

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State
Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: METALUX

Report Number: P#

Luminaire Tested: **4SNLED-LD5-23SL-LW-UNV-L950-CD1-U**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P#
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P33520)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 4SNLED-LD5-23SL-LW-UNV-L950-CD1-U
Description: 4FT LINEAR SNLED LED FIXTURE
WIDE FROSTED LENS
Light Source: -
Ballast/Driver: -

Summary

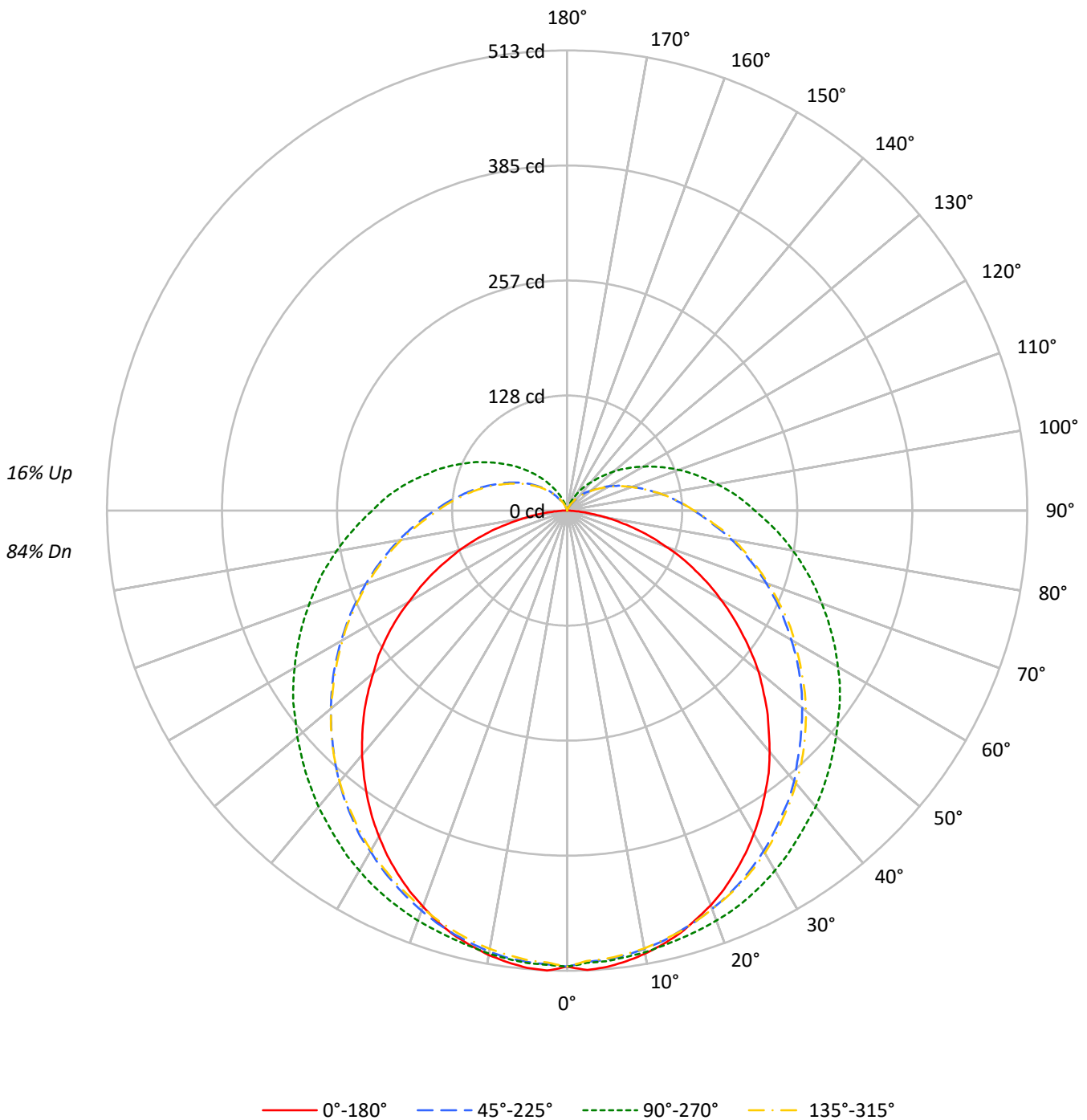
Lumens per Lamp: N/A
Luminaire Lumens: 2209.0 lumens
Efficiency: N/A
Efficacy: 122.7 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.36 / 1.44
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.12')
CIE Type: Semi-Direct

Input Watts (W): 18
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: 25 FT



TEST NUMBER: P#
CATALOG NUMBER: 4SNLED-LD5-23SL-LW-UNV-L950-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	0
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°	4108	4108	4108	4108
5°	4131	3960	4140	3976
10°	4093	3847	4106	3860
15°	4045	3751	4063	3755
20°	3981	3681	3995	3681
25°	3903	3618	3927	3614
30°	3815	3554	3844	3554
35°	3713	3494	3753	3498
40°	3611	3459	3655	3459
45°	3495	3423	3548	3427
50°	3374	3401	3419	3410
55°	3204	3404	3306	3419
60°	3027	3414	3125	3436
65°	2826	3449	2951	3483
70°	2544	3513	2742	3562
75°	2220	3627	2430	3697
80°	1716	3797	1949	3885
85°	1025	4069	1284	4183



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-23SL-LW-UNV-L950-CD1-U

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	48.2	2.2
10°-20°	138.4	6.3
20°-30°	212.2	9.6
30°-40°	261.8	11.9
40°-50°	284.1	12.9
50°-60°	280.0	12.7
60°-70°	253.1	11.5
70°-80°	210.9	9.5
80°-90°	163.3	7.4
90°-100°	123.9	5.6
100°-110°	91.7	4.1
110°-120°	63.8	2.9
120°-130°	40.7	1.8
130°-140°	22.8	1.0
140°-150°	10.4	0.5
150°-160°	3.2	0.1
160°-170°	0.4	0.0
170°-180°	0.0	0.0
0°-30°	398.8	18.1
0°-40°	660.7	29.9
0°-60°	1224.7	55.4
0°-90°	1852.1	83.8
90°-120°	279.3	12.6
90°-150°	353.2	16.0
90°-180°	357.0	16.2
0°-180°	2209.0	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	508	508	508	508	508	
5°	511	504	512	506	511	48
15°	488	493	490	494	488	137
25°	444	477	447	476	444	205
35°	385	447	389	448	385	241
45°	315	412	320	412	315	243
55°	238	371	245	373	238	213
65°	158	326	165	329	158	156
75°	79	279	87	284	79	84
85°	15	232	19	239	15	18
90°	0	209	1	217	0	1
95°	0	190	0	199	0	0
105°	0	151	0	160	0	1
115°	0	115	0	125	0	0
125°	0	83	0	92	0	0
135°	0	54	0	63	0	0
145°	0	31	0	38	0	0
155°	0	13	0	18	0	0
165°	0	2	0	3	0	0
175°	0	0	0	0	0	0
180°	0	0	0	0	0	0



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-23SL-LW-UNV-L950-CD1-U

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	508.4	508.4	508.4	508.4	508.4	508.4	508.4	508.4	508.4	508.4	508.4
2.5°	512.7	512.7	512.2	511.1	511.7	513.3	512.2	509.5	507.9	503.6	504.7
5°	510.6	510.6	510.1	509.0	509.5	511.7	510.6	508.4	506.3	502.5	504.2
7.5°	506.8	506.8	506.3	505.2	506.3	508.4	507.4	505.2	503.6	499.9	501.5
10°	501.5	502.0	501.5	499.9	502.0	504.2	503.6	500.9	499.3	496.1	497.7
12.5°	495.0	495.6	495.0	494.5	495.6	498.8	497.7	495.6	494.5	491.8	493.4
15°	487.5	488.1	487.0	487.0	488.1	491.3	491.3	489.1	488.1	485.4	488.6
17.5°	477.9	478.4	477.9	477.9	478.9	482.2	482.7	481.6	480.6	479.5	482.7
20°	468.2	467.7	467.7	467.1	469.3	474.1	473.6	473.6	472.5	472.5	476.3
22.5°	457.0	457.0	456.4	456.4	459.1	463.4	463.4	464.5	463.4	465.5	468.8
25°	444.1	444.6	444.1	445.2	447.3	452.1	452.7	454.3	454.8	457.0	460.7
27.5°	430.7	431.2	430.7	431.8	435.5	439.3	441.9	444.1	444.6	447.8	452.7
30°	416.2	416.2	416.7	417.8	422.1	428.0	430.1	432.8	432.8	438.2	443.0
32.5°	401.2	401.2	401.2	403.3	408.2	415.1	417.8	421.0	422.1	427.5	432.8
35°	384.6	385.1	385.1	386.7	393.1	400.1	403.9	407.6	409.8	416.2	421.6
37.5°	369.0	370.1	368.5	370.6	379.7	385.6	389.9	393.7	397.4	406.0	410.3
40°	351.3	352.4	351.8	356.1	363.6	371.1	376.0	379.7	385.1	393.7	398.5
42.5°	332.5	333.6	334.7	339.5	347.5	355.1	361.0	365.8	372.2	379.7	387.8
45°	315.4	315.4	317.0	322.9	331.5	339.5	346.5	351.8	359.3	367.4	375.4
47.5°	296.1	296.6	298.7	305.7	314.8	324.5	330.9	337.9	345.9	354.5	363.6
50°	278.4	278.4	281.6	289.1	297.7	308.4	315.4	323.4	332.0	342.2	351.3
52.5°	258.0	259.1	263.9	270.8	282.1	291.8	299.8	308.4	318.6	329.3	339.5
55°	237.6	239.7	243.5	253.2	265.0	274.1	283.7	294.4	304.1	315.9	327.7
57.5°	217.8	219.4	225.3	234.9	247.3	258.5	268.7	278.9	290.7	302.5	314.8
60°	197.4	199.5	206.5	216.1	229.6	241.4	253.2	263.9	276.2	288.5	301.4
62.5°	178.1	179.7	187.7	199.0	212.4	225.3	237.1	249.9	263.3	275.1	288.0
65°	157.7	160.4	169.5	179.7	195.2	208.1	221.5	235.5	249.4	262.3	274.6
67.5°	138.9	140.5	150.2	162.0	177.5	192.0	206.0	221.0	235.5	248.9	261.2
70°	116.9	122.3	131.9	144.3	160.9	175.9	190.9	206.5	222.0	236.0	247.8
72.5°	98.7	103.0	113.7	127.1	143.2	160.9	176.5	193.1	208.6	223.1	235.5
75°	79.4	83.7	96.0	111.0	127.6	146.4	162.5	179.7	195.8	210.2	223.1
77.5°	60.6	66.0	79.4	94.9	113.2	132.5	149.1	166.3	182.9	198.4	211.3
80°	43.4	49.3	63.8	81.5	99.2	118.5	136.8	153.9	170.6	186.1	199.5
82.5°	27.9	34.3	49.9	67.6	86.4	105.7	124.4	141.6	158.2	173.8	187.7
85°	15.0	22.0	38.1	55.8	74.6	93.9	112.6	130.9	147.0	161.4	176.5
87.5°	4.3	12.9	28.4	46.1	65.4	83.1	101.4	119.6	135.7	151.2	164.7
90°	0.5	7.5	21.5	38.1	56.9	74.0	92.2	109.4	125.5	141.1	154.5
92.5°	0.5	4.8	16.6	31.6	48.8	66.5	84.7	101.4	116.4	131.9	145.3
95°	0.5	3.8	13.4	26.8	42.9	59.5	76.7	92.8	108.3	122.8	136.2
97.5°	0.5	2.7	10.7	23.1	37.5	53.1	69.7	85.8	100.8	114.8	127.1
100°	0.5	2.1	8.6	19.8	32.7	47.7	62.8	78.3	92.8	106.2	119.1
102.5°	0.5	1.6	7.5	16.6	29.0	42.4	56.9	71.3	85.3	98.1	111.0
105°	0.5	1.6	6.4	14.5	25.7	38.1	51.5	65.4	78.3	90.6	102.4
107.5°	0.5	1.1	5.4	12.3	22.5	34.3	46.7	60.1	71.9	83.7	94.9
110°	0.5	1.1	4.3	11.3	19.8	30.6	42.4	54.7	66.0	77.2	88.0



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-23SL-LW-UNV-L950-CD1-U

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	0.5	1.1	3.8	9.7	17.2	27.4	38.1	49.3	60.1	71.3	81.0
115°	0.5	1.1	3.2	8.6	16.1	23.6	34.3	44.5	55.2	65.4	74.6
117.5°	0.5	1.1	2.7	7.0	13.9	21.5	30.0	40.2	49.9	59.5	68.1
120°	0.5	1.1	2.1	6.4	12.3	19.3	26.8	35.9	45.1	54.2	63.3
122.5°	0.5	0.5	2.1	5.4	10.7	17.2	24.7	31.6	40.2	48.8	56.9
125°	0.5	0.5	2.1	4.8	9.1	15.6	22.0	28.4	35.9	43.4	50.4
127.5°	0.5	0.5	1.6	3.8	8.0	13.4	19.3	26.3	31.6	38.6	45.6
130°	0.5	0.5	1.6	3.2	7.0	11.3	17.2	23.1	29.5	34.3	40.2
132.5°	0.5	0.5	1.6	2.7	5.4	9.1	14.5	19.8	25.7	31.1	35.9
135°	0.5	0.5	1.1	2.1	4.3	7.5	11.8	16.6	22.5	27.9	32.7
137.5°	0.5	0.5	1.1	2.1	3.2	6.4	9.1	13.4	18.8	23.6	28.4
140°	0.5	0.5	1.1	1.6	2.7	4.8	7.5	10.7	15.0	19.3	24.7
142.5°	0.5	0.5	0.5	1.6	2.1	3.8	5.9	8.6	11.8	15.6	19.8
145°	0.5	0.5	0.5	1.6	2.1	2.7	4.8	7.0	9.1	11.8	15.6
147.5°	0.5	0.5	0.5	1.1	1.6	2.1	3.8	5.4	7.0	9.1	11.3
150°	0.5	0.5	0.5	1.1	1.6	2.1	2.7	3.8	5.4	7.5	9.1
152.5°	0.5	0.5	0.5	1.1	1.1	1.6	2.1	2.7	3.8	5.4	6.4
155°	0.5	0.5	0.5	0.5	1.1	1.6	2.1	2.1	2.7	3.8	4.8
157.5°	0.5	0.5	0.5	0.5	1.1	1.1	1.6	1.6	2.1	2.1	3.2
160°	0.5	0.5	0.5	0.5	0.5	1.1	1.1	1.6	1.6	1.6	1.6
162.5°	0.5	0.5	0.5	0.5	0.5	0.5	1.1	1.1	1.1	1.6	1.6
165°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	1.1	1.1	1.1
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: P#

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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	508.4	508.4	508.4	508.4	508.4	508.4	508.4	508.4	508.4	508.4	508.4
2.5°	504.7	505.2	506.8	506.8	505.8	505.8	505.2	504.7	505.2	506.3	506.3
5°	503.6	504.2	505.8	506.3	505.2	504.7	504.7	504.2	504.7	505.8	505.8
7.5°	501.5	502.0	503.6	504.2	503.1	503.1	502.5	502.0	503.1	503.6	503.6
10°	498.3	498.8	500.9	501.5	500.9	500.4	500.4	499.9	500.4	501.5	501.5
12.5°	494.0	495.0	497.7	497.7	497.7	497.2	497.2	496.6	497.2	498.3	497.7
15°	489.1	491.3	493.4	494.5	494.5	494.5	494.0	493.4	494.5	495.0	494.5
17.5°	483.8	486.5	489.7	490.7	490.7	491.3	490.7	490.2	491.3	491.3	490.7
20°	478.4	481.1	484.3	485.4	486.5	487.0	487.0	486.5	487.0	487.5	487.0
22.5°	471.4	474.7	478.4	480.0	481.1	482.2	482.2	482.2	482.7	483.2	482.2
25°	463.9	467.7	472.0	473.6	475.7	476.3	476.8	476.8	477.3	477.9	476.3
27.5°	455.9	460.2	464.5	467.1	468.8	469.8	469.8	470.4	470.9	471.4	469.8
30°	446.2	452.7	456.4	458.6	460.7	462.3	462.9	463.4	463.9	464.5	462.9
32.5°	437.7	443.0	447.8	450.5	453.2	455.3	455.9	455.9	457.0	457.0	455.3
35°	427.5	433.9	438.7	441.4	444.6	446.2	447.3	447.3	448.4	448.4	446.8
37.5°	417.3	423.7	429.1	432.3	436.0	438.2	438.7	438.7	439.8	439.8	437.7
40°	406.5	413.5	419.4	423.2	426.4	429.1	429.6	431.2	431.2	430.7	428.5
42.5°	395.8	402.3	408.7	413.0	417.3	420.0	421.0	421.6	421.6	421.0	419.4
45°	384.0	391.5	397.4	402.8	407.1	409.8	411.4	411.9	411.9	410.8	409.2
47.5°	372.8	380.3	386.2	392.1	396.4	399.6	401.2	401.7	401.2	400.6	399.0
50°	361.0	369.5	375.4	381.3	385.6	388.3	391.0	391.5	391.0	390.5	387.2
52.5°	348.6	357.7	364.2	370.1	374.9	378.1	380.3	380.8	380.8	379.7	377.6
55°	336.3	344.3	352.4	358.8	364.2	367.4	370.1	371.1	370.1	369.0	366.3
57.5°	325.0	332.5	340.6	347.5	352.9	357.2	359.3	360.4	359.3	357.7	355.1
60°	311.6	319.7	328.8	335.2	341.1	345.4	346.5	348.6	347.5	345.9	343.3
62.5°	298.7	308.4	316.4	324.5	329.3	334.1	336.3	337.4	336.3	334.7	332.0
65°	285.3	296.1	304.1	312.1	317.5	322.3	325.0	325.6	324.5	322.9	320.2
67.5°	273.0	283.2	291.8	300.3	305.2	310.0	312.7	313.8	312.7	310.5	307.9
70°	260.7	270.8	281.0	287.5	293.4	298.7	300.3	302.0	300.9	298.7	295.5
72.5°	248.3	259.1	269.2	275.7	282.1	286.9	289.1	290.7	289.6	287.5	283.7
75°	235.5	246.7	256.9	263.9	270.3	275.1	277.3	278.9	277.8	275.7	271.4
77.5°	223.7	234.9	244.6	252.1	258.5	262.8	266.6	267.1	266.0	263.9	259.6
80°	211.3	222.6	232.8	240.3	246.7	251.0	253.7	255.3	254.2	252.1	247.8
82.5°	200.6	210.8	221.0	228.5	234.9	240.3	242.4	244.0	243.5	240.3	237.1
85°	188.8	200.6	208.6	216.7	223.1	228.5	230.1	232.2	231.7	229.0	224.7
87.5°	177.0	188.8	198.4	206.5	212.4	216.7	219.4	220.4	219.9	217.2	212.4
90°	167.3	178.1	187.7	196.3	201.1	206.0	208.6	209.2	209.2	206.0	202.2
92.5°	158.2	168.4	178.1	186.1	192.0	196.3	198.4	199.5	199.0	196.3	192.0
95°	148.0	159.3	168.4	176.5	182.4	186.6	188.8	189.9	189.3	186.6	182.4
97.5°	139.4	149.6	158.8	166.3	172.2	176.5	178.6	179.7	179.7	177.0	172.7
100°	130.9	141.1	149.6	157.1	162.5	166.8	168.9	169.5	168.9	166.8	162.5
102.5°	122.3	131.9	140.5	147.5	153.4	157.1	159.3	159.8	159.8	157.1	152.9
105°	113.7	123.4	131.4	138.9	143.7	147.5	149.1	150.7	150.2	148.0	143.7
107.5°	105.7	115.3	122.8	129.8	134.6	138.4	140.0	141.6	141.1	138.9	134.6
110°	98.1	107.3	114.2	121.2	125.5	129.3	131.9	132.5	131.4	129.3	125.5



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-23SL-LW-UNV-L950-CD1-U

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
112.5°	91.2	99.2	106.2	112.6	117.5	120.1	122.3	123.4	122.3	120.1	117.5
115°	83.7	91.7	98.7	104.6	108.9	112.1	113.7	114.8	113.7	111.6	108.9
117.5°	76.7	84.2	91.2	97.1	100.8	103.5	105.1	106.2	105.1	103.5	100.8
120°	70.8	77.2	83.7	89.0	93.3	95.5	97.1	98.1	97.6	95.5	92.8
122.5°	63.8	70.8	76.7	82.1	85.8	88.0	89.0	90.1	89.6	88.0	85.3
125°	57.9	63.8	69.7	74.6	78.3	80.5	81.5	82.6	82.1	80.5	77.2
127.5°	51.5	57.9	62.8	67.6	70.3	73.5	74.0	75.1	74.6	72.9	70.3
130°	46.7	51.5	56.3	60.6	63.8	66.0	67.0	67.6	66.5	65.4	62.8
132.5°	40.8	46.1	50.4	54.2	56.3	58.5	59.5	60.1	60.1	58.5	56.3
135°	36.5	40.2	44.0	47.7	49.9	52.0	53.1	53.6	53.1	52.0	49.9
137.5°	32.7	35.9	38.6	41.8	44.5	45.6	46.7	46.7	46.1	45.6	44.0
140°	28.4	32.2	34.9	37.0	39.2	39.7	40.8	40.8	40.2	39.7	38.6
142.5°	24.1	27.4	30.0	32.7	34.3	35.4	35.9	36.5	35.9	35.4	33.8
145°	19.3	23.1	25.7	27.4	29.5	30.0	30.6	31.1	30.6	30.0	28.4
147.5°	15.0	18.2	20.9	23.1	24.7	25.2	25.7	26.3	25.7	24.7	24.1
150°	10.7	13.4	16.6	18.8	19.8	20.9	20.9	20.9	21.5	20.4	19.3
152.5°	8.6	9.7	11.8	13.9	15.6	16.1	16.6	16.6	16.1	16.1	15.0
155°	5.9	7.0	8.6	10.2	11.8	12.3	12.9	12.9	12.3	12.3	11.8
157.5°	3.8	4.8	5.9	7.0	8.6	9.1	9.7	9.7	9.7	9.1	8.6
160°	2.1	2.7	3.2	4.3	5.4	5.9	6.4	6.4	6.4	6.4	5.9
162.5°	1.6	1.6	1.6	2.1	2.7	3.2	3.8	3.8	3.8	3.8	3.2
165°	1.1	1.1	1.1	1.1	1.1	1.6	2.1	2.1	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



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-23SL-LW-UNV-L950-CD1-U

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	508.4	508.4	508.4	508.4	508.4	508.4	508.4	508.4	508.4	508.4	508.4
2.5°	505.8	505.8	506.3	505.2	502.0	502.5	502.5	504.7	505.8	506.3	509.0
5°	504.7	504.7	505.8	504.2	501.5	501.5	501.5	503.6	504.2	505.2	507.4
7.5°	503.1	503.1	503.6	502.0	498.8	498.8	498.3	500.4	501.5	502.0	504.2
10°	500.4	500.4	500.9	499.3	495.6	495.6	495.0	496.6	497.2	498.3	499.9
12.5°	496.6	496.6	496.6	495.0	491.3	490.7	490.2	491.8	491.8	492.4	494.0
15°	493.4	492.4	492.4	490.7	487.0	485.9	484.8	485.4	486.5	485.9	487.0
17.5°	489.7	488.6	487.5	485.9	481.1	479.5	478.4	478.9	478.4	477.9	478.9
20°	485.4	483.8	483.2	480.6	475.7	473.0	470.9	469.8	470.4	468.8	469.3
22.5°	480.6	478.4	477.3	474.1	469.3	466.1	463.4	461.2	460.7	458.6	459.1
25°	474.7	472.0	470.4	467.7	462.3	458.6	455.3	452.1	450.5	447.8	447.3
27.5°	467.7	465.0	462.9	460.2	454.8	450.0	446.2	441.9	439.8	436.6	435.0
30°	460.7	457.5	454.3	452.1	446.2	440.9	435.0	431.2	428.0	424.2	421.6
32.5°	452.1	448.9	445.7	442.5	437.1	430.7	425.9	420.0	416.2	411.9	408.7
35°	443.6	439.3	436.0	431.8	426.9	419.4	413.5	407.6	402.8	398.0	394.2
37.5°	433.9	430.7	425.9	422.1	416.2	408.7	402.3	394.7	390.5	384.0	379.2
40°	424.8	421.0	416.2	411.4	405.5	396.9	389.9	381.3	376.5	369.0	364.2
42.5°	415.7	410.3	405.5	400.1	393.7	385.6	377.0	368.5	362.0	355.1	348.1
45°	405.5	399.6	393.7	387.8	381.3	373.3	364.2	355.1	347.0	340.6	332.0
47.5°	394.7	388.8	381.9	375.4	368.5	360.4	350.8	341.1	332.5	325.0	315.9
50°	384.0	378.1	370.6	363.6	355.6	347.5	337.4	326.1	317.0	307.3	299.3
52.5°	372.8	366.9	359.9	350.8	342.2	334.1	323.4	311.6	301.4	293.4	283.2
55°	361.5	355.6	347.5	338.4	329.8	319.7	309.5	297.7	286.4	276.7	266.6
57.5°	349.7	344.3	335.2	327.7	317.0	306.2	295.5	284.3	271.9	260.7	248.9
60°	337.9	332.0	323.4	314.3	303.6	292.8	281.6	269.2	256.4	244.0	233.3
62.5°	327.2	319.7	311.6	302.0	290.7	280.5	267.6	254.2	241.4	228.5	215.6
65°	314.8	306.8	299.3	289.6	277.8	266.0	253.2	239.7	225.8	211.9	199.0
67.5°	302.5	294.4	286.4	276.7	264.4	252.1	238.7	225.3	209.7	196.3	181.3
70°	290.2	283.7	273.5	263.3	252.1	238.7	225.3	210.8	194.7	180.2	164.7
72.5°	277.8	271.4	261.2	250.5	239.7	225.8	211.3	196.8	181.8	165.2	148.6
75°	266.0	258.0	248.9	238.7	227.4	212.9	198.4	183.4	165.7	150.2	133.0
77.5°	254.8	247.3	238.1	226.9	214.5	200.6	185.6	170.0	152.3	135.7	116.9
80°	242.4	234.9	225.8	214.5	202.2	188.8	172.7	156.6	139.4	121.2	101.9
82.5°	230.6	223.7	213.5	203.3	189.9	176.5	160.4	144.3	126.0	108.3	89.6
85°	218.3	211.3	201.7	190.9	178.1	163.6	148.6	132.5	114.2	96.0	77.2
87.5°	207.6	199.5	189.9	179.1	166.3	152.3	137.8	120.7	103.0	85.3	66.0
90°	196.3	188.8	179.1	168.4	155.5	141.6	126.6	110.5	93.3	75.1	56.9
92.5°	186.6	178.6	169.5	158.8	145.9	132.5	117.5	101.4	84.7	67.0	49.3
95°	177.0	168.9	160.4	149.6	136.8	123.4	108.3	92.8	76.7	59.5	42.9
97.5°	166.3	159.3	150.7	140.5	127.6	114.8	100.3	85.3	69.7	53.1	37.5
100°	157.7	149.6	141.6	130.9	119.1	106.7	92.2	77.8	62.8	47.2	32.7
102.5°	148.0	140.5	132.5	122.3	110.5	98.1	84.7	70.8	56.9	42.4	28.4
105°	138.9	131.9	123.4	113.7	102.4	90.6	77.8	64.9	51.5	37.5	25.2
107.5°	129.8	122.8	114.8	105.7	94.9	83.1	71.3	58.5	46.1	33.8	22.5
110°	120.7	114.2	106.7	97.6	87.4	76.7	65.4	53.6	41.3	30.0	19.8



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-23SL-LW-UNV-L950-CD1-U

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
112.5°	112.6	106.2	98.7	90.1	80.5	70.3	59.5	48.3	37.0	26.8	17.2
115°	104.6	98.7	91.2	83.7	74.0	64.4	54.2	43.4	33.3	24.1	15.0
117.5°	96.5	90.6	83.7	76.2	67.6	58.5	48.8	38.6	30.0	21.5	13.4
120°	88.5	83.1	76.7	69.7	62.2	53.1	43.4	34.9	26.8	18.8	11.8
122.5°	81.0	76.2	70.3	63.8	55.8	47.2	39.2	31.6	24.1	16.6	9.7
125°	74.0	69.2	63.8	57.4	49.9	42.4	35.4	28.4	20.9	14.5	8.0
127.5°	67.0	62.2	56.9	51.0	45.1	38.1	31.6	25.2	18.8	12.9	7.0
130°	60.1	55.8	51.0	46.1	40.2	33.8	28.4	22.0	16.1	10.2	5.9
132.5°	53.1	49.9	45.6	40.8	35.4	30.6	24.7	19.3	13.9	9.1	5.4
135°	47.2	44.0	40.2	35.9	31.6	26.8	21.5	16.6	11.8	7.5	4.3
137.5°	41.8	39.2	35.4	31.6	27.9	23.1	18.8	13.9	9.7	6.4	3.2
140°	37.0	34.3	31.1	27.4	24.1	19.8	15.6	11.3	8.6	5.4	2.7
142.5°	32.2	29.5	26.8	23.6	20.4	16.6	12.9	9.7	7.0	4.3	2.7
145°	27.4	25.2	22.5	19.8	16.6	13.4	10.7	8.0	5.4	3.2	2.1
147.5°	22.5	20.9	18.2	16.1	13.4	10.7	8.6	6.4	4.3	2.7	1.6
150°	18.2	16.6	14.5	12.3	10.7	8.6	7.0	4.8	3.2	2.7	1.6
152.5°	13.9	12.9	11.3	10.2	8.6	6.4	4.8	3.8	2.7	2.1	1.1
155°	11.3	10.2	9.1	7.5	6.4	4.8	3.8	2.7	2.1	1.6	1.1
157.5°	8.0	7.5	6.4	5.4	4.3	3.2	2.7	2.7	1.6	1.1	0.5
160°	5.4	4.8	4.3	3.2	2.7	2.7	2.1	1.6	1.1	1.1	0.5
162.5°	3.2	2.7	2.7	2.7	2.1	2.1	1.6	1.1	1.1	0.5	0.5
165°	2.1	2.1	2.1	1.6	1.6	1.6	1.1	0.5	0.5	0.5	0.5
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: P#

CATALOG NUMBER: 4SNLED-LD5-23SL-LW-UNV-L950-CD1-U

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
0°	508.4	508.4	508.4	508.4	508.4	508.4	508.4	508.4	508.4	508.4	508.4
2.5°	509.0	507.4	509.5	513.3	513.8	513.3	512.2	513.8	516.0	515.4	511.7
5°	507.9	505.8	507.9	511.7	511.7	511.1	510.6	512.2	514.3	513.8	510.6
7.5°	504.7	502.5	504.7	507.9	508.4	507.4	507.4	509.0	511.1	510.6	507.9
10°	500.4	498.3	499.3	503.1	504.2	503.1	503.1	504.7	507.4	506.8	503.6
12.5°	494.0	492.4	493.4	496.6	497.7	497.2	496.6	498.8	501.5	501.5	498.3
15°	487.0	484.8	485.9	489.7	490.2	489.1	489.7	491.3	494.5	494.5	491.8
17.5°	478.9	476.3	477.9	480.6	481.1	481.1	481.1	483.2	487.0	486.5	484.3
20°	469.8	466.1	467.1	469.8	470.9	470.9	470.9	474.7	477.3	477.3	475.2
22.5°	459.1	456.4	456.4	459.1	460.7	460.2	460.2	463.4	467.1	466.6	466.6
25°	446.8	444.6	443.6	446.8	447.3	447.8	448.9	452.1	456.4	456.4	457.0
27.5°	433.9	431.8	431.2	433.9	434.4	435.0	436.0	439.8	444.1	444.6	445.7
30°	421.6	418.3	417.3	419.4	420.5	421.0	421.0	426.9	430.7	432.3	434.4
32.5°	407.1	403.9	401.2	404.9	405.5	406.5	407.1	413.0	417.3	420.0	423.2
35°	392.6	387.2	386.2	388.8	389.9	390.5	391.5	398.0	403.9	406.0	410.3
37.5°	376.5	372.8	369.5	372.2	373.3	373.8	377.0	382.9	388.8	392.1	396.4
40°	361.5	356.7	354.0	355.6	356.7	357.2	361.0	367.4	374.4	378.1	383.5
42.5°	344.9	338.4	336.3	337.9	338.4	340.0	343.3	351.8	358.8	364.2	368.5
45°	328.2	323.4	318.6	320.2	320.7	321.8	326.6	335.7	343.3	349.7	354.5
47.5°	311.1	305.2	300.3	301.4	303.6	304.1	309.5	320.2	327.2	334.1	340.6
50°	293.9	285.9	282.1	282.1	283.2	285.9	292.8	303.6	311.1	319.1	326.1
52.5°	276.2	268.7	264.4	265.0	266.0	269.2	275.7	286.4	295.0	303.6	312.1
55°	258.5	250.5	246.2	245.1	246.2	250.5	258.0	269.2	277.8	288.0	297.1
57.5°	240.8	231.2	227.4	225.8	226.9	232.2	239.7	251.5	262.3	271.9	282.6
60°	221.5	214.0	207.6	203.8	206.5	213.5	221.5	233.8	245.1	255.8	267.6
62.5°	204.9	195.2	188.3	184.5	187.2	193.1	204.3	216.1	228.5	240.8	252.6
65°	186.1	176.5	168.4	164.7	167.3	174.3	185.6	198.4	211.9	224.2	238.1
67.5°	167.9	157.7	148.0	144.3	147.5	155.0	167.3	181.8	196.3	209.2	224.2
70°	150.2	138.9	128.7	126.0	128.2	138.4	150.2	164.7	179.7	194.7	210.2
72.5°	134.1	120.1	109.4	106.2	108.9	120.1	133.5	148.6	164.7	180.7	197.4
75°	115.3	102.4	90.6	86.9	90.1	100.3	116.9	133.0	150.2	167.3	182.9
77.5°	100.3	85.3	72.9	67.0	72.4	85.3	101.4	118.5	136.2	153.9	171.6
80°	84.7	69.2	55.8	49.3	55.2	69.2	85.3	104.0	123.9	141.6	157.7
82.5°	70.8	54.2	40.2	33.3	39.7	55.2	72.9	91.7	111.0	128.7	147.5
85°	57.9	40.8	26.3	18.8	27.9	41.8	60.6	79.9	99.8	118.0	136.2
87.5°	47.2	30.6	16.1	8.0	17.2	32.7	50.4	69.7	89.6	107.8	125.0
90°	38.6	22.0	8.6	1.1	10.2	24.7	41.8	60.6	79.4	98.1	115.3
92.5°	31.6	16.6	4.8	0.5	6.4	19.8	35.9	53.6	71.9	90.1	106.7
95°	26.3	12.9	3.2	0.5	4.8	15.6	30.6	47.7	64.9	82.6	99.2
97.5°	22.5	10.7	2.7	0.5	3.8	13.4	26.3	42.4	59.0	75.6	91.7
100°	19.3	8.6	2.1	0.5	3.2	11.3	23.1	37.5	53.1	69.2	84.7
102.5°	16.6	7.0	1.6	0.5	2.7	9.7	20.4	33.8	47.7	63.3	78.3
105°	14.5	5.9	1.6	0.5	2.1	8.6	18.2	30.0	44.0	57.9	72.4
107.5°	12.3	4.8	1.1	0.5	1.6	7.0	16.1	27.4	39.7	53.1	66.5
110°	10.7	4.3	1.1	0.5	1.6	6.4	13.9	24.7	35.9	48.3	61.1



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-23SL-LW-UNV-L950-CD1-U

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
112.5°	9.1	3.2	1.1	0.5	1.1	5.4	12.3	22.0	32.7	44.0	56.3
115°	8.0	2.7	0.5	0.5	1.1	4.8	11.3	19.8	29.5	40.2	51.5
117.5°	6.4	2.1	0.5	0.5	0.5	3.8	9.7	17.7	26.8	37.0	47.2
120°	5.4	2.1	0.5	0.5	0.5	3.2	8.6	15.6	24.1	33.3	42.9
122.5°	4.8	1.6	0.5	0.5	0.5	2.7	7.5	13.9	21.5	30.0	39.2
125°	4.3	1.6	0.5	0.5	0.5	2.1	6.4	12.3	19.3	26.8	35.4
127.5°	3.2	1.6	0.5	0.5	0.5	1.6	5.9	10.7	17.2	24.1	31.6
130°	2.7	1.1	0.5	0.5	0.5	1.6	4.8	9.7	15.0	21.5	28.4
132.5°	2.1	1.1	0.5	0.5	0.5	1.1	3.8	7.5	12.9	18.8	25.2
135°	2.1	1.1	0.5	0.5	0.5	1.1	2.7	6.4	10.7	16.1	21.5
137.5°	2.1	0.5	0.5	0.5	0.5	1.1	2.1	4.8	8.6	12.9	17.7
140°	1.6	0.5	0.5	0.5	0.5	0.5	1.6	3.8	7.0	10.7	15.0
142.5°	1.6	0.5	0.5	0.5	0.5	0.5	1.6	2.7	5.4	8.6	11.8
145°	1.1	0.5	0.5	0.5	0.5	0.5	1.1	2.1	4.3	6.4	9.7
147.5°	1.1	0.5	0.5	0.5	0.5	0.5	1.1	1.6	3.2	5.4	7.5
150°	1.1	0.5	0.5	0.5	0.5	0.5	1.1	1.6	2.1	3.8	5.9
152.5°	0.5	0.5	0.5	0.5	0.5	0.5	1.1	1.1	1.6	2.7	3.8
155°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	1.1	1.6	2.1	2.7
157.5°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	1.1	1.1	1.6	2.1
160°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	1.1	1.1	1.6
162.5°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	1.1	1.1
165°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
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: P#

CATALOG NUMBER: 4SNLED-LD5-23SL-LW-UNV-L950-CD1-U

CANDELA DISTRIBUTION (continued):

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
0°	508.4	508.4	508.4	508.4	508.4	508.4	508.4	508.4	508.4	508.4	508.4
2.5°	510.1	506.3	507.4	506.8	507.9	509.5	509.5	509.0	509.0	507.9	506.8
5°	509.0	505.2	506.8	506.3	507.4	509.0	509.0	508.4	508.4	506.8	506.3
7.5°	505.8	503.1	504.2	504.2	505.2	506.8	506.8	506.3	506.3	504.7	504.2
10°	502.5	499.3	500.9	500.9	502.0	504.2	504.2	503.6	503.6	502.0	501.5
12.5°	497.2	494.0	496.6	497.2	498.3	500.4	499.9	499.9	499.9	498.3	497.7
15°	490.7	488.6	491.3	491.8	493.4	496.1	496.1	496.1	496.1	494.5	494.0
17.5°	483.8	482.2	484.8	485.9	488.1	490.7	490.7	491.3	491.8	490.7	490.2
20°	475.7	474.7	477.3	479.5	482.7	485.4	486.5	487.0	488.1	487.0	486.5
22.5°	466.6	466.6	470.4	472.5	476.3	478.9	480.6	482.2	483.2	482.2	481.6
25°	456.4	458.0	461.8	465.5	469.8	472.5	474.1	476.3	477.3	476.8	476.3
27.5°	446.8	448.9	453.7	457.5	461.2	465.5	467.1	469.8	470.9	470.9	470.4
30°	435.5	438.7	444.1	448.4	453.2	457.5	459.6	462.3	463.9	462.9	463.4
32.5°	424.8	430.1	434.4	439.3	444.6	448.9	451.6	454.8	456.4	455.9	456.4
35°	413.0	418.3	424.2	429.1	435.5	439.8	443.6	446.2	448.4	447.8	447.8
37.5°	400.1	407.1	413.0	419.4	425.3	430.1	433.9	437.1	439.3	439.3	439.3
40°	387.8	395.3	401.2	408.7	416.2	420.5	424.8	428.0	430.1	430.7	431.2
42.5°	374.4	382.4	389.4	397.4	404.9	410.3	415.1	418.9	421.0	422.1	421.6
45°	362.0	369.5	377.6	386.7	393.7	399.0	404.9	409.2	411.4	411.9	412.4
47.5°	348.1	356.7	365.8	374.9	381.9	388.8	394.2	398.5	400.6	402.3	402.3
50°	334.7	343.8	354.0	363.6	371.1	378.1	383.5	388.3	391.0	392.1	392.6
52.5°	322.3	330.9	341.6	351.3	358.8	365.8	372.8	378.1	380.8	381.9	381.9
55°	307.3	318.0	329.8	339.0	347.0	355.1	362.0	367.4	370.1	371.7	372.8
57.5°	293.4	304.6	317.0	326.6	336.3	343.8	350.2	357.2	359.3	361.5	362.0
60°	280.0	291.2	303.0	313.8	323.4	331.5	339.0	344.9	348.6	349.7	350.8
62.5°	266.0	277.8	290.2	300.9	311.1	320.7	327.7	333.1	337.4	339.0	340.0
65°	252.6	265.0	277.3	288.5	299.3	308.9	315.9	321.3	325.6	328.2	328.8
67.5°	238.1	251.5	264.4	276.2	286.9	297.1	304.1	309.5	313.8	317.0	317.5
70°	224.7	238.7	251.5	264.4	275.1	285.3	292.8	298.2	303.0	305.2	306.2
72.5°	211.9	226.3	239.7	252.6	263.3	273.5	281.6	286.9	291.8	294.4	295.0
75°	199.5	214.0	228.5	240.8	252.1	262.3	270.3	276.2	280.5	283.2	284.3
77.5°	187.2	202.2	216.7	229.0	240.8	251.0	258.0	265.0	269.2	272.5	272.5
80°	174.8	190.4	205.4	217.8	229.6	238.7	246.7	253.7	258.0	261.2	261.2
82.5°	164.1	179.1	193.6	206.0	217.8	227.9	236.0	242.4	247.3	249.4	249.9
85°	151.8	168.4	181.8	195.2	206.5	216.1	224.2	231.2	235.5	237.6	238.7
87.5°	141.6	157.7	172.2	184.0	195.2	204.9	214.0	219.9	224.2	226.9	227.9
90°	131.9	147.5	162.0	173.8	185.6	194.7	203.3	209.2	214.0	216.1	217.2
92.5°	123.4	138.9	152.9	164.7	175.9	186.1	194.2	200.1	204.3	206.5	208.1
95°	115.3	130.3	143.7	156.6	167.3	176.5	185.0	190.9	195.8	197.4	199.0
97.5°	107.3	121.7	135.2	147.5	158.8	167.3	175.4	181.3	185.0	187.7	189.3
100°	100.3	114.2	127.1	138.9	149.6	157.7	166.3	171.6	175.4	177.5	179.7
102.5°	92.8	106.7	119.1	130.3	141.6	149.1	157.1	162.5	165.7	169.5	169.5
105°	86.4	99.2	111.6	122.3	131.9	141.1	148.0	153.4	157.1	159.8	159.8
107.5°	79.4	92.2	104.0	115.3	124.4	133.0	139.4	144.3	148.6	150.2	151.8
110°	74.0	85.3	97.1	107.8	116.4	124.4	130.9	136.2	140.0	141.6	142.7



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-23SL-LW-UNV-L950-CD1-U

CANDELA DISTRIBUTION (continued):

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
112.5°	67.6	79.4	90.1	100.3	108.9	116.4	122.8	127.1	130.9	133.0	133.5
115°	62.2	73.5	83.1	92.8	101.9	108.3	114.2	118.5	122.3	123.9	125.0
117.5°	57.4	67.6	77.2	85.3	93.9	100.8	106.7	110.5	113.7	115.8	116.9
120°	52.6	62.2	70.8	78.8	86.9	93.3	98.7	102.4	106.2	107.8	107.8
122.5°	47.7	56.9	64.9	72.4	79.9	85.8	91.7	94.9	98.1	99.8	99.8
125°	43.4	52.0	59.5	66.5	73.5	78.8	83.7	87.4	90.6	91.7	91.7
127.5°	39.2	47.2	54.2	60.6	66.5	71.9	76.7	80.5	83.1	84.2	84.2
130°	35.4	42.4	48.8	55.2	61.1	65.4	70.3	73.5	75.1	76.7	77.2
132.5°	31.6	38.1	44.0	49.3	55.2	59.5	63.3	66.5	68.1	69.7	70.3
135°	27.9	33.8	39.2	44.5	49.3	53.6	56.9	59.5	61.7	62.8	63.3
137.5°	23.6	30.0	34.9	39.2	44.5	47.7	51.5	53.1	55.2	56.3	56.3
140°	19.8	24.7	30.0	34.3	38.6	41.8	45.1	47.7	49.3	49.9	49.9
142.5°	16.1	20.4	24.7	30.0	33.8	36.5	39.7	41.8	42.9	43.4	44.0
145°	12.9	16.1	19.8	24.7	29.0	32.2	33.8	35.9	37.0	37.5	38.1
147.5°	9.7	12.9	16.1	19.3	23.6	26.8	28.4	30.6	31.6	32.2	32.2
150°	7.5	9.7	11.8	15.0	18.2	22.0	24.1	25.7	26.3	26.8	26.8
152.5°	5.4	7.5	9.1	11.3	13.4	16.6	19.8	20.9	21.5	22.0	22.0
155°	3.8	5.4	6.4	8.0	9.7	12.3	15.0	16.6	17.2	17.7	17.7
157.5°	2.7	3.8	4.3	5.9	7.0	8.0	10.2	12.9	13.4	13.4	13.4
160°	1.6	2.1	2.7	3.8	4.3	5.4	6.4	8.0	9.7	9.7	9.7
162.5°	1.1	1.6	1.6	2.1	2.1	3.2	3.8	4.3	5.9	6.4	6.4
165°	0.5	1.1	1.1	1.1	1.1	1.1	1.6	1.6	2.7	3.2	3.2
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: P#

CATALOG NUMBER: 4SNLED-LD5-23SL-LW-UNV-L950-CD1-U

CANDELA DISTRIBUTION (continued):

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°
0°	508.4	508.4	508.4	508.4	508.4	508.4	508.4	508.4	508.4	508.4	508.4
2.5°	507.4	508.4	507.9	507.9	507.9	509.0	507.9	503.1	504.2	505.2	506.3
5°	506.8	507.4	507.4	506.8	506.8	507.9	506.8	502.0	503.1	504.2	504.7
7.5°	504.7	505.2	505.2	505.2	504.7	505.8	504.2	499.9	499.9	500.9	501.5
10°	502.0	503.1	502.5	502.0	502.0	502.0	500.9	496.1	496.1	496.6	497.2
12.5°	498.8	498.8	498.8	498.3	497.7	497.7	496.6	491.8	491.3	492.4	491.8
15°	494.5	495.6	494.5	494.0	492.9	492.9	491.3	486.5	485.4	485.9	485.4
17.5°	490.7	491.3	490.2	489.1	488.1	487.5	485.9	480.6	478.9	479.5	478.4
20°	487.0	487.0	485.9	484.8	483.2	481.6	479.5	474.1	471.4	471.4	469.3
22.5°	482.2	482.2	481.1	479.5	477.9	475.7	473.6	468.2	463.9	462.9	461.2
25°	476.8	476.3	475.7	474.1	470.9	468.8	466.6	460.7	455.9	453.7	451.1
27.5°	470.4	470.4	468.8	467.1	463.9	461.2	458.6	453.2	446.8	444.1	440.3
30°	463.4	463.4	461.8	459.6	456.4	453.2	450.0	443.6	437.1	433.4	429.1
32.5°	456.4	455.9	454.3	452.1	448.9	444.1	441.4	435.0	427.5	423.2	417.3
35°	447.8	447.3	445.7	443.0	438.7	435.0	430.7	424.8	416.2	410.8	404.4
37.5°	439.3	438.7	437.7	433.9	429.6	425.3	420.0	414.1	406.0	399.0	392.6
40°	430.7	430.1	428.0	425.3	420.0	414.6	409.2	403.3	394.7	386.7	379.7
42.5°	421.6	421.0	418.3	415.1	409.2	403.9	397.4	391.0	382.4	372.8	365.8
45°	412.4	411.4	408.7	404.9	398.5	392.6	386.2	378.7	370.1	361.0	351.8
47.5°	402.8	401.2	398.5	393.1	387.8	381.3	373.8	365.8	357.2	347.0	337.4
50°	392.1	391.0	387.8	382.9	376.5	370.1	361.5	353.4	343.3	333.6	321.8
52.5°	381.9	379.7	377.0	371.7	365.2	358.3	349.2	339.5	329.3	320.2	307.9
55°	371.1	370.1	366.3	362.0	354.0	345.9	337.4	327.2	315.9	305.2	293.4
57.5°	361.0	358.8	355.6	349.7	342.7	334.7	325.6	314.8	302.5	291.2	278.4
60°	350.8	347.5	343.8	338.4	330.9	322.3	312.7	301.4	289.1	276.7	263.3
62.5°	339.5	336.8	332.5	327.2	319.7	310.5	300.3	288.5	276.7	263.9	249.4
65°	328.2	325.6	321.3	315.9	308.4	298.2	287.5	275.7	262.3	249.9	234.4
67.5°	317.0	314.3	309.5	303.6	296.1	286.4	275.1	262.8	249.4	236.0	219.9
70°	305.7	302.5	298.2	291.8	284.3	274.1	262.8	249.9	236.5	222.0	206.0
72.5°	294.4	291.8	286.4	280.5	272.5	262.3	251.0	238.1	224.2	209.2	193.1
75°	283.2	280.0	276.2	269.2	260.7	251.0	239.2	226.3	211.3	196.8	180.2
77.5°	271.9	269.2	264.4	257.4	249.4	239.2	227.4	214.5	199.5	184.5	166.8
80°	260.7	257.4	253.7	247.3	238.1	227.9	215.6	202.7	187.7	172.2	154.5
82.5°	249.4	246.2	241.9	235.5	226.9	216.7	204.9	190.9	175.9	159.8	143.2
85°	238.1	235.5	230.6	224.2	215.1	204.9	193.1	180.7	164.7	148.6	131.9
87.5°	226.9	224.2	219.4	212.9	204.3	194.2	182.4	169.5	153.9	138.9	120.7
90°	216.1	214.0	209.2	202.7	194.2	184.0	173.2	159.3	144.3	129.3	112.1
92.5°	206.5	204.3	200.1	193.6	186.1	174.8	164.1	150.7	135.7	120.1	103.5
95°	197.9	195.2	190.9	185.0	175.9	166.3	155.5	142.1	127.6	112.1	96.0
97.5°	188.3	185.6	181.3	174.8	167.3	157.1	146.4	133.5	119.1	104.6	88.5
100°	178.6	175.9	171.1	165.7	158.2	148.0	137.8	125.0	111.6	97.6	82.1
102.5°	168.9	166.3	162.0	156.6	149.1	140.0	129.8	117.5	104.0	90.1	75.6
105°	159.8	157.1	152.9	147.5	140.5	131.4	120.7	109.9	97.1	83.7	69.7
107.5°	150.7	148.0	144.3	138.9	131.9	123.4	113.2	101.9	90.1	77.2	63.8
110°	141.6	139.4	135.2	130.3	123.4	114.8	105.7	94.9	83.1	71.3	58.5



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-23SL-LW-UNV-L950-CD1-U

CANDELA DISTRIBUTION (continued):

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°
112.5°	133.0	130.9	126.6	121.2	115.3	107.3	98.1	88.0	76.7	65.4	53.1
115°	124.4	121.7	118.0	113.2	107.3	99.8	91.2	82.1	70.8	60.1	48.8
117.5°	115.8	113.7	109.9	105.1	99.8	92.2	84.2	75.6	64.9	54.7	44.5
120°	107.3	105.7	101.9	97.6	92.2	85.3	77.8	69.2	59.5	49.9	40.2
122.5°	99.2	97.6	93.9	90.1	84.7	78.3	71.3	63.3	54.7	45.6	37.0
125°	91.7	89.6	86.4	82.6	77.8	71.9	64.9	57.4	49.3	41.3	33.3
127.5°	83.7	82.1	79.9	75.6	70.8	65.4	59.0	52.6	45.1	37.5	30.0
130°	77.2	75.1	72.4	69.2	64.9	59.5	53.6	47.2	40.8	33.8	26.3
132.5°	69.7	67.6	65.4	62.2	58.5	53.6	48.3	42.4	36.5	30.0	23.6
135°	62.8	61.1	59.0	55.8	52.0	48.3	42.9	37.5	32.2	26.3	20.9
137.5°	56.3	54.7	52.6	50.4	46.7	42.9	38.1	33.3	28.4	23.1	18.2
140°	49.9	48.8	46.7	44.5	41.3	37.5	33.3	29.0	24.7	19.8	15.6
142.5°	43.4	42.4	40.8	38.6	35.9	32.7	29.0	25.2	20.9	17.2	13.4
145°	37.5	37.0	35.4	33.3	31.1	27.9	24.7	21.5	17.7	14.5	10.7
147.5°	31.6	31.1	30.0	28.4	26.3	23.6	20.9	17.7	15.0	11.8	8.6
150°	26.3	25.7	25.2	23.1	22.0	19.3	17.2	14.5	12.3	9.1	7.0
152.5°	21.5	21.5	20.4	18.8	17.7	15.6	13.9	11.8	9.7	7.5	5.4
155°	17.2	16.6	16.1	15.0	13.9	12.3	10.7	9.1	7.5	5.4	3.8
157.5°	13.4	12.9	12.3	11.3	10.2	9.7	8.0	6.4	4.8	3.8	2.7
160°	9.7	9.1	8.6	8.0	7.5	6.4	5.4	4.3	3.2	2.1	1.6
162.5°	6.4	5.9	5.9	5.4	4.8	3.8	3.2	2.7	2.1	1.6	1.1
165°	3.2	3.2	2.7	2.7	2.1	1.6	1.6	1.6	1.1	1.1	0.5
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: P#

CATALOG NUMBER: 4SNLED-LD5-23SL-LW-UNV-L950-CD1-U

CANDELA DISTRIBUTION (continued):

	330°	335°	340°	345°	350°	355°	360°
0°	508.4	508.4	508.4	508.4	508.4	508.4	508.4
2.5°	505.8	505.8	507.9	507.4	505.8	509.0	512.7
5°	504.2	504.2	505.8	505.8	504.2	507.4	510.6
7.5°	501.5	500.9	502.5	502.5	500.4	503.1	506.8
10°	496.6	496.1	497.7	497.7	495.6	498.3	501.5
12.5°	491.3	490.2	491.8	491.3	489.1	491.8	495.0
15°	484.3	483.8	484.8	483.8	481.6	484.3	487.5
17.5°	477.3	475.7	476.3	476.3	472.5	475.2	477.9
20°	468.2	466.1	466.6	466.1	463.4	465.0	468.2
22.5°	459.1	455.9	455.9	455.3	452.1	454.3	457.0
25°	447.8	444.1	444.1	443.6	439.8	441.4	444.1
27.5°	436.6	432.8	431.2	430.7	426.9	426.9	430.7
30°	424.8	419.4	418.3	416.7	413.0	413.0	416.2
32.5°	413.5	406.0	403.9	401.7	398.0	397.4	401.2
35°	398.5	392.6	388.8	386.7	382.4	381.3	384.6
37.5°	386.2	378.7	373.3	370.6	366.3	364.7	369.0
40°	372.8	364.7	357.7	356.1	349.7	347.5	351.3
42.5°	357.7	349.2	342.2	339.0	334.1	332.0	332.5
45°	342.7	333.6	326.1	321.8	317.0	313.2	315.4
47.5°	327.2	319.1	310.0	303.6	297.7	295.0	296.1
50°	311.6	302.0	293.4	286.4	279.4	276.2	278.4
52.5°	296.1	285.9	276.2	268.7	260.7	257.4	258.0
55°	281.0	270.3	259.1	251.0	243.5	238.7	237.6
57.5°	266.0	254.2	242.4	233.3	223.7	219.4	217.8
60°	249.9	237.6	225.3	214.5	204.3	199.5	197.4
62.5°	234.9	221.5	207.6	196.3	186.1	179.7	178.1
65°	220.4	204.9	190.9	178.1	166.8	159.8	157.7
67.5°	204.9	188.8	173.8	159.8	149.1	140.0	138.9
70°	190.4	173.2	156.6	142.1	130.3	121.2	116.9
72.5°	175.9	158.2	141.1	125.5	110.5	101.9	98.7
75°	162.0	143.7	125.5	109.4	92.8	82.6	79.4
77.5°	149.1	130.3	111.0	93.3	77.8	64.9	60.6
80°	136.8	117.5	97.1	78.8	62.2	48.3	43.4
82.5°	123.9	105.7	84.7	65.4	48.3	33.8	27.9
85°	112.6	94.4	73.5	54.2	37.0	21.5	15.0
87.5°	103.5	83.7	64.9	45.6	27.9	12.3	4.3
90°	94.4	75.1	56.3	37.5	20.9	7.0	0.5
92.5°	86.4	68.1	49.3	32.2	16.1	4.8	0.5
95°	78.8	61.1	43.4	26.8	12.9	3.2	0.5
97.5°	71.9	55.2	38.6	23.1	10.7	2.7	0.5
100°	66.0	49.9	34.3	20.4	9.1	2.1	0.5
102.5°	60.1	45.1	30.6	17.7	8.0	1.6	0.5
105°	55.2	40.8	27.4	16.1	7.0	1.6	0.5
107.5°	50.4	37.0	24.7	13.9	5.9	1.1	0.5
110°	45.6	33.8	22.0	12.3	5.4	1.1	0.5



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-23SL-LW-UNV-L950-CD1-U

CANDELA DISTRIBUTION (continued):

	330°	335°	340°	345°	350°	355°	360°
112.5°	41.8	30.6	19.8	11.3	4.3	1.1	0.5
115°	38.1	27.4	17.7	9.7	3.8	0.5	0.5
117.5°	34.3	24.7	15.6	8.6	3.2	0.5	0.5
120°	31.1	22.0	13.9	7.5	2.7	0.5	0.5
122.5°	27.9	19.8	12.3	6.4	2.1	0.5	0.5
125°	25.2	17.7	10.7	5.4	1.6	0.5	0.5
127.5°	22.5	15.6	9.7	4.8	1.6	0.5	0.5
130°	19.8	13.9	8.0	3.8	1.1	0.5	0.5
132.5°	17.7	11.8	7.0	3.2	1.1	0.5	0.5
135°	15.6	10.2	5.9	2.1	1.1	0.5	0.5
137.5°	13.4	8.6	4.8	1.6	0.5	0.5	0.5
140°	11.3	7.5	3.8	1.6	0.5	0.5	0.5
142.5°	9.7	5.9	2.7	1.1	0.5	0.5	0.5
145°	7.5	4.8	2.1	1.1	0.5	0.5	0.5
147.5°	5.9	3.8	1.6	1.1	0.5	0.5	0.5
150°	4.3	2.7	1.6	0.5	0.5	0.5	0.5
152.5°	3.2	2.1	1.1	0.5	0.5	0.5	0.5
155°	2.1	1.6	1.1	0.5	0.5	0.5	0.5
157.5°	1.6	1.1	0.5	0.5	0.5	0.5	0.5
160°	1.1	0.5	0.5	0.5	0.5	0.5	0.5
162.5°	0.5	0.5	0.5	0.5	0.5	0.5	0.5
165°	0.5	0.5	0.5	0.5	0.5	0.5	0.5
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)