

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: **4SNLED-LD5-69SL-RM-UNV-L940-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: 4SNLED-LD5-69SL-RM-UNV-L940-CD1-U
Description: 4FT LINEAR SNLED LED FIXTURE
METALIC FINISH REFLECTOR
Light Source: -
Ballast/Driver: -

Summary

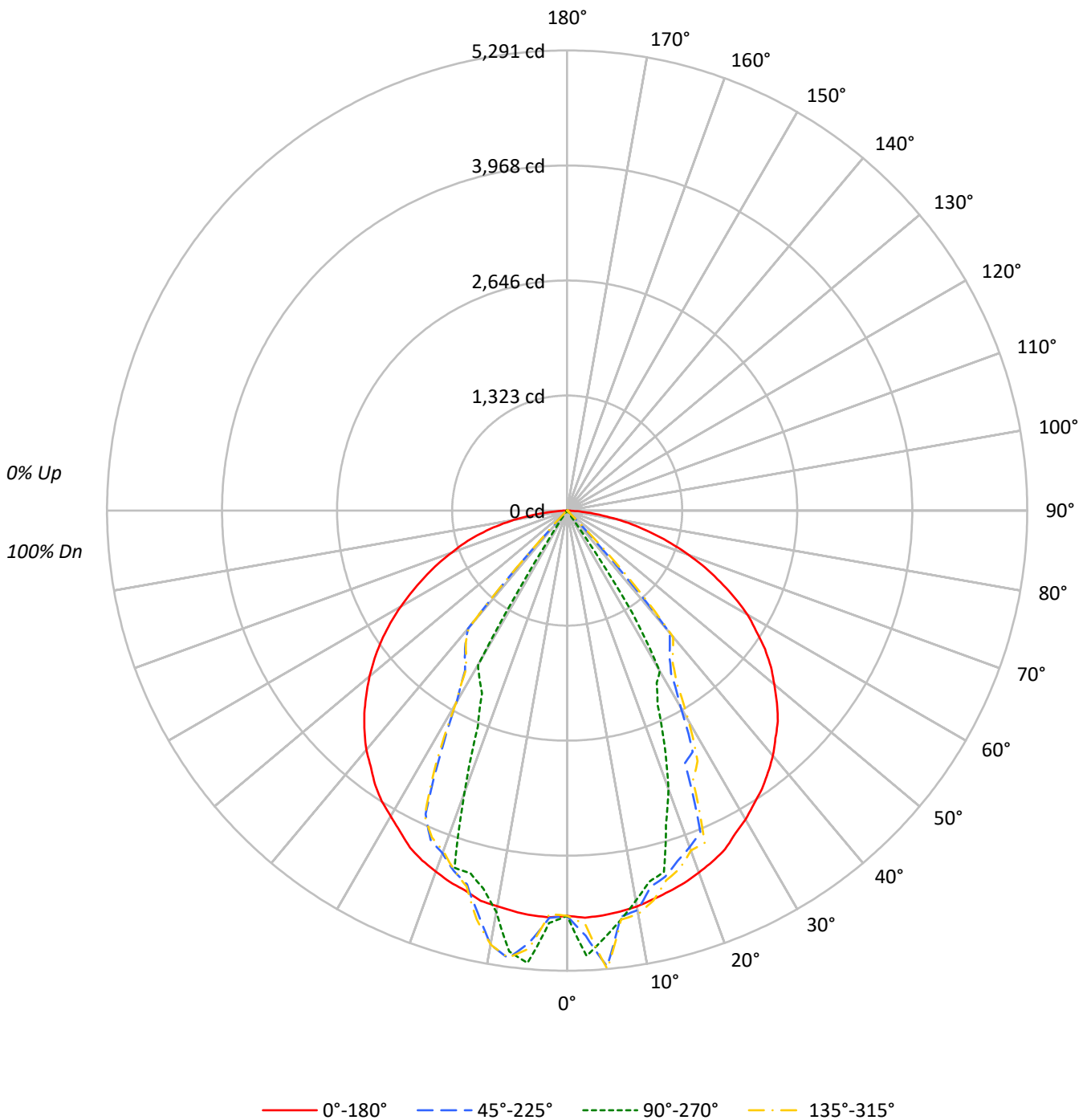
Lumens per Lamp: N/A
Luminaire Lumens: 6625.0 lumens
Efficiency: N/A
Efficacy: 94.6 lumens/watt
Spacing Criteria (0/90/45): 1.3 / 0.81 / 0.97
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.12')
CIE Type: Direct

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: 25 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°	37651	37651	37651	37651
5°	37805	38724	37794	41008
10°	37714	35040	37691	36052
15°	37611	32706	37519	32791
20°	37655	25761	37548	26079
25°	37764	18643	37580	17592
30°	37592	16354	37194	15721
35°	37703	360	37150	437
40°	37833	79	36927	79
45°	37966	47	36539	35
50°	37676	36	35947	36
55°	37454	26	35154	26
60°	36747	27	33873	27
65°	34832	44	32350	30
70°	32312	49	30761	49
75°	28582	55	29052	55
80°	23216	62	24545	62
85°	13663	74	13950	74



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	467.4	7.1
10°-20°	1275.0	19.2
20°-30°	1622.5	24.5
30°-40°	1370.5	20.7
40°-50°	896.0	13.5
50°-60°	564.6	8.5
60°-70°	300.5	4.5
70°-80°	109.6	1.7
80°-90°	18.9	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°	3364.9	50.8
0°-40°	4735.5	71.5
0°-60°	6196.1	93.5
0°-90°	6625.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6625.0	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	4659	4659	4659	4659	4659	
5°	4673	4930	4672	5221	4673	444
15°	4533	4303	4522	4314	4533	1282
25°	4297	2457	4276	2318	4297	1976
35°	3906	46	3848	56	3906	2443
45°	3426	6	3297	4	3426	2635
55°	2777	3	2606	3	2777	2474
65°	1944	4	1805	3	1944	1925
75°	1022	4	1039	4	1022	1085
85°	200	4	204	4	200	253
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°	4659.2	4659.2	4659.2	4659.2	4659.2	4659.2	4659.2	4659.2	4659.2	4659.2	4659.2
2.5°	4685.8	4688.6	4690.0	4692.8	4697.0	4698.3	4701.1	4698.3	4698.3	4698.3	4698.3
5°	4673.2	4678.8	4683.0	4688.6	4698.3	4699.7	4710.9	4712.3	4717.9	4729.1	4737.5
7.5°	4652.2	4657.8	4666.2	4680.2	4694.2	4709.5	4729.1	4750.1	4779.5	4807.4	4842.4
10°	4621.4	4628.4	4638.2	4650.8	4719.3	4729.1	4772.5	4832.6	4849.4	4937.5	5003.2
12.5°	4576.7	4600.5	4625.6	4636.8	4702.5	4806.0	4951.4	4922.1	4889.9	5178.0	5173.8
15°	4533.3	4565.5	4552.9	4643.8	4703.9	4884.3	4822.8	4954.2	5194.8	5136.0	5138.8
17.5°	4487.2	4494.2	4564.1	4639.6	4747.3	4839.6	4915.1	5095.5	5143.0	5147.2	5095.5
20°	4428.5	4462.0	4564.1	4632.6	4814.4	4857.8	5021.4	5113.6	5094.1	5046.5	4958.4
22.5°	4368.3	4470.4	4573.9	4670.4	4797.6	4913.7	4994.8	5038.1	4936.1	4748.7	4648.0
25°	4297.0	4357.2	4492.8	4634.0	4793.4	4860.6	4908.1	4838.2	4705.3	4537.5	4368.3
27.5°	4186.6	4283.0	4456.4	4615.8	4759.9	4841.0	4764.1	4596.3	4382.3	4271.9	4195.0
30°	4101.3	4227.1	4369.7	4523.6	4673.2	4720.7	4525.0	4333.4	4186.6	4076.1	4059.3
32.5°	3997.8	4176.8	4312.4	4459.2	4585.1	4522.2	4332.0	4084.5	3962.8	3920.9	3937.7
35°	3905.5	4041.1	4218.7	4362.8	4453.6	4312.4	4011.8	3858.0	3799.2	3823.0	3792.2
37.5°	3795.0	3974.0	4137.6	4262.1	4231.3	4018.8	3764.3	3666.4	3673.4	3653.8	3595.1
40°	3680.4	3851.0	4021.6	4139.0	4031.4	3706.9	3537.7	3516.8	3521.0	3458.0	3374.1
42.5°	3546.1	3701.3	3871.9	3978.2	3746.1	3493.0	3378.3	3381.1	3344.8	3256.7	3211.9
45°	3425.9	3568.5	3746.1	3755.9	3470.6	3259.5	3225.9	3189.6	3108.5	3079.1	3045.5
47.5°	3272.1	3430.1	3576.9	3523.8	3200.7	3069.3	3044.1	2964.4	2923.9	2901.5	2873.5
50°	3108.5	3267.9	3402.1	3251.1	2946.3	2915.5	2833.0	2770.1	2742.1	2718.3	2693.2
52.5°	2953.2	3084.7	3221.7	2961.6	2750.5	2721.1	2627.4	2591.1	2563.1	2536.5	2531.0
55°	2777.1	2893.1	2986.8	2686.2	2563.1	2494.6	2427.5	2402.3	2375.7	2363.2	2384.1
57.5°	2577.1	2708.5	2694.6	2414.9	2360.4	2261.1	2235.9	2219.1	2199.6	2207.9	2033.2
60°	2396.7	2497.4	2428.9	2216.3	2124.0	2056.9	2034.6	2023.4	2034.6	1864.0	1638.8
62.5°	2174.4	2287.6	2149.2	1984.2	1886.3	1854.2	1834.6	1850.0	1686.4	1499.0	1444.5
65°	1943.7	2066.7	1862.6	1735.3	1673.8	1645.8	1644.4	1514.4	1353.6	1280.9	1280.9
67.5°	1721.3	1848.6	1585.7	1479.4	1455.6	1458.4	1377.3	1180.2	1135.4	1086.5	945.3
70°	1485.0	1596.9	1310.2	1245.9	1231.9	1222.1	1025.0	971.8	918.7	788.7	777.5
72.5°	1250.1	1304.6	1052.9	1037.6	1034.8	860.0	820.8	729.9	668.4	653.0	646.0
75°	1022.2	1005.4	832.0	846.0	713.1	651.6	588.7	535.6	527.2	521.6	130.0
77.5°	806.8	722.9	655.8	570.5	510.4	433.5	420.9	412.5	271.3	97.9	79.7
80°	587.3	468.4	436.3	370.6	316.0	303.4	310.4	95.1	75.5	62.9	54.5
82.5°	373.4	299.2	244.7	213.9	208.3	90.9	67.1	54.5	47.5	40.6	33.6
85°	200.0	132.8	123.1	103.5	61.5	41.9	35.0	26.6	22.4	18.2	16.8
87.5°	62.9	53.1	43.3	35.0	21.0	14.0	11.2	9.8	8.4	7.0	7.0
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°	4659.2	4659.2	4659.2	4659.2	4659.2	4659.2	4659.2	4659.2	4659.2	4659.2	4659.2
2.5°	4695.6	4698.3	4697.0	4701.1	4701.1	4706.7	4710.9	4715.1	4723.5	4727.7	4759.9
5°	4755.7	4762.7	4783.6	4803.2	4827.0	4834.0	4874.5	4884.3	4931.9	4937.5	5094.1
7.5°	4889.9	4916.5	4966.8	5017.2	5067.5	5099.7	5155.6	5190.6	5228.3	5261.9	5386.3
10°	5052.1	5096.9	5145.8	5196.1	5225.5	5287.0	5320.6	5326.2	5316.4	5261.9	5060.5
12.5°	5211.5	5256.3	5235.3	5245.1	5280.0	5171.0	5186.4	5108.1	5162.6	4892.7	4692.8
15°	5189.2	5186.4	5134.6	4966.8	4994.8	4786.4	4702.5	4638.2	4690.0	4662.0	4631.2
17.5°	5122.0	4994.8	4905.3	4703.9	4618.6	4559.9	4561.3	4562.7	4537.5	4564.1	4485.8
20°	4838.2	4695.6	4562.7	4491.4	4466.2	4424.3	4445.3	4424.3	4425.7	4434.1	4313.8
22.5°	4460.6	4417.3	4340.4	4362.8	4354.4	4392.1	4364.2	4320.8	4334.8	4271.9	4181.0
25°	4308.2	4257.9	4255.1	4263.5	4250.9	4234.1	4208.9	4143.2	4139.0	4119.4	4077.5
27.5°	4154.4	4157.2	4165.6	4140.4	4095.7	4062.1	4024.4	3992.2	4004.8	3982.4	3925.1
30°	4048.1	4046.7	3996.4	3974.0	3891.5	3892.9	3883.1	3863.6	3851.0	3852.4	3816.0
32.5°	3897.1	3853.8	3796.4	3768.5	3761.5	3736.3	3716.7	3720.9	3730.7	3695.8	3733.5
35°	3741.9	3652.4	3644.0	3620.2	3597.9	3581.1	3588.1	3560.1	3558.7	3554.5	3246.9
37.5°	3533.5	3490.2	3486.0	3460.8	3445.5	3441.3	3414.7	3418.9	3431.5	3453.8	2768.7
40°	3361.6	3322.4	3312.6	3311.2	3277.7	3274.9	3281.9	3308.4	3326.6	3186.8	2638.6
42.5°	3177.0	3179.8	3149.0	3129.4	3133.6	3146.2	3179.8	3087.5	2675.0	2549.1	2412.1
45°	3019.0	3005.0	2988.2	2982.6	3019.0	2993.8	2624.6	2421.9	2372.9	2367.4	1982.8
47.5°	2854.0	2849.8	2842.8	2847.0	2640.0	2353.4	2269.5	2242.9	2251.3	2245.7	1703.2
50°	2687.6	2693.2	2693.2	2352.0	2159.0	2111.5	2118.5	2142.2	1994.0	1861.2	1587.1
52.5°	2543.5	2500.2	2142.2	2019.2	1975.8	1996.8	1946.5	1760.5	1626.2	1547.9	1468.2
55°	2276.5	1957.6	1877.9	1858.4	1873.7	1687.8	1573.1	1452.9	1417.9	1409.5	1363.4
57.5°	1791.2	1726.9	1733.9	1655.6	1478.0	1373.1	1327.0	1310.2	1294.8	1283.7	111.9
60°	1584.3	1602.5	1466.8	1299.0	1227.7	1213.7	1202.6	1187.2	1184.4	1164.8	71.3
62.5°	1450.1	1275.3	1157.8	1115.9	1099.1	1094.9	1073.9	1066.9	906.1	124.5	53.1
65°	1093.5	1022.2	999.8	990.0	971.8	971.8	806.8	127.2	103.5	89.5	47.5
67.5°	892.1	886.5	875.3	862.8	587.3	123.1	107.7	93.7	81.1	71.3	41.9
70°	755.1	752.3	685.2	125.8	104.9	92.3	81.1	72.7	67.1	60.1	37.8
72.5°	619.5	125.8	106.3	92.3	79.7	72.7	65.7	58.7	53.1	48.9	30.8
75°	96.5	85.3	75.5	68.5	62.9	55.9	50.3	46.1	44.7	39.2	21.0
77.5°	69.9	60.1	54.5	48.9	43.3	39.2	33.6	29.4	26.6	22.4	15.4
80°	48.9	43.3	39.2	32.2	28.0	23.8	21.0	18.2	16.8	14.0	7.0
82.5°	28.0	23.8	21.0	16.8	15.4	12.6	11.2	9.8	9.8	7.0	7.0
85°	12.6	12.6	9.8	8.4	7.0	7.0	7.0	5.6	5.6	4.2	4.2
87.5°	5.6	5.6	5.6	5.6	5.6	4.2	4.2	4.2	4.2	4.2	2.8
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°	4659.2	4659.2	4659.2	4659.2	4659.2	4659.2	4659.2	4659.2	4659.2	4659.2	4659.2
2.5°	4804.6	4822.8	4857.8	4894.1	4853.6	4999.0	4987.8	5036.7	5063.3	5075.9	5105.3
5°	5232.5	5313.6	5340.2	5260.5	5214.3	5166.8	5059.1	4978.0	4987.8	4961.2	4864.7
7.5°	5224.1	5050.7	4817.2	4710.9	4702.5	4690.0	4723.5	4743.1	4745.9	4744.5	4741.7
10°	4782.2	4692.8	4677.4	4663.4	4669.0	4617.2	4593.5	4526.4	4562.7	4543.1	4550.1
12.5°	4648.0	4627.0	4544.5	4429.9	4498.4	4446.7	4417.3	4436.9	4414.5	4393.5	4386.5
15°	4568.3	4432.7	4386.5	4358.6	4339.0	4327.8	4337.6	4315.2	4308.2	4304.0	4313.8
17.5°	4403.3	4348.8	4298.4	4224.3	4225.7	4221.5	4249.5	4291.4	4294.2	4078.9	3884.5
20°	4273.3	4228.5	4164.2	4118.0	4181.0	4069.1	3637.0	3431.5	3399.3	3399.3	3404.9
22.5°	4169.8	4070.5	4074.7	4002.0	3413.3	3293.0	3295.8	3308.4	3251.1	3055.3	3034.4
25°	4028.6	4013.2	3706.9	3203.5	3207.7	3114.1	2970.0	2767.3	2547.7	2547.7	2511.4
27.5°	3922.3	3596.5	3149.0	3128.0	2813.4	2614.9	2491.8	2305.8	2280.7	2256.9	2259.7
30°	3831.4	3042.7	3053.9	2614.9	2382.7	2217.7	2207.9	2177.2	2161.8	2157.6	2142.2
32.5°	3028.8	2963.0	2556.1	2226.1	2135.2	2108.7	2096.1	2061.1	2059.7	2033.2	1848.6
35°	2840.0	2600.9	2139.4	2049.9	2023.4	1998.2	1977.2	1327.0	156.6	62.9	54.5
37.5°	2624.6	2173.0	1978.6	1938.1	1912.9	1413.7	141.2	48.9	35.0	25.2	22.4
40°	2224.7	1940.9	1879.3	1834.6	756.5	48.9	30.8	23.8	14.0	12.6	11.2
42.5°	1876.5	1829.0	1763.3	537.0	55.9	23.8	15.4	11.2	9.8	9.8	8.4
45°	1756.3	1714.3	710.3	53.1	35.0	11.2	9.8	9.8	8.4	5.6	5.6
47.5°	1644.4	1447.3	64.3	33.6	22.4	9.8	8.4	5.6	5.6	5.6	4.2
50°	1525.6	79.7	44.7	25.2	14.0	5.6	5.6	5.6	5.6	4.2	4.2
52.5°	285.3	55.9	36.4	22.4	7.0	5.6	5.6	5.6	4.2	4.2	4.2
55°	67.1	44.7	33.6	19.6	5.6	5.6	5.6	4.2	4.2	4.2	2.8
57.5°	50.3	33.6	26.6	18.2	5.6	4.2	4.2	4.2	4.2	4.2	2.8
60°	41.9	23.8	21.0	16.8	4.2	4.2	4.2	4.2	4.2	4.2	2.8
62.5°	29.4	19.6	15.4	12.6	4.2	4.2	4.2	4.2	4.2	4.2	4.2
65°	23.8	15.4	12.6	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2
67.5°	21.0	12.6	8.4	2.8	4.2	4.2	4.2	4.2	4.2	4.2	4.2
70°	16.8	4.2	4.2	2.8	4.2	4.2	4.2	4.2	4.2	4.2	4.2
72.5°	14.0	4.2	2.8	2.8	4.2	4.2	4.2	4.2	4.2	4.2	4.2
75°	14.0	7.0	2.8	2.8	4.2	4.2	5.6	5.6	4.2	4.2	4.2
77.5°	9.8	7.0	2.8	2.8	4.2	4.2	5.6	5.6	4.2	4.2	4.2
80°	5.6	7.0	2.8	4.2	4.2	8.4	9.8	5.6	4.2	4.2	4.2
82.5°	5.6	7.0	8.4	8.4	4.2	7.0	8.4	7.0	5.6	4.2	4.2
85°	5.6	4.2	5.6	7.0	4.2	7.0	7.0	5.6	5.6	4.2	4.2
87.5°	2.8	4.2	4.2	5.6	5.6	5.6	7.0	5.6	5.6	5.6	4.2
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: 4SNLED-LD5-69SL-RM-UNV-L940-CD1-U

CANDELA DISTRIBUTION (continued):

	85°	90°	95°	100°	105°	110°	115°	120°	125°	130°	135°
0°	4659.2	4659.2	4659.2	4659.2	4659.2	4659.2	4659.2	4659.2	4659.2	4659.2	4659.2
2.5°	5119.2	5124.8	5036.7	5006.0	5032.5	5027.0	5003.2	4915.1	4905.3	4846.6	4761.3
5°	4892.7	4930.5	4884.3	4964.0	4926.3	4964.0	5078.7	5131.8	5218.5	5271.7	5291.2
7.5°	4734.7	4743.1	4743.1	4750.1	4757.1	4758.5	4750.1	4744.5	4720.7	4691.4	4744.5
10°	4543.1	4552.9	4569.7	4566.9	4565.5	4594.9	4601.9	4662.0	4659.2	4670.4	4710.9
12.5°	4443.9	4368.3	4436.9	4418.7	4443.9	4404.7	4477.4	4464.8	4469.0	4502.6	4589.3
15°	4278.9	4302.6	4319.4	4319.4	4329.2	4320.8	4312.4	4369.7	4404.7	4406.1	4400.5
17.5°	3961.4	3781.1	3965.6	3918.1	4297.0	4306.8	4274.7	4248.1	4248.1	4269.1	4313.8
20°	3400.7	3404.9	3406.3	3424.5	3446.9	3445.5	3446.9	3997.8	4259.3	4199.1	4158.6
22.5°	2981.2	2929.5	3026.0	3019.0	3139.2	3272.1	3399.3	3386.7	3395.1	3783.8	4133.4
25°	2389.7	2456.8	2402.3	2426.1	2561.7	2719.7	2817.6	3073.5	3351.8	3332.2	3423.1
27.5°	2249.9	2231.7	2256.9	2256.9	2275.1	2296.0	2350.6	2494.6	2742.1	3002.2	3248.3
30°	2117.1	2132.4	2135.2	2160.4	2174.4	2188.4	2196.8	2251.3	2307.2	2487.6	2791.0
32.5°	1589.9	1394.1	1834.6	1953.5	2054.1	2077.9	2094.7	2117.1	2157.6	2184.2	2336.6
35°	46.1	46.1	48.9	55.9	71.3	481.0	1831.8	2019.2	2045.7	2079.3	2107.3
37.5°	22.4	16.8	19.6	21.0	25.2	35.0	50.3	156.6	1743.7	1971.6	2002.4
40°	9.8	9.8	9.8	9.8	11.2	14.0	21.0	35.0	53.1	1402.5	1891.9
42.5°	8.4	8.4	8.4	8.4	8.4	8.4	9.8	12.6	25.2	60.1	992.8
45°	5.6	5.6	4.2	5.6	5.6	7.0	8.4	8.4	11.2	37.8	68.5
47.5°	4.2	4.2	4.2	4.2	4.2	4.2	4.2	7.0	8.4	25.2	36.4
50°	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	19.6	25.2
52.5°	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	8.4	22.4
55°	2.8	2.8	2.8	2.8	2.8	2.8	2.8	4.2	4.2	5.6	19.6
57.5°	2.8	2.8	2.8	2.8	2.8	4.2	2.8	2.8	4.2	4.2	18.2
60°	2.8	2.8	2.8	2.8	2.8	4.2	4.2	4.2	4.2	4.2	16.8
62.5°	4.2	4.2	2.8	4.2	2.8	2.8	4.2	4.2	4.2	4.2	11.2
65°	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	2.8	4.2
67.5°	4.2	4.2	4.2	4.2	2.8	4.2	2.8	4.2	4.2	2.8	2.8
70°	4.2	4.2	4.2	4.2	4.2	4.2	4.2	2.8	2.8	2.8	2.8
72.5°	4.2	4.2	4.2	4.2	4.2	4.2	4.2	2.8	2.8	2.8	2.8
75°	4.2	4.2	4.2	4.2	4.2	4.2	5.6	5.6	2.8	2.8	2.8
77.5°	4.2	4.2	4.2	4.2	4.2	4.2	7.0	8.4	7.0	7.0	2.8
80°	4.2	4.2	4.2	4.2	4.2	4.2	7.0	7.0	7.0	7.0	9.8
82.5°	4.2	4.2	4.2	4.2	4.2	4.2	5.6	5.6	5.6	5.6	7.0
85°	4.2	4.2	4.2	4.2	4.2	4.2	5.6	5.6	5.6	4.2	5.6
87.5°	4.2	4.2	4.2	4.2	4.2	4.2	4.2	5.6	4.2	4.2	4.2
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: 4SNLED-LD5-69SL-RM-UNV-L940-CD1-U

CANDELA DISTRIBUTION (continued):

	140°	145°	150°	155°	160°	161°	162°	163°	164°	165°	166°
0°	4659.2	4659.2	4659.2	4659.2	4659.2	4659.2	4659.2	4659.2	4659.2	4659.2	4659.2
2.5°	4768.3	4720.7	4705.3	4673.2	4670.4	4673.2	4666.2	4656.4	4662.0	4652.2	4643.8
5°	5302.4	5175.2	5092.7	4982.2	4829.8	4796.2	4787.8	4740.3	4723.5	4717.9	4695.6
7.5°	4870.3	5102.5	5242.3	5289.8	5110.9	5068.9	5020.0	4980.8	4943.1	4871.7	4828.4
10°	4678.8	4690.0	4824.2	4980.8	5235.3	5270.3	5296.8	5211.5	5187.8	5006.0	4966.8
12.5°	4634.0	4635.4	4650.8	4745.9	4945.9	4968.2	5061.9	5112.3	5173.8	5208.7	5180.8
15°	4429.9	4543.1	4627.0	4635.4	4653.6	4692.8	4720.7	4895.5	4969.6	5168.2	5157.0
17.5°	4334.8	4371.1	4492.8	4592.1	4575.3	4561.3	4583.7	4607.5	4678.8	4877.3	4874.5
20°	4176.8	4292.8	4358.6	4462.0	4555.7	4559.9	4534.7	4520.8	4492.8	4525.0	4554.3
22.5°	4109.7	4127.8	4250.9	4323.6	4429.9	4467.6	4473.2	4474.6	4459.2	4442.5	4434.1
25°	4102.7	4045.3	4108.3	4199.1	4277.5	4318.0	4364.2	4379.5	4373.9	4373.9	4365.5
27.5°	3357.4	4027.2	3993.6	4053.7	4148.8	4176.8	4200.5	4248.1	4277.5	4298.4	4308.2
30°	3198.0	3318.2	3904.1	3912.5	4009.0	4006.2	4032.7	4071.9	4109.7	4158.6	4171.2
32.5°	2828.8	3123.8	3574.1	3771.3	3871.9	3881.7	3895.7	3906.9	3941.9	3996.4	4043.9
35°	2266.7	2845.6	3062.3	3704.1	3722.3	3741.9	3750.3	3776.9	3788.0	3810.4	3852.4
37.5°	2051.3	2352.0	2937.9	3203.5	3550.3	3567.1	3611.9	3623.0	3641.2	3659.4	3691.6
40°	1926.9	2009.4	2445.7	2861.0	3411.9	3423.1	3438.5	3466.4	3467.8	3488.8	3518.2
42.5°	1827.6	1880.7	2008.0	2732.3	3314.0	3312.6	3276.3	3294.4	3302.8	3325.2	3365.8
45°	1459.8	1764.7	1845.8	2231.7	2638.6	2828.8	3193.8	3133.6	3132.2	3140.6	3184.0
47.5°	74.1	1659.8	1717.1	1841.6	2491.8	2498.8	2546.3	2946.3	3007.8	2988.2	2992.4
50°	50.3	114.7	1599.7	1657.0	2147.8	2321.2	2356.2	2374.3	2605.1	2862.4	2820.4
52.5°	39.2	65.7	980.2	1538.1	1745.1	1872.3	2097.5	2226.1	2240.1	2343.6	2694.6
55°	35.0	50.3	106.3	1419.3	1483.6	1511.6	1643.0	1868.2	2049.9	2104.5	2108.7
57.5°	30.8	46.1	72.7	641.8	1349.4	1355.0	1377.3	1455.6	1619.3	1768.9	1938.1
60°	28.0	40.6	57.3	110.5	1226.3	1240.3	1244.5	1265.5	1285.1	1387.1	1581.5
62.5°	16.8	32.2	50.3	79.7	970.4	1114.5	1113.1	1127.0	1145.2	1156.4	1195.6
65°	14.0	25.2	43.3	67.1	118.9	148.2	900.5	1001.2	1012.4	1027.8	1034.8
67.5°	12.6	22.4	32.2	53.1	89.5	102.1	117.5	145.4	794.2	894.9	908.9
70°	11.2	15.4	26.6	44.7	72.7	78.3	88.1	100.7	118.9	146.8	718.7
72.5°	7.0	11.2	18.2	32.2	55.9	62.9	68.5	76.9	85.3	102.1	117.5
75°	2.8	8.4	15.4	23.8	43.3	47.5	51.7	57.3	64.3	75.5	83.9
77.5°	2.8	7.0	12.6	16.8	28.0	32.2	37.8	41.9	47.5	53.1	61.5
80°	9.8	5.6	8.4	12.6	19.6	21.0	23.8	26.6	30.8	35.0	40.6
82.5°	7.0	8.4	9.8	8.4	9.8	12.6	14.0	16.8	18.2	21.0	22.4
85°	5.6	5.6	7.0	7.0	7.0	7.0	7.0	7.0	8.4	9.8	12.6
87.5°	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	5.6	5.6
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: 4SNLED-LD5-69SL-RM-UNV-L940-CD1-U

CANDELA DISTRIBUTION (continued):

	167°	168°	169°	170°	171°	172°	173°	174°	175°	176°	177°
0°	4659.2	4659.2	4659.2	4659.2	4659.2	4659.2	4659.2	4659.2	4659.2	4659.2	4659.2
2.5°	4643.8	4641.0	4632.6	4632.6	4631.2	4636.8	4641.0	4645.2	4643.8	4652.2	4643.8
5°	4678.8	4671.8	4659.2	4648.0	4643.8	4646.6	4642.4	4646.6	4641.0	4648.0	4635.4
7.5°	4775.3	4751.5	4702.5	4683.0	4657.8	4656.4	4643.8	4641.0	4632.6	4632.6	4617.2
10°	4945.9	4831.2	4817.2	4758.5	4737.5	4635.4	4657.8	4620.0	4615.8	4597.7	4590.7
12.5°	5085.7	4996.2	4969.6	4917.9	4859.2	4652.2	4698.3	4617.2	4613.1	4576.7	4538.9
15°	5088.5	5140.2	5067.5	4924.9	4912.3	4769.7	4676.0	4648.0	4611.7	4502.6	4520.8
17.5°	4924.9	5043.7	5078.7	5047.9	4958.4	4862.0	4730.5	4674.6	4565.5	4516.6	4483.0
20°	4659.2	4779.5	4929.1	4938.9	4994.8	4926.3	4754.3	4663.4	4531.9	4446.7	4418.7
22.5°	4448.0	4536.1	4708.1	4787.8	4856.4	4880.1	4771.1	4636.8	4473.2	4390.7	4373.9
25°	4336.2	4355.8	4407.5	4501.2	4652.2	4761.3	4776.7	4634.0	4548.7	4368.3	4273.3
27.5°	4295.6	4278.9	4257.9	4305.4	4418.7	4551.5	4639.6	4663.4	4450.8	4278.9	4183.8
30°	4192.2	4201.9	4169.8	4153.0	4227.1	4364.2	4520.8	4559.9	4396.3	4218.7	4109.7
32.5°	4064.9	4081.7	4087.3	4057.9	4042.5	4137.6	4306.8	4400.5	4392.1	4133.4	4011.8
35°	3905.5	3953.0	3965.6	3967.0	3941.9	3926.5	4024.4	4218.7	4292.8	4094.3	3918.1
37.5°	3737.7	3751.7	3820.2	3838.4	3838.4	3792.2	3865.0	4020.2	4123.6	4006.2	3803.4
40°	3528.0	3572.7	3637.0	3669.2	3701.3	3705.5	3665.0	3774.1	3944.7	3915.3	3695.8
42.5°	3375.5	3404.9	3444.1	3487.4	3553.1	3569.9	3528.0	3547.5	3725.1	3802.0	3555.9
45°	3198.0	3237.1	3248.3	3295.8	3364.4	3413.3	3411.9	3371.3	3514.0	3609.1	3453.8
47.5°	3016.2	3053.9	3073.5	3097.3	3147.6	3210.5	3245.5	3227.3	3255.3	3441.3	3318.2
50°	2828.8	2849.8	2888.9	2915.5	2949.1	2985.4	3069.3	3086.1	3046.9	3195.2	3168.6
52.5°	2651.2	2658.2	2684.8	2711.3	2756.1	2782.7	2849.8	2900.1	2897.3	2940.7	3002.2
55°	2512.8	2482.0	2487.6	2508.6	2537.9	2578.5	2616.3	2694.6	2721.1	2729.5	2827.4
57.5°	1963.2	2279.3	2307.2	2305.8	2340.8	2359.0	2393.9	2445.7	2540.7	2519.8	2628.8
60°	1784.3	1819.2	2083.5	2114.3	2126.8	2143.6	2185.6	2233.1	2303.0	2347.8	2395.3
62.5°	1360.6	1573.1	1652.8	1886.3	1922.7	1932.5	1960.4	1982.8	2055.5	2157.6	2138.0
65°	1052.9	1143.8	1387.1	1482.2	1680.8	1705.9	1745.1	1768.9	1789.8	1907.3	1912.9
67.5°	910.3	924.3	990.0	1173.2	1299.0	1493.4	1517.2	1538.1	1570.3	1654.2	1705.9
70°	777.5	794.2	812.4	827.8	991.4	1120.1	1300.4	1307.4	1328.4	1384.3	1501.8
72.5°	146.8	664.2	675.4	685.2	703.4	788.7	960.6	1100.5	1108.9	1135.4	1243.1
75°	99.3	116.1	159.4	548.1	566.3	571.9	601.3	776.1	904.7	910.3	957.8
77.5°	71.3	79.7	96.5	114.7	292.2	439.1	446.1	478.2	611.1	707.5	715.9
80°	48.9	54.5	64.3	72.7	89.5	117.5	324.4	334.2	351.0	483.8	509.0
82.5°	28.0	32.2	37.8	46.1	53.1	67.1	86.7	111.9	227.9	243.3	323.0
85°	14.0	15.4	18.2	22.4	26.6	32.2	43.3	53.1	72.7	131.4	135.6
87.5°	7.0	7.0	7.0	7.0	11.2	12.6	15.4	19.6	25.2	37.8	48.9
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: P#

CATALOG NUMBER: 4SNLED-LD5-69SL-RM-UNV-L940-CD1-U

CANDELA DISTRIBUTION (continued):

	178°	179°	180°	181°	182°	183°	184°	185°	186°	187°	188°
0°	4659.2	4659.2	4659.2	4659.2	4659.2	4659.2	4659.2	4659.2	4659.2	4659.2	4659.2
2.5°	4645.2	4664.8	4681.6	4685.8	4685.8	4688.6	4692.8	4695.6	4698.3	4701.1	4698.3
5°	4636.8	4657.8	4671.8	4676.0	4676.0	4684.4	4691.4	4699.7	4703.9	4703.9	4701.1
7.5°	4615.8	4631.2	4649.4	4660.6	4662.0	4676.0	4688.6	4687.2	4692.8	4695.6	4702.5
10°	4587.9	4587.9	4618.6	4627.0	4634.0	4649.4	4653.6	4662.0	4681.6	4684.4	4702.5
12.5°	4573.9	4559.9	4596.3	4600.5	4624.2	4604.7	4629.8	4638.2	4618.6	4645.2	4610.3
15°	4511.0	4527.8	4522.2	4534.7	4576.7	4554.3	4622.8	4600.5	4650.8	4590.7	4697.0
17.5°	4459.2	4456.4	4478.8	4490.0	4498.4	4545.9	4564.1	4589.3	4608.9	4592.1	4634.0
20°	4421.5	4399.1	4415.9	4428.5	4457.8	4494.2	4505.4	4467.6	4533.3	4645.2	4671.8
22.5°	4350.2	4334.8	4354.4	4354.4	4399.1	4393.5	4435.5	4411.7	4473.2	4603.3	4738.9
25°	4253.7	4255.1	4276.1	4301.2	4309.6	4372.5	4394.9	4425.7	4502.6	4657.8	4740.3
27.5°	4155.8	4147.4	4160.0	4211.7	4255.1	4301.2	4308.2	4413.1	4518.0	4624.2	4697.0
30°	4057.9	4049.5	4057.9	4095.7	4147.4	4178.2	4255.1	4394.9	4492.8	4565.5	4634.0
32.5°	3953.0	3944.7	3964.2	3992.2	4083.1	4087.3	4239.7	4371.1	4448.0	4501.2	4488.6
35°	3841.2	3830.0	3848.2	3891.5	3975.4	4006.2	4165.6	4263.5	4350.2	4375.3	4316.6
37.5°	3706.9	3687.4	3709.7	3769.9	3858.0	3947.5	4080.3	4193.6	4239.7	4172.6	4102.7
40°	3567.1	3553.1	3592.3	3623.0	3726.5	3851.0	4003.4	4083.1	4053.7	3976.8	3899.9
42.5°	3442.7	3413.3	3448.3	3507.0	3624.4	3765.7	3888.7	3933.5	3863.6	3750.3	3660.8
45°	3290.2	3255.3	3297.2	3375.5	3501.4	3662.2	3758.7	3743.3	3624.4	3526.6	3403.5
47.5°	3130.8	3088.9	3130.8	3224.5	3365.8	3536.3	3606.3	3536.3	3386.7	3263.7	3164.4
50°	2974.2	2925.3	2965.8	3107.1	3245.5	3376.9	3375.5	3239.9	3150.4	3016.2	2929.5
52.5°	2819.0	2749.1	2789.6	2943.5	3081.9	3231.5	3121.0	2995.2	2887.5	2770.1	2742.1
55°	2627.4	2551.9	2606.5	2830.2	2936.5	3024.6	2848.4	2737.9	2631.6	2572.9	2537.9
57.5°	2445.7	2363.2	2410.7	2675.0	2753.3	2775.7	2613.5	2456.8	2393.9	2374.3	2324.0
60°	2258.3	2164.6	2209.3	2514.2	2568.7	2477.8	2318.4	2196.8	2184.2	2145.0	2105.9
62.5°	2079.3	1975.8	2003.8	2314.2	2339.4	2174.4	2027.6	1995.4	1964.6	1925.5	1904.5
65°	1873.7	1766.1	1805.2	2101.7	2077.9	1865.4	1782.9	1775.9	1735.3	1703.2	1733.9
67.5°	1685.0	1557.7	1612.3	1869.6	1761.9	1588.5	1554.9	1538.1	1506.0	1524.2	1201.2
70°	1478.0	1339.6	1413.7	1619.3	1459.8	1345.2	1332.6	1307.4	1308.8	1040.3	876.7
72.5°	1247.3	1127.0	1234.7	1345.2	1155.0	1121.5	1103.3	1100.5	887.9	721.5	681.0
75°	1044.5	922.9	1039.0	1080.9	920.1	897.7	896.3	741.1	583.1	556.5	543.9
77.5°	815.2	721.5	832.0	769.1	706.2	681.0	611.1	458.6	439.1	420.9	158.0
80°	549.5	556.5	620.9	530.0	503.4	429.3	338.4	324.4	279.7	111.9	88.1
82.5°	334.2	419.5	395.7	331.4	324.4	233.5	213.9	109.1	81.1	64.3	55.9
85°	173.4	212.5	204.2	180.4	134.2	120.3	67.1	51.7	41.9	32.2	26.6
87.5°	58.7	78.3	75.5	60.1	46.1	36.4	23.8	19.6	14.0	11.2	9.8
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: 4SNLED-LD5-69SL-RM-UNV-L940-CD1-U

CANDELA DISTRIBUTION (continued):

	189°	190°	191°	192°	193°	194°	195°	196°	197°	198°	199°
0°	4659.2	4659.2	4659.2	4659.2	4659.2	4659.2	4659.2	4659.2	4659.2	4659.2	4659.2
2.5°	4695.6	4695.6	4692.8	4695.6	4697.0	4694.2	4694.2	4697.0	4698.3	4699.7	4706.7
5°	4702.5	4705.3	4709.5	4717.9	4719.3	4736.1	4743.1	4747.3	4751.5	4752.9	4743.1
7.5°	4717.9	4727.7	4736.1	4734.7	4724.9	4698.3	4690.0	4683.0	4695.6	4727.7	4765.5
10°	4731.9	4687.2	4603.3	4717.9	4683.0	4715.1	4810.2	4831.2	4895.5	4986.4	5013.0
12.5°	4635.4	4758.5	4785.0	4656.4	4894.1	4806.0	4910.9	5003.2	5029.7	5122.0	5066.1
15°	4738.9	4799.0	4839.6	4968.2	4954.2	5029.7	5059.1	5040.9	5045.1	5068.9	5131.8
17.5°	4737.5	4857.8	4884.3	4971.0	5029.7	5031.1	5022.8	5014.4	5036.7	5054.9	5017.2
20°	4818.6	4857.8	4909.5	4944.5	4955.6	4969.6	4996.2	4975.2	4933.3	4892.7	4875.9
22.5°	4778.1	4866.1	4910.9	4916.5	4909.5	4866.1	4827.0	4768.3	4748.7	4727.7	4734.7
25°	4786.4	4827.0	4821.4	4799.0	4769.7	4688.6	4669.0	4643.8	4606.1	4515.2	4432.7
27.5°	4726.3	4705.3	4680.2	4625.6	4572.5	4529.2	4480.2	4399.1	4332.0	4234.1	4197.8
30°	4625.6	4541.7	4480.2	4448.0	4396.3	4323.6	4249.5	4150.2	4064.9	4045.3	4027.2
32.5°	4432.7	4350.2	4299.8	4221.5	4133.4	4046.7	3961.4	3922.3	3904.1	3906.9	3890.1
35°	4235.5	4162.8	4087.3	3969.8	3904.1	3817.4	3786.6	3778.3	3761.5	3743.3	3723.7
37.5°	4025.8	3940.5	3827.2	3757.3	3691.6	3656.6	3641.2	3628.6	3599.3	3567.1	3544.7
40°	3823.0	3669.2	3606.3	3537.7	3518.2	3502.8	3480.4	3449.7	3409.1	3403.5	3393.7
42.5°	3551.7	3441.3	3386.7	3372.7	3349.0	3322.4	3302.8	3269.3	3252.5	3263.7	3272.1
45°	3294.4	3238.5	3220.3	3203.5	3158.8	3121.0	3108.5	3097.3	3111.3	3172.8	3026.0
47.5°	3086.1	3063.7	3041.3	3013.4	2971.4	2943.5	2956.0	2967.2	2979.8	2528.2	2307.2
50°	2905.7	2874.9	2840.0	2809.2	2784.1	2781.3	2847.0	2649.8	2219.1	2207.9	1984.2
52.5°	2708.5	2662.4	2641.4	2623.2	2634.4	2676.4	2214.9	2055.5	1971.6	1712.9	1598.3
55°	2496.0	2455.4	2455.4	2472.2	2412.1	1954.8	1931.1	1669.6	1511.6	1466.8	1448.7
57.5°	2283.5	2279.3	2303.0	2105.9	1774.5	1701.8	1430.5	1373.1	1348.0	1342.4	1313.0
60°	2089.1	2128.2	1781.5	1638.8	1424.9	1285.1	1245.9	1238.9	1212.3	1202.6	1176.0
62.5°	1933.9	1603.9	1493.4	1219.3	1148.0	1129.8	1108.9	1099.1	1075.3	949.5	278.3
65°	1396.9	1320.0	1071.1	1025.0	1019.4	992.8	984.4	885.1	208.3	139.8	118.9
67.5°	1054.3	935.5	903.3	894.9	868.4	815.2	241.9	138.4	118.9	103.5	90.9
70°	809.6	788.7	764.9	745.3	219.5	137.0	118.9	100.7	86.7	76.9	69.9
72.5°	662.8	648.8	377.5	144.0	117.5	99.3	88.1	76.9	67.1	61.5	55.9
75°	518.8	144.0	118.9	99.3	85.3	72.7	64.3	57.3	51.7	47.5	43.3
77.5°	117.5	95.1	81.1	68.5	61.5	54.5	48.9	41.9	37.8	33.6	28.0
80°	72.7	62.9	53.1	48.9	41.9	35.0	30.8	28.0	22.4	21.0	18.2
82.5°	47.5	37.8	33.6	28.0	22.4	21.0	18.2	14.0	12.6	11.2	9.8
85°	21.0	18.2	15.4	12.6	9.8	8.4	7.0	5.6	5.6	5.6	5.6
87.5°	7.0	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	2.8	2.8
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: 4SNLED-LD5-69SL-RM-UNV-L940-CD1-U

CANDELA DISTRIBUTION (continued):

	200°	205°	210°	215°	220°	225°	230°	235°	240°	245°	250°
0°	4659.2	4659.2	4659.2	4659.2	4659.2	4659.2	4659.2	4659.2	4659.2	4659.2	4659.2
2.5°	4709.5	4734.7	4758.5	4751.5	4726.3	4687.2	4676.0	4660.6	4671.8	4695.6	4705.3
5°	4743.1	4729.1	4779.5	4853.6	4973.8	4985.0	5068.9	5088.5	5155.6	5197.5	5196.1
7.5°	4790.6	4989.2	5071.7	5161.2	5201.7	5192.0	5204.5	5194.8	5179.4	5172.4	5164.0
10°	5032.5	5183.6	5214.3	5214.3	5151.4	5066.1	5029.7	4966.8	4841.0	4843.8	4822.8
12.5°	5173.8	5226.9	5154.2	5092.7	4839.6	4741.7	4635.4	4585.1	4555.7	4511.0	4527.8
15°	5099.7	5024.2	4980.8	4782.2	4627.0	4450.8	4453.6	4422.9	4390.7	4393.5	4372.5
17.5°	4990.6	4930.5	4622.8	4485.8	4410.3	4341.8	4329.2	4288.6	4267.7	4260.7	4259.3
20°	4841.0	4624.2	4394.9	4361.4	4270.5	4192.2	4179.6	4192.2	4256.5	4141.8	3753.1
22.5°	4666.2	4354.4	4287.2	4192.2	4130.6	4099.9	4176.8	3827.2	3298.6	3363.0	3294.4
25°	4369.7	4234.1	4119.4	4046.7	4039.7	3851.0	3209.1	3142.0	2802.2	2620.4	2416.3
27.5°	4153.0	4094.3	3974.0	3961.4	3870.5	3149.0	2814.8	2445.7	2310.0	2289.0	2244.3
30°	4021.6	3937.7	3865.0	3547.5	3088.9	2535.2	2258.3	2206.5	2182.8	2157.6	2118.5
32.5°	3863.6	3783.8	3818.8	2982.6	2462.4	2182.8	2126.8	2089.1	2045.7	2029.0	1887.7
35°	3702.7	3666.4	2984.0	2507.2	2117.1	2049.9	2008.0	1968.8	1566.1	378.9	128.6
37.5°	3530.8	3522.4	2682.0	2080.7	1982.8	1919.9	1801.0	372.0	88.1	60.1	44.7
40°	3396.5	2683.4	2119.9	1950.7	1870.9	1771.7	248.9	61.5	39.2	23.8	15.4
42.5°	3307.0	2413.5	1897.5	1830.4	1657.0	183.2	62.9	26.6	15.4	12.6	9.8
45°	2549.1	1905.9	1773.1	1703.2	209.7	62.9	36.4	12.6	9.8	8.4	5.6
47.5°	2352.0	1731.1	1652.8	372.0	69.9	33.6	25.2	8.4	5.6	5.6	5.6
50°	1781.5	1599.7	1315.8	90.9	44.7	23.8	18.2	5.6	5.6	5.6	4.2
52.5°	1561.9	1476.6	141.2	60.1	35.0	18.2	11.2	4.2	4.2	4.2	4.2
55°	1427.7	936.9	83.9	46.1	29.4	16.8	7.0	4.2	4.2	4.2	2.8
57.5°	1306.0	125.8	61.5	39.2	26.6	15.4	4.2	4.2	4.2	4.2	2.8
60°	1107.5	90.9	50.3	35.0	25.2	14.0	4.2	4.2	4.2	4.2	4.2
62.5°	144.0	71.3	43.3	30.8	18.2	11.2	2.8	4.2	4.2	4.2	4.2
65°	104.9	55.9	39.2	21.0	11.2	4.2	2.8	4.2	4.2	4.2	4.2
67.5°	81.1	46.1	29.4	18.2	9.8	2.8	2.8	4.2	4.2	4.2	4.2
70°	64.3	39.2	23.8	15.4	8.4	2.8	2.8	4.2	4.2	4.2	4.2
72.5°	50.3	28.0	16.8	8.4	5.6	2.8	2.8	4.2	4.2	4.2	4.2
75°	37.8	22.4	12.6	7.0	2.8	2.8	2.8	4.2	4.2	4.2	4.2
77.5°	25.2	14.0	9.8	5.6	5.6	5.6	7.0	7.0	4.2	4.2	4.2
80°	16.8	9.8	7.0	7.0	7.0	5.6	7.0	7.0	4.2	7.0	4.2
82.5°	8.4	7.0	7.0	5.6	5.6	4.2	5.6	5.6	5.6	5.6	4.2
85°	5.6	4.2	4.2	4.2	4.2	4.2	4.2	4.2	5.6	5.6	4.2
87.5°	2.8	2.8	2.8	2.8	4.2	4.2	4.2	4.2	5.6	5.6	4.2
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: 4SNLED-LD5-69SL-RM-UNV-L940-CD1-U

CANDELA DISTRIBUTION (continued):

	255°	260°	265°	270°	275°	280°	285°	290°	295°	300°	305°
0°	4659.2	4659.2	4659.2	4659.2	4659.2	4659.2	4659.2	4659.2	4659.2	4659.2	4659.2
2.5°	4692.8	4697.0	4685.8	4745.9	4715.1	4717.9	4730.5	4698.3	4705.3	4683.0	4667.6
5°	5201.7	5210.1	5218.5	5221.3	5226.9	5233.9	5225.5	5221.3	5212.9	5185.0	5155.6
7.5°	5122.0	5112.3	5108.1	5113.6	5123.4	5127.6	5120.6	5130.4	5166.8	5182.2	5192.0
10°	4702.5	4657.8	4688.6	4684.4	4649.4	4766.9	4734.7	4752.9	4765.5	4894.1	4972.4
12.5°	4502.6	4530.6	4477.4	4450.8	4485.8	4509.6	4533.3	4483.0	4552.9	4520.8	4624.2
15°	4334.8	4318.0	4312.4	4313.8	4306.8	4340.4	4348.8	4360.0	4369.7	4413.1	4429.9
17.5°	4259.3	4287.2	4298.4	4306.8	4292.8	4277.5	4262.1	4239.7	4246.7	4235.5	4267.7
20°	3491.6	3397.9	3392.3	3446.9	3386.7	3420.3	3501.4	4043.9	4025.8	4236.9	4165.6
22.5°	2914.1	2826.0	2750.5	2684.8	2778.5	2817.6	2968.6	3139.2	3416.1	3372.7	3673.4
25°	2379.9	2347.8	2328.2	2318.4	2325.4	2322.6	2356.2	2435.9	2561.7	2858.2	3241.3
27.5°	2226.1	2210.7	2203.7	2181.4	2198.2	2192.6	2219.1	2235.9	2273.7	2303.0	2427.5
30°	2104.5	2086.3	2073.7	2049.9	2066.7	2068.1	2076.5	2119.9	2135.2	2160.4	2199.6
32.5°	769.1	453.1	425.1	404.1	441.9	576.1	1011.0	1767.5	2016.4	2036.0	2080.7
35°	75.5	62.9	55.9	55.9	57.3	62.9	83.9	220.9	404.1	1561.9	1954.8
37.5°	29.4	25.2	21.0	19.6	21.0	23.8	32.2	41.9	57.3	118.9	530.0
40°	12.6	11.2	9.8	9.8	9.8	9.8	11.2	14.0	21.0	39.2	61.5
42.5°	8.4	7.0	7.0	7.0	7.0	7.0	7.0	7.0	9.8	12.6	25.2
45°	5.6	4.2	4.2	4.2	4.2	4.2	4.2	4.2	5.6	7.0	11.2
47.5°	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	5.6
50°	4.2	4.2	4.2	4.2	2.8	4.2	2.8	4.2	4.2	4.2	4.2
52.5°	4.2	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	4.2	4.2
55°	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	4.2
57.5°	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8
60°	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8
62.5°	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	4.2	4.2	2.8
65°	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	4.2	2.8
67.5°	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8
70°	4.2	4.2	2.8	4.2	2.8	2.8	4.2	4.2	4.2	2.8	2.8
72.5°	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	8.4	8.4	5.6
75°	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	7.0	8.4	7.0
77.5°	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	7.0	7.0	7.0
80°	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	5.6	5.6	5.6
82.5°	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	5.6	5.6	5.6
85°	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2
87.5°	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2
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: 4SNLED-LD5-69SL-RM-UNV-L940-CD1-U

CANDELA DISTRIBUTION (continued):

	310°	315°	320°	325°	330°	335°	340°	341°	342°	343°	344°
0°	4659.2	4659.2	4659.2	4659.2	4659.2	4659.2	4659.2	4659.2	4659.2	4659.2	4659.2
2.5°	4641.0	4639.6	4669.0	4691.4	4683.0	4691.4	4701.1	4702.5	4705.3	4694.2	4690.0
5°	5099.7	5056.3	4972.4	4912.3	4842.4	4715.1	4652.2	4659.2	4660.6	4656.4	4662.0
7.5°	5187.8	5183.6	5154.2	5141.6	5094.1	5003.2	4857.8	4832.6	4771.1	4731.9	4699.7
10°	4966.8	5067.5	5094.1	5138.8	5166.8	5150.0	5027.0	5008.8	4969.6	4924.9	4934.7
12.5°	4727.7	4810.2	4814.4	5057.7	5112.3	5117.8	5070.3	5095.5	5101.1	5000.4	4941.7
15°	4434.1	4473.2	4555.7	4782.2	4947.2	5050.7	5081.5	5095.5	5027.0	5022.8	4999.0
17.5°	4305.4	4330.6	4368.3	4495.6	4745.9	4898.3	5028.4	5018.6	5045.1	5025.6	4965.4
20°	4143.2	4164.2	4231.3	4295.6	4418.7	4621.4	4864.7	4882.9	4917.9	4913.7	4930.5
22.5°	4140.4	4066.3	4077.5	4127.8	4256.5	4438.3	4697.0	4757.1	4779.5	4794.8	4813.0
25°	3284.6	3873.3	3981.0	4013.2	4097.1	4203.3	4508.2	4530.6	4572.5	4641.0	4691.4
27.5°	2845.6	3245.5	3676.2	3899.9	3953.0	4041.1	4222.9	4256.5	4399.1	4415.9	4494.2
30°	2245.7	2554.7	3198.0	3736.3	3824.4	3885.9	4014.6	4081.7	4143.2	4210.3	4292.8
32.5°	2112.9	2161.8	2518.4	3091.7	3776.9	3730.7	3825.8	3866.3	3933.5	3992.2	4052.3
35°	1991.2	2024.8	2100.3	2532.4	3076.3	3603.5	3667.8	3694.4	3732.1	3776.9	3820.2
37.5°	1864.0	1914.3	1966.0	2082.1	2845.6	3502.8	3501.4	3532.2	3554.5	3592.3	3628.6
40°	338.4	1757.7	1841.6	1917.1	2206.5	2793.8	3344.8	3358.8	3374.1	3397.9	3435.7
42.5°	54.5	293.6	1725.5	1798.2	1880.7	2501.6	3273.5	3216.1	3206.3	3223.1	3256.7
45°	28.0	71.3	346.8	1679.4	1753.5	1995.4	2676.4	3116.9	3107.1	3074.9	3081.9
47.5°	21.0	44.7	85.3	580.3	1641.6	1712.9	2469.4	2442.9	2628.8	2985.4	2930.9
50°	18.2	30.8	50.3	118.9	1450.1	1577.3	1901.7	2221.9	2319.8	2332.4	2760.3
52.5°	16.8	21.0	36.4	76.9	304.8	1458.4	1546.5	1658.4	1823.4	2177.2	2168.8
55°	15.4	19.6	30.8	51.7	106.3	1314.4	1405.3	1426.3	1461.2	1630.4	1854.2
57.5°	8.4	18.2	29.4	44.7	79.7	240.5	1275.3	1292.0	1320.0	1327.0	1406.7
60°	4.2	16.8	26.6	39.2	58.7	111.9	1146.6	1166.2	1183.0	1185.8	1210.9
62.5°	2.8	15.4	22.4	36.4	48.9	79.7	271.3	553.7	1052.9	1052.9	1082.3
65°	2.8	11.2	14.0	23.8	44.7	65.7	114.7	132.8	258.7	636.2	949.5
67.5°	2.8	4.2	12.6	19.6	33.6	50.3	83.9	97.9	117.5	134.2	248.9
70°	2.8	2.8	11.2	12.6	21.0	37.8	60.1	68.5	79.7	90.9	104.9
72.5°	2.8	2.8	9.8	9.8	14.0	25.2	46.1	50.3	57.3	64.3	74.1
75°	7.0	5.6	8.4	8.4	9.8	19.6	35.0	39.2	41.9	47.5	54.5
77.5°	7.0	7.0	7.0	7.0	7.0	12.6	22.4	25.2	29.4	32.2	37.8
80°	5.6	5.6	5.6	7.0	7.0	8.4	14.0	15.4	16.8	21.0	22.4
82.5°	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	8.4	9.8	12.6
85°	4.2	4.2	4.2	4.2	4.2	4.2	4.2	5.6	5.6	5.6	5.6
87.5°	4.2	4.2	4.2	2.8	2.8	4.2	4.2	4.2	4.2	4.2	4.2
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: 4SNLED-LD5-69SL-RM-UNV-L940-CD1-U

CANDELA DISTRIBUTION (continued):

	345°	346°	347°	348°	349°	350°	351°	352°	353°	354°	355°
0°	4659.2	4659.2	4659.2	4659.2	4659.2	4659.2	4659.2	4659.2	4659.2	4659.2	4659.2
2.5°	4688.6	4680.2	4673.2	4677.4	4664.8	4659.2	4663.4	4664.8	4667.6	4674.6	4676.0
5°	4676.0	4673.2	4685.8	4692.8	4690.0	4692.8	4692.8	4687.2	4678.8	4684.4	4671.8
7.5°	4667.6	4649.4	4635.4	4638.2	4624.2	4641.0	4656.4	4678.8	4685.8	4685.8	4671.8
10°	4811.6	4792.0	4713.7	4660.6	4625.6	4594.9	4667.6	4593.5	4628.4	4495.6	4648.0
12.5°	4930.5	4957.0	4922.1	4776.7	4751.5	4659.2	4712.3	4621.4	4594.9	4442.5	4491.4
15°	4978.0	4927.7	4916.5	4875.9	4821.4	4794.8	4652.2	4636.8	4593.5	4610.3	4545.9
17.5°	4936.1	4961.2	4927.7	4901.1	4845.2	4782.2	4697.0	4621.4	4561.3	4427.1	4540.3
20°	4895.5	4929.1	4828.4	4845.2	4850.8	4778.1	4733.3	4670.4	4594.9	4469.0	4371.1
22.5°	4828.4	4804.6	4813.0	4787.8	4766.9	4776.7	4715.1	4671.8	4544.5	4487.2	4354.4
25°	4719.3	4710.9	4733.3	4730.5	4680.2	4663.4	4632.6	4586.5	4536.1	4443.9	4334.8
27.5°	4541.7	4585.1	4624.2	4642.4	4615.8	4571.1	4554.3	4527.8	4492.8	4399.1	4318.0
30°	4354.4	4403.3	4448.0	4487.2	4511.0	4491.4	4476.0	4460.6	4407.5	4346.0	4255.1
32.5°	4140.4	4204.7	4266.3	4313.8	4365.5	4380.9	4369.7	4357.2	4312.4	4256.5	4183.8
35°	3892.9	3981.0	4070.5	4155.8	4178.2	4214.5	4250.9	4229.9	4206.1	4150.2	4083.1
37.5°	3683.2	3746.1	3810.4	3918.1	3996.4	4042.5	4106.9	4115.2	4074.7	4048.1	3960.0
40°	3466.4	3523.8	3617.4	3680.4	3788.0	3841.2	3909.7	3940.5	3930.7	3915.3	3838.4
42.5°	3295.8	3323.8	3385.3	3441.3	3547.5	3656.6	3716.7	3750.3	3785.2	3772.7	3733.5
45°	3114.1	3139.2	3160.2	3209.1	3312.6	3409.1	3483.2	3533.5	3596.5	3625.8	3578.3
47.5°	2933.7	2940.7	2965.8	3006.4	3067.9	3142.0	3266.5	3342.0	3400.7	3458.0	3427.3
50°	2795.2	2770.1	2774.3	2799.4	2849.8	2922.5	3012.0	3118.2	3185.4	3255.3	3262.3
52.5°	2442.9	2647.0	2598.1	2612.1	2638.6	2673.6	2767.3	2872.1	2954.6	3014.8	3074.9
55°	2049.9	2090.5	2483.4	2427.5	2444.3	2475.0	2518.4	2623.2	2702.9	2786.8	2870.7
57.5°	1589.9	1891.9	1907.3	2270.9	2262.5	2265.3	2301.6	2361.8	2441.5	2546.3	2617.7
60°	1236.1	1363.4	1610.9	1736.7	2055.5	2066.7	2087.7	2122.6	2191.2	2290.4	2403.7
62.5°	1090.7	1107.5	1195.6	1384.3	1591.3	1841.6	1886.3	1891.9	1922.7	2022.0	2153.4
65°	957.8	969.0	995.6	1015.2	1188.6	1430.5	1645.8	1680.8	1700.4	1759.1	1870.9
67.5°	660.0	834.8	858.6	872.6	889.3	1001.2	1268.3	1445.9	1468.2	1520.0	1617.9
70°	127.2	264.3	722.9	738.3	746.7	771.9	815.2	1097.7	1245.9	1294.8	1339.6
72.5°	86.7	102.1	123.1	290.9	615.3	629.2	639.0	675.4	925.7	1068.3	1092.1
75°	62.9	69.9	82.5	102.1	125.8	409.7	507.6	525.8	543.9	750.9	871.2
77.5°	44.7	50.3	55.9	65.7	76.9	99.3	142.6	392.9	411.1	420.9	594.3
80°	25.2	30.8	37.8	43.3	48.9	55.9	72.7	90.9	202.8	296.4	311.8
82.5°	14.0	16.8	19.6	23.8	26.6	33.6	40.6	48.9	64.3	95.1	201.4
85°	7.0	7.0	7.0	9.8	11.2	15.4	18.2	21.0	29.4	40.6	55.9
87.5°	4.2	4.2	5.6	5.6	5.6	7.0	7.0	7.0	8.4	12.6	18.2
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: 4SNLED-LD5-69SL-RM-UNV-L940-CD1-U

CANDELA DISTRIBUTION (continued):

	356°	357°	358°	359°	360°
0°	4659.2	4659.2	4659.2	4659.2	4659.2
2.5°	4677.4	4673.2	4673.2	4690.0	4685.8
5°	4669.0	4664.8	4663.4	4681.6	4673.2
7.5°	4662.0	4646.6	4642.4	4659.2	4652.2
10°	4634.0	4622.8	4629.8	4624.2	4621.4
12.5°	4586.5	4579.5	4550.1	4552.9	4576.7
15°	4501.2	4529.2	4478.8	4523.6	4533.3
17.5°	4344.6	4407.5	4456.4	4483.0	4487.2
20°	4414.5	4435.5	4410.3	4411.7	4428.5
22.5°	4323.6	4333.4	4340.4	4332.0	4368.3
25°	4178.2	4140.4	4221.5	4238.3	4297.0
27.5°	4133.4	4102.7	4140.4	4137.6	4186.6
30°	4097.1	3997.8	4014.6	4041.1	4101.3
32.5°	4045.3	3888.7	3871.9	3930.7	3997.8
35°	3954.4	3806.2	3767.1	3804.8	3905.5
37.5°	3877.5	3691.6	3613.3	3663.6	3795.0
40°	3762.9	3602.1	3480.4	3525.2	3680.4
42.5°	3625.8	3525.2	3337.8	3368.5	3546.1
45°	3487.4	3397.9	3199.4	3214.7	3425.9
47.5°	3346.2	3263.7	3055.3	3058.1	3272.1
50°	3207.7	3098.7	2926.7	2877.7	3108.5
52.5°	3027.4	2926.7	2796.6	2716.9	2953.2
55°	2856.8	2743.5	2648.4	2525.4	2777.1
57.5°	2690.4	2564.5	2500.2	2342.2	2577.1
60°	2462.4	2402.3	2307.2	2156.2	2396.7
62.5°	2228.9	2209.3	2112.9	1956.2	2174.4
65°	1956.2	2002.4	1903.1	1768.9	1943.7
67.5°	1699.0	1781.5	1672.4	1589.9	1721.3
70°	1424.9	1520.0	1458.4	1429.1	1485.0
72.5°	1155.0	1247.3	1252.9	1231.9	1250.1
75°	892.1	994.2	1050.1	1018.0	1022.2
77.5°	676.8	725.7	787.3	812.4	806.8
80°	418.1	503.4	553.7	605.5	587.3
82.5°	211.1	282.5	344.0	399.9	373.4
85°	88.1	113.3	158.0	208.3	200.0
87.5°	26.6	44.7	47.5	67.1	62.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)