

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: P1213009

Luminaire Tested: 4SNLED-LD5-16SL-LW-UNV-L930-CD1-U

Issue Date: 3/29/2018

Test Information

Test Method: LM-79-2019
Report Number: P1213009
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-LD5-16SL-LW-UNV-L930-CD1-U
Description: 4FT LINEAR SNLED LED FIXTURE
WIDE FROSTED LENS
Light Source: -
Ballast/Driver: -

Summary

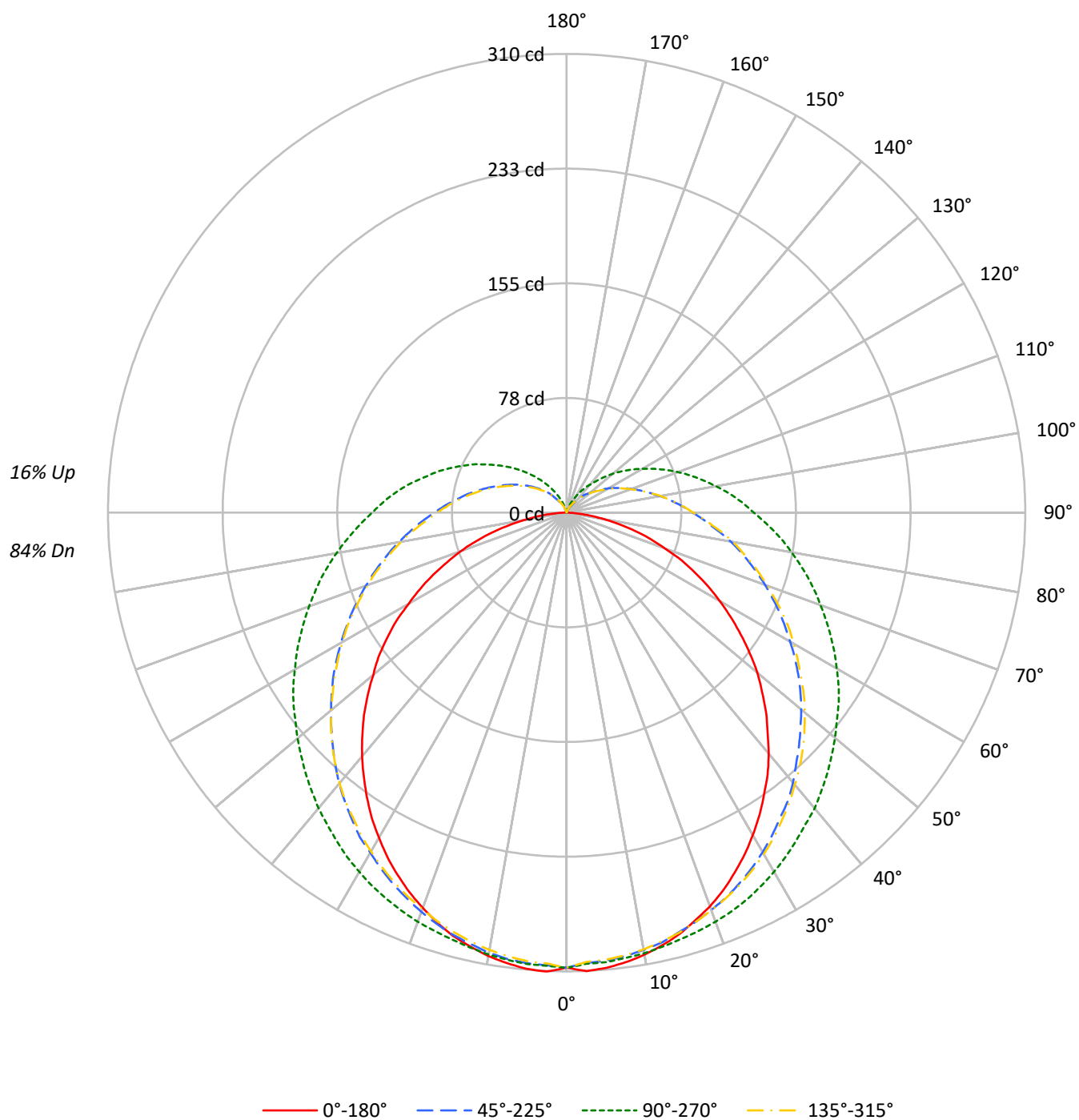
Lumens per Lamp: N/A
Luminaire Lumens: 1336.0 lumens
Efficiency: N/A
Efficacy: 102.8 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.36 / 1.44
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.12')
CIE Type: Semi-Direct

Input Watts (W): 13
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°	2485	2485	2485	2485
5°	2498	2395	2504	2405
10°	2475	2327	2483	2334
15°	2447	2268	2457	2271
20°	2408	2226	2417	2226
25°	2361	2188	2375	2185
30°	2307	2150	2325	2150
35°	2245	2113	2271	2116
40°	2184	2092	2211	2092
45°	2113	2070	2147	2072
50°	2041	2057	2068	2062
55°	1938	2059	1999	2067
60°	1831	2065	1890	2077
65°	1710	2086	1785	2106
70°	1538	2124	1658	2154
75°	1342	2194	1468	2235
80°	1040	2296	1178	2350
85°	622	2462	779	2529

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 270°

Vertical Angle: 90°

Luminance: 2829 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	29.1	2.2
10°-20°	83.7	6.3
20°-30°	128.4	9.6
30°-40°	158.4	11.9
40°-50°	171.8	12.9
50°-60°	169.3	12.7
60°-70°	153.1	11.5
70°-80°	127.5	9.5
80°-90°	98.8	7.4
90°-100°	74.9	5.6
100°-110°	55.4	4.1
110°-120°	38.6	2.9
120°-130°	24.6	1.8
130°-140°	13.8	1.0
140°-150°	6.3	0.5
150°-160°	2.0	0.1
160°-170°	0.2	0.0
170°-180°	0.0	0.0
0°-30°	241.2	18.1
0°-40°	399.6	29.9
0°-60°	740.7	55.4
0°-90°	1120.2	83.8
90°-120°	168.9	12.6
90°-150°	213.6	16.0
90°-180°	216.0	16.2
0°-180°	1336.0	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	308	308	308	308	308	
5°	309	305	310	306	309	29
15°	295	298	296	299	295	83
25°	269	288	270	288	269	124
35°	233	270	235	271	233	146
45°	191	249	194	249	191	147
55°	144	224	148	225	144	129
65°	95	197	100	199	95	95
75°	48	169	52	172	48	51
85°	9	140	11	144	9	11
90°	0	126	1	131	0	0
95°	0	115	0	120	0	0
105°	0	91	0	97	0	0
115°	0	69	0	76	0	0
125°	0	50	0	56	0	0
135°	0	32	0	38	0	0
145°	0	19	0	23	0	0
155°	0	8	0	11	0	0
165°	0	1	0	2	0	0
175°	0	0	0	0	0	0
180°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	307.5	307.5	307.5	307.5	307.5	307.5	307.5	307.5	307.5	307.5	307.5
2.5°	310.1	310.1	309.8	309.1	309.5	310.4	309.8	308.2	307.2	304.6	305.2
5°	308.8	308.8	308.5	307.8	308.2	309.5	308.8	307.5	306.2	303.9	304.9
7.5°	306.5	306.5	306.2	305.6	306.2	307.5	306.9	305.6	304.6	302.3	303.3
10°	303.3	303.6	303.3	302.3	303.6	304.9	304.6	303.0	302.0	300.0	301.0
12.5°	299.4	299.7	299.4	299.1	299.7	301.7	301.0	299.7	299.1	297.5	298.4
15°	294.9	295.2	294.5	294.5	295.2	297.1	297.1	295.8	295.2	293.6	295.5
17.5°	289.0	289.3	289.0	289.0	289.7	291.6	291.9	291.3	290.6	290.0	291.9
20°	283.2	282.9	282.9	282.5	283.8	286.7	286.4	286.4	285.8	285.8	288.0
22.5°	276.4	276.4	276.0	276.0	277.7	280.3	280.3	280.9	280.3	281.6	283.5
25°	268.6	268.9	268.6	269.2	270.5	273.4	273.8	274.7	275.1	276.4	278.6
27.5°	260.5	260.8	260.5	261.1	263.4	265.7	267.3	268.6	268.9	270.9	273.8
30°	251.7	251.7	252.0	252.7	255.3	258.9	260.1	261.8	261.8	265.0	267.9
32.5°	242.6	242.6	242.6	243.9	246.8	251.1	252.7	254.6	255.3	258.5	261.8
35°	232.6	232.9	232.9	233.9	237.8	242.0	244.3	246.5	247.8	251.7	255.0
37.5°	223.2	223.8	222.8	224.1	229.7	233.2	235.8	238.1	240.4	245.6	248.1
40°	212.5	213.1	212.8	215.4	219.9	224.5	227.4	229.7	232.9	238.1	241.0
42.5°	201.1	201.8	202.4	205.3	210.2	214.7	218.3	221.2	225.1	229.7	234.5
45°	190.7	190.7	191.7	195.3	200.5	205.3	209.5	212.8	217.3	222.2	227.1
47.5°	179.1	179.4	180.7	184.9	190.4	196.2	200.1	204.4	209.2	214.4	219.9
50°	168.4	168.4	170.3	174.8	180.0	186.5	190.7	195.6	200.8	207.0	212.5
52.5°	156.0	156.7	159.6	163.8	170.6	176.5	181.3	186.5	192.7	199.2	205.3
55°	143.7	145.0	147.3	153.1	160.2	165.8	171.6	178.1	183.9	191.1	198.2
57.5°	131.7	132.7	136.2	142.1	149.5	156.3	162.5	168.7	175.8	182.9	190.4
60°	119.4	120.7	124.9	130.7	138.8	146.0	153.1	159.6	167.1	174.5	182.3
62.5°	107.7	108.7	113.5	120.3	128.5	136.2	143.4	151.2	159.3	166.4	174.2
65°	95.4	97.0	102.5	108.7	118.1	125.9	134.0	142.4	150.8	158.6	166.1
67.5°	84.0	85.0	90.8	98.0	107.4	116.1	124.6	133.6	142.4	150.5	158.0
70°	70.7	74.0	79.8	87.3	97.3	106.4	115.5	124.9	134.3	142.7	149.9
72.5°	59.7	62.3	68.8	76.9	86.6	97.3	106.7	116.8	126.2	134.9	142.4
75°	48.0	50.6	58.1	67.1	77.2	88.6	98.3	108.7	118.4	127.2	134.9
77.5°	36.7	39.9	48.0	57.4	68.4	80.1	90.2	100.6	110.6	120.0	127.8
80°	26.3	29.8	38.6	49.3	60.0	71.7	82.7	93.1	103.2	112.6	120.7
82.5°	16.9	20.8	30.2	40.9	52.2	63.9	75.3	85.6	95.7	105.1	113.5
85°	9.1	13.3	23.0	33.7	45.1	56.8	68.1	79.1	88.9	97.6	106.7
87.5°	2.6	7.8	17.2	27.9	39.6	50.3	61.3	72.3	82.1	91.5	99.6
90°	0.3	4.5	13.0	23.0	34.4	44.8	55.8	66.2	75.9	85.3	93.4
92.5°	0.3	2.9	10.1	19.1	29.5	40.2	51.3	61.3	70.4	79.8	87.9
95°	0.3	2.3	8.1	16.2	26.0	36.0	46.4	56.1	65.5	74.3	82.4
97.5°	0.3	1.6	6.5	13.9	22.7	32.1	42.2	51.9	61.0	69.4	76.9
100°	0.3	1.3	5.2	12.0	19.8	28.9	38.0	47.4	56.1	64.2	72.0
102.5°	0.3	1.0	4.5	10.1	17.5	25.6	34.4	43.1	51.6	59.4	67.1
105°	0.3	1.0	3.9	8.8	15.6	23.0	31.1	39.6	47.4	54.8	62.0
107.5°	0.3	0.6	3.2	7.5	13.6	20.8	28.2	36.3	43.5	50.6	57.4
110°	0.3	0.6	2.6	6.8	12.0	18.5	25.6	33.1	39.9	46.7	53.2

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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	0.3	0.6	2.3	5.8	10.4	16.5	23.0	29.8	36.3	43.1	49.0
115°	0.3	0.6	1.9	5.2	9.7	14.3	20.8	26.9	33.4	39.6	45.1
117.5°	0.3	0.6	1.6	4.2	8.4	13.0	18.2	24.3	30.2	36.0	41.2
120°	0.3	0.6	1.3	3.9	7.5	11.7	16.2	21.7	27.2	32.8	38.3
122.5°	0.3	0.3	1.3	3.2	6.5	10.4	14.9	19.1	24.3	29.5	34.4
125°	0.3	0.3	1.3	2.9	5.5	9.4	13.3	17.2	21.7	26.3	30.5
127.5°	0.3	0.3	1.0	2.3	4.9	8.1	11.7	15.9	19.1	23.4	27.6
130°	0.3	0.3	1.0	1.9	4.2	6.8	10.4	13.9	17.8	20.8	24.3
132.5°	0.3	0.3	1.0	1.6	3.2	5.5	8.8	12.0	15.6	18.8	21.7
135°	0.3	0.3	0.6	1.3	2.6	4.5	7.1	10.1	13.6	16.9	19.8
137.5°	0.3	0.3	0.6	1.3	1.9	3.9	5.5	8.1	11.4	14.3	17.2
140°	0.3	0.3	0.6	1.0	1.6	2.9	4.5	6.5	9.1	11.7	14.9
142.5°	0.3	0.3	0.3	1.0	1.3	2.3	3.6	5.2	7.1	9.4	12.0
145°	0.3	0.3	0.3	1.0	1.3	1.6	2.9	4.2	5.5	7.1	9.4
147.5°	0.3	0.3	0.3	0.6	1.0	1.3	2.3	3.2	4.2	5.5	6.8
150°	0.3	0.3	0.3	0.6	1.0	1.3	1.6	2.3	3.2	4.5	5.5
152.5°	0.3	0.3	0.3	0.6	0.6	1.0	1.3	1.6	2.3	3.2	3.9
155°	0.3	0.3	0.3	0.3	0.6	1.0	1.3	1.3	1.6	2.3	2.9
157.5°	0.3	0.3	0.3	0.3	0.6	0.6	1.0	1.0	1.3	1.3	1.9
160°	0.3	0.3	0.3	0.3	0.3	0.6	0.6	1.0	1.0	1.0	1.0
162.5°	0.3	0.3	0.3	0.3	0.3	0.3	0.6	0.6	0.6	1.0	1.0
165°	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.6	0.6	0.6
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°	307.5	307.5	307.5	307.5	307.5	307.5	307.5	307.5	307.5	307.5	307.5
2.5°	305.2	305.6	306.5	306.5	305.9	305.9	305.6	305.2	305.6	306.2	306.2
5°	304.6	304.9	305.9	306.2	305.6	305.2	305.2	304.9	305.2	305.9	305.9
7.5°	303.3	303.6	304.6	304.9	304.3	304.3	303.9	303.6	304.3	304.6	304.6
10°	301.3	301.7	303.0	303.3	303.0	302.6	302.6	302.3	302.6	303.3	303.3
12.5°	298.7	299.4	301.0	301.0	301.0	300.7	300.7	300.4	300.7	301.3	301.0
15°	295.8	297.1	298.4	299.1	299.1	299.1	298.7	298.4	299.1	299.4	299.1
17.5°	292.6	294.2	296.2	296.8	296.8	297.1	296.8	296.5	297.1	297.1	296.8
20°	289.3	291.0	292.9	293.6	294.2	294.5	294.5	294.2	294.5	294.9	294.5
22.5°	285.1	287.1	289.3	290.3	291.0	291.6	291.6	291.6	291.9	292.3	291.6
25°	280.6	282.9	285.5	286.4	287.7	288.0	288.4	288.4	288.7	289.0	288.0
27.5°	275.7	278.3	280.9	282.5	283.5	284.2	284.2	284.5	284.8	285.1	284.2
30°	269.9	273.8	276.0	277.3	278.6	279.6	279.9	280.3	280.6	280.9	279.9
32.5°	264.7	267.9	270.9	272.5	274.1	275.4	275.7	275.7	276.4	276.4	275.4
35°	258.5	262.4	265.3	267.0	268.9	269.9	270.5	270.5	271.2	271.2	270.2
37.5°	252.4	256.3	259.5	261.4	263.7	265.0	265.3	265.3	266.0	266.0	264.7
40°	245.9	250.1	253.7	255.9	257.9	259.5	259.8	260.8	260.8	260.5	259.2
42.5°	239.4	243.3	247.2	249.8	252.4	254.0	254.6	255.0	255.0	254.6	253.7
45°	232.3	236.8	240.4	243.6	246.2	247.8	248.8	249.1	249.1	248.5	247.5
47.5°	225.4	230.0	233.6	237.1	239.7	241.7	242.6	243.0	242.6	242.3	241.3
50°	218.3	223.5	227.1	230.6	233.2	234.8	236.5	236.8	236.5	236.1	234.2
52.5°	210.8	216.4	220.3	223.8	226.7	228.7	230.0	230.3	230.3	229.7	228.4
55°	203.4	208.2	213.1	217.0	220.3	222.2	223.8	224.5	223.8	223.2	221.5
57.5°	196.6	201.1	206.0	210.2	213.4	216.0	217.3	218.0	217.3	216.4	214.7
60°	188.5	193.3	198.8	202.7	206.3	208.9	209.5	210.8	210.2	209.2	207.6
62.5°	180.7	186.5	191.4	196.2	199.2	202.1	203.4	204.0	203.4	202.4	200.8
65°	172.6	179.1	183.9	188.8	192.0	194.9	196.6	196.9	196.2	195.3	193.7
67.5°	165.1	171.3	176.5	181.7	184.6	187.5	189.1	189.8	189.1	187.8	186.2
70°	157.6	163.8	170.0	173.9	177.4	180.7	181.7	182.6	182.0	180.7	178.7
72.5°	150.2	156.7	162.8	166.7	170.6	173.5	174.8	175.8	175.2	173.9	171.6
75°	142.4	149.2	155.4	159.6	163.5	166.4	167.7	168.7	168.0	166.7	164.1
77.5°	135.3	142.1	147.9	152.5	156.3	158.9	161.2	161.5	160.9	159.6	157.0
80°	127.8	134.6	140.8	145.3	149.2	151.8	153.4	154.4	153.8	152.5	149.9
82.5°	121.3	127.5	133.6	138.2	142.1	145.3	146.6	147.6	147.3	145.3	143.4
85°	114.2	121.3	126.2	131.0	134.9	138.2	139.2	140.5	140.1	138.5	135.9
87.5°	107.0	114.2	120.0	124.9	128.5	131.0	132.7	133.3	133.0	131.4	128.5
90°	101.2	107.7	113.5	118.7	121.6	124.6	126.2	126.5	126.5	124.6	122.3
92.5°	95.7	101.9	107.7	112.6	116.1	118.7	120.0	120.7	120.3	118.7	116.1
95°	89.5	96.3	101.9	106.7	110.3	112.9	114.2	114.8	114.5	112.9	110.3
97.5°	84.3	90.5	96.0	100.6	104.1	106.7	108.0	108.7	108.7	107.0	104.4
100°	79.1	85.3	90.5	95.0	98.3	100.9	102.2	102.5	102.2	100.9	98.3
102.5°	74.0	79.8	85.0	89.2	92.8	95.0	96.3	96.7	96.7	95.0	92.4
105°	68.8	74.6	79.5	84.0	86.9	89.2	90.2	91.1	90.8	89.5	86.9
107.5°	63.9	69.7	74.3	78.5	81.4	83.7	84.7	85.6	85.3	84.0	81.4
110°	59.4	64.9	69.1	73.3	75.9	78.2	79.8	80.1	79.5	78.2	75.9

TEST NUMBER: P1213009

CATALOG NUMBER: 4SNLED-LD5-16SL-LW-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
112.5°	55.1	60.0	64.2	68.1	71.0	72.7	74.0	74.6	74.0	72.7	71.0
115°	50.6	55.5	59.7	63.3	65.8	67.8	68.8	69.4	68.8	67.5	65.8
117.5°	46.4	50.9	55.1	58.7	61.0	62.6	63.6	64.2	63.6	62.6	61.0
120°	42.8	46.7	50.6	53.8	56.4	57.7	58.7	59.4	59.0	57.7	56.1
122.5°	38.6	42.8	46.4	49.6	51.9	53.2	53.8	54.5	54.2	53.2	51.6
125°	35.0	38.6	42.2	45.1	47.4	48.7	49.3	50.0	49.6	48.7	46.7
127.5°	31.1	35.0	38.0	40.9	42.5	44.4	44.8	45.4	45.1	44.1	42.5
130°	28.2	31.1	34.1	36.7	38.6	39.9	40.5	40.9	40.2	39.6	38.0
132.5°	24.7	27.9	30.5	32.8	34.1	35.4	36.0	36.3	36.3	35.4	34.1
135°	22.1	24.3	26.6	28.9	30.2	31.5	32.1	32.4	32.1	31.5	30.2
137.5°	19.8	21.7	23.4	25.3	26.9	27.6	28.2	28.2	27.9	27.6	26.6
140°	17.2	19.5	21.1	22.4	23.7	24.0	24.7	24.7	24.3	24.0	23.4
142.5°	14.6	16.5	18.2	19.8	20.8	21.4	21.7	22.1	21.7	21.4	20.4
145°	11.7	13.9	15.6	16.5	17.8	18.2	18.5	18.8	18.5	18.2	17.2
147.5°	9.1	11.0	12.7	13.9	14.9	15.2	15.6	15.9	15.6	14.9	14.6
150°	6.5	8.1	10.1	11.4	12.0	12.7	12.7	12.7	13.0	12.3	11.7
152.5°	5.2	5.8	7.1	8.4	9.4	9.7	10.1	10.1	9.7	9.7	9.1
155°	3.6	4.2	5.2	6.2	7.1	7.5	7.8	7.8	7.5	7.5	7.1
157.5°	2.3	2.9	3.6	4.2	5.2	5.5	5.8	5.8	5.8	5.5	5.2
160°	1.3	1.6	1.9	2.6	3.2	3.6	3.9	3.9	3.9	3.9	3.6
162.5°	1.0	1.0	1.0	1.3	1.6	1.9	2.3	2.3	2.3	2.3	1.9
165°	0.6	0.6	0.6	0.6	0.6	1.0	1.3	1.3	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

TEST NUMBER: P1213009

CATALOG NUMBER: 4SNLED-LD5-16SL-LW-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	307.5	307.5	307.5	307.5	307.5	307.5	307.5	307.5	307.5	307.5	307.5
2.5°	305.9	305.9	306.2	305.6	303.6	303.9	303.9	305.2	305.9	306.2	307.8
5°	305.2	305.2	305.9	304.9	303.3	303.3	303.3	304.6	304.9	305.6	306.9
7.5°	304.3	304.3	304.6	303.6	301.7	301.7	301.3	302.6	303.3	303.6	304.9
10°	302.6	302.6	303.0	302.0	299.7	299.7	299.4	300.4	300.7	301.3	302.3
12.5°	300.4	300.4	300.4	299.4	297.1	296.8	296.5	297.5	297.5	297.8	298.7
15°	298.4	297.8	297.8	296.8	294.5	293.9	293.2	293.6	294.2	293.9	294.5
17.5°	296.2	295.5	294.9	293.9	291.0	290.0	289.3	289.7	289.3	289.0	289.7
20°	293.6	292.6	292.3	290.6	287.7	286.1	284.8	284.2	284.5	283.5	283.8
22.5°	290.6	289.3	288.7	286.7	283.8	281.9	280.3	279.0	278.6	277.3	277.7
25°	287.1	285.5	284.5	282.9	279.6	277.3	275.4	273.4	272.5	270.9	270.5
27.5°	282.9	281.2	279.9	278.3	275.1	272.2	269.9	267.3	266.0	264.0	263.1
30°	278.6	276.7	274.7	273.4	269.9	266.6	263.1	260.8	258.9	256.6	255.0
32.5°	273.4	271.5	269.6	267.6	264.4	260.5	257.6	254.0	251.7	249.1	247.2
35°	268.3	265.7	263.7	261.1	258.2	253.7	250.1	246.5	243.6	240.7	238.4
37.5°	262.4	260.5	257.6	255.3	251.7	247.2	243.3	238.7	236.1	232.3	229.3
40°	256.9	254.6	251.7	248.8	245.2	240.0	235.8	230.6	227.7	223.2	220.3
42.5°	251.4	248.1	245.2	242.0	238.1	233.2	228.0	222.8	219.0	214.7	210.5
45°	245.2	241.7	238.1	234.5	230.6	225.8	220.3	214.7	209.9	206.0	200.8
47.5°	238.7	235.2	231.0	227.1	222.8	218.0	212.1	206.3	201.1	196.6	191.1
50°	232.3	228.7	224.1	219.9	215.1	210.2	204.0	197.2	191.7	185.9	181.0
52.5°	225.4	221.9	217.7	212.1	207.0	202.1	195.6	188.5	182.3	177.4	171.3
55°	218.6	215.1	210.2	204.7	199.5	193.3	187.2	180.0	173.2	167.4	161.2
57.5°	211.5	208.2	202.7	198.2	191.7	185.2	178.7	171.9	164.5	157.6	150.5
60°	204.4	200.8	195.6	190.1	183.6	177.1	170.3	162.8	155.1	147.6	141.1
62.5°	197.9	193.3	188.5	182.6	175.8	169.6	161.9	153.8	146.0	138.2	130.4
65°	190.4	185.5	181.0	175.2	168.0	160.9	153.1	145.0	136.6	128.1	120.3
67.5°	182.9	178.1	173.2	167.4	159.9	152.5	144.3	136.2	126.8	118.7	109.6
70°	175.5	171.6	165.4	159.3	152.5	144.3	136.2	127.5	117.7	109.0	99.6
72.5°	168.0	164.1	158.0	151.5	145.0	136.6	127.8	119.0	110.0	99.9	89.9
75°	160.9	156.0	150.5	144.3	137.5	128.8	120.0	110.9	100.2	90.8	80.4
77.5°	154.1	149.5	144.0	137.2	129.8	121.3	112.2	102.8	92.1	82.1	70.7
80°	146.6	142.1	136.6	129.8	122.3	114.2	104.4	94.7	84.3	73.3	61.6
82.5°	139.5	135.3	129.1	122.9	114.8	106.7	97.0	87.3	76.2	65.5	54.2
85°	132.0	127.8	122.0	115.5	107.7	98.9	89.9	80.1	69.1	58.1	46.7
87.5°	125.5	120.7	114.8	108.3	100.6	92.1	83.4	73.0	62.3	51.6	39.9
90°	118.7	114.2	108.3	101.9	94.1	85.6	76.6	66.8	56.4	45.4	34.4
92.5°	112.9	108.0	102.5	96.0	88.2	80.1	71.0	61.3	51.3	40.5	29.8
95°	107.0	102.2	97.0	90.5	82.7	74.6	65.5	56.1	46.4	36.0	26.0
97.5°	100.6	96.3	91.1	85.0	77.2	69.4	60.7	51.6	42.2	32.1	22.7
100°	95.4	90.5	85.6	79.1	72.0	64.6	55.8	47.0	38.0	28.5	19.8
102.5°	89.5	85.0	80.1	74.0	66.8	59.4	51.3	42.8	34.4	25.6	17.2
105°	84.0	79.8	74.6	68.8	62.0	54.8	47.0	39.2	31.1	22.7	15.2
107.5°	78.5	74.3	69.4	63.9	57.4	50.3	43.1	35.4	27.9	20.4	13.6
110°	73.0	69.1	64.6	59.0	52.9	46.4	39.6	32.4	25.0	18.2	12.0

TEST NUMBER: P1213009

CATALOG NUMBER: 4SNLED-LD5-16SL-LW-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
112.5°	68.1	64.2	59.7	54.5	48.7	42.5	36.0	29.2	22.4	16.2	10.4
115°	63.3	59.7	55.1	50.6	44.8	38.9	32.8	26.3	20.1	14.6	9.1
117.5°	58.4	54.8	50.6	46.1	40.9	35.4	29.5	23.4	18.2	13.0	8.1
120°	53.5	50.3	46.4	42.2	37.6	32.1	26.3	21.1	16.2	11.4	7.1
122.5°	49.0	46.1	42.5	38.6	33.7	28.5	23.7	19.1	14.6	10.1	5.8
125°	44.8	41.8	38.6	34.7	30.2	25.6	21.4	17.2	12.7	8.8	4.9
127.5°	40.5	37.6	34.4	30.8	27.2	23.0	19.1	15.2	11.4	7.8	4.2
130°	36.3	33.7	30.8	27.9	24.3	20.4	17.2	13.3	9.7	6.2	3.6
132.5°	32.1	30.2	27.6	24.7	21.4	18.5	14.9	11.7	8.4	5.5	3.2
135°	28.5	26.6	24.3	21.7	19.1	16.2	13.0	10.1	7.1	4.5	2.6
137.5°	25.3	23.7	21.4	19.1	16.9	13.9	11.4	8.4	5.8	3.9	1.9
140°	22.4	20.8	18.8	16.5	14.6	12.0	9.4	6.8	5.2	3.2	1.6
142.5°	19.5	17.8	16.2	14.3	12.3	10.1	7.8	5.8	4.2	2.6	1.6
145°	16.5	15.2	13.6	12.0	10.1	8.1	6.5	4.9	3.2	1.9	1.3
147.5°	13.6	12.7	11.0	9.7	8.1	6.5	5.2	3.9	2.6	1.6	1.0
150°	11.0	10.1	8.8	7.5	6.5	5.2	4.2	2.9	1.9	1.6	1.0
152.5°	8.4	7.8	6.8	6.2	5.2	3.9	2.9	2.3	1.6	1.3	0.6
155°	6.8	6.2	5.5	4.5	3.9	2.9	2.3	1.6	1.3	1.0	0.6
157.5°	4.9	4.5	3.9	3.2	2.6	1.9	1.6	1.6	1.0	0.6	0.3
160°	3.2	2.9	2.6	1.9	1.6	1.6	1.3	1.0	0.6	0.6	0.3
162.5°	1.9	1.6	1.6	1.6	1.3	1.3	1.0	0.6	0.6	0.3	0.3
165°	1.3	1.3	1.3	1.0	1.0	1.0	0.6	0.3	0.3	0.3	0.3
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

TEST NUMBER: P1213009

CATALOG NUMBER: 4SNLED-LD5-16SL-LW-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
0°	307.5	307.5	307.5	307.5	307.5	307.5	307.5	307.5	307.5	307.5	307.5
2.5°	307.8	306.9	308.2	310.4	310.8	310.4	309.8	310.8	312.0	311.7	309.5
5°	307.2	305.9	307.2	309.5	309.5	309.1	308.8	309.8	311.1	310.8	308.8
7.5°	305.2	303.9	305.2	307.2	307.5	306.9	306.9	307.8	309.1	308.8	307.2
10°	302.6	301.3	302.0	304.3	304.9	304.3	304.3	305.2	306.9	306.5	304.6
12.5°	298.7	297.8	298.4	300.4	301.0	300.7	300.4	301.7	303.3	303.3	301.3
15°	294.5	293.2	293.9	296.2	296.5	295.8	296.2	297.1	299.1	299.1	297.5
17.5°	289.7	288.0	289.0	290.6	291.0	291.0	291.0	292.3	294.5	294.2	292.9
20°	284.2	281.9	282.5	284.2	284.8	284.8	284.8	287.1	288.7	288.7	287.4
22.5°	277.7	276.0	276.0	277.7	278.6	278.3	278.3	280.3	282.5	282.2	282.2
25°	270.2	268.9	268.3	270.2	270.5	270.9	271.5	273.4	276.0	276.0	276.4
27.5°	262.4	261.1	260.8	262.4	262.7	263.1	263.7	266.0	268.6	268.9	269.6
30°	255.0	253.0	252.4	253.7	254.3	254.6	254.6	258.2	260.5	261.4	262.7
32.5°	246.2	244.3	242.6	244.9	245.2	245.9	246.2	249.8	252.4	254.0	255.9
35°	237.4	234.2	233.6	235.2	235.8	236.1	236.8	240.7	244.3	245.6	248.1
37.5°	227.7	225.4	223.5	225.1	225.8	226.1	228.0	231.6	235.2	237.1	239.7
40°	218.6	215.7	214.1	215.1	215.7	216.0	218.3	222.2	226.4	228.7	231.9
42.5°	208.6	204.7	203.4	204.4	204.7	205.7	207.6	212.8	217.0	220.3	222.8
45°	198.5	195.6	192.7	193.7	194.0	194.6	197.5	203.1	207.6	211.5	214.4
47.5°	188.1	184.6	181.7	182.3	183.6	183.9	187.2	193.7	197.9	202.1	206.0
50°	177.8	172.9	170.6	170.6	171.3	172.9	177.1	183.6	188.1	193.0	197.2
52.5°	167.1	162.5	159.9	160.2	160.9	162.8	166.7	173.2	178.4	183.6	188.8
55°	156.3	151.5	148.9	148.2	148.9	151.5	156.0	162.8	168.0	174.2	179.7
57.5°	145.6	139.8	137.5	136.6	137.2	140.5	145.0	152.1	158.6	164.5	170.9
60°	134.0	129.4	125.5	123.3	124.9	129.1	134.0	141.4	148.2	154.7	161.9
62.5°	123.9	118.1	113.9	111.6	113.2	116.8	123.6	130.7	138.2	145.6	152.8
65°	112.6	106.7	101.9	99.6	101.2	105.4	112.2	120.0	128.1	135.6	144.0
67.5°	101.5	95.4	89.5	87.3	89.2	93.7	101.2	110.0	118.7	126.5	135.6
70°	90.8	84.0	77.9	76.2	77.5	83.7	90.8	99.6	108.7	117.7	127.2
72.5°	81.1	72.7	66.2	64.2	65.8	72.7	80.8	89.9	99.6	109.3	119.4
75°	69.7	62.0	54.8	52.5	54.5	60.7	70.7	80.4	90.8	101.2	110.6
77.5°	60.7	51.6	44.1	40.5	43.8	51.6	61.3	71.7	82.4	93.1	103.8
80°	51.3	41.8	33.7	29.8	33.4	41.8	51.6	62.9	74.9	85.6	95.4
82.5°	42.8	32.8	24.3	20.1	24.0	33.4	44.1	55.5	67.1	77.9	89.2
85°	35.0	24.7	15.9	11.4	16.9	25.3	36.7	48.3	60.3	71.4	82.4
87.5°	28.5	18.5	9.7	4.9	10.4	19.8	30.5	42.2	54.2	65.2	75.6
90°	23.4	13.3	5.2	0.6	6.2	14.9	25.3	36.7	48.0	59.4	69.7
92.5°	19.1	10.1	2.9	0.3	3.9	12.0	21.7	32.4	43.5	54.5	64.6
95°	15.9	7.8	1.9	0.3	2.9	9.4	18.5	28.9	39.2	50.0	60.0
97.5°	13.6	6.5	1.6	0.3	2.3	8.1	15.9	25.6	35.7	45.7	55.5
100°	11.7	5.2	1.3	0.3	1.9	6.8	13.9	22.7	32.1	41.8	51.3
102.5°	10.1	4.2	1.0	0.3	1.6	5.8	12.3	20.4	28.9	38.3	47.4
105°	8.8	3.6	1.0	0.3	1.3	5.2	11.0	18.2	26.6	35.0	43.8
107.5°	7.5	2.9	0.6	0.3	1.0	4.2	9.7	16.5	24.0	32.1	40.2
110°	6.5	2.6	0.6	0.3	1.0	3.9	8.4	14.9	21.7	29.2	37.0

TEST NUMBER: P1213009

CATALOG NUMBER: 4SNLED-LD5-16SL-LW-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
112.5°	5.5	1.9	0.6	0.3	0.6	3.2	7.5	13.3	19.8	26.6	34.1
115°	4.9	1.6	0.3	0.3	0.6	2.9	6.8	12.0	17.8	24.3	31.1
117.5°	3.9	1.3	0.3	0.3	0.3	2.3	5.8	10.7	16.2	22.4	28.5
120°	3.2	1.3	0.3	0.3	0.3	1.9	5.2	9.4	14.6	20.1	26.0
122.5°	2.9	1.0	0.3	0.3	0.3	1.6	4.5	8.4	13.0	18.2	23.7
125°	2.6	1.0	0.3	0.3	0.3	1.3	3.9	7.5	11.7	16.2	21.4
127.5°	1.9	1.0	0.3	0.3	0.3	1.0	3.6	6.5	10.4	14.6	19.1
130°	1.6	0.6	0.3	0.3	0.3	1.0	2.9	5.8	9.1	13.0	17.2
132.5°	1.3	0.6	0.3	0.3	0.3	0.6	2.3	4.5	7.8	11.4	15.2
135°	1.3	0.6	0.3	0.3	0.3	0.6	1.6	3.9	6.5	9.7	13.0
137.5°	1.3	0.3	0.3	0.3	0.3	0.6	1.3	2.9	5.2	7.8	10.7
140°	1.0	0.3	0.3	0.3	0.3	0.3	1.0	2.3	4.2	6.5	9.1
142.5°	1.0	0.3	0.3	0.3	0.3	0.3	1.0	1.6	3.2	5.2	7.1
145°	0.6	0.3	0.3	0.3	0.3	0.3	0.6	1.3	2.6	3.9	5.8
147.5°	0.6	0.3	0.3	0.3	0.3	0.3	0.6	1.0	1.9	3.2	4.5
150°	0.6	0.3	0.3	0.3	0.3	0.3	0.6	1.0	1.3	2.3	3.6
152.5°	0.3	0.3	0.3	0.3	0.3	0.3	0.6	0.6	1.0	1.6	2.3
155°	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.6	1.0	1.3	1.6
157.5°	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.6	0.6	1.0	1.3
160°	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.6	0.6	1.0
162.5°	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.6	0.6
165°	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
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

TEST NUMBER: P1213009

CATALOG NUMBER: 4SNLED-LD5-16SL-LW-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
0°	307.5	307.5	307.5	307.5	307.5	307.5	307.5	307.5	307.5	307.5	307.5
2.5°	308.5	306.2	306.9	306.5	307.2	308.2	308.2	307.8	307.8	307.2	306.5
5°	307.8	305.6	306.5	306.2	306.9	307.8	307.8	307.5	307.5	306.5	306.2
7.5°	305.9	304.3	304.9	304.9	305.6	306.5	306.5	306.2	306.2	305.2	304.9
10°	303.9	302.0	303.0	303.0	303.6	304.9	304.9	304.6	304.6	303.6	303.3
12.5°	300.7	298.7	300.4	300.7	301.3	302.6	302.3	302.3	302.3	301.3	301.0
15°	296.8	295.5	297.1	297.5	298.4	300.0	300.0	300.0	300.0	299.1	298.7
17.5°	292.6	291.6	293.2	293.9	295.2	296.8	296.8	297.1	297.5	296.8	296.5
20°	287.7	287.1	288.7	290.0	291.9	293.6	294.2	294.5	295.2	294.5	294.2
22.5°	282.2	282.2	284.5	285.8	288.0	289.7	290.6	291.6	292.3	291.6	291.3
25°	276.0	277.0	279.3	281.6	284.2	285.8	286.7	288.0	288.7	288.4	288.0
27.5°	270.2	271.5	274.4	276.7	279.0	281.6	282.5	284.2	284.8	284.8	284.5
30°	263.4	265.3	268.6	271.2	274.1	276.7	278.0	279.6	280.6	279.9	280.3
32.5°	256.9	260.1	262.7	265.7	268.9	271.5	273.1	275.1	276.0	275.7	276.0
35°	249.8	253.0	256.6	259.5	263.4	266.0	268.3	269.9	271.2	270.9	270.9
37.5°	242.0	246.2	249.8	253.7	257.2	260.1	262.4	264.4	265.7	265.7	265.7
40°	234.5	239.1	242.6	247.2	251.7	254.3	256.9	258.9	260.1	260.5	260.8
42.5°	226.4	231.3	235.5	240.4	244.9	248.1	251.1	253.3	254.6	255.3	255.0
45°	219.0	223.5	228.4	233.9	238.1	241.3	244.9	247.5	248.8	249.1	249.4
47.5°	210.5	215.7	221.2	226.7	231.0	235.2	238.4	241.0	242.3	243.3	243.3
50°	202.4	207.9	214.1	219.9	224.5	228.7	231.9	234.8	236.5	237.1	237.4
52.5°	194.9	200.1	206.6	212.5	217.0	221.2	225.4	228.7	230.3	231.0	231.0
55°	185.9	192.4	199.5	205.0	209.9	214.7	219.0	222.2	223.8	224.8	225.4
57.5°	177.4	184.2	191.7	197.5	203.4	207.9	211.8	216.0	217.3	218.6	219.0
60°	169.3	176.1	183.3	189.8	195.6	200.5	205.0	208.6	210.8	211.5	212.1
62.5°	160.9	168.0	175.5	182.0	188.1	194.0	198.2	201.4	204.0	205.0	205.7
65°	152.8	160.2	167.7	174.5	181.0	186.8	191.1	194.3	196.9	198.5	198.8
67.5°	144.0	152.1	159.9	167.1	173.5	179.7	183.9	187.2	189.8	191.7	192.0
70°	135.9	144.3	152.1	159.9	166.4	172.6	177.1	180.4	183.3	184.6	185.2
72.5°	128.1	136.9	145.0	152.8	159.3	165.4	170.3	173.5	176.5	178.1	178.4
75°	120.7	129.4	138.2	145.6	152.5	158.6	163.5	167.1	169.6	171.3	171.9
77.5°	113.2	122.3	131.0	138.5	145.6	151.8	156.0	160.2	162.8	164.8	164.8
80°	105.7	115.2	124.2	131.7	138.8	144.3	149.2	153.4	156.0	158.0	158.0
82.5°	99.3	108.3	117.1	124.6	131.7	137.9	142.7	146.6	149.5	150.8	151.2
85°	91.8	101.9	110.0	118.1	124.9	130.7	135.6	139.8	142.4	143.7	144.3
87.5°	85.6	95.4	104.1	111.3	118.1	123.9	129.4	133.0	135.6	137.2	137.9
90°	79.8	89.2	98.0	105.1	112.2	117.7	122.9	126.5	129.4	130.7	131.4
92.5°	74.6	84.0	92.4	99.6	106.4	112.6	117.4	121.0	123.6	124.9	125.9
95°	69.7	78.8	86.9	94.7	101.2	106.7	111.9	115.5	118.4	119.4	120.3
97.5°	64.9	73.6	81.7	89.2	96.0	101.2	106.1	109.6	111.9	113.5	114.5
100°	60.7	69.1	76.9	84.0	90.5	95.4	100.6	103.8	106.1	107.4	108.7
102.5°	56.1	64.6	72.0	78.8	85.6	90.2	95.0	98.3	100.2	102.5	102.5
105°	52.2	60.0	67.5	74.0	79.8	85.3	89.5	92.8	95.0	96.7	96.7
107.5°	48.0	55.8	62.9	69.7	75.3	80.4	84.3	87.3	89.9	90.8	91.8
110°	44.8	51.6	58.7	65.2	70.4	75.3	79.1	82.4	84.7	85.6	86.3

TEST NUMBER: P1213009

CATALOG NUMBER: 4SNLED-LD5-16SL-LW-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
112.5°	40.9	48.0	54.5	60.7	65.8	70.4	74.3	76.9	79.1	80.4	80.8
115°	37.6	44.4	50.3	56.1	61.6	65.5	69.1	71.7	74.0	74.9	75.6
117.5°	34.7	40.9	46.7	51.6	56.8	61.0	64.6	66.8	68.8	70.1	70.7
120°	31.8	37.6	42.8	47.7	52.5	56.4	59.7	62.0	64.2	65.2	65.2
122.5°	28.9	34.4	39.2	43.8	48.3	51.9	55.5	57.4	59.4	60.3	60.3
125°	26.3	31.5	36.0	40.2	44.4	47.7	50.6	52.9	54.8	55.5	55.5
127.5°	23.7	28.5	32.8	36.7	40.2	43.5	46.4	48.7	50.3	50.9	50.9
130°	21.4	25.6	29.5	33.4	37.0	39.6	42.5	44.4	45.4	46.4	46.7
132.5°	19.1	23.0	26.6	29.8	33.4	36.0	38.3	40.2	41.2	42.2	42.5
135°	16.9	20.4	23.7	26.9	29.8	32.4	34.4	36.0	37.3	38.0	38.3
137.5°	14.3	18.2	21.1	23.7	26.9	28.9	31.1	32.1	33.4	34.1	34.1
140°	12.0	14.9	18.2	20.8	23.4	25.3	27.2	28.9	29.8	30.2	30.2
142.5°	9.7	12.3	14.9	18.2	20.4	22.1	24.0	25.3	26.0	26.3	26.6
145°	7.8	9.7	12.0	14.9	17.5	19.5	20.4	21.7	22.4	22.7	23.0
147.5°	5.8	7.8	9.7	11.7	14.3	16.2	17.2	18.5	19.1	19.5	19.5
150°	4.5	5.8	7.1	9.1	11.0	13.3	14.6	15.6	15.9	16.2	16.2
152.5°	3.2	4.5	5.5	6.8	8.1	10.1	12.0	12.7	13.0	13.3	13.3
155°	2.3	3.2	3.9	4.9	5.8	7.5	9.1	10.1	10.4	10.7	10.7
157.5°	1.6	2.3	2.6	3.6	4.2	4.9	6.2	7.8	8.1	8.1	8.1
160°	1.0	1.3	1.6	2.3	2.6	3.2	3.9	4.9	5.8	5.8	5.8
162.5°	0.6	1.0	1.0	1.3	1.3	1.9	2.3	2.6	3.6	3.9	3.9
165°	0.3	0.6	0.6	0.6	0.6	0.6	1.0	1.0	1.6	1.9	1.9
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: P1213009

CATALOG NUMBER: 4SNLED-LD5-16SL-LW-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°
0°	307.5	307.5	307.5	307.5	307.5	307.5	307.5	307.5	307.5	307.5	307.5
2.5°	306.9	307.5	307.2	307.2	307.2	307.8	307.2	304.3	304.9	305.6	306.2
5°	306.5	306.9	306.9	306.5	306.5	307.2	306.5	303.6	304.3	304.9	305.2
7.5°	305.2	305.6	305.6	305.6	305.2	305.9	304.9	302.3	302.3	303.0	303.3
10°	303.6	304.3	303.9	303.6	303.6	303.6	303.0	300.0	300.0	300.4	300.7
12.5°	301.7	301.7	301.7	301.3	301.0	301.0	300.4	297.5	297.1	297.8	297.5
15°	299.1	299.7	299.1	298.7	298.1	298.1	297.1	294.2	293.6	293.9	293.6
17.5°	296.8	297.1	296.5	295.8	295.2	294.9	293.9	290.6	289.7	290.0	289.3
20°	294.5	294.5	293.9	293.2	292.3	291.3	290.0	286.7	285.1	285.1	283.8
22.5°	291.6	291.6	291.0	290.0	289.0	287.7	286.4	283.2	280.6	279.9	279.0
25°	288.4	288.0	287.7	286.7	284.8	283.5	282.2	278.6	275.7	274.4	272.8
27.5°	284.5	284.5	283.5	282.5	280.6	279.0	277.3	274.1	270.2	268.6	266.3
30°	280.3	280.3	279.3	278.0	276.0	274.1	272.2	268.3	264.4	262.1	259.5
32.5°	276.0	275.7	274.7	273.4	271.5	268.6	267.0	263.1	258.5	255.9	252.4
35°	270.9	270.5	269.6	267.9	265.3	263.1	260.5	256.9	251.7	248.5	244.6
37.5°	265.7	265.3	264.7	262.4	259.8	257.2	254.0	250.4	245.6	241.3	237.4
40°	260.5	260.1	258.9	257.2	254.0	250.7	247.5	243.9	238.7	233.9	229.7
42.5°	255.0	254.6	253.0	251.1	247.5	244.3	240.4	236.5	231.3	225.4	221.2
45°	249.4	248.8	247.2	244.9	241.0	237.4	233.6	229.0	223.8	218.3	212.8
47.5°	243.6	242.6	241.0	237.8	234.5	230.6	226.1	221.2	216.0	209.9	204.0
50°	237.1	236.5	234.5	231.6	227.7	223.8	218.6	213.8	207.6	201.8	194.6
52.5°	231.0	229.7	228.0	224.8	220.9	216.7	211.2	205.3	199.2	193.7	186.2
55°	224.5	223.8	221.5	219.0	214.1	209.2	204.0	197.9	191.1	184.6	177.4
57.5°	218.3	217.0	215.1	211.5	207.3	202.4	196.9	190.4	182.9	176.1	168.4
60°	212.1	210.2	207.9	204.7	200.1	194.9	189.1	182.3	174.8	167.4	159.3
62.5°	205.3	203.7	201.1	197.9	193.3	187.8	181.7	174.5	167.4	159.6	150.8
65°	198.5	196.9	194.3	191.1	186.5	180.4	173.9	166.7	158.6	151.2	141.8
67.5°	191.7	190.1	187.2	183.6	179.1	173.2	166.4	158.9	150.8	142.7	133.0
70°	184.9	182.9	180.4	176.5	171.9	165.8	158.9	151.2	143.0	134.3	124.6
72.5°	178.1	176.5	173.2	169.6	164.8	158.6	151.8	144.0	135.6	126.5	116.8
75°	171.3	169.3	167.1	162.8	157.6	151.8	144.7	136.9	127.8	119.0	109.0
77.5°	164.5	162.8	159.9	155.7	150.8	144.7	137.5	129.8	120.7	111.6	100.9
80°	157.6	155.7	153.4	149.5	144.0	137.9	130.4	122.6	113.5	104.1	93.4
82.5°	150.8	148.9	146.3	142.4	137.2	131.0	123.9	115.5	106.4	96.7	86.6
85°	144.0	142.4	139.5	135.6	130.1	123.9	116.8	109.3	99.6	89.9	79.8
87.5°	137.2	135.6	132.7	128.8	123.6	117.4	110.3	102.5	93.1	84.0	73.0
90°	130.7	129.4	126.5	122.6	117.4	111.3	104.8	96.3	87.3	78.2	67.8
92.5°	124.9	123.6	121.0	117.1	112.6	105.7	99.3	91.1	82.1	72.7	62.6
95°	119.7	118.1	115.5	111.9	106.4	100.6	94.1	86.0	77.2	67.8	58.1
97.5°	113.9	112.2	109.6	105.7	101.2	95.0	88.6	80.8	72.0	63.3	53.5
100°	108.0	106.4	103.5	100.2	95.7	89.5	83.4	75.6	67.5	59.0	49.6
102.5°	102.2	100.6	98.0	94.7	90.2	84.7	78.5	71.0	62.9	54.5	45.7
105°	96.7	95.0	92.4	89.2	85.0	79.5	73.0	66.5	58.7	50.6	42.2
107.5°	91.1	89.5	87.3	84.0	79.8	74.6	68.4	61.6	54.5	46.7	38.6
110°	85.6	84.3	81.7	78.8	74.6	69.4	63.9	57.4	50.3	43.1	35.4



TEST NUMBER: P1213009

CATALOG NUMBER: 4SNLED-LD5-16SL-LW-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°
112.5°	80.4	79.1	76.6	73.3	69.7	64.9	59.4	53.2	46.4	39.6	32.1
115°	75.3	73.6	71.4	68.4	64.9	60.3	55.1	49.6	42.8	36.3	29.5
117.5°	70.1	68.8	66.5	63.6	60.3	55.8	50.9	45.7	39.2	33.1	26.9
120°	64.9	63.9	61.6	59.0	55.8	51.6	47.0	41.8	36.0	30.2	24.3
122.5°	60.0	59.0	56.8	54.5	51.3	47.4	43.1	38.3	33.1	27.6	22.4
125°	55.5	54.2	52.2	50.0	47.0	43.5	39.2	34.7	29.8	25.0	20.1
127.5°	50.6	49.6	48.3	45.7	42.8	39.6	35.7	31.8	27.2	22.7	18.2
130°	46.7	45.4	43.8	41.8	39.2	36.0	32.4	28.5	24.7	20.4	15.9
132.5°	42.2	40.9	39.6	37.6	35.4	32.4	29.2	25.6	22.1	18.2	14.3
135°	38.0	37.0	35.7	33.7	31.5	29.2	26.0	22.7	19.5	15.9	12.7
137.5°	34.1	33.1	31.8	30.5	28.2	26.0	23.0	20.1	17.2	13.9	11.0
140°	30.2	29.5	28.2	26.9	25.0	22.7	20.1	17.5	14.9	12.0	9.4
142.5°	26.3	25.6	24.7	23.4	21.7	19.8	17.5	15.2	12.7	10.4	8.1
145°	22.7	22.4	21.4	20.1	18.8	16.9	14.9	13.0	10.7	8.8	6.5
147.5°	19.1	18.8	18.2	17.2	15.9	14.3	12.7	10.7	9.1	7.1	5.2
150°	15.9	15.6	15.2	13.9	13.3	11.7	10.4	8.8	7.5	5.5	4.2
152.5°	13.0	13.0	12.3	11.4	10.7	9.4	8.4	7.1	5.8	4.5	3.2
155°	10.4	10.1	9.7	9.1	8.4	7.5	6.5	5.5	4.5	3.2	2.3
157.5°	8.1	7.8	7.5	6.8	6.2	5.8	4.9	3.9	2.9	2.3	1.6
160°	5.8	5.5	5.2	4.9	4.5	3.9	3.2	2.6	1.9	1.3	1.0
162.5°	3.9	3.6	3.6	3.2	2.9	2.3	1.9	1.6	1.3	1.0	0.6
165°	1.9	1.9	1.6	1.6	1.3	1.0	1.0	1.0	0.6	0.6	0.3
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

TEST NUMBER: P1213009

CATALOG NUMBER: 4SNLED-LD5-16SL-LW-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	330°	335°	340°	345°	350°	355°	360°
0°	307.5	307.5	307.5	307.5	307.5	307.5	307.5
2.5°	305.9	305.9	307.2	306.9	305.9	307.8	310.1
5°	304.9	304.9	305.9	305.9	304.9	306.9	308.8
7.5°	303.3	303.0	303.9	303.9	302.6	304.3	306.5
10°	300.4	300.0	301.0	301.0	299.7	301.3	303.3
12.5°	297.1	296.5	297.5	297.1	295.8	297.5	299.4
15°	292.9	292.6	293.2	292.6	291.3	292.9	294.9
17.5°	288.7	287.7	288.0	288.0	285.8	287.4	289.0
20°	283.2	281.9	282.2	281.9	280.3	281.2	283.2
22.5°	277.7	275.7	275.7	275.4	273.4	274.7	276.4
25°	270.9	268.6	268.6	268.3	266.0	267.0	268.6
27.5°	264.0	261.8	260.8	260.5	258.2	258.2	260.5
30°	256.9	253.7	253.0	252.0	249.8	249.8	251.7
32.5°	250.1	245.6	244.3	243.0	240.7	240.4	242.6
35°	241.0	237.4	235.2	233.9	231.3	230.6	232.6
37.5°	233.6	229.0	225.8	224.1	221.5	220.6	223.2
40°	225.4	220.6	216.4	215.4	211.5	210.2	212.5
42.5°	216.4	211.2	207.0	205.0	202.1	200.8	201.1
45°	207.3	201.8	197.2	194.6	191.7	189.4	190.7
47.5°	197.9	193.0	187.5	183.6	180.0	178.4	179.1
50°	188.5	182.6	177.4	173.2	169.0	167.1	168.4
52.5°	179.1	172.9	167.1	162.5	157.6	155.7	156.0
55°	170.0	163.5	156.7	151.8	147.3	144.3	143.7
57.5°	160.9	153.8	146.6	141.1	135.3	132.7	131.7
60°	151.2	143.7	136.2	129.8	123.6	120.7	119.4
62.5°	142.1	134.0	125.5	118.7	112.6	108.7	107.7
65°	133.3	123.9	115.5	107.7	100.9	96.7	95.4
67.5°	123.9	114.2	105.1	96.7	90.2	84.7	84.0
70°	115.2	104.8	94.7	86.0	78.8	73.3	70.7
72.5°	106.4	95.7	85.3	75.9	66.8	61.6	59.7
75°	98.0	86.9	75.9	66.2	56.1	50.0	48.0
77.5°	90.2	78.8	67.1	56.4	47.0	39.2	36.7
80°	82.7	71.0	58.7	47.7	37.6	29.2	26.3
82.5°	74.9	63.9	51.3	39.6	29.2	20.4	16.9
85°	68.1	57.1	44.4	32.8	22.4	13.0	9.1
87.5°	62.6	50.6	39.2	27.6	16.9	7.5	2.6
90°	57.1	45.4	34.1	22.7	12.7	4.2	0.3
92.5°	52.2	41.2	29.8	19.5	9.7	2.9	0.3
95°	47.7	37.0	26.3	16.2	7.8	1.9	0.3
97.5°	43.5	33.4	23.4	13.9	6.5	1.6	0.3
100°	39.9	30.2	20.8	12.3	5.5	1.3	0.3
102.5°	36.3	27.2	18.5	10.7	4.9	1.0	0.3
105°	33.4	24.7	16.5	9.7	4.2	1.0	0.3
107.5°	30.5	22.4	14.9	8.4	3.6	0.6	0.3
110°	27.6	20.4	13.3	7.5	3.2	0.6	0.3



TEST NUMBER: P1213009

CATALOG NUMBER: 4SNLED-LD5-16SL-LW-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	330°	335°	340°	345°	350°	355°	360°
112.5°	25.3	18.5	12.0	6.8	2.6	0.6	0.3
115°	23.0	16.5	10.7	5.8	2.3	0.3	0.3
117.5°	20.8	14.9	9.4	5.2	1.9	0.3	0.3
120°	18.8	13.3	8.4	4.5	1.6	0.3	0.3
122.5°	16.9	12.0	7.5	3.9	1.3	0.3	0.3
125°	15.2	10.7	6.5	3.2	1.0	0.3	0.3
127.5°	13.6	9.4	5.8	2.9	1.0	0.3	0.3
130°	12.0	8.4	4.9	2.3	0.6	0.3	0.3
132.5°	10.7	7.1	4.2	1.9	0.6	0.3	0.3
135°	9.4	6.2	3.6	1.3	0.6	0.3	0.3
137.5°	8.1	5.2	2.9	1.0	0.3	0.3	0.3
140°	6.8	4.5	2.3	1.0	0.3	0.3	0.3
142.5°	5.8	3.6	1.6	0.6	0.3	0.3	0.3
145°	4.5	2.9	1.3	0.6	0.3	0.3	0.3
147.5°	3.6	2.3	1.0	0.6	0.3	0.3	0.3
150°	2.6	1.6	1.0	0.3	0.3	0.3	0.3
152.5°	1.9	1.3	0.6	0.3	0.3	0.3	0.3
155°	1.3	1.0	0.6	0.3	0.3	0.3	0.3
157.5°	1.0	0.6	0.3	0.3	0.3	0.3	0.3
160°	0.6	0.3	0.3	0.3	0.3	0.3	0.3
162.5°	0.3	0.3	0.3	0.3	0.3	0.3	0.3
165°	0.3	0.3	0.3	0.3	0.3	0.3	0.3
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)