

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-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-LD5-44HL-LW-UNV-L950-CD1-U
Description: 4FT LINEAR SNLED LED FIXTURE
WIDE FROSTED LENS
Light Source: -
Ballast/Driver: -

Summary

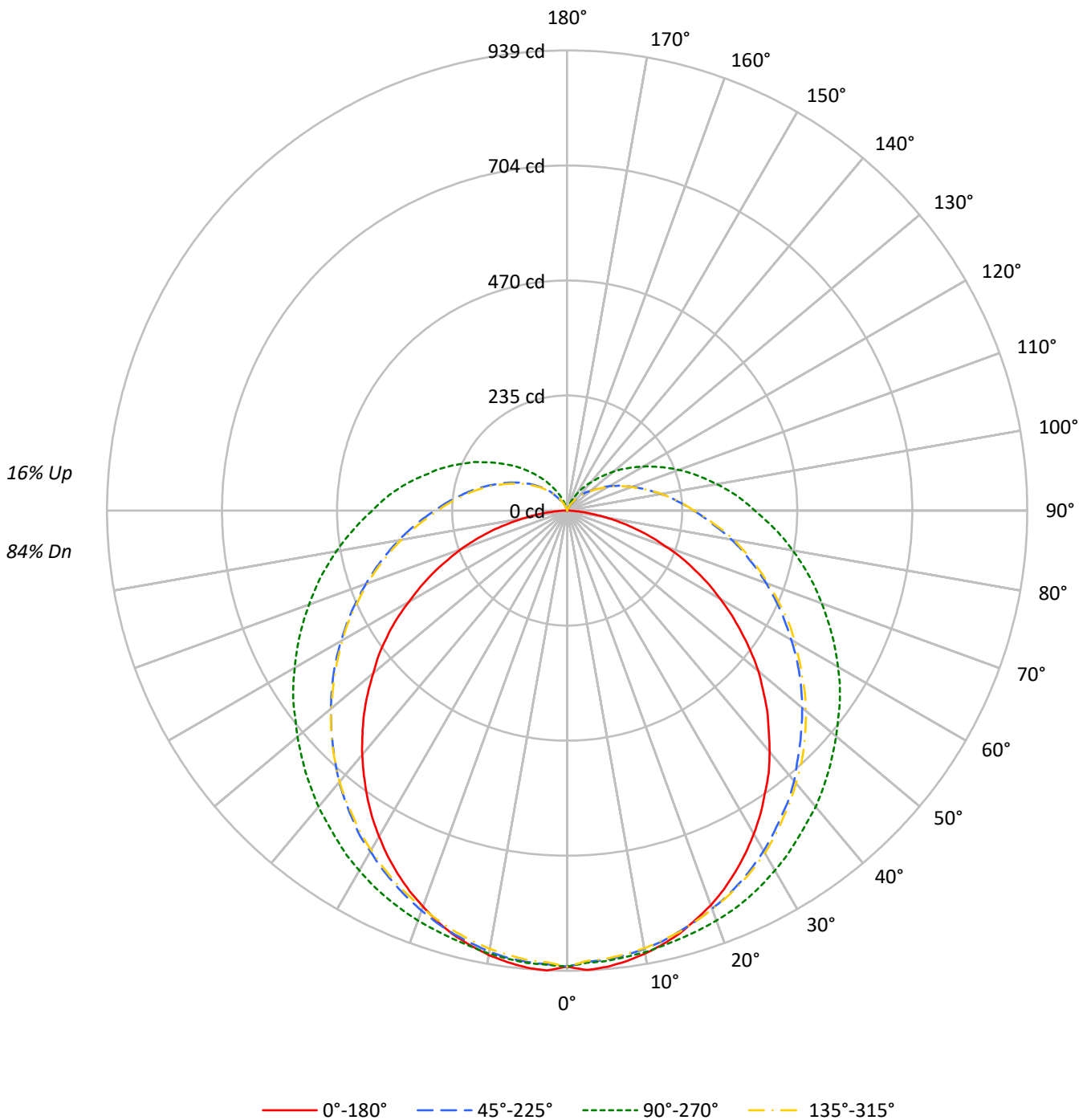
Lumens per Lamp: N/A
Luminaire Lumens: 4043.0 lumens
Efficiency: N/A
Efficacy: 109.3 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.36 / 1.44
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.12')
CIE Type: Semi-Direct

Input Watts (W): 37
Input Voltage (V): NR
Input Current (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-LD5-44HL-LW-UNV-L950-CD1-U

Luminous Intensity Polar Plot





TEST NUMBER: P#

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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20									20									20									20									20									
RC	80									70									50									30									10									0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	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°	7520	7520	7520	7520
5°	7560	7247	7576	7278
10°	7490	7041	7514	7064
15°	7403	6865	7435	6873
20°	7287	6736	7312	6736
25°	7143	6622	7186	6615
30°	6982	6504	7036	6504
35°	6794	6396	6871	6403
40°	6610	6331	6690	6331
45°	6397	6264	6494	6273
50°	6175	6224	6258	6241
55°	5865	6230	6050	6257
60°	5538	6250	5719	6288
65°	5172	6312	5401	6374
70°	4656	6429	5020	6519
75°	4063	6637	4446	6766
80°	3143	6950	3570	7111
85°	1879	7448	2350	7655



TEST NUMBER: P#

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	88.2	2.2
10°-20°	253.4	6.3
20°-30°	388.4	9.6
30°-40°	479.2	11.9
40°-50°	519.9	12.9
50°-60°	512.4	12.7
60°-70°	463.3	11.5
70°-80°	386.0	9.5
80°-90°	299.0	7.4
90°-100°	226.7	5.6
100°-110°	167.8	4.1
110°-120°	116.7	2.9
120°-130°	74.5	1.8
130°-140°	41.8	1.0
140°-150°	19.1	0.5
150°-160°	5.9	0.1
160°-170°	0.7	0.0
170°-180°	0.0	0.0
0°-30°	730.0	18.1
0°-40°	1209.2	29.9
0°-60°	2241.5	55.4
0°-90°	3389.8	83.8
90°-120°	511.2	12.6
90°-150°	646.6	16.0
90°-180°	653.0	16.2
0°-180°	4043.0	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	931	931	931	931	931	
5°	934	923	936	927	934	89
15°	892	903	896	904	892	251
25°	813	873	818	872	813	374
35°	704	819	712	820	704	441
45°	577	754	586	755	577	445
55°	435	679	449	682	435	389
65°	289	596	301	602	289	286
75°	145	510	159	520	145	154
85°	28	425	34	437	28	33
90°	1	383	2	398	1	1
95°	1	348	1	364	1	1
105°	1	276	1	292	1	1
115°	1	210	1	229	1	1
125°	1	151	1	168	1	1
135°	1	98	1	116	1	1
145°	1	57	1	70	1	1
155°	1	24	1	32	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-LD5-44HL-LW-UNV-L950-CD1-U

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	930.6	930.6	930.6	930.6	930.6	930.6	930.6	930.6	930.6	930.6	930.6
2.5°	938.4	938.4	937.5	935.5	936.5	939.4	937.5	932.5	929.6	921.7	923.7
5°	934.5	934.5	933.5	931.6	932.5	936.5	934.5	930.6	926.7	919.8	922.7
7.5°	927.6	927.6	926.7	924.7	926.7	930.6	928.6	924.7	921.7	914.9	917.8
10°	917.8	918.8	917.8	914.9	918.8	922.7	921.7	916.8	913.9	908.0	910.9
12.5°	906.0	907.0	906.0	905.1	907.0	912.9	910.9	907.0	905.1	900.1	903.1
15°	892.3	893.3	891.3	891.3	893.3	899.2	899.2	895.2	893.3	888.4	894.3
17.5°	874.6	875.6	874.6	874.6	876.6	882.5	883.5	881.5	879.5	877.6	883.5
20°	857.0	856.0	856.0	855.0	858.9	867.8	866.8	866.8	864.8	864.8	871.7
22.5°	836.3	836.3	835.4	835.4	840.3	848.1	848.1	850.1	848.1	852.1	857.9
25°	812.8	813.8	812.8	814.7	818.7	827.5	828.5	831.4	832.4	836.3	843.2
27.5°	788.2	789.2	788.2	790.2	797.1	804.0	808.9	812.8	813.8	819.7	828.5
30°	761.7	761.7	762.7	764.7	772.5	783.3	787.3	792.2	792.2	802.0	810.8
32.5°	734.3	734.3	734.3	738.2	747.0	759.8	764.7	770.6	772.5	782.4	792.2
35°	703.8	704.8	704.8	707.8	719.5	732.3	739.2	746.0	750.0	761.7	771.6
37.5°	675.4	677.3	674.4	678.3	695.0	705.8	713.6	720.5	727.4	743.1	750.9
40°	643.0	644.9	643.9	651.8	665.5	679.3	688.1	695.0	704.8	720.5	729.3
42.5°	608.6	610.6	612.5	621.4	636.1	649.8	660.6	669.5	681.2	695.0	709.7
45°	577.2	577.2	580.1	590.9	606.6	621.4	634.1	643.9	657.7	672.4	687.1
47.5°	541.9	542.8	546.8	559.5	576.2	593.9	605.7	618.4	633.1	648.9	665.5
50°	509.5	509.5	515.4	529.1	544.8	564.4	577.2	591.9	607.6	626.3	643.0
52.5°	472.2	474.1	483.0	495.7	516.3	534.0	548.7	564.4	583.1	602.7	621.4
55°	434.9	438.8	445.7	463.3	484.9	501.6	519.3	538.9	556.6	578.2	599.8
57.5°	398.5	401.5	412.3	430.0	452.5	473.1	491.8	510.4	532.0	553.6	576.2
60°	361.2	365.2	377.9	395.6	420.1	441.7	463.3	483.0	505.5	528.1	551.7
62.5°	325.9	328.8	343.6	364.2	388.7	412.3	433.9	457.4	482.0	503.6	527.1
65°	288.6	293.5	310.2	328.8	357.3	380.9	405.4	430.9	456.5	480.0	502.6
67.5°	254.2	257.2	274.9	296.5	324.9	351.4	376.9	404.4	430.9	455.5	478.1
70°	214.0	223.8	241.5	264.1	294.5	322.0	349.5	377.9	406.4	431.9	453.5
72.5°	180.6	188.5	208.1	232.6	262.1	294.5	323.0	353.4	381.9	408.4	430.9
75°	145.3	153.1	175.7	203.2	233.6	268.0	297.4	328.8	358.3	384.8	408.4
77.5°	110.9	120.7	145.3	173.7	207.1	242.5	272.9	304.3	334.7	363.2	386.8
80°	79.5	90.3	116.8	149.2	181.6	216.9	250.3	281.7	312.2	340.6	365.2
82.5°	51.0	62.8	91.3	123.7	158.0	193.4	227.7	259.1	289.6	318.0	343.6
85°	27.5	40.2	69.7	102.1	136.4	171.8	206.1	239.5	269.0	295.5	323.0
87.5°	7.9	23.6	52.0	84.4	119.8	152.2	185.5	218.9	248.4	276.8	301.4
90°	1.0	13.7	39.3	69.7	104.1	135.5	168.8	200.3	229.7	258.2	282.7
92.5°	1.0	8.8	30.4	57.9	89.3	121.7	155.1	185.5	213.0	241.5	266.0
95°	1.0	6.9	24.5	49.1	78.5	109.0	140.4	169.8	198.3	224.8	249.3
97.5°	1.0	4.9	19.6	42.2	68.7	97.2	127.6	157.1	184.5	210.1	232.6
100°	1.0	3.9	15.7	36.3	59.9	87.4	114.9	143.3	169.8	194.4	217.9
102.5°	1.0	2.9	13.7	30.4	53.0	77.5	104.1	130.6	156.1	179.6	203.2
105°	1.0	2.9	11.8	26.5	47.1	69.7	94.2	119.8	143.3	165.9	187.5
107.5°	1.0	2.0	9.8	22.6	41.2	62.8	85.4	109.9	131.5	153.1	173.7
110°	1.0	2.0	7.9	20.6	36.3	56.0	77.5	100.1	120.7	141.4	161.0



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-44HL-LW-UNV-L950-CD1-U

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	1.0	2.0	6.9	17.7	31.4	50.1	69.7	90.3	109.9	130.6	148.2
115°	1.0	2.0	5.9	15.7	29.4	43.2	62.8	81.5	101.1	119.8	136.4
117.5°	1.0	2.0	4.9	12.8	25.5	39.3	55.0	73.6	91.3	109.0	124.7
120°	1.0	2.0	3.9	11.8	22.6	35.3	49.1	65.8	82.5	99.1	115.8
122.5°	1.0	1.0	3.9	9.8	19.6	31.4	45.2	57.9	73.6	89.3	104.1
125°	1.0	1.0	3.9	8.8	16.7	28.5	40.2	52.0	65.8	79.5	92.3
127.5°	1.0	1.0	2.9	6.9	14.7	24.5	35.3	48.1	57.9	70.7	83.4
130°	1.0	1.0	2.9	5.9	12.8	20.6	31.4	42.2	54.0	62.8	73.6
132.5°	1.0	1.0	2.9	4.9	9.8	16.7	26.5	36.3	47.1	56.9	65.8
135°	1.0	1.0	2.0	3.9	7.9	13.7	21.6	30.4	41.2	51.0	59.9
137.5°	1.0	1.0	2.0	3.9	5.9	11.8	16.7	24.5	34.4	43.2	52.0
140°	1.0	1.0	2.0	2.9	4.9	8.8	13.7	19.6	27.5	35.3	45.2
142.5°	1.0	1.0	1.0	2.9	3.9	6.9	10.8	15.7	21.6	28.5	36.3
145°	1.0	1.0	1.0	2.9	3.9	4.9	8.8	12.8	16.7	21.6	28.5
147.5°	1.0	1.0	1.0	2.0	2.9	3.9	6.9	9.8	12.8	16.7	20.6
150°	1.0	1.0	1.0	2.0	2.9	3.9	4.9	6.9	9.8	13.7	16.7
152.5°	1.0	1.0	1.0	2.0	2.0	2.9	3.9	4.9	6.9	9.8	11.8
155°	1.0	1.0	1.0	1.0	2.0	2.9	3.9	3.9	4.9	6.9	8.8
157.5°	1.0	1.0	1.0	1.0	2.0	2.0	2.9	2.9	3.9	3.9	5.9
160°	1.0	1.0	1.0	1.0	1.0	2.0	2.0	2.9	2.9	2.9	2.9
162.5°	1.0	1.0	1.0	1.0	1.0	1.0	2.0	2.0	2.0	2.9	2.9
165°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	2.0	2.0	2.0
167.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-44HL-LW-UNV-L950-CD1-U

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	930.6	930.6	930.6	930.6	930.6	930.6	930.6	930.6	930.6	930.6	930.6
2.5°	923.7	924.7	927.6	927.6	925.7	925.7	924.7	923.7	924.7	926.7	926.7
5°	921.7	922.7	925.7	926.7	924.7	923.7	923.7	922.7	923.7	925.7	925.7
7.5°	917.8	918.8	921.7	922.7	920.8	920.8	919.8	918.8	920.8	921.7	921.7
10°	911.9	912.9	916.8	917.8	916.8	915.9	915.9	914.9	915.9	917.8	917.8
12.5°	904.1	906.0	910.9	910.9	910.9	910.0	910.0	909.0	910.0	911.9	910.9
15°	895.2	899.2	903.1	905.1	905.1	905.1	904.1	903.1	905.1	906.0	905.1
17.5°	885.4	890.3	896.2	898.2	898.2	899.2	898.2	897.2	899.2	899.2	898.2
20°	875.6	880.5	886.4	888.4	890.3	891.3	891.3	890.3	891.3	892.3	891.3
22.5°	862.8	868.7	875.6	878.6	880.5	882.5	882.5	882.5	883.5	884.4	882.5
25°	849.1	856.0	863.8	866.8	870.7	871.7	872.7	872.7	873.6	874.6	871.7
27.5°	834.4	842.2	850.1	855.0	857.9	859.9	859.9	860.9	861.9	862.8	859.9
30°	816.7	828.5	835.4	839.3	843.2	846.2	847.1	848.1	849.1	850.1	847.1
32.5°	801.0	810.8	819.7	824.6	829.5	833.4	834.4	834.4	836.3	836.3	833.4
35°	782.4	794.1	803.0	807.9	813.8	816.7	818.7	818.7	820.6	820.6	817.7
37.5°	763.7	775.5	785.3	791.2	798.1	802.0	803.0	803.0	804.9	804.9	801.0
40°	744.1	756.8	767.6	774.5	780.4	785.3	786.3	789.2	789.2	788.2	784.3
42.5°	724.4	736.2	748.0	755.9	763.7	768.6	770.6	771.6	771.6	770.6	767.6
45°	702.8	716.6	727.4	737.2	745.1	750.0	752.9	753.9	753.9	751.9	749.0
47.5°	682.2	696.0	706.8	717.6	725.4	731.3	734.3	735.2	734.3	733.3	730.3
50°	660.6	676.3	687.1	697.9	705.8	710.7	715.6	716.6	715.6	714.6	708.7
52.5°	638.1	654.7	666.5	677.3	686.2	692.0	696.0	697.0	697.0	695.0	691.1
55°	615.5	630.2	644.9	656.7	666.5	672.4	677.3	679.3	677.3	675.4	670.4
57.5°	594.9	608.6	623.3	636.1	645.9	653.8	657.7	659.7	657.7	654.7	649.8
60°	570.3	585.0	601.7	613.5	624.3	632.2	634.1	638.1	636.1	633.1	628.2
62.5°	546.8	564.4	579.2	593.9	602.7	611.6	615.5	617.4	615.5	612.5	607.6
65°	522.2	541.9	556.6	571.3	581.1	590.0	594.9	595.8	593.9	590.9	586.0
67.5°	499.6	518.3	534.0	549.7	558.5	567.4	572.3	574.3	572.3	568.4	563.5
70°	477.1	495.7	514.4	526.2	536.9	546.8	549.7	552.7	550.7	546.8	540.9
72.5°	454.5	474.1	492.8	504.6	516.3	525.2	529.1	532.0	530.1	526.2	519.3
75°	430.9	451.5	470.2	483.0	494.7	503.6	507.5	510.4	508.5	504.6	496.7
77.5°	409.3	430.0	447.6	461.4	473.1	481.0	487.9	488.8	486.9	483.0	475.1
80°	386.8	407.4	426.0	439.8	451.5	459.4	464.3	467.3	465.3	461.4	453.5
82.5°	367.1	385.8	404.4	418.2	430.0	439.8	443.7	446.6	445.7	439.8	433.9
85°	345.5	367.1	381.9	396.6	408.4	418.2	421.1	425.0	424.1	419.2	411.3
87.5°	323.9	345.5	363.2	377.9	388.7	396.6	401.5	403.4	402.5	397.6	388.7
90°	306.3	325.9	343.6	359.3	368.1	376.9	381.9	382.8	382.8	376.9	370.1
92.5°	289.6	308.2	325.9	340.6	351.4	359.3	363.2	365.2	364.2	359.3	351.4
95°	270.9	291.5	308.2	323.0	333.8	341.6	345.5	347.5	346.5	341.6	333.8
97.5°	255.2	273.9	290.6	304.3	315.1	323.0	326.9	328.8	328.8	323.9	316.1
100°	239.5	258.2	273.9	287.6	297.4	305.3	309.2	310.2	309.2	305.3	297.4
102.5°	223.8	241.5	257.2	269.9	280.7	287.6	291.5	292.5	292.5	287.6	279.8
105°	208.1	225.8	240.5	254.2	263.1	269.9	272.9	275.8	274.9	270.9	263.1
107.5°	193.4	211.0	224.8	237.6	246.4	253.3	256.2	259.1	258.2	254.2	246.4
110°	179.6	196.3	209.1	221.8	229.7	236.6	241.5	242.5	240.5	236.6	229.7



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-44HL-LW-UNV-L950-CD1-U

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
112.5°	166.9	181.6	194.4	206.1	215.0	219.9	223.8	225.8	223.8	219.9	215.0
115°	153.1	167.9	180.6	191.4	199.3	205.2	208.1	210.1	208.1	204.2	199.3
117.5°	140.4	154.1	166.9	177.7	184.5	189.5	192.4	194.4	192.4	189.5	184.5
120°	129.6	141.4	153.1	162.9	170.8	174.7	177.7	179.6	178.7	174.7	169.8
122.5°	116.8	129.6	140.4	150.2	157.1	161.0	162.9	164.9	163.9	161.0	156.1
125°	106.0	116.8	127.6	136.4	143.3	147.2	149.2	151.2	150.2	147.2	141.4
127.5°	94.2	106.0	114.9	123.7	128.6	134.5	135.5	137.4	136.4	133.5	128.6
130°	85.4	94.2	103.1	110.9	116.8	120.7	122.7	123.7	121.7	119.8	114.9
132.5°	74.6	84.4	92.3	99.1	103.1	107.0	109.0	109.9	109.9	107.0	103.1
135°	66.8	73.6	80.5	87.4	91.3	95.2	97.2	98.2	97.2	95.2	91.3
137.5°	59.9	65.8	70.7	76.6	81.5	83.4	85.4	85.4	84.4	83.4	80.5
140°	52.0	58.9	63.8	67.7	71.7	72.6	74.6	74.6	73.6	72.6	70.7
142.5°	44.2	50.1	55.0	59.9	62.8	64.8	65.8	66.8	65.8	64.8	61.8
145°	35.3	42.2	47.1	50.1	54.0	55.0	56.0	56.9	56.0	55.0	52.0
147.5°	27.5	33.4	38.3	42.2	45.2	46.1	47.1	48.1	47.1	45.2	44.2
150°	19.6	24.5	30.4	34.4	36.3	38.3	38.3	38.3	39.3	37.3	35.3
152.5°	15.7	17.7	21.6	25.5	28.5	29.4	30.4	30.4	29.4	29.4	27.5
155°	10.8	12.8	15.7	18.7	21.6	22.6	23.6	23.6	22.6	22.6	21.6
157.5°	6.9	8.8	10.8	12.8	15.7	16.7	17.7	17.7	17.7	16.7	15.7
160°	3.9	4.9	5.9	7.9	9.8	10.8	11.8	11.8	11.8	11.8	10.8
162.5°	2.9	2.9	2.9	3.9	4.9	5.9	6.9	6.9	6.9	6.9	5.9
165°	2.0	2.0	2.0	2.0	2.0	2.9	3.9	3.9	3.9	3.9	3.9
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-LD5-44HL-LW-UNV-L950-CD1-U

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	930.6	930.6	930.6	930.6	930.6	930.6	930.6	930.6	930.6	930.6	930.6
2.5°	925.7	925.7	926.7	924.7	918.8	919.8	919.8	923.7	925.7	926.7	931.6
5°	923.7	923.7	925.7	922.7	917.8	917.8	917.8	921.7	922.7	924.7	928.6
7.5°	920.8	920.8	921.7	918.8	912.9	912.9	911.9	915.9	917.8	918.8	922.7
10°	915.9	915.9	916.8	913.9	907.0	907.0	906.0	909.0	910.0	911.9	914.9
12.5°	909.0	909.0	909.0	906.0	899.2	898.2	897.2	900.1	900.1	901.1	904.1
15°	903.1	901.1	901.1	898.2	891.3	889.4	887.4	888.4	890.3	889.4	891.3
17.5°	896.2	894.3	892.3	889.4	880.5	877.6	875.6	876.6	875.6	874.6	876.6
20°	888.4	885.4	884.4	879.5	870.7	865.8	861.9	859.9	860.9	857.9	858.9
22.5°	879.5	875.6	873.6	867.8	858.9	853.0	848.1	844.2	843.2	839.3	840.3
25°	868.7	863.8	860.9	856.0	846.2	839.3	833.4	827.5	824.6	819.7	818.7
27.5°	856.0	851.1	847.1	842.2	832.4	823.6	816.7	808.9	804.9	799.0	796.1
30°	843.2	837.3	831.4	827.5	816.7	806.9	796.1	789.2	783.3	776.5	771.6
32.5°	827.5	821.6	815.7	809.8	800.0	788.2	779.4	768.6	761.7	753.9	748.0
35°	811.8	804.0	798.1	790.2	781.4	767.6	756.8	746.0	737.2	728.4	721.5
37.5°	794.1	788.2	779.4	772.5	761.7	748.0	736.2	722.5	714.6	702.8	694.0
40°	777.4	770.6	761.7	752.9	742.1	726.4	713.6	697.9	689.1	675.4	666.5
42.5°	760.8	750.9	742.1	732.3	720.5	705.8	690.1	674.4	662.6	649.8	637.1
45°	742.1	731.3	720.5	709.7	697.9	683.2	666.5	649.8	635.1	623.3	607.6
47.5°	722.5	711.7	698.9	687.1	674.4	659.7	642.0	624.3	608.6	594.9	578.2
50°	702.8	692.0	678.3	665.5	650.8	636.1	617.4	596.8	580.1	562.5	547.7
52.5°	682.2	671.4	658.7	642.0	626.3	611.6	591.9	570.3	551.7	536.9	518.3
55°	661.6	650.8	636.1	619.4	603.7	585.0	566.4	544.8	524.2	506.5	487.9
57.5°	640.0	630.2	613.5	599.8	580.1	560.5	540.9	520.3	497.7	477.1	455.5
60°	618.4	607.6	591.9	575.2	555.6	536.0	515.4	492.8	469.2	446.6	427.0
62.5°	598.8	585.0	570.3	552.7	532.0	513.4	489.8	465.3	441.7	418.2	394.6
65°	576.2	561.5	547.7	530.1	508.5	486.9	463.3	438.8	413.3	387.7	364.2
67.5°	553.6	538.9	524.2	506.5	483.9	461.4	436.8	412.3	383.8	359.3	331.8
70°	531.1	519.3	500.6	482.0	461.4	436.8	412.3	385.8	356.3	329.8	301.4
72.5°	508.5	496.7	478.1	458.4	438.8	413.3	386.8	360.3	332.8	302.3	271.9
75°	486.9	472.2	455.5	436.8	416.2	389.7	363.2	335.7	303.3	274.9	243.4
77.5°	466.3	452.5	435.8	415.2	392.6	367.1	339.6	311.2	278.8	248.4	214.0
80°	443.7	430.0	413.3	392.6	370.1	345.5	316.1	286.6	255.2	221.8	186.5
82.5°	422.1	409.3	390.7	372.0	347.5	323.0	293.5	264.1	230.7	198.3	163.9
85°	399.5	386.8	369.1	349.5	325.9	299.4	271.9	242.5	209.1	175.7	141.4
87.5°	379.9	365.2	347.5	327.9	304.3	278.8	252.3	220.9	188.5	156.1	120.7
90°	359.3	345.5	327.9	308.2	284.7	259.1	231.7	202.2	170.8	137.4	104.1
92.5°	341.6	326.9	310.2	290.6	267.0	242.5	215.0	185.5	155.1	122.7	90.3
95°	323.9	309.2	293.5	273.9	250.3	225.8	198.3	169.8	140.4	109.0	78.5
97.5°	304.3	291.5	275.8	257.2	233.6	210.1	183.6	156.1	127.6	97.2	68.7
100°	288.6	273.9	259.1	239.5	217.9	195.3	168.8	142.3	114.9	86.4	59.9
102.5°	270.9	257.2	242.5	223.8	202.2	179.6	155.1	129.6	104.1	77.5	52.0
105°	254.2	241.5	225.8	208.1	187.5	165.9	142.3	118.8	94.2	68.7	46.1
107.5°	237.6	224.8	210.1	193.4	173.7	152.2	130.6	107.0	84.4	61.8	41.2
110°	220.9	209.1	195.3	178.7	160.0	140.4	119.8	98.2	75.6	55.0	36.3



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-44HL-LW-UNV-L950-CD1-U

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
112.5°	206.1	194.4	180.6	164.9	147.2	128.6	109.0	88.3	67.7	49.1	31.4
115°	191.4	180.6	166.9	153.1	135.5	117.8	99.1	79.5	60.9	44.2	27.5
117.5°	176.7	165.9	153.1	139.4	123.7	107.0	89.3	70.7	55.0	39.3	24.5
120°	162.0	152.2	140.4	127.6	113.9	97.2	79.5	63.8	49.1	34.4	21.6
122.5°	148.2	139.4	128.6	116.8	102.1	86.4	71.7	57.9	44.2	30.4	17.7
125°	135.5	126.6	116.8	105.0	91.3	77.5	64.8	52.0	38.3	26.5	14.7
127.5°	122.7	113.9	104.1	93.3	82.5	69.7	57.9	46.1	34.4	23.6	12.8
130°	109.9	102.1	93.3	84.4	73.6	61.8	52.0	40.2	29.4	18.7	10.8
132.5°	97.2	91.3	83.4	74.6	64.8	56.0	45.2	35.3	25.5	16.7	9.8
135°	86.4	80.5	73.6	65.8	57.9	49.1	39.3	30.4	21.6	13.7	7.9
137.5°	76.6	71.7	64.8	57.9	51.0	42.2	34.4	25.5	17.7	11.8	5.9
140°	67.7	62.8	56.9	50.1	44.2	36.3	28.5	20.6	15.7	9.8	4.9
142.5°	58.9	54.0	49.1	43.2	37.3	30.4	23.6	17.7	12.8	7.9	4.9
145°	50.1	46.1	41.2	36.3	30.4	24.5	19.6	14.7	9.8	5.9	3.9
147.5°	41.2	38.3	33.4	29.4	24.5	19.6	15.7	11.8	7.9	4.9	2.9
150°	33.4	30.4	26.5	22.6	19.6	15.7	12.8	8.8	5.9	4.9	2.9
152.5°	25.5	23.6	20.6	18.7	15.7	11.8	8.8	6.9	4.9	3.9	2.0
155°	20.6	18.7	16.7	13.7	11.8	8.8	6.9	4.9	3.9	2.9	2.0
157.5°	14.7	13.7	11.8	9.8	7.9	5.9	4.9	4.9	2.9	2.0	1.0
160°	9.8	8.8	7.9	5.9	4.9	4.9	3.9	2.9	2.0	2.0	1.0
162.5°	5.9	4.9	4.9	4.9	3.9	3.9	2.9	2.0	2.0	1.0	1.0
165°	3.9	3.9	3.9	2.9	2.9	2.9	2.0	1.0	1.0	1.0	1.0
167.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-44HL-LW-UNV-L950-CD1-U

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
0°	930.6	930.6	930.6	930.6	930.6	930.6	930.6	930.6	930.6	930.6	930.6
2.5°	931.6	928.6	932.5	939.4	940.4	939.4	937.5	940.4	944.3	943.3	936.5
5°	929.6	925.7	929.6	936.5	936.5	935.5	934.5	937.5	941.4	940.4	934.5
7.5°	923.7	919.8	923.7	929.6	930.6	928.6	928.6	931.6	935.5	934.5	929.6
10°	915.9	911.9	913.9	920.8	922.7	920.8	920.8	923.7	928.6	927.6	921.7
12.5°	904.1	901.1	903.1	909.0	910.9	910.0	909.0	912.9	917.8	917.8	911.9
15°	891.3	887.4	889.4	896.2	897.2	895.2	896.2	899.2	905.1	905.1	900.1
17.5°	876.6	871.7	874.6	879.5	880.5	880.5	880.5	884.4	891.3	890.3	886.4
20°	859.9	853.0	855.0	859.9	861.9	861.9	861.9	868.7	873.6	873.6	869.7
22.5°	840.3	835.4	835.4	840.3	843.2	842.2	842.2	848.1	855.0	854.0	854.0
25°	817.7	813.8	811.8	817.7	818.7	819.7	821.6	827.5	835.4	835.4	836.3
27.5°	794.1	790.2	789.2	794.1	795.1	796.1	798.1	804.9	812.8	813.8	815.7
30°	771.6	765.7	763.7	767.6	769.6	770.6	770.6	781.4	788.2	791.2	795.1
32.5°	745.1	739.2	734.3	741.1	742.1	744.1	745.1	755.9	763.7	768.6	774.5
35°	718.5	708.7	706.8	711.7	713.6	714.6	716.6	728.4	739.2	743.1	750.9
37.5°	689.1	682.2	676.3	681.2	683.2	684.2	690.1	700.9	711.7	717.6	725.4
40°	661.6	652.8	647.9	650.8	652.8	653.8	660.6	672.4	685.2	692.0	701.9
42.5°	631.2	619.4	615.5	618.4	619.4	622.3	628.2	643.9	656.7	666.5	674.4
45°	600.8	591.9	583.1	586.0	587.0	589.0	597.8	614.5	628.2	640.0	648.9
47.5°	569.3	558.5	549.7	551.7	555.6	556.6	566.4	586.0	598.8	611.6	623.3
50°	537.9	523.2	516.3	516.3	518.3	523.2	536.0	555.6	569.3	584.1	596.8
52.5°	505.5	491.8	483.9	484.9	486.9	492.8	504.6	524.2	539.9	555.6	571.3
55°	473.1	458.4	450.6	448.6	450.6	458.4	472.2	492.8	508.5	527.1	543.8
57.5°	440.7	423.1	416.2	413.3	415.2	425.0	438.8	460.4	480.0	497.7	517.3
60°	405.4	391.7	379.9	373.0	377.9	390.7	405.4	428.0	448.6	468.2	489.8
62.5°	375.0	357.3	344.6	337.7	342.6	353.4	374.0	395.6	418.2	440.7	462.3
65°	340.6	323.0	308.2	301.4	306.3	319.0	339.6	363.2	387.7	410.3	435.8
67.5°	307.2	288.6	270.9	264.1	269.9	283.7	306.3	332.8	359.3	382.8	410.3
70°	274.9	254.2	235.6	230.7	234.6	253.3	274.9	301.4	328.8	356.3	384.8
72.5°	245.4	219.9	200.3	194.4	199.3	219.9	244.4	271.9	301.4	330.8	361.2
75°	211.0	187.5	165.9	159.0	164.9	183.6	214.0	243.4	274.9	306.3	334.7
77.5°	183.6	156.1	133.5	122.7	132.5	156.1	185.5	216.9	249.3	281.7	314.1
80°	155.1	126.6	102.1	90.3	101.1	126.6	156.1	190.4	226.8	259.1	288.6
82.5°	129.6	99.1	73.6	60.9	72.6	101.1	133.5	167.9	203.2	235.6	269.9
85°	106.0	74.6	48.1	34.4	51.0	76.6	110.9	146.3	182.6	216.0	249.3
87.5°	86.4	56.0	29.4	14.7	31.4	59.9	92.3	127.6	163.9	197.3	228.7
90°	70.7	40.2	15.7	2.0	18.7	45.2	76.6	110.9	145.3	179.6	211.0
92.5°	57.9	30.4	8.8	1.0	11.8	36.3	65.8	98.2	131.5	164.9	195.3
95°	48.1	23.6	5.9	1.0	8.8	28.5	56.0	87.4	118.8	151.2	181.6
97.5°	41.2	19.6	4.9	1.0	6.9	24.5	48.1	77.5	108.0	138.4	167.9
100°	35.3	15.7	3.9	1.0	5.9	20.6	42.2	68.7	97.2	126.6	155.1
102.5°	30.4	12.8	2.9	1.0	4.9	17.7	37.3	61.8	87.4	115.8	143.3
105°	26.5	10.8	2.9	1.0	3.9	15.7	33.4	55.0	80.5	106.0	132.5
107.5°	22.6	8.8	2.0	1.0	2.9	12.8	29.4	50.1	72.6	97.2	121.7
110°	19.6	7.9	2.0	1.0	2.9	11.8	25.5	45.2	65.8	88.3	111.9



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-44HL-LW-UNV-L950-CD1-U

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
112.5°	16.7	5.9	2.0	1.0	2.0	9.8	22.6	40.2	59.9	80.5	103.1
115°	14.7	4.9	1.0	1.0	2.0	8.8	20.6	36.3	54.0	73.6	94.2
117.5°	11.8	3.9	1.0	1.0	1.0	6.9	17.7	32.4	49.1	67.7	86.4
120°	9.8	3.9	1.0	1.0	1.0	5.9	15.7	28.5	44.2	60.9	78.5
122.5°	8.8	2.9	1.0	1.0	1.0	4.9	13.7	25.5	39.3	55.0	71.7
125°	7.9	2.9	1.0	1.0	1.0	3.9	11.8	22.6	35.3	49.1	64.8
127.5°	5.9	2.9	1.0	1.0	1.0	2.9	10.8	19.6	31.4	44.2	57.9
130°	4.9	2.0	1.0	1.0	1.0	2.9	8.8	17.7	27.5	39.3	52.0
132.5°	3.9	2.0	1.0	1.0	1.0	2.0	6.9	13.7	23.6	34.4	46.1
135°	3.9	2.0	1.0	1.0	1.0	2.0	4.9	11.8	19.6	29.4	39.3
137.5°	3.9	1.0	1.0	1.0	1.0	2.0	3.9	8.8	15.7	23.6	32.4
140°	2.9	1.0	1.0	1.0	1.0	1.0	2.9	6.9	12.8	19.6	27.5
142.5°	2.9	1.0	1.0	1.0	1.0	1.0	2.9	4.9	9.8	15.7	21.6
145°	2.0	1.0	1.0	1.0	1.0	1.0	2.0	3.9	7.9	11.8	17.7
147.5°	2.0	1.0	1.0	1.0	1.0	1.0	2.0	2.9	5.9	9.8	13.7
150°	2.0	1.0	1.0	1.0	1.0	1.0	2.0	2.9	3.9	6.9	10.8
152.5°	1.0	1.0	1.0	1.0	1.0	1.0	2.0	2.0	2.9	4.9	6.9
155°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	2.0	2.9	3.9	4.9
157.5°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	2.0	2.0	2.9	3.9
160°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	2.0	2.0	2.9
162.5°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	2.0	2.0
165°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
167.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-44HL-LW-UNV-L950-CD1-U

CANDELA DISTRIBUTION (continued):

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
0°	930.6	930.6	930.6	930.6	930.6	930.6	930.6	930.6	930.6	930.6	930.6
2.5°	933.5	926.7	928.6	927.6	929.6	932.5	932.5	931.6	931.6	929.6	927.6
5°	931.6	924.7	927.6	926.7	928.6	931.6	931.6	930.6	930.6	927.6	926.7
7.5°	925.7	920.8	922.7	922.7	924.7	927.6	927.6	926.7	926.7	923.7	922.7
10°	919.8	913.9	916.8	916.8	918.8	922.7	922.7	921.7	921.7	918.8	917.8
12.5°	910.0	904.1	909.0	910.0	911.9	915.9	914.9	914.9	914.9	911.9	910.9
15°	898.2	894.3	899.2	900.1	903.1	908.0	908.0	908.0	908.0	905.1	904.1
17.5°	885.4	882.5	887.4	889.4	893.3	898.2	898.2	899.2	900.1	898.2	897.2
20°	870.7	868.7	873.6	877.6	883.5	888.4	890.3	891.3	893.3	891.3	890.3
22.5°	854.0	854.0	860.9	864.8	871.7	876.6	879.5	882.5	884.4	882.5	881.5
25°	835.4	838.3	845.2	852.1	859.9	864.8	867.8	871.7	873.6	872.7	871.7
27.5°	817.7	821.6	830.5	837.3	844.2	852.1	855.0	859.9	861.9	861.9	860.9
30°	797.1	803.0	812.8	820.6	829.5	837.3	841.3	846.2	849.1	847.1	848.1
32.5°	777.4	787.3	795.1	804.0	813.8	821.6	826.5	832.4	835.4	834.4	835.4
35°	755.9	765.7	776.5	785.3	797.1	804.9	811.8	816.7	820.6	819.7	819.7
37.5°	732.3	745.1	755.9	767.6	778.4	787.3	794.1	800.0	804.0	804.0	804.0
40°	709.7	723.5	734.3	748.0	761.7	769.6	777.4	783.3	787.3	788.2	789.2
42.5°	685.2	699.9	712.7	727.4	741.1	750.9	759.8	766.6	770.6	772.5	771.6
45°	662.6	676.3	691.1	707.8	720.5	730.3	741.1	749.0	752.9	753.9	754.9
47.5°	637.1	652.8	669.5	686.2	698.9	711.7	721.5	729.3	733.3	736.2	736.2
50°	612.5	629.2	647.9	665.5	679.3	692.0	701.9	710.7	715.6	717.6	718.5
52.5°	590.0	605.7	625.3	643.0	656.7	669.5	682.2	692.0	697.0	698.9	698.9
55°	562.5	582.1	603.7	620.4	635.1	649.8	662.6	672.4	677.3	680.3	682.2
57.5°	536.9	557.6	580.1	597.8	615.5	629.2	641.0	653.8	657.7	661.6	662.6
60°	512.4	533.0	554.6	574.3	591.9	606.6	620.4	631.2	638.1	640.0	642.0
62.5°	486.9	508.5	531.1	550.7	569.3	587.0	599.8	609.6	617.4	620.4	622.3
65°	462.3	484.9	507.5	528.1	547.7	565.4	578.2	588.0	595.8	600.8	601.7
67.5°	435.8	460.4	483.9	505.5	525.2	543.8	556.6	566.4	574.3	580.1	581.1
70°	411.3	436.8	460.4	483.9	503.6	522.2	536.0	545.8	554.6	558.5	560.5
72.5°	387.7	414.2	438.8	462.3	482.0	500.6	515.4	525.2	534.0	538.9	539.9
75°	365.2	391.7	418.2	440.7	461.4	480.0	494.7	505.5	513.4	518.3	520.3
77.5°	342.6	370.1	396.6	419.2	440.7	459.4	472.2	484.9	492.8	498.7	498.7
80°	320.0	348.5	376.0	398.5	420.1	436.8	451.5	464.3	472.2	478.1	478.1
82.5°	300.4	327.9	354.4	376.9	398.5	417.2	431.9	443.7	452.5	456.5	457.4
85°	277.8	308.2	332.8	357.3	377.9	395.6	410.3	423.1	430.9	434.9	436.8
87.5°	259.1	288.6	315.1	336.7	357.3	375.0	391.7	402.5	410.3	415.2	417.2
90°	241.5	269.9	296.5	318.0	339.6	356.3	372.0	382.8	391.7	395.6	397.6
92.5°	225.8	254.2	279.8	301.4	322.0	340.6	355.3	366.1	374.0	377.9	380.9
95°	211.0	238.5	263.1	286.6	306.3	323.0	338.7	349.5	358.3	361.2	364.2
97.5°	196.3	222.8	247.4	269.9	290.6	306.3	321.0	331.8	338.7	343.6	346.5
100°	183.6	209.1	232.6	254.2	273.9	288.6	304.3	314.1	321.0	324.9	328.8
102.5°	169.8	195.3	217.9	238.5	259.1	272.9	287.6	297.4	303.3	310.2	310.2
105°	158.0	181.6	204.2	223.8	241.5	258.2	270.9	280.7	287.6	292.5	292.5
107.5°	145.3	168.8	190.4	211.0	227.7	243.4	255.2	264.1	271.9	274.9	277.8
110°	135.5	156.1	177.7	197.3	213.0	227.7	239.5	249.3	256.2	259.1	261.1



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-44HL-LW-UNV-L950-CD1-U

CANDELA DISTRIBUTION (continued):

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
112.5°	123.7	145.3	164.9	183.6	199.3	213.0	224.8	232.6	239.5	243.4	244.4
115°	113.9	134.5	152.2	169.8	186.5	198.3	209.1	216.9	223.8	226.8	228.7
117.5°	105.0	123.7	141.4	156.1	171.8	184.5	195.3	202.2	208.1	212.0	214.0
120°	96.2	113.9	129.6	144.3	159.0	170.8	180.6	187.5	194.4	197.3	197.3
122.5°	87.4	104.1	118.8	132.5	146.3	157.1	167.9	173.7	179.6	182.6	182.6
125°	79.5	95.2	109.0	121.7	134.5	144.3	153.1	160.0	165.9	167.9	167.9
127.5°	71.7	86.4	99.1	110.9	121.7	131.5	140.4	147.2	152.2	154.1	154.1
130°	64.8	77.5	89.3	101.1	111.9	119.8	128.6	134.5	137.4	140.4	141.4
132.5°	57.9	69.7	80.5	90.3	101.1	109.0	115.8	121.7	124.7	127.6	128.6
135°	51.0	61.8	71.7	81.5	90.3	98.2	104.1	109.0	112.9	114.9	115.8
137.5°	43.2	55.0	63.8	71.7	81.5	87.4	94.2	97.2	101.1	103.1	103.1
140°	36.3	45.2	55.0	62.8	70.7	76.6	82.5	87.4	90.3	91.3	91.3
142.5°	29.4	37.3	45.2	55.0	61.8	66.8	72.6	76.6	78.5	79.5	80.5
145°	23.6	29.4	36.3	45.2	53.0	58.9	61.8	65.8	67.7	68.7	69.7
147.5°	17.7	23.6	29.4	35.3	43.2	49.1	52.0	56.0	57.9	58.9	58.9
150°	13.7	17.7	21.6	27.5	33.4	40.2	44.2	47.1	48.1	49.1	49.1
152.5°	9.8	13.7	16.7	20.6	24.5	30.4	36.3	38.3	39.3	40.2	40.2
155°	6.9	9.8	11.8	14.7	17.7	22.6	27.5	30.4	31.4	32.4	32.4
157.5°	4.9	6.9	7.9	10.8	12.8	14.7	18.7	23.6	24.5	24.5	24.5
160°	2.9	3.9	4.9	6.9	7.9	9.8	11.8	14.7	17.7	17.7	17.7
162.5°	2.0	2.9	2.9	3.9	3.9	5.9	6.9	7.9	10.8	11.8	11.8
165°	1.0	2.0	2.0	2.0	2.0	2.0	2.9	2.9	4.9	5.9	5.9
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-LD5-44HL-LW-UNV-L950-CD1-U

CANDELA DISTRIBUTION (continued):

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°
0°	930.6	930.6	930.6	930.6	930.6	930.6	930.6	930.6	930.6	930.6	930.6
2.5°	928.6	930.6	929.6	929.6	929.6	931.6	929.6	920.8	922.7	924.7	926.7
5°	927.6	928.6	928.6	927.6	927.6	929.6	927.6	918.8	920.8	922.7	923.7
7.5°	923.7	924.7	924.7	924.7	923.7	925.7	922.7	914.9	914.9	916.8	917.8
10°	918.8	920.8	919.8	918.8	918.8	918.8	916.8	908.0	908.0	909.0	910.0
12.5°	912.9	912.9	912.9	911.9	910.9	910.9	909.0	900.1	899.2	901.1	900.1
15°	905.1	907.0	905.1	904.1	902.1	902.1	899.2	890.3	888.4	889.4	888.4
17.5°	898.2	899.2	897.2	895.2	893.3	892.3	889.4	879.5	876.6	877.6	875.6
20°	891.3	891.3	889.4	887.4	884.4	881.5	877.6	867.8	862.8	862.8	858.9
22.5°	882.5	882.5	880.5	877.6	874.6	870.7	866.8	857.0	849.1	847.1	844.2
25°	872.7	871.7	870.7	867.8	861.9	857.9	854.0	843.2	834.4	830.5	825.5
27.5°	860.9	860.9	857.9	855.0	849.1	844.2	839.3	829.5	817.7	812.8	805.9
30°	848.1	848.1	845.2	841.3	835.4	829.5	823.6	811.8	800.0	793.2	785.3
32.5°	835.4	834.4	831.4	827.5	821.6	812.8	807.9	796.1	782.4	774.5	763.7
35°	819.7	818.7	815.7	810.8	803.0	796.1	788.2	777.4	761.7	751.9	740.1
37.5°	804.0	803.0	801.0	794.1	786.3	778.4	768.6	757.8	743.1	730.3	718.5
40°	788.2	787.3	783.3	778.4	768.6	758.8	749.0	738.2	722.5	707.8	695.0
42.5°	771.6	770.6	765.7	759.8	749.0	739.2	727.4	715.6	699.9	682.2	669.5
45°	754.9	752.9	748.0	741.1	729.3	718.5	706.8	693.0	677.3	660.6	643.9
47.5°	737.2	734.3	729.3	719.5	709.7	697.9	684.2	669.5	653.8	635.1	617.4
50°	717.6	715.6	709.7	700.9	689.1	677.3	661.6	646.9	628.2	610.6	589.0
52.5°	698.9	695.0	690.1	680.3	668.5	655.7	639.0	621.4	602.7	586.0	563.5
55°	679.3	677.3	670.4	662.6	647.9	633.1	617.4	598.8	578.2	558.5	536.9
57.5°	660.6	656.7	650.8	640.0	627.3	612.5	595.8	576.2	553.6	533.0	509.5
60°	642.0	636.1	629.2	619.4	605.7	590.0	572.3	551.7	529.1	506.5	482.0
62.5°	621.4	616.5	608.6	598.8	585.0	568.4	549.7	528.1	506.5	483.0	456.5
65°	600.8	595.8	588.0	578.2	564.4	545.8	526.2	504.6	480.0	457.4	429.0
67.5°	580.1	575.2	566.4	555.6	541.9	524.2	503.6	481.0	456.5	431.9	402.5
70°	559.5	553.6	545.8	534.0	520.3	501.6	481.0	457.4	432.9	406.4	376.9
72.5°	538.9	534.0	524.2	513.4	498.7	480.0	459.4	435.8	410.3	382.8	353.4
75°	518.3	512.4	505.5	492.8	477.1	459.4	437.8	414.2	386.8	360.3	329.8
77.5°	497.7	492.8	483.9	471.2	456.5	437.8	416.2	392.6	365.2	337.7	305.3
80°	477.1	471.2	464.3	452.5	435.8	417.2	394.6	371.1	343.6	315.1	282.7
82.5°	456.5	450.6	442.7	430.9	415.2	396.6	375.0	349.5	322.0	292.5	262.1
85°	435.8	430.9	422.1	410.3	393.6	375.0	353.4	330.8	301.4	271.9	241.5
87.5°	415.2	410.3	401.5	389.7	374.0	355.3	333.8	310.2	281.7	254.2	220.9
90°	395.6	391.7	382.8	371.1	355.3	336.7	317.1	291.5	264.1	236.6	205.2
92.5°	377.9	374.0	366.1	354.4	340.6	320.0	300.4	275.8	248.4	219.9	189.5
95°	362.2	357.3	349.5	338.7	322.0	304.3	284.7	260.1	233.6	205.2	175.7
97.5°	344.6	339.6	331.8	320.0	306.3	287.6	268.0	244.4	217.9	191.4	162.0
100°	326.9	322.0	313.1	303.3	289.6	270.9	252.3	228.7	204.2	178.7	150.2
102.5°	309.2	304.3	296.5	286.6	272.9	256.2	237.6	215.0	190.4	164.9	138.4
105°	292.5	287.6	279.8	269.9	257.2	240.5	220.9	201.2	177.7	153.1	127.6
107.5°	275.8	270.9	264.1	254.2	241.5	225.8	207.1	186.5	164.9	141.4	116.8
110°	259.1	255.2	247.4	238.5	225.8	210.1	193.4	173.7	152.2	130.6	107.0



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-44HL-LW-UNV-L950-CD1-U

CANDELA DISTRIBUTION (continued):

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°
112.5°	243.4	239.5	231.7	221.8	211.0	196.3	179.6	161.0	140.4	119.8	97.2
115°	227.7	222.8	216.0	207.1	196.3	182.6	166.9	150.2	129.6	109.9	89.3
117.5°	212.0	208.1	201.2	192.4	182.6	168.8	154.1	138.4	118.8	100.1	81.5
120°	196.3	193.4	186.5	178.7	168.8	156.1	142.3	126.6	109.0	91.3	73.6
122.5°	181.6	178.7	171.8	164.9	155.1	143.3	130.6	115.8	100.1	83.4	67.7
125°	167.9	163.9	158.0	151.2	142.3	131.5	118.8	105.0	90.3	75.6	60.9
127.5°	153.1	150.2	146.3	138.4	129.6	119.8	108.0	96.2	82.5	68.7	55.0
130°	141.4	137.4	132.5	126.6	118.8	109.0	98.2	86.4	74.6	61.8	48.1
132.5°	127.6	123.7	119.8	113.9	107.0	98.2	88.3	77.5	66.8	55.0	43.2
135°	114.9	111.9	108.0	102.1	95.2	88.3	78.5	68.7	58.9	48.1	38.3
137.5°	103.1	100.1	96.2	92.3	85.4	78.5	69.7	60.9	52.0	42.2	33.4
140°	91.3	89.3	85.4	81.5	75.6	68.7	60.9	53.0	45.2	36.3	28.5
142.5°	79.5	77.5	74.6	70.7	65.8	59.9	53.0	46.1	38.3	31.4	24.5
145°	68.7	67.7	64.8	60.9	56.9	51.0	45.2	39.3	32.4	26.5	19.6
147.5°	57.9	56.9	55.0	52.0	48.1	43.2	38.3	32.4	27.5	21.6	15.7
150°	48.1	47.1	46.1	42.2	40.2	35.3	31.4	26.5	22.6	16.7	12.8
152.5°	39.3	39.3	37.3	34.4	32.4	28.5	25.5	21.6	17.7	13.7	9.8
155°	31.4	30.4	29.4	27.5	25.5	22.6	19.6	16.7	13.7	9.8	6.9
157.5°	24.5	23.6	22.6	20.6	18.7	17.7	14.7	11.8	8.8	6.9	4.9
160°	17.7	16.7	15.7	14.7	13.7	11.8	9.8	7.9	5.9	3.9	2.9
162.5°	11.8	10.8	10.8	9.8	8.8	6.9	5.9	4.9	3.9	2.9	2.0
165°	5.9	5.9	4.9	4.9	3.9	2.9	2.9	2.9	2.0	2.0	1.0
167.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-44HL-LW-UNV-L950-CD1-U

CANDELA DISTRIBUTION (continued):

	330°	335°	340°	345°	350°	355°	360°
0°	930.6	930.6	930.6	930.6	930.6	930.6	930.6
2.5°	925.7	925.7	929.6	928.6	925.7	931.6	938.4
5°	922.7	922.7	925.7	925.7	922.7	928.6	934.5
7.5°	917.8	916.8	919.8	919.8	915.9	920.8	927.6
10°	909.0	908.0	910.9	910.9	907.0	911.9	917.8
12.5°	899.2	897.2	900.1	899.2	895.2	900.1	906.0
15°	886.4	885.4	887.4	885.4	881.5	886.4	892.3
17.5°	873.6	870.7	871.7	871.7	864.8	869.7	874.6
20°	857.0	853.0	854.0	853.0	848.1	851.1	857.0
22.5°	840.3	834.4	834.4	833.4	827.5	831.4	836.3
25°	819.7	812.8	812.8	811.8	804.9	807.9	812.8
27.5°	799.0	792.2	789.2	788.2	781.4	781.4	788.2
30°	777.4	767.6	765.7	762.7	755.9	755.9	761.7
32.5°	756.8	743.1	739.2	735.2	728.4	727.4	734.3
35°	729.3	718.5	711.7	707.8	699.9	697.9	703.8
37.5°	706.8	693.0	683.2	678.3	670.4	667.5	675.4
40°	682.2	667.5	654.7	651.8	640.0	636.1	643.0
42.5°	654.7	639.0	626.3	620.4	611.6	607.6	608.6
45°	627.3	610.6	596.8	589.0	580.1	573.3	577.2
47.5°	598.8	584.1	567.4	555.6	544.8	539.9	541.9
50°	570.3	552.7	536.9	524.2	511.4	505.5	509.5
52.5°	541.9	523.2	505.5	491.8	477.1	471.2	472.2
55°	514.4	494.7	474.1	459.4	445.7	436.8	434.9
57.5°	486.9	465.3	443.7	427.0	409.3	401.5	398.5
60°	457.4	434.9	412.3	392.6	374.0	365.2	361.2
62.5°	430.0	405.4	379.9	359.3	340.6	328.8	325.9
65°	403.4	375.0	349.5	325.9	305.3	292.5	288.6
67.5°	375.0	345.5	318.0	292.5	272.9	256.2	254.2
70°	348.5	317.1	286.6	260.1	238.5	221.8	214.0
72.5°	322.0	289.6	258.2	229.7	202.2	186.5	180.6
75°	296.5	263.1	229.7	200.3	169.8	151.2	145.3
77.5°	272.9	238.5	203.2	170.8	142.3	118.8	110.9
80°	250.3	215.0	177.7	144.3	113.9	88.3	79.5
82.5°	226.8	193.4	155.1	119.8	88.3	61.8	51.0
85°	206.1	172.8	134.5	99.1	67.7	39.3	27.5
87.5°	189.5	153.1	118.8	83.4	51.0	22.6	7.9
90°	172.8	137.4	103.1	68.7	38.3	12.8	1.0
92.5°	158.0	124.7	90.3	58.9	29.4	8.8	1.0
95°	144.3	111.9	79.5	49.1	23.6	5.9	1.0
97.5°	131.5	101.1	70.7	42.2	19.6	4.9	1.0
100°	120.7	91.3	62.8	37.3	16.7	3.9	1.0
102.5°	109.9	82.5	56.0	32.4	14.7	2.9	1.0
105°	101.1	74.6	50.1	29.4	12.8	2.9	1.0
107.5°	92.3	67.7	45.2	25.5	10.8	2.0	1.0
110°	83.4	61.8	40.2	22.6	9.8	2.0	1.0



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-44HL-LW-UNV-L950-CD1-U

CANDELA DISTRIBUTION (continued):

	330°	335°	340°	345°	350°	355°	360°
112.5°	76.6	56.0	36.3	20.6	7.9	2.0	1.0
115°	69.7	50.1	32.4	17.7	6.9	1.0	1.0
117.5°	62.8	45.2	28.5	15.7	5.9	1.0	1.0
120°	56.9	40.2	25.5	13.7	4.9	1.0	1.0
122.5°	51.0	36.3	22.6	11.8	3.9	1.0	1.0
125°	46.1	32.4	19.6	9.8	2.9	1.0	1.0
127.5°	41.2	28.5	17.7	8.8	2.9	1.0	1.0
130°	36.3	25.5	14.7	6.9	2.0	1.0	1.0
132.5°	32.4	21.6	12.8	5.9	2.0	1.0	1.0
135°	28.5	18.7	10.8	3.9	2.0	1.0	1.0
137.5°	24.5	15.7	8.8	2.9	1.0	1.0	1.0
140°	20.6	13.7	6.9	2.9	1.0	1.0	1.0
142.5°	17.7	10.8	4.9	2.0	1.0	1.0	1.0
145°	13.7	8.8	3.9	2.0	1.0	1.0	1.0
147.5°	10.8	6.9	2.9	2.0	1.0	1.0	1.0
150°	7.9	4.9	2.9	1.0	1.0	1.0	1.0
152.5°	5.9	3.9	2.0	1.0	1.0	1.0	1.0
155°	3.9	2.9	2.0	1.0	1.0	1.0	1.0
157.5°	2.9	2.0	1.0	1.0	1.0	1.0	1.0
160°	2.0	1.0	1.0	1.0	1.0	1.0	1.0
162.5°	1.0	1.0	1.0	1.0	1.0	1.0	1.0
165°	1.0	1.0	1.0	1.0	1.0	1.0	1.0
167.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180°	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)