

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: P1213048

Luminaire Tested: 4SNLED-LD5-33SL-LW-UNV-L930-CD1-U

Issue Date: 3/29/2018

Test Information

Test Method: LM-79-2019
Report Number: P1213048
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P33520)
Test Lab: INNOVATIONS CENTER-P3
Issue Date: 3/29/2018
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: METALUX
Catalog Number: 4SNLED-LD5-33SL-LW-UNV-L930-CD1-U
Description: 4FT LINEAR SNLED LED FIXTURE
WIDE FROSTED LENS
Light Source: -
Ballast/Driver: -

Summary

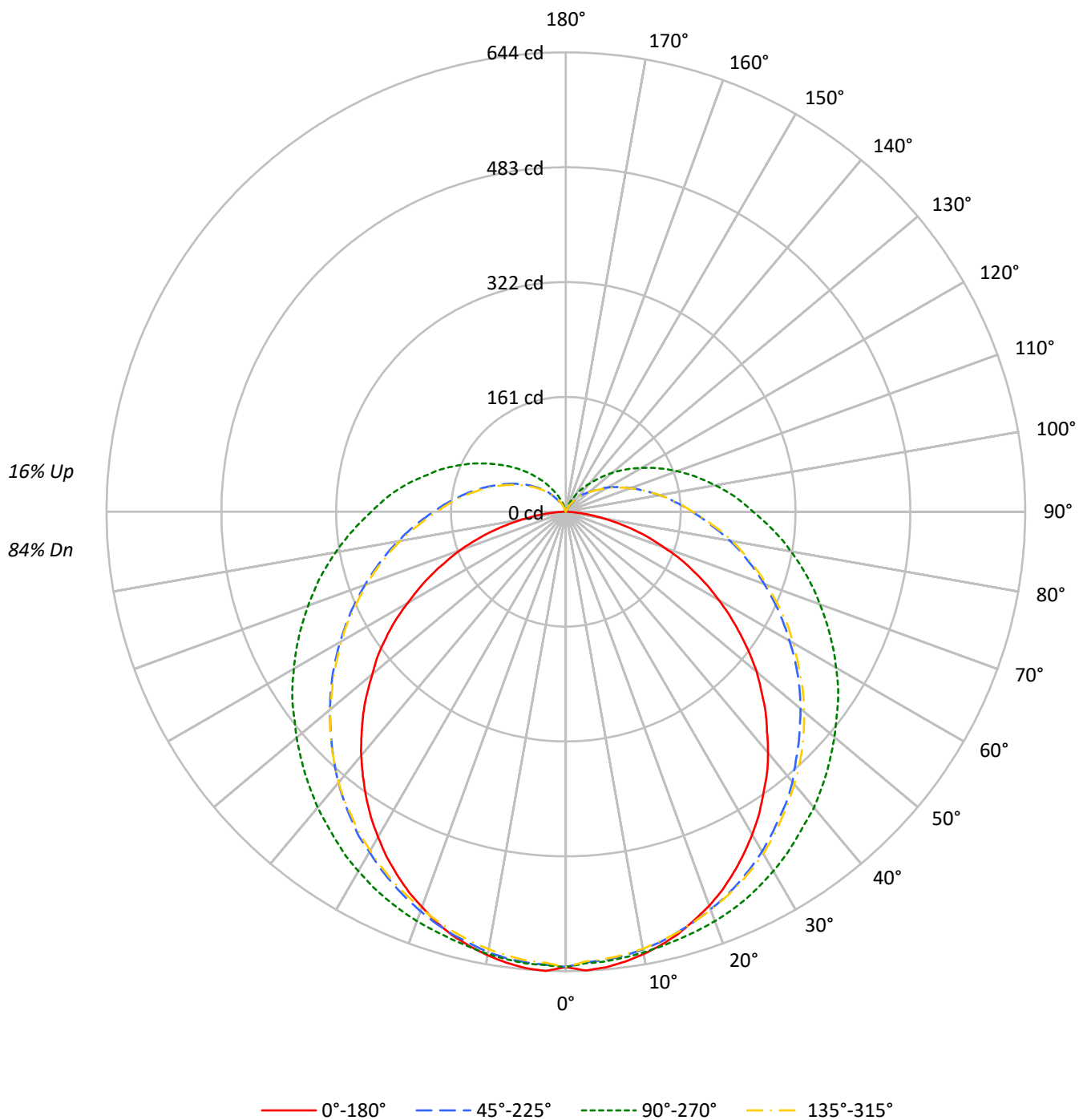
Lumens per Lamp: N/A
Luminaire Lumens: 2773.0 lumens
Efficiency: N/A
Efficacy: 99.0 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.36 / 1.44
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.12')
CIE Type: Semi-Direct

Input Watts (W): 28
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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CATALOG NUMBER: 4SNLED-LD5-33SL-LW-UNV-L930-CD1-U

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	50	30	10
RCR																				
0	115	115	115	115	111	111	111	111	102	102	102	94	94	94	87	87	87	84		
1	102	96	91	86	98	92	87	83	85	81	77	78	75	72	72	70	67	64		
2	92	82	74	68	87	79	72	66	73	67	62	67	62	58	62	58	54	51		
3	83	71	62	55	79	69	60	54	63	56	51	58	52	48	54	49	45	42		
4	76	63	53	46	72	60	52	45	56	48	42	51	45	40	47	42	38	35		
5	69	56	46	39	66	54	45	38	50	42	36	46	39	34	42	37	33	30		
6	64	50	41	34	61	48	39	33	45	37	31	41	35	30	38	33	28	26		
7	59	45	36	30	56	43	35	29	40	33	28	38	31	26	35	29	25	23		
8	55	41	32	26	52	40	31	26	37	30	24	34	28	23	32	26	22	20		
9	51	37	29	23	49	36	28	23	34	27	22	32	25	21	30	24	20	18		
10	48	34	26	21	46	33	26	21	31	24	20	29	23	19	27	22	18	16		

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	5158	5158	5158	5158
5°	5186	4971	5196	4992
10°	5137	4829	5153	4845
15°	5078	4708	5100	4714
20°	4998	4621	5015	4621
25°	4900	4542	4929	4537
30°	4789	4461	4826	4461
35°	4660	4386	4712	4392
40°	4533	4342	4589	4342
45°	4387	4297	4454	4302
50°	4235	4269	4292	4280
55°	4023	4273	4150	4292
60°	3799	4286	3922	4312
65°	3546	4330	3704	4372
70°	3194	4409	3442	4471
75°	2785	4553	3051	4640
80°	2154	4767	2447	4877
85°	1291	5109	1612	5251

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 270°

Vertical Angle: 90°

Luminance: 5871 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	60.5	2.2
10°-20°	173.8	6.3
20°-30°	266.4	9.6
30°-40°	328.7	11.9
40°-50°	356.6	12.9
50°-60°	351.5	12.7
60°-70°	317.8	11.5
70°-80°	264.7	9.5
80°-90°	205.0	7.4
90°-100°	155.5	5.6
100°-110°	115.1	4.2
110°-120°	80.0	2.9
120°-130°	51.1	1.8
130°-140°	28.7	1.0
140°-150°	13.1	0.5
150°-160°	4.1	0.1
160°-170°	0.5	0.0
170°-180°	0.0	0.0
0°-30°	500.7	18.1
0°-40°	829.3	29.9
0°-60°	1537.4	55.4
0°-90°	2325.0	83.8
90°-120°	350.6	12.6
90°-150°	443.5	16.0
90°-180°	448.0	16.2
0°-180°	2773.0	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	638	638	638	638	638	
5°	641	633	642	636	641	61
15°	612	619	615	620	612	172
25°	558	598	561	598	558	257
35°	483	562	488	562	483	302
45°	396	517	402	518	396	305
55°	298	466	308	468	298	267
65°	198	409	207	413	198	196
75°	100	350	109	357	100	105
85°	19	292	24	300	19	23
90°	1	263	1	273	1	1
95°	1	238	1	250	1	1
105°	1	189	1	201	1	1
115°	1	144	1	157	1	1
125°	1	104	1	115	1	1
135°	1	67	1	79	1	1
145°	1	39	1	48	1	0
155°	1	16	1	22	1	0
165°	1	3	1	4	1	0
175°	0	0	0	0	0	0
180°	0	0	0	0	0	0

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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	638.3	638.3	638.3	638.3	638.3	638.3	638.3	638.3	638.3	638.3	638.3
2.5°	643.6	643.6	643.0	641.6	642.3	644.3	643.0	639.6	637.6	632.2	633.6
5°	641.0	641.0	640.3	638.9	639.6	642.3	641.0	638.3	635.6	630.9	632.9
7.5°	636.2	636.2	635.6	634.2	635.6	638.3	636.9	634.2	632.2	627.5	629.5
10°	629.5	630.2	629.5	627.5	630.2	632.9	632.2	628.8	626.8	622.8	624.8
12.5°	621.4	622.1	621.4	620.8	622.1	626.1	624.8	622.1	620.8	617.4	619.4
15°	612.0	612.7	611.3	611.3	612.7	616.7	616.7	614.0	612.7	609.3	613.4
17.5°	599.9	600.6	599.9	599.9	601.2	605.3	605.9	604.6	603.3	601.9	605.9
20°	587.8	587.1	587.1	586.4	589.1	595.2	594.5	594.5	593.2	593.2	597.9
22.5°	573.6	573.6	573.0	573.0	576.3	581.7	581.7	583.1	581.7	584.4	588.4
25°	557.5	558.1	557.5	558.8	561.5	567.6	568.2	570.3	570.9	573.6	578.3
27.5°	540.6	541.3	540.6	542.0	546.7	551.4	554.8	557.5	558.1	562.2	568.2
30°	522.5	522.5	523.1	524.5	529.9	537.3	540.0	543.3	543.3	550.1	556.1
32.5°	503.6	503.6	503.6	506.3	512.4	521.1	524.5	528.5	529.9	536.6	543.3
35°	482.7	483.4	483.4	485.4	493.5	502.3	507.0	511.7	514.4	522.5	529.2
37.5°	463.2	464.6	462.5	465.2	476.7	484.1	489.5	494.2	498.9	509.7	515.1
40°	441.0	442.3	441.7	447.1	456.5	465.9	472.0	476.7	483.4	494.2	500.2
42.5°	417.4	418.8	420.1	426.2	436.3	445.7	453.1	459.2	467.3	476.7	486.8
45°	395.9	395.9	397.9	405.3	416.1	426.2	434.9	441.7	451.1	461.2	471.3
47.5°	371.6	372.3	375.0	383.8	395.2	407.3	415.4	424.2	434.3	445.0	456.5
50°	349.4	349.4	353.5	362.9	373.7	387.1	395.9	406.0	416.8	429.5	441.0
52.5°	323.8	325.2	331.3	340.0	354.1	366.3	376.4	387.1	399.9	413.4	426.2
55°	298.3	301.0	305.7	317.8	332.6	344.0	356.2	369.6	381.7	396.6	411.4
57.5°	273.3	275.4	282.8	294.9	310.4	324.5	337.3	350.1	364.9	379.7	395.2
60°	247.8	250.5	259.2	271.3	288.2	303.0	317.8	331.3	346.7	362.2	378.4
62.5°	223.5	225.5	235.6	249.8	266.6	282.8	297.6	313.7	330.6	345.4	361.5
65°	197.9	201.3	212.8	225.5	245.1	261.2	278.1	295.6	313.1	329.2	344.7
67.5°	174.4	176.4	188.5	203.3	222.9	241.0	258.5	277.4	295.6	312.4	327.9
70°	146.8	153.5	165.6	181.1	202.0	220.8	239.7	259.2	278.7	296.2	311.1
72.5°	123.9	129.3	142.7	159.6	179.8	202.0	221.5	242.4	261.9	280.1	295.6
75°	99.6	105.0	120.5	139.4	160.2	183.8	204.0	225.5	245.7	263.9	280.1
77.5°	76.1	82.8	99.6	119.2	142.1	166.3	187.2	208.7	229.6	249.1	265.3
80°	54.5	61.9	80.1	102.3	124.6	148.8	171.7	193.2	214.1	233.6	250.5
82.5°	35.0	43.1	62.6	84.8	108.4	132.6	156.2	177.7	198.6	218.1	235.6
85°	18.9	27.6	47.8	70.0	93.6	117.8	141.4	164.3	184.5	202.7	221.5
87.5°	5.4	16.2	35.7	57.9	82.1	104.4	127.2	150.1	170.3	189.9	206.7
90°	0.7	9.4	26.9	47.8	71.4	92.9	115.8	137.3	157.5	177.1	193.9
92.5°	0.7	6.1	20.9	39.7	61.3	83.5	106.4	127.2	146.1	165.6	182.5
95°	0.7	4.7	16.8	33.7	53.9	74.7	96.3	116.5	136.0	154.2	171.0
97.5°	0.7	3.4	13.5	29.0	47.1	66.7	87.5	107.7	126.6	144.1	159.6
100°	0.7	2.7	10.8	24.9	41.1	59.9	78.8	98.3	116.5	133.3	149.5
102.5°	0.7	2.0	9.4	20.9	36.4	53.2	71.4	89.5	107.1	123.2	139.4
105°	0.7	2.0	8.1	18.2	32.3	47.8	64.6	82.1	98.3	113.8	128.6
107.5°	0.7	1.3	6.7	15.5	28.3	43.1	58.6	75.4	90.2	105.0	119.2
110°	0.7	1.3	5.4	14.1	24.9	38.4	53.2	68.7	82.8	97.0	110.4



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	0.7	1.3	4.7	12.1	21.5	34.3	47.8	61.9	75.4	89.5	101.7
115°	0.7	1.3	4.0	10.8	20.2	29.6	43.1	55.9	69.3	82.1	93.6
117.5°	0.7	1.3	3.4	8.8	17.5	26.9	37.7	50.5	62.6	74.7	85.5
120°	0.7	1.3	2.7	8.1	15.5	24.2	33.7	45.1	56.6	68.0	79.4
122.5°	0.7	0.7	2.7	6.7	13.5	21.5	31.0	39.7	50.5	61.3	71.4
125°	0.7	0.7	2.7	6.1	11.4	19.5	27.6	35.7	45.1	54.5	63.3
127.5°	0.7	0.7	2.0	4.7	10.1	16.8	24.2	33.0	39.7	48.5	57.2
130°	0.7	0.7	2.0	4.0	8.8	14.1	21.5	29.0	37.0	43.1	50.5
132.5°	0.7	0.7	2.0	3.4	6.7	11.4	18.2	24.9	32.3	39.0	45.1
135°	0.7	0.7	1.3	2.7	5.4	9.4	14.8	20.9	28.3	35.0	41.1
137.5°	0.7	0.7	1.3	2.7	4.0	8.1	11.4	16.8	23.6	29.6	35.7
140°	0.7	0.7	1.3	2.0	3.4	6.1	9.4	13.5	18.9	24.2	31.0
142.5°	0.7	0.7	0.7	2.0	2.7	4.7	7.4	10.8	14.8	19.5	24.9
145°	0.7	0.7	0.7	2.0	2.7	3.4	6.1	8.8	11.4	14.8	19.5
147.5°	0.7	0.7	0.7	1.3	2.0	2.7	4.7	6.7	8.8	11.4	14.1
150°	0.7	0.7	0.7	1.3	2.0	2.7	3.4	4.7	6.7	9.4	11.4
152.5°	0.7	0.7	0.7	1.3	1.3	2.0	2.7	3.4	4.7	6.7	8.1
155°	0.7	0.7	0.7	0.7	1.3	2.0	2.7	2.7	3.4	4.7	6.1
157.5°	0.7	0.7	0.7	0.7	1.3	1.3	2.0	2.0	2.7	2.7	4.0
160°	0.7	0.7	0.7	0.7	0.7	1.3	1.3	2.0	2.0	2.0	2.0
162.5°	0.7	0.7	0.7	0.7	0.7	0.7	1.3	1.3	1.3	2.0	2.0
165°	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	1.3	1.3	1.3
167.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180°	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):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	638.3	638.3	638.3	638.3	638.3	638.3	638.3	638.3	638.3	638.3	638.3
2.5°	633.6	634.2	636.2	636.2	634.9	634.9	634.2	633.6	634.2	635.6	635.6
5°	632.2	632.9	634.9	635.6	634.2	633.6	633.6	632.9	633.6	634.9	634.9
7.5°	629.5	630.2	632.2	632.9	631.5	631.5	630.9	630.2	631.5	632.2	632.2
10°	625.5	626.1	628.8	629.5	628.8	628.2	628.2	627.5	628.2	629.5	629.5
12.5°	620.1	621.4	624.8	624.8	624.8	624.1	624.1	623.5	624.1	625.5	624.8
15°	614.0	616.7	619.4	620.8	620.8	620.8	620.1	619.4	620.8	621.4	620.8
17.5°	607.3	610.7	614.7	616.0	616.0	616.7	616.0	615.4	616.7	616.7	616.0
20°	600.6	603.9	608.0	609.3	610.7	611.3	611.3	610.7	611.3	612.0	611.3
22.5°	591.8	595.8	600.6	602.6	603.9	605.3	605.3	605.3	605.9	606.6	605.3
25°	582.4	587.1	592.5	594.5	597.2	597.9	598.5	598.5	599.2	599.9	597.9
27.5°	572.3	577.7	583.1	586.4	588.4	589.8	589.8	590.5	591.1	591.8	589.8
30°	560.2	568.2	573.0	575.6	578.3	580.4	581.0	581.7	582.4	583.1	581.0
32.5°	549.4	556.1	562.2	565.5	568.9	571.6	572.3	572.3	573.6	573.6	571.6
35°	536.6	544.7	550.7	554.1	558.1	560.2	561.5	561.5	562.9	562.9	560.8
37.5°	523.8	531.9	538.6	542.7	547.4	550.1	550.7	550.7	552.1	552.1	549.4
40°	510.3	519.1	526.5	531.2	535.3	538.6	539.3	541.3	541.3	540.6	537.9
42.5°	496.9	505.0	513.0	518.4	523.8	527.2	528.5	529.2	529.2	528.5	526.5
45°	482.1	491.5	498.9	505.6	511.0	514.4	516.4	517.1	517.1	515.7	513.7
47.5°	467.9	477.4	484.8	492.2	497.5	501.6	503.6	504.3	503.6	502.9	500.9
50°	453.1	463.9	471.3	478.7	484.1	487.4	490.8	491.5	490.8	490.1	486.1
52.5°	437.6	449.1	457.2	464.6	470.6	474.7	477.4	478.0	478.0	476.7	474.0
55°	422.1	432.2	442.3	450.4	457.2	461.2	464.6	465.9	464.6	463.2	459.8
57.5°	408.0	417.4	427.5	436.3	443.0	448.4	451.1	452.4	451.1	449.1	445.7
60°	391.2	401.3	412.7	420.8	428.2	433.6	434.9	437.6	436.3	434.3	430.9
62.5°	375.0	387.1	397.2	407.3	413.4	419.4	422.1	423.5	422.1	420.1	416.8
65°	358.2	371.6	381.7	391.8	398.6	404.6	408.0	408.7	407.3	405.3	401.9
67.5°	342.7	355.5	366.3	377.0	383.1	389.2	392.5	393.9	392.5	389.8	386.5
70°	327.2	340.0	352.8	360.9	368.3	375.0	377.0	379.1	377.7	375.0	371.0
72.5°	311.7	325.2	338.0	346.1	354.1	360.2	362.9	364.9	363.6	360.9	356.2
75°	295.6	309.7	322.5	331.3	339.3	345.4	348.1	350.1	348.8	346.1	340.7
77.5°	280.8	294.9	307.0	316.4	324.5	329.9	334.6	335.3	333.9	331.3	325.9
80°	265.3	279.4	292.2	301.6	309.7	315.1	318.5	320.5	319.1	316.4	311.1
82.5°	251.8	264.6	277.4	286.8	294.9	301.6	304.3	306.3	305.7	301.6	297.6
85°	237.0	251.8	261.9	272.0	280.1	286.8	288.8	291.5	290.9	287.5	282.1
87.5°	222.2	237.0	249.1	259.2	266.6	272.0	275.4	276.7	276.0	272.7	266.6
90°	210.1	223.5	235.6	246.4	252.5	258.5	261.9	262.6	262.6	258.5	253.8
92.5°	198.6	211.4	223.5	233.6	241.0	246.4	249.1	250.5	249.8	246.4	241.0
95°	185.8	200.0	211.4	221.5	228.9	234.3	237.0	238.3	237.7	234.3	228.9
97.5°	175.1	187.8	199.3	208.7	216.1	221.5	224.2	225.5	225.5	222.2	216.8
100°	164.3	177.1	187.8	197.3	204.0	209.4	212.1	212.8	212.1	209.4	204.0
102.5°	153.5	165.6	176.4	185.2	192.6	197.3	200.0	200.6	200.6	197.3	191.9
105°	142.7	154.9	165.0	174.4	180.4	185.2	187.2	189.2	188.5	185.8	180.4
107.5°	132.6	144.8	154.2	162.9	169.0	173.7	175.7	177.7	177.1	174.4	169.0
110°	123.2	134.7	143.4	152.2	157.5	162.3	165.6	166.3	165.0	162.3	157.5

TEST NUMBER: P1213048

CATALOG NUMBER: 4SNLED-LD5-33SL-LW-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
112.5°	114.5	124.6	133.3	141.4	147.4	150.8	153.5	154.9	153.5	150.8	147.4
115°	105.0	115.1	123.9	131.3	136.7	140.7	142.7	144.1	142.7	140.0	136.7
117.5°	96.3	105.7	114.5	121.9	126.6	129.9	132.0	133.3	132.0	129.9	126.6
120°	88.9	97.0	105.0	111.8	117.1	119.8	121.9	123.2	122.5	119.8	116.5
122.5°	80.1	88.9	96.3	103.0	107.7	110.4	111.8	113.1	112.4	110.4	107.1
125°	72.7	80.1	87.5	93.6	98.3	101.0	102.3	103.7	103.0	101.0	97.0
127.5°	64.6	72.7	78.8	84.8	88.2	92.2	92.9	94.3	93.6	91.6	88.2
130°	58.6	64.6	70.7	76.1	80.1	82.8	84.2	84.8	83.5	82.1	78.8
132.5°	51.2	57.9	63.3	68.0	70.7	73.4	74.7	75.4	75.4	73.4	70.7
135°	45.8	50.5	55.2	59.9	62.6	65.3	66.7	67.3	66.7	65.3	62.6
137.5°	41.1	45.1	48.5	52.5	55.9	57.2	58.6	58.6	57.9	57.2	55.2
140°	35.7	40.4	43.8	46.5	49.1	49.8	51.2	51.2	50.5	49.8	48.5
142.5°	30.3	34.3	37.7	41.1	43.1	44.4	45.1	45.8	45.1	44.4	42.4
145°	24.2	29.0	32.3	34.3	37.0	37.7	38.4	39.0	38.4	37.7	35.7
147.5°	18.9	22.9	26.3	29.0	31.0	31.6	32.3	33.0	32.3	31.0	30.3
150°	13.5	16.8	20.9	23.6	24.9	26.3	26.3	26.3	26.9	25.6	24.2
152.5°	10.8	12.1	14.8	17.5	19.5	20.2	20.9	20.9	20.2	20.2	18.9
155°	7.4	8.8	10.8	12.8	14.8	15.5	16.2	16.2	15.5	15.5	14.8
157.5°	4.7	6.1	7.4	8.8	10.8	11.4	12.1	12.1	12.1	11.4	10.8
160°	2.7	3.4	4.0	5.4	6.7	7.4	8.1	8.1	8.1	8.1	7.4
162.5°	2.0	2.0	2.0	2.7	3.4	4.0	4.7	4.7	4.7	4.7	4.0
165°	1.3	1.3	1.3	1.3	1.3	2.0	2.7	2.7	2.7	2.7	2.7
167.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

TEST NUMBER: P1213048

CATALOG NUMBER: 4SNLED-LD5-33SL-LW-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	638.3	638.3	638.3	638.3	638.3	638.3	638.3	638.3	638.3	638.3	638.3
2.5°	634.9	634.9	635.6	634.2	630.2	630.9	630.9	633.6	634.9	635.6	638.9
5°	633.6	633.6	634.9	632.9	629.5	629.5	629.5	632.2	632.9	634.2	636.9
7.5°	631.5	631.5	632.2	630.2	626.1	626.1	625.5	628.2	629.5	630.2	632.9
10°	628.2	628.2	628.8	626.8	622.1	622.1	621.4	623.5	624.1	625.5	627.5
12.5°	623.5	623.5	623.5	621.4	616.7	616.0	615.4	617.4	617.4	618.1	620.1
15°	619.4	618.1	618.1	616.0	611.3	610.0	608.6	609.3	610.7	610.0	611.3
17.5°	614.7	613.4	612.0	610.0	603.9	601.9	600.6	601.2	600.6	599.9	601.2
20°	609.3	607.3	606.6	603.3	597.2	593.8	591.1	589.8	590.5	588.4	589.1
22.5°	603.3	600.6	599.2	595.2	589.1	585.1	581.7	579.0	578.3	575.6	576.3
25°	595.8	592.5	590.5	587.1	580.4	575.6	571.6	567.6	565.5	562.2	561.5
27.5°	587.1	583.7	581.0	577.7	570.9	564.9	560.2	554.8	552.1	548.0	546.0
30°	578.3	574.3	570.3	567.6	560.2	553.4	546.0	541.3	537.3	532.6	529.2
32.5°	567.6	563.5	559.5	555.5	548.7	540.6	534.6	527.2	522.5	517.1	513.0
35°	556.8	551.4	547.4	542.0	535.9	526.5	519.1	511.7	505.6	499.6	494.9
37.5°	544.7	540.6	534.6	529.9	522.5	513.0	505.0	495.5	490.1	482.1	476.0
40°	533.2	528.5	522.5	516.4	509.0	498.2	489.5	478.7	472.6	463.2	457.2
42.5°	521.8	515.1	509.0	502.3	494.2	484.1	473.3	462.5	454.5	445.7	437.0
45°	509.0	501.6	494.2	486.8	478.7	468.6	457.2	445.7	435.6	427.5	416.8
47.5°	495.5	488.1	479.4	471.3	462.5	452.4	440.3	428.2	417.4	408.0	396.6
50°	482.1	474.7	465.2	456.5	446.4	436.3	423.5	409.4	397.9	385.8	375.7
52.5°	467.9	460.5	451.8	440.3	429.5	419.4	406.0	391.2	378.4	368.3	355.5
55°	453.8	446.4	436.3	424.8	414.1	401.3	388.5	373.7	359.5	347.4	334.6
57.5°	439.0	432.2	420.8	411.4	397.9	384.4	371.0	356.8	341.3	327.2	312.4
60°	424.2	416.8	406.0	394.5	381.1	367.6	353.5	338.0	321.8	306.3	292.9
62.5°	410.7	401.3	391.2	379.1	364.9	352.1	336.0	319.1	303.0	286.8	270.7
65°	395.2	385.1	375.7	363.6	348.8	333.9	317.8	301.0	283.4	265.9	249.8
67.5°	379.7	369.6	359.5	347.4	331.9	316.4	299.6	282.8	263.2	246.4	227.6
70°	364.2	356.2	343.4	330.6	316.4	299.6	282.8	264.6	244.4	226.2	206.7
72.5°	348.8	340.7	327.9	314.4	301.0	283.4	265.3	247.1	228.2	207.4	186.5
75°	333.9	323.8	312.4	299.6	285.5	267.3	249.1	230.3	208.0	188.5	167.0
77.5°	319.8	310.4	298.9	284.8	269.3	251.8	233.0	213.4	191.2	170.3	146.8
80°	304.3	294.9	283.4	269.3	253.8	237.0	216.8	196.6	175.1	152.2	127.9
82.5°	289.5	280.8	268.0	255.2	238.3	221.5	201.3	181.1	158.2	136.0	112.4
85°	274.0	265.3	253.2	239.7	223.5	205.3	186.5	166.3	143.4	120.5	97.0
87.5°	260.6	250.5	238.3	224.9	208.7	191.2	173.0	151.5	129.3	107.1	82.8
90°	246.4	237.0	224.9	211.4	195.2	177.7	158.9	138.7	117.1	94.3	71.4
92.5°	234.3	224.2	212.8	199.3	183.1	166.3	147.4	127.2	106.4	84.2	61.9
95°	222.2	212.1	201.3	187.8	171.7	154.9	136.0	116.5	96.3	74.7	53.9
97.5°	208.7	200.0	189.2	176.4	160.2	144.1	125.9	107.1	87.5	66.7	47.1
100°	197.9	187.8	177.7	164.3	149.5	134.0	115.8	97.6	78.8	59.2	41.1
102.5°	185.8	176.4	166.3	153.5	138.7	123.2	106.4	88.9	71.4	53.2	35.7
105°	174.4	165.6	154.9	142.7	128.6	113.8	97.6	81.5	64.6	47.1	31.6
107.5°	162.9	154.2	144.1	132.6	119.2	104.4	89.5	73.4	57.9	42.4	28.3
110°	151.5	143.4	134.0	122.5	109.7	96.3	82.1	67.3	51.8	37.7	24.9

TEST NUMBER: P1213048

CATALOG NUMBER: 4SNLED-LD5-33SL-LW-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
112.5°	141.4	133.3	123.9	113.1	101.0	88.2	74.7	60.6	46.5	33.7	21.5
115°	131.3	123.9	114.5	105.0	92.9	80.8	68.0	54.5	41.7	30.3	18.9
117.5°	121.2	113.8	105.0	95.6	84.8	73.4	61.3	48.5	37.7	26.9	16.8
120°	111.1	104.4	96.3	87.5	78.1	66.7	54.5	43.8	33.7	23.6	14.8
122.5°	101.7	95.6	88.2	80.1	70.0	59.2	49.1	39.7	30.3	20.9	12.1
125°	92.9	86.9	80.1	72.0	62.6	53.2	44.4	35.7	26.3	18.2	10.1
127.5°	84.2	78.1	71.4	64.0	56.6	47.8	39.7	31.6	23.6	16.2	8.8
130°	75.4	70.0	64.0	57.9	50.5	42.4	35.7	27.6	20.2	12.8	7.4
132.5°	66.7	62.6	57.2	51.2	44.4	38.4	31.0	24.2	17.5	11.4	6.7
135°	59.2	55.2	50.5	45.1	39.7	33.7	26.9	20.9	14.8	9.4	5.4
137.5°	52.5	49.1	44.4	39.7	35.0	29.0	23.6	17.5	12.1	8.1	4.0
140°	46.5	43.1	39.0	34.3	30.3	24.9	19.5	14.1	10.8	6.7	3.4
142.5°	40.4	37.0	33.7	29.6	25.6	20.9	16.2	12.1	8.8	5.4	3.4
145°	34.3	31.6	28.3	24.9	20.9	16.8	13.5	10.1	6.7	4.0	2.7
147.5°	28.3	26.3	22.9	20.2	16.8	13.5	10.8	8.1	5.4	3.4	2.0
150°	22.9	20.9	18.2	15.5	13.5	10.8	8.8	6.1	4.0	3.4	2.0
152.5°	17.5	16.2	14.1	12.8	10.8	8.1	6.1	4.7	3.4	2.7	1.3
155°	14.1	12.8	11.4	9.4	8.1	6.1	4.7	3.4	2.7	2.0	1.3
157.5°	10.1	9.4	8.1	6.7	5.4	4.0	3.4	3.4	2.0	1.3	0.7
160°	6.7	6.1	5.4	4.0	3.4	3.4	2.7	2.0	1.3	1.3	0.7
162.5°	4.0	3.4	3.4	3.4	2.7	2.7	2.0	1.3	1.3	0.7	0.7
165°	2.7	2.7	2.7	2.0	2.0	2.0	1.3	0.7	0.7	0.7	0.7
167.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

TEST NUMBER: P1213048

CATALOG NUMBER: 4SNLED-LD5-33SL-LW-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
0°	638.3	638.3	638.3	638.3	638.3	638.3	638.3	638.3	638.3	638.3	638.3
2.5°	638.9	636.9	639.6	644.3	645.0	644.3	643.0	645.0	647.7	647.0	642.3
5°	637.6	634.9	637.6	642.3	642.3	641.6	641.0	643.0	645.7	645.0	641.0
7.5°	633.6	630.9	633.6	637.6	638.3	636.9	636.9	638.9	641.6	641.0	637.6
10°	628.2	625.5	626.8	631.5	632.9	631.5	631.5	633.6	636.9	636.2	632.2
12.5°	620.1	618.1	619.4	623.5	624.8	624.1	623.5	626.1	629.5	629.5	625.5
15°	611.3	608.6	610.0	614.7	615.4	614.0	614.7	616.7	620.8	620.8	617.4
17.5°	601.2	597.9	599.9	603.3	603.9	603.9	603.9	606.6	611.3	610.7	608.0
20°	589.8	585.1	586.4	589.8	591.1	591.1	591.1	595.8	599.2	599.2	596.5
22.5°	576.3	573.0	573.0	576.3	578.3	577.7	577.7	581.7	586.4	585.7	585.7
25°	560.8	558.1	556.8	560.8	561.5	562.2	563.5	567.6	573.0	573.0	573.6
27.5°	544.7	542.0	541.3	544.7	545.4	546.0	547.4	552.1	557.5	558.1	559.5
30°	529.2	525.2	523.8	526.5	527.8	528.5	528.5	535.9	540.6	542.7	545.4
32.5°	511.0	507.0	503.6	508.3	509.0	510.3	511.0	518.4	523.8	527.2	531.2
35°	492.8	486.1	484.8	488.1	489.5	490.1	491.5	499.6	507.0	509.7	515.1
37.5°	472.6	467.9	463.9	467.3	468.6	469.3	473.3	480.7	488.1	492.2	497.5
40°	453.8	447.7	444.4	446.4	447.7	448.4	453.1	461.2	469.9	474.7	481.4
42.5°	432.9	424.8	422.1	424.2	424.8	426.9	430.9	441.7	450.4	457.2	462.5
45°	412.0	406.0	399.9	401.9	402.6	404.0	410.0	421.5	430.9	439.0	445.0
47.5°	390.5	383.1	377.0	378.4	381.1	381.7	388.5	401.9	410.7	419.4	427.5
50°	369.0	358.9	354.1	354.1	355.5	358.9	367.6	381.1	390.5	400.6	409.4
52.5°	346.7	337.3	331.9	332.6	333.9	338.0	346.1	359.5	370.3	381.1	391.8
55°	324.5	314.4	309.0	307.7	309.0	314.4	323.8	338.0	348.8	361.5	373.0
57.5°	302.3	290.2	285.5	283.4	284.8	291.5	301.0	315.8	329.2	341.3	354.8
60°	278.1	268.6	260.6	255.8	259.2	268.0	278.1	293.5	307.7	321.2	336.0
62.5°	257.2	245.1	236.3	231.6	235.0	242.4	256.5	271.3	286.8	302.3	317.1
65°	233.6	221.5	211.4	206.7	210.1	218.8	233.0	249.1	265.9	281.4	298.9
67.5°	210.7	197.9	185.8	181.1	185.2	194.6	210.1	228.2	246.4	262.6	281.4
70°	188.5	174.4	161.6	158.2	160.9	173.7	188.5	206.7	225.5	244.4	263.9
72.5°	168.3	150.8	137.3	133.3	136.7	150.8	167.6	186.5	206.7	226.9	247.8
75°	144.8	128.6	113.8	109.1	113.1	125.9	146.8	167.0	188.5	210.1	229.6
77.5°	125.9	107.1	91.6	84.2	90.9	107.1	127.2	148.8	171.0	193.2	215.4
80°	106.4	86.9	70.0	61.9	69.3	86.9	107.1	130.6	155.5	177.7	197.9
82.5°	88.9	68.0	50.5	41.7	49.8	69.3	91.6	115.1	139.4	161.6	185.2
85°	72.7	51.2	33.0	23.6	35.0	52.5	76.1	100.3	125.2	148.1	171.0
87.5°	59.2	38.4	20.2	10.1	21.5	41.1	63.3	87.5	112.4	135.3	156.9
90°	48.5	27.6	10.8	1.3	12.8	31.0	52.5	76.1	99.6	123.2	144.8
92.5°	39.7	20.9	6.1	0.7	8.1	24.9	45.1	67.3	90.2	113.1	134.0
95°	33.0	16.2	4.0	0.7	6.1	19.5	38.4	59.9	81.5	103.7	124.6
97.5°	28.3	13.5	3.4	0.7	4.7	16.8	33.0	53.2	74.1	94.9	115.1
100°	24.2	10.8	2.7	0.7	4.0	14.1	29.0	47.1	66.7	86.9	106.4
102.5°	20.9	8.8	2.0	0.7	3.4	12.1	25.6	42.4	59.9	79.4	98.3
105°	18.2	7.4	2.0	0.7	2.7	10.8	22.9	37.7	55.2	72.7	90.9
107.5°	15.5	6.1	1.3	0.7	2.0	8.8	20.2	34.3	49.8	66.7	83.5
110°	13.5	5.4	1.3	0.7	2.0	8.1	17.5	31.0	45.1	60.6	76.8

TEST NUMBER: P1213048

CATALOG NUMBER: 4SNLED-LD5-33SL-LW-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
112.5°	11.4	4.0	1.3	0.7	1.3	6.7	15.5	27.6	41.1	55.2	70.7
115°	10.1	3.4	0.7	0.7	1.3	6.1	14.1	24.9	37.0	50.5	64.6
117.5°	8.1	2.7	0.7	0.7	0.7	4.7	12.1	22.2	33.7	46.5	59.2
120°	6.7	2.7	0.7	0.7	0.7	4.0	10.8	19.5	30.3	41.7	53.9
122.5°	6.1	2.0	0.7	0.7	0.7	3.4	9.4	17.5	26.9	37.7	49.1
125°	5.4	2.0	0.7	0.7	0.7	2.7	8.1	15.5	24.2	33.7	44.4
127.5°	4.0	2.0	0.7	0.7	0.7	2.0	7.4	13.5	21.5	30.3	39.7
130°	3.4	1.3	0.7	0.7	0.7	2.0	6.1	12.1	18.9	26.9	35.7
132.5°	2.7	1.3	0.7	0.7	0.7	1.3	4.7	9.4	16.2	23.6	31.6
135°	2.7	1.3	0.7	0.7	0.7	1.3	3.4	8.1	13.5	20.2	26.9
137.5°	2.7	0.7	0.7	0.7	0.7	1.3	2.7	6.1	10.8	16.2	22.2
140°	2.0	0.7	0.7	0.7	0.7	0.7	2.0	4.7	8.8	13.5	18.9
142.5°	2.0	0.7	0.7	0.7	0.7	0.7	2.0	3.4	6.7	10.8	14.8
145°	1.3	0.7	0.7	0.7	0.7	0.7	1.3	2.7	5.4	8.1	12.1
147.5°	1.3	0.7	0.7	0.7	0.7	0.7	1.3	2.0	4.0	6.7	9.4
150°	1.3	0.7	0.7	0.7	0.7	0.7	1.3	2.0	2.7	4.7	7.4
152.5°	0.7	0.7	0.7	0.7	0.7	0.7	1.3	1.3	2.0	3.4	4.7
155°	0.7	0.7	0.7	0.7	0.7	0.7	0.7	1.3	2.0	2.7	3.4
157.5°	0.7	0.7	0.7	0.7	0.7	0.7	0.7	1.3	1.3	2.0	2.7
160°	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	1.3	1.3	2.0
162.5°	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	1.3	1.3
165°	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
167.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

TEST NUMBER: P1213048

CATALOG NUMBER: 4SNLED-LD5-33SL-LW-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
0°	638.3	638.3	638.3	638.3	638.3	638.3	638.3	638.3	638.3	638.3	638.3
2.5°	640.3	635.6	636.9	636.2	637.6	639.6	639.6	638.9	638.9	637.6	636.2
5°	638.9	634.2	636.2	635.6	636.9	638.9	638.9	638.3	638.3	636.2	635.6
7.5°	634.9	631.5	632.9	632.9	634.2	636.2	636.2	635.6	635.6	633.6	632.9
10°	630.9	626.8	628.8	628.8	630.2	632.9	632.9	632.2	632.2	630.2	629.5
12.5°	624.1	620.1	623.5	624.1	625.5	628.2	627.5	627.5	627.5	625.5	624.8
15°	616.0	613.4	616.7	617.4	619.4	622.8	622.8	622.8	622.8	620.8	620.1
17.5°	607.3	605.3	608.6	610.0	612.7	616.0	616.0	616.7	617.4	616.0	615.4
20°	597.2	595.8	599.2	601.9	605.9	609.3	610.7	611.3	612.7	611.3	610.7
22.5°	585.7	585.7	590.5	593.2	597.9	601.2	603.3	605.3	606.6	605.3	604.6
25°	573.0	575.0	579.7	584.4	589.8	593.2	595.2	597.9	599.2	598.5	597.9
27.5°	560.8	563.5	569.6	574.3	579.0	584.4	586.4	589.8	591.1	591.1	590.5
30°	546.7	550.7	557.5	562.9	568.9	574.3	577.0	580.4	582.4	581.0	581.7
32.5°	533.2	540.0	545.4	551.4	558.1	563.5	566.9	570.9	573.0	572.3	573.0
35°	518.4	525.2	532.6	538.6	546.7	552.1	556.8	560.2	562.9	562.2	562.2
37.5°	502.3	511.0	518.4	526.5	533.9	540.0	544.7	548.7	551.4	551.4	551.4
40°	486.8	496.2	503.6	513.0	522.5	527.8	533.2	537.3	540.0	540.6	541.3
42.5°	469.9	480.0	488.8	498.9	508.3	515.1	521.1	525.8	528.5	529.9	529.2
45°	454.5	463.9	474.0	485.4	494.2	500.9	508.3	513.7	516.4	517.1	517.7
47.5°	437.0	447.7	459.2	470.6	479.4	488.1	494.9	500.2	502.9	505.0	505.0
50°	420.1	431.6	444.4	456.5	465.9	474.7	481.4	487.4	490.8	492.2	492.8
52.5°	404.6	415.4	428.9	441.0	450.4	459.2	467.9	474.7	478.0	479.4	479.4
55°	385.8	399.3	414.1	425.5	435.6	445.7	454.5	461.2	464.6	466.6	467.9
57.5°	368.3	382.4	397.9	410.0	422.1	431.6	439.6	448.4	451.1	453.8	454.5
60°	351.4	365.6	380.4	393.9	406.0	416.1	425.5	432.9	437.6	439.0	440.3
62.5°	333.9	348.8	364.2	377.7	390.5	402.6	411.4	418.1	423.5	425.5	426.9
65°	317.1	332.6	348.1	362.2	375.7	387.8	396.6	403.3	408.7	412.0	412.7
67.5°	298.9	315.8	331.9	346.7	360.2	373.0	381.7	388.5	393.9	397.9	398.6
70°	282.1	299.6	315.8	331.9	345.4	358.2	367.6	374.3	380.4	383.1	384.4
72.5°	265.9	284.1	301.0	317.1	330.6	343.4	353.5	360.2	366.3	369.6	370.3
75°	250.5	268.6	286.8	302.3	316.4	329.2	339.3	346.7	352.1	355.5	356.8
77.5°	235.0	253.8	272.0	287.5	302.3	315.1	323.8	332.6	338.0	342.0	342.0
80°	219.5	239.0	257.9	273.3	288.2	299.6	309.7	318.5	323.8	327.9	327.9
82.5°	206.0	224.9	243.1	258.5	273.3	286.1	296.2	304.3	310.4	313.1	313.7
85°	190.5	211.4	228.2	245.1	259.2	271.3	281.4	290.2	295.6	298.3	299.6
87.5°	177.7	197.9	216.1	230.9	245.1	257.2	268.6	276.0	281.4	284.8	286.1
90°	165.6	185.2	203.3	218.1	233.0	244.4	255.2	262.6	268.6	271.3	272.7
92.5°	154.9	174.4	191.9	206.7	220.8	233.6	243.7	251.1	256.5	259.2	261.2
95°	144.8	163.6	180.4	196.6	210.1	221.5	232.3	239.7	245.7	247.8	249.8
97.5°	134.7	152.8	169.7	185.2	199.3	210.1	220.2	227.6	232.3	235.6	237.7
100°	125.9	143.4	159.6	174.4	187.8	197.9	208.7	215.4	220.2	222.9	225.5
102.5°	116.5	134.0	149.5	163.6	177.7	187.2	197.3	204.0	208.0	212.8	212.8
105°	108.4	124.6	140.0	153.5	165.6	177.1	185.8	192.6	197.3	200.6	200.6
107.5°	99.6	115.8	130.6	144.8	156.2	167.0	175.1	181.1	186.5	188.5	190.5
110°	92.9	107.1	121.9	135.3	146.1	156.2	164.3	171.0	175.7	177.7	179.1

TEST NUMBER: P1213048

CATALOG NUMBER: 4SNLED-LD5-33SL-LW-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
112.5°	84.8	99.6	113.1	125.9	136.7	146.1	154.2	159.6	164.3	167.0	167.6
115°	78.1	92.2	104.4	116.5	127.9	136.0	143.4	148.8	153.5	155.5	156.9
117.5°	72.0	84.8	97.0	107.1	117.8	126.6	134.0	138.7	142.7	145.4	146.8
120°	66.0	78.1	88.9	99.0	109.1	117.1	123.9	128.6	133.3	135.3	135.3
122.5°	59.9	71.4	81.5	90.9	100.3	107.7	115.1	119.2	123.2	125.2	125.2
125°	54.5	65.3	74.7	83.5	92.2	99.0	105.0	109.7	113.8	115.1	115.1
127.5°	49.1	59.2	68.0	76.1	83.5	90.2	96.3	101.0	104.4	105.7	105.7
130°	44.4	53.2	61.3	69.3	76.8	82.1	88.2	92.2	94.3	96.3	97.0
132.5°	39.7	47.8	55.2	61.9	69.3	74.7	79.4	83.5	85.5	87.5	88.2
135°	35.0	42.4	49.1	55.9	61.9	67.3	71.4	74.7	77.4	78.8	79.4
137.5°	29.6	37.7	43.8	49.1	55.9	59.9	64.6	66.7	69.3	70.7	70.7
140°	24.9	31.0	37.7	43.1	48.5	52.5	56.6	59.9	61.9	62.6	62.6
142.5°	20.2	25.6	31.0	37.7	42.4	45.8	49.8	52.5	53.9	54.5	55.2
145°	16.2	20.2	24.9	31.0	36.4	40.4	42.4	45.1	46.5	47.1	47.8
147.5°	12.1	16.2	20.2	24.2	29.6	33.7	35.7	38.4	39.7	40.4	40.4
150°	9.4	12.1	14.8	18.9	22.9	27.6	30.3	32.3	33.0	33.7	33.7
152.5°	6.7	9.4	11.4	14.1	16.8	20.9	24.9	26.3	26.9	27.6	27.6
155°	4.7	6.7	8.1	10.1	12.1	15.5	18.9	20.9	21.5	22.2	22.2
157.5°	3.4	4.7	5.4	7.4	8.8	10.1	12.8	16.2	16.8	16.8	16.8
160°	2.0	2.7	3.4	4.7	5.4	6.7	8.1	10.1	12.1	12.1	12.1
162.5°	1.3	2.0	2.0	2.7	2.7	4.0	4.7	5.4	7.4	8.1	8.1
165°	0.7	1.3	1.3	1.3	1.3	1.3	2.0	2.0	3.4	4.0	4.0
167.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

TEST NUMBER: P1213048

CATALOG NUMBER: 4SNLED-LD5-33SL-LW-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°
0°	638.3	638.3	638.3	638.3	638.3	638.3	638.3	638.3	638.3	638.3	638.3
2.5°	636.9	638.3	637.6	637.6	637.6	638.9	637.6	631.5	632.9	634.2	635.6
5°	636.2	636.9	636.9	636.2	636.2	637.6	636.2	630.2	631.5	632.9	633.6
7.5°	633.6	634.2	634.2	634.2	633.6	634.9	632.9	627.5	627.5	628.8	629.5
10°	630.2	631.5	630.9	630.2	630.2	630.2	628.8	622.8	622.8	623.5	624.1
12.5°	626.1	626.1	626.1	625.5	624.8	624.8	623.5	617.4	616.7	618.1	617.4
15°	620.8	622.1	620.8	620.1	618.7	618.7	616.7	610.7	609.3	610.0	609.3
17.5°	616.0	616.7	615.4	614.0	612.7	612.0	610.0	603.3	601.2	601.9	600.6
20°	611.3	611.3	610.0	608.6	606.6	604.6	601.9	595.2	591.8	591.8	589.1
22.5°	605.3	605.3	603.9	601.9	599.9	597.2	594.5	587.8	582.4	581.0	579.0
25°	598.5	597.9	597.2	595.2	591.1	588.4	585.7	578.3	572.3	569.6	566.2
27.5°	590.5	590.5	588.4	586.4	582.4	579.0	575.6	568.9	560.8	557.5	552.8
30°	581.7	581.7	579.7	577.0	573.0	568.9	564.9	556.8	548.7	544.0	538.6
32.5°	573.0	572.3	570.3	567.6	563.5	557.5	554.1	546.0	536.6	531.2	523.8
35°	562.2	561.5	559.5	556.1	550.7	546.0	540.6	533.2	522.5	515.7	507.6
37.5°	551.4	550.7	549.4	544.7	539.3	533.9	527.2	519.8	509.7	500.9	492.8
40°	540.6	540.0	537.3	533.9	527.2	520.4	513.7	506.3	495.5	485.4	476.7
42.5°	529.2	528.5	525.2	521.1	513.7	507.0	498.9	490.8	480.0	467.9	459.2
45°	517.7	516.4	513.0	508.3	500.2	492.8	484.8	475.3	464.6	453.1	441.7
47.5°	505.6	503.6	500.2	493.5	486.8	478.7	469.3	459.2	448.4	435.6	423.5
50°	492.2	490.8	486.8	480.7	472.6	464.6	453.8	443.7	430.9	418.8	404.0
52.5°	479.4	476.7	473.3	466.6	458.5	449.7	438.3	426.2	413.4	401.9	386.5
55°	465.9	464.6	459.8	454.5	444.4	434.3	423.5	410.7	396.6	383.1	368.3
57.5°	453.1	450.4	446.4	439.0	430.2	420.1	408.7	395.2	379.7	365.6	349.4
60°	440.3	436.3	431.6	424.8	415.4	404.6	392.5	378.4	362.9	347.4	330.6
62.5°	426.2	422.8	417.4	410.7	401.3	389.8	377.0	362.2	347.4	331.3	313.1
65°	412.0	408.7	403.3	396.6	387.1	374.3	360.9	346.1	329.2	313.7	294.2
67.5°	397.9	394.5	388.5	381.1	371.6	359.5	345.4	329.9	313.1	296.2	276.0
70°	383.8	379.7	374.3	366.3	356.8	344.0	329.9	313.7	296.9	278.7	258.5
72.5°	369.6	366.3	359.5	352.1	342.0	329.2	315.1	298.9	281.4	262.6	242.4
75°	355.5	351.4	346.7	338.0	327.2	315.1	300.3	284.1	265.3	247.1	226.2
77.5°	341.3	338.0	331.9	323.2	313.1	300.3	285.5	269.3	250.5	231.6	209.4
80°	327.2	323.2	318.5	310.4	298.9	286.1	270.7	254.5	235.6	216.1	193.9
82.5°	313.1	309.0	303.6	295.6	284.8	272.0	257.2	239.7	220.8	200.6	179.8
85°	298.9	295.6	289.5	281.4	270.0	257.2	242.4	226.9	206.7	186.5	165.6
87.5°	284.8	281.4	275.4	267.3	256.5	243.7	228.9	212.8	193.2	174.4	151.5
90°	271.3	268.6	262.6	254.5	243.7	230.9	217.5	200.0	181.1	162.3	140.7
92.5°	259.2	256.5	251.1	243.1	233.6	219.5	206.0	189.2	170.3	150.8	129.9
95°	248.4	245.1	239.7	232.3	220.8	208.7	195.2	178.4	160.2	140.7	120.5
97.5°	236.3	233.0	227.6	219.5	210.1	197.3	183.8	167.6	149.5	131.3	111.1
100°	224.2	220.8	214.8	208.0	198.6	185.8	173.0	156.9	140.0	122.5	103.0
102.5°	212.1	208.7	203.3	196.6	187.2	175.7	162.9	147.4	130.6	113.1	94.9
105°	200.6	197.3	191.9	185.2	176.4	165.0	151.5	138.0	121.9	105.0	87.5
107.5°	189.2	185.8	181.1	174.4	165.6	154.9	142.1	127.9	113.1	97.0	80.1
110°	177.7	175.1	169.7	163.6	154.9	144.1	132.6	119.2	104.4	89.5	73.4

TEST NUMBER: P1213048

CATALOG NUMBER: 4SNLED-LD5-33SL-LW-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°
112.5°	167.0	164.3	158.9	152.2	144.8	134.7	123.2	110.4	96.3	82.1	66.7
115°	156.2	152.8	148.1	142.1	134.7	125.2	114.5	103.0	88.9	75.4	61.3
117.5°	145.4	142.7	138.0	132.0	125.2	115.8	105.7	94.9	81.5	68.7	55.9
120°	134.7	132.6	127.9	122.5	115.8	107.1	97.6	86.9	74.7	62.6	50.5
122.5°	124.6	122.5	117.8	113.1	106.4	98.3	89.5	79.4	68.7	57.2	46.5
125°	115.1	112.4	108.4	103.7	97.6	90.2	81.5	72.0	61.9	51.8	41.7
127.5°	105.0	103.0	100.3	94.9	88.9	82.1	74.1	66.0	56.6	47.1	37.7
130°	97.0	94.3	90.9	86.9	81.5	74.7	67.3	59.2	51.2	42.4	33.0
132.5°	87.5	84.8	82.1	78.1	73.4	67.3	60.6	53.2	45.8	37.7	29.6
135°	78.8	76.8	74.1	70.0	65.3	60.6	53.9	47.1	40.4	33.0	26.3
137.5°	70.7	68.7	66.0	63.3	58.6	53.9	47.8	41.7	35.7	29.0	22.9
140°	62.6	61.3	58.6	55.9	51.8	47.1	41.7	36.4	31.0	24.9	19.5
142.5°	54.5	53.2	51.2	48.5	45.1	41.1	36.4	31.6	26.3	21.5	16.8
145°	47.1	46.5	44.4	41.7	39.0	35.0	31.0	26.9	22.2	18.2	13.5
147.5°	39.7	39.0	37.7	35.7	33.0	29.6	26.3	22.2	18.9	14.8	10.8
150°	33.0	32.3	31.6	29.0	27.6	24.2	21.5	18.2	15.5	11.4	8.8
152.5°	26.9	26.9	25.6	23.6	22.2	19.5	17.5	14.8	12.1	9.4	6.7
155°	21.5	20.9	20.2	18.9	17.5	15.5	13.5	11.4	9.4	6.7	4.7
157.5°	16.8	16.2	15.5	14.1	12.8	12.1	10.1	8.1	6.1	4.7	3.4
160°	12.1	11.4	10.8	10.1	9.4	8.1	6.7	5.4	4.0	2.7	2.0
162.5°	8.1	7.4	7.4	6.7	6.1	4.7	4.0	3.4	2.7	2.0	1.3
165°	4.0	4.0	3.4	3.4	2.7	2.0	2.0	2.0	1.3	1.3	0.7
167.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

TEST NUMBER: P1213048

CATALOG NUMBER: 4SNLED-LD5-33SL-LW-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	330°	335°	340°	345°	350°	355°	360°
0°	638.3	638.3	638.3	638.3	638.3	638.3	638.3
2.5°	634.9	634.9	637.6	636.9	634.9	638.9	643.6
5°	632.9	632.9	634.9	634.9	632.9	636.9	641.0
7.5°	629.5	628.8	630.9	630.9	628.2	631.5	636.2
10°	623.5	622.8	624.8	624.8	622.1	625.5	629.5
12.5°	616.7	615.4	617.4	616.7	614.0	617.4	621.4
15°	608.0	607.3	608.6	607.3	604.6	608.0	612.0
17.5°	599.2	597.2	597.9	597.9	593.2	596.5	599.9
20°	587.8	585.1	585.7	585.1	581.7	583.7	587.8
22.5°	576.3	572.3	572.3	571.6	567.6	570.3	573.6
25°	562.2	557.5	557.5	556.8	552.1	554.1	557.5
27.5°	548.0	543.3	541.3	540.6	535.9	535.9	540.6
30°	533.2	526.5	525.2	523.1	518.4	518.4	522.5
32.5°	519.1	509.7	507.0	504.3	499.6	498.9	503.6
35°	500.2	492.8	488.1	485.4	480.0	478.7	482.7
37.5°	484.8	475.3	468.6	465.2	459.8	457.8	463.2
40°	467.9	457.8	449.1	447.1	439.0	436.3	441.0
42.5°	449.1	438.3	429.5	425.5	419.4	416.8	417.4
45°	430.2	418.8	409.4	404.0	397.9	393.2	395.9
47.5°	410.7	400.6	389.2	381.1	373.7	370.3	371.6
50°	391.2	379.1	368.3	359.5	350.8	346.7	349.4
52.5°	371.6	358.9	346.7	337.3	327.2	323.2	323.8
55°	352.8	339.3	325.2	315.1	305.7	299.6	298.3
57.5°	333.9	319.1	304.3	292.9	280.8	275.4	273.3
60°	313.7	298.3	282.8	269.3	256.5	250.5	247.8
62.5°	294.9	278.1	260.6	246.4	233.6	225.5	223.5
65°	276.7	257.2	239.7	223.5	209.4	200.6	197.9
67.5°	257.2	237.0	218.1	200.6	187.2	175.7	174.4
70°	239.0	217.5	196.6	178.4	163.6	152.2	146.8
72.5°	220.8	198.6	177.1	157.5	138.7	127.9	123.9
75°	203.3	180.4	157.5	137.3	116.5	103.7	99.6
77.5°	187.2	163.6	139.4	117.1	97.6	81.5	76.1
80°	171.7	147.4	121.9	99.0	78.1	60.6	54.5
82.5°	155.5	132.6	106.4	82.1	60.6	42.4	35.0
85°	141.4	118.5	92.2	68.0	46.5	26.9	18.9
87.5°	129.9	105.0	81.5	57.2	35.0	15.5	5.4
90°	118.5	94.3	70.7	47.1	26.3	8.8	0.7
92.5°	108.4	85.5	61.9	40.4	20.2	6.1	0.7
95°	99.0	76.8	54.5	33.7	16.2	4.0	0.7
97.5°	90.2	69.3	48.5	29.0	13.5	3.4	0.7
100°	82.8	62.6	43.1	25.6	11.4	2.7	0.7
102.5°	75.4	56.6	38.4	22.2	10.1	2.0	0.7
105°	69.3	51.2	34.3	20.2	8.8	2.0	0.7
107.5°	63.3	46.5	31.0	17.5	7.4	1.3	0.7
110°	57.2	42.4	27.6	15.5	6.7	1.3	0.7



TEST NUMBER: P1213048

CATALOG NUMBER: 4SNLED-LD5-33SL-LW-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	330°	335°	340°	345°	350°	355°	360°
112.5°	52.5	38.4	24.9	14.1	5.4	1.3	0.7
115°	47.8	34.3	22.2	12.1	4.7	0.7	0.7
117.5°	43.1	31.0	19.5	10.8	4.0	0.7	0.7
120°	39.0	27.6	17.5	9.4	3.4	0.7	0.7
122.5°	35.0	24.9	15.5	8.1	2.7	0.7	0.7
125°	31.6	22.2	13.5	6.7	2.0	0.7	0.7
127.5°	28.3	19.5	12.1	6.1	2.0	0.7	0.7
130°	24.9	17.5	10.1	4.7	1.3	0.7	0.7
132.5°	22.2	14.8	8.8	4.0	1.3	0.7	0.7
135°	19.5	12.8	7.4	2.7	1.3	0.7	0.7
137.5°	16.8	10.8	6.1	2.0	0.7	0.7	0.7
140°	14.1	9.4	4.7	2.0	0.7	0.7	0.7
142.5°	12.1	7.4	3.4	1.3	0.7	0.7	0.7
145°	9.4	6.1	2.7	1.3	0.7	0.7	0.7
147.5°	7.4	4.7	2.0	1.3	0.7	0.7	0.7
150°	5.4	3.4	2.0	0.7	0.7	0.7	0.7
152.5°	4.0	2.7	1.3	0.7	0.7	0.7	0.7
155°	2.7	2.0	1.3	0.7	0.7	0.7	0.7
157.5°	2.0	1.3	0.7	0.7	0.7	0.7	0.7
160°	1.3	0.7	0.7	0.7	0.7	0.7	0.7
162.5°	0.7	0.7	0.7	0.7	0.7	0.7	0.7
165°	0.7	0.7	0.7	0.7	0.7	0.7	0.7
167.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180°	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)