

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: P1213463

Luminaire Tested: 4SNLED-LD5-54HL-LW-UNV-L935-CD1-U

Issue Date: 3/29/2018

Test Information

Test Method: LM-79-2019
Report Number: P1213463
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-LD5-54HL-LW-UNV-L935-CD1-U
Description: 4FT LINEAR SNLED LED FIXTURE
WIDE FROSTED LENS
Light Source: -
Ballast/Driver: -

Summary

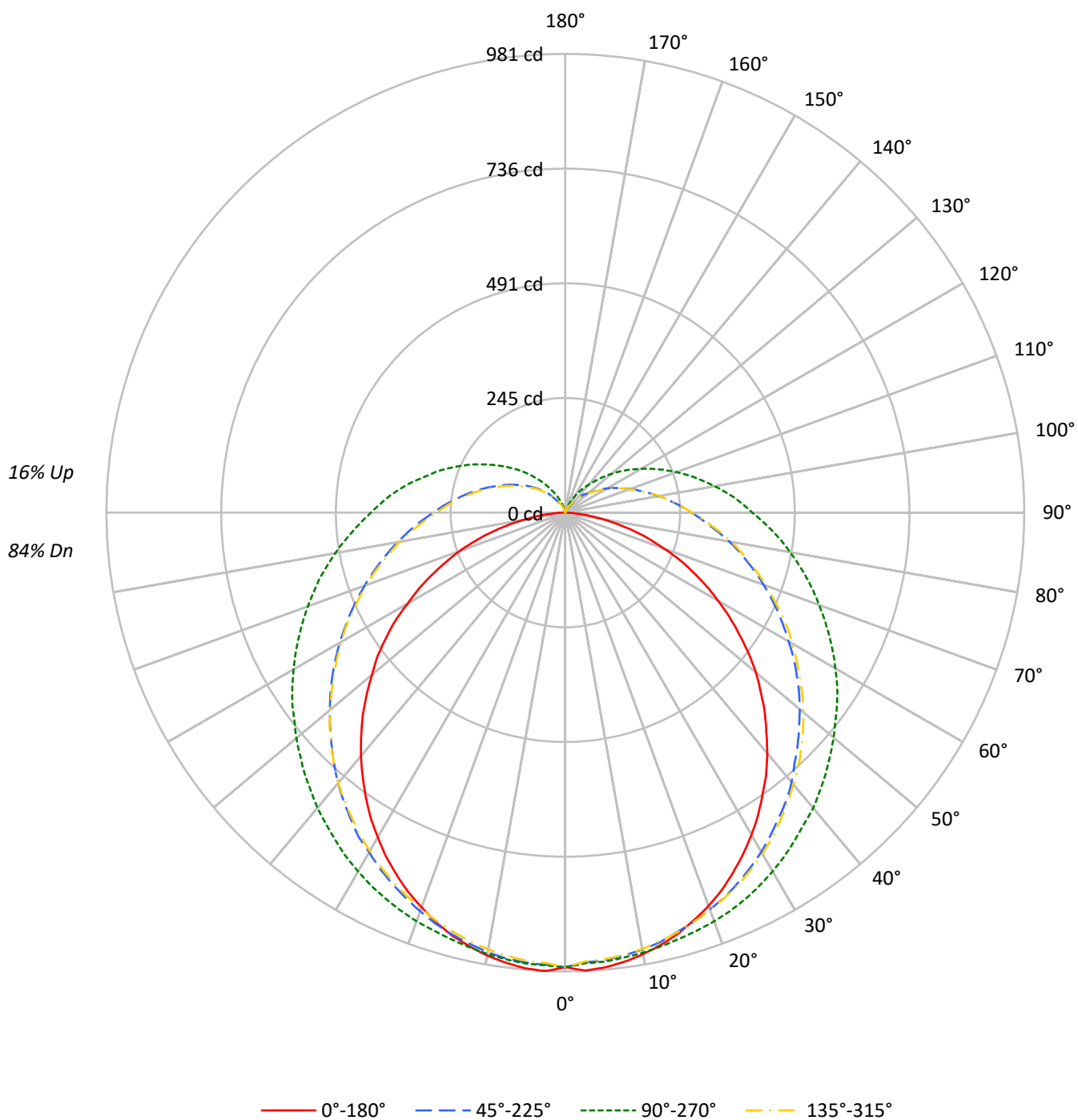
Lumens per Lamp: N/A
Luminaire Lumens: 4223.0 lumens
Efficiency: N/A
Efficacy: 98.2 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.36 / 1.44
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.12')
CIE Type: Semi-Direct

Input Watts (W): 43
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			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°	7855	7855	7855	7855
5°	7896	7570	7913	7602
10°	7824	7355	7849	7378
15°	7732	7171	7766	7178
20°	7611	7036	7637	7036
25°	7461	6917	7506	6909
30°	7293	6794	7349	6794
35°	7098	6680	7177	6688
40°	6904	6614	6988	6614
45°	6681	6544	6783	6552
50°	6449	6502	6537	6519
55°	6126	6507	6320	6536
60°	5785	6528	5973	6568
65°	5401	6593	5641	6658
70°	4863	6715	5244	6810
75°	4242	6934	4644	7067
80°	3285	7260	3728	7426
85°	1961	7781	2453	7997

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 270°

Vertical Angle: 90°

Luminance: 8941 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	92.1	2.2
10°-20°	264.6	6.3
20°-30°	405.7	9.6
30°-40°	500.6	11.9
40°-50°	543.1	12.9
50°-60°	535.3	12.7
60°-70°	483.9	11.5
70°-80°	403.2	9.5
80°-90°	312.3	7.4
90°-100°	236.8	5.6
100°-110°	175.3	4.2
110°-120°	121.9	2.9
120°-130°	77.8	1.8
130°-140°	43.6	1.0
140°-150°	19.9	0.5
150°-160°	6.2	0.1
160°-170°	0.8	0.0
170°-180°	0.0	0.0
0°-30°	762.5	18.1
0°-40°	1263.0	29.9
0°-60°	2341.3	55.4
0°-90°	3540.7	83.8
90°-120°	534.0	12.6
90°-150°	675.3	16.0
90°-180°	682.0	16.1
0°-180°	4223.0	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	972	972	972	972	972	
5°	976	964	978	968	976	93
15°	932	943	936	944	932	263
25°	849	912	854	910	849	391
35°	735	855	743	856	735	460
45°	603	788	612	788	603	464
55°	454	710	469	713	454	407
65°	301	622	315	628	301	299
75°	152	533	166	543	152	161
85°	29	444	36	456	29	35
90°	1	400	2	415	1	2
95°	1	363	1	380	1	1
105°	1	288	1	306	1	1
115°	1	219	1	239	1	1
125°	1	158	1	175	1	1
135°	1	102	1	121	1	1
145°	1	60	1	73	1	1
155°	1	25	1	34	1	0
165°	1	4	1	6	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°	972.0	972.0	972.0	972.0	972.0	972.0	972.0	972.0	972.0	972.0	972.0
2.5°	980.2	980.2	979.2	977.1	978.2	981.2	979.2	974.1	971.0	962.8	964.8
5°	976.1	976.1	975.1	973.0	974.1	978.2	976.1	972.0	967.9	960.7	963.8
7.5°	968.9	968.9	967.9	965.9	967.9	972.0	970.0	965.9	962.8	955.6	958.7
10°	958.7	959.7	958.7	955.6	959.7	963.8	962.8	957.7	954.6	948.4	951.5
12.5°	946.4	947.4	946.4	945.4	947.4	953.6	951.5	947.4	945.4	940.2	943.3
15°	932.0	933.0	931.0	931.0	933.0	939.2	939.2	935.1	933.0	927.9	934.1
17.5°	913.6	914.6	913.6	913.6	915.6	921.8	922.8	920.7	918.7	916.6	922.8
20°	895.1	894.1	894.1	893.1	897.2	906.4	905.4	905.4	903.3	903.3	910.5
22.5°	873.6	873.6	872.6	872.6	877.7	885.9	885.9	887.9	885.9	890.0	896.1
25°	849.0	850.0	849.0	851.0	855.1	864.4	865.4	868.5	869.5	873.6	880.8
27.5°	823.3	824.4	823.3	825.4	832.6	839.7	844.9	849.0	850.0	856.1	865.4
30°	795.7	795.7	796.7	798.7	806.9	818.2	822.3	827.4	827.4	837.7	846.9
32.5°	766.9	766.9	766.9	771.0	780.3	793.6	798.7	804.9	806.9	817.2	827.4
35°	735.2	736.2	736.2	739.3	751.6	764.9	772.1	779.2	783.4	795.7	805.9
37.5°	705.4	707.5	704.4	708.5	725.9	737.2	745.4	752.6	759.8	776.2	784.4
40°	671.6	673.6	672.6	680.8	695.2	709.5	718.8	725.9	736.2	752.6	761.8
42.5°	635.7	637.8	639.8	649.0	664.4	678.8	690.0	699.3	711.6	725.9	741.3
45°	602.9	602.9	606.0	617.2	633.7	649.0	662.4	672.6	687.0	702.3	717.7
47.5°	566.0	567.0	571.1	584.4	601.9	620.3	632.6	646.0	661.3	677.7	695.2
50°	532.1	532.1	538.3	552.7	569.1	589.6	602.9	618.3	634.7	654.2	671.6
52.5°	493.2	495.2	504.5	517.8	539.3	557.8	573.2	589.6	609.0	629.6	649.0
55°	454.2	458.3	465.5	484.0	506.5	523.9	542.4	562.9	581.4	603.9	626.5
57.5°	416.3	419.4	430.6	449.1	472.7	494.2	513.7	533.2	555.7	578.3	601.9
60°	377.3	381.4	394.8	413.2	438.8	461.4	484.0	504.5	528.0	551.6	576.2
62.5°	340.4	343.5	358.9	380.4	406.0	430.6	453.2	477.8	503.4	526.0	550.6
65°	301.4	306.6	324.0	343.5	373.2	397.8	423.5	450.1	476.8	501.4	525.0
67.5°	265.6	268.6	287.1	309.6	339.4	367.1	393.7	422.4	450.1	475.8	499.3
70°	223.5	233.8	252.2	275.8	307.6	336.3	365.0	394.8	424.5	451.1	473.7
72.5°	188.7	196.9	217.4	243.0	273.8	307.6	337.3	369.1	398.9	426.5	450.1
75°	151.7	160.0	183.5	212.2	244.0	279.9	310.7	343.5	374.2	401.9	426.5
77.5°	115.9	126.1	151.7	181.5	216.3	253.3	285.0	317.9	349.6	379.4	404.0
80°	83.1	94.3	122.0	155.8	189.7	226.6	261.5	294.3	326.1	355.8	381.4
82.5°	53.3	65.6	95.4	129.2	165.1	202.0	237.9	270.7	302.5	332.2	358.9
85°	28.7	42.0	72.8	106.6	142.5	179.4	215.3	250.2	280.9	308.6	337.3
87.5°	8.2	24.6	54.3	88.2	125.1	158.9	193.8	228.6	259.4	289.1	314.8
90°	1.0	14.4	41.0	72.8	108.7	141.5	176.4	209.2	239.9	269.7	295.3
92.5°	1.0	9.2	31.8	60.5	93.3	127.1	162.0	193.8	222.5	252.2	277.9
95°	1.0	7.2	25.6	51.3	82.0	113.8	146.6	177.4	207.1	234.8	260.4
97.5°	1.0	5.1	20.5	44.1	71.8	101.5	133.3	164.1	192.8	219.4	243.0
100°	1.0	4.1	16.4	37.9	62.5	91.3	120.0	149.7	177.4	203.0	227.6
102.5°	1.0	3.1	14.4	31.8	55.4	81.0	108.7	136.4	163.0	187.6	212.2
105°	1.0	3.1	12.3	27.7	49.2	72.8	98.4	125.1	149.7	173.3	195.8
107.5°	1.0	2.1	10.3	23.6	43.1	65.6	89.2	114.8	137.4	160.0	181.5
110°	1.0	2.1	8.2	21.5	37.9	58.4	81.0	104.6	126.1	147.6	168.2

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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	1.0	2.1	7.2	18.5	32.8	52.3	72.8	94.3	114.8	136.4	154.8
115°	1.0	2.1	6.2	16.4	30.8	45.1	65.6	85.1	105.6	125.1	142.5
117.5°	1.0	2.1	5.1	13.3	26.7	41.0	57.4	76.9	95.4	113.8	130.2
120°	1.0	2.1	4.1	12.3	23.6	36.9	51.3	68.7	86.1	103.6	121.0
122.5°	1.0	1.0	4.1	10.3	20.5	32.8	47.2	60.5	76.9	93.3	108.7
125°	1.0	1.0	4.1	9.2	17.4	29.7	42.0	54.3	68.7	83.1	96.4
127.5°	1.0	1.0	3.1	7.2	15.4	25.6	36.9	50.2	60.5	73.8	87.2
130°	1.0	1.0	3.1	6.2	13.3	21.5	32.8	44.1	56.4	65.6	76.9
132.5°	1.0	1.0	3.1	5.1	10.3	17.4	27.7	37.9	49.2	59.5	68.7
135°	1.0	1.0	2.1	4.1	8.2	14.4	22.6	31.8	43.1	53.3	62.5
137.5°	1.0	1.0	2.1	4.1	6.2	12.3	17.4	25.6	35.9	45.1	54.3
140°	1.0	1.0	2.1	3.1	5.1	9.2	14.4	20.5	28.7	36.9	47.2
142.5°	1.0	1.0	1.0	3.1	4.1	7.2	11.3	16.4	22.6	29.7	37.9
145°	1.0	1.0	1.0	3.1	4.1	5.1	9.2	13.3	17.4	22.6	29.7
147.5°	1.0	1.0	1.0	2.1	3.1	4.1	7.2	10.3	13.3	17.4	21.5
150°	1.0	1.0	1.0	2.1	3.1	4.1	5.1	7.2	10.3	14.4	17.4
152.5°	1.0	1.0	1.0	2.1	2.1	3.1	4.1	5.1	7.2	10.3	12.3
155°	1.0	1.0	1.0	1.0	2.1	3.1	4.1	4.1	5.1	7.2	9.2
157.5°	1.0	1.0	1.0	1.0	2.1	2.1	3.1	3.1	4.1	4.1	6.2
160°	1.0	1.0	1.0	1.0	1.0	2.1	2.1	3.1	3.1	3.1	3.1
162.5°	1.0	1.0	1.0	1.0	1.0	1.0	2.1	2.1	2.1	3.1	3.1
165°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	2.1	2.1	2.1
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°	972.0	972.0	972.0	972.0	972.0	972.0	972.0	972.0	972.0	972.0	972.0
2.5°	964.8	965.9	968.9	968.9	966.9	966.9	965.9	964.8	965.9	967.9	967.9
5°	962.8	963.8	966.9	967.9	965.9	964.8	964.8	963.8	964.8	966.9	966.9
7.5°	958.7	959.7	962.8	963.8	961.8	961.8	960.7	959.7	961.8	962.8	962.8
10°	952.5	953.6	957.7	958.7	957.7	956.6	956.6	955.6	956.6	958.7	958.7
12.5°	944.3	946.4	951.5	951.5	951.5	950.5	950.5	949.5	950.5	952.5	951.5
15°	935.1	939.2	943.3	945.4	945.4	945.4	944.3	943.3	945.4	946.4	945.4
17.5°	924.8	930.0	936.1	938.2	938.2	939.2	938.2	937.1	939.2	939.2	938.2
20°	914.6	919.7	925.9	927.9	930.0	931.0	931.0	930.0	931.0	932.0	931.0
22.5°	901.3	907.4	914.6	917.7	919.7	921.8	921.8	921.8	922.8	923.8	921.8
25°	886.9	894.1	902.3	905.4	909.5	910.5	911.5	911.5	912.5	913.6	910.5
27.5°	871.5	879.7	887.9	893.1	896.1	898.2	898.2	899.2	900.2	901.3	898.2
30°	853.1	865.4	872.6	876.7	880.8	883.8	884.9	885.9	886.9	887.9	884.9
32.5°	836.7	846.9	856.1	861.3	866.4	870.5	871.5	871.5	873.6	873.6	870.5
35°	817.2	829.5	838.7	843.8	850.0	853.1	855.1	855.1	857.2	857.2	854.1
37.5°	797.7	810.0	820.3	826.4	833.6	837.7	838.7	838.7	840.8	840.8	836.7
40°	777.2	790.5	801.8	809.0	815.1	820.3	821.3	824.4	824.4	823.3	819.2
42.5°	756.7	769.0	781.3	789.5	797.7	802.8	804.9	805.9	805.9	804.9	801.8
45°	734.1	748.5	759.8	770.0	778.2	783.4	786.4	787.5	787.5	785.4	782.3
47.5°	712.6	727.0	738.2	749.5	757.7	763.9	766.9	768.0	766.9	765.9	762.8
50°	690.0	706.5	717.7	729.0	737.2	742.3	747.5	748.5	747.5	746.4	740.3
52.5°	666.5	683.9	696.2	707.5	716.7	722.9	727.0	728.0	728.0	725.9	721.8
55°	642.9	658.3	673.6	685.9	696.2	702.3	707.5	709.5	707.5	705.4	700.3
57.5°	621.3	635.7	651.1	664.4	674.7	682.9	687.0	689.0	687.0	683.9	678.8
60°	595.7	611.1	628.5	640.8	652.1	660.3	662.4	666.5	664.4	661.3	656.2
62.5°	571.1	589.6	604.9	620.3	629.6	638.8	642.9	644.9	642.9	639.8	634.7
65°	545.5	566.0	581.4	596.7	607.0	616.2	621.3	622.4	620.3	617.2	612.1
67.5°	521.9	541.4	557.8	574.2	583.4	592.6	597.8	599.8	597.8	593.7	588.5
70°	498.3	517.8	537.3	549.6	560.9	571.1	574.2	577.3	575.2	571.1	565.0
72.5°	474.7	495.2	514.7	527.0	539.3	548.6	552.7	555.7	553.7	549.6	542.4
75°	450.1	471.7	491.1	504.5	516.8	526.0	530.1	533.2	531.1	527.0	518.8
77.5°	427.6	449.1	467.5	481.9	494.2	502.4	509.6	510.6	508.6	504.5	496.3
80°	404.0	425.5	445.0	459.3	471.7	479.9	485.0	488.1	486.0	481.9	473.7
82.5°	383.5	403.0	422.4	436.8	449.1	459.3	463.4	466.5	465.5	459.3	453.2
85°	360.9	383.5	398.9	414.2	426.5	436.8	439.9	444.0	442.9	437.8	429.6
87.5°	338.4	360.9	379.4	394.8	406.0	414.2	419.4	421.4	420.4	415.3	406.0
90°	319.9	340.4	358.9	375.3	384.5	393.7	398.9	399.9	399.9	393.7	386.5
92.5°	302.5	322.0	340.4	355.8	367.1	375.3	379.4	381.4	380.4	375.3	367.1
95°	283.0	304.5	322.0	337.3	348.6	356.8	360.9	363.0	361.9	356.8	348.6
97.5°	266.6	286.1	303.5	317.9	329.1	337.3	341.4	343.5	343.5	338.4	330.2
100°	250.2	269.7	286.1	300.4	310.7	318.9	323.0	324.0	323.0	318.9	310.7
102.5°	233.8	252.2	268.6	282.0	293.2	300.4	304.5	305.5	305.5	300.4	292.2
105°	217.4	235.8	251.2	265.6	274.8	282.0	285.0	288.1	287.1	283.0	274.8
107.5°	202.0	220.4	234.8	248.1	257.4	264.5	267.6	270.7	269.7	265.6	257.4
110°	187.6	205.1	218.4	231.7	239.9	247.1	252.2	253.3	251.2	247.1	239.9

TEST NUMBER: P1213463

CATALOG NUMBER: 4SNLED-LD5-54HL-LW-UNV-L935-CD1-U

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
112.5°	174.3	189.7	203.0	215.3	224.5	229.7	233.8	235.8	233.8	229.7	224.5
115°	160.0	175.3	188.7	199.9	208.1	214.3	217.4	219.4	217.4	213.3	208.1
117.5°	146.6	161.0	174.3	185.6	192.8	197.9	201.0	203.0	201.0	197.9	192.8
120°	135.3	147.6	160.0	170.2	178.4	182.5	185.6	187.6	186.6	182.5	177.4
122.5°	122.0	135.3	146.6	156.9	164.1	168.2	170.2	172.3	171.2	168.2	163.0
125°	110.7	122.0	133.3	142.5	149.7	153.8	155.8	157.9	156.9	153.8	147.6
127.5°	98.4	110.7	120.0	129.2	134.3	140.5	141.5	143.5	142.5	139.4	134.3
130°	89.2	98.4	107.7	115.9	122.0	126.1	128.2	129.2	127.1	125.1	120.0
132.5°	77.9	88.2	96.4	103.6	107.7	111.8	113.8	114.8	114.8	111.8	107.7
135°	69.7	76.9	84.1	91.3	95.4	99.5	101.5	102.5	101.5	99.5	95.4
137.5°	62.5	68.7	73.8	80.0	85.1	87.2	89.2	89.2	88.2	87.2	84.1
140°	54.3	61.5	66.6	70.7	74.8	75.9	77.9	77.9	76.9	75.9	73.8
142.5°	46.1	52.3	57.4	62.5	65.6	67.7	68.7	69.7	68.7	67.7	64.6
145°	36.9	44.1	49.2	52.3	56.4	57.4	58.4	59.5	58.4	57.4	54.3
147.5°	28.7	34.9	40.0	44.1	47.2	48.2	49.2	50.2	49.2	47.2	46.1
150°	20.5	25.6	31.8	35.9	37.9	40.0	40.0	40.0	41.0	39.0	36.9
152.5°	16.4	18.5	22.6	26.7	29.7	30.8	31.8	31.8	30.8	30.8	28.7
155°	11.3	13.3	16.4	19.5	22.6	23.6	24.6	24.6	23.6	23.6	22.6
157.5°	7.2	9.2	11.3	13.3	16.4	17.4	18.5	18.5	18.5	17.4	16.4
160°	4.1	5.1	6.2	8.2	10.3	11.3	12.3	12.3	12.3	12.3	11.3
162.5°	3.1	3.1	3.1	4.1	5.1	6.2	7.2	7.2	7.2	7.2	6.2
165°	2.1	2.1	2.1	2.1	2.1	3.1	4.1	4.1	4.1	4.1	4.1
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: P1213463

CATALOG NUMBER: 4SNLED-LD5-54HL-LW-UNV-L935-CD1-U

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	972.0	972.0	972.0	972.0	972.0	972.0	972.0	972.0	972.0	972.0	972.0
2.5°	966.9	966.9	967.9	965.9	959.7	960.7	960.7	964.8	966.9	967.9	973.0
5°	964.8	964.8	966.9	963.8	958.7	958.7	958.7	962.8	963.8	965.9	970.0
7.5°	961.8	961.8	962.8	959.7	953.6	953.6	952.5	956.6	958.7	959.7	963.8
10°	956.6	956.6	957.7	954.6	947.4	947.4	946.4	949.5	950.5	952.5	955.6
12.5°	949.5	949.5	949.5	946.4	939.2	938.2	937.1	940.2	940.2	941.3	944.3
15°	943.3	941.3	941.3	938.2	931.0	928.9	926.9	927.9	930.0	928.9	931.0
17.5°	936.1	934.1	932.0	928.9	919.7	916.6	914.6	915.6	914.6	913.6	915.6
20°	927.9	924.8	923.8	918.7	909.5	904.3	900.2	898.2	899.2	896.1	897.2
22.5°	918.7	914.6	912.5	906.4	897.2	891.0	885.9	881.8	880.8	876.7	877.7
25°	907.4	902.3	899.2	894.1	883.8	876.7	870.5	864.4	861.3	856.1	855.1
27.5°	894.1	889.0	884.9	879.7	869.5	860.2	853.1	844.9	840.8	834.6	831.5
30°	880.8	874.6	868.5	864.4	853.1	842.8	831.5	824.4	818.2	811.0	805.9
32.5°	864.4	858.2	852.0	845.9	835.6	823.3	814.1	802.8	795.7	787.5	781.3
35°	847.9	839.7	833.6	825.4	816.2	801.8	790.5	779.2	770.0	760.8	753.6
37.5°	829.5	823.3	814.1	806.9	795.7	781.3	769.0	754.6	746.4	734.1	724.9
40°	812.1	804.9	795.7	786.4	775.1	758.7	745.4	729.0	719.8	705.4	696.2
42.5°	794.6	784.4	775.1	764.9	752.6	737.2	720.8	704.4	692.1	678.8	665.4
45°	775.1	763.9	752.6	741.3	729.0	713.6	696.2	678.8	663.4	651.1	634.7
47.5°	754.6	743.4	730.0	717.7	704.4	689.0	670.6	652.1	635.7	621.3	603.9
50°	734.1	722.9	708.5	695.2	679.8	664.4	644.9	623.4	606.0	587.5	572.1
52.5°	712.6	701.3	688.0	670.6	654.2	638.8	618.3	595.7	576.2	560.9	541.4
55°	691.1	679.8	664.4	647.0	630.6	611.1	591.6	569.1	547.5	529.1	509.6
57.5°	668.5	658.3	640.8	626.5	606.0	585.5	565.0	543.4	519.8	498.3	475.8
60°	646.0	634.7	618.3	600.8	580.3	559.8	538.3	514.7	490.1	466.5	446.0
62.5°	625.4	611.1	595.7	577.3	555.7	536.2	511.6	486.0	461.4	436.8	412.2
65°	601.9	586.5	572.1	553.7	531.1	508.6	484.0	458.3	431.7	405.0	380.4
67.5°	578.3	562.9	547.5	529.1	505.5	481.9	456.3	430.6	400.9	375.3	346.6
70°	554.7	542.4	522.9	503.4	481.9	456.3	430.6	403.0	372.2	344.5	314.8
72.5°	531.1	518.8	499.3	478.8	458.3	431.7	404.0	376.3	347.6	315.8	284.0
75°	508.6	493.2	475.8	456.3	434.7	407.1	379.4	350.7	316.8	287.1	254.3
77.5°	487.0	472.7	455.2	433.7	410.1	383.5	354.8	325.0	291.2	259.4	223.5
80°	463.4	449.1	431.7	410.1	386.5	360.9	330.2	299.4	266.6	231.7	194.8
82.5°	440.9	427.6	408.1	388.6	363.0	337.3	306.6	275.8	241.0	207.1	171.2
85°	417.3	404.0	385.5	365.0	340.4	312.7	284.0	253.3	218.4	183.5	147.6
87.5°	396.8	381.4	363.0	342.5	317.9	291.2	263.5	230.7	196.9	163.0	126.1
90°	375.3	360.9	342.5	322.0	297.3	270.7	242.0	211.2	178.4	143.5	108.7
92.5°	356.8	341.4	324.0	303.5	278.9	253.3	224.5	193.8	162.0	128.2	94.3
95°	338.4	323.0	306.6	286.1	261.5	235.8	207.1	177.4	146.6	113.8	82.0
97.5°	317.9	304.5	288.1	268.6	244.0	219.4	191.7	163.0	133.3	101.5	71.8
100°	301.4	286.1	270.7	250.2	227.6	204.0	176.4	148.7	120.0	90.2	62.5
102.5°	283.0	268.6	253.3	233.8	211.2	187.6	162.0	135.3	108.7	81.0	54.3
105°	265.6	252.2	235.8	217.4	195.8	173.3	148.7	124.1	98.4	71.8	48.2
107.5°	248.1	234.8	219.4	202.0	181.5	158.9	136.4	111.8	88.2	64.6	43.1
110°	230.7	218.4	204.0	186.6	167.1	146.6	125.1	102.5	79.0	57.4	37.9

TEST NUMBER: P1213463

CATALOG NUMBER: 4SNLED-LD5-54HL-LW-UNV-L935-CD1-U

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
112.5°	215.3	203.0	188.7	172.3	153.8	134.3	113.8	92.3	70.7	51.3	32.8
115°	199.9	188.7	174.3	160.0	141.5	123.0	103.6	83.1	63.6	46.1	28.7
117.5°	184.6	173.3	160.0	145.6	129.2	111.8	93.3	73.8	57.4	41.0	25.6
120°	169.2	158.9	146.6	133.3	118.9	101.5	83.1	66.6	51.3	35.9	22.6
122.5°	154.8	145.6	134.3	122.0	106.6	90.2	74.8	60.5	46.1	31.8	18.5
125°	141.5	132.3	122.0	109.7	95.4	81.0	67.7	54.3	40.0	27.7	15.4
127.5°	128.2	118.9	108.7	97.4	86.1	72.8	60.5	48.2	35.9	24.6	13.3
130°	114.8	106.6	97.4	88.2	76.9	64.6	54.3	42.0	30.8	19.5	11.3
132.5°	101.5	95.4	87.2	77.9	67.7	58.4	47.2	36.9	26.7	17.4	10.3
135°	90.2	84.1	76.9	68.7	60.5	51.3	41.0	31.8	22.6	14.4	8.2
137.5°	80.0	74.8	67.7	60.5	53.3	44.1	35.9	26.7	18.5	12.3	6.2
140°	70.7	65.6	59.5	52.3	46.1	37.9	29.7	21.5	16.4	10.3	5.1
142.5°	61.5	56.4	51.3	45.1	39.0	31.8	24.6	18.5	13.3	8.2	5.1
145°	52.3	48.2	43.1	37.9	31.8	25.6	20.5	15.4	10.3	6.2	4.1
147.5°	43.1	40.0	34.9	30.8	25.6	20.5	16.4	12.3	8.2	5.1	3.1
150°	34.9	31.8	27.7	23.6	20.5	16.4	13.3	9.2	6.2	5.1	3.1
152.5°	26.7	24.6	21.5	19.5	16.4	12.3	9.2	7.2	5.1	4.1	2.1
155°	21.5	19.5	17.4	14.4	12.3	9.2	7.2	5.1	4.1	3.1	2.1
157.5°	15.4	14.4	12.3	10.3	8.2	6.2	5.1	5.1	3.1	2.1	1.0
160°	10.3	9.2	8.2	6.2	5.1	5.1	4.1	3.1	2.1	2.1	1.0
162.5°	6.2	5.1	5.1	5.1	4.1	4.1	3.1	2.1	2.1	1.0	1.0
165°	4.1	4.1	4.1	3.1	3.1	3.1	2.1	1.0	1.0	1.0	1.0
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: P1213463

CATALOG NUMBER: 4SNLED-LD5-54HL-LW-UNV-L935-CD1-U

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
0°	972.0	972.0	972.0	972.0	972.0	972.0	972.0	972.0	972.0	972.0	972.0
2.5°	973.0	970.0	974.1	981.2	982.3	981.2	979.2	982.3	986.4	985.3	978.2
5°	971.0	966.9	971.0	978.2	978.2	977.1	976.1	979.2	983.3	982.3	976.1
7.5°	964.8	960.7	964.8	971.0	972.0	970.0	970.0	973.0	977.1	976.1	971.0
10°	956.6	952.5	954.6	961.8	963.8	961.8	961.8	964.8	970.0	968.9	962.8
12.5°	944.3	941.3	943.3	949.5	951.5	950.5	949.5	953.6	958.7	958.7	952.5
15°	931.0	926.9	928.9	936.1	937.1	935.1	936.1	939.2	945.4	945.4	940.2
17.5°	915.6	910.5	913.6	918.7	919.7	919.7	919.7	923.8	931.0	930.0	925.9
20°	898.2	891.0	893.1	898.2	900.2	900.2	900.2	907.4	912.5	912.5	908.4
22.5°	877.7	872.6	872.6	877.7	880.8	879.7	879.7	885.9	893.1	892.0	892.0
25°	854.1	850.0	847.9	854.1	855.1	856.1	858.2	864.4	872.6	872.6	873.6
27.5°	829.5	825.4	824.4	829.5	830.5	831.5	833.6	840.8	849.0	850.0	852.0
30°	805.9	799.8	797.7	801.8	803.9	804.9	804.9	816.2	823.3	826.4	830.5
32.5°	778.2	772.1	766.9	774.1	775.1	777.2	778.2	789.5	797.7	802.8	809.0
35°	750.5	740.3	738.2	743.4	745.4	746.4	748.5	760.8	772.1	776.2	784.4
37.5°	719.8	712.6	706.5	711.6	713.6	714.7	720.8	732.1	743.4	749.5	757.7
40°	691.1	681.8	676.7	679.8	681.8	682.9	690.0	702.3	715.7	722.9	733.1
42.5°	659.3	647.0	642.9	646.0	647.0	650.1	656.2	672.6	685.9	696.2	704.4
45°	627.5	618.3	609.0	612.1	613.1	615.2	624.4	641.9	656.2	668.5	677.7
47.5°	594.7	583.4	574.2	576.2	580.3	581.4	591.6	612.1	625.4	638.8	651.1
50°	561.9	546.5	539.3	539.3	541.4	546.5	559.8	580.3	594.7	610.1	623.4
52.5°	528.0	513.7	505.5	506.5	508.6	514.7	527.0	547.5	563.9	580.3	596.7
55°	494.2	478.8	470.6	468.6	470.6	478.8	493.2	514.7	531.1	550.6	568.0
57.5°	460.4	441.9	434.7	431.7	433.7	444.0	458.3	480.9	501.4	519.8	540.3
60°	423.5	409.1	396.8	389.6	394.8	408.1	423.5	447.0	468.6	489.1	511.6
62.5°	391.7	373.2	359.9	352.7	357.8	369.1	390.6	413.2	436.8	460.4	482.9
65°	355.8	337.3	322.0	314.8	319.9	333.2	354.8	379.4	405.0	428.6	455.2
67.5°	320.9	301.4	283.0	275.8	282.0	296.3	319.9	347.6	375.3	399.9	428.6
70°	287.1	265.6	246.1	241.0	245.1	264.5	287.1	314.8	343.5	372.2	401.9
72.5°	256.3	229.7	209.2	203.0	208.1	229.7	255.3	284.0	314.8	345.5	377.3
75°	220.4	195.8	173.3	166.1	172.3	191.7	223.5	254.3	287.1	319.9	349.6
77.5°	191.7	163.0	139.4	128.2	138.4	163.0	193.8	226.6	260.4	294.3	328.1
80°	162.0	132.3	106.6	94.3	105.6	132.3	163.0	198.9	236.9	270.7	301.4
82.5°	135.3	103.6	76.9	63.6	75.9	105.6	139.4	175.3	212.2	246.1	282.0
85°	110.7	77.9	50.2	35.9	53.3	80.0	115.9	152.8	190.7	225.6	260.4
87.5°	90.2	58.4	30.8	15.4	32.8	62.5	96.4	133.3	171.2	206.1	238.9
90°	73.8	42.0	16.4	2.1	19.5	47.2	80.0	115.9	151.7	187.6	220.4
92.5°	60.5	31.8	9.2	1.0	12.3	37.9	68.7	102.5	137.4	172.3	204.0
95°	50.2	24.6	6.2	1.0	9.2	29.7	58.4	91.3	124.1	157.9	189.7
97.5°	43.1	20.5	5.1	1.0	7.2	25.6	50.2	81.0	112.8	144.6	175.3
100°	36.9	16.4	4.1	1.0	6.2	21.5	44.1	71.8	101.5	132.3	162.0
102.5°	31.8	13.3	3.1	1.0	5.1	18.5	39.0	64.6	91.3	121.0	149.7
105°	27.7	11.3	3.1	1.0	4.1	16.4	34.9	57.4	84.1	110.7	138.4
107.5°	23.6	9.2	2.1	1.0	3.1	13.3	30.8	52.3	75.9	101.5	127.1
110°	20.5	8.2	2.1	1.0	3.1	12.3	26.7	47.2	68.7	92.3	116.9

TEST NUMBER: P1213463

CATALOG NUMBER: 4SNLED-LD5-54HL-LW-UNV-L935-CD1-U

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
112.5°	17.4	6.2	2.1	1.0	2.1	10.3	23.6	42.0	62.5	84.1	107.7
115°	15.4	5.1	1.0	1.0	2.1	9.2	21.5	37.9	56.4	76.9	98.4
117.5°	12.3	4.1	1.0	1.0	1.0	7.2	18.5	33.8	51.3	70.7	90.2
120°	10.3	4.1	1.0	1.0	1.0	6.2	16.4	29.7	46.1	63.6	82.0
122.5°	9.2	3.1	1.0	1.0	1.0	5.1	14.4	26.7	41.0	57.4	74.8
125°	8.2	3.1	1.0	1.0	1.0	4.1	12.3	23.6	36.9	51.3	67.7
127.5°	6.2	3.1	1.0	1.0	1.0	3.1	11.3	20.5	32.8	46.1	60.5
130°	5.1	2.1	1.0	1.0	1.0	3.1	9.2	18.5	28.7	41.0	54.3
132.5°	4.1	2.1	1.0	1.0	1.0	2.1	7.2	14.4	24.6	35.9	48.2
135°	4.1	2.1	1.0	1.0	1.0	2.1	5.1	12.3	20.5	30.8	41.0
137.5°	4.1	1.0	1.0	1.0	1.0	2.1	4.1	9.2	16.4	24.6	33.8
140°	3.1	1.0	1.0	1.0	1.0	1.0	3.1	7.2	13.3	20.5	28.7
142.5°	3.1	1.0	1.0	1.0	1.0	1.0	3.1	5.1	10.3	16.4	22.6
145°	2.1	1.0	1.0	1.0	1.0	1.0	2.1	4.1	8.2	12.3	18.5
147.5°	2.1	1.0	1.0	1.0	1.0	1.0	2.1	3.1	6.2	10.3	14.4
150°	2.1	1.0	1.0	1.0	1.0	1.0	2.1	3.1	4.1	7.2	11.3
152.5°	1.0	1.0	1.0	1.0	1.0	1.0	2.1	2.1	3.1	5.1	7.2
155°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	2.1	3.1	4.1	5.1
157.5°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	2.1	2.1	3.1	4.1
160°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	2.1	2.1	3.1
162.5°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	2.1	2.1
165°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
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: P1213463

CATALOG NUMBER: 4SNLED-LD5-54HL-LW-UNV-L935-CD1-U

CANDELA DISTRIBUTION (continued):

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
0°	972.0	972.0	972.0	972.0	972.0	972.0	972.0	972.0	972.0	972.0	972.0
2.5°	975.1	967.9	970.0	968.9	971.0	974.1	974.1	973.0	973.0	971.0	968.9
5°	973.0	965.9	968.9	967.9	970.0	973.0	973.0	972.0	972.0	968.9	967.9
7.5°	966.9	961.8	963.8	963.8	965.9	968.9	968.9	967.9	967.9	964.8	963.8
10°	960.7	954.6	957.7	957.7	959.7	963.8	963.8	962.8	962.8	959.7	958.7
12.5°	950.5	944.3	949.5	950.5	952.5	956.6	955.6	955.6	955.6	952.5	951.5
15°	938.2	934.1	939.2	940.2	943.3	948.4	948.4	948.4	948.4	945.4	944.3
17.5°	924.8	921.8	926.9	928.9	933.0	938.2	938.2	939.2	940.2	938.2	937.1
20°	909.5	907.4	912.5	916.6	922.8	927.9	930.0	931.0	933.0	931.0	930.0
22.5°	892.0	892.0	899.2	903.3	910.5	915.6	918.7	921.8	923.8	921.8	920.7
25°	872.6	875.6	882.8	890.0	898.2	903.3	906.4	910.5	912.5	911.5	910.5
27.5°	854.1	858.2	867.4	874.6	881.8	890.0	893.1	898.2	900.2	900.2	899.2
30°	832.6	838.7	849.0	857.2	866.4	874.6	878.7	883.8	886.9	884.9	885.9
32.5°	812.1	822.3	830.5	839.7	850.0	858.2	863.3	869.5	872.6	871.5	872.6
35°	789.5	799.8	811.0	820.3	832.6	840.8	847.9	853.1	857.2	856.1	856.1
37.5°	764.9	778.2	789.5	801.8	813.1	822.3	829.5	835.6	839.7	839.7	839.7
40°	741.3	755.7	766.9	781.3	795.7	803.9	812.1	818.2	822.3	823.3	824.4
42.5°	715.7	731.1	744.4	759.8	774.1	784.4	793.6	800.8	804.9	806.9	805.9
45°	692.1	706.5	721.8	739.3	752.6	762.8	774.1	782.3	786.4	787.5	788.5
47.5°	665.4	681.8	699.3	716.7	730.0	743.4	753.6	761.8	765.9	769.0	769.0
50°	639.8	657.2	676.7	695.2	709.5	722.9	733.1	742.3	747.5	749.5	750.5
52.5°	616.2	632.6	653.1	671.6	685.9	699.3	712.6	722.9	728.0	730.0	730.0
55°	587.5	608.0	630.6	648.0	663.4	678.8	692.1	702.3	707.5	710.6	712.6
57.5°	560.9	582.4	606.0	624.4	642.9	657.2	669.5	682.9	687.0	691.1	692.1
60°	535.2	556.8	579.3	599.8	618.3	633.7	648.0	659.3	666.5	668.5	670.6
62.5°	508.6	531.1	554.7	575.2	594.7	613.1	626.5	636.7	644.9	648.0	650.1
65°	482.9	506.5	530.1	551.6	572.1	590.6	603.9	614.2	622.4	627.5	628.5
67.5°	455.2	480.9	505.5	528.0	548.6	568.0	581.4	591.6	599.8	606.0	607.0
70°	429.6	456.3	480.9	505.5	526.0	545.5	559.8	570.1	579.3	583.4	585.5
72.5°	405.0	432.7	458.3	482.9	503.4	522.9	538.3	548.6	557.8	562.9	563.9
75°	381.4	409.1	436.8	460.4	481.9	501.4	516.8	528.0	536.2	541.4	543.4
77.5°	357.8	386.5	414.2	437.8	460.4	479.9	493.2	506.5	514.7	520.9	520.9
80°	334.3	364.0	392.7	416.3	438.8	456.3	471.7	485.0	493.2	499.3	499.3
82.5°	313.8	342.5	370.1	393.7	416.3	435.8	451.1	463.4	472.7	476.8	477.8
85°	290.2	322.0	347.6	373.2	394.8	413.2	428.6	441.9	450.1	454.2	456.3
87.5°	270.7	301.4	329.1	351.7	373.2	391.7	409.1	420.4	428.6	433.7	435.8
90°	252.2	282.0	309.6	332.2	354.8	372.2	388.6	399.9	409.1	413.2	415.3
92.5°	235.8	265.6	292.2	314.8	336.3	355.8	371.2	382.4	390.6	394.8	397.8
95°	220.4	249.2	274.8	299.4	319.9	337.3	353.7	365.0	374.2	377.3	380.4
97.5°	205.1	232.7	258.4	282.0	303.5	319.9	335.3	346.6	353.7	358.9	361.9
100°	191.7	218.4	243.0	265.6	286.1	301.4	317.9	328.1	335.3	339.4	343.5
102.5°	177.4	204.0	227.6	249.2	270.7	285.0	300.4	310.7	316.8	324.0	324.0
105°	165.1	189.7	213.3	233.8	252.2	269.7	283.0	293.2	300.4	305.5	305.5
107.5°	151.7	176.4	198.9	220.4	237.9	254.3	266.6	275.8	284.0	287.1	290.2
110°	141.5	163.0	185.6	206.1	222.5	237.9	250.2	260.4	267.6	270.7	272.7

TEST NUMBER: P1213463

CATALOG NUMBER: 4SNLED-LD5-54HL-LW-UNV-L935-CD1-U

CANDELA DISTRIBUTION (continued):

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
112.5°	129.2	151.7	172.3	191.7	208.1	222.5	234.8	243.0	250.2	254.3	255.3
115°	118.9	140.5	158.9	177.4	194.8	207.1	218.4	226.6	233.8	236.9	238.9
117.5°	109.7	129.2	147.6	163.0	179.4	192.8	204.0	211.2	217.4	221.5	223.5
120°	100.5	118.9	135.3	150.7	166.1	178.4	188.7	195.8	203.0	206.1	206.1
122.5°	91.3	108.7	124.1	138.4	152.8	164.1	175.3	181.5	187.6	190.7	190.7
125°	83.1	99.5	113.8	127.1	140.5	150.7	160.0	167.1	173.3	175.3	175.3
127.5°	74.8	90.2	103.6	115.9	127.1	137.4	146.6	153.8	158.9	161.0	161.0
130°	67.7	81.0	93.3	105.6	116.9	125.1	134.3	140.5	143.5	146.6	147.6
132.5°	60.5	72.8	84.1	94.3	105.6	113.8	121.0	127.1	130.2	133.3	134.3
135°	53.3	64.6	74.8	85.1	94.3	102.5	108.7	113.8	117.9	120.0	121.0
137.5°	45.1	57.4	66.6	74.8	85.1	91.3	98.4	101.5	105.6	107.7	107.7
140°	37.9	47.2	57.4	65.6	73.8	80.0	86.1	91.3	94.3	95.4	95.4
142.5°	30.8	39.0	47.2	57.4	64.6	69.7	75.9	80.0	82.0	83.1	84.1
145°	24.6	30.8	37.9	47.2	55.4	61.5	64.6	68.7	70.7	71.8	72.8
147.5°	18.5	24.6	30.8	36.9	45.1	51.3	54.3	58.4	60.5	61.5	61.5
150°	14.4	18.5	22.6	28.7	34.9	42.0	46.1	49.2	50.2	51.3	51.3
152.5°	10.3	14.4	17.4	21.5	25.6	31.8	37.9	40.0	41.0	42.0	42.0
155°	7.2	10.3	12.3	15.4	18.5	23.6	28.7	31.8	32.8	33.8	33.8
157.5°	5.1	7.2	8.2	11.3	13.3	15.4	19.5	24.6	25.6	25.6	25.6
160°	3.1	4.1	5.1	7.2	8.2	10.3	12.3	15.4	18.5	18.5	18.5
162.5°	2.1	3.1	3.1	4.1	4.1	6.2	7.2	8.2	11.3	12.3	12.3
165°	1.0	2.1	2.1	2.1	2.1	2.1	3.1	3.1	5.1	6.2	6.2
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: P1213463

CATALOG NUMBER: 4SNLED-LD5-54HL-LW-UNV-L935-CD1-U

CANDELA DISTRIBUTION (continued):

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°
0°	972.0	972.0	972.0	972.0	972.0	972.0	972.0	972.0	972.0	972.0	972.0
2.5°	970.0	972.0	971.0	971.0	971.0	973.0	971.0	961.8	963.8	965.9	967.9
5°	968.9	970.0	970.0	968.9	968.9	971.0	968.9	959.7	961.8	963.8	964.8
7.5°	964.8	965.9	965.9	965.9	964.8	966.9	963.8	955.6	955.6	957.7	958.7
10°	959.7	961.8	960.7	959.7	959.7	959.7	957.7	948.4	948.4	949.5	950.5
12.5°	953.6	953.6	953.6	952.5	951.5	951.5	949.5	940.2	939.2	941.3	940.2
15°	945.4	947.4	945.4	944.3	942.3	942.3	939.2	930.0	927.9	928.9	927.9
17.5°	938.2	939.2	937.1	935.1	933.0	932.0	928.9	918.7	915.6	916.6	914.6
20°	931.0	931.0	928.9	926.9	923.8	920.7	916.6	906.4	901.3	901.3	897.2
22.5°	921.8	921.8	919.7	916.6	913.6	909.5	905.4	895.1	886.9	884.9	881.8
25°	911.5	910.5	909.5	906.4	900.2	896.1	892.0	880.8	871.5	867.4	862.3
27.5°	899.2	899.2	896.1	893.1	886.9	881.8	876.7	866.4	854.1	849.0	841.8
30°	885.9	885.9	882.8	878.7	872.6	866.4	860.2	847.9	835.6	828.5	820.3
32.5°	872.6	871.5	868.5	864.4	858.2	849.0	843.8	831.5	817.2	809.0	797.7
35°	856.1	855.1	852.0	846.9	838.7	831.5	823.3	812.1	795.7	785.4	773.1
37.5°	839.7	838.7	836.7	829.5	821.3	813.1	802.8	791.6	776.2	762.8	750.5
40°	823.3	822.3	818.2	813.1	802.8	792.6	782.3	771.0	754.6	739.3	725.9
42.5°	805.9	804.9	799.8	793.6	782.3	772.1	759.8	747.5	731.1	712.6	699.3
45°	788.5	786.4	781.3	774.1	761.8	750.5	738.2	723.9	707.5	690.0	672.6
47.5°	770.0	766.9	761.8	751.6	741.3	729.0	714.7	699.3	682.9	663.4	644.9
50°	749.5	747.5	741.3	732.1	719.8	707.5	691.1	675.7	656.2	637.8	615.2
52.5°	730.0	725.9	720.8	710.6	698.2	684.9	667.5	649.0	629.6	612.1	588.5
55°	709.5	707.5	700.3	692.1	676.7	661.3	644.9	625.4	603.9	583.4	560.9
57.5°	690.0	685.9	679.8	668.5	655.2	639.8	622.4	601.9	578.3	556.8	532.1
60°	670.6	664.4	657.2	647.0	632.6	616.2	597.8	576.2	552.7	529.1	503.4
62.5°	649.0	643.9	635.7	625.4	611.1	593.7	574.2	551.6	529.1	504.5	476.8
65°	627.5	622.4	614.2	603.9	589.6	570.1	549.6	527.0	501.4	477.8	448.1
67.5°	606.0	600.8	591.6	580.3	566.0	547.5	526.0	502.4	476.8	451.1	420.4
70°	584.4	578.3	570.1	557.8	543.4	523.9	502.4	477.8	452.2	424.5	393.7
72.5°	562.9	557.8	547.5	536.2	520.9	501.4	479.9	455.2	428.6	399.9	369.1
75°	541.4	535.2	528.0	514.7	498.3	479.9	457.3	432.7	404.0	376.3	344.5
77.5°	519.8	514.7	505.5	492.2	476.8	457.3	434.7	410.1	381.4	352.7	318.9
80°	498.3	492.2	485.0	472.7	455.2	435.8	412.2	387.6	358.9	329.1	295.3
82.5°	476.8	470.6	462.4	450.1	433.7	414.2	391.7	365.0	336.3	305.5	273.8
85°	455.2	450.1	440.9	428.6	411.2	391.7	369.1	345.5	314.8	284.0	252.2
87.5°	433.7	428.6	419.4	407.1	390.6	371.2	348.6	324.0	294.3	265.6	230.7
90°	413.2	409.1	399.9	387.6	371.2	351.7	331.2	304.5	275.8	247.1	214.3
92.5°	394.8	390.6	382.4	370.1	355.8	334.3	313.8	288.1	259.4	229.7	197.9
95°	378.3	373.2	365.0	353.7	336.3	317.9	297.3	271.7	244.0	214.3	183.5
97.5°	359.9	354.8	346.6	334.3	319.9	300.4	279.9	255.3	227.6	199.9	169.2
100°	341.4	336.3	327.1	316.8	302.5	283.0	263.5	238.9	213.3	186.6	156.9
102.5°	323.0	317.9	309.6	299.4	285.0	267.6	248.1	224.5	198.9	172.3	144.6
105°	305.5	300.4	292.2	282.0	268.6	251.2	230.7	210.2	185.6	160.0	133.3
107.5°	288.1	283.0	275.8	265.6	252.2	235.8	216.3	194.8	172.3	147.6	122.0
110°	270.7	266.6	258.4	249.2	235.8	219.4	202.0	181.5	158.9	136.4	111.8

TEST NUMBER: P1213463

CATALOG NUMBER: 4SNLED-LD5-54HL-LW-UNV-L935-CD1-U

CANDELA DISTRIBUTION (continued):

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°
112.5°	254.3	250.2	242.0	231.7	220.4	205.1	187.6	168.2	146.6	125.1	101.5
115°	237.9	232.7	225.6	216.3	205.1	190.7	174.3	156.9	135.3	114.8	93.3
117.5°	221.5	217.4	210.2	201.0	190.7	176.4	161.0	144.6	124.1	104.6	85.1
120°	205.1	202.0	194.8	186.6	176.4	163.0	148.7	132.3	113.8	95.4	76.9
122.5°	189.7	186.6	179.4	172.3	162.0	149.7	136.4	121.0	104.6	87.2	70.7
125°	175.3	171.2	165.1	157.9	148.7	137.4	124.1	109.7	94.3	79.0	63.6
127.5°	160.0	156.9	152.8	144.6	135.3	125.1	112.8	100.5	86.1	71.8	57.4
130°	147.6	143.5	138.4	132.3	124.1	113.8	102.5	90.2	77.9	64.6	50.2
132.5°	133.3	129.2	125.1	118.9	111.8	102.5	92.3	81.0	69.7	57.4	45.1
135°	120.0	116.9	112.8	106.6	99.5	92.3	82.0	71.8	61.5	50.2	40.0
137.5°	107.7	104.6	100.5	96.4	89.2	82.0	72.8	63.6	54.3	44.1	34.9
140°	95.4	93.3	89.2	85.1	79.0	71.8	63.6	55.4	47.2	37.9	29.7
142.5°	83.1	81.0	77.9	73.8	68.7	62.5	55.4	48.2	40.0	32.8	25.6
145°	71.8	70.7	67.7	63.6	59.5	53.3	47.2	41.0	33.8	27.7	20.5
147.5°	60.5	59.5	57.4	54.3	50.2	45.1	40.0	33.8	28.7	22.6	16.4
150°	50.2	49.2	48.2	44.1	42.0	36.9	32.8	27.7	23.6	17.4	13.3
152.5°	41.0	41.0	39.0	35.9	33.8	29.7	26.7	22.6	18.5	14.4	10.3
155°	32.8	31.8	30.8	28.7	26.7	23.6	20.5	17.4	14.4	10.3	7.2
157.5°	25.6	24.6	23.6	21.5	19.5	18.5	15.4	12.3	9.2	7.2	5.1
160°	18.5	17.4	16.4	15.4	14.4	12.3	10.3	8.2	6.2	4.1	3.1
162.5°	12.3	11.3	11.3	10.3	9.2	7.2	6.2	5.1	4.1	3.1	2.1
165°	6.2	6.2	5.1	5.1	4.1	3.1	3.1	3.1	2.1	2.1	1.0
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

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CANDELA DISTRIBUTION (continued):

	330°	335°	340°	345°	350°	355°	360°
0°	972.0	972.0	972.0	972.0	972.0	972.0	972.0
2.5°	966.9	966.9	971.0	970.0	966.9	973.0	980.2
5°	963.8	963.8	966.9	966.9	963.8	970.0	976.1
7.5°	958.7	957.7	960.7	960.7	956.6	961.8	968.9
10°	949.5	948.4	951.5	951.5	947.4	952.5	958.7
12.5°	939.2	937.1	940.2	939.2	935.1	940.2	946.4
15°	925.9	924.8	926.9	924.8	920.7	925.9	932.0
17.5°	912.5	909.5	910.5	910.5	903.3	908.4	913.6
20°	895.1	891.0	892.0	891.0	885.9	889.0	895.1
22.5°	877.7	871.5	871.5	870.5	864.4	868.5	873.6
25°	856.1	849.0	849.0	847.9	840.8	843.8	849.0
27.5°	834.6	827.4	824.4	823.3	816.2	816.2	823.3
30°	812.1	801.8	799.8	796.7	789.5	789.5	795.7
32.5°	790.5	776.2	772.1	768.0	760.8	759.8	766.9
35°	761.8	750.5	743.4	739.3	731.1	729.0	735.2
37.5°	738.2	723.9	713.6	708.5	700.3	697.2	705.4
40°	712.6	697.2	683.9	680.8	668.5	664.4	671.6
42.5°	683.9	667.5	654.2	648.0	638.8	634.7	635.7
45°	655.2	637.8	623.4	615.2	606.0	598.8	602.9
47.5°	625.4	610.1	592.6	580.3	569.1	563.9	566.0
50°	595.7	577.3	560.9	547.5	534.2	528.0	532.1
52.5°	566.0	546.5	528.0	513.7	498.3	492.2	493.2
55°	537.3	516.8	495.2	479.9	465.5	456.3	454.2
57.5°	508.6	486.0	463.4	446.0	427.6	419.4	416.3
60°	477.8	454.2	430.6	410.1	390.6	381.4	377.3
62.5°	449.1	423.5	396.8	375.3	355.8	343.5	340.4
65°	421.4	391.7	365.0	340.4	318.9	305.5	301.4
67.5°	391.7	360.9	332.2	305.5	285.0	267.6	265.6
70°	364.0	331.2	299.4	271.7	249.2	231.7	223.5
72.5°	336.3	302.5	269.7	239.9	211.2	194.8	188.7
75°	309.6	274.8	239.9	209.2	177.4	157.9	151.7
77.5°	285.0	249.2	212.2	178.4	148.7	124.1	115.9
80°	261.5	224.5	185.6	150.7	118.9	92.3	83.1
82.5°	236.9	202.0	162.0	125.1	92.3	64.6	53.3
85°	215.3	180.5	140.5	103.6	70.7	41.0	28.7
87.5°	197.9	160.0	124.1	87.2	53.3	23.6	8.2
90°	180.5	143.5	107.7	71.8	40.0	13.3	1.0
92.5°	165.1	130.2	94.3	61.5	30.8	9.2	1.0
95°	150.7	116.9	83.1	51.3	24.6	6.2	1.0
97.5°	137.4	105.6	73.8	44.1	20.5	5.1	1.0
100°	126.1	95.4	65.6	39.0	17.4	4.1	1.0
102.5°	114.8	86.1	58.4	33.8	15.4	3.1	1.0
105°	105.6	77.9	52.3	30.8	13.3	3.1	1.0
107.5°	96.4	70.7	47.2	26.7	11.3	2.1	1.0
110°	87.2	64.6	42.0	23.6	10.3	2.1	1.0



TEST NUMBER: P1213463

CATALOG NUMBER: 4SNLED-LD5-54HL-LW-UNV-L935-CD1-U

CANDELA DISTRIBUTION (continued):

	330°	335°	340°	345°	350°	355°	360°
112.5°	80.0	58.4	37.9	21.5	8.2	2.1	1.0
115°	72.8	52.3	33.8	18.5	7.2	1.0	1.0
117.5°	65.6	47.2	29.7	16.4	6.2	1.0	1.0
120°	59.5	42.0	26.7	14.4	5.1	1.0	1.0
122.5°	53.3	37.9	23.6	12.3	4.1	1.0	1.0
125°	48.2	33.8	20.5	10.3	3.1	1.0	1.0
127.5°	43.1	29.7	18.5	9.2	3.1	1.0	1.0
130°	37.9	26.7	15.4	7.2	2.1	1.0	1.0
132.5°	33.8	22.6	13.3	6.2	2.1	1.0	1.0
135°	29.7	19.5	11.3	4.1	2.1	1.0	1.0
137.5°	25.6	16.4	9.2	3.1	1.0	1.0	1.0
140°	21.5	14.4	7.2	3.1	1.0	1.0	1.0
142.5°	18.5	11.3	5.1	2.1	1.0	1.0	1.0
145°	14.4	9.2	4.1	2.1	1.0	1.0	1.0
147.5°	11.3	7.2	3.1	2.1	1.0	1.0	1.0
150°	8.2	5.1	3.1	1.0	1.0	1.0	1.0
152.5°	6.2	4.1	2.1	1.0	1.0	1.0	1.0
155°	4.1	3.1	2.1	1.0	1.0	1.0	1.0
157.5°	3.1	2.1	1.0	1.0	1.0	1.0	1.0
160°	2.1	1.0	1.0	1.0	1.0	1.0	1.0
162.5°	1.0	1.0	1.0	1.0	1.0	1.0	1.0
165°	1.0	1.0	1.0	1.0	1.0	1.0	1.0
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)