

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State
Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: METALUX

Report Number: P#

Luminaire Tested: **8SNLED-LD5-109SL-RM-UNV-L930-CD1-U**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P#
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P33524)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 8SNLED-LD5-109SL-RM-UNV-L930-CD1-U
Description: 8FT LINEAR SNLED LED FIXTURE
METALIC FINISH REFLECTOR
Light Source: -
Ballast/Driver: -

Summary

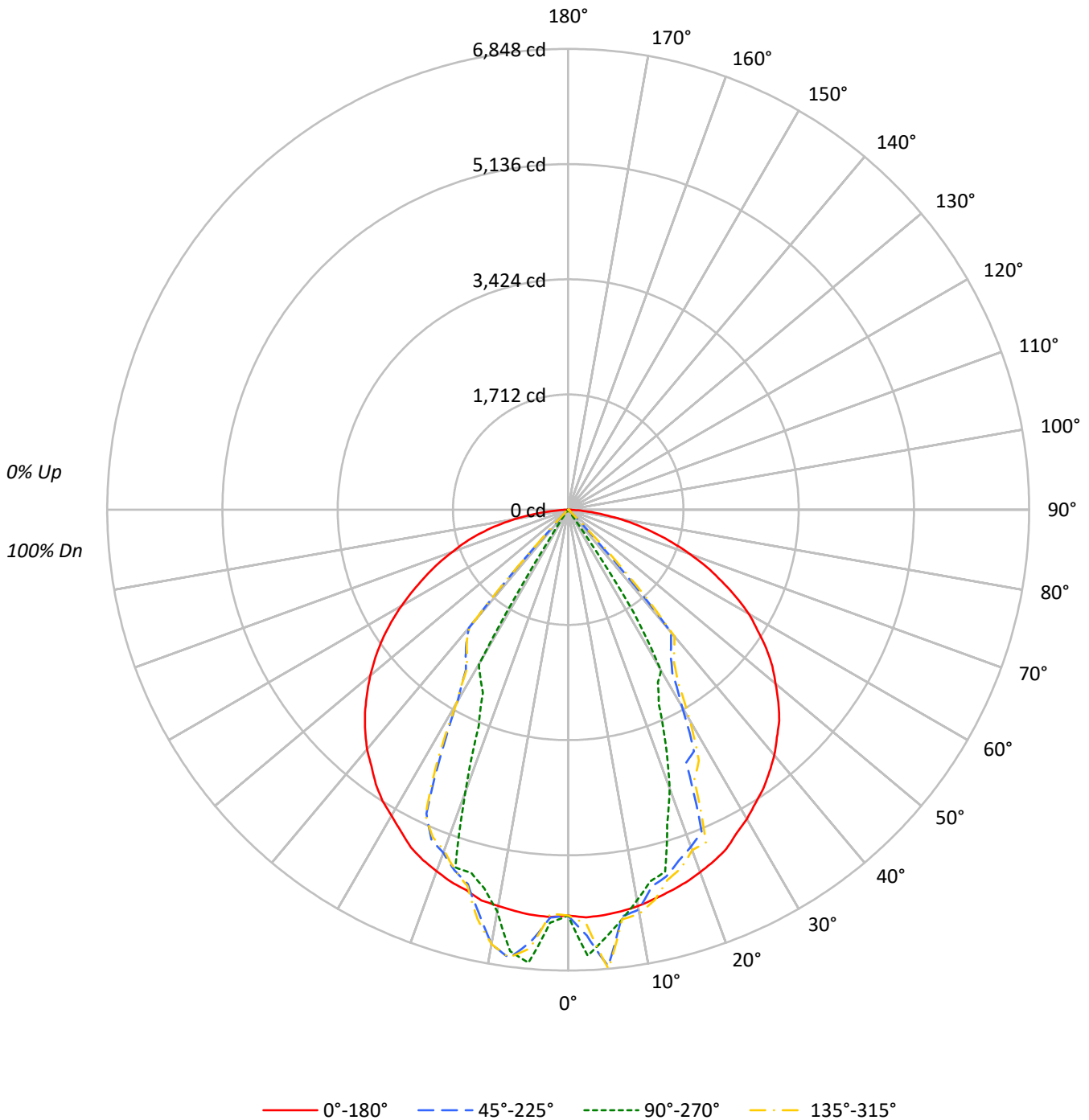
Lumens per Lamp: N/A
Luminaire Lumens: 8573.9 lumens
Efficiency: N/A
Efficacy: 104.6 lumens/watt
Spacing Criteria (0/90/45): 1.3 / 0.81 / 0.97
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 8' x H: 0.12')
CIE Type: Direct

Input Watts (W): 82
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: 25 FT



TEST NUMBER: P#
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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°	24364	24364	24364	24364
5°	24497	25058	24490	26536
10°	24472	22674	24457	23329
15°	24440	21164	24379	21219
20°	24504	16670	24435	16875
25°	24614	12064	24493	11384
30°	24543	10583	24283	10173
35°	24662	233	24300	283
40°	24798	51	24204	51
45°	24945	30	24008	22
50°	24825	23	23686	23
55°	24765	17	23244	17
60°	24405	18	22497	18
65°	23270	29	21612	19
70°	21770	31	20725	31
75°	19514	35	19834	35
80°	16247	40	17174	40
85°	10180	47	10392	47



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	605.0	7.1
10°-20°	1650.1	19.2
20°-30°	2099.8	24.5
30°-40°	1773.7	20.7
40°-50°	1159.6	13.5
50°-60°	730.6	8.5
60°-70°	388.9	4.5
70°-80°	141.8	1.7
80°-90°	24.4	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°	4354.8	50.8
0°-40°	6128.6	71.5
0°-60°	8018.8	93.5
0°-90°	8573.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8573.9	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	6030	6030	6030	6030	6030	
5°	6048	6381	6046	6757	6048	575
15°	5867	5568	5852	5583	5867	1659
25°	5561	3180	5534	3000	5561	2557
35°	5054	60	4980	72	5054	3162
45°	4434	7	4267	5	4434	3410
55°	3594	4	3373	4	3594	3202
65°	2516	5	2336	4	2516	2491
75°	1323	5	1345	5	1323	1404
85°	259	5	264	5	259	327
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°	6029.9	6029.9	6029.9	6029.9	6029.9	6029.9	6029.9	6029.9	6029.9	6029.9	6029.9
2.5°	6064.3	6067.9	6069.7	6073.3	6078.7	6080.5	6084.2	6080.5	6080.5	6080.5	6080.5
5°	6048.0	6055.2	6060.6	6067.9	6080.5	6082.4	6096.8	6098.6	6105.9	6120.4	6131.2
7.5°	6020.8	6028.1	6038.9	6057.0	6075.1	6095.0	6120.4	6147.5	6185.5	6221.7	6266.9
10°	5981.0	5990.1	6002.7	6019.0	6107.7	6120.4	6176.5	6254.3	6276.0	6390.0	6475.1
12.5°	5923.1	5953.9	5986.4	6000.9	6086.0	6219.9	6408.1	6370.1	6328.5	6701.3	6695.8
15°	5867.0	5908.6	5892.3	6010.0	6087.8	6321.2	6241.6	6411.7	6723.0	6647.0	6650.6
17.5°	5807.3	5816.3	5906.8	6004.5	6143.9	6263.3	6361.1	6594.5	6656.0	6661.5	6594.5
20°	5731.3	5774.7	5906.8	5995.5	6230.8	6286.9	6498.6	6618.0	6592.7	6531.2	6417.2
22.5°	5653.5	5785.6	5919.5	6044.4	6209.0	6359.2	6464.2	6520.3	6388.2	6145.7	6015.4
25°	5561.2	5639.0	5814.5	5997.3	6203.6	6290.5	6352.0	6261.5	6089.6	5872.4	5653.5
27.5°	5418.2	5543.1	5767.5	5973.8	6160.2	6265.1	6165.6	5948.4	5671.6	5528.6	5429.1
30°	5307.8	5470.7	5655.3	5854.3	6048.0	6109.5	5856.1	5608.2	5418.2	5275.2	5253.5
32.5°	5173.9	5405.5	5581.1	5771.1	5934.0	5852.5	5606.4	5286.1	5128.7	5074.4	5096.1
35°	5054.5	5230.0	5459.8	5646.2	5763.9	5581.1	5192.0	4992.9	4916.9	4947.7	4907.9
37.5°	4911.5	5143.1	5354.9	5515.9	5476.1	5201.0	4871.7	4745.0	4754.0	4728.7	4652.7
40°	4763.1	4983.9	5204.7	5356.7	5217.3	4797.5	4578.5	4551.4	4556.8	4475.4	4366.8
42.5°	4589.4	4790.2	5011.0	5148.6	4848.2	4520.6	4372.2	4375.8	4328.8	4214.8	4156.9
45°	4433.7	4618.3	4848.2	4860.8	4491.6	4218.4	4174.9	4127.9	4022.9	3984.9	3941.5
47.5°	4234.7	4439.2	4629.2	4560.4	4142.4	3972.3	3939.7	3836.5	3784.1	3755.1	3718.9
50°	4022.9	4229.2	4403.0	4207.5	3813.0	3773.2	3666.4	3585.0	3548.8	3518.0	3485.5
52.5°	3822.1	3992.2	4169.5	3832.9	3559.7	3521.7	3400.4	3353.4	3317.2	3282.8	3275.5
55°	3594.0	3744.2	3865.5	3476.4	3317.2	3228.5	3141.6	3109.0	3074.7	3058.4	3085.5
57.5°	3335.3	3505.4	3487.3	3125.3	3054.8	2926.3	2893.7	2872.0	2846.6	2857.5	2631.3
60°	3101.8	3232.1	3143.4	2868.4	2748.9	2662.1	2633.1	2618.6	2633.1	2412.3	2121.0
62.5°	2814.1	2960.6	2781.5	2567.9	2441.3	2399.6	2374.3	2394.2	2182.5	1940.0	1869.4
65°	2515.5	2674.7	2410.5	2245.8	2166.2	2130.0	2128.2	1959.9	1751.8	1657.7	1657.7
67.5°	2227.7	2392.4	2052.2	1914.6	1883.9	1887.5	1782.5	1527.4	1469.5	1406.1	1223.3
70°	1921.9	2066.7	1695.7	1612.4	1594.3	1581.7	1326.5	1257.7	1189.0	1020.7	1006.2
72.5°	1617.9	1688.4	1362.7	1342.8	1339.2	1113.0	1062.3	944.7	865.0	845.1	836.1
75°	1322.9	1301.2	1076.8	1094.9	922.9	843.3	761.9	693.1	682.3	675.0	168.3
77.5°	1044.2	935.6	848.7	738.4	660.5	561.0	544.7	533.9	351.1	126.7	103.2
80°	760.1	606.2	564.6	479.6	409.0	392.7	401.8	123.1	97.7	81.4	70.6
82.5°	483.2	387.3	316.7	276.9	269.6	117.6	86.9	70.6	61.5	52.5	43.4
85°	258.8	171.9	159.3	133.9	79.6	54.3	45.2	34.4	29.0	23.5	21.7
87.5°	81.4	68.8	56.1	45.2	27.1	18.1	14.5	12.7	10.9	9.0	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



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CANDELA DISTRIBUTION (continued):

	11°	12°	13°	14°	15°	16°	17°	18°	19°	20°	25°
0°	6029.9	6029.9	6029.9	6029.9	6029.9	6029.9	6029.9	6029.9	6029.9	6029.9	6029.9
2.5°	6076.9	6080.5	6078.7	6084.2	6084.2	6091.4	6096.8	6102.3	6113.1	6118.6	6160.2
5°	6154.7	6163.8	6190.9	6216.3	6247.0	6256.1	6308.6	6321.2	6382.8	6390.0	6592.7
7.5°	6328.5	6362.9	6428.0	6493.2	6558.3	6599.9	6672.3	6717.6	6766.4	6809.9	6970.9
10°	6538.4	6596.3	6659.6	6724.8	6762.8	6842.4	6885.9	6893.1	6880.4	6809.9	6549.3
12.5°	6744.7	6802.6	6775.5	6788.1	6833.4	6692.2	6712.1	6610.8	6681.4	6332.1	6073.3
15°	6715.7	6712.1	6645.2	6428.0	6464.2	6194.6	6086.0	6002.7	6069.7	6033.5	5993.7
17.5°	6628.9	6464.2	6348.4	6087.8	5977.4	5901.4	5903.2	5905.0	5872.4	5906.8	5805.5
20°	6261.5	6076.9	5905.0	5812.7	5780.1	5725.9	5753.0	5725.9	5727.7	5738.5	5582.9
22.5°	5772.9	5716.8	5617.3	5646.2	5635.4	5684.2	5648.0	5591.9	5610.0	5528.6	5411.0
25°	5575.6	5510.5	5506.9	5517.7	5501.4	5479.7	5447.2	5362.1	5356.7	5331.3	5277.0
27.5°	5376.6	5380.2	5391.1	5358.5	5300.6	5257.1	5208.3	5166.7	5182.9	5154.0	5079.8
30°	5239.0	5237.2	5172.1	5143.1	5036.4	5038.2	5025.5	5000.2	4983.9	4985.7	4938.6
32.5°	5043.6	4987.5	4913.3	4877.1	4868.1	4835.5	4810.1	4815.6	4828.2	4783.0	4831.9
35°	4842.7	4726.9	4716.0	4685.3	4656.3	4634.6	4643.7	4607.5	4605.7	4600.2	4202.1
37.5°	4573.1	4517.0	4511.6	4479.0	4459.1	4453.6	4419.3	4424.7	4441.0	4469.9	3583.2
40°	4350.5	4299.8	4287.1	4285.3	4241.9	4238.3	4247.3	4281.7	4305.2	4124.3	3414.9
42.5°	4111.6	4115.2	4075.4	4050.1	4055.5	4071.8	4115.2	3995.8	3461.9	3299.1	3121.7
45°	3907.1	3889.0	3867.3	3860.1	3907.1	3874.5	3396.8	3134.4	3071.0	3063.8	2566.1
47.5°	3693.6	3688.1	3679.1	3684.5	3416.7	3045.7	2937.1	2902.7	2913.6	2906.4	2204.2
50°	3478.2	3485.5	3485.5	3043.9	2794.2	2732.6	2741.7	2772.4	2580.6	2408.7	2054.0
52.5°	3291.8	3235.7	2772.4	2613.2	2557.1	2584.2	2519.1	2278.4	2104.7	2003.3	1900.2
55°	2946.2	2533.6	2430.4	2405.1	2425.0	2184.3	2035.9	1880.3	1835.0	1824.2	1764.4
57.5°	2318.2	2235.0	2244.0	2142.7	1912.8	1777.1	1717.4	1695.7	1675.8	1661.3	144.8
60°	2050.4	2073.9	1898.4	1681.2	1588.9	1570.8	1556.3	1536.4	1532.8	1507.5	92.3
62.5°	1876.6	1650.4	1498.4	1444.1	1422.4	1417.0	1389.8	1380.8	1172.7	161.1	68.8
65°	1415.2	1322.9	1293.9	1281.3	1257.7	1257.7	1044.2	164.7	133.9	115.8	61.5
67.5°	1154.6	1147.3	1132.9	1116.6	760.1	159.3	139.3	121.2	105.0	92.3	54.3
70°	977.2	973.6	886.7	162.9	135.7	119.4	105.0	94.1	86.9	77.8	48.9
72.5°	801.7	162.9	137.5	119.4	103.2	94.1	85.1	76.0	68.8	63.3	39.8
75°	124.9	110.4	97.7	88.7	81.4	72.4	65.1	59.7	57.9	50.7	27.1
77.5°	90.5	77.8	70.6	63.3	56.1	50.7	43.4	38.0	34.4	29.0	19.9
80°	63.3	56.1	50.7	41.6	36.2	30.8	27.1	23.5	21.7	18.1	9.0
82.5°	36.2	30.8	27.1	21.7	19.9	16.3	14.5	12.7	12.7	9.0	9.0
85°	16.3	16.3	12.7	10.9	9.0	9.0	9.0	7.2	7.2	5.4	5.4
87.5°	7.2	7.2	7.2	7.2	7.2	5.4	5.4	5.4	5.4	5.4	3.6
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°	6029.9	6029.9	6029.9	6029.9	6029.9	6029.9	6029.9	6029.9	6029.9	6029.9	6029.9
2.5°	6218.1	6241.6	6286.9	6333.9	6281.4	6469.6	6455.2	6518.5	6552.9	6569.2	6607.2
5°	6771.8	6876.8	6911.2	6808.0	6748.3	6686.8	6547.4	6442.5	6455.2	6420.8	6295.9
7.5°	6761.0	6536.6	6234.4	6096.8	6086.0	6069.7	6113.1	6138.5	6142.1	6140.3	6136.6
10°	6189.1	6073.3	6053.4	6035.3	6042.5	5975.6	5944.8	5858.0	5905.0	5879.7	5888.7
12.5°	6015.4	5988.3	5881.5	5733.1	5821.8	5754.8	5716.8	5742.1	5713.2	5686.0	5677.0
15°	5912.2	5736.7	5677.0	5640.8	5615.5	5601.0	5613.7	5584.7	5575.6	5570.2	5582.9
17.5°	5698.7	5628.1	5563.0	5467.1	5468.9	5463.4	5499.6	5553.9	5557.5	5278.9	5027.3
20°	5530.4	5472.5	5389.2	5329.5	5411.0	5266.2	4707.0	4441.0	4399.3	4399.3	4406.6
22.5°	5396.5	5268.0	5273.4	5179.3	4417.4	4261.8	4265.4	4281.7	4207.5	3954.2	3927.0
25°	5213.7	5193.8	4797.5	4146.0	4151.4	4030.2	3843.8	3581.4	3297.3	3297.3	3250.2
27.5°	5076.2	4654.5	4075.4	4048.3	3641.1	3384.1	3224.9	2984.2	2951.6	2920.8	2924.5
30°	4958.5	3937.9	3952.4	3384.1	3083.7	2870.2	2857.5	2817.7	2797.8	2792.3	2772.4
32.5°	3919.8	3834.7	3308.1	2881.0	2763.4	2729.0	2712.7	2667.5	2665.7	2631.3	2392.4
35°	3675.5	3366.0	2768.8	2653.0	2618.6	2586.0	2558.9	1717.4	202.7	81.4	70.6
37.5°	3396.8	2812.3	2560.7	2508.2	2475.7	1829.6	182.8	63.3	45.2	32.6	29.0
40°	2879.2	2511.8	2432.2	2374.3	979.0	63.3	39.8	30.8	18.1	16.3	14.5
42.5°	2428.6	2367.1	2282.0	694.9	72.4	30.8	19.9	14.5	12.7	12.7	10.9
45°	2273.0	2218.7	919.3	68.8	45.2	14.5	12.7	12.7	10.9	7.2	7.2
47.5°	2128.2	1873.0	83.2	43.4	29.0	12.7	10.9	7.2	7.2	7.2	5.4
50°	1974.4	103.2	57.9	32.6	18.1	7.2	7.2	7.2	7.2	5.4	5.4
52.5°	369.2	72.4	47.1	29.0	9.0	7.2	7.2	7.2	5.4	5.4	5.4
55°	86.9	57.9	43.4	25.3	7.2	7.2	7.2	5.4	5.4	5.4	3.6
57.5°	65.1	43.4	34.4	23.5	7.2	5.4	5.4	5.4	5.4	5.4	3.6
60°	54.3	30.8	27.1	21.7	5.4	5.4	5.4	5.4	5.4	5.4	3.6
62.5°	38.0	25.3	19.9	16.3	5.4	5.4	5.4	5.4	5.4	5.4	5.4
65°	30.8	19.9	16.3	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4
67.5°	27.1	16.3	10.9	3.6	5.4	5.4	5.4	5.4	5.4	5.4	5.4
70°	21.7	5.4	5.4	3.6	5.4	5.4	5.4	5.4	5.4	5.4	5.4
72.5°	18.1	5.4	3.6	3.6	5.4	5.4	5.4	5.4	5.4	5.4	5.4
75°	18.1	9.0	3.6	3.6	5.4	5.4	7.2	7.2	5.4	5.4	5.4
77.5°	12.7	9.0	3.6	3.6	5.4	5.4	7.2	7.2	5.4	5.4	5.4
80°	7.2	9.0	3.6	5.4	5.4	10.9	12.7	7.2	5.4	5.4	5.4
82.5°	7.2	9.0	10.9	10.9	5.4	9.0	10.9	9.0	7.2	5.4	5.4
85°	7.2	5.4	7.2	9.0	5.4	9.0	9.0	7.2	7.2	5.4	5.4
87.5°	3.6	5.4	5.4	7.2	7.2	7.2	9.0	7.2	7.2	7.2	5.4
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P#

CATALOG NUMBER: 8SNLED-LD5-109SL-RM-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	85°	90°	95°	100°	105°	110°	115°	120°	125°	130°	135°
0°	6029.9	6029.9	6029.9	6029.9	6029.9	6029.9	6029.9	6029.9	6029.9	6029.9	6029.9
2.5°	6625.3	6632.5	6518.5	6478.7	6513.1	6505.8	6475.1	6361.1	6348.4	6272.4	6162.0
5°	6332.1	6381.0	6321.2	6424.4	6375.5	6424.4	6572.8	6641.6	6753.8	6822.5	6847.9
7.5°	6127.6	6138.5	6138.5	6147.5	6156.6	6158.4	6147.5	6140.3	6109.5	6071.5	6140.3
10°	5879.7	5892.3	5914.1	5910.4	5908.6	5946.6	5955.7	6033.5	6029.9	6044.4	6096.8
12.5°	5751.2	5653.5	5742.1	5718.6	5751.2	5700.5	5794.6	5778.3	5783.8	5827.2	5939.4
15°	5537.6	5568.4	5590.1	5590.1	5602.8	5591.9	5581.1	5655.3	5700.5	5702.3	5695.1
17.5°	5126.8	4893.4	5132.3	5070.7	5561.2	5573.8	5532.2	5497.8	5497.8	5525.0	5582.9
20°	4401.2	4406.6	4408.4	4431.9	4460.9	4459.1	4460.9	5173.9	5512.3	5434.5	5382.0
22.5°	3858.3	3791.3	3916.2	3907.1	4062.7	4234.7	4399.3	4383.1	4393.9	4897.0	5349.4
25°	3092.8	3179.6	3109.0	3139.8	3315.3	3519.8	3646.5	3977.7	4337.8	4312.5	4430.1
27.5°	2911.8	2888.3	2920.8	2920.8	2944.4	2971.5	3042.1	3228.5	3548.8	3885.4	4203.9
30°	2739.9	2759.8	2763.4	2796.0	2814.1	2832.2	2843.0	2913.6	2986.0	3219.4	3612.1
32.5°	2057.6	1804.3	2374.3	2528.1	2658.4	2689.2	2710.9	2739.9	2792.3	2826.7	3024.0
35°	59.7	59.7	63.3	72.4	92.3	622.5	2370.7	2613.2	2647.6	2691.0	2727.2
37.5°	29.0	21.7	25.3	27.1	32.6	45.2	65.1	202.7	2256.7	2551.7	2591.5
40°	12.7	12.7	12.7	12.7	14.5	18.1	27.1	45.2	68.8	1815.1	2448.5
42.5°	10.9	10.9	10.9	10.9	10.9	10.9	12.7	16.3	32.6	77.8	1284.9
45°	7.2	7.2	5.4	7.2	7.2	9.0	10.9	10.9	14.5	48.9	88.7
47.5°	5.4	5.4	5.4	5.4	5.4	5.4	5.4	9.0	10.9	32.6	47.1
50°	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	25.3	32.6
52.5°	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	10.9	29.0
55°	3.6	3.6	3.6	3.6	3.6	3.6	3.6	5.4	5.4	7.2	25.3
57.5°	3.6	3.6	3.6	3.6	3.6	5.4	3.6	3.6	5.4	5.4	23.5
60°	3.6	3.6	3.6	3.6	3.6	5.4	5.4	5.4	5.4	5.4	21.7
62.5°	5.4	5.4	3.6	5.4	3.6	3.6	5.4	5.4	5.4	5.4	14.5
65°	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	3.6	5.4
67.5°	5.4	5.4	5.4	5.4	3.6	5.4	3.6	5.4	5.4	3.6	3.6
70°	5.4	5.4	5.4	5.4	5.4	5.4	5.4	3.6	3.6	3.6	3.6
72.5°	5.4	5.4	5.4	5.4	5.4	5.4	5.4	3.6	3.6	3.6	3.6
75°	5.4	5.4	5.4	5.4	5.4	5.4	7.2	7.2	3.6	3.6	3.6
77.5°	5.4	5.4	5.4	5.4	5.4	5.4	9.0	10.9	9.0	9.0	3.6
80°	5.4	5.4	5.4	5.4	5.4	5.4	9.0	9.0	9.0	9.0	12.7
82.5°	5.4	5.4	5.4	5.4	5.4	5.4	7.2	7.2	7.2	7.2	9.0
85°	5.4	5.4	5.4	5.4	5.4	5.4	7.2	7.2	7.2	5.4	7.2
87.5°	5.4	5.4	5.4	5.4	5.4	5.4	5.4	7.2	5.4	5.4	5.4
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P#

CATALOG NUMBER: 8SNLED-LD5-109SL-RM-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	140°	145°	150°	155°	160°	161°	162°	163°	164°	165°	166°
0°	6029.9	6029.9	6029.9	6029.9	6029.9	6029.9	6029.9	6029.9	6029.9	6029.9	6029.9
2.5°	6171.0	6109.5	6089.6	6048.0	6044.4	6048.0	6038.9	6026.3	6033.5	6020.8	6010.0
5°	6862.3	6697.7	6590.9	6447.9	6250.7	6207.2	6196.4	6134.8	6113.1	6105.9	6076.9
7.5°	6303.1	6603.5	6784.5	6846.0	6614.4	6560.1	6496.8	6446.1	6397.2	6305.0	6248.9
10°	6055.2	6069.7	6243.4	6446.1	6775.5	6820.7	6855.1	6744.7	6713.9	6478.7	6428.0
12.5°	5997.3	5999.1	6019.0	6142.1	6400.9	6429.8	6551.1	6616.2	6695.8	6741.1	6704.9
15°	5733.1	5879.7	5988.3	5999.1	6022.6	6073.3	6109.5	6335.7	6431.6	6688.6	6674.1
17.5°	5610.0	5657.1	5814.5	5943.0	5921.3	5903.2	5932.2	5962.9	6055.2	6312.2	6308.6
20°	5405.5	5555.7	5640.8	5774.7	5896.0	5901.4	5868.8	5850.7	5814.5	5856.1	5894.2
22.5°	5318.7	5342.2	5501.4	5595.6	5733.1	5782.0	5789.2	5791.0	5771.1	5749.4	5738.5
25°	5309.6	5235.4	5316.9	5434.5	5535.8	5588.3	5648.0	5667.9	5660.7	5660.7	5649.8
27.5°	4345.1	5211.9	5168.5	5246.3	5369.3	5405.5	5436.3	5497.8	5535.8	5563.0	5575.6
30°	4138.8	4294.4	5052.6	5063.5	5188.4	5184.8	5219.1	5269.8	5318.7	5382.0	5398.3
32.5°	3661.0	4042.8	4625.6	4880.7	5011.0	5023.7	5041.8	5056.3	5101.5	5172.1	5233.6
35°	2933.5	3682.7	3963.2	4793.9	4817.4	4842.7	4853.6	4888.0	4902.4	4931.4	4985.7
37.5°	2654.8	3043.9	3802.2	4146.0	4594.8	4616.5	4674.4	4688.9	4712.4	4736.0	4777.6
40°	2493.7	2600.5	3165.1	3702.6	4415.6	4430.1	4450.0	4486.2	4488.0	4515.2	4553.2
42.5°	2365.3	2434.0	2598.7	3536.1	4289.0	4287.1	4240.1	4263.6	4274.5	4303.4	4355.9
45°	1889.3	2283.8	2388.8	2888.3	3414.9	3661.0	4133.3	4055.5	4053.7	4064.6	4120.7
47.5°	95.9	2148.1	2222.3	2383.4	3224.9	3233.9	3295.4	3813.0	3892.6	3867.3	3872.7
50°	65.1	148.4	2070.3	2144.5	2779.7	3004.1	3049.3	3072.8	3371.4	3704.4	3650.1
52.5°	50.7	85.1	1268.6	1990.7	2258.5	2423.2	2714.5	2881.0	2899.1	3033.0	3487.3
55°	45.2	65.1	137.5	1836.8	1920.1	1956.3	2126.4	2417.7	2653.0	2723.6	2729.0
57.5°	39.8	59.7	94.1	830.6	1746.3	1753.6	1782.5	1883.9	2095.6	2289.3	2508.2
60°	36.2	52.5	74.2	143.0	1587.1	1605.2	1610.6	1637.8	1663.1	1795.2	2046.8
62.5°	21.7	41.6	65.1	103.2	1255.9	1442.3	1440.5	1458.6	1482.1	1496.6	1547.3
65°	18.1	32.6	56.1	86.9	153.8	191.8	1165.4	1295.7	1310.2	1330.1	1339.2
67.5°	16.3	29.0	41.6	68.8	115.8	132.1	152.0	188.2	1027.9	1158.2	1176.3
70°	14.5	19.9	34.4	57.9	94.1	101.3	114.0	130.3	153.8	190.0	930.2
72.5°	9.0	14.5	23.5	41.6	72.4	81.4	88.7	99.5	110.4	132.1	152.0
75°	3.6	10.9	19.9	30.8	56.1	61.5	67.0	74.2	83.2	97.7	108.6
77.5°	3.6	9.0	16.3	21.7	36.2	41.6	48.9	54.3	61.5	68.8	79.6
80°	12.7	7.2	10.9	16.3	25.3	27.1	30.8	34.4	39.8	45.2	52.5
82.5°	9.0	10.9	12.7	10.9	12.7	16.3	18.1	21.7	23.5	27.1	29.0
85°	7.2	7.2	9.0	9.0	9.0	9.0	9.0	9.0	10.9	12.7	16.3
87.5°	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	7.2	7.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P#

CATALOG NUMBER: 8SNLED-LD5-109SL-RM-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	167°	168°	169°	170°	171°	172°	173°	174°	175°	176°	177°
0°	6029.9	6029.9	6029.9	6029.9	6029.9	6029.9	6029.9	6029.9	6029.9	6029.9	6029.9
2.5°	6010.0	6006.4	5995.5	5995.5	5993.7	6000.9	6006.4	6011.8	6010.0	6020.8	6010.0
5°	6055.2	6046.2	6029.9	6015.4	6010.0	6013.6	6008.2	6013.6	6006.4	6015.4	5999.1
7.5°	6180.1	6149.3	6086.0	6060.6	6028.1	6026.3	6010.0	6006.4	5995.5	5995.5	5975.6
10°	6400.9	6252.5	6234.4	6158.4	6131.2	5999.1	6028.1	5979.2	5973.8	5950.3	5941.2
12.5°	6581.8	6466.0	6431.6	6364.7	6288.7	6020.8	6080.5	5975.6	5970.2	5923.1	5874.2
15°	6585.5	6652.4	6558.3	6373.7	6357.4	6172.8	6051.6	6015.4	5968.3	5827.2	5850.7
17.5°	6373.7	6527.5	6572.8	6533.0	6417.2	6292.3	6122.2	6049.8	5908.6	5845.3	5801.9
20°	6029.9	6185.5	6379.1	6391.8	6464.2	6375.5	6152.9	6035.3	5865.2	5754.8	5718.6
22.5°	5756.6	5870.6	6093.2	6196.4	6285.0	6315.8	6174.7	6000.9	5789.2	5682.4	5660.7
25°	5611.8	5637.2	5704.1	5825.4	6020.8	6162.0	6181.9	5997.3	5886.9	5653.5	5530.4
27.5°	5559.4	5537.6	5510.5	5572.0	5718.6	5890.5	6004.5	6035.3	5760.2	5537.6	5414.6
30°	5425.4	5438.1	5396.5	5374.8	5470.7	5648.0	5850.7	5901.4	5689.7	5459.8	5318.7
32.5°	5260.8	5282.5	5289.7	5251.7	5231.8	5354.9	5573.8	5695.1	5684.2	5349.4	5192.0
35°	5054.5	5116.0	5132.3	5134.1	5101.5	5081.6	5208.3	5459.8	5555.7	5298.8	5070.7
37.5°	4837.3	4855.4	4944.1	4967.6	4967.6	4907.9	5002.0	5202.9	5336.8	5184.8	4922.3
40°	4565.8	4623.8	4707.0	4748.6	4790.2	4795.7	4743.2	4884.3	5105.1	5067.1	4783.0
42.5°	4368.6	4406.6	4457.3	4513.4	4598.4	4620.1	4565.8	4591.2	4821.0	4920.5	4602.0
45°	4138.8	4189.4	4203.9	4265.4	4354.1	4417.4	4415.6	4363.2	4547.7	4670.8	4469.9
47.5°	3903.5	3952.4	3977.7	4008.5	4073.6	4155.0	4200.3	4176.8	4213.0	4453.6	4294.4
50°	3661.0	3688.1	3738.8	3773.2	3816.6	3863.7	3972.3	3994.0	3943.3	4135.1	4100.8
52.5°	3431.2	3440.2	3474.6	3509.0	3566.9	3601.3	3688.1	3753.3	3749.7	3805.8	3885.4
55°	3252.0	3212.2	3219.4	3246.6	3284.6	3337.1	3385.9	3487.3	3521.7	3532.5	3659.2
57.5°	2540.8	2949.8	2986.0	2984.2	3029.4	3052.9	3098.2	3165.1	3288.2	3261.1	3402.2
60°	2309.2	2354.4	2696.4	2736.2	2752.5	2774.3	2828.5	2890.1	2980.6	3038.5	3100.0
62.5°	1760.8	2035.9	2139.1	2441.3	2488.3	2501.0	2537.2	2566.1	2660.2	2792.3	2767.0
65°	1362.7	1480.3	1795.2	1918.3	2175.2	2207.8	2258.5	2289.3	2316.4	2468.4	2475.7
67.5°	1178.1	1196.2	1281.3	1518.3	1681.2	1932.7	1963.5	1990.7	2032.3	2140.9	2207.8
70°	1006.2	1027.9	1051.4	1071.3	1283.1	1449.6	1683.0	1692.1	1719.2	1791.6	1943.6
72.5°	190.0	859.6	874.1	886.7	910.3	1020.7	1243.3	1424.2	1435.1	1469.5	1608.8
75°	128.5	150.2	206.3	709.4	732.9	740.2	778.2	1004.4	1170.9	1178.1	1239.6
77.5°	92.3	103.2	124.9	148.4	378.2	568.2	577.3	618.9	790.8	915.7	926.6
80°	63.3	70.6	83.2	94.1	115.8	152.0	419.8	432.5	454.2	626.2	658.7
82.5°	36.2	41.6	48.9	59.7	68.8	86.9	112.2	144.8	295.0	314.9	418.0
85°	18.1	19.9	23.5	29.0	34.4	41.6	56.1	68.8	94.1	170.1	175.5
87.5°	9.0	9.0	9.0	9.0	14.5	16.3	19.9	25.3	32.6	48.9	63.3
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P#

CATALOG NUMBER: 8SNLED-LD5-109SL-RM-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	178°	179°	180°	181°	182°	183°	184°	185°	186°	187°	188°
0°	6029.9	6029.9	6029.9	6029.9	6029.9	6029.9	6029.9	6029.9	6029.9	6029.9	6029.9
2.5°	6011.8	6037.1	6058.8	6064.3	6064.3	6067.9	6073.3	6076.9	6080.5	6084.2	6080.5
5°	6000.9	6028.1	6046.2	6051.6	6051.6	6062.5	6071.5	6082.4	6087.8	6087.8	6084.2
7.5°	5973.8	5993.7	6017.2	6031.7	6033.5	6051.6	6067.9	6066.1	6073.3	6076.9	6086.0
10°	5937.6	5937.6	5977.4	5988.3	5997.3	6017.2	6022.6	6033.5	6058.8	6062.5	6086.0
12.5°	5919.5	5901.4	5948.4	5953.9	5984.6	5959.3	5991.9	6002.7	5977.4	6011.8	5966.5
15°	5838.1	5859.8	5852.5	5868.8	5923.1	5894.2	5982.8	5953.9	6019.0	5941.2	6078.7
17.5°	5771.1	5767.5	5796.4	5810.9	5821.8	5883.3	5906.8	5939.4	5964.7	5943.0	5997.3
20°	5722.2	5693.3	5715.0	5731.3	5769.3	5816.3	5830.8	5782.0	5867.0	6011.8	6046.2
22.5°	5629.9	5610.0	5635.4	5635.4	5693.3	5686.0	5740.3	5709.6	5789.2	5957.5	6133.0
25°	5505.1	5506.9	5534.0	5566.6	5577.5	5658.9	5687.8	5727.7	5827.2	6028.1	6134.8
27.5°	5378.4	5367.5	5383.8	5450.8	5506.9	5566.6	5575.6	5711.4	5847.1	5984.6	6078.7
30°	5251.7	5240.9	5251.7	5300.6	5367.5	5407.3	5506.9	5687.8	5814.5	5908.6	5997.3
32.5°	5116.0	5105.1	5130.5	5166.7	5284.3	5289.7	5487.0	5657.1	5756.6	5825.4	5809.1
35°	4971.2	4956.7	4980.3	5036.4	5144.9	5184.8	5391.1	5517.7	5629.9	5662.5	5586.5
37.5°	4797.5	4772.1	4801.1	4878.9	4992.9	5108.7	5280.7	5427.3	5487.0	5400.1	5309.6
40°	4616.5	4598.4	4649.1	4688.9	4822.8	4983.9	5181.1	5284.3	5246.3	5146.8	5047.2
42.5°	4455.5	4417.4	4462.7	4538.7	4690.7	4873.5	5032.7	5090.7	5000.2	4853.6	4737.8
45°	4258.2	4213.0	4267.2	4368.6	4531.5	4739.6	4864.4	4844.5	4690.7	4564.0	4404.8
47.5°	4051.9	3997.6	4051.9	4173.1	4355.9	4576.7	4667.2	4576.7	4383.1	4223.8	4095.3
50°	3849.2	3785.9	3838.3	4021.1	4200.3	4370.4	4368.6	4193.0	4077.2	3903.5	3791.3
52.5°	3648.3	3557.8	3610.3	3809.4	3988.6	4182.2	4039.2	3876.4	3737.0	3585.0	3548.8
55°	3400.4	3302.7	3373.3	3662.8	3800.3	3914.4	3686.3	3543.4	3405.8	3329.8	3284.6
57.5°	3165.1	3058.4	3119.9	3461.9	3563.3	3592.2	3382.3	3179.6	3098.2	3072.8	3007.7
60°	2922.6	2801.4	2859.3	3253.8	3324.4	3206.8	3000.5	2843.0	2826.7	2776.1	2725.4
62.5°	2691.0	2557.1	2593.3	2995.0	3027.6	2814.1	2624.0	2582.4	2542.6	2491.9	2464.8
65°	2425.0	2285.6	2336.3	2720.0	2689.2	2414.1	2307.4	2298.3	2245.8	2204.2	2244.0
67.5°	2180.7	2016.0	2086.6	2419.6	2280.2	2055.8	2012.4	1990.7	1949.0	1972.6	1554.5
70°	1912.8	1733.7	1829.6	2095.6	1889.3	1740.9	1724.6	1692.1	1693.9	1346.4	1134.7
72.5°	1614.2	1458.6	1598.0	1740.9	1494.8	1451.4	1427.8	1424.2	1149.2	933.8	881.3
75°	1351.8	1194.4	1344.6	1398.9	1190.8	1161.8	1160.0	959.1	754.6	720.3	704.0
77.5°	1055.0	933.8	1076.8	995.3	913.9	881.3	790.8	593.6	568.2	544.7	204.5
80°	711.2	720.3	803.5	685.9	651.5	555.6	437.9	419.8	361.9	144.8	114.0
82.5°	432.5	542.9	512.1	428.9	419.8	302.2	276.9	141.2	105.0	83.2	72.4
85°	224.4	275.1	264.2	233.4	173.7	155.6	86.9	67.0	54.3	41.6	34.4
87.5°	76.0	101.3	97.7	77.8	59.7	47.1	30.8	25.3	18.1	14.5	12.7
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: P#

CATALOG NUMBER: 8SNLED-LD5-109SL-RM-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	189°	190°	191°	192°	193°	194°	195°	196°	197°	198°	199°
0°	6029.9	6029.9	6029.9	6029.9	6029.9	6029.9	6029.9	6029.9	6029.9	6029.9	6029.9
2.5°	6076.9	6076.9	6073.3	6076.9	6078.7	6075.1	6075.1	6078.7	6080.5	6082.4	6091.4
5°	6086.0	6089.6	6095.0	6105.9	6107.7	6129.4	6138.5	6143.9	6149.3	6151.1	6138.5
7.5°	6105.9	6118.6	6129.4	6127.6	6114.9	6080.5	6069.7	6060.6	6076.9	6118.6	6167.4
10°	6124.0	6066.1	5957.5	6105.9	6060.6	6102.3	6225.3	6252.5	6335.7	6453.3	6487.7
12.5°	5999.1	6158.4	6192.7	6026.3	6333.9	6219.9	6355.6	6475.1	6509.4	6628.9	6556.5
15°	6133.0	6210.8	6263.3	6429.8	6411.7	6509.4	6547.4	6523.9	6529.4	6560.1	6641.6
17.5°	6131.2	6286.9	6321.2	6433.4	6509.4	6511.3	6500.4	6489.5	6518.5	6542.0	6493.2
20°	6236.2	6286.9	6353.8	6399.1	6413.5	6431.6	6466.0	6438.9	6384.6	6332.1	6310.4
22.5°	6183.7	6297.7	6355.6	6362.9	6353.8	6297.7	6247.0	6171.0	6145.7	6118.6	6127.6
25°	6194.6	6247.0	6239.8	6210.8	6172.8	6067.9	6042.5	6010.0	5961.1	5843.5	5736.7
27.5°	6116.7	6089.6	6057.0	5986.4	5917.7	5861.6	5798.2	5693.3	5606.4	5479.7	5432.7
30°	5986.4	5877.9	5798.2	5756.6	5689.7	5595.6	5499.6	5371.2	5260.8	5235.4	5211.9
32.5°	5736.7	5629.9	5564.8	5463.4	5349.4	5237.2	5126.8	5076.2	5052.6	5056.3	5034.6
35°	5481.5	5387.4	5289.7	5137.7	5052.6	4940.4	4900.6	4889.8	4868.1	4844.5	4819.2
37.5°	5210.1	5099.7	4953.1	4862.6	4777.6	4732.3	4712.4	4696.1	4658.1	4616.5	4587.6
40°	4947.7	4748.6	4667.2	4578.5	4553.2	4533.3	4504.3	4464.5	4412.0	4404.8	4392.1
42.5°	4596.6	4453.6	4383.1	4365.0	4334.2	4299.8	4274.5	4231.0	4209.3	4223.8	4234.7
45°	4263.6	4191.2	4167.7	4146.0	4088.1	4039.2	4022.9	4008.5	4026.6	4106.2	3916.2
47.5°	3994.0	3965.0	3936.1	3899.9	3845.6	3809.4	3825.7	3840.2	3856.4	3271.9	2986.0
50°	3760.5	3720.7	3675.5	3635.7	3603.1	3599.5	3684.5	3429.4	2872.0	2857.5	2567.9
52.5°	3505.4	3445.6	3418.5	3395.0	3409.5	3463.7	2866.5	2660.2	2551.7	2216.9	2068.5
55°	3230.3	3177.8	3177.8	3199.5	3121.7	2529.9	2499.2	2160.8	1956.3	1898.4	1874.8
57.5°	2955.2	2949.8	2980.6	2725.4	2296.5	2202.4	1851.3	1777.1	1744.5	1737.3	1699.3
60°	2703.7	2754.3	2305.5	2121.0	1844.1	1663.1	1612.4	1603.4	1569.0	1556.3	1521.9
62.5°	2502.8	2075.7	1932.7	1578.0	1485.8	1462.2	1435.1	1422.4	1391.6	1228.8	360.1
65°	1807.9	1708.3	1386.2	1326.5	1319.3	1284.9	1274.0	1145.5	269.6	181.0	153.8
67.5°	1364.5	1210.7	1169.1	1158.2	1123.8	1055.0	313.1	179.2	153.8	133.9	117.6
70°	1047.8	1020.7	989.9	964.6	284.1	177.3	153.8	130.3	112.2	99.5	90.5
72.5°	857.8	839.7	488.6	186.4	152.0	128.5	114.0	99.5	86.9	79.6	72.4
75°	671.4	186.4	153.8	128.5	110.4	94.1	83.2	74.2	67.0	61.5	56.1
77.5°	152.0	123.1	105.0	88.7	79.6	70.6	63.3	54.3	48.9	43.4	36.2
80°	94.1	81.4	68.8	63.3	54.3	45.2	39.8	36.2	29.0	27.1	23.5
82.5°	61.5	48.9	43.4	36.2	29.0	27.1	23.5	18.1	16.3	14.5	12.7
85°	27.1	23.5	19.9	16.3	12.7	10.9	9.0	7.2	7.2	7.2	7.2
87.5°	9.0	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	3.6	3.6
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: P#

CATALOG NUMBER: 8SNLED-LD5-109SL-RM-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	200°	205°	210°	215°	220°	225°	230°	235°	240°	245°	250°
0°	6029.9	6029.9	6029.9	6029.9	6029.9	6029.9	6029.9	6029.9	6029.9	6029.9	6029.9
2.5°	6095.0	6127.6	6158.4	6149.3	6116.7	6066.1	6051.6	6031.7	6046.2	6076.9	6089.6
5°	6138.5	6120.4	6185.5	6281.4	6437.1	6451.5	6560.1	6585.5	6672.3	6726.6	6724.8
7.5°	6200.0	6457.0	6563.7	6679.6	6732.0	6719.4	6735.7	6723.0	6703.1	6694.0	6683.2
10°	6513.1	6708.5	6748.3	6748.3	6666.9	6556.5	6509.4	6428.0	6265.1	6268.8	6241.6
12.5°	6695.8	6764.6	6670.5	6590.9	6263.3	6136.6	5999.1	5934.0	5896.0	5838.1	5859.8
15°	6599.9	6502.2	6446.1	6189.1	5988.3	5760.2	5763.9	5724.0	5682.4	5686.0	5658.9
17.5°	6458.8	6381.0	5982.8	5805.5	5707.8	5619.1	5602.8	5550.3	5523.2	5514.1	5512.3
20°	6265.1	5984.6	5687.8	5644.4	5526.8	5425.4	5409.2	5425.4	5508.7	5360.3	4857.2
22.5°	6038.9	5635.4	5548.5	5425.4	5345.8	5306.0	5405.5	4953.1	4269.1	4352.3	4263.6
25°	5655.3	5479.7	5331.3	5237.2	5228.2	4983.9	4153.2	4066.4	3626.6	3391.4	3127.1
27.5°	5374.8	5298.8	5143.1	5126.8	5009.2	4075.4	3642.9	3165.1	2989.6	2962.5	2904.5
30°	5204.7	5096.1	5002.0	4591.2	3997.6	3281.0	2922.6	2855.7	2824.9	2792.3	2741.7
32.5°	5000.2	4897.0	4942.3	3860.1	3186.9	2824.9	2752.5	2703.7	2647.6	2625.9	2443.1
35°	4792.1	4745.0	3861.9	3244.8	2739.9	2653.0	2598.7	2548.0	2026.8	490.4	166.5
37.5°	4569.5	4558.6	3471.0	2692.8	2566.1	2484.7	2330.9	481.4	114.0	77.8	57.9
40°	4395.7	3472.8	2743.5	2524.5	2421.4	2292.9	322.1	79.6	50.7	30.8	19.9
42.5°	4279.9	3123.5	2455.7	2368.9	2144.5	237.1	81.4	34.4	19.9	16.3	12.7
45°	3299.1	2466.6	2294.7	2204.2	271.5	81.4	47.1	16.3	12.7	10.9	7.2
47.5°	3043.9	2240.4	2139.1	481.4	90.5	43.4	32.6	10.9	7.2	7.2	7.2
50°	2305.5	2070.3	1702.9	117.6	57.9	30.8	23.5	7.2	7.2	7.2	5.4
52.5°	2021.4	1911.0	182.8	77.8	45.2	23.5	14.5	5.4	5.4	5.4	5.4
55°	1847.7	1212.5	108.6	59.7	38.0	21.7	9.0	5.4	5.4	5.4	3.6
57.5°	1690.2	162.9	79.6	50.7	34.4	19.9	5.4	5.4	5.4	5.4	3.6
60°	1433.3	117.6	65.1	45.2	32.6	18.1	5.4	5.4	5.4	5.4	5.4
62.5°	186.4	92.3	56.1	39.8	23.5	14.5	3.6	5.4	5.4	5.4	5.4
65°	135.7	72.4	50.7	27.1	14.5	5.4	3.6	5.4	5.4	5.4	5.4
67.5°	105.0	59.7	38.0	23.5	12.7	3.6	3.6	5.4	5.4	5.4	5.4
70°	83.2	50.7	30.8	19.9	10.9	3.6	3.6	5.4	5.4	5.4	5.4
72.5°	65.1	36.2	21.7	10.9	7.2	3.6	3.6	5.4	5.4	5.4	5.4
75°	48.9	29.0	16.3	9.0	3.6	3.6	3.6	5.4	5.4	5.4	5.4
77.5°	32.6	18.1	12.7	7.2	7.2	7.2	9.0	9.0	5.4	5.4	5.4
80°	21.7	12.7	9.0	9.0	9.0	7.2	9.0	9.0	5.4	9.0	5.4
82.5°	10.9	9.0	9.0	7.2	7.2	5.4	7.2	7.2	7.2	7.2	5.4
85°	7.2	5.4	5.4	5.4	5.4	5.4	5.4	5.4	7.2	7.2	5.4
87.5°	3.6	3.6	3.6	3.6	5.4	5.4	5.4	5.4	7.2	7.2	5.4
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P#

CATALOG NUMBER: 8SNLED-LD5-109SL-RM-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	255°	260°	265°	270°	275°	280°	285°	290°	295°	300°	305°
0°	6029.9	6029.9	6029.9	6029.9	6029.9	6029.9	6029.9	6029.9	6029.9	6029.9	6029.9
2.5°	6073.3	6078.7	6064.3	6142.1	6102.3	6105.9	6122.2	6080.5	6089.6	6060.6	6040.7
5°	6732.0	6742.9	6753.8	6757.4	6764.6	6773.7	6762.8	6757.4	6746.5	6710.3	6672.3
7.5°	6628.9	6616.2	6610.8	6618.0	6630.7	6636.1	6627.1	6639.7	6686.8	6706.7	6719.4
10°	6086.0	6028.1	6067.9	6062.5	6017.2	6169.2	6127.6	6151.1	6167.4	6333.9	6435.2
12.5°	5827.2	5863.4	5794.6	5760.2	5805.5	5836.2	5867.0	5801.9	5892.3	5850.7	5984.6
15°	5610.0	5588.3	5581.1	5582.9	5573.8	5617.3	5628.1	5642.6	5655.3	5711.4	5733.1
17.5°	5512.3	5548.5	5563.0	5573.8	5555.7	5535.8	5515.9	5487.0	5496.0	5481.5	5523.2
20°	4518.8	4397.5	4390.3	4460.9	4383.1	4426.5	4531.5	5233.6	5210.1	5483.4	5391.1
22.5°	3771.4	3657.4	3559.7	3474.6	3595.8	3646.5	3842.0	4062.7	4421.1	4365.0	4754.0
25°	3080.1	3038.5	3013.1	3000.5	3009.5	3005.9	3049.3	3152.5	3315.3	3699.0	4194.9
27.5°	2881.0	2861.1	2852.1	2823.1	2844.8	2837.6	2872.0	2893.7	2942.6	2980.6	3141.6
30°	2723.6	2700.1	2683.8	2653.0	2674.7	2676.5	2687.4	2743.5	2763.4	2796.0	2846.6
32.5°	995.3	586.3	550.1	523.0	571.9	745.6	1308.4	2287.4	2609.6	2634.9	2692.8
35°	97.7	81.4	72.4	72.4	74.2	81.4	108.6	285.9	523.0	2021.4	2529.9
37.5°	38.0	32.6	27.1	25.3	27.1	30.8	41.6	54.3	74.2	153.8	685.9
40°	16.3	14.5	12.7	12.7	12.7	12.7	14.5	18.1	27.1	50.7	79.6
42.5°	10.9	9.0	9.0	9.0	9.0	9.0	9.0	9.0	12.7	16.3	32.6
45°	7.2	5.4	5.4	5.4	5.4	5.4	5.4	5.4	7.2	9.0	14.5
47.5°	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	7.2
50°	5.4	5.4	5.4	5.4	3.6	5.4	3.6	5.4	5.4	5.4	5.4
52.5°	5.4	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	5.4	5.4
55°	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	5.4
57.5°	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6
60°	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6
62.5°	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	5.4	5.4	3.6
65°	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	5.4	3.6
67.5°	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6
70°	5.4	5.4	3.6	5.4	3.6	3.6	5.4	5.4	5.4	3.6	3.6
72.5°	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	10.9	10.9	7.2
75°	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	9.0	10.9	9.0
77.5°	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	9.0	9.0	9.0
80°	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	7.2	7.2	7.2
82.5°	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	7.2	7.2	7.2
85°	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4
87.5°	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P#

CATALOG NUMBER: 8SNLED-LD5-109SL-RM-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	310°	315°	320°	325°	330°	335°	340°	341°	342°	343°	344°
0°	6029.9	6029.9	6029.9	6029.9	6029.9	6029.9	6029.9	6029.9	6029.9	6029.9	6029.9
2.5°	6006.4	6004.5	6042.5	6071.5	6060.6	6071.5	6084.2	6086.0	6089.6	6075.1	6069.7
5°	6599.9	6543.8	6435.2	6357.4	6266.9	6102.3	6020.8	6029.9	6031.7	6026.3	6033.5
7.5°	6713.9	6708.5	6670.5	6654.2	6592.7	6475.1	6286.9	6254.3	6174.7	6124.0	6082.4
10°	6428.0	6558.3	6592.7	6650.6	6686.8	6665.1	6505.8	6482.3	6431.6	6373.7	6386.4
12.5°	6118.6	6225.3	6230.8	6545.6	6616.2	6623.5	6561.9	6594.5	6601.7	6471.4	6395.4
15°	5738.5	5789.2	5896.0	6189.1	6402.7	6536.6	6576.4	6594.5	6505.8	6500.4	6469.6
17.5°	5572.0	5604.6	5653.5	5818.1	6142.1	6339.3	6507.6	6495.0	6529.4	6504.0	6426.2
20°	5362.1	5389.2	5476.1	5559.4	5718.6	5981.0	6295.9	6319.4	6364.7	6359.2	6381.0
22.5°	5358.5	5262.6	5277.0	5342.2	5508.7	5743.9	6078.7	6156.6	6185.5	6205.4	6228.9
25°	4251.0	5012.8	5152.2	5193.8	5302.4	5439.9	5834.4	5863.4	5917.7	6006.4	6071.5
27.5°	3682.7	4200.3	4757.7	5047.2	5116.0	5230.0	5465.3	5508.7	5693.3	5715.0	5816.3
30°	2906.4	3306.3	4138.8	4835.5	4949.5	5029.1	5195.6	5282.5	5362.1	5449.0	5555.7
32.5°	2734.4	2797.8	3259.2	4001.2	4888.0	4828.2	4951.3	5003.8	5090.7	5166.7	5244.5
35°	2577.0	2620.4	2718.2	3277.3	3981.3	4663.6	4746.8	4781.2	4830.1	4888.0	4944.1
37.5°	2412.3	2477.5	2544.4	2694.6	3682.7	4533.3	4531.5	4571.3	4600.2	4649.1	4696.1
40°	437.9	2274.8	2383.4	2481.1	2855.7	3615.8	4328.8	4346.9	4366.8	4397.5	4446.4
42.5°	70.6	380.0	2233.2	2327.3	2434.0	3237.5	4236.5	4162.3	4149.6	4171.3	4214.8
45°	36.2	92.3	448.8	2173.4	2269.3	2582.4	3463.7	4033.8	4021.1	3979.5	3988.6
47.5°	27.1	57.9	110.4	751.0	2124.6	2216.9	3195.9	3161.5	3402.2	3863.7	3793.1
50°	23.5	39.8	65.1	153.8	1876.6	2041.3	2461.2	2875.6	3002.3	3018.6	3572.3
52.5°	21.7	27.1	47.1	99.5	394.5	1887.5	2001.5	2146.3	2359.8	2817.7	2806.8
55°	19.9	25.3	39.8	67.0	137.5	1701.1	1818.7	1845.9	1891.1	2110.1	2399.6
57.5°	10.9	23.5	38.0	57.9	103.2	311.3	1650.4	1672.2	1708.3	1717.4	1820.5
60°	5.4	21.7	34.4	50.7	76.0	144.8	1483.9	1509.3	1531.0	1534.6	1567.2
62.5°	3.6	19.9	29.0	47.1	63.3	103.2	351.1	716.6	1362.7	1362.7	1400.7
65°	3.6	14.5	18.1	30.8	57.9	85.1	148.4	171.9	334.8	823.4	1228.8
67.5°	3.6	5.4	16.3	25.3	43.4	65.1	108.6	126.7	152.0	173.7	322.1
70°	3.6	3.6	14.5	16.3	27.1	48.9	77.8	88.7	103.2	117.6	135.7
72.5°	3.6	3.6	12.7	12.7	18.1	32.6	59.7	65.1	74.2	83.2	95.9
75°	9.0	7.2	10.9	10.9	12.7	25.3	45.2	50.7	54.3	61.5	70.6
77.5°	9.0	9.0	9.0	9.0	9.0	16.3	29.0	32.6	38.0	41.6	48.9
80°	7.2	7.2	7.2	9.0	9.0	10.9	18.1	19.9	21.7	27.1	29.0
82.5°	7.2	7.2	7.2	7.2	7.2	7.2	7.2	7.2	10.9	12.7	16.3
85°	5.4	5.4	5.4	5.4	5.4	5.4	5.4	7.2	7.2	7.2	7.2
87.5°	5.4	5.4	5.4	3.6	3.6	5.4	5.4	5.4	5.4	5.4	5.4
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P#

CATALOG NUMBER: 8SNLED-LD5-109SL-RM-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	345°	346°	347°	348°	349°	350°	351°	352°	353°	354°	355°
0°	6029.9	6029.9	6029.9	6029.9	6029.9	6029.9	6029.9	6029.9	6029.9	6029.9	6029.9
2.5°	6067.9	6057.0	6048.0	6053.4	6037.1	6029.9	6035.3	6037.1	6040.7	6049.8	6051.6
5°	6051.6	6048.0	6064.3	6073.3	6069.7	6073.3	6073.3	6066.1	6055.2	6062.5	6046.2
7.5°	6040.7	6017.2	5999.1	6002.7	5984.6	6006.4	6026.3	6055.2	6064.3	6064.3	6046.2
10°	6227.1	6201.8	6100.5	6031.7	5986.4	5946.6	6040.7	5944.8	5990.1	5818.1	6015.4
12.5°	6381.0	6415.3	6370.1	6181.9	6149.3	6029.9	6098.6	5981.0	5946.6	5749.4	5812.7
15°	6442.5	6377.3	6362.9	6310.4	6239.8	6205.4	6020.8	6000.9	5944.8	5966.5	5883.3
17.5°	6388.2	6420.8	6377.3	6343.0	6270.6	6189.1	6078.7	5981.0	5903.2	5729.5	5876.1
20°	6335.7	6379.1	6248.9	6270.6	6277.8	6183.7	6125.8	6044.4	5946.6	5783.8	5657.1
22.5°	6248.9	6218.1	6228.9	6196.4	6169.2	6181.9	6102.3	6046.2	5881.5	5807.3	5635.4
25°	6107.7	6096.8	6125.8	6122.2	6057.0	6035.3	5995.5	5935.8	5870.6	5751.2	5610.0
27.5°	5877.9	5934.0	5984.6	6008.2	5973.8	5915.9	5894.2	5859.8	5814.5	5693.3	5588.3
30°	5635.4	5698.7	5756.6	5807.3	5838.1	5812.7	5792.8	5772.9	5704.1	5624.5	5506.9
32.5°	5358.5	5441.7	5521.4	5582.9	5649.8	5669.8	5655.3	5639.0	5581.1	5508.7	5414.6
35°	5038.2	5152.2	5268.0	5378.4	5407.3	5454.4	5501.4	5474.3	5443.5	5371.2	5284.3
37.5°	4766.7	4848.2	4931.4	5070.7	5172.1	5231.8	5315.1	5325.9	5273.4	5239.0	5125.0
40°	4486.2	4560.4	4681.7	4763.1	4902.4	4971.2	5059.9	5099.7	5087.0	5067.1	4967.6
42.5°	4265.4	4301.6	4381.3	4453.6	4591.2	4732.3	4810.1	4853.6	4898.8	4882.5	4831.9
45°	4030.2	4062.7	4089.9	4153.2	4287.1	4412.0	4507.9	4573.1	4654.5	4692.5	4631.0
47.5°	3796.7	3805.8	3838.3	3890.8	3970.5	4066.4	4227.4	4325.2	4401.2	4475.4	4435.5
50°	3617.6	3585.0	3590.4	3623.0	3688.1	3782.2	3898.1	4035.6	4122.5	4213.0	4222.0
52.5°	3161.5	3425.7	3362.4	3380.5	3414.9	3460.1	3581.4	3717.1	3823.9	3901.7	3979.5
55°	2653.0	2705.5	3214.0	3141.6	3163.3	3203.1	3259.2	3395.0	3498.1	3606.7	3715.3
57.5°	2057.6	2448.5	2468.4	2938.9	2928.1	2931.7	2978.7	3056.6	3159.7	3295.4	3387.7
60°	1599.8	1764.4	2084.8	2247.6	2660.2	2674.7	2701.9	2747.1	2835.8	2964.3	3110.9
62.5°	1411.6	1433.3	1547.3	1791.6	2059.4	2383.4	2441.3	2448.5	2488.3	2616.8	2786.9
65°	1239.6	1254.1	1288.5	1313.8	1538.2	1851.3	2130.0	2175.2	2200.6	2276.6	2421.4
67.5°	854.2	1080.4	1111.1	1129.2	1151.0	1295.7	1641.4	1871.2	1900.2	1967.1	2093.8
70°	164.7	342.0	935.6	955.5	966.4	998.9	1055.0	1420.6	1612.4	1675.8	1733.7
72.5°	112.2	132.1	159.3	376.4	796.3	814.4	827.0	874.1	1198.0	1382.6	1413.4
75°	81.4	90.5	106.8	132.1	162.9	530.2	656.9	680.4	704.0	971.8	1127.4
77.5°	57.9	65.1	72.4	85.1	99.5	128.5	184.6	508.5	532.0	544.7	769.1
80°	32.6	39.8	48.9	56.1	63.3	72.4	94.1	117.6	262.4	383.7	403.6
82.5°	18.1	21.7	25.3	30.8	34.4	43.4	52.5	63.3	83.2	123.1	260.6
85°	9.0	9.0	9.0	12.7	14.5	19.9	23.5	27.1	38.0	52.5	72.4
87.5°	5.4	5.4	7.2	7.2	7.2	9.0	9.0	9.0	10.9	16.3	23.5
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: P#

CATALOG NUMBER: 8SNLED-LD5-109SL-RM-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	356°	357°	358°	359°	360°
0°	6029.9	6029.9	6029.9	6029.9	6029.9
2.5°	6053.4	6048.0	6048.0	6069.7	6064.3
5°	6042.5	6037.1	6035.3	6058.8	6048.0
7.5°	6033.5	6013.6	6008.2	6029.9	6020.8
10°	5997.3	5982.8	5991.9	5984.6	5981.0
12.5°	5935.8	5926.7	5888.7	5892.3	5923.1
15°	5825.4	5861.6	5796.4	5854.3	5867.0
17.5°	5622.7	5704.1	5767.5	5801.9	5807.3
20°	5713.2	5740.3	5707.8	5709.6	5731.3
22.5°	5595.6	5608.2	5617.3	5606.4	5653.5
25°	5407.3	5358.5	5463.4	5485.2	5561.2
27.5°	5349.4	5309.6	5358.5	5354.9	5418.2
30°	5302.4	5173.9	5195.6	5230.0	5307.8
32.5°	5235.4	5032.7	5011.0	5087.0	5173.9
35°	5117.8	4926.0	4875.3	4924.2	5054.5
37.5°	5018.3	4777.6	4676.2	4741.4	4911.5
40°	4869.9	4661.8	4504.3	4562.2	4763.1
42.5°	4692.5	4562.2	4319.7	4359.5	4589.4
45°	4513.4	4397.5	4140.6	4160.5	4433.7
47.5°	4330.6	4223.8	3954.2	3957.8	4234.7
50°	4151.4	4010.3	3787.7	3724.3	4022.9
52.5°	3918.0	3787.7	3619.4	3516.2	3822.1
55°	3697.2	3550.6	3427.5	3268.3	3594.0
57.5°	3481.8	3319.0	3235.7	3031.2	3335.3
60°	3186.9	3109.0	2986.0	2790.5	3101.8
62.5°	2884.6	2859.3	2734.4	2531.8	2814.1
65°	2531.8	2591.5	2463.0	2289.3	2515.5
67.5°	2198.8	2305.5	2164.4	2057.6	2227.7
70°	1844.1	1967.1	1887.5	1849.5	1921.9
72.5°	1494.8	1614.2	1621.5	1594.3	1617.9
75°	1154.6	1286.7	1359.1	1317.5	1322.9
77.5°	875.9	939.2	1018.9	1051.4	1044.2
80°	541.1	651.5	716.6	783.6	760.1
82.5°	273.3	365.6	445.2	517.6	483.2
85°	114.0	146.6	204.5	269.6	258.8
87.5°	34.4	57.9	61.5	86.9	81.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)