

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-LD5-47SL-LW-UNV-L930-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-LD5-47SL-LW-UNV-L930-CD1-U
Description: 4FT LINEAR SNLED LED FIXTURE
WIDE FROSTED LENS
Light Source: -
Ballast/Driver: -

Summary

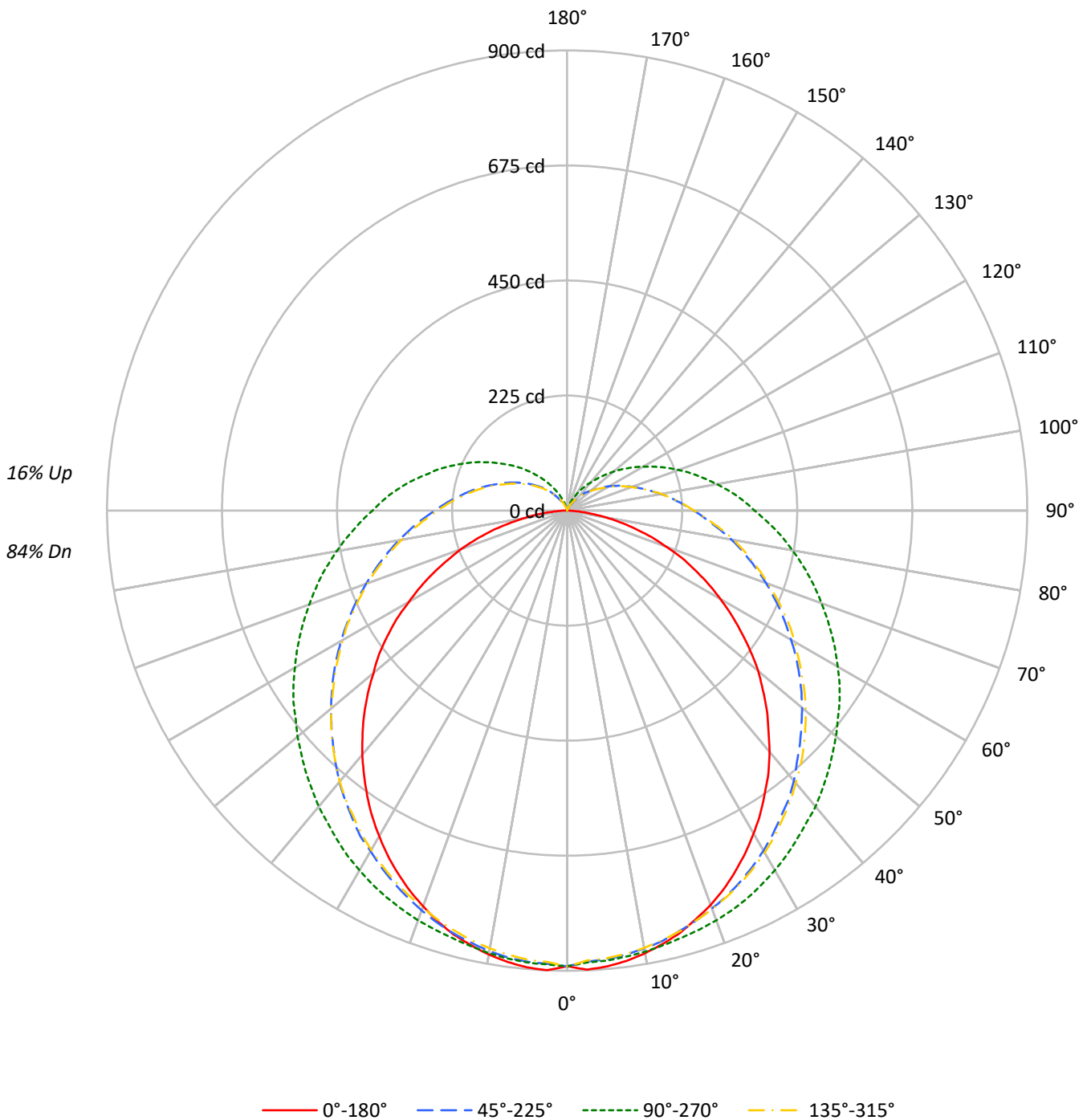
Lumens per Lamp: N/A
Luminaire Lumens: 3872.0 lumens
Efficiency: N/A
Efficacy: 94.4 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.36 / 1.44
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.12')
CIE Type: Semi-Direct

Input Watts (W): 41
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



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				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°	7202	7202	7202	7202
5°	7240	6941	7256	6970
10°	7173	6743	7196	6765
15°	7090	6575	7121	6581
20°	6978	6451	7002	6451
25°	6841	6342	6882	6335
30°	6686	6230	6739	6230
35°	6508	6124	6580	6132
40°	6330	6063	6407	6063
45°	6126	5999	6219	6007
50°	5914	5961	5994	5978
55°	5617	5967	5794	5993
60°	5305	5985	5477	6021
65°	4953	6045	5172	6105
70°	4458	6157	4807	6244
75°	3889	6358	4259	6480
80°	3008	6656	3419	6809
85°	1797	7135	2248	7331



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	84.4	2.2
10°-20°	242.6	6.3
20°-30°	372.0	9.6
30°-40°	458.9	11.9
40°-50°	497.9	12.9
50°-60°	490.8	12.7
60°-70°	443.7	11.5
70°-80°	369.7	9.5
80°-90°	286.3	7.4
90°-100°	217.1	5.6
100°-110°	160.7	4.2
110°-120°	111.8	2.9
120°-130°	71.3	1.8
130°-140°	40.0	1.0
140°-150°	18.3	0.5
150°-160°	5.7	0.1
160°-170°	0.7	0.0
170°-180°	0.0	0.0
0°-30°	699.1	18.1
0°-40°	1158.0	29.9
0°-60°	2146.7	55.4
0°-90°	3246.4	83.8
90°-120°	489.6	12.6
90°-150°	619.2	16.0
90°-180°	626.0	16.2
0°-180°	3872.0	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	891	891	891	891	891	
5°	895	884	897	888	895	85
15°	855	865	858	866	855	241
25°	778	836	783	835	778	359
35°	674	784	682	785	674	422
45°	553	722	561	723	553	426
55°	416	651	430	653	416	373
65°	276	571	289	576	276	274
75°	139	489	152	498	139	147
85°	26	407	33	418	26	32
90°	1	367	2	381	1	1
95°	1	333	1	349	1	1
105°	1	264	1	280	1	1
115°	1	201	1	219	1	1
125°	1	145	1	161	1	1
135°	1	94	1	111	1	1
145°	1	54	1	67	1	1
155°	1	23	1	31	1	0
165°	1	4	1	6	1	0
175°	0	0	0	0	0	0
180°	0	0	0	0	0	0



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-47SL-LW-UNV-L930-CD1-U

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	891.2	891.2	891.2	891.2	891.2	891.2	891.2	891.2	891.2	891.2	891.2
2.5°	898.7	898.7	897.8	895.9	896.9	899.7	897.8	893.1	890.3	882.8	884.6
5°	895.0	895.0	894.0	892.2	893.1	896.9	895.0	891.2	887.5	880.9	883.7
7.5°	888.4	888.4	887.5	885.6	887.5	891.2	889.3	885.6	882.8	876.2	879.0
10°	879.0	879.9	879.0	876.2	879.9	883.7	882.8	878.1	875.2	869.6	872.4
12.5°	867.7	868.7	867.7	866.8	868.7	874.3	872.4	868.7	866.8	862.1	864.9
15°	854.6	855.5	853.6	853.6	855.5	861.1	861.1	857.4	855.5	850.8	856.4
17.5°	837.6	838.6	837.6	837.6	839.5	845.2	846.1	844.2	842.3	840.5	846.1
20°	820.7	819.8	819.8	818.8	822.6	831.1	830.1	830.1	828.2	828.2	834.8
22.5°	801.0	801.0	800.0	800.0	804.7	812.3	812.3	814.1	812.3	816.0	821.7
25°	778.4	779.3	778.4	780.3	784.0	792.5	793.4	796.3	797.2	801.0	807.6
27.5°	754.9	755.8	754.9	756.8	763.4	769.9	774.6	778.4	779.3	785.0	793.4
30°	729.5	729.5	730.5	732.3	739.9	750.2	754.0	758.7	758.7	768.1	776.5
32.5°	703.2	703.2	703.2	707.0	715.4	727.6	732.3	738.0	739.9	749.3	758.7
35°	674.1	675.0	675.0	677.8	689.1	701.3	707.9	714.5	718.2	729.5	738.9
37.5°	646.8	648.7	645.9	649.6	665.6	675.9	683.5	690.0	696.6	711.7	719.2
40°	615.8	617.6	616.7	624.2	637.4	650.6	659.0	665.6	675.0	690.0	698.5
42.5°	582.9	584.7	586.6	595.1	609.2	622.4	632.7	641.2	652.4	665.6	679.7
45°	552.8	552.8	555.6	565.9	581.0	595.1	607.3	616.7	629.9	644.0	658.1
47.5°	518.9	519.9	523.6	535.9	551.8	568.8	580.0	592.3	606.4	621.4	637.4
50°	487.9	487.9	493.6	506.7	521.8	540.6	552.8	566.9	581.9	599.8	615.8
52.5°	452.2	454.1	462.5	474.8	494.5	511.4	525.5	540.6	558.4	577.2	595.1
55°	416.5	420.2	426.8	443.7	464.4	480.4	497.3	516.1	533.0	553.7	574.4
57.5°	381.7	384.5	394.8	411.8	433.4	453.1	471.0	488.9	509.5	530.2	551.8
60°	346.0	349.7	361.9	378.9	402.4	423.0	443.7	462.5	484.2	505.8	528.3
62.5°	312.1	314.9	329.0	348.8	372.3	394.8	415.5	438.1	461.6	482.3	504.8
65°	276.4	281.1	297.1	314.9	342.2	364.8	388.3	412.7	437.1	459.7	481.3
67.5°	243.5	246.3	263.2	283.9	311.2	336.6	361.0	387.3	412.7	436.2	457.8
70°	204.9	214.3	231.3	252.9	282.0	308.4	334.7	361.9	389.2	413.6	434.3
72.5°	173.0	180.5	199.3	222.8	251.0	282.0	309.3	338.4	365.7	391.1	412.7
75°	139.1	146.7	168.3	194.6	223.7	256.6	284.9	314.9	343.1	368.5	391.1
77.5°	106.2	115.6	139.1	166.4	198.4	232.2	261.3	291.4	320.6	347.8	370.4
80°	76.1	86.5	111.9	142.9	173.9	207.8	239.7	269.8	299.0	326.2	349.7
82.5°	48.9	60.2	87.4	118.5	151.4	185.2	218.1	248.2	277.3	304.6	329.0
85°	26.3	38.5	66.7	97.8	130.7	164.5	197.4	229.4	257.6	283.0	309.3
87.5°	7.5	22.6	49.8	80.8	114.7	145.7	177.7	209.6	237.8	265.1	288.6
90°	0.9	13.2	37.6	66.7	99.7	129.7	161.7	191.8	220.0	247.2	270.8
92.5°	0.9	8.5	29.1	55.5	85.5	116.6	148.5	177.7	204.0	231.3	254.8
95°	0.9	6.6	23.5	47.0	75.2	104.4	134.4	162.6	189.9	215.3	238.8
97.5°	0.9	4.7	18.8	40.4	65.8	93.1	122.2	150.4	176.7	201.2	222.8
100°	0.9	3.8	15.0	34.8	57.3	83.7	110.0	137.3	162.6	186.1	208.7
102.5°	0.9	2.8	13.2	29.1	50.8	74.3	99.7	125.0	149.5	172.0	194.6
105°	0.9	2.8	11.3	25.4	45.1	66.7	90.3	114.7	137.3	158.9	179.6
107.5°	0.9	1.9	9.4	21.6	39.5	60.2	81.8	105.3	126.0	146.7	166.4
110°	0.9	1.9	7.5	19.7	34.8	53.6	74.3	95.9	115.6	135.4	154.2



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	0.9	1.9	6.6	16.9	30.1	47.9	66.7	86.5	105.3	125.0	142.0
115°	0.9	1.9	5.6	15.0	28.2	41.4	60.2	78.0	96.8	114.7	130.7
117.5°	0.9	1.9	4.7	12.2	24.4	37.6	52.6	70.5	87.4	104.4	119.4
120°	0.9	1.9	3.8	11.3	21.6	33.8	47.0	63.0	79.0	95.0	110.9
122.5°	0.9	0.9	3.8	9.4	18.8	30.1	43.2	55.5	70.5	85.5	99.7
125°	0.9	0.9	3.8	8.5	16.0	27.3	38.5	49.8	63.0	76.1	88.4
127.5°	0.9	0.9	2.8	6.6	14.1	23.5	33.8	46.1	55.5	67.7	79.9
130°	0.9	0.9	2.8	5.6	12.2	19.7	30.1	40.4	51.7	60.2	70.5
132.5°	0.9	0.9	2.8	4.7	9.4	16.0	25.4	34.8	45.1	54.5	63.0
135°	0.9	0.9	1.9	3.8	7.5	13.2	20.7	29.1	39.5	48.9	57.3
137.5°	0.9	0.9	1.9	3.8	5.6	11.3	16.0	23.5	32.9	41.4	49.8
140°	0.9	0.9	1.9	2.8	4.7	8.5	13.2	18.8	26.3	33.8	43.2
142.5°	0.9	0.9	0.9	2.8	3.8	6.6	10.3	15.0	20.7	27.3	34.8
145°	0.9	0.9	0.9	2.8	3.8	4.7	8.5	12.2	16.0	20.7	27.3
147.5°	0.9	0.9	0.9	1.9	2.8	3.8	6.6	9.4	12.2	16.0	19.7
150°	0.9	0.9	0.9	1.9	2.8	3.8	4.7	6.6	9.4	13.2	16.0
152.5°	0.9	0.9	0.9	1.9	1.9	2.8	3.8	4.7	6.6	9.4	11.3
155°	0.9	0.9	0.9	0.9	1.9	2.8	3.8	3.8	4.7	6.6	8.5
157.5°	0.9	0.9	0.9	0.9	1.9	1.9	2.8	2.8	3.8	3.8	5.6
160°	0.9	0.9	0.9	0.9	0.9	1.9	1.9	2.8	2.8	2.8	2.8
162.5°	0.9	0.9	0.9	0.9	0.9	0.9	1.9	1.9	1.9	2.8	2.8
165°	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	1.9	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



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	891.2	891.2	891.2	891.2	891.2	891.2	891.2	891.2	891.2	891.2	891.2
2.5°	884.6	885.6	888.4	888.4	886.5	886.5	885.6	884.6	885.6	887.5	887.5
5°	882.8	883.7	886.5	887.5	885.6	884.6	884.6	883.7	884.6	886.5	886.5
7.5°	879.0	879.9	882.8	883.7	881.8	881.8	880.9	879.9	881.8	882.8	882.8
10°	873.4	874.3	878.1	879.0	878.1	877.1	877.1	876.2	877.1	879.0	879.0
12.5°	865.8	867.7	872.4	872.4	872.4	871.5	871.5	870.5	871.5	873.4	872.4
15°	857.4	861.1	864.9	866.8	866.8	866.8	865.8	864.9	866.8	867.7	866.8
17.5°	848.0	852.7	858.3	860.2	860.2	861.1	860.2	859.3	861.1	861.1	860.2
20°	838.6	843.3	848.9	850.8	852.7	853.6	853.6	852.7	853.6	854.6	853.6
22.5°	826.4	832.0	838.6	841.4	843.3	845.2	845.2	845.2	846.1	847.0	845.2
25°	813.2	819.8	827.3	830.1	833.9	834.8	835.8	835.8	836.7	837.6	834.8
27.5°	799.1	806.6	814.1	818.8	821.7	823.5	823.5	824.5	825.4	826.4	823.5
30°	782.2	793.4	800.0	803.8	807.6	810.4	811.3	812.3	813.2	814.1	811.3
32.5°	767.1	776.5	785.0	789.7	794.4	798.2	799.1	799.1	801.0	801.0	798.2
35°	749.3	760.5	769.0	773.7	779.3	782.2	784.0	784.0	785.9	785.9	783.1
37.5°	731.4	742.7	752.1	757.7	764.3	768.1	769.0	769.0	770.9	770.9	767.1
40°	712.6	724.8	735.2	741.7	747.4	752.1	753.0	755.8	755.8	754.9	751.1
42.5°	693.8	705.1	716.4	723.9	731.4	736.1	738.0	738.9	738.9	738.0	735.2
45°	673.1	686.3	696.6	706.0	713.5	718.2	721.1	722.0	722.0	720.1	717.3
47.5°	653.4	666.5	676.9	687.2	694.7	700.4	703.2	704.1	703.2	702.3	699.4
50°	632.7	647.7	658.1	668.4	675.9	680.6	685.3	686.3	685.3	684.4	678.8
52.5°	611.1	627.1	638.3	648.7	657.1	662.8	666.5	667.5	667.5	665.6	661.8
55°	589.4	603.5	617.6	628.9	638.3	644.0	648.7	650.6	648.7	646.8	642.1
57.5°	569.7	582.9	597.0	609.2	618.6	626.1	629.9	631.8	629.9	627.1	622.4
60°	546.2	560.3	576.3	587.6	597.9	605.4	607.3	611.1	609.2	606.4	601.7
62.5°	523.6	540.6	554.7	568.8	577.2	585.7	589.4	591.3	589.4	586.6	581.9
65°	500.1	518.9	533.0	547.1	556.5	565.0	569.7	570.6	568.8	565.9	561.2
67.5°	478.5	496.4	511.4	526.5	534.9	543.4	548.1	550.0	548.1	544.3	539.6
70°	456.9	474.8	492.6	503.9	514.2	523.6	526.5	529.3	527.4	523.6	518.0
72.5°	435.3	454.1	471.9	483.2	494.5	503.0	506.7	509.5	507.7	503.9	497.3
75°	412.7	432.4	450.3	462.5	473.8	482.3	486.0	488.9	487.0	483.2	475.7
77.5°	392.0	411.8	428.7	441.8	453.1	460.7	467.2	468.2	466.3	462.5	455.0
80°	370.4	390.1	408.0	421.2	432.4	440.0	444.7	447.5	445.6	441.8	434.3
82.5°	351.6	369.5	387.3	400.5	411.8	421.2	424.9	427.7	426.8	421.2	415.5
85°	330.9	351.6	365.7	379.8	391.1	400.5	403.3	407.1	406.1	401.4	393.9
87.5°	310.2	330.9	347.8	361.9	372.3	379.8	384.5	386.4	385.4	380.7	372.3
90°	293.3	312.1	329.0	344.1	352.5	361.0	365.7	366.6	366.6	361.0	354.4
92.5°	277.3	295.2	312.1	326.2	336.6	344.1	347.8	349.7	348.8	344.1	336.6
95°	259.5	279.2	295.2	309.3	319.6	327.2	330.9	332.8	331.9	327.2	319.6
97.5°	244.4	262.3	278.3	291.4	301.8	309.3	313.1	314.9	314.9	310.2	302.7
100°	229.4	247.2	262.3	275.5	284.9	292.4	296.1	297.1	296.1	292.4	284.9
102.5°	214.3	231.3	246.3	258.5	268.9	275.5	279.2	280.2	280.2	275.5	267.9
105°	199.3	216.2	230.3	243.5	251.9	258.5	261.3	264.2	263.2	259.5	251.9
107.5°	185.2	202.1	215.3	227.5	236.0	242.5	245.4	248.2	247.2	243.5	236.0
110°	172.0	188.0	200.2	212.5	220.0	226.6	231.3	232.2	230.3	226.6	220.0



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-47SL-LW-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
112.5°	159.8	173.9	186.1	197.4	205.9	210.6	214.3	216.2	214.3	210.6	205.9
115°	146.7	160.8	173.0	183.3	190.8	196.5	199.3	201.2	199.3	195.5	190.8
117.5°	134.4	147.6	159.8	170.2	176.7	181.4	184.3	186.1	184.3	181.4	176.7
120°	124.1	135.4	146.7	156.1	163.6	167.3	170.2	172.0	171.1	167.3	162.6
122.5°	111.9	124.1	134.4	143.8	150.4	154.2	156.1	157.9	157.0	154.2	149.5
125°	101.5	111.9	122.2	130.7	137.3	141.0	142.9	144.8	143.8	141.0	135.4
127.5°	90.3	101.5	110.0	118.5	123.2	128.8	129.7	131.6	130.7	127.9	123.2
130°	81.8	90.3	98.7	106.2	111.9	115.6	117.5	118.5	116.6	114.7	110.0
132.5°	71.4	80.8	88.4	95.0	98.7	102.5	104.4	105.3	105.3	102.5	98.7
135°	63.9	70.5	77.1	83.7	87.4	91.2	93.1	94.0	93.1	91.2	87.4
137.5°	57.3	63.0	67.7	73.3	78.0	79.9	81.8	81.8	80.8	79.9	77.1
140°	49.8	56.4	61.1	64.9	68.6	69.6	71.4	71.4	70.5	69.6	67.7
142.5°	42.3	47.9	52.6	57.3	60.2	62.0	63.0	63.9	63.0	62.0	59.2
145°	33.8	40.4	45.1	47.9	51.7	52.6	53.6	54.5	53.6	52.6	49.8
147.5°	26.3	32.0	36.7	40.4	43.2	44.2	45.1	46.1	45.1	43.2	42.3
150°	18.8	23.5	29.1	32.9	34.8	36.7	36.7	36.7	37.6	35.7	33.8
152.5°	15.0	16.9	20.7	24.4	27.3	28.2	29.1	29.1	28.2	28.2	26.3
155°	10.3	12.2	15.0	17.9	20.7	21.6	22.6	22.6	21.6	21.6	20.7
157.5°	6.6	8.5	10.3	12.2	15.0	16.0	16.9	16.9	16.9	16.0	15.0
160°	3.8	4.7	5.6	7.5	9.4	10.3	11.3	11.3	11.3	11.3	10.3
162.5°	2.8	2.8	2.8	3.8	4.7	5.6	6.6	6.6	6.6	6.6	5.6
165°	1.9	1.9	1.9	1.9	1.9	2.8	3.8	3.8	3.8	3.8	3.8
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-LD5-47SL-LW-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	891.2	891.2	891.2	891.2	891.2	891.2	891.2	891.2	891.2	891.2	891.2
2.5°	886.5	886.5	887.5	885.6	879.9	880.9	880.9	884.6	886.5	887.5	892.2
5°	884.6	884.6	886.5	883.7	879.0	879.0	879.0	882.8	883.7	885.6	889.3
7.5°	881.8	881.8	882.8	879.9	874.3	874.3	873.4	877.1	879.0	879.9	883.7
10°	877.1	877.1	878.1	875.2	868.7	868.7	867.7	870.5	871.5	873.4	876.2
12.5°	870.5	870.5	870.5	867.7	861.1	860.2	859.3	862.1	862.1	863.0	865.8
15°	864.9	863.0	863.0	860.2	853.6	851.7	849.9	850.8	852.7	851.7	853.6
17.5°	858.3	856.4	854.6	851.7	843.3	840.5	838.6	839.5	838.6	837.6	839.5
20°	850.8	848.0	847.0	842.3	833.9	829.2	825.4	823.5	824.5	821.7	822.6
22.5°	842.3	838.6	836.7	831.1	822.6	817.0	812.3	808.5	807.6	803.8	804.7
25°	832.0	827.3	824.5	819.8	810.4	803.8	798.2	792.5	789.7	785.0	784.0
27.5°	819.8	815.1	811.3	806.6	797.2	788.7	782.2	774.6	770.9	765.2	762.4
30°	807.6	801.9	796.3	792.5	782.2	772.8	762.4	755.8	750.2	743.6	738.9
32.5°	792.5	786.9	781.2	775.6	766.2	754.9	746.4	736.1	729.5	722.0	716.4
35°	777.5	769.9	764.3	756.8	748.3	735.2	724.8	714.5	706.0	697.6	691.0
37.5°	760.5	754.9	746.4	739.9	729.5	716.4	705.1	691.9	684.4	673.1	664.7
40°	744.6	738.0	729.5	721.1	710.7	695.7	683.5	668.4	660.0	646.8	638.3
42.5°	728.6	719.2	710.7	701.3	690.0	675.9	660.9	645.9	634.6	622.4	610.1
45°	710.7	700.4	690.0	679.7	668.4	654.3	638.3	622.4	608.2	597.0	581.9
47.5°	691.9	681.6	669.4	658.1	645.9	631.8	614.8	597.9	582.9	569.7	553.7
50°	673.1	662.8	649.6	637.4	623.3	609.2	591.3	571.6	555.6	538.7	524.6
52.5°	653.4	643.0	630.8	614.8	599.8	585.7	566.9	546.2	528.3	514.2	496.4
55°	633.6	623.3	609.2	593.2	578.2	560.3	542.4	521.8	502.0	485.1	467.2
57.5°	612.9	603.5	587.6	574.4	555.6	536.8	518.0	498.3	476.6	456.9	436.2
60°	592.3	581.9	566.9	550.9	532.1	513.3	493.6	471.9	449.4	427.7	408.9
62.5°	573.5	560.3	546.2	529.3	509.5	491.7	469.1	445.6	423.0	400.5	377.9
65°	551.8	537.7	524.6	507.7	487.0	466.3	443.7	420.2	395.8	371.3	348.8
67.5°	530.2	516.1	502.0	485.1	463.5	441.8	418.3	394.8	367.6	344.1	317.8
70°	508.6	497.3	479.5	461.6	441.8	418.3	394.8	369.5	341.3	315.9	288.6
72.5°	487.0	475.7	457.8	439.0	420.2	395.8	370.4	345.0	318.7	289.6	260.4
75°	466.3	452.2	436.2	418.3	398.6	373.2	347.8	321.5	290.5	263.2	233.1
77.5°	446.6	433.4	417.4	397.7	376.0	351.6	325.3	298.0	267.0	237.8	204.9
80°	424.9	411.8	395.8	376.0	354.4	330.9	302.7	274.5	244.4	212.5	178.6
82.5°	404.2	392.0	374.2	356.3	332.8	309.3	281.1	252.9	220.9	189.9	157.0
85°	382.6	370.4	353.5	334.7	312.1	286.7	260.4	232.2	200.2	168.3	135.4
87.5°	363.8	349.7	332.8	314.0	291.4	267.0	241.6	211.5	180.5	149.5	115.6
90°	344.1	330.9	314.0	295.2	272.6	248.2	221.9	193.7	163.6	131.6	99.7
92.5°	327.2	313.1	297.1	278.3	255.7	232.2	205.9	177.7	148.5	117.5	86.5
95°	310.2	296.1	281.1	262.3	239.7	216.2	189.9	162.6	134.4	104.4	75.2
97.5°	291.4	279.2	264.2	246.3	223.7	201.2	175.8	149.5	122.2	93.1	65.8
100°	276.4	262.3	248.2	229.4	208.7	187.1	161.7	136.3	110.0	82.7	57.3
102.5°	259.5	246.3	232.2	214.3	193.7	172.0	148.5	124.1	99.7	74.3	49.8
105°	243.5	231.3	216.2	199.3	179.6	158.9	136.3	113.8	90.3	65.8	44.2
107.5°	227.5	215.3	201.2	185.2	166.4	145.7	125.0	102.5	80.8	59.2	39.5
110°	211.5	200.2	187.1	171.1	153.2	134.4	114.7	94.0	72.4	52.6	34.8



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-47SL-LW-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
112.5°	197.4	186.1	173.0	157.9	141.0	123.2	104.4	84.6	64.9	47.0	30.1
115°	183.3	173.0	159.8	146.7	129.7	112.8	95.0	76.1	58.3	42.3	26.3
117.5°	169.2	158.9	146.7	133.5	118.5	102.5	85.5	67.7	52.6	37.6	23.5
120°	155.1	145.7	134.4	122.2	109.1	93.1	76.1	61.1	47.0	32.9	20.7
122.5°	142.0	133.5	123.2	111.9	97.8	82.7	68.6	55.5	42.3	29.1	16.9
125°	129.7	121.3	111.9	100.6	87.4	74.3	62.0	49.8	36.7	25.4	14.1
127.5°	117.5	109.1	99.7	89.3	79.0	66.7	55.5	44.2	32.9	22.6	12.2
130°	105.3	97.8	89.3	80.8	70.5	59.2	49.8	38.5	28.2	17.9	10.3
132.5°	93.1	87.4	79.9	71.4	62.0	53.6	43.2	33.8	24.4	16.0	9.4
135°	82.7	77.1	70.5	63.0	55.5	47.0	37.6	29.1	20.7	13.2	7.5
137.5°	73.3	68.6	62.0	55.5	48.9	40.4	32.9	24.4	16.9	11.3	5.6
140°	64.9	60.2	54.5	47.9	42.3	34.8	27.3	19.7	15.0	9.4	4.7
142.5°	56.4	51.7	47.0	41.4	35.7	29.1	22.6	16.9	12.2	7.5	4.7
145°	47.9	44.2	39.5	34.8	29.1	23.5	18.8	14.1	9.4	5.6	3.8
147.5°	39.5	36.7	32.0	28.2	23.5	18.8	15.0	11.3	7.5	4.7	2.8
150°	32.0	29.1	25.4	21.6	18.8	15.0	12.2	8.5	5.6	4.7	2.8
152.5°	24.4	22.6	19.7	17.9	15.0	11.3	8.5	6.6	4.7	3.8	1.9
155°	19.7	17.9	16.0	13.2	11.3	8.5	6.6	4.7	3.8	2.8	1.9
157.5°	14.1	13.2	11.3	9.4	7.5	5.6	4.7	4.7	2.8	1.9	0.9
160°	9.4	8.5	7.5	5.6	4.7	4.7	3.8	2.8	1.9	1.9	0.9
162.5°	5.6	4.7	4.7	4.7	3.8	3.8	2.8	1.9	1.9	0.9	0.9
165°	3.8	3.8	3.8	2.8	2.8	2.8	1.9	0.9	0.9	0.9	0.9
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: P#

CATALOG NUMBER: 4SNLED-LD5-47SL-LW-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
0°	891.2	891.2	891.2	891.2	891.2	891.2	891.2	891.2	891.2	891.2	891.2
2.5°	892.2	889.3	893.1	899.7	900.6	899.7	897.8	900.6	904.4	903.4	896.9
5°	890.3	886.5	890.3	896.9	896.9	895.9	895.0	897.8	901.6	900.6	895.0
7.5°	884.6	880.9	884.6	890.3	891.2	889.3	889.3	892.2	895.9	895.0	890.3
10°	877.1	873.4	875.2	881.8	883.7	881.8	881.8	884.6	889.3	888.4	882.8
12.5°	865.8	863.0	864.9	870.5	872.4	871.5	870.5	874.3	879.0	879.0	873.4
15°	853.6	849.9	851.7	858.3	859.3	857.4	858.3	861.1	866.8	866.8	862.1
17.5°	839.5	834.8	837.6	842.3	843.3	843.3	843.3	847.0	853.6	852.7	848.9
20°	823.5	817.0	818.8	823.5	825.4	825.4	825.4	832.0	836.7	836.7	832.9
22.5°	804.7	800.0	800.0	804.7	807.6	806.6	806.6	812.3	818.8	817.9	817.9
25°	783.1	779.3	777.5	783.1	784.0	785.0	786.9	792.5	800.0	800.0	801.0
27.5°	760.5	756.8	755.8	760.5	761.5	762.4	764.3	770.9	778.4	779.3	781.2
30°	738.9	733.3	731.4	735.2	737.0	738.0	738.0	748.3	754.9	757.7	761.5
32.5°	713.5	707.9	703.2	709.8	710.7	712.6	713.5	723.9	731.4	736.1	741.7
35°	688.2	678.8	676.9	681.6	683.5	684.4	686.3	697.6	707.9	711.7	719.2
37.5°	660.0	653.4	647.7	652.4	654.3	655.3	660.9	671.2	681.6	687.2	694.7
40°	633.6	625.2	620.5	623.3	625.2	626.1	632.7	644.0	656.2	662.8	672.2
42.5°	604.5	593.2	589.4	592.3	593.2	596.0	601.7	616.7	628.9	638.3	645.9
45°	575.3	566.9	558.4	561.2	562.2	564.1	572.5	588.5	601.7	612.9	621.4
47.5°	545.3	534.9	526.5	528.3	532.1	533.0	542.4	561.2	573.5	585.7	597.0
50°	515.2	501.1	494.5	494.5	496.4	501.1	513.3	532.1	545.3	559.4	571.6
52.5°	484.2	471.0	463.5	464.4	466.3	471.9	483.2	502.0	517.1	532.1	547.1
55°	453.1	439.0	431.5	429.6	431.5	439.0	452.2	471.9	487.0	504.8	520.8
57.5°	422.1	405.2	398.6	395.8	397.7	407.1	420.2	440.9	459.7	476.6	495.4
60°	388.3	375.1	363.8	357.2	361.9	374.2	388.3	409.9	429.6	448.4	469.1
62.5°	359.1	342.2	330.0	323.4	328.1	338.4	358.2	378.9	400.5	422.1	442.8
65°	326.2	309.3	295.2	288.6	293.3	305.5	325.3	347.8	371.3	393.0	417.4
67.5°	294.3	276.4	259.5	252.9	258.5	271.7	293.3	318.7	344.1	366.6	393.0
70°	263.2	243.5	225.6	220.9	224.7	242.5	263.2	288.6	314.9	341.3	368.5
72.5°	235.0	210.6	191.8	186.1	190.8	210.6	234.1	260.4	288.6	316.8	346.0
75°	202.1	179.6	158.9	152.3	157.9	175.8	204.9	233.1	263.2	293.3	320.6
77.5°	175.8	149.5	127.9	117.5	126.9	149.5	177.7	207.8	238.8	269.8	300.8
80°	148.5	121.3	97.8	86.5	96.8	121.3	149.5	182.4	217.2	248.2	276.4
82.5°	124.1	95.0	70.5	58.3	69.6	96.8	127.9	160.8	194.6	225.6	258.5
85°	101.5	71.4	46.1	32.9	48.9	73.3	106.2	140.1	174.9	206.8	238.8
87.5°	82.7	53.6	28.2	14.1	30.1	57.3	88.4	122.2	157.0	189.0	219.0
90°	67.7	38.5	15.0	1.9	17.9	43.2	73.3	106.2	139.1	172.0	202.1
92.5°	55.5	29.1	8.5	0.9	11.3	34.8	63.0	94.0	126.0	157.9	187.1
95°	46.1	22.6	5.6	0.9	8.5	27.3	53.6	83.7	113.8	144.8	173.9
97.5°	39.5	18.8	4.7	0.9	6.6	23.5	46.1	74.3	103.4	132.6	160.8
100°	33.8	15.0	3.8	0.9	5.6	19.7	40.4	65.8	93.1	121.3	148.5
102.5°	29.1	12.2	2.8	0.9	4.7	16.9	35.7	59.2	83.7	110.9	137.3
105°	25.4	10.3	2.8	0.9	3.8	15.0	32.0	52.6	77.1	101.5	126.9
107.5°	21.6	8.5	1.9	0.9	2.8	12.2	28.2	47.9	69.6	93.1	116.6
110°	18.8	7.5	1.9	0.9	2.8	11.3	24.4	43.2	63.0	84.6	107.2



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-47SL-LW-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
112.5°	16.0	5.6	1.9	0.9	1.9	9.4	21.6	38.5	57.3	77.1	98.7
115°	14.1	4.7	0.9	0.9	1.9	8.5	19.7	34.8	51.7	70.5	90.3
117.5°	11.3	3.8	0.9	0.9	0.9	6.6	16.9	31.0	47.0	64.9	82.7
120°	9.4	3.8	0.9	0.9	0.9	5.6	15.0	27.3	42.3	58.3	75.2
122.5°	8.5	2.8	0.9	0.9	0.9	4.7	13.2	24.4	37.6	52.6	68.6
125°	7.5	2.8	0.9	0.9	0.9	3.8	11.3	21.6	33.8	47.0	62.0
127.5°	5.6	2.8	0.9	0.9	0.9	2.8	10.3	18.8	30.1	42.3	55.5
130°	4.7	1.9	0.9	0.9	0.9	2.8	8.5	16.9	26.3	37.6	49.8
132.5°	3.8	1.9	0.9	0.9	0.9	1.9	6.6	13.2	22.6	32.9	44.2
135°	3.8	1.9	0.9	0.9	0.9	1.9	4.7	11.3	18.8	28.2	37.6
137.5°	3.8	0.9	0.9	0.9	0.9	1.9	3.8	8.5	15.0	22.6	31.0
140°	2.8	0.9	0.9	0.9	0.9	0.9	2.8	6.6	12.2	18.8	26.3
142.5°	2.8	0.9	0.9	0.9	0.9	0.9	2.8	4.7	9.4	15.0	20.7
145°	1.9	0.9	0.9	0.9	0.9	0.9	1.9	3.8	7.5	11.3	16.9
147.5°	1.9	0.9	0.9	0.9	0.9	0.9	1.9	2.8	5.6	9.4	13.2
150°	1.9	0.9	0.9	0.9	0.9	0.9	1.9	2.8	3.8	6.6	10.3
152.5°	0.9	0.9	0.9	0.9	0.9	0.9	1.9	1.9	2.8	4.7	6.6
155°	0.9	0.9	0.9	0.9	0.9	0.9	0.9	1.9	2.8	3.8	4.7
157.5°	0.9	0.9	0.9	0.9	0.9	0.9	0.9	1.9	1.9	2.8	3.8
160°	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	1.9	1.9	2.8
162.5°	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	1.9	1.9
165°	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
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: P#

CATALOG NUMBER: 4SNLED-LD5-47SL-LW-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
0°	891.2	891.2	891.2	891.2	891.2	891.2	891.2	891.2	891.2	891.2	891.2
2.5°	894.0	887.5	889.3	888.4	890.3	893.1	893.1	892.2	892.2	890.3	888.4
5°	892.2	885.6	888.4	887.5	889.3	892.2	892.2	891.2	891.2	888.4	887.5
7.5°	886.5	881.8	883.7	883.7	885.6	888.4	888.4	887.5	887.5	884.6	883.7
10°	880.9	875.2	878.1	878.1	879.9	883.7	883.7	882.8	882.8	879.9	879.0
12.5°	871.5	865.8	870.5	871.5	873.4	877.1	876.2	876.2	876.2	873.4	872.4
15°	860.2	856.4	861.1	862.1	864.9	869.6	869.6	869.6	869.6	866.8	865.8
17.5°	848.0	845.2	849.9	851.7	855.5	860.2	860.2	861.1	862.1	860.2	859.3
20°	833.9	832.0	836.7	840.5	846.1	850.8	852.7	853.6	855.5	853.6	852.7
22.5°	817.9	817.9	824.5	828.2	834.8	839.5	842.3	845.2	847.0	845.2	844.2
25°	800.0	802.9	809.4	816.0	823.5	828.2	831.1	834.8	836.7	835.8	834.8
27.5°	783.1	786.9	795.3	801.9	808.5	816.0	818.8	823.5	825.4	825.4	824.5
30°	763.4	769.0	778.4	785.9	794.4	801.9	805.7	810.4	813.2	811.3	812.3
32.5°	744.6	754.0	761.5	769.9	779.3	786.9	791.6	797.2	800.0	799.1	800.0
35°	723.9	733.3	743.6	752.1	763.4	770.9	777.5	782.2	785.9	785.0	785.0
37.5°	701.3	713.5	723.9	735.2	745.5	754.0	760.5	766.2	769.9	769.9	769.9
40°	679.7	692.9	703.2	716.4	729.5	737.0	744.6	750.2	754.0	754.9	755.8
42.5°	656.2	670.3	682.5	696.6	709.8	719.2	727.6	734.2	738.0	739.9	738.9
45°	634.6	647.7	661.8	677.8	690.0	699.4	709.8	717.3	721.1	722.0	722.9
47.5°	610.1	625.2	641.2	657.1	669.4	681.6	691.0	698.5	702.3	705.1	705.1
50°	586.6	602.6	620.5	637.4	650.6	662.8	672.2	680.6	685.3	687.2	688.2
52.5°	565.0	580.0	598.8	615.8	628.9	641.2	653.4	662.8	667.5	669.4	669.4
55°	538.7	557.5	578.2	594.1	608.2	622.4	634.6	644.0	648.7	651.5	653.4
57.5°	514.2	534.0	555.6	572.5	589.4	602.6	613.9	626.1	629.9	633.6	634.6
60°	490.7	510.5	531.2	550.0	566.9	581.0	594.1	604.5	611.1	612.9	614.8
62.5°	466.3	487.0	508.6	527.4	545.3	562.2	574.4	583.8	591.3	594.1	596.0
65°	442.8	464.4	486.0	505.8	524.6	541.5	553.7	563.1	570.6	575.3	576.3
67.5°	417.4	440.9	463.5	484.2	503.0	520.8	533.0	542.4	550.0	555.6	556.5
70°	393.9	418.3	440.9	463.5	482.3	500.1	513.3	522.7	531.2	534.9	536.8
72.5°	371.3	396.7	420.2	442.8	461.6	479.5	493.6	503.0	511.4	516.1	517.1
75°	349.7	375.1	400.5	422.1	441.8	459.7	473.8	484.2	491.7	496.4	498.3
77.5°	328.1	354.4	379.8	401.4	422.1	440.0	452.2	464.4	471.9	477.6	477.6
80°	306.5	333.7	360.1	381.7	402.4	418.3	432.4	444.7	452.2	457.8	457.8
82.5°	287.7	314.0	339.4	361.0	381.7	399.5	413.6	424.9	433.4	437.1	438.1
85°	266.1	295.2	318.7	342.2	361.9	378.9	393.0	405.2	412.7	416.5	418.3
87.5°	248.2	276.4	301.8	322.5	342.2	359.1	375.1	385.4	393.0	397.7	399.5
90°	231.3	258.5	283.9	304.6	325.3	341.3	356.3	366.6	375.1	378.9	380.7
92.5°	216.2	243.5	267.9	288.6	308.4	326.2	340.3	350.7	358.2	361.9	364.8
95°	202.1	228.4	251.9	274.5	293.3	309.3	324.3	334.7	343.1	346.0	348.8
97.5°	188.0	213.4	236.9	258.5	278.3	293.3	307.4	317.8	324.3	329.0	331.9
100°	175.8	200.2	222.8	243.5	262.3	276.4	291.4	300.8	307.4	311.2	314.9
102.5°	162.6	187.1	208.7	228.4	248.2	261.3	275.5	284.9	290.5	297.1	297.1
105°	151.4	173.9	195.5	214.3	231.3	247.2	259.5	268.9	275.5	280.2	280.2
107.5°	139.1	161.7	182.4	202.1	218.1	233.1	244.4	252.9	260.4	263.2	266.1
110°	129.7	149.5	170.2	189.0	204.0	218.1	229.4	238.8	245.4	248.2	250.1



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-47SL-LW-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
112.5°	118.5	139.1	157.9	175.8	190.8	204.0	215.3	222.8	229.4	233.1	234.1
115°	109.1	128.8	145.7	162.6	178.6	189.9	200.2	207.8	214.3	217.2	219.0
117.5°	100.6	118.5	135.4	149.5	164.5	176.7	187.1	193.7	199.3	203.1	204.9
120°	92.1	109.1	124.1	138.2	152.3	163.6	173.0	179.6	186.1	189.0	189.0
122.5°	83.7	99.7	113.8	126.9	140.1	150.4	160.8	166.4	172.0	174.9	174.9
125°	76.1	91.2	104.4	116.6	128.8	138.2	146.7	153.2	158.9	160.8	160.8
127.5°	68.6	82.7	95.0	106.2	116.6	126.0	134.4	141.0	145.7	147.6	147.6
130°	62.0	74.3	85.5	96.8	107.2	114.7	123.2	128.8	131.6	134.4	135.4
132.5°	55.5	66.7	77.1	86.5	96.8	104.4	110.9	116.6	119.4	122.2	123.2
135°	48.9	59.2	68.6	78.0	86.5	94.0	99.7	104.4	108.1	110.0	110.9
137.5°	41.4	52.6	61.1	68.6	78.0	83.7	90.3	93.1	96.8	98.7	98.7
140°	34.8	43.2	52.6	60.2	67.7	73.3	79.0	83.7	86.5	87.4	87.4
142.5°	28.2	35.7	43.2	52.6	59.2	63.9	69.6	73.3	75.2	76.1	77.1
145°	22.6	28.2	34.8	43.2	50.8	56.4	59.2	63.0	64.9	65.8	66.7
147.5°	16.9	22.6	28.2	33.8	41.4	47.0	49.8	53.6	55.5	56.4	56.4
150°	13.2	16.9	20.7	26.3	32.0	38.5	42.3	45.1	46.1	47.0	47.0
152.5°	9.4	13.2	16.0	19.7	23.5	29.1	34.8	36.7	37.6	38.5	38.5
155°	6.6	9.4	11.3	14.1	16.9	21.6	26.3	29.1	30.1	31.0	31.0
157.5°	4.7	6.6	7.5	10.3	12.2	14.1	17.9	22.6	23.5	23.5	23.5
160°	2.8	3.8	4.7	6.6	7.5	9.4	11.3	14.1	16.9	16.9	16.9
162.5°	1.9	2.8	2.8	3.8	3.8	5.6	6.6	7.5	10.3	11.3	11.3
165°	0.9	1.9	1.9	1.9	1.9	1.9	2.8	2.8	4.7	5.6	5.6
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



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-47SL-LW-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°
0°	891.2	891.2	891.2	891.2	891.2	891.2	891.2	891.2	891.2	891.2	891.2
2.5°	889.3	891.2	890.3	890.3	890.3	892.2	890.3	881.8	883.7	885.6	887.5
5°	888.4	889.3	889.3	888.4	888.4	890.3	888.4	879.9	881.8	883.7	884.6
7.5°	884.6	885.6	885.6	885.6	884.6	886.5	883.7	876.2	876.2	878.1	879.0
10°	879.9	881.8	880.9	879.9	879.9	879.9	878.1	869.6	869.6	870.5	871.5
12.5°	874.3	874.3	874.3	873.4	872.4	872.4	870.5	862.1	861.1	863.0	862.1
15°	866.8	868.7	866.8	865.8	864.0	864.0	861.1	852.7	850.8	851.7	850.8
17.5°	860.2	861.1	859.3	857.4	855.5	854.6	851.7	842.3	839.5	840.5	838.6
20°	853.6	853.6	851.7	849.9	847.0	844.2	840.5	831.1	826.4	826.4	822.6
22.5°	845.2	845.2	843.3	840.5	837.6	833.9	830.1	820.7	813.2	811.3	808.5
25°	835.8	834.8	833.9	831.1	825.4	821.7	817.9	807.6	799.1	795.3	790.6
27.5°	824.5	824.5	821.7	818.8	813.2	808.5	803.8	794.4	783.1	778.4	771.8
30°	812.3	812.3	809.4	805.7	800.0	794.4	788.7	777.5	766.2	759.6	752.1
32.5°	800.0	799.1	796.3	792.5	786.9	778.4	773.7	762.4	749.3	741.7	731.4
35°	785.0	784.0	781.2	776.5	769.0	762.4	754.9	744.6	729.5	720.1	708.8
37.5°	769.9	769.0	767.1	760.5	753.0	745.5	736.1	725.8	711.7	699.4	688.2
40°	754.9	754.0	750.2	745.5	736.1	726.7	717.3	707.0	691.9	677.8	665.6
42.5°	738.9	738.0	733.3	727.6	717.3	707.9	696.6	685.3	670.3	653.4	641.2
45°	722.9	721.1	716.4	709.8	698.5	688.2	676.9	663.7	648.7	632.7	616.7
47.5°	706.0	703.2	698.5	689.1	679.7	668.4	655.3	641.2	626.1	608.2	591.3
50°	687.2	685.3	679.7	671.2	660.0	648.7	633.6	619.5	601.7	584.7	564.1
52.5°	669.4	665.6	660.9	651.5	640.2	628.0	612.0	595.1	577.2	561.2	539.6
55°	650.6	648.7	642.1	634.6	620.5	606.4	591.3	573.5	553.7	534.9	514.2
57.5°	632.7	628.9	623.3	612.9	600.7	586.6	570.6	551.8	530.2	510.5	487.9
60°	614.8	609.2	602.6	593.2	580.0	565.0	548.1	528.3	506.7	485.1	461.6
62.5°	595.1	590.4	582.9	573.5	560.3	544.3	526.5	505.8	485.1	462.5	437.1
65°	575.3	570.6	563.1	553.7	540.6	522.7	503.9	483.2	459.7	438.1	410.8
67.5°	555.6	550.9	542.4	532.1	518.9	502.0	482.3	460.7	437.1	413.6	385.4
70°	535.9	530.2	522.7	511.4	498.3	480.4	460.7	438.1	414.6	389.2	361.0
72.5°	516.1	511.4	502.0	491.7	477.6	459.7	440.0	417.4	393.0	366.6	338.4
75°	496.4	490.7	484.2	471.9	456.9	440.0	419.3	396.7	370.4	345.0	315.9
77.5°	476.6	471.9	463.5	451.3	437.1	419.3	398.6	376.0	349.7	323.4	292.4
80°	456.9	451.3	444.7	433.4	417.4	399.5	377.9	355.4	329.0	301.8	270.8
82.5°	437.1	431.5	424.0	412.7	397.7	379.8	359.1	334.7	308.4	280.2	251.0
85°	417.4	412.7	404.2	393.0	377.0	359.1	338.4	316.8	288.6	260.4	231.3
87.5°	397.7	393.0	384.5	373.2	358.2	340.3	319.6	297.1	269.8	243.5	211.5
90°	378.9	375.1	366.6	355.4	340.3	322.5	303.7	279.2	252.9	226.6	196.5
92.5°	361.9	358.2	350.7	339.4	326.2	306.5	287.7	264.2	237.8	210.6	181.4
95°	346.9	342.2	334.7	324.3	308.4	291.4	272.6	249.1	223.7	196.5	168.3
97.5°	330.0	325.3	317.8	306.5	293.3	275.5	256.6	234.1	208.7	183.3	155.1
100°	313.1	308.4	299.9	290.5	277.3	259.5	241.6	219.0	195.5	171.1	143.8
102.5°	296.1	291.4	283.9	274.5	261.3	245.4	227.5	205.9	182.4	157.9	132.6
105°	280.2	275.5	267.9	258.5	246.3	230.3	211.5	192.7	170.2	146.7	122.2
107.5°	264.2	259.5	252.9	243.5	231.3	216.2	198.4	178.6	157.9	135.4	111.9
110°	248.2	244.4	236.9	228.4	216.2	201.2	185.2	166.4	145.7	125.0	102.5



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-47SL-LW-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°
112.5°	233.1	229.4	221.9	212.5	202.1	188.0	172.0	154.2	134.4	114.7	93.1
115°	218.1	213.4	206.8	198.4	188.0	174.9	159.8	143.8	124.1	105.3	85.5
117.5°	203.1	199.3	192.7	184.3	174.9	161.7	147.6	132.6	113.8	95.9	78.0
120°	188.0	185.2	178.6	171.1	161.7	149.5	136.3	121.3	104.4	87.4	70.5
122.5°	173.9	171.1	164.5	157.9	148.5	137.3	125.0	110.9	95.9	79.9	64.9
125°	160.8	157.0	151.4	144.8	136.3	126.0	113.8	100.6	86.5	72.4	58.3
127.5°	146.7	143.8	140.1	132.6	124.1	114.7	103.4	92.1	79.0	65.8	52.6
130°	135.4	131.6	126.9	121.3	113.8	104.4	94.0	82.7	71.4	59.2	46.1
132.5°	122.2	118.5	114.7	109.1	102.5	94.0	84.6	74.3	63.9	52.6	41.4
135°	110.0	107.2	103.4	97.8	91.2	84.6	75.2	65.8	56.4	46.1	36.7
137.5°	98.7	95.9	92.1	88.4	81.8	75.2	66.7	58.3	49.8	40.4	32.0
140°	87.4	85.5	81.8	78.0	72.4	65.8	58.3	50.8	43.2	34.8	27.3
142.5°	76.1	74.3	71.4	67.7	63.0	57.3	50.8	44.2	36.7	30.1	23.5
145°	65.8	64.9	62.0	58.3	54.5	48.9	43.2	37.6	31.0	25.4	18.8
147.5°	55.5	54.5	52.6	49.8	46.1	41.4	36.7	31.0	26.3	20.7	15.0
150°	46.1	45.1	44.2	40.4	38.5	33.8	30.1	25.4	21.6	16.0	12.2
152.5°	37.6	37.6	35.7	32.9	31.0	27.3	24.4	20.7	16.9	13.2	9.4
155°	30.1	29.1	28.2	26.3	24.4	21.6	18.8	16.0	13.2	9.4	6.6
157.5°	23.5	22.6	21.6	19.7	17.9	16.9	14.1	11.3	8.5	6.6	4.7
160°	16.9	16.0	15.0	14.1	13.2	11.3	9.4	7.5	5.6	3.8	2.8
162.5°	11.3	10.3	10.3	9.4	8.5	6.6	5.6	4.7	3.8	2.8	1.9
165°	5.6	5.6	4.7	4.7	3.8	2.8	2.8	2.8	1.9	1.9	0.9
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: P#

CATALOG NUMBER: 4SNLED-LD5-47SL-LW-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	330°	335°	340°	345°	350°	355°	360°
0°	891.2	891.2	891.2	891.2	891.2	891.2	891.2
2.5°	886.5	886.5	890.3	889.3	886.5	892.2	898.7
5°	883.7	883.7	886.5	886.5	883.7	889.3	895.0
7.5°	879.0	878.1	880.9	880.9	877.1	881.8	888.4
10°	870.5	869.6	872.4	872.4	868.7	873.4	879.0
12.5°	861.1	859.3	862.1	861.1	857.4	862.1	867.7
15°	848.9	848.0	849.9	848.0	844.2	848.9	854.6
17.5°	836.7	833.9	834.8	834.8	828.2	832.9	837.6
20°	820.7	817.0	817.9	817.0	812.3	815.1	820.7
22.5°	804.7	799.1	799.1	798.2	792.5	796.3	801.0
25°	785.0	778.4	778.4	777.5	770.9	773.7	778.4
27.5°	765.2	758.7	755.8	754.9	748.3	748.3	754.9
30°	744.6	735.2	733.3	730.5	723.9	723.9	729.5
32.5°	724.8	711.7	707.9	704.1	697.6	696.6	703.2
35°	698.5	688.2	681.6	677.8	670.3	668.4	674.1
37.5°	676.9	663.7	654.3	649.6	642.1	639.3	646.8
40°	653.4	639.3	627.1	624.2	612.9	609.2	615.8
42.5°	627.1	612.0	599.8	594.1	585.7	581.9	582.9
45°	600.7	584.7	571.6	564.1	555.6	549.0	552.8
47.5°	573.5	559.4	543.4	532.1	521.8	517.1	518.9
50°	546.2	529.3	514.2	502.0	489.8	484.2	487.9
52.5°	518.9	501.1	484.2	471.0	456.9	451.3	452.2
55°	492.6	473.8	454.1	440.0	426.8	418.3	416.5
57.5°	466.3	445.6	424.9	408.9	392.0	384.5	381.7
60°	438.1	416.5	394.8	376.0	358.2	349.7	346.0
62.5°	411.8	388.3	363.8	344.1	326.2	314.9	312.1
65°	386.4	359.1	334.7	312.1	292.4	280.2	276.4
67.5°	359.1	330.9	304.6	280.2	261.3	245.4	243.5
70°	333.7	303.7	274.5	249.1	228.4	212.5	204.9
72.5°	308.4	277.3	247.2	220.0	193.7	178.6	173.0
75°	283.9	251.9	220.0	191.8	162.6	144.8	139.1
77.5°	261.3	228.4	194.6	163.6	136.3	113.8	106.2
80°	239.7	205.9	170.2	138.2	109.1	84.6	76.1
82.5°	217.2	185.2	148.5	114.7	84.6	59.2	48.9
85°	197.4	165.5	128.8	95.0	64.9	37.6	26.3
87.5°	181.4	146.7	113.8	79.9	48.9	21.6	7.5
90°	165.5	131.6	98.7	65.8	36.7	12.2	0.9
92.5°	151.4	119.4	86.5	56.4	28.2	8.5	0.9
95°	138.2	107.2	76.1	47.0	22.6	5.6	0.9
97.5°	126.0	96.8	67.7	40.4	18.8	4.7	0.9
100°	115.6	87.4	60.2	35.7	16.0	3.8	0.9
102.5°	105.3	79.0	53.6	31.0	14.1	2.8	0.9
105°	96.8	71.4	47.9	28.2	12.2	2.8	0.9
107.5°	88.4	64.9	43.2	24.4	10.3	1.9	0.9
110°	79.9	59.2	38.5	21.6	9.4	1.9	0.9



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-47SL-LW-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	330°	335°	340°	345°	350°	355°	360°
112.5°	73.3	53.6	34.8	19.7	7.5	1.9	0.9
115°	66.7	47.9	31.0	16.9	6.6	0.9	0.9
117.5°	60.2	43.2	27.3	15.0	5.6	0.9	0.9
120°	54.5	38.5	24.4	13.2	4.7	0.9	0.9
122.5°	48.9	34.8	21.6	11.3	3.8	0.9	0.9
125°	44.2	31.0	18.8	9.4	2.8	0.9	0.9
127.5°	39.5	27.3	16.9	8.5	2.8	0.9	0.9
130°	34.8	24.4	14.1	6.6	1.9	0.9	0.9
132.5°	31.0	20.7	12.2	5.6	1.9	0.9	0.9
135°	27.3	17.9	10.3	3.8	1.9	0.9	0.9
137.5°	23.5	15.0	8.5	2.8	0.9	0.9	0.9
140°	19.7	13.2	6.6	2.8	0.9	0.9	0.9
142.5°	16.9	10.3	4.7	1.9	0.9	0.9	0.9
145°	13.2	8.5	3.8	1.9	0.9	0.9	0.9
147.5°	10.3	6.6	2.8	1.9	0.9	0.9	0.9
150°	7.5	4.7	2.8	0.9	0.9	0.9	0.9
152.5°	5.6	3.8	1.9	0.9	0.9	0.9	0.9
155°	3.8	2.8	1.9	0.9	0.9	0.9	0.9
157.5°	2.8	1.9	0.9	0.9	0.9	0.9	0.9
160°	1.9	0.9	0.9	0.9	0.9	0.9	0.9
162.5°	0.9	0.9	0.9	0.9	0.9	0.9	0.9
165°	0.9	0.9	0.9	0.9	0.9	0.9	0.9
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)