	4781.6	4781.6	4830.7	4824.6	4870.6	4844.5	4912.1	5054.9	5203.8
25°	4671.0	4672.6	4695.6	4723.2	4732.4	4801.5	4826.1	4859.9	4944.3	5114.8	5205.4
27.5°	4563.5	4554.3	4568.1	4625.0	4672.6	4723.2	4730.9	4846.1	4961.2	5077.9	5157.8
30°	4456.1	4446.8	4456.1	4497.5	4554.3	4588.1	4672.6	4826.1	4933.6	5013.4	5088.7
32.5°	4340.9	4331.7	4353.2	4383.9	4483.7	4488.3	4655.7	4800.0	4884.5	4942.8	4929.0
35°	4218.0	4205.8	4225.7	4273.3	4365.5	4399.2	4574.3	4681.8	4777.0	4804.6	4740.1
37.5°	4070.6	4049.1	4073.7	4139.7	4236.5	4334.7	4480.6	4605.0	4655.7	4582.0	4505.2
40°	3917.1	3901.7	3944.7	3978.5	4092.1	4228.8	4396.2	4483.7	4451.4	4367.0	4282.5
42.5°	3780.4	3748.2	3786.6	3851.1	3980.0	4135.1	4270.3	4319.4	4242.6	4118.2	4020.0
45°	3613.1	3574.7	3620.7	3706.7	3844.9	4021.5	4127.5	4110.6	3980.0	3872.6	3737.4
47.5°	3438.0	3391.9	3438.0	3540.9	3696.0	3883.3	3960.1	3883.3	3719.0	3583.9	3474.9
50°	3266.0	3212.3	3256.8	3411.9	3563.9	3708.3	3706.7	3557.8	3459.5	3312.1	3216.9
52.5°	3095.6	3018.8	3063.3	3232.3	3384.3	3548.6	3427.3	3289.1	3170.8	3041.8	3011.1
55°	2885.2	2802.3	2862.2	3107.9	3224.6	3321.3	3127.8	3006.5	2889.8	2825.3	2787.0
57.5°	2685.6	2595.0	2647.2	2937.4	3023.4	3048.0	2869.9	2697.9	2628.8	2607.3	2552.0
60°	2479.9	2377.0	2426.1	2760.8	2820.7	2720.9	2545.9	2412.3	2398.5	2355.5	2312.5
62.5°	2283.3	2169.7	2200.4	2541.3	2568.9	2387.7	2226.5	2191.2	2157.4	2114.4	2091.4
65°	2057.6	1939.4	1982.3	2307.9	2281.8	2048.4	1957.8	1950.1	1905.6	1870.3	1904.0
67.5°	1850.3	1710.6	1770.4	2053.0	1934.7	1744.3	1707.5	1689.1	1653.7	1673.7	1319.0
70°	1623.0	1471.0	1552.4	1778.1	1603.1	1477.2	1463.3	1435.7	1437.2	1142.4	962.8
72.5°	1369.7	1237.6	1355.9	1477.2	1268.3	1231.5	1211.5	1208.4	975.0	792.3	747.8
75°	1147.0	1013.4	1140.9	1187.0	1010.4	985.8	984.3	813.8	640.3	611.1	597.3
77.5°	895.2	792.3	913.6	844.5	775.4	747.8	671.0	503.6	482.2	462.2	173.5
80°	603.5	611.1	681.8	582.0	552.8	471.4	371.6	356.2	307.1	122.8	96.7
82.5°	367.0	460.7	434.5	363.9	356.2	256.4	234.9	119.8	89.1	70.6	61.4
85°	190.4	233.4	224.2	198.1	147.4	132.1	73.7	56.8	46.1	35.3	29.2
87.5°	64.5	86.0	82.9	66.0	50.7	39.9	26.1	21.5	15.4	12.3	10.7
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: P1213542

CATALOG NUMBER: 4SNLED-LD5-87HL-RM-UNV-L935-CD1-U

CANDELA DISTRIBUTION (continued):

	189°	190°	191°	192°	193°	194°	195°	196°	197°	198°	199°
0°	5116.3	5116.3	5116.3	5116.3	5116.3	5116.3	5116.3	5116.3	5116.3	5116.3	5116.3
2.5°	5156.2	5156.2	5153.2	5156.2	5157.8	5154.7	5154.7	5157.8	5159.3	5160.9	5168.5
5°	5163.9	5167.0	5171.6	5180.8	5182.4	5200.8	5208.5	5213.1	5217.7	5219.2	5208.5
7.5°	5180.8	5191.6	5200.8	5199.2	5188.5	5159.3	5150.1	5142.4	5156.2	5191.6	5233.0
10°	5196.2	5147.0	5054.9	5180.8	5142.4	5177.7	5282.2	5305.2	5375.8	5475.6	5504.8
12.5°	5090.2	5225.3	5254.5	5113.3	5374.3	5277.6	5392.7	5494.1	5523.2	5624.6	5563.2
15°	5203.8	5269.9	5314.4	5455.7	5440.3	5523.2	5555.5	5535.5	5540.1	5566.2	5635.3
17.5°	5202.3	5334.4	5363.5	5458.7	5523.2	5524.8	5515.6	5506.3	5530.9	5550.9	5509.4
20°	5291.4	5334.4	5391.2	5429.6	5441.9	5457.2	5486.4	5463.3	5417.3	5372.8	5354.3
22.5°	5246.8	5343.6	5392.7	5398.9	5391.2	5343.6	5300.6	5236.1	5214.6	5191.6	5199.2
25°	5256.1	5300.6	5294.4	5269.9	5237.6	5148.6	5127.1	5099.4	5058.0	4958.2	4867.6
27.5°	5190.0	5167.0	5139.4	5079.5	5021.1	4973.5	4919.8	4830.7	4757.0	4649.5	4609.6
30°	5079.5	4987.3	4919.8	4884.5	4827.6	4747.8	4666.4	4557.4	4463.7	4442.2	4422.3
32.5°	4867.6	4777.0	4721.7	4635.7	4539.0	4443.8	4350.1	4307.1	4287.1	4290.2	4271.8
35°	4651.1	4571.2	4488.3	4359.3	4287.1	4191.9	4158.2	4149.0	4130.5	4110.6	4089.1
37.5°	4420.7	4327.1	4202.7	4125.9	4053.8	4015.4	3998.5	3984.7	3952.4	3917.1	3892.5
40°	4198.1	4029.2	3960.1	3884.8	3863.3	3846.5	3821.9	3788.1	3743.6	3737.4	3726.7
42.5°	3900.2	3778.9	3719.0	3703.7	3677.5	3648.4	3626.9	3590.0	3571.6	3583.9	3593.1
45°	3617.7	3556.2	3536.3	3517.9	3468.7	3427.3	3413.4	3401.2	3416.5	3484.1	3322.8
47.5°	3388.9	3364.3	3339.7	3309.0	3263.0	3232.3	3246.1	3258.4	3272.2	2776.2	2533.6
50°	3190.8	3157.0	3118.6	3084.8	3057.2	3054.1	3126.3	2909.8	2436.9	2424.6	2178.9
52.5°	2974.3	2923.6	2900.6	2880.6	2892.9	2939.0	2432.3	2257.2	2165.1	1881.0	1755.1
55°	2740.9	2696.4	2696.4	2714.8	2648.8	2146.6	2120.5	1833.4	1659.9	1610.8	1590.8
57.5°	2507.5	2502.9	2529.0	2312.5	1948.6	1868.7	1570.8	1507.9	1480.2	1474.1	1441.8
60°	2294.1	2337.0	1956.2	1799.6	1564.7	1411.1	1368.1	1360.5	1331.3	1320.5	1291.4
62.5°	2123.6	1761.2	1639.9	1339.0	1260.7	1240.7	1217.7	1206.9	1180.8	1042.6	305.6
65°	1534.0	1449.5	1176.2	1125.5	1119.4	1090.2	1081.0	972.0	228.8	153.6	130.5
67.5°	1157.8	1027.3	991.9	982.7	953.6	895.2	265.6	152.0	130.5	113.6	99.8
70°	889.1	866.0	839.9	818.4	241.1	150.5	130.5	110.6	95.2	84.5	76.8
72.5°	727.8	712.5	414.6	158.2	129.0	109.0	96.7	84.5	73.7	67.6	61.4
75°	569.7	158.2	130.5	109.0	93.7	79.8	70.6	63.0	56.8	52.2	47.6
77.5°	129.0	104.4	89.1	75.2	67.6	59.9	53.7	46.1	41.5	36.9	30.7
80°	79.8	69.1	58.3	53.7	46.1	38.4	33.8	30.7	24.6	23.0	20.0
82.5°	52.2	41.5	36.9	30.7	24.6	23.0	20.0	15.4	13.8	12.3	10.7
85°	23.0	20.0	16.9	13.8	10.7	9.2	7.7	6.1	6.1	6.1	6.1
87.5°	7.7	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	3.1	3.1
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: P1213542

CATALOG NUMBER: 4SNLED-LD5-87HL-RM-UNV-L935-CD1-U

CANDELA DISTRIBUTION (continued):

	200°	205°	210°	215°	220°	225°	230°	235°	240°	245°	250°
0°	5116.3	5116.3	5116.3	5116.3	5116.3	5116.3	5116.3	5116.3	5116.3	5116.3	5116.3
2.5°	5171.6	5199.2	5225.3	5217.7	5190.0	5147.0	5134.8	5117.9	5130.1	5156.2	5167.0
5°	5208.5	5193.1	5248.4	5329.8	5461.8	5474.1	5566.2	5587.7	5661.4	5707.5	5706.0
7.5°	5260.7	5478.7	5569.3	5667.6	5712.1	5701.4	5715.2	5704.4	5687.5	5679.9	5670.6
10°	5526.3	5692.1	5725.9	5725.9	5656.8	5563.2	5523.2	5454.1	5315.9	5319.0	5296.0
12.5°	5681.4	5739.7	5659.9	5592.3	5314.4	5206.9	5090.2	5034.9	5002.7	4953.6	4972.0
15°	5600.0	5517.1	5469.5	5251.4	5081.0	4887.5	4890.6	4856.8	4821.5	4824.6	4801.5
17.5°	5480.2	5414.2	5076.4	4925.9	4843.0	4767.8	4753.9	4709.4	4686.4	4678.7	4677.2
20°	5315.9	5077.9	4826.1	4789.3	4689.5	4603.5	4589.6	4603.5	4674.1	4548.2	4121.3
22.5°	5124.0	4781.6	4707.9	4603.5	4535.9	4502.1	4586.6	4202.7	3622.3	3692.9	3617.7
25°	4798.5	4649.5	4523.6	4443.8	4436.1	4228.8	3524.0	3450.3	3077.2	2877.5	2653.4
27.5°	4560.5	4496.0	4363.9	4350.1	4250.3	3458.0	3091.0	2685.6	2536.7	2513.6	2464.5
30°	4416.1	4324.0	4244.2	3895.6	3391.9	2783.9	2479.9	2423.0	2396.9	2369.3	2326.3
32.5°	4242.6	4155.1	4193.5	3275.2	2704.0	2396.9	2335.5	2294.1	2246.5	2228.0	2072.9
35°	4066.0	4026.1	3276.8	2753.2	2324.8	2251.1	2205.0	2162.0	1719.8	416.1	141.3
37.5°	3877.2	3868.0	2945.1	2284.8	2177.4	2108.3	1977.7	408.4	96.7	66.0	49.1
40°	3729.8	2946.6	2327.8	2142.0	2054.5	1945.5	273.3	67.6	43.0	26.1	16.9
42.5°	3631.5	2650.3	2083.7	2010.0	1819.6	201.2	69.1	29.2	16.9	13.8	10.7
45°	2799.2	2092.9	1947.0	1870.3	230.3	69.1	39.9	13.8	10.7	9.2	6.1
47.5°	2582.7	1901.0	1815.0	408.4	76.8	36.9	27.6	9.2	6.1	6.1	6.1
50°	1956.2	1756.6	1444.9	99.8	49.1	26.1	20.0	6.1	6.1	6.1	4.6
52.5°	1715.2	1621.5	155.1	66.0	38.4	20.0	12.3	4.6	4.6	4.6	4.6
55°	1567.8	1028.8	92.1	50.7	32.2	18.4	7.7	4.6	4.6	4.6	3.1
57.5°	1434.2	138.2	67.6	43.0	29.2	16.9	4.6	4.6	4.6	4.6	3.1
60°	1216.1	99.8	55.3	38.4	27.6	15.4	4.6	4.6	4.6	4.6	4.6
62.5°	158.2	78.3	47.6	33.8	20.0	12.3	3.1	4.6	4.6	4.6	4.6
65°	115.2	61.4	43.0	23.0	12.3	4.6	3.1	4.6	4.6	4.6	4.6
67.5°	89.1	50.7	32.2	20.0	10.7	3.1	3.1	4.6	4.6	4.6	4.6
70°	70.6	43.0	26.1	16.9	9.2	3.1	3.1	4.6	4.6	4.6	4.6
72.5°	55.3	30.7	18.4	9.2	6.1	3.1	3.1	4.6	4.6	4.6	4.6
75°	41.5	24.6	13.8	7.7	3.1	3.1	3.1	4.6	4.6	4.6	4.6
77.5°	27.6	15.4	10.7	6.1	6.1	6.1	7.7	7.7	4.6	4.6	4.6
80°	18.4	10.7	7.7	7.7	7.7	6.1	7.7	7.7	4.6	7.7	4.6
82.5°	9.2	7.7	7.7	6.1	6.1	4.6	6.1	6.1	6.1	6.1	4.6
85°	6.1	4.6	4.6	4.6	4.6	4.6	4.6	4.6	6.1	6.1	4.6
87.5°	3.1	3.1	3.1	3.1	4.6	4.6	4.6	4.6	6.1	6.1	4.6
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: P1213542

CATALOG NUMBER: 4SNLED-LD5-87HL-RM-UNV-L935-CD1-U

CANDELA DISTRIBUTION (continued):

	255°	260°	265°	270°	275°	280°	285°	290°	295°	300°	305°
0°	5116.3	5116.3	5116.3	5116.3	5116.3	5116.3	5116.3	5116.3	5116.3	5116.3	5116.3
2.5°	5153.2	5157.8	5145.5	5211.5	5177.7	5180.8	5194.6	5159.3	5167.0	5142.4	5125.5
5°	5712.1	5721.3	5730.5	5733.6	5739.7	5747.4	5738.2	5733.6	5724.4	5693.7	5661.4
7.5°	5624.6	5613.8	5609.2	5615.4	5626.1	5630.7	5623.0	5633.8	5673.7	5690.6	5701.4
10°	5163.9	5114.8	5148.6	5144.0	5105.6	5234.6	5199.2	5219.2	5233.0	5374.3	5460.3
12.5°	4944.3	4975.1	4916.7	4887.5	4925.9	4952.0	4978.1	4922.8	4999.6	4964.3	5077.9
15°	4760.1	4741.7	4735.5	4737.1	4729.4	4766.2	4775.4	4787.7	4798.5	4846.1	4864.5
17.5°	4677.2	4707.9	4720.2	4729.4	4714.0	4697.1	4680.2	4655.7	4663.3	4651.1	4686.4
20°	3834.2	3731.3	3725.2	3785.0	3719.0	3755.9	3844.9	4440.7	4420.7	4652.6	4574.3
22.5°	3200.0	3103.3	3020.4	2948.2	3051.1	3094.1	3259.9	3447.2	3751.3	3703.7	4033.8
25°	2613.4	2578.1	2556.6	2545.9	2553.6	2550.5	2587.3	2674.9	2813.1	3138.6	3559.3
27.5°	2444.5	2427.6	2420.0	2395.4	2413.8	2407.7	2436.9	2455.3	2496.7	2529.0	2665.6
30°	2310.9	2291.0	2277.2	2251.1	2269.5	2271.0	2280.2	2327.8	2344.7	2372.4	2415.4
32.5°	844.5	497.5	466.8	443.8	485.2	632.6	1110.2	1940.9	2214.2	2235.7	2284.8
35°	82.9	69.1	61.4	61.4	63.0	69.1	92.1	242.6	443.8	1715.2	2146.6
37.5°	32.2	27.6	23.0	21.5	23.0	26.1	35.3	46.1	63.0	130.5	582.0
40°	13.8	12.3	10.7	10.7	10.7	10.7	12.3	15.4	23.0	43.0	67.6
42.5°	9.2	7.7	7.7	7.7	7.7	7.7	7.7	7.7	10.7	13.8	27.6
45°	6.1	4.6	4.6	4.6	4.6	4.6	4.6	4.6	6.1	7.7	12.3
47.5°	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	6.1
50°	4.6	4.6	4.6	4.6	3.1	4.6	3.1	4.6	4.6	4.6	4.6
52.5°	4.6	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	4.6	4.6
55°	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	4.6
57.5°	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1
60°	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1
62.5°	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	4.6	4.6	3.1
65°	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	4.6	3.1
67.5°	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1
70°	4.6	4.6	3.1	4.6	3.1	3.1	4.6	4.6	4.6	3.1	3.1
72.5°	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	9.2	9.2	6.1
75°	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	7.7	9.2	7.7
77.5°	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	7.7	7.7	7.7
80°	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	6.1	6.1	6.1
82.5°	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	6.1	6.1	6.1
85°	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6
87.5°	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6
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: P1213542

CATALOG NUMBER: 4SNLED-LD5-87HL-RM-UNV-L935-CD1-U

CANDELA DISTRIBUTION (continued):

	310°	315°	320°	325°	330°	335°	340°	341°	342°	343°	344°
0°	5116.3	5116.3	5116.3	5116.3	5116.3	5116.3	5116.3	5116.3	5116.3	5116.3	5116.3
2.5°	5096.4	5094.8	5127.1	5151.6	5142.4	5151.6	5162.4	5163.9	5167.0	5154.7	5150.1
5°	5600.0	5552.4	5460.3	5394.3	5317.5	5177.7	5108.6	5116.3	5117.9	5113.3	5119.4
7.5°	5696.7	5692.1	5659.9	5646.1	5593.9	5494.1	5334.4	5306.7	5239.2	5196.2	5160.9
10°	5454.1	5564.7	5593.9	5643.0	5673.7	5655.3	5520.2	5500.2	5457.2	5408.1	5418.8
12.5°	5191.6	5282.2	5286.8	5553.9	5613.8	5620.0	5567.8	5595.4	5601.5	5491.0	5426.5
15°	4869.1	4912.1	5002.7	5251.4	5432.6	5546.3	5580.0	5595.4	5520.2	5515.6	5489.5
17.5°	4727.8	4755.5	4796.9	4936.7	5211.5	5378.9	5521.7	5511.0	5540.1	5518.6	5452.6
20°	4549.7	4572.8	4646.5	4717.1	4852.2	5074.9	5342.0	5362.0	5400.4	5395.8	5414.2
22.5°	4546.6	4465.3	4477.6	4532.8	4674.1	4873.7	5157.8	5223.8	5248.4	5265.3	5285.2
25°	3606.9	4253.4	4371.6	4406.9	4499.0	4615.7	4950.5	4975.1	5021.1	5096.4	5151.6
27.5°	3124.8	3563.9	4036.9	4282.5	4340.9	4437.6	4637.2	4674.1	4830.7	4849.1	4935.1
30°	2466.0	2805.4	3511.7	4102.9	4199.6	4267.2	4408.5	4482.2	4549.7	4623.4	4714.0
32.5°	2320.2	2373.9	2765.5	3395.0	4147.4	4096.7	4201.2	4245.7	4319.4	4383.9	4449.9
35°	2186.6	2223.4	2306.3	2780.8	3378.1	3957.0	4027.6	4056.8	4098.3	4147.4	4195.0
37.5°	2046.8	2102.1	2158.9	2286.4	3124.8	3846.5	3844.9	3878.7	3903.3	3944.7	3984.7
40°	371.6	1930.1	2022.3	2105.2	2423.0	3068.0	3672.9	3688.3	3705.2	3731.3	3772.8
42.5°	59.9	322.5	1894.8	1974.7	2065.3	2747.0	3594.6	3531.7	3520.9	3539.4	3576.2
45°	30.7	78.3	380.8	1844.1	1925.5	2191.2	2939.0	3422.7	3411.9	3376.6	3384.3
47.5°	23.0	49.1	93.7	637.2	1802.7	1881.0	2711.7	2682.5	2886.8	3278.3	3218.4
50°	20.0	33.8	55.3	130.5	1592.3	1732.1	2088.3	2439.9	2547.4	2561.2	3031.1
52.5°	18.4	23.0	39.9	84.5	334.7	1601.5	1698.3	1821.1	2002.3	2390.8	2381.6
55°	16.9	21.5	33.8	56.8	116.7	1443.4	1543.2	1566.2	1604.6	1790.4	2036.1
57.5°	9.2	20.0	32.2	49.1	87.5	264.1	1400.4	1418.8	1449.5	1457.2	1544.7
60°	4.6	18.4	29.2	43.0	64.5	122.8	1259.1	1280.6	1299.0	1302.1	1329.8
62.5°	3.1	16.9	24.6	39.9	53.7	87.5	297.9	608.1	1156.2	1156.2	1188.5
65°	3.1	12.3	15.4	26.1	49.1	72.2	125.9	145.9	284.1	698.7	1042.6
67.5°	3.1	4.6	13.8	21.5	36.9	55.3	92.1	107.5	129.0	147.4	273.3
70°	3.1	3.1	12.3	13.8	23.0	41.5	66.0	75.2	87.5	99.8	115.2
72.5°	3.1	3.1	10.7	10.7	15.4	27.6	50.7	55.3	63.0	70.6	81.4
75°	7.7	6.1	9.2	9.2	10.7	21.5	38.4	43.0	46.1	52.2	59.9
77.5°	7.7	7.7	7.7	7.7	7.7	13.8	24.6	27.6	32.2	35.3	41.5
80°	6.1	6.1	6.1	7.7	7.7	9.2	15.4	16.9	18.4	23.0	24.6
82.5°	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1	9.2	10.7	13.8
85°	4.6	4.6	4.6	4.6	4.6	4.6	4.6	6.1	6.1	6.1	6.1
87.5°	4.6	4.6	4.6	3.1	3.1	4.6	4.6	4.6	4.6	4.6	4.6
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: P1213542

CATALOG NUMBER: 4SNLED-LD5-87HL-RM-UNV-L935-CD1-U

CANDELA DISTRIBUTION (continued):

	345°	346°	347°	348°	349°	350°	351°	352°	353°	354°	355°
0°	5116.3	5116.3	5116.3	5116.3	5116.3	5116.3	5116.3	5116.3	5116.3	5116.3	5116.3
2.5°	5148.6	5139.4	5131.7	5136.3	5122.5	5116.3	5120.9	5122.5	5125.5	5133.2	5134.8
5°	5134.8	5131.7	5145.5	5153.2	5150.1	5153.2	5153.2	5147.0	5137.8	5144.0	5130.1
7.5°	5125.5	5105.6	5090.2	5093.3	5077.9	5096.4	5113.3	5137.8	5145.5	5145.5	5130.1
10°	5283.7	5262.2	5176.2	5117.9	5079.5	5045.7	5125.5	5044.2	5082.5	4936.7	5104.0
12.5°	5414.2	5443.4	5405.0	5245.3	5217.7	5116.3	5174.7	5074.9	5045.7	4878.3	4932.1
15°	5466.4	5411.1	5398.9	5354.3	5294.4	5265.3	5108.6	5091.8	5044.2	5062.6	4991.9
17.5°	5420.4	5448.0	5411.1	5382.0	5320.5	5251.4	5157.8	5074.9	5008.8	4861.4	4985.8
20°	5375.8	5412.7	5302.1	5320.5	5326.7	5246.8	5197.7	5128.6	5045.7	4907.5	4800.0
22.5°	5302.1	5276.0	5285.2	5257.6	5234.6	5245.3	5177.7	5130.1	4990.4	4927.5	4781.6
25°	5182.4	5173.1	5197.7	5194.6	5139.4	5120.9	5087.1	5036.5	4981.2	4879.9	4760.1
27.5°	4987.3	5034.9	5077.9	5097.9	5068.7	5019.6	5001.2	4972.0	4933.6	4830.7	4741.7
30°	4781.6	4835.3	4884.5	4927.5	4953.6	4932.1	4915.2	4898.3	4839.9	4772.4	4672.6
32.5°	4546.6	4617.3	4684.8	4737.1	4793.9	4810.8	4798.5	4784.7	4735.5	4674.1	4594.3
35°	4274.9	4371.6	4469.9	4563.5	4588.1	4628.0	4668.0	4644.9	4618.8	4557.4	4483.7
37.5°	4044.5	4113.6	4184.3	4302.5	4388.5	4439.2	4509.8	4519.0	4474.5	4445.3	4348.6
40°	3806.5	3869.5	3972.4	4041.5	4159.7	4218.0	4293.3	4327.1	4316.3	4299.4	4215.0
42.5°	3619.2	3649.9	3717.5	3778.9	3895.6	4015.4	4081.4	4118.2	4156.6	4142.8	4099.8
45°	3419.6	3447.2	3470.3	3524.0	3637.6	3743.6	3825.0	3880.2	3949.3	3981.6	3929.4
47.5°	3221.5	3229.2	3256.8	3301.3	3368.9	3450.3	3587.0	3669.9	3734.4	3797.3	3763.5
50°	3069.5	3041.8	3046.5	3074.1	3129.4	3209.2	3307.5	3424.2	3497.9	3574.7	3582.3
52.5°	2682.5	2906.7	2853.0	2868.3	2897.5	2935.9	3038.8	3153.9	3244.5	3310.6	3376.6
55°	2251.1	2295.6	2727.1	2665.6	2684.1	2717.9	2765.5	2880.6	2968.1	3060.3	3152.4
57.5°	1745.9	2077.5	2094.4	2493.7	2484.5	2487.5	2527.5	2593.5	2681.0	2796.2	2874.5
60°	1357.4	1497.1	1768.9	1907.1	2257.2	2269.5	2292.5	2330.9	2406.1	2515.2	2639.5
62.5°	1197.7	1216.1	1312.9	1520.2	1747.4	2022.3	2071.4	2077.5	2111.3	2220.3	2364.7
65°	1051.8	1064.1	1093.3	1114.8	1305.2	1570.8	1807.3	1845.7	1867.2	1931.7	2054.5
67.5°	724.8	916.7	942.8	958.2	976.6	1099.4	1392.7	1587.7	1612.3	1669.1	1776.6
70°	139.7	290.2	793.9	810.8	820.0	847.6	895.2	1205.4	1368.1	1421.9	1471.0
72.5°	95.2	112.1	135.1	319.4	675.6	691.0	701.7	741.7	1016.5	1173.1	1199.2
75°	69.1	76.8	90.6	112.1	138.2	449.9	557.4	577.4	597.3	824.6	956.6
77.5°	49.1	55.3	61.4	72.2	84.5	109.0	156.6	431.5	451.4	462.2	652.6
80°	27.6	33.8	41.5	47.6	53.7	61.4	79.8	99.8	222.6	325.5	342.4
82.5°	15.4	18.4	21.5	26.1	29.2	36.9	44.5	53.7	70.6	104.4	221.1
85°	7.7	7.7	7.7	10.7	12.3	16.9	20.0	23.0	32.2	44.5	61.4
87.5°	4.6	4.6	6.1	6.1	6.1	7.7	7.7	7.7	9.2	13.8	20.0
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: P1213542

CATALOG NUMBER: 4SNLED-LD5-87HL-RM-UNV-L935-CD1-U

CANDELA DISTRIBUTION (continued):

	356°	357°	358°	359°	360°
0°	5116.3	5116.3	5116.3	5116.3	5116.3
2.5°	5136.3	5131.7	5131.7	5150.1	5145.5
5°	5127.1	5122.5	5120.9	5140.9	5131.7
7.5°	5119.4	5102.5	5097.9	5116.3	5108.6
10°	5088.7	5076.4	5084.1	5077.9	5074.9
12.5°	5036.5	5028.8	4996.6	4999.6	5025.7
15°	4942.8	4973.5	4918.2	4967.4	4978.1
17.5°	4770.8	4839.9	4893.7	4922.8	4927.5
20°	4847.6	4870.6	4843.0	4844.5	4863.0
22.5°	4747.8	4758.5	4766.2	4757.0	4796.9
25°	4588.1	4546.6	4635.7	4654.1	4718.6
27.5°	4539.0	4505.2	4546.6	4543.6	4597.3
30°	4499.0	4390.0	4408.5	4437.6	4503.7
32.5°	4442.2	4270.3	4251.8	4316.3	4390.0
35°	4342.4	4179.7	4136.7	4178.1	4288.7
37.5°	4258.0	4053.8	3967.8	4023.0	4167.4
40°	4132.1	3955.5	3821.9	3871.0	4041.5
42.5°	3981.6	3871.0	3665.3	3699.0	3894.1
45°	3829.6	3731.3	3513.3	3530.1	3762.0
47.5°	3674.5	3583.9	3355.1	3358.2	3593.1
50°	3522.5	3402.7	3213.8	3160.1	3413.4
52.5°	3324.4	3213.8	3071.0	2983.5	3243.0
55°	3137.0	3012.7	2908.3	2773.1	3049.5
57.5°	2954.3	2816.1	2745.5	2572.0	2829.9
60°	2704.0	2638.0	2533.6	2367.8	2631.9
62.5°	2447.6	2426.1	2320.2	2148.2	2387.7
65°	2148.2	2198.9	2089.8	1942.4	2134.4
67.5°	1865.6	1956.2	1836.5	1745.9	1890.2
70°	1564.7	1669.1	1601.5	1569.3	1630.7
72.5°	1268.3	1369.7	1375.8	1352.8	1372.7
75°	979.7	1091.7	1153.2	1117.9	1122.5
77.5°	743.2	796.9	864.5	892.1	886.0
80°	459.1	552.8	608.1	664.9	644.9
82.5°	231.9	310.2	377.7	439.2	410.0
85°	96.7	124.4	173.5	228.8	219.6
87.5°	29.2	49.1	52.2	73.7	69.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)