

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: P1214193

Luminaire Tested: 4SNLED-LD5-61HL-RM-UNV-L950-CD1-U

Issue Date: 3/29/2018

Test Information

Test Method: LM-79-2019
Report Number: P1214193
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-LD5-61HL-RM-UNV-L950-CD1-U
Description: 4FT LINEAR SNLED LED FIXTURE
METALIC FINISH REFLECTOR
Light Source: -
Ballast/Driver: -

Summary

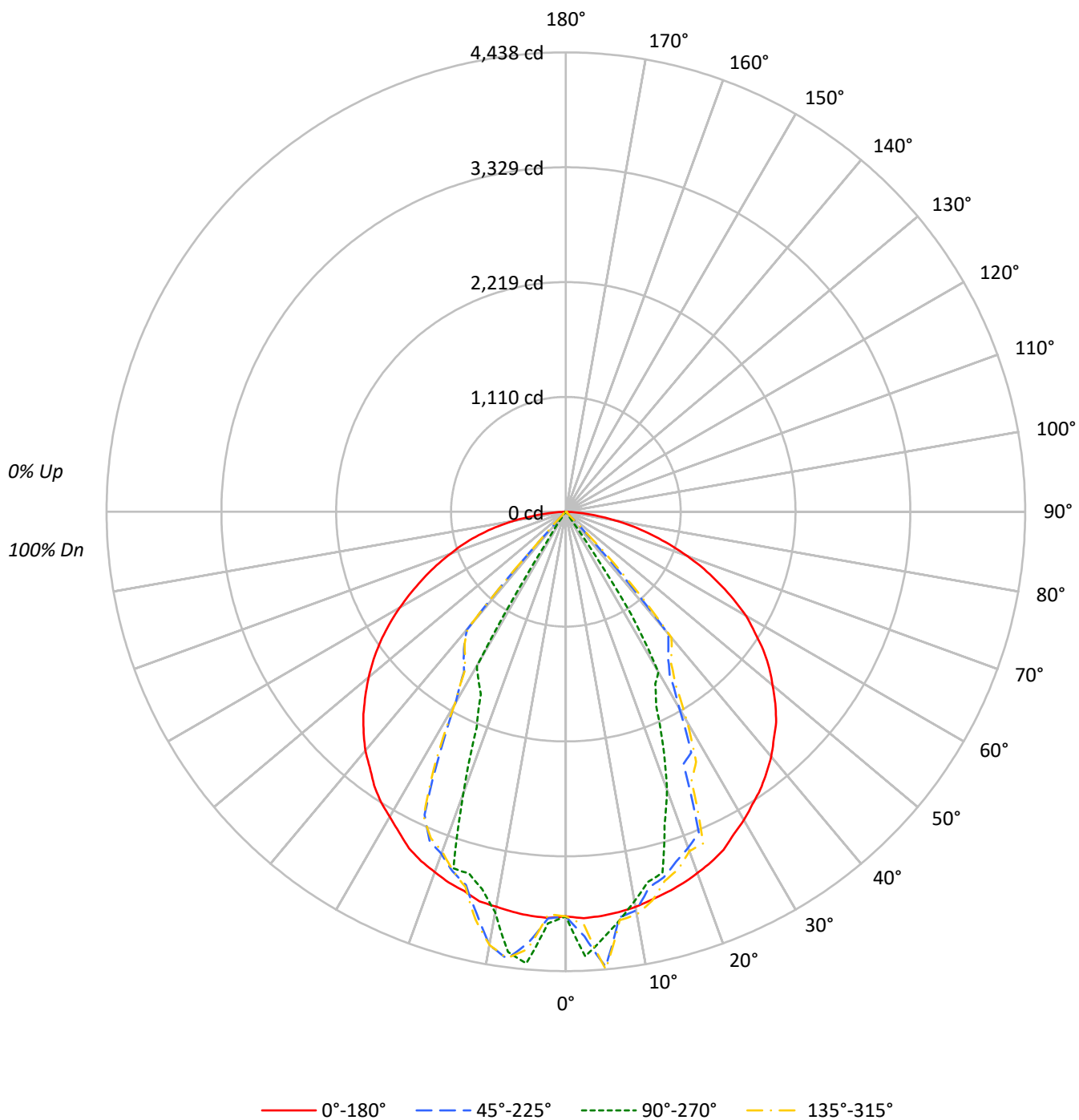
Lumens per Lamp: N/A
Luminaire Lumens: 5557.0 lumens
Efficiency: N/A
Efficacy: 115.8 lumens/watt
Spacing Criteria (0/90/45): 1.3 / 0.81 / 0.97
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.12')
CIE Type: Direct

Input Watts (W): 48
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT

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Luminous Intensity Polar Plot



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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20					20					20					20
RC	80				70					50					30					10
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10
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°	31581	31581	31581	31581
5°	31710	32481	31701	34397
10°	31634	29392	31615	30240
15°	31548	27434	31471	27505
20°	31585	21608	31495	21875
25°	31676	15638	31521	14757
30°	31531	13718	31198	13187
35°	31625	302	31161	366
40°	31734	66	30974	66
45°	31845	39	30649	29
50°	31603	30	30152	30
55°	31416	21	29486	21
60°	30822	23	28414	23
65°	29216	37	27135	24
70°	27103	41	25802	41
75°	23974	46	24369	46
80°	19473	52	20588	52
85°	11457	61	11696	61

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 2°

Vertical Angle: 45°

Luminance: 34386 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	392.1	7.1
10°-20°	1069.5	19.2
20°-30°	1360.9	24.5
30°-40°	1149.6	20.7
40°-50°	751.6	13.5
50°-60°	473.5	8.5
60°-70°	252.1	4.5
70°-80°	91.9	1.7
80°-90°	15.8	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°	2822.5	50.8
0°-40°	3972.1	71.5
0°-60°	5197.2	93.5
0°-90°	5557.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5557.0	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	3908	3908	3908	3908	3908	
5°	3920	4136	3919	4380	3920	373
15°	3802	3609	3793	3618	3802	1075
25°	3604	2061	3587	1945	3604	1658
35°	3276	39	3228	47	3276	2049
45°	2874	5	2766	4	2874	2210
55°	2329	2	2186	2	2329	2076
65°	1630	4	1514	2	1630	1615
75°	857	4	872	4	857	910
85°	168	4	171	4	168	212
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°	3908.1	3908.1	3908.1	3908.1	3908.1	3908.1	3908.1	3908.1	3908.1	3908.1	3908.1
2.5°	3930.4	3932.7	3933.9	3936.2	3939.8	3940.9	3943.3	3940.9	3940.9	3940.9	3940.9
5°	3919.8	3924.5	3928.0	3932.7	3940.9	3942.1	3951.5	3952.7	3957.4	3966.7	3973.8
7.5°	3902.2	3906.9	3914.0	3925.7	3937.4	3950.3	3966.7	3984.3	4009.0	4032.4	4061.7
10°	3876.4	3882.3	3890.5	3901.1	3958.5	3966.7	4003.1	4053.5	4067.6	4141.5	4196.6
12.5°	3838.9	3858.8	3879.9	3889.3	3944.5	4031.3	4153.2	4128.6	4101.6	4343.2	4339.7
15°	3802.5	3829.5	3819.0	3895.2	3945.6	4096.9	4045.3	4155.6	4357.3	4308.1	4310.4
17.5°	3763.8	3769.7	3828.3	3891.7	3982.0	4059.4	4122.7	4274.0	4313.9	4317.4	4274.0
20°	3714.6	3742.7	3828.3	3885.8	4038.3	4074.6	4211.9	4289.3	4272.9	4233.0	4159.1
22.5°	3664.1	3749.8	3836.6	3917.5	4024.2	4121.6	4189.6	4226.0	4140.3	3983.2	3898.7
25°	3604.3	3654.8	3768.5	3887.0	4020.7	4077.0	4116.9	4058.2	3946.8	3806.1	3664.1
27.5°	3511.7	3592.6	3738.0	3871.7	3992.5	4060.6	3996.1	3855.3	3675.9	3583.2	3518.7
30°	3440.1	3545.7	3665.3	3794.3	3919.8	3959.7	3795.5	3634.8	3511.7	3419.0	3404.9
32.5°	3353.3	3503.4	3617.2	3740.4	3845.9	3793.2	3633.6	3426.0	3324.0	3288.8	3302.9
35°	3275.9	3389.7	3538.6	3659.4	3735.7	3617.2	3365.0	3236.0	3186.8	3206.7	3180.9
37.5°	3183.2	3333.4	3470.6	3575.0	3549.2	3370.9	3157.4	3075.3	3081.2	3064.8	3015.5
40°	3087.1	3230.2	3373.3	3471.8	3381.5	3109.4	2967.4	2949.8	2953.4	2900.6	2830.2
42.5°	2974.5	3104.7	3247.8	3336.9	3142.2	2929.9	2833.7	2836.1	2805.6	2731.7	2694.1
45°	2873.6	2993.2	3142.2	3150.4	2911.1	2734.0	2705.9	2675.4	2607.4	2582.7	2554.6
47.5°	2744.6	2877.1	3000.3	2955.7	2684.8	2574.5	2553.4	2486.5	2452.5	2433.8	2410.3
50°	2607.4	2741.1	2853.7	2727.0	2471.3	2445.5	2376.3	2323.5	2300.1	2280.1	2259.0
52.5°	2477.2	2587.4	2702.4	2484.2	2307.1	2282.5	2203.9	2173.4	2149.9	2127.6	2122.9
55°	2329.4	2426.7	2505.3	2253.1	2149.9	2092.5	2036.2	2015.0	1992.8	1982.2	1999.8
57.5°	2161.7	2271.9	2260.2	2025.6	1979.9	1896.6	1875.5	1861.4	1845.0	1852.0	1705.4
60°	2010.3	2094.8	2037.3	1859.0	1781.6	1725.3	1706.6	1697.2	1706.6	1563.5	1374.6
62.5°	1823.9	1918.9	1802.7	1664.3	1582.2	1555.3	1538.8	1551.7	1414.5	1257.3	1211.6
65°	1630.3	1733.5	1562.3	1455.6	1404.0	1380.5	1379.3	1270.2	1135.4	1074.4	1074.4
67.5°	1443.8	1550.6	1330.1	1240.9	1221.0	1223.3	1155.3	989.9	952.4	911.3	792.9
70°	1245.6	1339.5	1099.0	1045.1	1033.3	1025.1	859.7	815.2	770.6	661.5	652.1
72.5°	1048.6	1094.3	883.2	870.3	867.9	721.3	688.5	612.3	560.6	547.7	541.9
75°	857.4	843.3	697.9	709.6	598.2	546.6	493.8	449.2	442.2	437.5	109.1
77.5°	676.8	606.4	550.1	478.5	428.1	363.6	353.0	346.0	227.5	82.1	66.9
80°	492.6	392.9	365.9	310.8	265.1	254.5	260.4	79.8	63.3	52.8	45.7
82.5°	313.2	251.0	205.3	179.5	174.8	76.2	56.3	45.7	39.9	34.0	28.1
85°	167.7	111.4	103.2	86.8	51.6	35.2	29.3	22.3	18.8	15.2	14.1
87.5°	52.8	44.6	36.4	29.3	17.6	11.7	9.4	8.2	7.0	5.9	5.9
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°	3908.1	3908.1	3908.1	3908.1	3908.1	3908.1	3908.1	3908.1	3908.1	3908.1	3908.1
2.5°	3938.6	3940.9	3939.8	3943.3	3943.3	3948.0	3951.5	3955.0	3962.1	3965.6	3992.5
5°	3989.0	3994.9	4012.5	4028.9	4048.8	4054.7	4088.7	4096.9	4136.8	4141.5	4272.9
7.5°	4101.6	4123.9	4166.1	4208.4	4250.6	4277.6	4324.5	4353.8	4385.5	4413.6	4518.0
10°	4237.7	4275.2	4316.3	4358.5	4383.1	4434.7	4462.9	4467.6	4459.4	4413.6	4244.7
12.5°	4371.4	4408.9	4391.3	4399.5	4428.9	4337.4	4350.3	4284.6	4330.3	4104.0	3936.2
15°	4352.6	4350.3	4306.9	4166.1	4189.6	4014.8	3944.5	3890.5	3933.9	3910.4	3884.6
17.5°	4296.3	4189.6	4114.5	3945.6	3874.1	3824.8	3826.0	3827.2	3806.1	3828.3	3762.7
20°	4058.2	3938.6	3827.2	3767.4	3746.2	3711.1	3728.6	3711.1	3712.2	3719.3	3618.4
22.5°	3741.5	3705.2	3640.7	3659.4	3652.4	3684.1	3660.6	3624.3	3636.0	3583.2	3507.0
25°	3613.7	3571.5	3569.1	3576.2	3565.6	3551.5	3530.4	3475.3	3471.8	3455.4	3420.2
27.5°	3484.7	3487.0	3494.1	3473.0	3435.4	3407.3	3375.6	3348.6	3359.2	3340.4	3292.3
30°	3395.5	3394.4	3352.1	3333.4	3264.2	3265.3	3257.1	3240.7	3230.2	3231.3	3200.8
32.5°	3268.9	3232.5	3184.4	3161.0	3155.1	3134.0	3117.6	3121.1	3129.3	3100.0	3131.6
35°	3138.7	3063.6	3056.6	3036.6	3017.9	3003.8	3009.7	2986.2	2985.0	2981.5	2723.5
37.5°	2963.9	2927.6	2924.0	2902.9	2890.0	2886.5	2864.2	2867.7	2878.3	2897.1	2322.3
40°	2819.6	2786.8	2778.6	2777.4	2749.3	2746.9	2752.8	2775.1	2790.3	2673.0	2213.3
42.5°	2664.8	2667.2	2641.4	2624.9	2628.5	2639.0	2667.2	2589.8	2243.8	2138.2	2023.3
45°	2532.3	2520.6	2506.5	2501.8	2532.3	2511.2	2201.5	2031.5	1990.4	1985.7	1663.2
47.5°	2393.9	2390.4	2384.5	2388.0	2214.4	1974.0	1903.6	1881.3	1888.4	1883.7	1428.6
50°	2254.3	2259.0	2259.0	1972.8	1811.0	1771.1	1776.9	1796.9	1672.6	1561.1	1331.2
52.5°	2133.5	2097.1	1796.9	1693.7	1657.3	1674.9	1632.7	1476.7	1364.1	1298.4	1231.5
55°	1909.5	1642.1	1575.2	1558.8	1571.7	1415.7	1319.5	1218.6	1189.3	1182.3	1143.6
57.5°	1502.5	1448.5	1454.4	1388.7	1239.8	1151.8	1113.1	1099.0	1086.1	1076.7	93.8
60°	1328.9	1344.1	1230.4	1089.6	1029.8	1018.1	1008.7	995.8	993.4	977.0	59.8
62.5°	1216.3	1069.7	971.2	936.0	921.9	918.4	900.8	894.9	760.0	104.4	44.6
65°	917.2	857.4	838.6	830.4	815.2	815.2	676.8	106.7	86.8	75.1	39.9
67.5°	748.3	743.6	734.2	723.7	492.6	103.2	90.3	78.6	68.0	59.8	35.2
70°	633.4	631.0	574.7	105.6	88.0	77.4	68.0	61.0	56.3	50.4	31.7
72.5°	519.6	105.6	89.1	77.4	66.9	61.0	55.1	49.3	44.6	41.1	25.8
75°	80.9	71.5	63.3	57.5	52.8	46.9	42.2	38.7	37.5	32.8	17.6
77.5°	58.6	50.4	45.7	41.1	36.4	32.8	28.1	24.6	22.3	18.8	12.9
80°	41.1	36.4	32.8	27.0	23.5	19.9	17.6	15.2	14.1	11.7	5.9
82.5°	23.5	19.9	17.6	14.1	12.9	10.6	9.4	8.2	8.2	5.9	5.9
85°	10.6	10.6	8.2	7.0	5.9	5.9	5.9	4.7	4.7	3.5	3.5
87.5°	4.7	4.7	4.7	4.7	4.7	3.5	3.5	3.5	3.5	3.5	2.3
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°	3908.1	3908.1	3908.1	3908.1	3908.1	3908.1	3908.1	3908.1	3908.1	3908.1	3908.1
2.5°	4030.1	4045.3	4074.6	4105.1	4071.1	4193.1	4183.7	4224.8	4247.1	4257.6	4282.3
5°	4389.0	4457.0	4479.3	4412.4	4373.7	4333.9	4243.5	4175.5	4183.7	4161.4	4080.5
7.5°	4381.9	4236.5	4040.6	3951.5	3944.5	3933.9	3962.1	3978.5	3980.8	3979.6	3977.3
10°	4011.3	3936.2	3923.3	3911.6	3916.3	3872.9	3853.0	3796.7	3827.2	3810.7	3816.6
12.5°	3898.7	3881.1	3811.9	3715.7	3773.2	3729.8	3705.2	3721.6	3702.8	3685.2	3679.4
15°	3831.9	3718.1	3679.4	3655.9	3639.5	3630.1	3638.3	3619.6	3613.7	3610.2	3618.4
17.5°	3693.5	3647.7	3605.5	3543.3	3544.5	3541.0	3564.4	3599.6	3602.0	3421.3	3258.3
20°	3584.4	3546.8	3492.9	3454.2	3507.0	3413.1	3050.7	2878.3	2851.3	2851.3	2856.0
22.5°	3497.6	3414.3	3417.8	3356.8	2863.0	2762.2	2764.5	2775.1	2727.0	2562.8	2545.2
25°	3379.1	3366.2	3109.4	2687.1	2690.6	2612.0	2491.2	2321.2	2137.0	2137.0	2106.5
27.5°	3290.0	3016.7	2641.4	2623.8	2359.9	2193.3	2090.1	1934.1	1913.0	1893.1	1895.4
30°	3213.7	2552.2	2561.6	2193.3	1998.6	1860.2	1852.0	1826.2	1813.3	1809.8	1796.9
32.5°	2540.5	2485.4	2144.1	1867.3	1791.0	1768.7	1758.2	1728.9	1727.7	1705.4	1550.6
35°	2382.2	2181.6	1794.5	1719.5	1697.2	1676.1	1658.5	1113.1	131.4	52.8	45.7
37.5°	2201.5	1822.7	1659.7	1625.6	1604.5	1185.8	118.5	41.1	29.3	21.1	18.8
40°	1866.1	1628.0	1576.4	1538.8	634.5	41.1	25.8	19.9	11.7	10.6	9.4
42.5°	1574.0	1534.2	1479.0	450.4	46.9	19.9	12.9	9.4	8.2	8.2	7.0
45°	1473.2	1438.0	595.8	44.6	29.3	9.4	8.2	8.2	7.0	4.7	4.7
47.5°	1379.3	1214.0	54.0	28.1	18.8	8.2	7.0	4.7	4.7	4.7	3.5
50°	1279.6	66.9	37.5	21.1	11.7	4.7	4.7	4.7	4.7	3.5	3.5
52.5°	239.3	46.9	30.5	18.8	5.9	4.7	4.7	4.7	3.5	3.5	3.5
55°	56.3	37.5	28.1	16.4	4.7	4.7	4.7	3.5	3.5	3.5	2.3
57.5°	42.2	28.1	22.3	15.2	4.7	3.5	3.5	3.5	3.5	3.5	2.3
60°	35.2	19.9	17.6	14.1	3.5	3.5	3.5	3.5	3.5	3.5	2.3
62.5°	24.6	16.4	12.9	10.6	3.5	3.5	3.5	3.5	3.5	3.5	3.5
65°	19.9	12.9	10.6	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
67.5°	17.6	10.6	7.0	2.3	3.5	3.5	3.5	3.5	3.5	3.5	3.5
70°	14.1	3.5	3.5	2.3	3.5	3.5	3.5	3.5	3.5	3.5	3.5
72.5°	11.7	3.5	2.3	2.3	3.5	3.5	3.5	3.5	3.5	3.5	3.5
75°	11.7	5.9	2.3	2.3	3.5	3.5	4.7	4.7	3.5	3.5	3.5
77.5°	8.2	5.9	2.3	2.3	3.5	3.5	4.7	4.7	3.5	3.5	3.5
80°	4.7	5.9	2.3	3.5	3.5	7.0	8.2	4.7	3.5	3.5	3.5
82.5°	4.7	5.9	7.0	7.0	3.5	5.9	7.0	5.9	4.7	3.5	3.5
85°	4.7	3.5	4.7	5.9	3.5	5.9	5.9	4.7	4.7	3.5	3.5
87.5°	2.3	3.5	3.5	4.7	4.7	4.7	5.9	4.7	4.7	4.7	3.5
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: P1214193

CATALOG NUMBER: 4SNLED-LD5-61HL-RM-UNV-L950-CD1-U

CANDELA DISTRIBUTION (continued):

	85°	90°	95°	100°	105°	110°	115°	120°	125°	130°	135°
0°	3908.1	3908.1	3908.1	3908.1	3908.1	3908.1	3908.1	3908.1	3908.1	3908.1	3908.1
2.5°	4294.0	4298.7	4224.8	4199.0	4221.3	4216.6	4196.6	4122.7	4114.5	4065.3	3993.7
5°	4104.0	4135.6	4096.9	4163.8	4132.1	4163.8	4260.0	4304.5	4377.3	4421.8	4438.2
7.5°	3971.4	3978.5	3978.5	3984.3	3990.2	3991.4	3984.3	3979.6	3959.7	3935.1	3979.6
10°	3810.7	3819.0	3833.0	3830.7	3829.5	3854.1	3860.0	3910.4	3908.1	3917.5	3951.5
12.5°	3727.5	3664.1	3721.6	3706.4	3727.5	3694.6	3755.6	3745.1	3748.6	3776.7	3849.5
15°	3589.1	3609.0	3623.1	3623.1	3631.3	3624.3	3617.2	3665.3	3694.6	3695.8	3691.1
17.5°	3322.8	3171.5	3326.3	3286.5	3604.3	3612.5	3585.6	3563.3	3563.3	3580.9	3618.4
20°	2852.5	2856.0	2857.2	2872.4	2891.2	2890.0	2891.2	3353.3	3572.6	3522.2	3488.2
22.5°	2500.6	2457.2	2538.2	2532.3	2633.2	2744.6	2851.3	2840.8	2847.8	3173.9	3467.1
25°	2004.5	2060.8	2015.0	2035.0	2148.8	2281.3	2363.4	2578.0	2811.4	2795.0	2871.3
27.5°	1887.2	1871.9	1893.1	1893.1	1908.3	1925.9	1971.6	2092.5	2300.1	2518.2	2724.6
30°	1775.8	1788.7	1791.0	1812.1	1823.9	1835.6	1842.6	1888.4	1935.3	2086.6	2341.1
32.5°	1333.6	1169.4	1538.8	1638.5	1723.0	1742.9	1757.0	1775.8	1809.8	1832.1	1959.9
35°	38.7	38.7	41.1	46.9	59.8	403.5	1536.5	1693.7	1716.0	1744.1	1767.6
37.5°	18.8	14.1	16.4	17.6	21.1	29.3	42.2	131.4	1462.6	1653.8	1679.6
40°	8.2	8.2	8.2	8.2	9.4	11.7	17.6	29.3	44.6	1176.4	1586.9
42.5°	7.0	7.0	7.0	7.0	7.0	7.0	8.2	10.6	21.1	50.4	832.8
45°	4.7	4.7	3.5	4.7	4.7	5.9	7.0	7.0	9.4	31.7	57.5
47.5°	3.5	3.5	3.5	3.5	3.5	3.5	3.5	5.9	7.0	21.1	30.5
50°	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	16.4	21.1
52.5°	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	7.0	18.8
55°	2.3	2.3	2.3	2.3	2.3	2.3	2.3	3.5	3.5	4.7	16.4
57.5°	2.3	2.3	2.3	2.3	2.3	3.5	2.3	2.3	3.5	3.5	15.2
60°	2.3	2.3	2.3	2.3	2.3	3.5	3.5	3.5	3.5	3.5	14.1
62.5°	3.5	3.5	2.3	3.5	2.3	2.3	3.5	3.5	3.5	3.5	9.4
65°	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	2.3	3.5
67.5°	3.5	3.5	3.5	3.5	2.3	3.5	2.3	3.5	3.5	2.3	2.3
70°	3.5	3.5	3.5	3.5	3.5	3.5	3.5	2.3	2.3	2.3	2.3
72.5°	3.5	3.5	3.5	3.5	3.5	3.5	3.5	2.3	2.3	2.3	2.3
75°	3.5	3.5	3.5	3.5	3.5	3.5	4.7	4.7	2.3	2.3	2.3
77.5°	3.5	3.5	3.5	3.5	3.5	3.5	5.9	7.0	5.9	5.9	2.3
80°	3.5	3.5	3.5	3.5	3.5	3.5	5.9	5.9	5.9	5.9	8.2
82.5°	3.5	3.5	3.5	3.5	3.5	3.5	4.7	4.7	4.7	4.7	5.9
85°	3.5	3.5	3.5	3.5	3.5	3.5	4.7	4.7	4.7	3.5	4.7
87.5°	3.5	3.5	3.5	3.5	3.5	3.5	3.5	4.7	3.5	3.5	3.5
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: P1214193

CATALOG NUMBER: 4SNLED-LD5-61HL-RM-UNV-L950-CD1-U

CANDELA DISTRIBUTION (continued):

	140°	145°	150°	155°	160°	161°	162°	163°	164°	165°	166°
0°	3908.1	3908.1	3908.1	3908.1	3908.1	3908.1	3908.1	3908.1	3908.1	3908.1	3908.1
2.5°	3999.6	3959.7	3946.8	3919.8	3917.5	3919.8	3914.0	3905.8	3910.4	3902.2	3895.2
5°	4447.6	4340.9	4271.7	4179.0	4051.2	4023.0	4016.0	3976.1	3962.1	3957.4	3938.6
7.5°	4085.2	4279.9	4397.2	4437.1	4286.9	4251.8	4210.7	4177.9	4146.2	4086.4	4050.0
10°	3924.5	3933.9	4046.5	4177.9	4391.3	4420.7	4442.9	4371.4	4351.5	4199.0	4166.1
12.5°	3887.0	3888.2	3901.1	3980.8	4148.5	4167.3	4245.9	4288.1	4339.7	4369.0	4345.6
15°	3715.7	3810.7	3881.1	3888.2	3903.4	3936.2	3959.7	4106.3	4168.5	4335.0	4325.6
17.5°	3636.0	3666.5	3768.5	3851.8	3837.7	3826.0	3844.8	3864.7	3924.5	4091.1	4088.7
20°	3503.4	3600.8	3655.9	3742.7	3821.3	3824.8	3803.7	3792.0	3768.5	3795.5	3820.1
22.5°	3447.1	3462.4	3565.6	3626.6	3715.7	3747.4	3752.1	3753.3	3740.4	3726.3	3719.3
25°	3441.3	3393.2	3446.0	3522.2	3587.9	3621.9	3660.6	3673.5	3668.8	3668.8	3661.8
27.5°	2816.1	3377.9	3349.8	3400.2	3480.0	3503.4	3523.4	3563.3	3587.9	3605.5	3613.7
30°	2682.4	2783.3	3274.7	3281.8	3362.7	3360.4	3382.6	3415.5	3447.1	3488.2	3498.8
32.5°	2372.8	2620.3	2997.9	3163.3	3247.8	3256.0	3267.7	3277.1	3306.4	3352.1	3392.0
35°	1901.3	2386.8	2568.6	3107.0	3122.3	3138.7	3145.7	3168.0	3177.4	3196.1	3231.3
37.5°	1720.6	1972.8	2464.3	2687.1	2978.0	2992.1	3029.6	3039.0	3054.2	3069.5	3096.5
40°	1616.3	1685.5	2051.4	2399.8	2861.9	2871.3	2884.2	2907.6	2908.8	2926.4	2951.0
42.5°	1533.0	1577.5	1684.3	2291.8	2779.8	2778.6	2748.1	2763.3	2770.4	2789.2	2823.2
45°	1224.5	1480.2	1548.2	1871.9	2213.3	2372.8	2678.9	2628.5	2627.3	2634.3	2670.7
47.5°	62.2	1392.2	1440.3	1544.7	2090.1	2096.0	2135.8	2471.3	2522.9	2506.5	2510.0
50°	42.2	96.2	1341.8	1389.9	1801.6	1947.0	1976.3	1991.6	2185.1	2400.9	2365.7
52.5°	32.8	55.1	822.2	1290.2	1463.8	1570.5	1759.3	1867.3	1879.0	1965.8	2260.2
55°	29.3	42.2	89.1	1190.5	1244.4	1267.9	1378.2	1567.0	1719.5	1765.2	1768.7
57.5°	25.8	38.7	61.0	538.4	1131.8	1136.5	1155.3	1221.0	1358.2	1483.7	1625.6
60°	23.5	34.0	48.1	92.7	1028.6	1040.4	1043.9	1061.5	1077.9	1163.5	1326.5
62.5°	14.1	27.0	42.2	66.9	814.0	934.8	933.6	945.4	960.6	970.0	1002.8
65°	11.7	21.1	36.4	56.3	99.7	124.3	755.3	839.8	849.2	862.1	867.9
67.5°	10.6	18.8	27.0	44.6	75.1	85.6	98.5	122.0	666.2	750.7	762.4
70°	9.4	12.9	22.3	37.5	61.0	65.7	73.9	84.4	99.7	123.2	602.9
72.5°	5.9	9.4	15.2	27.0	46.9	52.8	57.5	64.5	71.5	85.6	98.5
75°	2.3	7.0	12.9	19.9	36.4	39.9	43.4	48.1	54.0	63.3	70.4
77.5°	2.3	5.9	10.6	14.1	23.5	27.0	31.7	35.2	39.9	44.6	51.6
80°	8.2	4.7	7.0	10.6	16.4	17.6	19.9	22.3	25.8	29.3	34.0
82.5°	5.9	7.0	8.2	7.0	8.2	10.6	11.7	14.1	15.2	17.6	18.8
85°	4.7	4.7	5.9	5.9	5.9	5.9	5.9	5.9	7.0	8.2	10.6
87.5°	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	4.7	4.7
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: P1214193

CATALOG NUMBER: 4SNLED-LD5-61HL-RM-UNV-L950-CD1-U

CANDELA DISTRIBUTION (continued):

	167°	168°	169°	170°	171°	172°	173°	174°	175°	176°	177°
0°	3908.1	3908.1	3908.1	3908.1	3908.1	3908.1	3908.1	3908.1	3908.1	3908.1	3908.1
2.5°	3895.2	3892.9	3885.8	3885.8	3884.6	3889.3	3892.9	3896.4	3895.2	3902.2	3895.2
5°	3924.5	3918.7	3908.1	3898.7	3895.2	3897.5	3894.0	3897.5	3892.9	3898.7	3888.2
7.5°	4005.4	3985.5	3944.5	3928.0	3906.9	3905.8	3895.2	3892.9	3885.8	3885.8	3872.9
10°	4148.5	4052.4	4040.6	3991.4	3973.8	3888.2	3906.9	3875.3	3871.7	3856.5	3850.6
12.5°	4265.8	4190.8	4168.5	4125.1	4075.8	3902.2	3940.9	3872.9	3869.4	3838.9	3807.2
15°	4268.2	4311.6	4250.6	4130.9	4120.4	4000.8	3922.2	3898.7	3868.2	3776.7	3792.0
17.5°	4130.9	4230.6	4260.0	4234.2	4159.1	4078.2	3967.9	3921.0	3829.5	3788.5	3760.3
20°	3908.1	4009.0	4134.5	4142.7	4189.6	4132.1	3987.9	3911.6	3801.4	3729.8	3706.4
22.5°	3731.0	3804.9	3949.1	4016.0	4073.5	4093.4	4001.9	3889.3	3752.1	3682.9	3668.8
25°	3637.2	3653.6	3697.0	3775.6	3902.2	3993.7	4006.6	3887.0	3815.4	3664.1	3584.4
27.5°	3603.1	3589.1	3571.5	3611.4	3706.4	3817.8	3891.7	3911.6	3733.3	3589.1	3509.3
30°	3516.3	3524.6	3497.6	3483.5	3545.7	3660.6	3792.0	3824.8	3687.6	3538.6	3447.1
32.5°	3409.6	3423.7	3428.4	3403.8	3390.8	3470.6	3612.5	3691.1	3684.1	3467.1	3365.0
35°	3275.9	3315.8	3326.3	3327.5	3306.4	3293.5	3375.6	3538.6	3600.8	3434.2	3286.5
37.5°	3135.2	3146.9	3204.4	3219.6	3219.6	3180.9	3241.9	3372.1	3458.9	3360.4	3190.3
40°	2959.2	2996.8	3050.7	3077.7	3104.7	3108.2	3074.2	3165.7	3308.7	3284.1	3100.0
42.5°	2831.4	2856.0	2888.8	2925.2	2980.3	2994.4	2959.2	2975.6	3124.6	3189.1	2982.7
45°	2682.4	2715.3	2724.6	2764.5	2822.0	2863.0	2861.9	2827.9	2947.5	3027.3	2897.1
47.5°	2529.9	2561.6	2578.0	2598.0	2640.2	2693.0	2722.3	2707.0	2730.5	2886.5	2783.3
50°	2372.8	2390.4	2423.2	2445.5	2473.6	2504.1	2574.5	2588.6	2555.7	2680.1	2657.8
52.5°	2223.8	2229.7	2252.0	2274.3	2311.8	2334.1	2390.4	2432.6	2430.2	2466.6	2518.2
55°	2107.7	2081.9	2086.6	2104.2	2128.8	2162.8	2194.5	2260.2	2282.5	2289.5	2371.6
57.5°	1646.7	1911.8	1935.3	1934.1	1963.4	1978.7	2008.0	2051.4	2131.2	2113.6	2205.0
60°	1496.6	1525.9	1747.6	1773.4	1784.0	1798.1	1833.2	1873.1	1931.8	1969.3	2009.2
62.5°	1141.2	1319.5	1386.4	1582.2	1612.7	1620.9	1644.4	1663.2	1724.2	1809.8	1793.4
65°	883.2	959.4	1163.5	1243.3	1409.8	1430.9	1463.8	1483.7	1501.3	1599.8	1604.5
67.5°	763.6	775.3	830.4	984.1	1089.6	1252.7	1272.6	1290.2	1317.2	1387.5	1430.9
70°	652.1	666.2	681.5	694.4	831.6	939.5	1090.8	1096.7	1114.3	1161.2	1259.7
72.5°	123.2	557.1	566.5	574.7	590.0	661.5	805.8	923.1	930.1	952.4	1042.7
75°	83.3	97.4	133.7	459.8	475.0	479.7	504.3	651.0	758.9	763.6	803.4
77.5°	59.8	66.9	80.9	96.2	245.1	368.3	374.2	401.1	512.6	593.5	600.5
80°	41.1	45.7	54.0	61.0	75.1	98.5	272.1	280.3	294.4	405.8	426.9
82.5°	23.5	27.0	31.7	38.7	44.6	56.3	72.7	93.8	191.2	204.1	270.9
85°	11.7	12.9	15.2	18.8	22.3	27.0	36.4	44.6	61.0	110.3	113.8
87.5°	5.9	5.9	5.9	5.9	9.4	10.6	12.9	16.4	21.1	31.7	41.1
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: P1214193

CATALOG NUMBER: 4SNLED-LD5-61HL-RM-UNV-L950-CD1-U

CANDELA DISTRIBUTION (continued):

	178°	179°	180°	181°	182°	183°	184°	185°	186°	187°	188°
0°	3908.1	3908.1	3908.1	3908.1	3908.1	3908.1	3908.1	3908.1	3908.1	3908.1	3908.1
2.5°	3896.4	3912.8	3926.9	3930.4	3930.4	3932.7	3936.2	3938.6	3940.9	3943.3	3940.9
5°	3889.3	3906.9	3918.7	3922.2	3922.2	3929.2	3935.1	3942.1	3945.6	3945.6	3943.3
7.5°	3871.7	3884.6	3899.9	3909.3	3910.4	3922.2	3932.7	3931.6	3936.2	3938.6	3944.5
10°	3848.3	3848.3	3874.1	3881.1	3887.0	3899.9	3903.4	3910.4	3926.9	3929.2	3944.5
12.5°	3836.6	3824.8	3855.3	3858.8	3878.8	3862.4	3883.5	3890.5	3874.1	3896.4	3867.0
15°	3783.8	3797.8	3793.2	3803.7	3838.9	3820.1	3877.6	3858.8	3901.1	3850.6	3939.8
17.5°	3740.4	3738.0	3756.8	3766.2	3773.2	3813.1	3828.3	3849.5	3865.9	3851.8	3887.0
20°	3708.7	3689.9	3704.0	3714.6	3739.2	3769.7	3779.1	3747.4	3802.5	3896.4	3918.7
22.5°	3648.9	3636.0	3652.4	3652.4	3689.9	3685.2	3720.4	3700.5	3752.1	3861.2	3975.0
25°	3568.0	3569.1	3586.7	3607.8	3614.9	3667.7	3686.4	3712.2	3776.7	3906.9	3976.1
27.5°	3485.9	3478.8	3489.4	3532.8	3569.1	3607.8	3613.7	3701.7	3789.6	3878.8	3939.8
30°	3403.8	3396.7	3403.8	3435.4	3478.8	3504.6	3569.1	3686.4	3768.5	3829.5	3887.0
32.5°	3315.8	3308.7	3325.2	3348.6	3424.9	3428.4	3556.2	3666.5	3731.0	3775.6	3765.0
35°	3222.0	3212.6	3227.8	3264.2	3334.6	3360.4	3494.1	3576.2	3648.9	3670.0	3620.7
37.5°	3109.4	3092.9	3111.7	3162.1	3236.0	3311.1	3422.5	3517.5	3556.2	3499.9	3441.3
40°	2992.1	2980.3	3013.2	3039.0	3125.8	3230.2	3358.0	3424.9	3400.2	3335.7	3271.2
42.5°	2887.7	2863.0	2892.4	2941.6	3040.2	3158.6	3261.8	3299.4	3240.7	3145.7	3070.6
45°	2759.8	2730.5	2765.7	2831.4	2936.9	3071.8	3152.8	3139.8	3040.2	2958.1	2854.8
47.5°	2626.1	2590.9	2626.1	2704.7	2823.2	2966.3	3024.9	2966.3	2840.8	2737.5	2654.3
50°	2494.8	2453.7	2487.7	2606.2	2722.3	2832.6	2831.4	2717.6	2642.5	2529.9	2457.2
52.5°	2364.6	2305.9	2339.9	2469.0	2585.1	2710.6	2617.9	2512.3	2422.0	2323.5	2300.1
55°	2203.9	2140.5	2186.3	2373.9	2463.1	2537.0	2389.2	2296.5	2207.4	2158.1	2128.8
57.5°	2051.4	1982.2	2022.1	2243.8	2309.4	2328.2	2192.1	2060.8	2008.0	1991.6	1949.4
60°	1894.2	1815.6	1853.2	2108.9	2154.6	2078.4	1944.7	1842.6	1832.1	1799.2	1766.4
62.5°	1744.1	1657.3	1680.8	1941.1	1962.3	1823.9	1700.7	1673.7	1647.9	1615.1	1597.5
65°	1571.7	1481.4	1514.2	1762.9	1742.9	1564.6	1495.4	1489.6	1455.6	1428.6	1454.4
67.5°	1413.3	1306.6	1352.4	1568.2	1477.9	1332.4	1304.3	1290.2	1263.2	1278.5	1007.5
70°	1239.8	1123.6	1185.8	1358.2	1224.5	1128.3	1117.8	1096.7	1097.8	872.6	735.4
72.5°	1046.2	945.4	1035.7	1128.3	968.8	940.7	925.4	923.1	744.8	605.2	571.2
75°	876.2	774.1	871.5	906.7	771.8	753.0	751.8	621.6	489.1	466.8	456.3
77.5°	683.8	605.2	697.9	645.1	592.3	571.2	512.6	384.7	368.3	353.0	132.5
80°	460.9	466.8	520.8	444.5	422.2	360.1	283.8	272.1	234.6	93.8	73.9
82.5°	280.3	351.9	331.9	278.0	272.1	195.9	179.5	91.5	68.0	54.0	46.9
85°	145.4	178.3	171.2	151.3	112.6	100.9	56.3	43.4	35.2	27.0	22.3
87.5°	49.3	65.7	63.3	50.4	38.7	30.5	19.9	16.4	11.7	9.4	8.2
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: P1214193

CATALOG NUMBER: 4SNLED-LD5-61HL-RM-UNV-L950-CD1-U

CANDELA DISTRIBUTION (continued):

	189°	190°	191°	192°	193°	194°	195°	196°	197°	198°	199°
0°	3908.1	3908.1	3908.1	3908.1	3908.1	3908.1	3908.1	3908.1	3908.1	3908.1	3908.1
2.5°	3938.6	3938.6	3936.2	3938.6	3939.8	3937.4	3937.4	3939.8	3940.9	3942.1	3948.0
5°	3944.5	3946.8	3950.3	3957.4	3958.5	3972.6	3978.5	3982.0	3985.5	3986.7	3978.5
7.5°	3957.4	3965.6	3972.6	3971.4	3963.2	3940.9	3933.9	3928.0	3938.6	3965.6	3997.2
10°	3969.1	3931.6	3861.2	3957.4	3928.0	3955.0	4034.8	4052.4	4106.3	4182.6	4204.8
12.5°	3888.2	3991.4	4013.7	3905.8	4105.1	4031.3	4119.2	4196.6	4218.9	4296.3	4249.4
15°	3975.0	4025.4	4059.4	4167.3	4155.6	4218.9	4243.5	4228.3	4231.8	4251.8	4304.5
17.5°	3973.8	4074.6	4096.9	4169.7	4218.9	4220.1	4213.1	4206.0	4224.8	4240.0	4208.4
20°	4041.8	4074.6	4118.0	4147.4	4156.8	4168.5	4190.8	4173.2	4138.0	4104.0	4089.9
22.5°	4007.8	4081.7	4119.2	4123.9	4118.0	4081.7	4048.8	3999.6	3983.2	3965.6	3971.4
25°	4014.8	4048.8	4044.2	4025.4	4000.8	3932.7	3916.3	3895.2	3863.5	3787.3	3718.1
27.5°	3964.4	3946.8	3925.7	3879.9	3835.4	3799.0	3758.0	3689.9	3633.6	3551.5	3521.0
30°	3879.9	3809.6	3758.0	3731.0	3687.6	3626.6	3564.4	3481.2	3409.6	3393.2	3377.9
32.5°	3718.1	3648.9	3606.7	3541.0	3467.1	3394.4	3322.8	3290.0	3274.7	3277.1	3263.0
35°	3552.7	3491.7	3428.4	3329.9	3274.7	3202.0	3176.2	3169.2	3155.1	3139.8	3123.4
37.5°	3376.8	3305.2	3210.2	3151.6	3096.5	3067.1	3054.2	3043.7	3019.0	2992.1	2973.3
40°	3206.7	3077.7	3024.9	2967.4	2951.0	2938.1	2919.3	2893.5	2859.5	2854.8	2846.6
42.5°	2979.2	2886.5	2840.8	2829.0	2809.1	2786.8	2770.4	2742.2	2728.2	2737.5	2744.6
45°	2763.3	2716.4	2701.2	2687.1	2649.6	2617.9	2607.4	2598.0	2609.7	2661.3	2538.2
47.5°	2588.6	2569.8	2551.1	2527.6	2492.4	2469.0	2479.5	2488.9	2499.4	2120.6	1935.3
50°	2437.3	2411.5	2382.2	2356.4	2335.2	2332.9	2388.0	2222.6	1861.4	1852.0	1664.3
52.5°	2271.9	2233.2	2215.6	2200.4	2209.7	2244.9	1857.9	1724.2	1653.8	1436.8	1340.6
55°	2093.6	2059.6	2059.6	2073.7	2023.3	1639.7	1619.8	1400.4	1267.9	1230.4	1215.1
57.5°	1915.3	1911.8	1931.8	1766.4	1488.4	1427.4	1199.9	1151.8	1130.7	1126.0	1101.4
60°	1752.3	1785.2	1494.3	1374.6	1195.2	1077.9	1045.1	1039.2	1016.9	1008.7	986.4
62.5°	1622.1	1345.3	1252.7	1022.8	962.9	947.7	930.1	921.9	902.0	796.4	233.4
65°	1171.7	1107.2	898.4	859.7	855.0	832.8	825.7	742.4	174.8	117.3	99.7
67.5°	884.4	784.7	757.7	750.7	728.4	683.8	202.9	116.1	99.7	86.8	76.2
70°	679.1	661.5	641.6	625.2	184.1	114.9	99.7	84.4	72.7	64.5	58.6
72.5°	556.0	544.2	316.7	120.8	98.5	83.3	73.9	64.5	56.3	51.6	46.9
75°	435.1	120.8	99.7	83.3	71.5	61.0	54.0	48.1	43.4	39.9	36.4
77.5°	98.5	79.8	68.0	57.5	51.6	45.7	41.1	35.2	31.7	28.1	23.5
80°	61.0	52.8	44.6	41.1	35.2	29.3	25.8	23.5	18.8	17.6	15.2
82.5°	39.9	31.7	28.1	23.5	18.8	17.6	15.2	11.7	10.6	9.4	8.2
85°	17.6	15.2	12.9	10.6	8.2	7.0	5.9	4.7	4.7	4.7	4.7
87.5°	5.9	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	2.3	2.3
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: P1214193

CATALOG NUMBER: 4SNLED-LD5-61HL-RM-UNV-L950-CD1-U

CANDELA DISTRIBUTION (continued):

	200°	205°	210°	215°	220°	225°	230°	235°	240°	245°	250°
0°	3908.1	3908.1	3908.1	3908.1	3908.1	3908.1	3908.1	3908.1	3908.1	3908.1	3908.1
2.5°	3950.3	3971.4	3991.4	3985.5	3964.4	3931.6	3922.2	3909.3	3918.7	3938.6	3946.8
5°	3978.5	3966.7	4009.0	4071.1	4172.0	4181.4	4251.8	4268.2	4324.5	4359.7	4358.5
7.5°	4018.4	4184.9	4254.1	4329.2	4363.2	4355.0	4365.5	4357.3	4344.4	4338.6	4331.5
10°	4221.3	4347.9	4373.7	4373.7	4321.0	4249.4	4218.9	4166.1	4060.6	4062.9	4045.3
12.5°	4339.7	4384.3	4323.3	4271.7	4059.4	3977.3	3888.2	3845.9	3821.3	3783.8	3797.8
15°	4277.6	4214.2	4177.9	4011.3	3881.1	3733.3	3735.7	3709.9	3682.9	3685.2	3667.7
17.5°	4186.1	4135.6	3877.6	3762.7	3699.3	3641.9	3631.3	3597.3	3579.7	3573.8	3572.6
20°	4060.6	3878.8	3686.4	3658.3	3582.0	3516.3	3505.8	3516.3	3570.3	3474.1	3148.1
22.5°	3914.0	3652.4	3596.1	3516.3	3464.7	3438.9	3503.4	3210.2	2766.9	2820.8	2763.3
25°	3665.3	3551.5	3455.4	3394.4	3388.5	3230.2	2691.8	2635.5	2350.5	2198.0	2026.8
27.5°	3483.5	3434.2	3333.4	3322.8	3246.6	2641.4	2361.0	2051.4	1937.6	1920.0	1882.5
30°	3373.3	3302.9	3241.9	2975.6	2590.9	2126.5	1894.2	1850.8	1830.9	1809.8	1776.9
32.5°	3240.7	3173.9	3203.2	2501.8	2065.5	1830.9	1784.0	1752.3	1716.0	1701.9	1583.4
35°	3105.8	3075.3	2503.0	2103.0	1775.8	1719.5	1684.3	1651.4	1313.6	317.9	107.9
37.5°	2961.6	2954.5	2249.6	1745.3	1663.2	1610.4	1510.7	312.0	73.9	50.4	37.5
40°	2849.0	2250.8	1778.1	1636.2	1569.3	1486.1	208.8	51.6	32.8	19.9	12.9
42.5°	2773.9	2024.4	1591.6	1535.3	1389.9	153.6	52.8	22.3	12.9	10.6	8.2
45°	2138.2	1598.7	1487.2	1428.6	175.9	52.8	30.5	10.6	8.2	7.0	4.7
47.5°	1972.8	1452.0	1386.4	312.0	58.6	28.1	21.1	7.0	4.7	4.7	4.7
50°	1494.3	1341.8	1103.7	76.2	37.5	19.9	15.2	4.7	4.7	4.7	3.5
52.5°	1310.1	1238.6	118.5	50.4	29.3	15.2	9.4	3.5	3.5	3.5	3.5
55°	1197.5	785.8	70.4	38.7	24.6	14.1	5.9	3.5	3.5	3.5	2.3
57.5°	1095.5	105.6	51.6	32.8	22.3	12.9	3.5	3.5	3.5	3.5	2.3
60°	928.9	76.2	42.2	29.3	21.1	11.7	3.5	3.5	3.5	3.5	3.5
62.5°	120.8	59.8	36.4	25.8	15.2	9.4	2.3	3.5	3.5	3.5	3.5
65°	88.0	46.9	32.8	17.6	9.4	3.5	2.3	3.5	3.5	3.5	3.5
67.5°	68.0	38.7	24.6	15.2	8.2	2.3	2.3	3.5	3.5	3.5	3.5
70°	54.0	32.8	19.9	12.9	7.0	2.3	2.3	3.5	3.5	3.5	3.5
72.5°	42.2	23.5	14.1	7.0	4.7	2.3	2.3	3.5	3.5	3.5	3.5
75°	31.7	18.8	10.6	5.9	2.3	2.3	2.3	3.5	3.5	3.5	3.5
77.5°	21.1	11.7	8.2	4.7	4.7	4.7	5.9	5.9	3.5	3.5	3.5
80°	14.1	8.2	5.9	5.9	5.9	4.7	5.9	5.9	3.5	5.9	3.5
82.5°	7.0	5.9	5.9	4.7	4.7	3.5	4.7	4.7	4.7	4.7	3.5
85°	4.7	3.5	3.5	3.5	3.5	3.5	3.5	3.5	4.7	4.7	3.5
87.5°	2.3	2.3	2.3	2.3	3.5	3.5	3.5	3.5	4.7	4.7	3.5
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: P1214193

CATALOG NUMBER: 4SNLED-LD5-61HL-RM-UNV-L950-CD1-U

CANDELA DISTRIBUTION (continued):

	255°	260°	265°	270°	275°	280°	285°	290°	295°	300°	305°
0°	3908.1	3908.1	3908.1	3908.1	3908.1	3908.1	3908.1	3908.1	3908.1	3908.1	3908.1
2.5°	3936.2	3939.8	3930.4	3980.8	3955.0	3957.4	3967.9	3940.9	3946.8	3928.0	3915.1
5°	4363.2	4370.2	4377.3	4379.6	4384.3	4390.2	4383.1	4379.6	4372.6	4349.1	4324.5
7.5°	4296.3	4288.1	4284.6	4289.3	4297.5	4301.0	4295.2	4303.4	4333.9	4346.8	4355.0
10°	3944.5	3906.9	3932.7	3929.2	3899.9	3998.4	3971.4	3986.7	3997.2	4105.1	4170.8
12.5°	3776.7	3800.2	3755.6	3733.3	3762.7	3782.6	3802.5	3760.3	3819.0	3792.0	3878.8
15°	3636.0	3621.9	3617.2	3618.4	3612.5	3640.7	3647.7	3657.1	3665.3	3701.7	3715.7
17.5°	3572.6	3596.1	3605.5	3612.5	3600.8	3587.9	3575.0	3556.2	3562.1	3552.7	3579.7
20°	2928.7	2850.1	2845.5	2891.2	2840.8	2868.9	2936.9	3392.0	3376.8	3553.9	3494.1
22.5°	2444.3	2370.4	2307.1	2252.0	2330.5	2363.4	2490.1	2633.2	2865.4	2829.0	3081.2
25°	1996.3	1969.3	1952.9	1944.7	1950.5	1948.2	1976.3	2043.2	2148.8	2397.4	2718.8
27.5°	1867.3	1854.4	1848.5	1829.7	1843.8	1839.1	1861.4	1875.5	1907.1	1931.8	2036.2
30°	1765.2	1750.0	1739.4	1719.5	1733.5	1734.7	1741.8	1778.1	1791.0	1812.1	1845.0
32.5°	645.1	380.0	356.6	339.0	370.6	483.2	848.0	1482.5	1691.3	1707.7	1745.3
35°	63.3	52.8	46.9	46.9	48.1	52.8	70.4	185.3	339.0	1310.1	1639.7
37.5°	24.6	21.1	17.6	16.4	17.6	19.9	27.0	35.2	48.1	99.7	444.5
40°	10.6	9.4	8.2	8.2	8.2	8.2	9.4	11.7	17.6	32.8	51.6
42.5°	7.0	5.9	5.9	5.9	5.9	5.9	5.9	5.9	8.2	10.6	21.1
45°	4.7	3.5	3.5	3.5	3.5	3.5	3.5	3.5	4.7	5.9	9.4
47.5°	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	4.7
50°	3.5	3.5	3.5	3.5	2.3	3.5	2.3	3.5	3.5	3.5	3.5
52.5°	3.5	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	3.5	3.5
55°	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	3.5
57.5°	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
60°	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
62.5°	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	3.5	3.5	2.3
65°	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	3.5	2.3
67.5°	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
70°	3.5	3.5	2.3	3.5	2.3	2.3	3.5	3.5	3.5	2.3	2.3
72.5°	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	7.0	7.0	4.7
75°	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	5.9	7.0	5.9
77.5°	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	5.9	5.9	5.9
80°	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	4.7	4.7	4.7
82.5°	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	4.7	4.7	4.7
85°	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
87.5°	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
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: P1214193

CATALOG NUMBER: 4SNLED-LD5-61HL-RM-UNV-L950-CD1-U

CANDELA DISTRIBUTION (continued):

	310°	315°	320°	325°	330°	335°	340°	341°	342°	343°	344°
0°	3908.1	3908.1	3908.1	3908.1	3908.1	3908.1	3908.1	3908.1	3908.1	3908.1	3908.1
2.5°	3892.9	3891.7	3916.3	3935.1	3928.0	3935.1	3943.3	3944.5	3946.8	3937.4	3933.9
5°	4277.6	4241.2	4170.8	4120.4	4061.7	3955.0	3902.2	3908.1	3909.3	3905.8	3910.4
7.5°	4351.5	4347.9	4323.3	4312.7	4272.9	4196.6	4074.6	4053.5	4001.9	3969.1	3942.1
10°	4166.1	4250.6	4272.9	4310.4	4333.9	4319.8	4216.6	4201.3	4168.5	4130.9	4139.2
12.5°	3965.6	4034.8	4038.3	4242.4	4288.1	4292.8	4252.9	4274.0	4278.7	4194.3	4145.0
15°	3719.3	3752.1	3821.3	4011.3	4149.7	4236.5	4262.3	4274.0	4216.6	4213.1	4193.1
17.5°	3611.4	3632.5	3664.1	3770.9	3980.8	4108.7	4217.7	4209.5	4231.8	4215.4	4165.0
20°	3475.3	3492.9	3549.2	3603.1	3706.4	3876.4	4080.5	4095.8	4125.1	4121.6	4135.6
22.5°	3473.0	3410.8	3420.2	3462.4	3570.3	3722.8	3939.8	3990.2	4009.0	4021.9	4037.1
25°	2755.1	3248.9	3339.2	3366.2	3436.6	3525.7	3781.4	3800.2	3835.4	3892.9	3935.1
27.5°	2386.8	2722.3	3083.6	3271.2	3315.8	3389.7	3542.2	3570.3	3689.9	3704.0	3769.7
30°	1883.7	2142.9	2682.4	3134.0	3207.9	3259.5	3367.4	3423.7	3475.3	3531.6	3600.8
32.5°	1772.2	1813.3	2112.4	2593.3	3168.0	3129.3	3209.1	3243.1	3299.4	3348.6	3399.1
35°	1670.2	1698.4	1761.7	2124.1	2580.4	3022.6	3076.5	3098.8	3130.5	3168.0	3204.4
37.5°	1563.5	1605.7	1649.1	1746.4	2386.8	2938.1	2936.9	2962.7	2981.5	3013.2	3043.7
40°	283.8	1474.3	1544.7	1608.0	1850.8	2343.5	2805.6	2817.3	2830.2	2850.1	2881.8
42.5°	45.7	246.3	1447.4	1508.3	1577.5	2098.3	2745.8	2697.7	2689.5	2703.5	2731.7
45°	23.5	59.8	290.9	1408.7	1470.8	1673.7	2244.9	2614.4	2606.2	2579.2	2585.1
47.5°	17.6	37.5	71.5	486.8	1377.0	1436.8	2071.3	2049.1	2205.0	2504.1	2458.4
50°	15.2	25.8	42.2	99.7	1216.3	1323.0	1595.1	1863.7	1945.8	1956.4	2315.3
52.5°	14.1	17.6	30.5	64.5	255.7	1223.3	1297.2	1391.1	1529.5	1826.2	1819.2
55°	12.9	16.4	25.8	43.4	89.1	1102.5	1178.8	1196.4	1225.7	1367.6	1555.3
57.5°	7.0	15.2	24.6	37.5	66.9	201.7	1069.7	1083.8	1107.2	1113.1	1179.9
60°	3.5	14.1	22.3	32.8	49.3	93.8	961.8	978.2	992.3	994.6	1015.7
62.5°	2.3	12.9	18.8	30.5	41.1	66.9	227.5	464.5	883.2	883.2	907.8
65°	2.3	9.4	11.7	19.9	37.5	55.1	96.2	111.4	217.0	533.7	796.4
67.5°	2.3	3.5	10.6	16.4	28.1	42.2	70.4	82.1	98.5	112.6	208.8
70°	2.3	2.3	9.4	10.6	17.6	31.7	50.4	57.5	66.9	76.2	88.0
72.5°	2.3	2.3	8.2	8.2	11.7	21.1	38.7	42.2	48.1	54.0	62.2
75°	5.9	4.7	7.0	7.0	8.2	16.4	29.3	32.8	35.2	39.9	45.7
77.5°	5.9	5.9	5.9	5.9	5.9	10.6	18.8	21.1	24.6	27.0	31.7
80°	4.7	4.7	4.7	5.9	5.9	7.0	11.7	12.9	14.1	17.6	18.8
82.5°	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	7.0	8.2	10.6
85°	3.5	3.5	3.5	3.5	3.5	3.5	3.5	4.7	4.7	4.7	4.7
87.5°	3.5	3.5	3.5	2.3	2.3	3.5	3.5	3.5	3.5	3.5	3.5
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: P1214193

CATALOG NUMBER: 4SNLED-LD5-61HL-RM-UNV-L950-CD1-U

CANDELA DISTRIBUTION (continued):

	345°	346°	347°	348°	349°	350°	351°	352°	353°	354°	355°
0°	3908.1	3908.1	3908.1	3908.1	3908.1	3908.1	3908.1	3908.1	3908.1	3908.1	3908.1
2.5°	3932.7	3925.7	3919.8	3923.3	3912.8	3908.1	3911.6	3912.8	3915.1	3921.0	3922.2
5°	3922.2	3919.8	3930.4	3936.2	3933.9	3936.2	3936.2	3931.6	3924.5	3929.2	3918.7
7.5°	3915.1	3899.9	3888.2	3890.5	3878.8	3892.9	3905.8	3924.5	3930.4	3930.4	3918.7
10°	4035.9	4019.5	3953.8	3909.3	3879.9	3854.1	3915.1	3853.0	3882.3	3770.9	3898.7
12.5°	4135.6	4157.9	4128.6	4006.6	3985.5	3908.1	3952.7	3876.4	3854.1	3726.3	3767.4
15°	4175.5	4133.3	4123.9	4089.9	4044.2	4021.9	3902.2	3889.3	3853.0	3867.0	3813.1
17.5°	4140.3	4161.4	4133.3	4111.0	4064.1	4011.3	3939.8	3876.4	3826.0	3713.4	3808.4
20°	4106.3	4134.5	4050.0	4064.1	4068.8	4007.8	3970.3	3917.5	3854.1	3748.6	3666.5
22.5°	4050.0	4030.1	4037.1	4016.0	3998.4	4006.6	3955.0	3918.7	3811.9	3763.8	3652.4
25°	3958.5	3951.5	3970.3	3967.9	3925.7	3911.6	3885.8	3847.1	3804.9	3727.5	3636.0
27.5°	3809.6	3845.9	3878.8	3894.0	3871.7	3834.2	3820.1	3797.8	3768.5	3689.9	3621.9
30°	3652.4	3693.5	3731.0	3763.8	3783.8	3767.4	3754.4	3741.5	3697.0	3645.4	3569.1
32.5°	3473.0	3526.9	3578.5	3618.4	3661.8	3674.7	3665.3	3654.8	3617.2	3570.3	3509.3
35°	3265.3	3339.2	3414.3	3485.9	3504.6	3535.1	3565.6	3548.0	3528.1	3481.2	3424.9
37.5°	3089.4	3142.2	3196.1	3286.5	3352.1	3390.8	3444.8	3451.8	3417.8	3395.5	3321.6
40°	2907.6	2955.7	3034.3	3087.1	3177.4	3222.0	3279.4	3305.2	3297.0	3284.1	3219.6
42.5°	2764.5	2788.0	2839.6	2886.5	2975.6	3067.1	3117.6	3145.7	3175.0	3164.5	3131.6
45°	2612.0	2633.2	2650.8	2691.8	2778.6	2859.5	2921.7	2963.9	3016.7	3041.3	3001.4
47.5°	2460.7	2466.6	2487.7	2521.7	2573.3	2635.5	2739.9	2803.2	2852.5	2900.6	2874.8
50°	2344.6	2323.5	2327.0	2348.1	2390.4	2451.4	2526.4	2615.6	2671.9	2730.5	2736.4
52.5°	2049.1	2220.3	2179.2	2191.0	2213.3	2242.6	2321.2	2409.1	2478.3	2528.8	2579.2
55°	1719.5	1753.5	2083.1	2036.2	2050.2	2076.0	2112.4	2200.4	2267.2	2337.6	2408.0
57.5°	1333.6	1586.9	1599.8	1904.8	1897.7	1900.1	1930.6	1981.0	2047.9	2135.8	2195.7
60°	1036.8	1143.6	1351.2	1456.7	1724.2	1733.5	1751.1	1780.5	1837.9	1921.2	2016.2
62.5°	914.9	928.9	1002.8	1161.2	1334.8	1544.7	1582.2	1586.9	1612.7	1696.0	1806.3
65°	803.4	812.8	835.1	851.5	997.0	1199.9	1380.5	1409.8	1426.2	1475.5	1569.3
67.5°	553.6	700.2	720.2	731.9	746.0	839.8	1063.8	1212.8	1231.5	1274.9	1357.0
70°	106.7	221.7	606.4	619.3	626.3	647.4	683.8	920.7	1045.1	1086.1	1123.6
72.5°	72.7	85.6	103.2	244.0	516.1	527.8	536.0	566.5	776.5	896.1	916.0
75°	52.8	58.6	69.2	85.6	105.6	343.7	425.8	441.0	456.3	629.8	730.7
77.5°	37.5	42.2	46.9	55.1	64.5	83.3	119.6	329.6	344.8	353.0	498.5
80°	21.1	25.8	31.7	36.4	41.1	46.9	61.0	76.2	170.1	248.7	261.6
82.5°	11.7	14.1	16.4	19.9	22.3	28.1	34.0	41.1	54.0	79.8	168.9
85°	5.9	5.9	5.9	8.2	9.4	12.9	15.2	17.6	24.6	34.0	46.9
87.5°	3.5	3.5	4.7	4.7	4.7	5.9	5.9	5.9	7.0	10.6	15.2
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: P1214193

CATALOG NUMBER: 4SNLED-LD5-61HL-RM-UNV-L950-CD1-U

CANDELA DISTRIBUTION (continued):

	356°	357°	358°	359°	360°
0°	3908.1	3908.1	3908.1	3908.1	3908.1
2.5°	3923.3	3919.8	3919.8	3933.9	3930.4
5°	3916.3	3912.8	3911.6	3926.9	3919.8
7.5°	3910.4	3897.5	3894.0	3908.1	3902.2
10°	3887.0	3877.6	3883.5	3878.8	3876.4
12.5°	3847.1	3841.2	3816.6	3819.0	3838.9
15°	3775.6	3799.0	3756.8	3794.3	3802.5
17.5°	3644.2	3697.0	3738.0	3760.3	3763.8
20°	3702.8	3720.4	3699.3	3700.5	3714.6
22.5°	3626.6	3634.8	3640.7	3633.6	3664.1
25°	3504.6	3473.0	3541.0	3555.1	3604.3
27.5°	3467.1	3441.3	3473.0	3470.6	3511.7
30°	3436.6	3353.3	3367.4	3389.7	3440.1
32.5°	3393.2	3261.8	3247.8	3297.0	3353.3
35°	3317.0	3192.6	3159.8	3191.5	3275.9
37.5°	3252.4	3096.5	3030.8	3073.0	3183.2
40°	3156.3	3021.4	2919.3	2956.9	3087.1
42.5°	3041.3	2956.9	2799.7	2825.5	2974.5
45°	2925.2	2850.1	2683.6	2696.5	2873.6
47.5°	2806.7	2737.5	2562.8	2565.1	2744.6
50°	2690.6	2599.1	2454.9	2413.8	2607.4
52.5°	2539.3	2454.9	2345.8	2278.9	2477.2
55°	2396.2	2301.2	2221.5	2118.3	2329.4
57.5°	2256.7	2151.1	2097.1	1964.6	2161.7
60°	2065.5	2015.0	1935.3	1808.6	2010.3
62.5°	1869.6	1853.2	1772.2	1640.9	1823.9
65°	1640.9	1679.6	1596.3	1483.7	1630.3
67.5°	1425.1	1494.3	1402.8	1333.6	1443.8
70°	1195.2	1274.9	1223.3	1198.7	1245.6
72.5°	968.8	1046.2	1050.9	1033.3	1048.6
75°	748.3	833.9	880.8	853.9	857.4
77.5°	567.7	608.7	660.3	681.5	676.8
80°	350.7	422.2	464.5	507.9	492.6
82.5°	177.1	236.9	288.5	335.4	313.2
85°	73.9	95.0	132.5	174.8	167.7
87.5°	22.3	37.5	39.9	56.3	52.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)