

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: P1213887

Luminaire Tested: 4SNLED-LD5-80HL-RW-UNV-L940-CD1-U

Issue Date: 3/29/2018

Test Information

Test Method: LM-79-2019
Report Number: P1213887
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P33525)
Test Lab: INNOVATIONS CENTER-P3
Issue Date: 3/29/2018
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: METALUX
Catalog Number: 4SNLED-LD5-80HL-RW-UNV-L940-CD1-U
Description: 4FT LINEAR SNLED LED FIXTURE
WHITE REFLECTOR
Light Source: -
Ballast/Driver: -

Summary

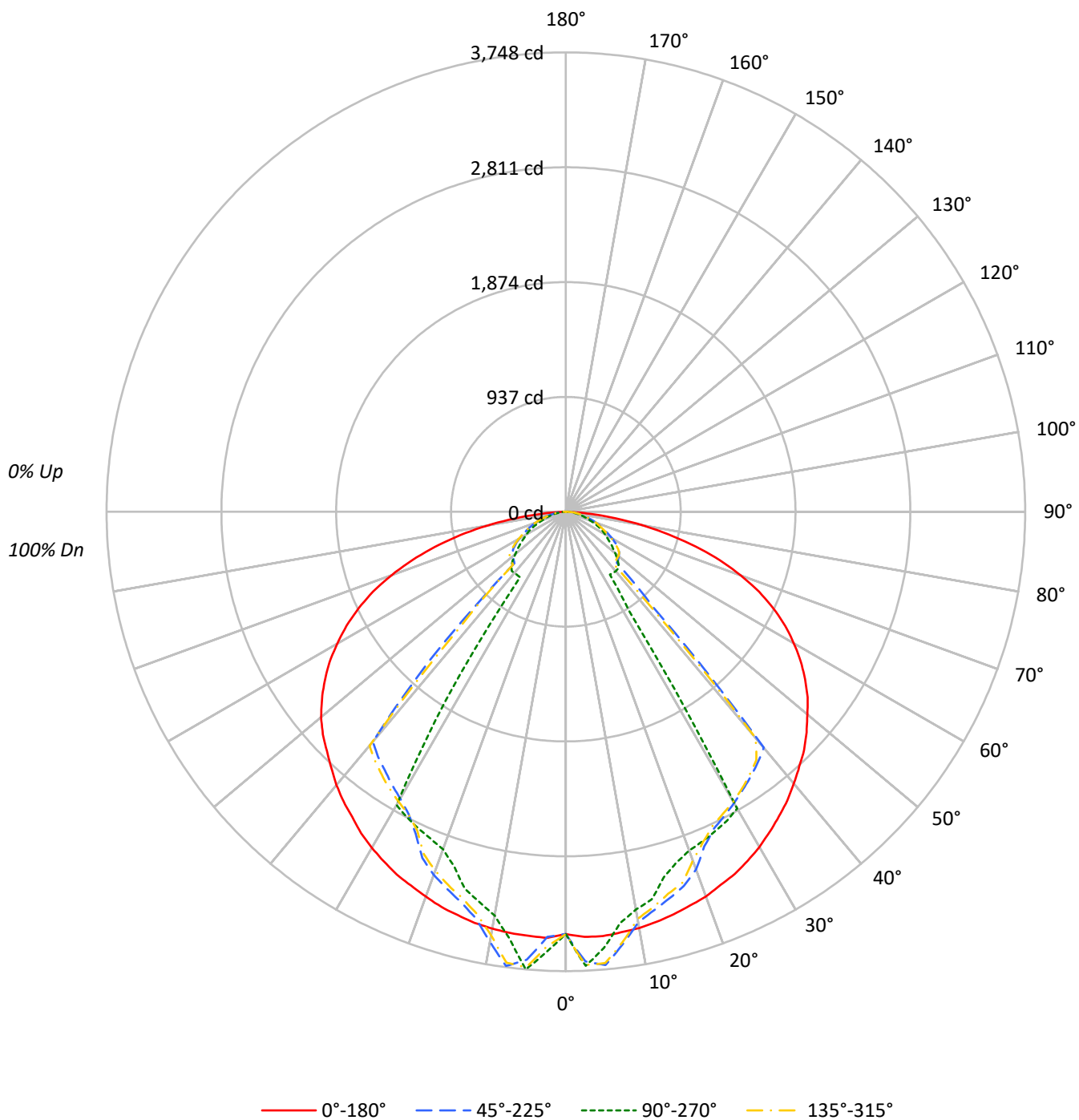
Lumens per Lamp: N/A
Luminaire Lumens: 6899.0 lumens
Efficiency: N/A
Efficacy: 87.3 lumens/watt
Spacing Criteria (0/90/45): 1.36 / 1.16 / 1.2
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.12')
CIE Type: Direct

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

TEST NUMBER: P1213887

CATALOG NUMBER: 4SNLED-LD5-80HL-RW-UNV-L940-CD1-U

Luminous Intensity Polar Plot



TEST NUMBER: P1213887

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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	110	106	102	99	108	104	101	98	100	97	94	96	94	92	92	91	89	87		
2	102	94	88	83	99	93	87	82	89	85	81	86	82	79	83	80	77	75		
3	94	84	77	72	91	83	76	71	80	74	70	77	73	69	75	71	67	65		
4	87	76	68	62	85	75	67	62	72	66	61	70	65	60	68	63	59	57		
5	81	69	61	55	79	68	60	55	66	59	54	64	58	53	62	57	53	51		
6	75	63	55	49	73	62	54	49	60	53	48	59	53	48	57	52	47	46		
7	70	58	50	44	68	57	49	44	55	48	43	54	48	43	53	47	43	41		
8	66	53	45	40	64	52	45	40	51	44	39	50	44	39	49	43	39	37		
9	62	49	41	36	60	48	41	36	47	41	36	46	40	36	45	40	36	34		
10	58	46	38	33	57	45	38	33	44	38	33	43	37	33	42	37	33	31		

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	27841	27841	27841	27841
5°	28114	28050	28101	29439
10°	28141	25361	28180	25749
15°	28204	23464	28269	24209
20°	28408	22255	28408	22172
25°	28654	21830	28696	21626
30°	28944	21445	29016	21190
35°	29281	4884	29342	5094
40°	29750	5079	29929	5244
45°	30463	5051	30569	5235
50°	31174	4567	31596	4690
55°	32134	4055	32389	4113
60°	32947	3603	33019	3649
65°	33529	3144	33445	3094
70°	33050	2534	32948	2443
75°	30682	1951	30903	1869
80°	24904	1386	25901	1269
85°	13486	831	14237	636

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 357.5°

Vertical Angle: 60°

Luminance: 33759 cd/sqm

TEST NUMBER: P1213887

CATALOG NUMBER: 4SNLED-LD5-80HL-RW-UNV-L940-CD1-U

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	339.0	4.9
10°-20°	932.0	13.5
20°-30°	1380.5	20.0
30°-40°	1390.9	20.2
40°-50°	1086.5	15.7
50°-60°	839.3	12.2
60°-70°	563.5	8.2
70°-80°	287.4	4.2
80°-90°	80.0	1.2
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°	2651.4	38.4
0°-40°	4042.3	58.6
0°-60°	5968.1	86.5
0°-90°	6899.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6899.0	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	3445	3445	3445	3445	3445	
5°	3475	3572	3474	3748	3475	331
15°	3399	3087	3407	3185	3399	961
25°	3260	2877	3265	2850	3260	1504
35°	3033	625	3039	652	3033	1901
45°	2749	608	2758	630	2749	2120
55°	2383	442	2402	448	2383	2128
65°	1871	297	1866	292	1871	1840
75°	1097	150	1105	144	1097	1148
85°	197	47	208	36	197	272
90°	0	0	0	0	0	

TEST NUMBER: P1213887

CATALOG NUMBER: 4SNLED-LD5-80HL-RW-UNV-L940-CD1-U

CANDELA DISTRIBUTION (FULL):

	0°	2.5°	5°	7.5°	10°	12.5°	15°	17.5°	20°	22.5°	25°
0°	3445.2	3445.2	3445.2	3445.2	3445.2	3445.2	3445.2	3445.2	3445.2	3445.2	3445.2
2.5°	3472.0	3484.7	3494.1	3500.4	3503.6	3503.6	3505.2	3506.8	3527.3	3536.8	3543.1
5°	3475.2	3487.8	3506.8	3532.0	3554.1	3573.1	3588.9	3611.0	3633.1	3656.8	3664.7
7.5°	3461.0	3476.8	3514.7	3560.4	3603.1	3633.1	3653.6	3667.8	3678.9	3680.4	3688.3
10°	3448.3	3476.8	3528.9	3588.9	3642.5	3678.9	3678.9	3671.0	3682.0	3639.4	3596.8
12.5°	3426.2	3457.8	3528.9	3607.8	3658.3	3672.5	3666.2	3634.7	3569.9	3517.8	3494.1
15°	3399.4	3442.0	3530.4	3618.9	3661.5	3666.2	3606.2	3525.7	3476.8	3445.2	3405.7
17.5°	3369.4	3426.2	3532.0	3620.4	3636.2	3614.1	3500.4	3449.9	3399.4	3325.2	3271.5
20°	3341.0	3396.2	3519.4	3598.3	3607.8	3508.3	3419.9	3366.2	3281.0	3216.2	3192.6
22.5°	3296.8	3361.5	3508.3	3568.3	3532.0	3416.8	3331.5	3246.2	3168.9	3149.9	3121.5
25°	3260.5	3328.3	3483.1	3532.0	3435.7	3333.1	3233.6	3134.1	3097.8	3071.0	3045.7
27.5°	3211.5	3295.2	3449.9	3465.7	3333.1	3243.1	3097.8	3053.6	3020.5	2990.5	2979.4
30°	3157.8	3260.5	3404.1	3374.1	3247.8	3115.2	3007.8	2966.8	2943.1	2911.5	2898.9
32.5°	3096.2	3208.3	3353.6	3268.3	3156.2	2990.5	2921.0	2889.4	2857.8	2834.1	2755.2
35°	3033.1	3162.6	3293.6	3167.3	3045.7	2895.7	2834.1	2805.7	2775.7	2688.9	2606.8
37.5°	2968.4	3112.0	3221.0	3058.3	2898.9	2797.8	2745.7	2714.1	2646.3	2535.7	2494.7
40°	2894.1	3050.5	3127.8	2946.2	2771.0	2698.4	2649.4	2617.8	2464.7	2415.7	2403.1
42.5°	2819.9	2990.5	3014.1	2837.3	2665.2	2592.6	2551.5	2447.3	2343.1	2317.8	2322.6
45°	2748.9	2925.7	2889.4	2682.6	2554.7	2494.7	2425.2	2281.5	2226.3	2238.9	2242.1
47.5°	2663.6	2848.4	2758.4	2527.8	2441.0	2381.0	2226.3	2139.4	2131.5	2148.9	2158.4
50°	2572.0	2761.5	2619.4	2387.3	2317.8	2246.8	2071.5	2027.3	2036.8	2054.2	2065.2
52.5°	2486.8	2663.6	2475.7	2256.3	2196.3	2033.6	1915.2	1923.1	1938.9	1959.4	1965.7
55°	2382.6	2545.2	2322.6	2123.6	2066.8	1853.6	1800.0	1818.9	1834.7	1852.1	1864.7
57.5°	2273.6	2409.4	2141.0	1975.2	1883.6	1694.2	1698.9	1711.5	1722.6	1743.1	720.0
60°	2148.9	2254.7	1942.1	1837.9	1656.3	1567.9	1572.6	1594.7	1605.8	896.8	495.8
62.5°	2019.4	2074.7	1762.1	1681.5	1447.9	1441.5	1463.7	1473.1	1002.6	473.7	464.2
65°	1871.0	1860.0	1585.2	1457.3	1305.8	1312.1	1335.8	1288.4	443.7	443.7	440.5
67.5°	1706.8	1640.5	1413.1	1206.3	1168.4	1182.6	1207.9	421.6	410.5	413.7	402.6
70°	1518.9	1425.8	1234.7	1021.6	1034.2	1048.4	407.4	382.1	377.4	369.5	347.4
72.5°	1320.0	1192.1	1010.5	887.3	895.2	562.1	356.8	344.2	328.4	312.6	288.9
75°	1097.3	931.6	742.1	742.1	753.1	320.5	311.0	290.5	273.2	252.6	238.4
77.5°	860.5	716.8	576.3	598.4	292.1	268.4	251.0	228.9	214.7	202.1	194.2
80°	630.0	500.5	434.2	388.4	227.4	203.7	186.3	173.7	167.4	159.5	150.0
82.5°	413.7	301.6	301.6	183.2	159.5	140.5	135.8	126.3	120.0	115.3	110.5
85°	197.4	175.3	132.6	112.1	99.5	90.0	86.8	82.1	82.1	80.5	78.9
87.5°	72.6	78.9	58.4	56.8	53.7	52.1	53.7	53.7	55.3	53.7	52.1
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: P1213887

CATALOG NUMBER: 4SNLED-LD5-80HL-RW-UNV-L940-CD1-U

CANDELA DISTRIBUTION (continued):

	27.5°	30°	32.5°	35°	37.5°	40°	42.5°	45°	47.5°	50°	52.5°
0°	3445.2	3445.2	3445.2	3445.2	3445.2	3445.2	3445.2	3445.2	3445.2	3445.2	3445.2
2.5°	3558.9	3571.5	3581.0	3596.8	3617.3	3634.7	3650.4	3672.5	3707.3	3716.8	3724.7
5°	3664.7	3669.4	3680.4	3693.1	3696.2	3704.1	3702.5	3712.0	3716.8	3727.8	3704.1
7.5°	3671.0	3645.7	3615.7	3588.9	3569.9	3552.5	3541.5	3558.9	3568.3	3576.2	3552.5
10°	3538.3	3508.3	3491.0	3475.2	3456.2	3429.4	3393.1	3401.0	3397.8	3397.8	3389.9
12.5°	3454.7	3412.0	3367.8	3328.3	3311.0	3309.4	3311.0	3328.3	3328.3	3326.8	3317.3
15°	3323.6	3282.6	3260.5	3251.0	3251.0	3246.2	3246.2	3265.2	3260.5	3260.5	3255.7
17.5°	3236.8	3208.3	3192.6	3181.5	3176.8	3184.7	3194.1	3202.0	3203.6	3197.3	3172.0
20°	3165.7	3138.9	3119.9	3123.1	3121.5	3126.2	3131.0	3104.1	3071.0	3026.8	3006.2
22.5°	3091.5	3071.0	3056.8	3056.8	3037.8	3007.8	2963.6	2954.1	2949.4	2928.9	2911.5
25°	3020.5	2996.8	2976.2	2913.1	2873.6	2878.4	2870.5	2854.7	2853.1	2851.5	2857.8
27.5°	2949.4	2887.8	2808.9	2799.4	2783.6	2782.0	2791.5	2799.4	2799.4	2805.7	2813.6
30°	2802.6	2731.5	2717.3	2699.9	2706.3	2728.4	2733.1	2744.1	2747.3	2758.4	2764.7
32.5°	2668.4	2636.8	2624.1	2632.0	2652.6	2671.5	2682.6	2687.3	2695.2	2704.7	2712.6
35°	2559.4	2549.9	2561.0	2578.4	2598.9	2614.7	2624.1	2633.6	2641.5	2649.4	2655.7
37.5°	2478.9	2485.2	2501.0	2523.1	2543.6	2556.3	2564.2	2575.2	2586.3	2595.7	2557.8
40°	2403.1	2418.9	2436.3	2459.9	2477.3	2489.9	2497.8	2512.0	2417.3	1094.2	600.0
42.5°	2336.8	2354.2	2366.8	2385.7	2404.7	2414.2	2344.7	1046.8	592.1	588.9	596.8
45°	2256.3	2270.5	2291.0	2305.2	2322.6	1525.2	582.6	588.9	579.5	585.8	588.9
47.5°	2174.2	2196.3	2207.3	2106.3	626.8	579.5	573.1	579.5	573.1	581.0	576.3
50°	2081.0	2107.8	1500.0	566.8	562.1	558.9	565.3	562.1	566.8	573.1	560.5
52.5°	1986.3	1230.0	549.5	546.3	549.5	546.3	557.4	549.5	551.0	544.7	528.9
55°	672.6	532.1	527.4	525.8	535.3	535.3	535.3	522.6	514.7	498.9	487.9
57.5°	514.7	514.7	513.1	514.7	511.6	508.4	494.2	483.1	472.1	450.0	443.7
60°	487.9	487.9	487.9	487.9	473.7	467.4	445.3	435.8	416.8	405.8	399.5
62.5°	465.8	462.6	448.4	443.7	427.9	410.5	397.9	388.4	369.5	363.1	358.4
65°	434.2	423.1	405.8	386.8	378.9	360.0	353.7	339.5	330.0	325.3	322.1
67.5°	382.1	366.3	352.1	339.5	325.3	318.9	311.0	300.0	293.7	290.5	287.4
70°	326.8	315.8	301.6	293.7	284.2	279.5	268.4	265.3	260.5	255.8	251.0
72.5°	273.2	266.8	260.5	249.5	246.3	243.2	232.1	225.8	219.5	213.2	210.0
75°	228.9	224.2	221.0	211.6	206.8	197.4	189.5	184.7	180.0	175.3	172.1
77.5°	187.9	184.7	175.3	168.9	165.8	157.9	154.7	156.3	153.2	146.8	143.7
80°	146.8	143.7	135.8	135.8	132.6	129.5	126.3	123.2	120.0	115.3	112.1
82.5°	112.1	108.9	105.8	102.6	99.5	97.9	96.3	93.2	90.0	86.8	85.3
85°	78.9	77.4	75.8	74.2	72.6	71.1	69.5	66.3	63.2	61.6	60.0
87.5°	53.7	52.1	50.5	48.9	47.4	45.8	44.2	42.6	39.5	37.9	36.3
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: P1213887

CATALOG NUMBER: 4SNLED-LD5-80HL-RW-UNV-L940-CD1-U

CANDELA DISTRIBUTION (continued):

	55°	57.5°	60°	62.5°	65°	67.5°	70°	72.5°	75°	77.5°	80°
0°	3445.2	3445.2	3445.2	3445.2	3445.2	3445.2	3445.2	3445.2	3445.2	3445.2	3445.2
2.5°	3724.7	3732.5	3724.7	3707.3	3696.2	3691.5	3701.0	3701.0	3707.3	3715.2	3716.8
5°	3666.2	3647.3	3625.2	3603.1	3592.0	3585.7	3568.3	3571.5	3576.2	3579.4	3582.5
7.5°	3521.0	3495.7	3465.7	3437.3	3426.2	3416.8	3396.2	3396.2	3396.2	3397.8	3407.3
10°	3372.6	3361.5	3348.9	3329.9	3315.7	3311.0	3293.6	3298.3	3295.2	3299.9	3311.0
12.5°	3303.1	3290.4	3279.4	3260.5	3244.7	3238.3	3230.5	3235.2	3233.6	3241.5	3251.0
15°	3239.9	3233.6	3221.0	3206.8	3192.6	3179.9	3151.5	3142.0	3135.7	3127.8	3138.9
17.5°	3135.7	3091.5	3061.5	3039.4	3023.6	3012.6	3004.7	3004.7	3009.4	3014.1	3023.6
20°	2993.6	2981.0	2966.8	2943.1	2927.3	2921.0	2916.2	2916.2	2924.1	2930.5	2947.8
22.5°	2895.7	2894.1	2889.4	2878.4	2870.5	2870.5	2872.0	2875.2	2886.2	2895.7	2913.1
25°	2849.9	2856.2	2853.1	2846.8	2842.0	2843.6	2840.5	2843.6	2854.7	2864.1	2878.4
27.5°	2813.6	2823.1	2819.9	2810.5	2802.6	2805.7	2810.5	2807.3	2816.8	2827.8	2838.9
30°	2764.7	2766.3	2772.6	2761.5	2758.4	2763.1	2764.7	2767.8	2777.3	2785.2	2794.7
32.5°	2709.4	2722.0	2720.5	2709.4	2709.4	2714.1	2715.7	2609.9	2412.6	2077.8	1986.3
35°	2655.7	2669.9	2646.3	2231.0	1544.2	824.2	636.3	614.2	618.9	622.1	625.2
37.5°	1964.2	931.6	593.7	598.4	603.1	607.9	612.6	617.4	622.1	626.8	628.4
40°	590.5	588.9	593.7	600.0	604.7	607.9	614.2	618.9	623.7	628.4	630.0
42.5°	584.2	587.4	592.1	598.4	604.7	611.0	615.8	622.1	625.2	628.4	630.0
45°	581.0	587.4	593.7	598.4	603.1	606.3	609.5	611.0	609.5	609.5	612.6
47.5°	576.3	582.6	584.2	582.6	584.2	582.6	582.6	582.6	577.9	576.3	576.3
50°	558.9	558.9	555.8	549.5	547.9	546.3	543.1	541.6	535.3	533.7	533.7
52.5°	522.6	521.0	516.3	508.4	505.3	502.1	500.5	498.9	492.6	489.5	491.0
55°	480.0	476.8	472.1	462.6	461.0	457.9	456.3	454.7	448.4	451.6	446.8
57.5°	440.5	434.2	427.9	426.3	420.0	418.4	416.8	415.3	410.5	412.1	408.9
60°	393.1	391.6	388.4	382.1	382.1	380.5	380.5	377.4	374.2	372.6	372.6
62.5°	358.4	353.7	350.5	350.5	345.8	345.8	345.8	342.6	339.5	341.0	339.5
65°	320.5	318.9	317.4	314.2	314.2	312.6	312.6	309.5	304.7	306.3	303.2
67.5°	288.9	285.8	282.6	281.0	274.7	271.6	270.0	268.4	262.1	263.7	260.5
70°	249.5	244.7	241.6	238.4	233.7	230.5	230.5	227.4	222.6	224.2	221.0
72.5°	208.4	205.3	202.1	200.5	195.8	194.2	192.6	191.0	186.3	187.9	186.3
75°	173.7	173.7	172.1	170.5	165.8	161.0	157.9	156.3	153.2	154.7	151.6
77.5°	143.7	140.5	137.4	137.4	132.6	129.5	126.3	126.3	126.3	124.7	123.2
80°	112.1	108.9	108.9	107.4	104.2	101.1	99.5	99.5	97.9	97.9	96.3
82.5°	85.3	82.1	80.5	80.5	77.4	75.8	74.2	72.6	72.6	72.6	71.1
85°	60.0	56.8	55.3	55.3	52.1	50.5	50.5	48.9	48.9	47.4	47.4
87.5°	36.3	34.7	33.2	33.2	30.0	28.4	28.4	28.4	26.8	26.8	25.3
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: P1213887

CATALOG NUMBER: 4SNLED-LD5-80HL-RW-UNV-L940-CD1-U

CANDELA DISTRIBUTION (continued):

	82.5°	85°	87.5°	90°	92.5°	95°	97.5°	100°	102.5°	105°	107.5°
0°	3445.2	3445.2	3445.2	3445.2	3445.2	3445.2	3445.2	3445.2	3445.2	3445.2	3445.2
2.5°	3716.8	3716.8	3705.7	3708.9	3704.1	3710.4	3702.5	3702.5	3712.0	3712.0	3718.3
5°	3584.1	3576.2	3574.7	3571.5	3555.7	3562.0	3554.1	3546.2	3557.3	3557.3	3571.5
7.5°	3402.6	3388.3	3394.7	3385.2	3375.7	3361.5	3366.2	3359.9	3367.8	3378.9	3393.1
10°	3309.4	3296.8	3304.7	3295.2	3299.9	3279.4	3281.0	3282.6	3290.4	3293.6	3306.2
12.5°	3249.4	3246.2	3243.1	3239.9	3243.1	3232.0	3225.7	3227.3	3230.5	3232.0	3241.5
15°	3123.1	3102.6	3108.9	3086.8	3088.3	3089.9	3077.3	3089.9	3088.3	3108.9	3127.8
17.5°	3020.5	3020.5	3009.4	2999.9	2993.6	2992.0	2982.6	2988.9	2982.6	2995.2	2999.9
20°	2949.4	2947.8	2946.2	2941.5	2925.7	2927.3	2932.0	2917.8	2916.2	2914.7	2924.1
22.5°	2916.2	2917.8	2911.5	2911.5	2897.3	2900.5	2902.0	2886.2	2887.8	2883.1	2887.8
25°	2881.5	2884.7	2876.8	2876.8	2873.6	2872.0	2864.1	2867.3	2857.8	2849.9	2857.8
27.5°	2840.5	2846.8	2840.5	2843.6	2837.3	2834.1	2829.4	2826.3	2816.8	2815.2	2819.9
30°	2802.6	2805.7	2804.1	2796.3	2794.7	2785.2	2789.9	2780.5	2771.0	2772.6	2775.7
32.5°	1436.8	1372.1	1057.9	955.2	945.8	980.5	1162.1	1414.7	1833.1	2238.9	2531.0
35°	626.8	626.8	626.8	625.2	625.2	623.7	622.1	620.5	618.9	617.4	615.8
37.5°	630.0	630.0	630.0	630.0	628.4	626.8	626.8	623.7	622.1	620.5	618.9
40°	631.6	633.1	633.1	633.1	631.6	631.6	630.0	626.8	625.2	622.1	618.9
42.5°	630.0	631.6	631.6	630.0	630.0	628.4	628.4	626.8	625.2	623.7	622.1
45°	609.5	611.0	607.9	607.9	606.3	606.3	606.3	606.3	606.3	607.9	607.9
47.5°	573.1	573.1	571.6	570.0	570.0	568.4	570.0	568.4	571.6	573.1	576.3
50°	530.5	530.5	527.4	525.8	525.8	525.8	525.8	527.4	528.9	532.1	535.3
52.5°	486.3	486.3	484.7	483.1	481.6	481.6	486.3	484.7	486.3	487.9	492.6
55°	443.7	445.3	442.1	442.1	440.5	440.5	440.5	442.1	443.7	445.3	450.0
57.5°	407.4	407.4	404.2	404.2	404.2	402.6	407.4	404.2	405.8	407.4	410.5
60°	371.0	369.5	369.5	367.9	367.9	367.9	371.0	369.5	369.5	371.0	374.2
62.5°	337.9	337.9	336.3	336.3	334.7	334.7	337.9	336.3	336.3	337.9	339.5
65°	300.0	300.0	298.4	296.8	301.6	296.8	301.6	298.4	301.6	303.2	306.3
67.5°	257.4	257.4	257.4	255.8	255.8	258.9	260.5	257.4	258.9	262.1	263.7
70°	219.5	219.5	217.9	217.9	217.9	221.0	222.6	219.5	221.0	222.6	225.8
72.5°	186.3	183.2	183.2	181.6	184.7	184.7	186.3	184.7	186.3	186.3	189.5
75°	153.2	150.0	150.0	150.0	153.2	151.6	153.2	151.6	153.2	153.2	154.7
77.5°	123.2	121.6	120.0	120.0	123.2	123.2	123.2	121.6	123.2	124.7	126.3
80°	96.3	94.7	93.2	93.2	96.3	96.3	96.3	97.9	96.3	97.9	99.5
82.5°	71.1	69.5	67.9	71.1	71.1	71.1	71.1	72.6	71.1	72.6	74.2
85°	47.4	45.8	44.2	47.4	47.4	47.4	47.4	48.9	47.4	48.9	50.5
87.5°	25.3	23.7	23.7	25.3	25.3	25.3	26.8	26.8	26.8	28.4	28.4
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: P1213887

CATALOG NUMBER: 4SNLED-LD5-80HL-RW-UNV-L940-CD1-U

CANDELA DISTRIBUTION (continued):

	110°	112.5°	115°	117.5°	120°	122.5°	125°	127.5°	130°	132.5°	135°
0°	3445.2	3445.2	3445.2	3445.2	3445.2	3445.2	3445.2	3445.2	3445.2	3445.2	3445.2
2.5°	3727.8	3732.5	3731.0	3721.5	3712.0	3701.0	3693.1	3694.7	3710.4	3715.2	3701.0
5°	3571.5	3601.5	3601.5	3622.0	3611.0	3601.5	3607.8	3642.5	3659.9	3686.8	3696.2
7.5°	3410.4	3424.7	3423.1	3443.6	3440.4	3440.4	3445.2	3491.0	3513.1	3535.2	3541.5
10°	3320.4	3334.7	3333.1	3334.7	3329.9	3318.9	3318.9	3339.4	3358.3	3369.4	3372.6
12.5°	3255.7	3263.6	3262.0	3262.0	3258.9	3249.4	3247.8	3265.2	3285.7	3299.9	3301.5
15°	3159.4	3181.5	3186.2	3206.8	3202.0	3189.4	3192.6	3206.8	3219.4	3232.0	3227.3
17.5°	3015.7	3026.8	3028.4	3036.2	3033.1	3033.1	3052.0	3104.1	3138.9	3168.9	3172.0
20°	2933.6	2941.5	2938.4	2955.7	2947.8	2946.2	2951.0	2973.1	2988.9	3003.1	3028.4
22.5°	2894.1	2900.5	2895.7	2897.3	2883.1	2870.5	2867.3	2884.7	2902.0	2921.0	2921.0
25°	2861.0	2865.7	2864.1	2861.0	2849.9	2832.6	2829.4	2832.6	2838.9	2840.5	2829.4
27.5°	2821.5	2824.7	2824.7	2826.3	2812.0	2796.3	2793.1	2789.9	2796.3	2794.7	2777.3
30°	2780.5	2775.7	2777.3	2778.9	2766.3	2752.0	2745.7	2744.1	2750.5	2748.9	2731.5
32.5°	2682.6	2718.9	2722.0	2725.2	2714.1	2701.5	2695.2	2690.5	2693.6	2692.0	2676.3
35°	614.2	625.2	765.8	1733.6	2354.2	2606.8	2633.6	2627.3	2628.9	2628.9	2616.3
37.5°	615.8	614.2	612.6	607.9	603.1	600.0	1037.3	2212.1	2562.6	2564.2	2553.1
40°	615.8	614.2	612.6	609.5	603.1	598.4	590.5	584.2	598.4	1316.8	2409.4
42.5°	618.9	615.8	612.6	609.5	603.1	596.8	590.5	582.6	587.4	584.2	576.3
45°	609.5	607.9	607.9	606.3	603.1	596.8	588.9	579.5	574.7	579.5	571.6
47.5°	579.5	581.0	585.8	587.4	587.4	588.9	584.2	577.9	570.0	574.7	565.3
50°	538.4	541.6	543.1	551.0	554.2	560.5	562.1	562.1	560.5	566.8	560.5
52.5°	494.2	497.4	505.3	508.4	511.6	521.0	524.2	528.9	532.1	541.6	547.9
55°	451.6	453.1	456.3	462.6	467.4	475.3	480.0	484.7	492.6	497.4	516.3
57.5°	412.1	413.7	420.0	421.6	424.7	431.0	435.8	442.1	448.4	451.6	473.7
60°	374.2	375.8	380.5	382.1	383.7	390.0	394.7	399.5	404.2	407.4	423.1
62.5°	341.0	341.0	345.8	345.8	347.4	352.1	355.3	358.4	363.1	364.7	372.6
65°	307.9	309.5	312.6	312.6	314.2	317.4	318.9	320.5	325.3	325.3	331.6
67.5°	266.8	268.4	273.2	276.3	277.9	284.2	285.8	287.4	290.5	292.1	295.3
70°	227.4	228.9	233.7	235.3	236.8	241.6	244.7	249.5	254.2	258.9	262.1
72.5°	191.0	192.6	197.4	197.4	202.1	203.7	206.8	208.4	213.2	216.3	221.0
75°	156.3	157.9	162.6	162.6	167.4	168.9	170.5	172.1	175.3	178.4	181.6
77.5°	127.9	127.9	134.2	137.4	140.5	140.5	142.1	142.1	142.1	143.7	146.8
80°	101.1	101.1	105.8	108.9	112.1	112.1	113.7	115.3	116.8	116.8	118.4
82.5°	75.8	75.8	80.5	82.1	85.3	85.3	85.3	86.8	88.4	86.8	90.0
85°	52.1	52.1	55.3	56.8	60.0	60.0	60.0	61.6	63.2	61.6	63.2
87.5°	30.0	31.6	33.2	34.7	36.3	37.9	37.9	37.9	39.5	39.5	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: P1213887

CATALOG NUMBER: 4SNLED-LD5-80HL-RW-UNV-L940-CD1-U

CANDELA DISTRIBUTION (continued):

	137.5°	140°	142.5°	145°	147.5°	150°	152.5°	155°	157.5°	160°	162.5°
0°	3445.2	3445.2	3445.2	3445.2	3445.2	3445.2	3445.2	3445.2	3445.2	3445.2	3445.2
2.5°	3685.2	3666.2	3664.7	3642.5	3636.2	3637.8	3620.4	3614.1	3585.7	3579.4	3549.4
5°	3699.4	3708.9	3704.1	3702.5	3707.3	3704.1	3691.5	3685.2	3680.4	3667.8	3642.5
7.5°	3543.1	3549.4	3554.1	3574.7	3592.0	3622.0	3653.6	3674.1	3689.9	3693.1	3672.5
10°	3383.6	3413.6	3434.1	3465.7	3491.0	3508.3	3527.3	3544.7	3590.4	3636.2	3663.1
12.5°	3301.5	3309.4	3307.8	3325.2	3342.6	3388.3	3432.6	3457.8	3492.6	3513.1	3562.0
15°	3232.0	3233.6	3238.3	3251.0	3260.5	3276.2	3296.8	3334.7	3404.1	3435.7	3462.6
17.5°	3168.9	3168.9	3172.0	3183.1	3195.7	3209.9	3222.6	3238.3	3273.1	3325.2	3391.5
20°	3067.8	3112.0	3116.8	3115.2	3121.5	3148.3	3151.5	3179.9	3197.3	3217.8	3282.6
22.5°	2917.8	2944.7	2982.6	3041.0	3063.1	3075.7	3085.2	3097.8	3124.7	3148.3	3175.2
25°	2835.7	2853.1	2864.1	2881.5	2927.3	3001.5	3015.7	3029.9	3047.3	3064.7	3097.8
27.5°	2763.1	2761.5	2769.4	2785.2	2797.8	2837.3	2906.8	2962.0	2965.2	2990.5	3018.9
30°	2711.0	2701.5	2690.5	2687.3	2704.7	2725.2	2745.7	2832.6	2892.6	2905.2	2935.2
32.5°	2662.0	2646.3	2630.5	2617.8	2606.8	2624.1	2636.8	2674.7	2752.0	2824.7	2840.5
35°	2602.0	2586.3	2567.3	2553.1	2535.7	2534.2	2532.6	2568.9	2594.2	2681.0	2756.8
37.5°	2540.5	2523.1	2507.3	2491.5	2474.2	2461.5	2453.6	2463.1	2486.8	2524.7	2651.0
40°	2475.7	2455.2	2439.4	2426.8	2403.1	2393.6	2377.8	2371.5	2373.1	2406.3	2472.6
42.5°	1479.4	2358.9	2366.8	2352.6	2332.1	2319.4	2302.1	2294.2	2278.4	2294.2	2332.1
45°	570.0	576.3	1725.7	2279.9	2254.7	2238.9	2223.1	2215.2	2197.8	2185.2	2219.9
47.5°	558.9	565.3	552.6	783.1	2152.1	2156.8	2137.8	2130.0	2112.6	2103.1	2093.6
50°	551.0	555.8	546.3	549.5	538.4	1972.1	2051.0	2041.5	2022.6	2011.5	1992.6
52.5°	543.1	543.1	536.8	528.9	525.8	527.4	1659.4	1951.5	1929.4	1918.4	1893.1
55°	517.9	521.0	527.4	514.7	511.6	510.0	505.3	1580.5	1826.8	1814.2	1792.1
57.5°	480.0	486.3	503.7	500.5	500.5	487.9	484.7	484.7	1466.8	1708.4	1686.3
60°	435.8	442.1	461.0	467.4	472.1	468.9	465.8	464.2	457.9	1545.8	1574.2
62.5°	390.0	396.3	402.6	423.1	429.5	437.4	446.8	442.1	435.8	435.8	1455.8
65°	341.0	350.5	353.7	372.6	380.5	394.7	402.6	413.7	410.5	408.9	416.8
67.5°	298.4	309.5	311.0	318.9	333.2	339.5	348.9	369.5	378.9	382.1	385.3
70°	262.1	268.4	273.2	276.3	285.8	287.4	304.7	318.9	333.2	348.9	353.7
72.5°	225.8	230.5	240.0	236.8	240.0	246.3	255.8	265.3	279.5	301.6	315.8
75°	184.7	187.9	194.2	197.4	203.7	208.4	214.7	222.6	235.3	246.3	265.3
77.5°	148.4	150.0	154.7	156.3	162.6	167.4	178.4	183.2	191.0	198.9	210.0
80°	120.0	120.0	121.6	121.6	126.3	131.0	138.9	143.7	153.2	159.5	159.5
82.5°	91.6	91.6	96.3	96.3	99.5	99.5	104.2	104.2	108.9	112.1	115.3
85°	64.7	66.3	69.5	67.9	71.1	69.5	72.6	75.8	77.4	75.8	74.2
87.5°	42.6	42.6	45.8	44.2	45.8	45.8	48.9	48.9	50.5	50.5	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: P1213887

CATALOG NUMBER: 4SNLED-LD5-80HL-RW-UNV-L940-CD1-U

CANDELA DISTRIBUTION (continued):

	165°	167.5°	170°	172.5°	175°	177.5°	180°	182.5°	185°	187.5°	190°
0°	3445.2	3445.2	3445.2	3445.2	3445.2	3445.2	3445.2	3445.2	3445.2	3445.2	3445.2
2.5°	3538.3	3514.7	3500.4	3483.1	3478.3	3473.6	3479.9	3479.9	3470.4	3462.6	3448.3
5°	3620.4	3595.2	3568.3	3539.9	3513.1	3484.7	3473.6	3472.0	3454.7	3445.2	3440.4
7.5°	3663.1	3650.4	3620.4	3581.0	3539.9	3489.4	3467.3	3454.7	3437.3	3434.1	3434.1
10°	3667.8	3653.6	3637.8	3609.4	3562.0	3495.7	3453.1	3427.8	3412.0	3423.1	3443.6
12.5°	3622.0	3648.9	3634.7	3615.7	3577.8	3497.3	3435.7	3397.8	3393.1	3421.5	3475.2
15°	3505.2	3584.1	3623.6	3604.7	3574.7	3494.1	3407.3	3363.1	3363.1	3421.5	3491.0
17.5°	3416.8	3478.3	3574.7	3590.4	3555.7	3487.8	3380.4	3328.3	3342.6	3427.8	3502.0
20°	3344.1	3382.0	3475.2	3563.6	3530.4	3473.6	3341.0	3287.3	3315.7	3418.3	3517.8
22.5°	3230.5	3306.2	3363.1	3494.1	3505.2	3446.8	3301.5	3236.8	3293.6	3418.3	3509.9
25°	3119.9	3211.5	3271.5	3399.4	3467.3	3413.6	3265.2	3183.1	3269.9	3413.6	3503.6
27.5°	3042.6	3085.2	3194.1	3285.7	3410.4	3369.4	3216.2	3124.7	3239.9	3388.3	3467.3
30°	2960.5	2988.9	3096.2	3183.1	3334.7	3318.9	3165.7	3059.9	3202.0	3364.7	3372.6
32.5°	2870.5	2902.0	2957.3	3083.6	3228.9	3271.5	3108.9	2995.2	3161.0	3328.3	3262.0
35°	2778.9	2802.6	2846.8	2982.6	3105.7	3200.5	3039.4	2921.0	3132.6	3273.1	3156.2
37.5°	2687.3	2712.6	2750.5	2864.1	2976.2	3134.1	2979.4	2846.8	3080.5	3175.2	3045.7
40°	2600.5	2614.7	2654.1	2725.2	2868.9	3066.2	2911.5	2769.4	3026.8	3050.5	2895.7
42.5°	2441.0	2512.0	2548.4	2605.2	2747.3	2973.1	2832.6	2687.3	2966.8	2925.7	2745.7
45°	2268.9	2423.6	2439.4	2496.3	2639.9	2873.6	2758.4	2606.8	2909.9	2818.4	2603.6
47.5°	2128.4	2240.5	2332.1	2379.4	2512.0	2756.8	2688.9	2538.9	2824.7	2682.6	2464.7
50°	2003.6	2063.6	2229.4	2264.2	2358.9	2616.3	2606.8	2459.9	2706.3	2512.0	2328.9
52.5°	1882.1	1924.7	2074.7	2148.9	2226.3	2464.7	2508.9	2382.6	2576.8	2341.5	2191.5
55°	1776.3	1790.5	1872.6	2028.9	2098.4	2311.5	2401.5	2292.6	2412.6	2178.9	2058.9
57.5°	1667.3	1654.7	1714.7	1915.2	1965.7	2155.2	2287.8	2201.0	2279.9	2013.1	1921.5
60°	1553.6	1536.3	1561.5	1694.2	1825.2	2000.5	2153.6	2100.0	2118.9	1848.9	1768.4
62.5°	1435.2	1417.9	1410.0	1493.6	1687.9	1841.0	2017.8	1987.8	1921.5	1698.9	1578.9
65°	1312.1	1294.7	1282.1	1315.2	1536.3	1634.2	1866.3	1858.4	1705.2	1541.0	1329.4
67.5°	399.5	1177.9	1151.0	1149.4	1294.7	1446.3	1702.1	1689.4	1487.3	1372.1	1144.7
70°	360.0	955.2	1015.2	1001.0	1064.2	1255.2	1514.2	1504.7	1275.8	1100.5	1012.1
72.5°	330.0	337.9	896.8	881.0	895.2	1067.3	1318.4	1293.1	1081.6	868.4	874.7
75°	282.6	296.8	309.5	743.7	724.7	884.2	1105.2	1065.8	892.1	716.8	731.0
77.5°	230.5	247.9	257.4	541.6	585.8	630.0	882.6	830.5	614.2	573.1	273.2
80°	172.1	186.3	202.1	216.3	445.3	440.5	655.2	603.1	427.9	356.8	213.2
82.5°	126.3	131.0	140.5	156.3	176.8	295.3	421.6	371.0	296.8	162.6	146.8
85°	78.9	85.3	90.0	94.7	107.4	176.8	208.4	165.8	124.7	99.5	93.2
87.5°	50.5	50.5	48.9	50.5	52.1	63.2	71.1	67.9	53.7	50.5	50.5
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: P1213887

CATALOG NUMBER: 4SNLED-LD5-80HL-RW-UNV-L940-CD1-U

CANDELA DISTRIBUTION (continued):

	192.5°	195°	197.5°	200°	202.5°	205°	207.5°	210°	212.5°	215°	217.5°
0°	3445.2	3445.2	3445.2	3445.2	3445.2	3445.2	3445.2	3445.2	3445.2	3445.2	3445.2
2.5°	3432.6	3410.4	3410.4	3404.1	3408.9	3408.9	3407.3	3408.9	3419.9	3426.2	3437.3
5°	3431.0	3424.7	3438.9	3456.2	3476.8	3502.0	3508.3	3530.4	3551.0	3577.8	3606.2
7.5°	3451.5	3473.6	3500.4	3528.9	3569.9	3599.9	3626.8	3653.6	3672.5	3697.8	3713.6
10°	3481.5	3525.7	3571.5	3607.8	3652.0	3677.3	3694.7	3697.8	3671.0	3628.3	3593.6
12.5°	3524.1	3576.2	3618.9	3653.6	3674.1	3664.7	3614.1	3562.0	3532.0	3487.8	3426.2
15°	3560.4	3607.8	3652.0	3637.8	3582.5	3530.4	3491.0	3429.4	3369.4	3328.3	3301.5
17.5°	3576.2	3622.0	3606.2	3532.0	3479.9	3419.9	3339.4	3292.0	3252.6	3221.0	3205.2
20°	3585.7	3577.8	3492.6	3438.9	3337.8	3282.6	3230.5	3186.2	3156.2	3140.5	3137.3
22.5°	3560.4	3464.1	3391.5	3295.2	3221.0	3175.2	3134.1	3097.8	3077.3	3064.7	3056.8
25°	3476.8	3364.7	3257.3	3181.5	3118.3	3078.9	3047.3	3017.3	2992.0	2985.7	2969.9
27.5°	3359.9	3268.3	3126.2	3067.8	3012.6	2993.6	2958.9	2928.9	2906.8	2887.8	2837.3
30°	3263.6	3118.3	3015.7	2962.0	2928.9	2906.8	2867.3	2835.7	2797.8	2728.4	2699.9
32.5°	3145.2	3001.5	2903.6	2873.6	2832.6	2813.6	2769.4	2699.9	2641.5	2613.1	2611.5
35°	2992.0	2873.6	2802.6	2775.7	2742.6	2711.0	2619.4	2556.3	2527.8	2531.0	2554.7
37.5°	2864.1	2758.4	2712.6	2674.7	2636.8	2556.3	2478.9	2448.9	2456.8	2472.6	2483.6
40°	2734.7	2654.1	2602.0	2572.0	2486.8	2407.8	2366.8	2377.8	2392.0	2403.1	2417.3
42.5°	2608.4	2551.5	2499.4	2441.0	2324.2	2281.5	2291.0	2305.2	2317.8	2333.6	2347.8
45°	2488.4	2437.8	2377.8	2245.2	2186.8	2197.8	2212.1	2223.1	2242.1	2253.1	2267.3
47.5°	2374.7	2321.0	2215.2	2098.4	2092.1	2114.2	2126.8	2141.0	2155.2	2126.8	1173.1
50°	2246.8	2191.5	2030.5	1986.3	2000.5	2021.0	2036.8	2051.0	1826.8	726.3	558.9
52.5°	2120.5	1980.0	1877.3	1890.0	1904.2	1927.8	1938.9	1440.0	573.1	546.3	547.9
55°	1980.0	1800.0	1770.0	1785.7	1798.4	1822.1	1207.9	528.9	525.8	524.2	536.8
57.5°	1758.9	1650.0	1662.6	1678.4	1691.0	1193.7	514.7	511.6	513.1	514.7	516.3
60°	1561.5	1537.9	1552.1	1566.3	1108.4	497.4	487.9	489.5	495.8	491.0	478.4
62.5°	1405.2	1424.2	1438.4	1260.0	472.1	467.4	472.1	467.4	456.3	448.4	432.6
65°	1285.2	1304.2	1315.2	443.7	442.1	448.4	443.7	427.9	410.5	388.4	383.7
67.5°	1158.9	1177.9	421.6	410.5	416.8	408.9	390.0	371.0	358.4	339.5	331.6
70°	1027.9	440.5	382.1	380.5	369.5	356.8	336.3	317.4	301.6	293.7	285.8
72.5°	742.1	348.9	344.2	331.6	312.6	295.3	277.9	266.8	258.9	254.2	249.5
75°	309.5	303.2	288.9	266.8	247.9	240.0	227.4	219.5	216.3	206.8	203.7
77.5°	258.9	246.3	225.8	210.0	198.9	194.2	184.7	175.3	170.5	168.9	162.6
80°	198.9	181.6	172.1	164.2	161.0	150.0	138.9	134.2	131.0	129.5	124.7
82.5°	135.8	129.5	123.2	112.1	112.1	107.4	102.6	99.5	96.3	96.3	93.2
85°	88.4	83.7	82.1	77.4	77.4	74.2	72.6	71.1	69.5	67.9	66.3
87.5°	50.5	50.5	52.1	50.5	50.5	48.9	47.4	45.8	44.2	44.2	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: P1213887

CATALOG NUMBER: 4SNLED-LD5-80HL-RW-UNV-L940-CD1-U

CANDELA DISTRIBUTION (continued):

	220°	222.5°	225°	227.5°	230°	232.5°	235°	237.5°	240°	242.5°	245°
0°	3445.2	3445.2	3445.2	3445.2	3445.2	3445.2	3445.2	3445.2	3445.2	3445.2	3445.2
2.5°	3451.5	3467.3	3470.4	3524.1	3554.1	3552.5	3543.1	3571.5	3554.1	3544.7	3554.1
5°	3634.7	3653.6	3669.4	3727.8	3748.3	3757.8	3756.2	3772.0	3759.4	3748.3	3748.3
7.5°	3724.7	3731.0	3737.3	3723.1	3713.6	3697.8	3674.1	3639.4	3622.0	3603.1	3579.4
10°	3576.2	3555.7	3563.6	3535.2	3511.5	3494.1	3472.0	3443.6	3419.9	3402.6	3375.7
12.5°	3394.7	3393.1	3396.2	3401.0	3377.3	3363.1	3345.7	3325.2	3307.8	3288.9	3266.8
15°	3284.1	3285.7	3298.3	3293.6	3285.7	3277.8	3258.9	3252.6	3236.8	3216.2	3203.6
17.5°	3205.2	3213.1	3225.7	3219.4	3206.8	3198.9	3184.7	3170.5	3156.2	3140.5	3121.5
20°	3135.7	3143.6	3151.5	3143.6	3119.9	3108.9	3089.9	3045.7	3014.1	2982.6	2954.1
22.5°	3059.9	3064.7	3058.3	3033.1	2973.1	2944.7	2922.6	2909.9	2883.1	2865.7	2848.4
25°	2965.2	2938.4	2897.3	2868.9	2845.2	2832.6	2823.1	2821.5	2818.4	2815.2	2807.3
27.5°	2810.5	2801.0	2778.9	2767.8	2769.4	2774.1	2775.7	2780.5	2775.7	2769.4	2763.1
30°	2695.2	2699.9	2701.5	2704.7	2712.6	2717.3	2718.9	2725.2	2722.0	2717.3	2714.1
32.5°	2622.6	2633.6	2639.9	2649.4	2654.1	2662.0	2662.0	2671.5	2662.0	2660.5	2657.3
35°	2562.6	2572.0	2575.2	2589.4	2594.2	2602.0	2602.0	2609.9	2602.0	2521.5	1991.0
37.5°	2502.6	2512.0	2518.4	2531.0	2532.6	2537.3	2341.5	1713.1	1105.2	855.8	653.7
40°	2431.5	2442.6	2448.9	2453.6	1724.2	1094.2	753.1	612.6	612.6	617.4	622.1
42.5°	2355.7	2363.6	1646.8	958.4	596.8	595.2	600.0	604.7	609.5	615.8	622.1
45°	1852.1	934.7	593.7	579.5	584.2	590.5	596.8	603.1	611.0	617.4	620.5
47.5°	607.9	570.0	577.9	571.6	579.5	587.4	593.7	600.0	601.6	603.1	601.6
50°	562.1	562.1	566.8	566.8	573.1	576.3	576.3	576.3	570.0	568.4	563.7
52.5°	543.1	555.8	549.5	552.6	549.5	544.7	540.0	535.3	525.8	522.6	516.3
55°	533.7	538.4	522.6	517.9	511.6	498.9	492.6	486.3	478.4	475.3	467.4
57.5°	511.6	500.5	483.1	475.3	464.2	451.6	445.3	440.5	432.6	429.5	424.7
60°	470.5	448.4	437.4	427.9	415.3	404.2	399.5	396.3	390.0	388.4	383.7
62.5°	420.0	401.0	391.6	378.9	369.5	363.1	358.4	356.8	350.5	350.5	347.4
65°	364.7	355.3	347.4	334.7	330.0	323.7	322.1	320.5	317.4	315.8	312.6
67.5°	320.5	314.2	303.2	296.8	293.7	288.9	285.8	282.6	276.3	273.2	268.4
70°	281.0	276.3	265.3	260.5	254.2	246.3	241.6	238.4	233.7	230.5	225.8
72.5°	243.2	228.9	221.0	216.3	211.6	203.7	202.1	198.9	194.2	192.6	187.9
75°	195.8	184.7	180.0	176.8	172.1	167.4	167.4	167.4	162.6	161.0	159.5
77.5°	156.3	150.0	146.8	143.7	142.1	138.9	134.2	132.6	127.9	127.9	126.3
80°	120.0	116.8	113.7	112.1	110.5	107.4	104.2	102.6	97.9	97.9	96.3
82.5°	88.4	86.8	85.3	83.7	82.1	80.5	75.8	74.2	71.1	71.1	69.5
85°	63.2	61.6	58.4	56.8	56.8	55.3	50.5	48.9	45.8	45.8	45.8
87.5°	39.5	37.9	36.3	34.7	33.2	31.6	28.4	26.8	26.8	23.7	22.1
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: P1213887

CATALOG NUMBER: 4SNLED-LD5-80HL-RW-UNV-L940-CD1-U

CANDELA DISTRIBUTION (continued):

	247.5°	250°	252.5°	255°	257.5°	260°	262.5°	265°	267.5°	270°	272.5°
0°	3445.2	3445.2	3445.2	3445.2	3445.2	3445.2	3445.2	3445.2	3445.2	3445.2	3445.2
2.5°	3535.2	3562.0	3558.9	3577.8	3582.5	3592.0	3595.2	3596.8	3573.1	3592.0	3593.6
5°	3743.6	3748.3	3751.5	3759.4	3767.3	3768.9	3761.0	3751.5	3754.6	3748.3	3732.5
7.5°	3576.2	3552.5	3547.8	3541.5	3538.3	3535.2	3521.0	3533.6	3519.4	3513.1	3491.0
10°	3371.0	3348.9	3347.3	3347.3	3352.0	3350.4	3347.3	3341.0	3353.6	3345.7	3341.0
12.5°	3263.6	3255.7	3260.5	3257.3	3269.9	3273.1	3269.9	3269.9	3266.8	3260.5	3263.6
15°	3198.9	3192.6	3197.3	3192.6	3202.0	3203.6	3195.7	3200.5	3192.6	3184.7	3181.5
17.5°	3113.6	3099.4	3088.3	3072.6	3074.1	3071.0	3061.5	3061.5	3053.6	3033.1	3034.7
20°	2949.4	2935.2	2928.9	2928.9	2936.8	2939.9	2938.4	2941.5	2933.6	2930.5	2917.8
22.5°	2846.8	2845.2	2848.4	2856.2	2868.9	2886.2	2887.8	2887.8	2887.8	2886.2	2870.5
25°	2810.5	2810.5	2813.6	2824.7	2834.1	2846.8	2849.9	2853.1	2849.9	2849.9	2835.7
27.5°	2769.4	2766.3	2772.6	2783.6	2794.7	2804.1	2812.0	2813.6	2808.9	2808.9	2813.6
30°	2718.9	2717.3	2725.2	2736.3	2745.7	2755.2	2763.1	2769.4	2763.1	2763.1	2758.4
32.5°	2666.8	2666.8	2669.9	2603.6	2414.2	2174.2	2178.9	2040.0	1943.6	1822.1	1983.1
35°	1664.2	1211.0	1040.5	881.0	768.9	696.3	694.7	671.0	660.0	652.1	650.5
37.5°	628.4	631.6	637.9	641.0	645.8	648.9	650.5	650.5	650.5	650.5	648.9
40°	626.8	633.1	637.9	642.6	647.4	650.5	650.5	652.1	653.7	653.7	653.7
42.5°	628.4	634.7	641.0	645.8	648.9	650.5	652.1	653.7	653.7	653.7	653.7
45°	626.8	630.0	630.0	631.6	631.6	631.6	633.1	633.1	631.6	630.0	633.1
47.5°	603.1	603.1	598.4	596.8	595.2	592.1	593.7	592.1	590.5	588.9	592.1
50°	562.1	555.8	552.6	549.5	547.9	544.7	546.3	544.7	543.1	540.0	544.7
52.5°	513.1	511.6	505.3	502.1	500.5	502.1	498.9	497.4	495.8	494.2	495.8
55°	465.8	459.5	457.9	454.7	453.1	454.7	453.1	451.6	450.0	448.4	450.0
57.5°	423.1	418.4	416.8	413.7	413.7	413.7	413.7	412.1	410.5	408.9	410.5
60°	382.1	378.9	377.4	377.4	375.8	375.8	375.8	374.2	372.6	372.6	374.2
62.5°	347.4	347.4	342.6	341.0	341.0	342.6	341.0	339.5	337.9	336.3	339.5
65°	311.0	304.7	303.2	300.0	296.8	298.4	296.8	295.3	293.7	292.1	295.3
67.5°	266.8	265.3	258.9	255.8	254.2	255.8	254.2	252.6	251.0	249.5	252.6
70°	224.2	224.2	217.9	216.3	214.7	214.7	213.2	213.2	211.6	210.0	213.2
72.5°	186.3	186.3	184.7	181.6	180.0	178.4	176.8	175.3	175.3	176.8	176.8
75°	154.7	151.6	145.3	146.8	145.3	143.7	143.7	142.1	140.5	143.7	142.1
77.5°	121.6	120.0	115.3	116.8	115.3	113.7	113.7	112.1	110.5	112.1	112.1
80°	91.6	91.6	90.0	88.4	88.4	86.8	85.3	85.3	83.7	85.3	85.3
82.5°	66.3	66.3	64.7	63.2	61.6	61.6	60.0	60.0	60.0	60.0	60.0
85°	42.6	41.1	41.1	37.9	37.9	37.9	36.3	36.3	36.3	36.3	36.3
87.5°	20.5	20.5	18.9	18.9	17.4	15.8	15.8	14.2	14.2	15.8	15.8
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: P1213887

CATALOG NUMBER: 4SNLED-LD5-80HL-RW-UNV-L940-CD1-U

CANDELA DISTRIBUTION (continued):

	275°	277.5°	280°	282.5°	285°	287.5°	290°	292.5°	295°	297.5°	300°
0°	3445.2	3445.2	3445.2	3445.2	3445.2	3445.2	3445.2	3445.2	3445.2	3445.2	3445.2
2.5°	3565.2	3585.7	3568.3	3576.2	3577.8	3604.7	3603.1	3609.4	3598.3	3585.7	3568.3
5°	3746.8	3737.3	3724.7	3754.6	3738.9	3757.8	3764.1	3776.8	3776.8	3775.2	3761.0
7.5°	3514.7	3494.1	3509.9	3521.0	3525.7	3513.1	3538.3	3566.8	3590.4	3604.7	3606.2
10°	3333.1	3339.4	3337.8	3342.6	3353.6	3352.0	3367.8	3383.6	3389.9	3399.4	3402.6
12.5°	3247.8	3246.2	3249.4	3260.5	3266.8	3265.2	3281.0	3290.4	3293.6	3295.2	3293.6
15°	3179.9	3168.9	3176.8	3178.3	3183.1	3183.1	3202.0	3216.2	3222.6	3225.7	3222.6
17.5°	3052.0	3025.2	3050.5	3050.5	3067.8	3064.7	3094.7	3118.3	3131.0	3140.5	3140.5
20°	2925.7	2913.1	2922.6	2919.4	2932.0	2930.5	2949.4	2965.2	2976.2	2984.1	2993.6
22.5°	2875.2	2878.4	2864.1	2865.7	2865.7	2864.1	2873.6	2881.5	2884.7	2889.4	2886.2
25°	2842.0	2845.2	2840.5	2832.6	2829.4	2832.6	2837.3	2846.8	2848.4	2845.2	2834.1
27.5°	2808.9	2799.4	2807.3	2793.1	2789.9	2796.3	2802.6	2804.1	2805.7	2805.7	2796.3
30°	2758.4	2750.5	2758.4	2752.0	2745.7	2752.0	2756.8	2756.8	2759.9	2761.5	2750.5
32.5°	1927.8	1943.6	2199.4	2354.2	2572.0	2682.6	2703.1	2703.1	2706.3	2706.3	2696.8
35°	656.8	658.4	712.1	772.1	900.0	1057.9	1264.7	1372.1	1735.2	2169.4	2589.4
37.5°	648.9	647.4	645.8	644.2	642.6	641.0	637.9	636.3	645.8	765.8	1038.9
40°	652.1	650.5	647.4	645.8	644.2	641.0	639.5	636.3	633.1	630.0	626.8
42.5°	652.1	650.5	648.9	647.4	645.8	644.2	641.0	637.9	634.7	630.0	625.2
45°	630.0	630.0	631.6	631.6	633.1	633.1	633.1	631.6	631.6	630.0	623.7
47.5°	588.9	588.9	593.7	593.7	596.8	600.0	600.0	603.1	607.9	611.0	612.6
50°	541.6	541.6	546.3	547.9	551.0	555.8	560.5	562.1	566.8	573.1	579.5
52.5°	494.2	494.2	498.9	498.9	502.1	506.8	511.6	513.1	519.5	525.8	533.7
55°	450.0	450.0	453.1	454.7	456.3	459.5	464.2	464.2	470.5	475.3	483.1
57.5°	410.5	413.7	413.7	413.7	415.3	418.4	421.6	421.6	426.3	431.0	437.4
60°	372.6	375.8	375.8	375.8	377.4	378.9	382.1	382.1	385.3	388.4	394.7
62.5°	337.9	341.0	341.0	342.6	342.6	344.2	347.4	345.8	348.9	350.5	355.3
65°	293.7	296.8	298.4	300.0	301.6	304.7	309.5	307.9	312.6	315.8	320.5
67.5°	251.0	254.2	254.2	255.8	257.4	260.5	263.7	263.7	268.4	271.6	277.9
70°	211.6	214.7	214.7	216.3	217.9	221.0	224.2	222.6	227.4	230.5	235.3
72.5°	175.3	178.4	178.4	180.0	180.0	183.2	186.3	189.5	189.5	192.6	195.8
75°	142.1	143.7	145.3	145.3	146.8	148.4	151.6	154.7	156.3	157.9	161.0
77.5°	112.1	113.7	115.3	115.3	116.8	118.4	120.0	126.3	129.5	131.0	131.0
80°	85.3	86.8	86.8	86.8	88.4	90.0	93.2	93.2	99.5	99.5	101.1
82.5°	60.0	61.6	61.6	61.6	63.2	66.3	67.9	69.5	72.6	74.2	74.2
85°	36.3	37.9	37.9	37.9	39.5	41.1	44.2	45.8	47.4	47.4	48.9
87.5°	14.2	15.8	17.4	17.4	18.9	20.5	22.1	23.7	25.3	25.3	26.8
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: P1213887

CATALOG NUMBER: 4SNLED-LD5-80HL-RW-UNV-L940-CD1-U

CANDELA DISTRIBUTION (continued):

	302.5°	305°	307.5°	310°	312.5°	315°	317.5°	320°	322.5°	325°	327.5°
0°	3445.2	3445.2	3445.2	3445.2	3445.2	3445.2	3445.2	3445.2	3445.2	3445.2	3445.2
2.5°	3549.4	3560.4	3549.4	3555.7	3563.6	3549.4	3516.2	3503.6	3498.9	3479.9	3467.3
5°	3746.8	3746.8	3742.0	3754.6	3753.1	3731.0	3696.2	3680.4	3664.7	3644.1	3628.3
7.5°	3606.2	3618.9	3626.8	3675.7	3707.3	3710.4	3732.5	3737.3	3743.6	3737.3	3727.8
10°	3404.1	3399.4	3421.5	3467.3	3494.1	3508.3	3551.0	3571.5	3588.9	3623.6	3659.9
12.5°	3290.4	3296.8	3306.2	3339.4	3364.7	3358.3	3375.7	3389.9	3410.4	3445.2	3497.3
15°	3214.7	3221.0	3230.5	3255.7	3271.5	3263.6	3273.1	3282.6	3296.8	3314.1	3345.7
17.5°	3132.6	3143.6	3154.7	3181.5	3195.7	3194.1	3202.0	3205.2	3209.9	3221.0	3243.1
20°	3004.7	3039.4	3061.5	3097.8	3118.3	3115.2	3129.4	3134.1	3140.5	3151.5	3161.0
22.5°	2887.8	2897.3	2908.4	2947.8	2982.6	3025.2	3034.7	3047.3	3063.1	3074.1	3083.6
25°	2821.5	2815.2	2819.9	2846.8	2865.7	2868.9	2883.1	2924.1	2966.8	2985.7	3007.8
27.5°	2782.0	2775.7	2774.1	2786.8	2789.9	2782.0	2778.9	2791.5	2823.1	2854.7	2921.0
30°	2739.4	2731.5	2725.2	2736.3	2741.0	2729.9	2709.4	2698.4	2717.3	2725.2	2752.0
32.5°	2688.9	2681.0	2677.8	2684.1	2687.3	2677.8	2655.7	2643.1	2639.9	2633.6	2639.9
35°	2632.0	2624.1	2619.4	2621.0	2627.3	2619.4	2600.5	2584.7	2576.8	2559.4	2546.8
37.5°	1356.3	1921.5	2494.7	2554.7	2561.0	2559.4	2540.5	2523.1	2515.2	2494.7	2488.4
40°	620.5	693.1	1040.5	1359.4	1961.0	2491.5	2474.2	2456.8	2442.6	2436.3	2412.6
42.5°	618.9	620.5	622.1	614.2	761.0	1296.3	1913.6	2388.9	2379.4	2363.6	2346.3
45°	618.9	611.0	617.4	607.9	611.0	609.5	759.5	1225.2	2180.5	2278.4	2270.5
47.5°	612.6	607.9	614.2	606.3	596.8	601.6	595.2	603.1	941.0	1596.3	2186.8
50°	584.2	587.4	598.4	596.8	588.9	595.2	584.2	593.7	585.8	642.6	1237.9
52.5°	541.6	547.9	558.9	568.4	571.6	579.5	576.3	579.5	573.1	574.7	576.3
55°	491.0	498.9	508.4	522.6	528.9	541.6	551.0	555.8	563.7	562.1	549.5
57.5°	443.7	451.6	459.5	473.7	487.9	494.2	511.6	521.0	541.6	536.8	533.7
60°	399.5	405.8	413.7	416.8	434.2	445.3	461.0	470.5	497.4	503.7	513.1
62.5°	360.0	363.1	369.5	374.2	385.3	396.3	404.2	420.0	434.2	454.7	468.9
65°	323.7	326.8	331.6	334.7	336.3	352.1	356.8	374.2	378.9	401.0	413.7
67.5°	282.6	288.9	295.3	298.4	301.6	311.0	314.2	322.1	333.2	342.6	358.4
70°	240.0	244.7	251.0	255.8	262.1	268.4	277.9	282.6	290.5	296.8	309.5
72.5°	200.5	205.3	208.4	213.2	217.9	222.6	230.5	241.6	247.9	258.9	262.1
75°	162.6	167.4	170.5	173.7	178.4	181.6	184.7	195.8	202.1	211.6	221.0
77.5°	134.2	134.2	137.4	146.8	145.3	145.3	148.4	154.7	159.5	165.8	175.3
80°	104.2	105.8	107.4	115.3	116.8	118.4	116.8	121.6	126.3	127.9	134.2
82.5°	77.4	78.9	78.9	83.7	88.4	88.4	88.4	90.0	94.7	96.3	99.5
85°	52.1	53.7	55.3	56.8	60.0	61.6	63.2	63.2	66.3	67.9	69.5
87.5°	28.4	31.6	33.2	34.7	36.3	37.9	39.5	41.1	42.6	44.2	45.8
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: P1213887

CATALOG NUMBER: 4SNLED-LD5-80HL-RW-UNV-L940-CD1-U

CANDELA DISTRIBUTION (continued):

	330°	332.5°	335°	337.5°	340°	342.5°	345°	347.5°	350°	352.5°	355°
0°	3445.2	3445.2	3445.2	3445.2	3445.2	3445.2	3445.2	3445.2	3445.2	3445.2	3445.2
2.5°	3462.6	3454.7	3449.9	3437.3	3434.1	3413.6	3416.8	3413.6	3413.6	3418.3	3434.1
5°	3611.0	3573.1	3563.6	3536.8	3514.7	3476.8	3453.1	3440.4	3421.5	3413.6	3424.7
7.5°	3712.0	3683.6	3659.9	3636.2	3604.7	3560.4	3527.3	3489.4	3457.8	3427.8	3419.9
10°	3694.7	3726.2	3726.2	3712.0	3682.0	3637.8	3598.3	3551.0	3495.7	3448.3	3419.9
12.5°	3547.8	3603.1	3647.3	3680.4	3710.4	3680.4	3641.0	3603.1	3541.5	3472.0	3419.9
15°	3386.8	3443.6	3498.9	3568.3	3641.0	3671.0	3669.4	3625.2	3569.9	3497.3	3424.7
17.5°	3273.1	3312.6	3342.6	3418.3	3506.8	3584.1	3636.2	3639.4	3585.7	3521.0	3426.2
20°	3187.8	3216.2	3241.5	3284.1	3361.5	3456.2	3552.5	3606.2	3596.8	3525.7	3431.0
22.5°	3110.5	3131.0	3151.5	3183.1	3244.7	3306.2	3418.3	3528.9	3576.2	3517.8	3426.2
25°	3033.1	3055.2	3071.0	3093.1	3142.0	3192.6	3271.5	3408.9	3514.7	3511.5	3416.8
27.5°	2941.5	2971.5	2990.5	3020.5	3053.6	3091.5	3145.2	3274.7	3426.2	3479.9	3391.5
30°	2831.0	2875.2	2903.6	2936.8	2965.2	2998.4	3041.0	3119.9	3307.8	3418.3	3364.7
32.5°	2671.5	2750.5	2813.6	2845.2	2876.8	2905.2	2943.1	3009.4	3162.6	3334.7	3334.7
35°	2557.8	2594.2	2651.0	2742.6	2782.0	2810.5	2845.2	2897.3	2995.2	3235.2	3285.7
37.5°	2469.4	2483.6	2512.0	2602.0	2676.3	2722.0	2756.8	2789.9	2886.2	3099.4	3222.6
40°	2403.1	2398.4	2395.2	2437.8	2543.6	2616.3	2655.7	2688.9	2763.1	2936.8	3138.9
42.5°	2325.7	2321.0	2305.2	2316.3	2368.4	2489.9	2549.9	2586.3	2647.8	2766.3	3047.3
45°	2245.2	2237.3	2231.0	2219.9	2238.9	2306.8	2429.9	2483.6	2518.4	2624.1	2932.0
47.5°	2163.1	2152.1	2144.2	2134.7	2123.6	2155.2	2272.1	2368.4	2428.4	2494.7	2793.1
50°	2046.3	2060.5	2051.0	2040.0	2030.5	2024.2	2073.1	2231.0	2305.2	2358.9	2624.1
52.5°	964.7	1875.7	1954.7	1943.6	1931.0	1920.0	1931.0	2051.0	2185.2	2227.8	2420.5
55°	549.5	835.2	1738.4	1837.9	1826.8	1811.0	1801.5	1842.6	2043.1	2100.0	2234.2
57.5°	528.9	530.5	767.4	1656.3	1717.9	1703.6	1692.6	1702.1	1872.6	1968.9	2071.5
60°	511.6	511.6	511.6	732.6	1583.6	1588.4	1574.2	1558.4	1632.6	1822.1	1907.3
62.5°	473.7	483.1	487.9	487.9	723.1	1466.8	1452.6	1447.9	1451.0	1645.2	1743.1
65°	424.7	446.8	456.3	462.6	462.6	759.5	1327.9	1320.0	1308.9	1383.1	1577.3
67.5°	371.0	393.1	413.7	426.3	427.9	442.1	792.6	1188.9	1173.1	1174.7	1400.5
70°	315.8	334.7	356.8	375.8	393.1	401.0	413.7	986.8	1038.9	1016.8	1200.0
72.5°	273.2	281.0	296.8	315.8	336.3	355.3	366.3	393.1	901.6	877.9	912.6
75°	227.4	233.7	244.7	257.4	273.2	295.3	314.2	333.2	478.4	735.8	731.0
77.5°	176.8	187.9	200.5	208.4	216.3	232.1	257.4	276.3	295.3	497.4	585.8
80°	135.8	143.7	150.0	157.9	167.4	178.4	187.9	210.0	232.1	249.5	448.4
82.5°	101.1	105.8	110.5	113.7	116.8	123.2	140.5	148.4	162.6	178.4	211.6
85°	71.1	74.2	77.4	78.9	80.5	82.1	88.4	90.0	104.2	107.4	127.9
87.5°	45.8	47.4	50.5	52.1	52.1	53.7	55.3	55.3	55.3	52.1	63.2
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: P1213887

CATALOG NUMBER: 4SNLED-LD5-80HL-RW-UNV-L940-CD1-U

CANDELA DISTRIBUTION (continued):

	357.5°	360°
0°	3445.2	3445.2
2.5°	3446.8	3472.0
5°	3442.0	3475.2
7.5°	3429.4	3461.0
10°	3410.4	3448.3
12.5°	3389.9	3426.2
15°	3372.6	3399.4
17.5°	3353.6	3369.4
20°	3328.3	3341.0
22.5°	3303.1	3296.8
25°	3274.7	3260.5
27.5°	3238.3	3211.5
30°	3205.2	3157.8
32.5°	3173.6	3096.2
35°	3131.0	3033.1
37.5°	3086.8	2968.4
40°	3034.7	2894.1
42.5°	2979.4	2819.9
45°	2909.9	2748.9
47.5°	2848.4	2663.6
50°	2763.1	2572.0
52.5°	2658.9	2486.8
55°	2535.7	2382.6
57.5°	2403.1	2273.6
60°	2261.0	2148.9
62.5°	2088.9	2019.4
65°	1886.8	1871.0
67.5°	1623.1	1706.8
70°	1331.0	1518.9
72.5°	1113.1	1320.0
75°	912.6	1097.3
77.5°	723.1	860.5
80°	451.6	630.0
82.5°	303.2	413.7
85°	183.2	197.4
87.5°	71.1	72.6
90°	0.0	0.0

(END OF REPORT)