

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-LD5-44HL-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-LD5-44HL-LW-UNV-L930-CD1-U
Description: 4FT LINEAR SNLED LED FIXTURE
WIDE FROSTED LENS
Light Source: -
Ballast/Driver: -

Summary

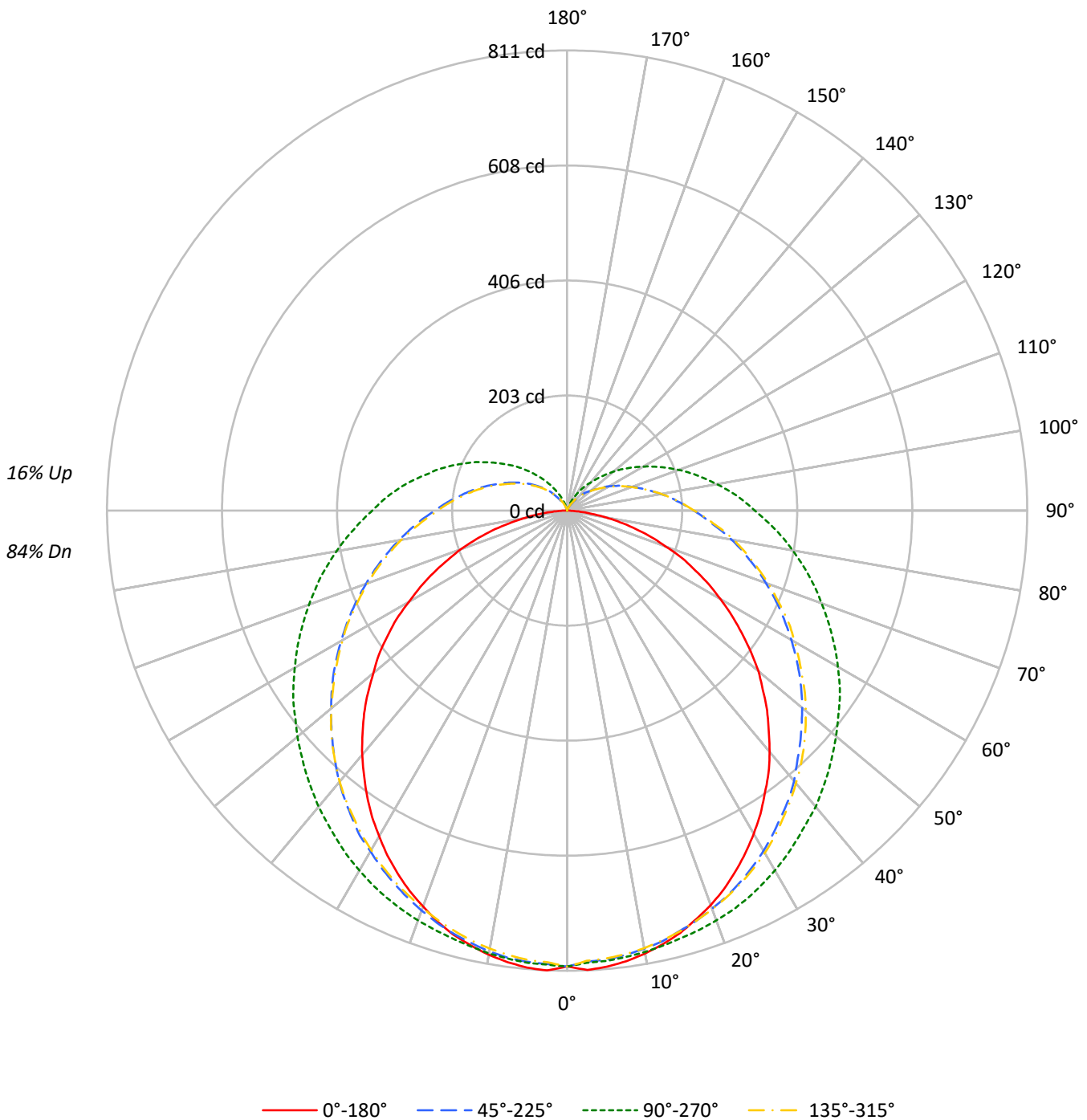
Lumens per Lamp: N/A
Luminaire Lumens: 3491.0 lumens
Efficiency: N/A
Efficacy: 94.4 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.36 / 1.44
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.12')
CIE Type: Semi-Direct

Input Watts (W): 37
Input Voltage (V): NR
Input Current (A_{in}): 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-LD5-44HL-LW-UNV-L930-CD1-U

Luminous Intensity Polar Plot





TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-44HL-LW-UNV-L930-CD1-U

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°	6493	6493	6493	6493
5°	6528	6257	6541	6284
10°	6467	6080	6488	6099
15°	6393	5928	6421	5934
20°	6292	5817	6313	5817
25°	6168	5718	6205	5712
30°	6028	5616	6075	5616
35°	5867	5522	5932	5528
40°	5707	5467	5777	5467
45°	5523	5409	5607	5416
50°	5332	5374	5403	5389
55°	5064	5379	5225	5403
60°	4782	5396	4938	5429
65°	4466	5450	4663	5504
70°	4021	5551	4334	5630
75°	3506	5732	3839	5842
80°	2716	6001	3083	6140
85°	1619	6432	2029	6611



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-44HL-LW-UNV-L930-CD1-U

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	76.1	2.2
10°-20°	218.8	6.3
20°-30°	335.4	9.6
30°-40°	413.8	11.9
40°-50°	448.9	12.9
50°-60°	442.5	12.7
60°-70°	400.1	11.5
70°-80°	333.3	9.5
80°-90°	258.1	7.4
90°-100°	195.8	5.6
100°-110°	144.9	4.1
110°-120°	100.8	2.9
120°-130°	64.3	1.8
130°-140°	36.1	1.0
140°-150°	16.5	0.5
150°-160°	5.1	0.1
160°-170°	0.6	0.0
170°-180°	0.0	0.0
0°-30°	630.3	18.1
0°-40°	1044.1	29.9
0°-60°	1935.5	55.4
0°-90°	2927.0	83.8
90°-120°	441.4	12.6
90°-150°	558.3	16.0
90°-180°	564.0	16.2
0°-180°	3491.0	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	804	804	804	804	804	
5°	807	797	809	800	807	77
15°	770	780	774	781	770	217
25°	702	754	706	753	702	323
35°	608	707	614	708	608	381
45°	498	651	506	652	498	384
55°	376	586	387	589	376	336
65°	249	514	260	520	249	247
75°	125	441	137	449	125	133
85°	24	367	30	377	24	29
90°	1	331	2	343	1	1
95°	1	300	1	314	1	1
105°	1	238	1	253	1	1
115°	1	181	1	198	1	1
125°	1	130	1	145	1	1
135°	1	85	1	100	1	1
145°	1	49	1	60	1	1
155°	1	20	1	28	1	0
165°	1	3	1	5	1	0
175°	0	0	0	0	0	0
180°	0	0	0	0	0	0



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-44HL-LW-UNV-L930-CD1-U

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	803.5	803.5	803.5	803.5	803.5	803.5	803.5	803.5	803.5	803.5	803.5
2.5°	810.3	810.3	809.5	807.8	808.6	811.2	809.5	805.2	802.7	795.9	797.6
5°	806.9	806.9	806.1	804.4	805.2	808.6	806.9	803.5	800.1	794.2	796.7
7.5°	801.0	801.0	800.1	798.4	800.1	803.5	801.8	798.4	795.9	790.0	792.5
10°	792.5	793.4	792.5	790.0	793.4	796.7	795.9	791.7	789.1	784.0	786.6
12.5°	782.3	783.2	782.3	781.5	783.2	788.3	786.6	783.2	781.5	777.3	779.8
15°	770.5	771.3	769.6	769.6	771.3	776.4	776.4	773.0	771.3	767.1	772.2
17.5°	755.2	756.1	755.2	755.2	756.9	762.0	762.8	761.1	759.5	757.8	762.8
20°	740.0	739.1	739.1	738.3	741.7	749.3	748.4	748.4	746.7	746.7	752.7
22.5°	722.2	722.2	721.3	721.3	725.5	732.3	732.3	734.0	732.3	735.7	740.8
25°	701.8	702.7	701.8	703.5	706.9	714.5	715.4	717.9	718.8	722.2	728.1
27.5°	680.6	681.5	680.6	682.3	688.3	694.2	698.4	701.8	702.7	707.7	715.4
30°	657.7	657.7	658.6	660.3	667.1	676.4	679.8	684.0	684.0	692.5	700.1
32.5°	634.0	634.0	634.0	637.4	645.0	656.0	660.3	665.4	667.1	675.5	684.0
35°	607.7	608.6	608.6	611.1	621.3	632.3	638.2	644.2	647.6	657.7	666.2
37.5°	583.1	584.8	582.3	585.7	600.1	609.4	616.2	622.1	628.1	641.6	648.4
40°	555.2	556.9	556.0	562.8	574.7	586.5	594.2	600.1	608.6	622.1	629.8
42.5°	525.5	527.2	528.9	536.5	549.2	561.1	570.4	578.1	588.2	600.1	612.8
45°	498.4	498.4	500.9	510.3	523.8	536.5	547.6	556.0	567.9	580.6	593.3
47.5°	467.9	468.7	472.1	483.1	497.5	512.8	523.0	534.0	546.7	560.3	574.7
50°	439.9	439.9	445.0	456.9	470.4	487.4	498.4	511.1	524.7	540.8	555.2
52.5°	407.7	409.4	417.0	428.0	445.8	461.1	473.8	487.4	503.5	520.4	536.5
55°	375.5	378.9	384.8	400.1	418.7	433.1	448.4	465.3	480.6	499.2	517.9
57.5°	344.1	346.7	356.0	371.2	390.7	408.5	424.6	440.8	459.4	478.0	497.5
60°	311.9	315.3	326.3	341.6	362.8	381.4	400.1	417.0	436.5	456.0	476.4
62.5°	281.4	283.9	296.7	314.5	335.7	356.0	374.6	395.0	416.2	434.8	455.2
65°	249.2	253.4	267.8	283.9	308.5	328.9	350.1	372.1	394.1	414.5	434.0
67.5°	219.5	222.1	237.3	256.0	280.6	303.4	325.5	349.2	372.1	393.3	412.8
70°	184.8	193.3	208.5	228.0	254.3	278.0	301.7	326.3	350.9	372.9	391.6
72.5°	156.0	162.7	179.7	200.9	226.3	254.3	278.9	305.1	329.7	352.6	372.1
75°	125.4	132.2	151.7	175.5	201.7	231.4	256.8	283.9	309.4	332.3	352.6
77.5°	95.8	104.3	125.4	150.0	178.8	209.4	235.6	262.8	289.0	313.6	334.0
80°	68.7	78.0	100.9	128.8	156.8	187.3	216.1	243.3	269.5	294.1	315.3
82.5°	44.1	54.2	78.8	106.8	136.5	167.0	196.6	223.8	250.0	274.6	296.7
85°	23.7	34.8	60.2	88.2	117.8	148.3	178.0	206.8	232.2	255.1	278.9
87.5°	6.8	20.3	44.9	72.9	103.4	131.4	160.2	189.0	214.4	239.0	260.2
90°	0.8	11.9	33.9	60.2	89.8	117.0	145.8	172.9	198.3	222.9	244.1
92.5°	0.8	7.6	26.3	50.0	77.1	105.1	133.9	160.2	183.9	208.5	229.7
95°	0.8	5.9	21.2	42.4	67.8	94.1	121.2	146.6	171.2	194.1	215.3
97.5°	0.8	4.2	17.0	36.4	59.3	83.9	110.2	135.6	159.3	181.4	200.9
100°	0.8	3.4	13.6	31.4	51.7	75.4	99.2	123.7	146.6	167.8	188.2
102.5°	0.8	2.5	11.9	26.3	45.8	67.0	89.8	112.7	134.8	155.1	175.5
105°	0.8	2.5	10.2	22.9	40.7	60.2	81.4	103.4	123.7	143.2	161.9
107.5°	0.8	1.7	8.5	19.5	35.6	54.2	73.7	94.9	113.6	132.2	150.0
110°	0.8	1.7	6.8	17.8	31.4	48.3	67.0	86.5	104.3	122.1	139.0



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-44HL-LW-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	0.8	1.7	5.9	15.3	27.1	43.2	60.2	78.0	94.9	112.7	128.0
115°	0.8	1.7	5.1	13.6	25.4	37.3	54.2	70.4	87.3	103.4	117.8
117.5°	0.8	1.7	4.2	11.0	22.0	33.9	47.5	63.6	78.8	94.1	107.6
120°	0.8	1.7	3.4	10.2	19.5	30.5	42.4	56.8	71.2	85.6	100.0
122.5°	0.8	0.8	3.4	8.5	17.0	27.1	39.0	50.0	63.6	77.1	89.8
125°	0.8	0.8	3.4	7.6	14.4	24.6	34.8	44.9	56.8	68.7	79.7
127.5°	0.8	0.8	2.5	5.9	12.7	21.2	30.5	41.5	50.0	61.0	72.0
130°	0.8	0.8	2.5	5.1	11.0	17.8	27.1	36.4	46.6	54.2	63.6
132.5°	0.8	0.8	2.5	4.2	8.5	14.4	22.9	31.4	40.7	49.2	56.8
135°	0.8	0.8	1.7	3.4	6.8	11.9	18.6	26.3	35.6	44.1	51.7
137.5°	0.8	0.8	1.7	3.4	5.1	10.2	14.4	21.2	29.7	37.3	44.9
140°	0.8	0.8	1.7	2.5	4.2	7.6	11.9	17.0	23.7	30.5	39.0
142.5°	0.8	0.8	0.8	2.5	3.4	5.9	9.3	13.6	18.6	24.6	31.4
145°	0.8	0.8	0.8	2.5	3.4	4.2	7.6	11.0	14.4	18.6	24.6
147.5°	0.8	0.8	0.8	1.7	2.5	3.4	5.9	8.5	11.0	14.4	17.8
150°	0.8	0.8	0.8	1.7	2.5	3.4	4.2	5.9	8.5	11.9	14.4
152.5°	0.8	0.8	0.8	1.7	1.7	2.5	3.4	4.2	5.9	8.5	10.2
155°	0.8	0.8	0.8	0.8	1.7	2.5	3.4	3.4	4.2	5.9	7.6
157.5°	0.8	0.8	0.8	0.8	1.7	1.7	2.5	2.5	3.4	3.4	5.1
160°	0.8	0.8	0.8	0.8	0.8	1.7	1.7	2.5	2.5	2.5	2.5
162.5°	0.8	0.8	0.8	0.8	0.8	0.8	1.7	1.7	1.7	2.5	2.5
165°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	1.7	1.7	1.7
167.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-44HL-LW-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	803.5	803.5	803.5	803.5	803.5	803.5	803.5	803.5	803.5	803.5	803.5
2.5°	797.6	798.4	801.0	801.0	799.3	799.3	798.4	797.6	798.4	800.1	800.1
5°	795.9	796.7	799.3	800.1	798.4	797.6	797.6	796.7	797.6	799.3	799.3
7.5°	792.5	793.4	795.9	796.7	795.0	795.0	794.2	793.4	795.0	795.9	795.9
10°	787.4	788.3	791.7	792.5	791.7	790.8	790.8	790.0	790.8	792.5	792.5
12.5°	780.6	782.3	786.6	786.6	786.6	785.7	785.7	784.9	785.7	787.4	786.6
15°	773.0	776.4	779.8	781.5	781.5	781.5	780.6	779.8	781.5	782.3	781.5
17.5°	764.5	768.8	773.9	775.6	775.6	776.4	775.6	774.7	776.4	776.4	775.6
20°	756.1	760.3	765.4	767.1	768.8	769.6	769.6	768.8	769.6	770.5	769.6
22.5°	745.0	750.1	756.1	758.6	760.3	762.0	762.0	762.0	762.8	763.7	762.0
25°	733.2	739.1	745.9	748.4	751.8	752.7	753.5	753.5	754.4	755.2	752.7
27.5°	720.5	727.2	734.0	738.3	740.8	742.5	742.5	743.3	744.2	745.0	742.5
30°	705.2	715.4	721.3	724.7	728.1	730.6	731.5	732.3	733.2	734.0	731.5
32.5°	691.6	700.1	707.7	712.0	716.2	719.6	720.5	720.5	722.2	722.2	719.6
35°	675.5	685.7	693.3	697.6	702.7	705.2	706.9	706.9	708.6	708.6	706.1
37.5°	659.4	669.6	678.1	683.2	689.1	692.5	693.3	693.3	695.0	695.0	691.6
40°	642.5	653.5	662.8	668.8	673.8	678.1	678.9	681.5	681.5	680.6	677.2
42.5°	625.5	635.7	645.9	652.7	659.4	663.7	665.4	666.2	666.2	665.4	662.8
45°	606.9	618.7	628.1	636.5	643.3	647.6	650.1	651.0	651.0	649.3	646.7
47.5°	589.1	600.9	610.3	619.6	626.4	631.5	634.0	634.9	634.0	633.2	630.6
50°	570.4	584.0	593.3	602.6	609.4	613.7	617.9	618.7	617.9	617.1	612.0
52.5°	550.9	565.3	575.5	584.8	592.5	597.6	600.9	601.8	601.8	600.1	596.7
55°	531.4	544.2	556.9	567.0	575.5	580.6	584.8	586.5	584.8	583.1	578.9
57.5°	513.6	525.5	538.2	549.2	557.7	564.5	567.9	569.6	567.9	565.3	561.1
60°	492.5	505.2	519.6	529.8	539.1	545.9	547.6	550.9	549.2	546.7	542.5
62.5°	472.1	487.4	500.1	512.8	520.4	528.1	531.4	533.1	531.4	528.9	524.7
65°	450.9	467.9	480.6	493.3	501.8	509.4	513.6	514.5	512.8	510.3	506.0
67.5°	431.4	447.5	461.1	474.7	482.3	489.9	494.2	495.8	494.2	490.8	486.5
70°	411.9	428.0	444.1	454.3	463.6	472.1	474.7	477.2	475.5	472.1	467.0
72.5°	392.4	409.4	425.5	435.7	445.8	453.5	456.9	459.4	457.7	454.3	448.4
75°	372.1	389.9	406.0	417.0	427.2	434.8	438.2	440.8	439.1	435.7	428.9
77.5°	353.4	371.2	386.5	398.4	408.5	415.3	421.3	422.1	420.4	417.0	410.2
80°	334.0	351.8	367.9	379.7	389.9	396.7	400.9	403.5	401.8	398.4	391.6
82.5°	317.0	333.1	349.2	361.1	371.2	379.7	383.1	385.7	384.8	379.7	374.6
85°	298.4	317.0	329.7	342.4	352.6	361.1	363.6	367.0	366.2	361.9	355.1
87.5°	279.7	298.4	313.6	326.3	335.7	342.4	346.7	348.4	347.5	343.3	335.7
90°	264.5	281.4	296.7	310.2	317.9	325.5	329.7	330.6	330.6	325.5	319.5
92.5°	250.0	266.1	281.4	294.1	303.4	310.2	313.6	315.3	314.5	310.2	303.4
95°	233.9	251.7	266.1	278.9	288.2	295.0	298.4	300.1	299.2	295.0	288.2
97.5°	220.4	236.5	250.9	262.8	272.1	278.9	282.3	283.9	283.9	279.7	272.9
100°	206.8	222.9	236.5	248.3	256.8	263.6	267.0	267.8	267.0	263.6	256.8
102.5°	193.3	208.5	222.1	233.1	242.4	248.3	251.7	252.6	252.6	248.3	241.6
105°	179.7	194.9	207.7	219.5	227.2	233.1	235.6	238.2	237.3	233.9	227.2
107.5°	167.0	182.2	194.1	205.1	212.7	218.7	221.2	223.8	222.9	219.5	212.7
110°	155.1	169.5	180.5	191.6	198.3	204.3	208.5	209.4	207.7	204.3	198.3



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-44HL-LW-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
112.5°	144.1	156.8	167.8	178.0	185.6	189.9	193.3	194.9	193.3	189.9	185.6
115°	132.2	144.9	156.0	165.3	172.1	177.1	179.7	181.4	179.7	176.3	172.1
117.5°	121.2	133.1	144.1	153.4	159.3	163.6	166.1	167.8	166.1	163.6	159.3
120°	111.9	122.1	132.2	140.7	147.5	150.9	153.4	155.1	154.3	150.9	146.6
122.5°	100.9	111.9	121.2	129.7	135.6	139.0	140.7	142.4	141.5	139.0	134.8
125°	91.5	100.9	110.2	117.8	123.7	127.1	128.8	130.5	129.7	127.1	122.1
127.5°	81.4	91.5	99.2	106.8	111.0	116.1	117.0	118.7	117.8	115.3	111.0
130°	73.7	81.4	89.0	95.8	100.9	104.3	106.0	106.8	105.1	103.4	99.2
132.5°	64.4	72.9	79.7	85.6	89.0	92.4	94.1	94.9	94.9	92.4	89.0
135°	57.6	63.6	69.5	75.4	78.8	82.2	83.9	84.8	83.9	82.2	78.8
137.5°	51.7	56.8	61.0	66.1	70.4	72.0	73.7	73.7	72.9	72.0	69.5
140°	44.9	50.9	55.1	58.5	61.9	62.7	64.4	64.4	63.6	62.7	61.0
142.5°	38.1	43.2	47.5	51.7	54.2	55.9	56.8	57.6	56.8	55.9	53.4
145°	30.5	36.4	40.7	43.2	46.6	47.5	48.3	49.2	48.3	47.5	44.9
147.5°	23.7	28.8	33.1	36.4	39.0	39.8	40.7	41.5	40.7	39.0	38.1
150°	17.0	21.2	26.3	29.7	31.4	33.1	33.1	33.1	33.9	32.2	30.5
152.5°	13.6	15.3	18.6	22.0	24.6	25.4	26.3	26.3	25.4	25.4	23.7
155°	9.3	11.0	13.6	16.1	18.6	19.5	20.3	20.3	19.5	19.5	18.6
157.5°	5.9	7.6	9.3	11.0	13.6	14.4	15.3	15.3	15.3	14.4	13.6
160°	3.4	4.2	5.1	6.8	8.5	9.3	10.2	10.2	10.2	10.2	9.3
162.5°	2.5	2.5	2.5	3.4	4.2	5.1	5.9	5.9	5.9	5.9	5.1
165°	1.7	1.7	1.7	1.7	1.7	2.5	3.4	3.4	3.4	3.4	3.4
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-LD5-44HL-LW-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	803.5	803.5	803.5	803.5	803.5	803.5	803.5	803.5	803.5	803.5	803.5
2.5°	799.3	799.3	800.1	798.4	793.4	794.2	794.2	797.6	799.3	800.1	804.4
5°	797.6	797.6	799.3	796.7	792.5	792.5	792.5	795.9	796.7	798.4	801.8
7.5°	795.0	795.0	795.9	793.4	788.3	788.3	787.4	790.8	792.5	793.4	796.7
10°	790.8	790.8	791.7	789.1	783.2	783.2	782.3	784.9	785.7	787.4	790.0
12.5°	784.9	784.9	784.9	782.3	776.4	775.6	774.7	777.3	777.3	778.1	780.6
15°	779.8	778.1	778.1	775.6	769.6	767.9	766.2	767.1	768.8	767.9	769.6
17.5°	773.9	772.2	770.5	767.9	760.3	757.8	756.1	756.9	756.1	755.2	756.9
20°	767.1	764.5	763.7	759.5	751.8	747.6	744.2	742.5	743.3	740.8	741.7
22.5°	759.5	756.1	754.4	749.3	741.7	736.6	732.3	728.9	728.1	724.7	725.5
25°	750.1	745.9	743.3	739.1	730.6	724.7	719.6	714.5	712.0	707.7	706.9
27.5°	739.1	734.9	731.5	727.2	718.8	711.1	705.2	698.4	695.0	689.9	687.4
30°	728.1	723.0	717.9	714.5	705.2	696.7	687.4	681.5	676.4	670.5	666.2
32.5°	714.5	709.4	704.4	699.3	690.8	680.6	673.0	663.7	657.7	651.0	645.9
35°	701.0	694.2	689.1	682.3	674.7	662.8	653.5	644.2	636.5	628.9	623.0
37.5°	685.7	680.6	673.0	667.1	657.7	645.9	635.7	623.8	617.1	606.9	599.3
40°	671.3	665.4	657.7	650.1	640.8	627.2	616.2	602.6	595.0	583.1	575.5
42.5°	656.9	648.4	640.8	632.3	622.1	609.4	595.9	582.3	572.1	561.1	550.1
45°	640.8	631.5	622.1	612.8	602.6	589.9	575.5	561.1	548.4	538.2	524.7
47.5°	623.8	614.5	603.5	593.3	582.3	569.6	554.3	539.1	525.5	513.6	499.2
50°	606.9	597.6	585.7	574.7	562.0	549.2	533.1	515.3	500.9	485.7	473.0
52.5°	589.1	579.8	568.7	554.3	540.8	528.1	511.1	492.5	476.4	463.6	447.5
55°	571.3	562.0	549.2	534.8	521.3	505.2	489.1	470.4	452.6	437.4	421.3
57.5°	552.6	544.2	529.8	517.9	500.9	484.0	467.0	449.2	429.7	411.9	393.3
60°	534.0	524.7	511.1	496.7	479.7	462.8	445.0	425.5	405.2	385.7	368.7
62.5°	517.0	505.2	492.5	477.2	459.4	443.3	423.0	401.8	381.4	361.1	340.7
65°	497.5	484.8	473.0	457.7	439.1	420.4	400.1	378.9	356.8	334.8	314.5
67.5°	478.0	465.3	452.6	437.4	417.9	398.4	377.2	356.0	331.4	310.2	286.5
70°	458.6	448.4	432.3	416.2	398.4	377.2	356.0	333.1	307.7	284.8	260.2
72.5°	439.1	428.9	412.8	395.8	378.9	356.8	334.0	311.1	287.3	261.1	234.8
75°	420.4	407.7	393.3	377.2	359.4	336.5	313.6	289.9	261.9	237.3	210.2
77.5°	402.6	390.7	376.3	358.5	339.0	317.0	293.3	268.7	240.7	214.4	184.8
80°	383.1	371.2	356.8	339.0	319.5	298.4	272.9	247.5	220.4	191.6	161.0
82.5°	364.5	353.4	337.3	321.2	300.1	278.9	253.4	228.0	199.2	171.2	141.5
85°	345.0	334.0	318.7	301.7	281.4	258.5	234.8	209.4	180.5	151.7	122.1
87.5°	328.0	315.3	300.1	283.1	262.8	240.7	217.8	190.7	162.7	134.8	104.3
90°	310.2	298.4	283.1	266.1	245.8	223.8	200.0	174.6	147.5	118.7	89.8
92.5°	295.0	282.3	267.8	250.9	230.5	209.4	185.6	160.2	133.9	106.0	78.0
95°	279.7	267.0	253.4	236.5	216.1	194.9	171.2	146.6	121.2	94.1	67.8
97.5°	262.8	251.7	238.2	222.1	201.7	181.4	158.5	134.8	110.2	83.9	59.3
100°	249.2	236.5	223.8	206.8	188.2	168.7	145.8	122.9	99.2	74.6	51.7
102.5°	233.9	222.1	209.4	193.3	174.6	155.1	133.9	111.9	89.8	67.0	44.9
105°	219.5	208.5	194.9	179.7	161.9	143.2	122.9	102.6	81.4	59.3	39.8
107.5°	205.1	194.1	181.4	167.0	150.0	131.4	112.7	92.4	72.9	53.4	35.6
110°	190.7	180.5	168.7	154.3	138.2	121.2	103.4	84.8	65.3	47.5	31.4



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-44HL-LW-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
112.5°	178.0	167.8	156.0	142.4	127.1	111.0	94.1	76.3	58.5	42.4	27.1
115°	165.3	156.0	144.1	132.2	117.0	101.7	85.6	68.7	52.6	38.1	23.7
117.5°	152.6	143.2	132.2	120.4	106.8	92.4	77.1	61.0	47.5	33.9	21.2
120°	139.9	131.4	121.2	110.2	98.3	83.9	68.7	55.1	42.4	29.7	18.6
122.5°	128.0	120.4	111.0	100.9	88.2	74.6	61.9	50.0	38.1	26.3	15.3
125°	117.0	109.3	100.9	90.7	78.8	67.0	55.9	44.9	33.1	22.9	12.7
127.5°	106.0	98.3	89.8	80.5	71.2	60.2	50.0	39.8	29.7	20.3	11.0
130°	94.9	88.2	80.5	72.9	63.6	53.4	44.9	34.8	25.4	16.1	9.3
132.5°	83.9	78.8	72.0	64.4	55.9	48.3	39.0	30.5	22.0	14.4	8.5
135°	74.6	69.5	63.6	56.8	50.0	42.4	33.9	26.3	18.6	11.9	6.8
137.5°	66.1	61.9	55.9	50.0	44.1	36.4	29.7	22.0	15.3	10.2	5.1
140°	58.5	54.2	49.2	43.2	38.1	31.4	24.6	17.8	13.6	8.5	4.2
142.5°	50.9	46.6	42.4	37.3	32.2	26.3	20.3	15.3	11.0	6.8	4.2
145°	43.2	39.8	35.6	31.4	26.3	21.2	17.0	12.7	8.5	5.1	3.4
147.5°	35.6	33.1	28.8	25.4	21.2	17.0	13.6	10.2	6.8	4.2	2.5
150°	28.8	26.3	22.9	19.5	17.0	13.6	11.0	7.6	5.1	4.2	2.5
152.5°	22.0	20.3	17.8	16.1	13.6	10.2	7.6	5.9	4.2	3.4	1.7
155°	17.8	16.1	14.4	11.9	10.2	7.6	5.9	4.2	3.4	2.5	1.7
157.5°	12.7	11.9	10.2	8.5	6.8	5.1	4.2	4.2	2.5	1.7	0.8
160°	8.5	7.6	6.8	5.1	4.2	4.2	3.4	2.5	1.7	1.7	0.8
162.5°	5.1	4.2	4.2	4.2	3.4	3.4	2.5	1.7	1.7	0.8	0.8
165°	3.4	3.4	3.4	2.5	2.5	2.5	1.7	0.8	0.8	0.8	0.8
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-LD5-44HL-LW-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
0°	803.5	803.5	803.5	803.5	803.5	803.5	803.5	803.5	803.5	803.5	803.5
2.5°	804.4	801.8	805.2	811.2	812.0	811.2	809.5	812.0	815.4	814.5	808.6
5°	802.7	799.3	802.7	808.6	808.6	807.8	806.9	809.5	812.8	812.0	806.9
7.5°	797.6	794.2	797.6	802.7	803.5	801.8	801.8	804.4	807.8	806.9	802.7
10°	790.8	787.4	789.1	795.0	796.7	795.0	795.0	797.6	801.8	801.0	795.9
12.5°	780.6	778.1	779.8	784.9	786.6	785.7	784.9	788.3	792.5	792.5	787.4
15°	769.6	766.2	767.9	773.9	774.7	773.0	773.9	776.4	781.5	781.5	777.3
17.5°	756.9	752.7	755.2	759.5	760.3	760.3	760.3	763.7	769.6	768.8	765.4
20°	742.5	736.6	738.3	742.5	744.2	744.2	744.2	750.1	754.4	754.4	751.0
22.5°	725.5	721.3	721.3	725.5	728.1	727.2	727.2	732.3	738.3	737.4	737.4
25°	706.1	702.7	701.0	706.1	706.9	707.7	709.4	714.5	721.3	721.3	722.2
27.5°	685.7	682.3	681.5	685.7	686.6	687.4	689.1	695.0	701.8	702.7	704.4
30°	666.2	661.1	659.4	662.8	664.5	665.4	665.4	674.7	680.6	683.2	686.6
32.5°	643.3	638.2	634.0	639.9	640.8	642.5	643.3	652.7	659.4	663.7	668.8
35°	620.4	612.0	610.3	614.5	616.2	617.1	618.7	628.9	638.2	641.6	648.4
37.5°	595.0	589.1	584.0	588.2	589.9	590.8	595.9	605.2	614.5	619.6	626.4
40°	571.3	563.7	559.4	562.0	563.7	564.5	570.4	580.6	591.6	597.6	606.0
42.5°	545.0	534.8	531.4	534.0	534.8	537.4	542.5	556.0	567.0	575.5	582.3
45°	518.7	511.1	503.5	506.0	506.9	508.6	516.2	530.6	542.5	552.6	560.3
47.5°	491.6	482.3	474.7	476.4	479.7	480.6	489.1	506.0	517.0	528.1	538.2
50°	464.5	451.8	445.8	445.8	447.5	451.8	462.8	479.7	491.6	504.3	515.3
52.5°	436.5	424.6	417.9	418.7	420.4	425.5	435.7	452.6	466.2	479.7	493.3
55°	408.5	395.8	389.0	387.4	389.0	395.8	407.7	425.5	439.1	455.2	469.6
57.5°	380.6	365.3	359.4	356.8	358.5	367.0	378.9	397.5	414.5	429.7	446.7
60°	350.1	338.2	328.0	322.1	326.3	337.3	350.1	369.6	387.4	404.3	423.0
62.5°	323.8	308.5	297.5	291.6	295.8	305.1	322.9	341.6	361.1	380.6	399.2
65°	294.1	278.9	266.1	260.2	264.5	275.5	293.3	313.6	334.8	354.3	376.3
67.5°	265.3	249.2	233.9	228.0	233.1	245.0	264.5	287.3	310.2	330.6	354.3
70°	237.3	219.5	203.4	199.2	202.6	218.7	237.3	260.2	283.9	307.7	332.3
72.5°	211.9	189.9	172.9	167.8	172.1	189.9	211.1	234.8	260.2	285.6	311.9
75°	182.2	161.9	143.2	137.3	142.4	158.5	184.8	210.2	237.3	264.5	289.0
77.5°	158.5	134.8	115.3	106.0	114.4	134.8	160.2	187.3	215.3	243.3	271.2
80°	133.9	109.3	88.2	78.0	87.3	109.3	134.8	164.4	195.8	223.8	249.2
82.5°	111.9	85.6	63.6	52.6	62.7	87.3	115.3	144.9	175.5	203.4	233.1
85°	91.5	64.4	41.5	29.7	44.1	66.1	95.8	126.3	157.7	186.5	215.3
87.5°	74.6	48.3	25.4	12.7	27.1	51.7	79.7	110.2	141.5	170.4	197.5
90°	61.0	34.8	13.6	1.7	16.1	39.0	66.1	95.8	125.4	155.1	182.2
92.5°	50.0	26.3	7.6	0.8	10.2	31.4	56.8	84.8	113.6	142.4	168.7
95°	41.5	20.3	5.1	0.8	7.6	24.6	48.3	75.4	102.6	130.5	156.8
97.5°	35.6	17.0	4.2	0.8	5.9	21.2	41.5	67.0	93.2	119.5	144.9
100°	30.5	13.6	3.4	0.8	5.1	17.8	36.4	59.3	83.9	109.3	133.9
102.5°	26.3	11.0	2.5	0.8	4.2	15.3	32.2	53.4	75.4	100.0	123.7
105°	22.9	9.3	2.5	0.8	3.4	13.6	28.8	47.5	69.5	91.5	114.4
107.5°	19.5	7.6	1.7	0.8	2.5	11.0	25.4	43.2	62.7	83.9	105.1
110°	17.0	6.8	1.7	0.8	2.5	10.2	22.0	39.0	56.8	76.3	96.6



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-44HL-LW-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
112.5°	14.4	5.1	1.7	0.8	1.7	8.5	19.5	34.8	51.7	69.5	89.0
115°	12.7	4.2	0.8	0.8	1.7	7.6	17.8	31.4	46.6	63.6	81.4
117.5°	10.2	3.4	0.8	0.8	0.8	5.9	15.3	28.0	42.4	58.5	74.6
120°	8.5	3.4	0.8	0.8	0.8	5.1	13.6	24.6	38.1	52.6	67.8
122.5°	7.6	2.5	0.8	0.8	0.8	4.2	11.9	22.0	33.9	47.5	61.9
125°	6.8	2.5	0.8	0.8	0.8	3.4	10.2	19.5	30.5	42.4	55.9
127.5°	5.1	2.5	0.8	0.8	0.8	2.5	9.3	17.0	27.1	38.1	50.0
130°	4.2	1.7	0.8	0.8	0.8	2.5	7.6	15.3	23.7	33.9	44.9
132.5°	3.4	1.7	0.8	0.8	0.8	1.7	5.9	11.9	20.3	29.7	39.8
135°	3.4	1.7	0.8	0.8	0.8	1.7	4.2	10.2	17.0	25.4	33.9
137.5°	3.4	0.8	0.8	0.8	0.8	1.7	3.4	7.6	13.6	20.3	28.0
140°	2.5	0.8	0.8	0.8	0.8	0.8	2.5	5.9	11.0	17.0	23.7
142.5°	2.5	0.8	0.8	0.8	0.8	0.8	2.5	4.2	8.5	13.6	18.6
145°	1.7	0.8	0.8	0.8	0.8	0.8	1.7	3.4	6.8	10.2	15.3
147.5°	1.7	0.8	0.8	0.8	0.8	0.8	1.7	2.5	5.1	8.5	11.9
150°	1.7	0.8	0.8	0.8	0.8	0.8	1.7	2.5	3.4	5.9	9.3
152.5°	0.8	0.8	0.8	0.8	0.8	0.8	1.7	1.7	2.5	4.2	5.9
155°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	1.7	2.5	3.4	4.2
157.5°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	1.7	1.7	2.5	3.4
160°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	1.7	1.7	2.5
162.5°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	1.7	1.7
165°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
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-LD5-44HL-LW-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
0°	803.5	803.5	803.5	803.5	803.5	803.5	803.5	803.5	803.5	803.5	803.5
2.5°	806.1	800.1	801.8	801.0	802.7	805.2	805.2	804.4	804.4	802.7	801.0
5°	804.4	798.4	801.0	800.1	801.8	804.4	804.4	803.5	803.5	801.0	800.1
7.5°	799.3	795.0	796.7	796.7	798.4	801.0	801.0	800.1	800.1	797.6	796.7
10°	794.2	789.1	791.7	791.7	793.4	796.7	796.7	795.9	795.9	793.4	792.5
12.5°	785.7	780.6	784.9	785.7	787.4	790.8	790.0	790.0	790.0	787.4	786.6
15°	775.6	772.2	776.4	777.3	779.8	784.0	784.0	784.0	784.0	781.5	780.6
17.5°	764.5	762.0	766.2	767.9	771.3	775.6	775.6	776.4	777.3	775.6	774.7
20°	751.8	750.1	754.4	757.8	762.8	767.1	768.8	769.6	771.3	769.6	768.8
22.5°	737.4	737.4	743.3	746.7	752.7	756.9	759.5	762.0	763.7	762.0	761.1
25°	721.3	723.9	729.8	735.7	742.5	746.7	749.3	752.7	754.4	753.5	752.7
27.5°	706.1	709.4	717.1	723.0	728.9	735.7	738.3	742.5	744.2	744.2	743.3
30°	688.3	693.3	701.8	708.6	716.2	723.0	726.4	730.6	733.2	731.5	732.3
32.5°	671.3	679.8	686.6	694.2	702.7	709.4	713.7	718.8	721.3	720.5	721.3
35°	652.7	661.1	670.5	678.1	688.3	695.0	701.0	705.2	708.6	707.7	707.7
37.5°	632.3	643.3	652.7	662.8	672.1	679.8	685.7	690.8	694.2	694.2	694.2
40°	612.8	624.7	634.0	645.9	657.7	664.5	671.3	676.4	679.8	680.6	681.5
42.5°	591.6	604.3	615.4	628.1	639.9	648.4	656.0	662.0	665.4	667.1	666.2
45°	572.1	584.0	596.7	611.1	622.1	630.6	639.9	646.7	650.1	651.0	651.8
47.5°	550.1	563.7	578.1	592.5	603.5	614.5	623.0	629.8	633.2	635.7	635.7
50°	528.9	543.3	559.4	574.7	586.5	597.6	606.0	613.7	617.9	619.6	620.4
52.5°	509.4	523.0	539.9	555.2	567.0	578.1	589.1	597.6	601.8	603.5	603.5
55°	485.7	502.6	521.3	535.7	548.4	561.1	572.1	580.6	584.8	587.4	589.1
57.5°	463.6	481.4	500.9	516.2	531.4	543.3	553.5	564.5	567.9	571.3	572.1
60°	442.4	460.2	478.9	495.8	511.1	523.8	535.7	545.0	550.9	552.6	554.3
62.5°	420.4	439.1	458.6	475.5	491.6	506.9	517.9	526.4	533.1	535.7	537.4
65°	399.2	418.7	438.2	456.0	473.0	488.2	499.2	507.7	514.5	518.7	519.6
67.5°	376.3	397.5	417.9	436.5	453.5	469.6	480.6	489.1	495.8	500.9	501.8
70°	355.1	377.2	397.5	417.9	434.8	450.9	462.8	471.3	478.9	482.3	484.0
72.5°	334.8	357.7	378.9	399.2	416.2	432.3	445.0	453.5	461.1	465.3	466.2
75°	315.3	338.2	361.1	380.6	398.4	414.5	427.2	436.5	443.3	447.5	449.2
77.5°	295.8	319.5	342.4	361.9	380.6	396.7	407.7	418.7	425.5	430.6	430.6
80°	276.3	300.9	324.6	344.1	362.8	377.2	389.9	400.9	407.7	412.8	412.8
82.5°	259.4	283.1	306.0	325.5	344.1	360.2	372.9	383.1	390.7	394.1	395.0
85°	239.9	266.1	287.3	308.5	326.3	341.6	354.3	365.3	372.1	375.5	377.2
87.5°	223.8	249.2	272.1	290.7	308.5	323.8	338.2	347.5	354.3	358.5	360.2
90°	208.5	233.1	256.0	274.6	293.3	307.7	321.2	330.6	338.2	341.6	343.3
92.5°	194.9	219.5	241.6	260.2	278.0	294.1	306.8	316.2	322.9	326.3	328.9
95°	182.2	206.0	227.2	247.5	264.5	278.9	292.4	301.7	309.4	311.9	314.5
97.5°	169.5	192.4	213.6	233.1	250.9	264.5	277.2	286.5	292.4	296.7	299.2
100°	158.5	180.5	200.9	219.5	236.5	249.2	262.8	271.2	277.2	280.6	283.9
102.5°	146.6	168.7	188.2	206.0	223.8	235.6	248.3	256.8	261.9	267.8	267.8
105°	136.5	156.8	176.3	193.3	208.5	222.9	233.9	242.4	248.3	252.6	252.6
107.5°	125.4	145.8	164.4	182.2	196.6	210.2	220.4	228.0	234.8	237.3	239.9
110°	117.0	134.8	153.4	170.4	183.9	196.6	206.8	215.3	221.2	223.8	225.5



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-44HL-LW-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
112.5°	106.8	125.4	142.4	158.5	172.1	183.9	194.1	200.9	206.8	210.2	211.1
115°	98.3	116.1	131.4	146.6	161.0	171.2	180.5	187.3	193.3	195.8	197.5
117.5°	90.7	106.8	122.1	134.8	148.3	159.3	168.7	174.6	179.7	183.1	184.8
120°	83.1	98.3	111.9	124.6	137.3	147.5	156.0	161.9	167.8	170.4	170.4
122.5°	75.4	89.8	102.6	114.4	126.3	135.6	144.9	150.0	155.1	157.7	157.7
125°	68.7	82.2	94.1	105.1	116.1	124.6	132.2	138.2	143.2	144.9	144.9
127.5°	61.9	74.6	85.6	95.8	105.1	113.6	121.2	127.1	131.4	133.1	133.1
130°	55.9	67.0	77.1	87.3	96.6	103.4	111.0	116.1	118.7	121.2	122.1
132.5°	50.0	60.2	69.5	78.0	87.3	94.1	100.0	105.1	107.6	110.2	111.0
135°	44.1	53.4	61.9	70.4	78.0	84.8	89.8	94.1	97.5	99.2	100.0
137.5°	37.3	47.5	55.1	61.9	70.4	75.4	81.4	83.9	87.3	89.0	89.0
140°	31.4	39.0	47.5	54.2	61.0	66.1	71.2	75.4	78.0	78.8	78.8
142.5°	25.4	32.2	39.0	47.5	53.4	57.6	62.7	66.1	67.8	68.7	69.5
145°	20.3	25.4	31.4	39.0	45.8	50.9	53.4	56.8	58.5	59.3	60.2
147.5°	15.3	20.3	25.4	30.5	37.3	42.4	44.9	48.3	50.0	50.9	50.9
150°	11.9	15.3	18.6	23.7	28.8	34.8	38.1	40.7	41.5	42.4	42.4
152.5°	8.5	11.9	14.4	17.8	21.2	26.3	31.4	33.1	33.9	34.8	34.8
155°	5.9	8.5	10.2	12.7	15.3	19.5	23.7	26.3	27.1	28.0	28.0
157.5°	4.2	5.9	6.8	9.3	11.0	12.7	16.1	20.3	21.2	21.2	21.2
160°	2.5	3.4	4.2	5.9	6.8	8.5	10.2	12.7	15.3	15.3	15.3
162.5°	1.7	2.5	2.5	3.4	3.4	5.1	5.9	6.8	9.3	10.2	10.2
165°	0.8	1.7	1.7	1.7	1.7	1.7	2.5	2.5	4.2	5.1	5.1
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-LD5-44HL-LW-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°
0°	803.5	803.5	803.5	803.5	803.5	803.5	803.5	803.5	803.5	803.5	803.5
2.5°	801.8	803.5	802.7	802.7	802.7	804.4	802.7	795.0	796.7	798.4	800.1
5°	801.0	801.8	801.8	801.0	801.0	802.7	801.0	793.4	795.0	796.7	797.6
7.5°	797.6	798.4	798.4	798.4	797.6	799.3	796.7	790.0	790.0	791.7	792.5
10°	793.4	795.0	794.2	793.4	793.4	793.4	791.7	784.0	784.0	784.9	785.7
12.5°	788.3	788.3	788.3	787.4	786.6	786.6	784.9	777.3	776.4	778.1	777.3
15°	781.5	783.2	781.5	780.6	778.9	778.9	776.4	768.8	767.1	767.9	767.1
17.5°	775.6	776.4	774.7	773.0	771.3	770.5	767.9	759.5	756.9	757.8	756.1
20°	769.6	769.6	767.9	766.2	763.7	761.1	757.8	749.3	745.0	745.0	741.7
22.5°	762.0	762.0	760.3	757.8	755.2	751.8	748.4	740.0	733.2	731.5	728.9
25°	753.5	752.7	751.8	749.3	744.2	740.8	737.4	728.1	720.5	717.1	712.8
27.5°	743.3	743.3	740.8	738.3	733.2	728.9	724.7	716.2	706.1	701.8	695.9
30°	732.3	732.3	729.8	726.4	721.3	716.2	711.1	701.0	690.8	684.9	678.1
32.5°	721.3	720.5	717.9	714.5	709.4	701.8	697.6	687.4	675.5	668.8	659.4
35°	707.7	706.9	704.4	700.1	693.3	687.4	680.6	671.3	657.7	649.3	639.1
37.5°	694.2	693.3	691.6	685.7	678.9	672.1	663.7	654.3	641.6	630.6	620.4
40°	680.6	679.8	676.4	672.1	663.7	655.2	646.7	637.4	623.8	611.1	600.1
42.5°	666.2	665.4	661.1	656.0	646.7	638.2	628.1	617.9	604.3	589.1	578.1
45°	651.8	650.1	645.9	639.9	629.8	620.4	610.3	598.4	584.8	570.4	556.0
47.5°	636.5	634.0	629.8	621.3	612.8	602.6	590.8	578.1	564.5	548.4	533.1
50°	619.6	617.9	612.8	605.2	595.0	584.8	571.3	558.6	542.5	527.2	508.6
52.5°	603.5	600.1	595.9	587.4	577.2	566.2	551.8	536.5	520.4	506.0	486.5
55°	586.5	584.8	578.9	572.1	559.4	546.7	533.1	517.0	499.2	482.3	463.6
57.5°	570.4	567.0	562.0	552.6	541.6	528.9	514.5	497.5	478.0	460.2	439.9
60°	554.3	549.2	543.3	534.8	523.0	509.4	494.2	476.4	456.9	437.4	416.2
62.5°	536.5	532.3	525.5	517.0	505.2	490.8	474.7	456.0	437.4	417.0	394.1
65°	518.7	514.5	507.7	499.2	487.4	471.3	454.3	435.7	414.5	395.0	370.4
67.5°	500.9	496.7	489.1	479.7	467.9	452.6	434.8	415.3	394.1	372.9	347.5
70°	483.1	478.0	471.3	461.1	449.2	433.1	415.3	395.0	373.8	350.9	325.5
72.5°	465.3	461.1	452.6	443.3	430.6	414.5	396.7	376.3	354.3	330.6	305.1
75°	447.5	442.4	436.5	425.5	411.9	396.7	378.0	357.7	334.0	311.1	284.8
77.5°	429.7	425.5	417.9	406.8	394.1	378.0	359.4	339.0	315.3	291.6	263.6
80°	411.9	406.8	400.9	390.7	376.3	360.2	340.7	320.4	296.7	272.1	244.1
82.5°	394.1	389.0	382.3	372.1	358.5	342.4	323.8	301.7	278.0	252.6	226.3
85°	376.3	372.1	364.5	354.3	339.9	323.8	305.1	285.6	260.2	234.8	208.5
87.5°	358.5	354.3	346.7	336.5	322.9	306.8	288.2	267.8	243.3	219.5	190.7
90°	341.6	338.2	330.6	320.4	306.8	290.7	273.8	251.7	228.0	204.3	177.1
92.5°	326.3	322.9	316.2	306.0	294.1	276.3	259.4	238.2	214.4	189.9	163.6
95°	312.8	308.5	301.7	292.4	278.0	262.8	245.8	224.6	201.7	177.1	151.7
97.5°	297.5	293.3	286.5	276.3	264.5	248.3	231.4	211.1	188.2	165.3	139.9
100°	282.3	278.0	270.4	261.9	250.0	233.9	217.8	197.5	176.3	154.3	129.7
102.5°	267.0	262.8	256.0	247.5	235.6	221.2	205.1	185.6	164.4	142.4	119.5
105°	252.6	248.3	241.6	233.1	222.1	207.7	190.7	173.8	153.4	132.2	110.2
107.5°	238.2	233.9	228.0	219.5	208.5	194.9	178.8	161.0	142.4	122.1	100.9
110°	223.8	220.4	213.6	206.0	194.9	181.4	167.0	150.0	131.4	112.7	92.4



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-44HL-LW-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°
112.5°	210.2	206.8	200.0	191.6	182.2	169.5	155.1	139.0	121.2	103.4	83.9
115°	196.6	192.4	186.5	178.8	169.5	157.7	144.1	129.7	111.9	94.9	77.1
117.5°	183.1	179.7	173.8	166.1	157.7	145.8	133.1	119.5	102.6	86.5	70.4
120°	169.5	167.0	161.0	154.3	145.8	134.8	122.9	109.3	94.1	78.8	63.6
122.5°	156.8	154.3	148.3	142.4	133.9	123.7	112.7	100.0	86.5	72.0	58.5
125°	144.9	141.5	136.5	130.5	122.9	113.6	102.6	90.7	78.0	65.3	52.6
127.5°	132.2	129.7	126.3	119.5	111.9	103.4	93.2	83.1	71.2	59.3	47.5
130°	122.1	118.7	114.4	109.3	102.6	94.1	84.8	74.6	64.4	53.4	41.5
132.5°	110.2	106.8	103.4	98.3	92.4	84.8	76.3	67.0	57.6	47.5	37.3
135°	99.2	96.6	93.2	88.2	82.2	76.3	67.8	59.3	50.9	41.5	33.1
137.5°	89.0	86.5	83.1	79.7	73.7	67.8	60.2	52.6	44.9	36.4	28.8
140°	78.8	77.1	73.7	70.4	65.3	59.3	52.6	45.8	39.0	31.4	24.6
142.5°	68.7	67.0	64.4	61.0	56.8	51.7	45.8	39.8	33.1	27.1	21.2
145°	59.3	58.5	55.9	52.6	49.2	44.1	39.0	33.9	28.0	22.9	17.0
147.5°	50.0	49.2	47.5	44.9	41.5	37.3	33.1	28.0	23.7	18.6	13.6
150°	41.5	40.7	39.8	36.4	34.8	30.5	27.1	22.9	19.5	14.4	11.0
152.5°	33.9	33.9	32.2	29.7	28.0	24.6	22.0	18.6	15.3	11.9	8.5
155°	27.1	26.3	25.4	23.7	22.0	19.5	17.0	14.4	11.9	8.5	5.9
157.5°	21.2	20.3	19.5	17.8	16.1	15.3	12.7	10.2	7.6	5.9	4.2
160°	15.3	14.4	13.6	12.7	11.9	10.2	8.5	6.8	5.1	3.4	2.5
162.5°	10.2	9.3	9.3	8.5	7.6	5.9	5.1	4.2	3.4	2.5	1.7
165°	5.1	5.1	4.2	4.2	3.4	2.5	2.5	2.5	1.7	1.7	0.8
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-LD5-44HL-LW-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	330°	335°	340°	345°	350°	355°	360°
0°	803.5	803.5	803.5	803.5	803.5	803.5	803.5
2.5°	799.3	799.3	802.7	801.8	799.3	804.4	810.3
5°	796.7	796.7	799.3	799.3	796.7	801.8	806.9
7.5°	792.5	791.7	794.2	794.2	790.8	795.0	801.0
10°	784.9	784.0	786.6	786.6	783.2	787.4	792.5
12.5°	776.4	774.7	777.3	776.4	773.0	777.3	782.3
15°	765.4	764.5	766.2	764.5	761.1	765.4	770.5
17.5°	754.4	751.8	752.7	752.7	746.7	751.0	755.2
20°	740.0	736.6	737.4	736.6	732.3	734.9	740.0
22.5°	725.5	720.5	720.5	719.6	714.5	717.9	722.2
25°	707.7	701.8	701.8	701.0	695.0	697.6	701.8
27.5°	689.9	684.0	681.5	680.6	674.7	674.7	680.6
30°	671.3	662.8	661.1	658.6	652.7	652.7	657.7
32.5°	653.5	641.6	638.2	634.9	628.9	628.1	634.0
35°	629.8	620.4	614.5	611.1	604.3	602.6	607.7
37.5°	610.3	598.4	589.9	585.7	578.9	576.4	583.1
40°	589.1	576.4	565.3	562.8	552.6	549.2	555.2
42.5°	565.3	551.8	540.8	535.7	528.1	524.7	525.5
45°	541.6	527.2	515.3	508.6	500.9	495.0	498.4
47.5°	517.0	504.3	489.9	479.7	470.4	466.2	467.9
50°	492.5	477.2	463.6	452.6	441.6	436.5	439.9
52.5°	467.9	451.8	436.5	424.6	411.9	406.8	407.7
55°	444.1	427.2	409.4	396.7	384.8	377.2	375.5
57.5°	420.4	401.8	383.1	368.7	353.4	346.7	344.1
60°	395.0	375.5	356.0	339.0	322.9	315.3	311.9
62.5°	371.2	350.1	328.0	310.2	294.1	283.9	281.4
65°	348.4	323.8	301.7	281.4	263.6	252.6	249.2
67.5°	323.8	298.4	274.6	252.6	235.6	221.2	219.5
70°	300.9	273.8	247.5	224.6	206.0	191.6	184.8
72.5°	278.0	250.0	222.9	198.3	174.6	161.0	156.0
75°	256.0	227.2	198.3	172.9	146.6	130.5	125.4
77.5°	235.6	206.0	175.5	147.5	122.9	102.6	95.8
80°	216.1	185.6	153.4	124.6	98.3	76.3	68.7
82.5°	195.8	167.0	133.9	103.4	76.3	53.4	44.1
85°	178.0	149.2	116.1	85.6	58.5	33.9	23.7
87.5°	163.6	132.2	102.6	72.0	44.1	19.5	6.8
90°	149.2	118.7	89.0	59.3	33.1	11.0	0.8
92.5°	136.5	107.6	78.0	50.9	25.4	7.6	0.8
95°	124.6	96.6	68.7	42.4	20.3	5.1	0.8
97.5°	113.6	87.3	61.0	36.4	17.0	4.2	0.8
100°	104.3	78.8	54.2	32.2	14.4	3.4	0.8
102.5°	94.9	71.2	48.3	28.0	12.7	2.5	0.8
105°	87.3	64.4	43.2	25.4	11.0	2.5	0.8
107.5°	79.7	58.5	39.0	22.0	9.3	1.7	0.8
110°	72.0	53.4	34.8	19.5	8.5	1.7	0.8



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-44HL-LW-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	330°	335°	340°	345°	350°	355°	360°
112.5°	66.1	48.3	31.4	17.8	6.8	1.7	0.8
115°	60.2	43.2	28.0	15.3	5.9	0.8	0.8
117.5°	54.2	39.0	24.6	13.6	5.1	0.8	0.8
120°	49.2	34.8	22.0	11.9	4.2	0.8	0.8
122.5°	44.1	31.4	19.5	10.2	3.4	0.8	0.8
125°	39.8	28.0	17.0	8.5	2.5	0.8	0.8
127.5°	35.6	24.6	15.3	7.6	2.5	0.8	0.8
130°	31.4	22.0	12.7	5.9	1.7	0.8	0.8
132.5°	28.0	18.6	11.0	5.1	1.7	0.8	0.8
135°	24.6	16.1	9.3	3.4	1.7	0.8	0.8
137.5°	21.2	13.6	7.6	2.5	0.8	0.8	0.8
140°	17.8	11.9	5.9	2.5	0.8	0.8	0.8
142.5°	15.3	9.3	4.2	1.7	0.8	0.8	0.8
145°	11.9	7.6	3.4	1.7	0.8	0.8	0.8
147.5°	9.3	5.9	2.5	1.7	0.8	0.8	0.8
150°	6.8	4.2	2.5	0.8	0.8	0.8	0.8
152.5°	5.1	3.4	1.7	0.8	0.8	0.8	0.8
155°	3.4	2.5	1.7	0.8	0.8	0.8	0.8
157.5°	2.5	1.7	0.8	0.8	0.8	0.8	0.8
160°	1.7	0.8	0.8	0.8	0.8	0.8	0.8
162.5°	0.8	0.8	0.8	0.8	0.8	0.8	0.8
165°	0.8	0.8	0.8	0.8	0.8	0.8	0.8
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)