

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-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-LD5-47SL-LW-UNV-L950-CD1-U
Description: 4FT LINEAR SNLED LED FIXTURE
WIDE FROSTED LENS
Light Source: -
Ballast/Driver: -

Summary

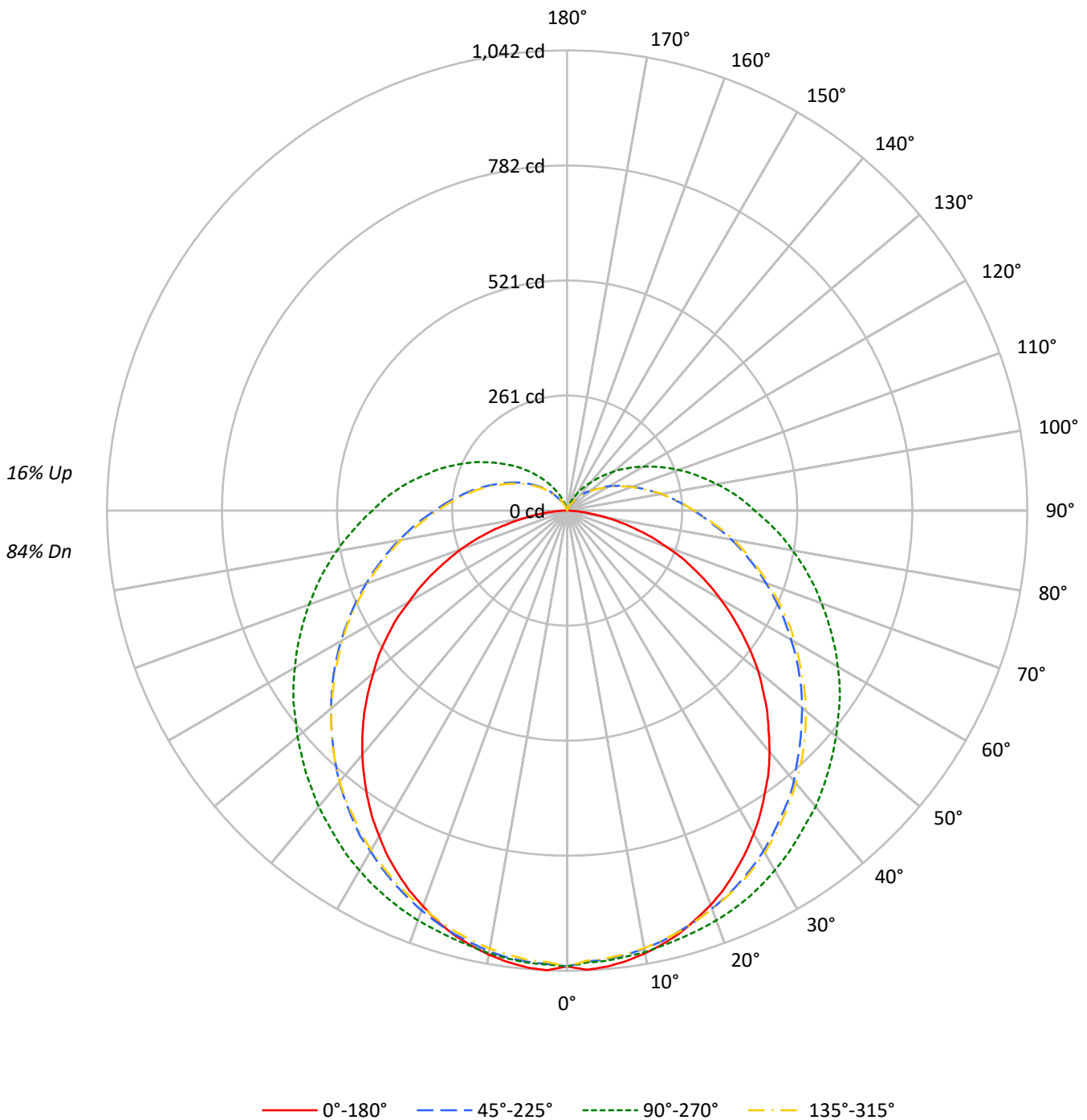
Lumens per Lamp: N/A
Luminaire Lumens: 4484.0 lumens
Efficiency: N/A
Efficacy: 109.4 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.36 / 1.44
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.12')
CIE Type: Semi-Direct

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																		
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°	8340	8340	8340	8340
5°	8384	8038	8402	8072
10°	8307	7809	8334	7834
15°	8210	7614	8247	7622
20°	8081	7471	8109	7471
25°	7922	7345	7970	7336
30°	7743	7214	7804	7214
35°	7536	7093	7620	7102
40°	7330	7022	7420	7022
45°	7095	6947	7203	6956
50°	6848	6903	6941	6922
55°	6505	6910	6710	6939
60°	6142	6931	6343	6973
65°	5736	7000	5989	7070
70°	5163	7129	5566	7230
75°	4505	7362	4932	7504
80°	3487	7707	3961	7886
85°	2084	8261	2603	8491



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	97.8	2.2
10°-20°	281.0	6.3
20°-30°	430.8	9.6
30°-40°	531.5	11.9
40°-50°	576.6	12.9
50°-60°	568.3	12.7
60°-70°	513.9	11.5
70°-80°	428.1	9.5
80°-90°	331.6	7.4
90°-100°	251.5	5.6
100°-110°	186.1	4.2
110°-120°	129.4	2.9
120°-130°	82.6	1.8
130°-140°	46.3	1.0
140°-150°	21.2	0.5
150°-160°	6.6	0.1
160°-170°	0.8	0.0
170°-180°	0.0	0.0
0°-30°	809.6	18.1
0°-40°	1341.1	29.9
0°-60°	2486.0	55.4
0°-90°	3759.5	83.8
90°-120°	567.0	12.6
90°-150°	717.1	16.0
90°-180°	724.0	16.1
0°-180°	4484.0	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	1032	1032	1032	1032	1032	
5°	1036	1023	1039	1028	1036	98
15°	990	1002	994	1003	990	279
25°	901	968	907	967	901	415
35°	781	908	789	909	781	489
45°	640	836	650	837	640	493
55°	482	753	498	757	482	432
65°	320	661	334	667	320	317
75°	161	566	176	577	161	171
85°	30	471	38	484	30	37
90°	1	425	2	441	1	2
95°	1	385	1	404	1	1
105°	1	306	1	324	1	1
115°	1	233	1	254	1	1
125°	1	168	1	186	1	1
135°	1	109	1	128	1	1
145°	1	63	1	77	1	1
155°	1	26	1	36	1	1
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-L950-CD1-U

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1032.1	1032.1	1032.1	1032.1	1032.1	1032.1	1032.1	1032.1	1032.1	1032.1	1032.1
2.5°	1040.8	1040.8	1039.7	1037.5	1038.6	1041.9	1039.7	1034.3	1031.0	1022.3	1024.5
5°	1036.4	1036.4	1035.4	1033.2	1034.3	1038.6	1036.4	1032.1	1027.7	1020.1	1023.4
7.5°	1028.8	1028.8	1027.7	1025.6	1027.7	1032.1	1029.9	1025.6	1022.3	1014.7	1017.9
10°	1017.9	1019.0	1017.9	1014.7	1019.0	1023.4	1022.3	1016.8	1013.6	1007.0	1010.3
12.5°	1004.9	1006.0	1004.9	1003.8	1006.0	1012.5	1010.3	1006.0	1003.8	998.3	1001.6
15°	989.6	990.7	988.5	988.5	990.7	997.2	997.2	992.9	990.7	985.3	991.8
17.5°	970.0	971.1	970.0	970.0	972.2	978.7	979.8	977.7	975.5	973.3	979.8
20°	950.4	949.3	949.3	948.3	952.6	962.4	961.3	961.3	959.1	959.1	966.8
22.5°	927.6	927.6	926.5	926.5	931.9	940.6	940.6	942.8	940.6	945.0	951.5
25°	901.4	902.5	901.4	903.6	908.0	917.8	918.9	922.1	923.2	927.6	935.2
27.5°	874.2	875.3	874.2	876.4	884.0	891.6	897.1	901.4	902.5	909.1	918.9
30°	844.8	844.8	845.9	848.1	856.8	868.8	873.1	878.6	878.6	889.5	899.3
32.5°	814.3	814.3	814.3	818.7	828.5	842.7	848.1	854.6	856.8	867.7	878.6
35°	780.6	781.7	781.7	785.0	798.0	812.2	819.8	827.4	831.8	844.8	855.7
37.5°	749.0	751.2	747.9	752.3	770.8	782.8	791.5	799.1	806.7	824.1	832.9
40°	713.1	715.3	714.2	722.9	738.1	753.4	763.2	770.8	781.7	799.1	808.9
42.5°	675.0	677.2	679.3	689.1	705.5	720.7	732.7	742.5	755.6	770.8	787.1
45°	640.2	640.2	643.4	655.4	672.8	689.1	703.3	714.2	729.4	745.8	762.1
47.5°	601.0	602.0	606.4	620.6	639.1	658.7	671.7	685.9	702.2	719.6	738.1
50°	565.0	565.0	571.6	586.8	604.2	626.0	640.2	656.5	673.9	694.6	713.1
52.5°	523.7	525.8	535.6	549.8	572.7	592.3	608.6	626.0	646.7	668.5	689.1
55°	482.3	486.6	494.3	513.9	537.8	556.3	575.9	597.7	617.3	641.2	665.2
57.5°	442.0	445.3	457.3	476.8	501.9	524.8	545.4	566.1	590.1	614.0	639.1
60°	400.6	405.0	419.1	438.7	466.0	489.9	513.9	535.6	560.7	585.7	611.8
62.5°	361.4	364.7	381.0	403.9	431.1	457.3	481.2	507.3	534.6	558.5	584.6
65°	320.1	325.5	344.0	364.7	396.3	422.4	449.6	477.9	506.2	532.4	557.4
67.5°	282.0	285.2	304.8	328.8	360.4	389.8	418.1	448.5	477.9	505.2	530.2
70°	237.3	248.2	267.8	292.9	326.6	357.1	387.6	419.1	450.7	479.0	503.0
72.5°	200.3	209.0	230.8	258.0	290.7	326.6	358.2	391.9	423.5	452.9	477.9
75°	161.1	169.8	194.9	225.4	259.1	297.2	329.9	364.7	397.4	426.8	452.9
77.5°	123.0	133.9	161.1	192.7	229.7	268.9	302.7	337.5	371.2	402.8	428.9
80°	88.2	100.2	129.6	165.5	201.4	240.6	277.6	312.5	346.2	377.8	405.0
82.5°	56.6	69.7	101.2	137.2	175.3	214.5	252.6	287.4	321.2	352.7	381.0
85°	30.5	44.6	77.3	113.2	151.3	190.5	228.6	265.6	298.3	327.7	358.2
87.5°	8.7	26.1	57.7	93.6	132.8	168.7	205.8	242.8	275.4	307.0	334.2
90°	1.1	15.2	43.5	77.3	115.4	150.2	187.3	222.1	254.8	286.3	313.5
92.5°	1.1	9.8	33.7	64.2	99.1	135.0	172.0	205.8	236.2	267.8	295.0
95°	1.1	7.6	27.2	54.4	87.1	120.8	155.7	188.3	219.9	249.3	276.5
97.5°	1.1	5.4	21.8	46.8	76.2	107.8	141.5	174.2	204.7	233.0	258.0
100°	1.1	4.4	17.4	40.3	66.4	96.9	127.4	158.9	188.3	215.6	241.7
102.5°	1.1	3.3	15.2	33.7	58.8	86.0	115.4	144.8	173.1	199.2	225.4
105°	1.1	3.3	13.1	29.4	52.3	77.3	104.5	132.8	158.9	184.0	207.9
107.5°	1.1	2.2	10.9	25.0	45.7	69.7	94.7	121.9	145.9	169.8	192.7
110°	1.1	2.2	8.7	22.9	40.3	62.1	86.0	111.0	133.9	156.8	178.5



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CATALOG NUMBER: 4SNLED-LD5-47SL-LW-UNV-L950-CD1-U

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	1.1	2.2	7.6	19.6	34.8	55.5	77.3	100.2	121.9	144.8	164.4
115°	1.1	2.2	6.5	17.4	32.7	47.9	69.7	90.4	112.1	132.8	151.3
117.5°	1.1	2.2	5.4	14.2	28.3	43.5	61.0	81.7	101.2	120.8	138.3
120°	1.1	2.2	4.4	13.1	25.0	39.2	54.4	72.9	91.5	110.0	128.5
122.5°	1.1	1.1	4.4	10.9	21.8	34.8	50.1	64.2	81.7	99.1	115.4
125°	1.1	1.1	4.4	9.8	18.5	31.6	44.6	57.7	72.9	88.2	102.3
127.5°	1.1	1.1	3.3	7.6	16.3	27.2	39.2	53.3	64.2	78.4	92.5
130°	1.1	1.1	3.3	6.5	14.2	22.9	34.8	46.8	59.9	69.7	81.7
132.5°	1.1	1.1	3.3	5.4	10.9	18.5	29.4	40.3	52.3	63.1	72.9
135°	1.1	1.1	2.2	4.4	8.7	15.2	24.0	33.7	45.7	56.6	66.4
137.5°	1.1	1.1	2.2	4.4	6.5	13.1	18.5	27.2	38.1	47.9	57.7
140°	1.1	1.1	2.2	3.3	5.4	9.8	15.2	21.8	30.5	39.2	50.1
142.5°	1.1	1.1	1.1	3.3	4.4	7.6	12.0	17.4	24.0	31.6	40.3
145°	1.1	1.1	1.1	3.3	4.4	5.4	9.8	14.2	18.5	24.0	31.6
147.5°	1.1	1.1	1.1	2.2	3.3	4.4	7.6	10.9	14.2	18.5	22.9
150°	1.1	1.1	1.1	2.2	3.3	4.4	5.4	7.6	10.9	15.2	18.5
152.5°	1.1	1.1	1.1	2.2	2.2	3.3	4.4	5.4	7.6	10.9	13.1
155°	1.1	1.1	1.1	1.1	2.2	3.3	4.4	4.4	5.4	7.6	9.8
157.5°	1.1	1.1	1.1	1.1	2.2	2.2	3.3	3.3	4.4	4.4	6.5
160°	1.1	1.1	1.1	1.1	1.1	2.2	2.2	3.3	3.3	3.3	3.3
162.5°	1.1	1.1	1.1	1.1	1.1	1.1	2.2	2.2	2.2	3.3	3.3
165°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	2.2	2.2	2.2
167.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	1032.1	1032.1	1032.1	1032.1	1032.1	1032.1	1032.1	1032.1	1032.1	1032.1	1032.1
2.5°	1024.5	1025.6	1028.8	1028.8	1026.6	1026.6	1025.6	1024.5	1025.6	1027.7	1027.7
5°	1022.3	1023.4	1026.6	1027.7	1025.6	1024.5	1024.5	1023.4	1024.5	1026.6	1026.6
7.5°	1017.9	1019.0	1022.3	1023.4	1021.2	1021.2	1020.1	1019.0	1021.2	1022.3	1022.3
10°	1011.4	1012.5	1016.8	1017.9	1016.8	1015.8	1015.8	1014.7	1015.8	1017.9	1017.9
12.5°	1002.7	1004.9	1010.3	1010.3	1010.3	1009.2	1009.2	1008.1	1009.2	1011.4	1010.3
15°	992.9	997.2	1001.6	1003.8	1003.8	1003.8	1002.7	1001.6	1003.8	1004.9	1003.8
17.5°	982.0	987.4	994.0	996.2	996.2	997.2	996.2	995.1	997.2	997.2	996.2
20°	971.1	976.6	983.1	985.3	987.4	988.5	988.5	987.4	988.5	989.6	988.5
22.5°	957.0	963.5	971.1	974.4	976.6	978.7	978.7	978.7	979.8	980.9	978.7
25°	941.7	949.3	958.1	961.3	965.7	966.8	967.9	967.9	968.9	970.0	966.8
27.5°	925.4	934.1	942.8	948.3	951.5	953.7	953.7	954.8	955.9	957.0	953.7
30°	905.8	918.9	926.5	930.8	935.2	938.5	939.5	940.6	941.7	942.8	939.5
32.5°	888.4	899.3	909.1	914.5	919.9	924.3	925.4	925.4	927.6	927.6	924.3
35°	867.7	880.8	890.6	896.0	902.5	905.8	908.0	908.0	910.2	910.2	906.9
37.5°	847.0	860.1	871.0	877.5	885.1	889.5	890.6	890.6	892.7	892.7	888.4
40°	825.2	839.4	851.4	859.0	865.5	871.0	872.0	875.3	875.3	874.2	869.9
42.5°	803.5	816.5	829.6	838.3	847.0	852.5	854.6	855.7	855.7	854.6	851.4
45°	779.5	794.7	806.7	817.6	826.3	831.8	835.0	836.1	836.1	833.9	830.7
47.5°	756.6	771.9	783.9	795.8	804.5	811.1	814.3	815.4	814.3	813.3	810.0
50°	732.7	750.1	762.1	774.1	782.8	788.2	793.7	794.7	793.7	792.6	786.0
52.5°	707.7	726.2	739.2	751.2	761.0	767.5	771.9	773.0	773.0	770.8	766.4
55°	682.6	698.9	715.3	728.3	739.2	745.8	751.2	753.4	751.2	749.0	743.6
57.5°	659.8	675.0	691.3	705.5	716.4	725.1	729.4	731.6	729.4	726.2	720.7
60°	632.5	648.9	667.4	680.4	692.4	701.1	703.3	707.7	705.5	702.2	696.8
62.5°	606.4	626.0	642.3	658.7	668.5	678.3	682.6	684.8	682.6	679.3	673.9
65°	579.2	601.0	617.3	633.6	644.5	654.3	659.8	660.8	658.7	655.4	650.0
67.5°	554.1	574.8	592.3	609.7	619.5	629.3	634.7	636.9	634.7	630.4	624.9
70°	529.1	549.8	570.5	583.5	595.5	606.4	609.7	612.9	610.8	606.4	599.9
72.5°	504.1	525.8	546.5	559.6	572.7	582.5	586.8	590.1	587.9	583.5	575.9
75°	477.9	500.8	521.5	535.6	548.7	558.5	562.9	566.1	563.9	559.6	550.9
77.5°	454.0	476.8	496.4	511.7	524.8	533.5	541.1	542.2	540.0	535.6	526.9
80°	428.9	451.8	472.5	487.7	500.8	509.5	515.0	518.2	516.0	511.7	503.0
82.5°	407.2	427.9	448.5	463.8	476.8	487.7	492.1	495.4	494.3	487.7	481.2
85°	383.2	407.2	423.5	439.8	452.9	463.8	467.1	471.4	470.3	464.9	456.2
87.5°	359.3	383.2	402.8	419.1	431.1	439.8	445.3	447.5	446.4	440.9	431.1
90°	339.7	361.4	381.0	398.5	408.3	418.1	423.5	424.6	424.6	418.1	410.4
92.5°	321.2	341.9	361.4	377.8	389.8	398.5	402.8	405.0	403.9	398.5	389.8
95°	300.5	323.3	341.9	358.2	370.2	378.9	383.2	385.4	384.3	378.9	370.2
97.5°	283.1	303.7	322.3	337.5	349.5	358.2	362.5	364.7	364.7	359.3	350.6
100°	265.6	286.3	303.7	319.0	329.9	338.6	342.9	344.0	342.9	338.6	329.9
102.5°	248.2	267.8	285.2	299.4	311.4	319.0	323.3	324.4	324.4	319.0	310.3
105°	230.8	250.4	266.7	282.0	291.8	299.4	302.7	305.9	304.8	300.5	291.8
107.5°	214.5	234.1	249.3	263.5	273.3	280.9	284.2	287.4	286.3	282.0	273.3
110°	199.2	217.7	231.9	246.0	254.8	262.4	267.8	268.9	266.7	262.4	254.8



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-47SL-LW-UNV-L950-CD1-U

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
112.5°	185.1	201.4	215.6	228.6	238.4	243.9	248.2	250.4	248.2	243.9	238.4
115°	169.8	186.2	200.3	212.3	221.0	227.5	230.8	233.0	230.8	226.4	221.0
117.5°	155.7	170.9	185.1	197.1	204.7	210.1	213.4	215.6	213.4	210.1	204.7
120°	143.7	156.8	169.8	180.7	189.4	193.8	197.1	199.2	198.1	193.8	188.3
122.5°	129.6	143.7	155.7	166.6	174.2	178.5	180.7	182.9	181.8	178.5	173.1
125°	117.6	129.6	141.5	151.3	158.9	163.3	165.5	167.7	166.6	163.3	156.8
127.5°	104.5	117.6	127.4	137.2	142.6	149.2	150.2	152.4	151.3	148.1	142.6
130°	94.7	104.5	114.3	123.0	129.6	133.9	136.1	137.2	135.0	132.8	127.4
132.5°	82.7	93.6	102.3	110.0	114.3	118.7	120.8	121.9	121.9	118.7	114.3
135°	74.0	81.7	89.3	96.9	101.2	105.6	107.8	108.9	107.8	105.6	101.2
137.5°	66.4	72.9	78.4	84.9	90.4	92.5	94.7	94.7	93.6	92.5	89.3
140°	57.7	65.3	70.8	75.1	79.5	80.6	82.7	82.7	81.7	80.6	78.4
142.5°	49.0	55.5	61.0	66.4	69.7	71.9	72.9	74.0	72.9	71.9	68.6
145°	39.2	46.8	52.3	55.5	59.9	61.0	62.1	63.1	62.1	61.0	57.7
147.5°	30.5	37.0	42.5	46.8	50.1	51.2	52.3	53.3	52.3	50.1	49.0
150°	21.8	27.2	33.7	38.1	40.3	42.5	42.5	42.5	43.5	41.4	39.2
152.5°	17.4	19.6	24.0	28.3	31.6	32.7	33.7	33.7	32.7	32.7	30.5
155°	12.0	14.2	17.4	20.7	24.0	25.0	26.1	26.1	25.0	25.0	24.0
157.5°	7.6	9.8	12.0	14.2	17.4	18.5	19.6	19.6	19.6	18.5	17.4
160°	4.4	5.4	6.5	8.7	10.9	12.0	13.1	13.1	13.1	13.1	12.0
162.5°	3.3	3.3	3.3	4.4	5.4	6.5	7.6	7.6	7.6	7.6	6.5
165°	2.2	2.2	2.2	2.2	2.2	3.3	4.4	4.4	4.4	4.4	4.4
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-LD5-47SL-LW-UNV-L950-CD1-U

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	1032.1	1032.1	1032.1	1032.1	1032.1	1032.1	1032.1	1032.1	1032.1	1032.1	1032.1
2.5°	1026.6	1026.6	1027.7	1025.6	1019.0	1020.1	1020.1	1024.5	1026.6	1027.7	1033.2
5°	1024.5	1024.5	1026.6	1023.4	1017.9	1017.9	1017.9	1022.3	1023.4	1025.6	1029.9
7.5°	1021.2	1021.2	1022.3	1019.0	1012.5	1012.5	1011.4	1015.8	1017.9	1019.0	1023.4
10°	1015.8	1015.8	1016.8	1013.6	1006.0	1006.0	1004.9	1008.1	1009.2	1011.4	1014.7
12.5°	1008.1	1008.1	1008.1	1004.9	997.2	996.2	995.1	998.3	998.3	999.4	1002.7
15°	1001.6	999.4	999.4	996.2	988.5	986.4	984.2	985.3	987.4	986.4	988.5
17.5°	994.0	991.8	989.6	986.4	976.6	973.3	971.1	972.2	971.1	970.0	972.2
20°	985.3	982.0	980.9	975.5	965.7	960.2	955.9	953.7	954.8	951.5	952.6
22.5°	975.5	971.1	968.9	962.4	952.6	946.1	940.6	936.3	935.2	930.8	931.9
25°	963.5	958.1	954.8	949.3	938.5	930.8	924.3	917.8	914.5	909.1	908.0
27.5°	949.3	943.9	939.5	934.1	923.2	913.4	905.8	897.1	892.7	886.2	882.9
30°	935.2	928.7	922.1	917.8	905.8	894.9	882.9	875.3	868.8	861.2	855.7
32.5°	917.8	911.2	904.7	898.2	887.3	874.2	864.4	852.5	844.8	836.1	829.6
35°	900.4	891.6	885.1	876.4	866.6	851.4	839.4	827.4	817.6	807.8	800.2
37.5°	880.8	874.2	864.4	856.8	844.8	829.6	816.5	801.3	792.6	779.5	769.7
40°	862.2	854.6	844.8	835.0	823.1	805.6	791.5	774.1	764.3	749.0	739.2
42.5°	843.7	832.9	823.1	812.2	799.1	782.8	765.4	747.9	734.9	720.7	706.6
45°	823.1	811.1	799.1	787.1	774.1	757.7	739.2	720.7	704.4	691.3	673.9
47.5°	801.3	789.3	775.2	762.1	747.9	731.6	712.0	692.4	675.0	659.8	641.2
50°	779.5	767.5	752.3	738.1	721.8	705.5	684.8	661.9	643.4	623.8	607.5
52.5°	756.6	744.7	730.5	712.0	694.6	678.3	656.5	632.5	611.8	595.5	574.8
55°	733.8	721.8	705.5	687.0	669.5	648.9	628.2	604.2	581.4	561.8	541.1
57.5°	709.8	698.9	680.4	665.2	643.4	621.6	599.9	577.0	552.0	529.1	505.2
60°	685.9	673.9	656.5	638.0	616.2	594.4	571.6	546.5	520.4	495.4	473.6
62.5°	664.1	648.9	632.5	612.9	590.1	569.4	543.3	516.0	489.9	463.8	437.7
65°	639.1	622.7	607.5	587.9	563.9	540.0	513.9	486.6	458.3	430.0	403.9
67.5°	614.0	597.7	581.4	561.8	536.7	511.7	484.5	457.3	425.7	398.5	368.0
70°	589.0	575.9	555.2	534.6	511.7	484.5	457.3	427.9	395.2	365.8	334.2
72.5°	563.9	550.9	530.2	508.4	486.6	458.3	428.9	399.6	369.1	335.3	301.6
75°	540.0	523.7	505.2	484.5	461.6	432.2	402.8	372.3	336.4	304.8	270.0
77.5°	517.1	501.9	483.4	460.5	435.5	407.2	376.7	345.1	309.2	275.4	237.3
80°	492.1	476.8	458.3	435.5	410.4	383.2	350.6	317.9	283.1	246.0	206.9
82.5°	468.1	454.0	433.3	412.6	385.4	358.2	325.5	292.9	255.8	219.9	181.8
85°	443.1	428.9	409.4	387.6	361.4	332.1	301.6	268.9	231.9	194.9	156.8
87.5°	421.3	405.0	385.4	363.6	337.5	309.2	279.8	245.0	209.0	173.1	133.9
90°	398.5	383.2	363.6	341.9	315.7	287.4	256.9	224.3	189.4	152.4	115.4
92.5°	378.9	362.5	344.0	322.3	296.1	268.9	238.4	205.8	172.0	136.1	100.2
95°	359.3	342.9	325.5	303.7	277.6	250.4	219.9	188.3	155.7	120.8	87.1
97.5°	337.5	323.3	305.9	285.2	259.1	233.0	203.6	173.1	141.5	107.8	76.2
100°	320.1	303.7	287.4	265.6	241.7	216.7	187.3	157.9	127.4	95.8	66.4
102.5°	300.5	285.2	268.9	248.2	224.3	199.2	172.0	143.7	115.4	86.0	57.7
105°	282.0	267.8	250.4	230.8	207.9	184.0	157.9	131.7	104.5	76.2	51.2
107.5°	263.5	249.3	233.0	214.5	192.7	168.7	144.8	118.7	93.6	68.6	45.7
110°	245.0	231.9	216.7	198.1	177.5	155.7	132.8	108.9	83.8	61.0	40.3



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-47SL-LW-UNV-L950-CD1-U

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
112.5°	228.6	215.6	200.3	182.9	163.3	142.6	120.8	98.0	75.1	54.4	34.8
115°	212.3	200.3	185.1	169.8	150.2	130.6	110.0	88.2	67.5	49.0	30.5
117.5°	196.0	184.0	169.8	154.6	137.2	118.7	99.1	78.4	61.0	43.5	27.2
120°	179.6	168.7	155.7	141.5	126.3	107.8	88.2	70.8	54.4	38.1	24.0
122.5°	164.4	154.6	142.6	129.6	113.2	95.8	79.5	64.2	49.0	33.7	19.6
125°	150.2	140.4	129.6	116.5	101.2	86.0	71.9	57.7	42.5	29.4	16.3
127.5°	136.1	126.3	115.4	103.4	91.5	77.3	64.2	51.2	38.1	26.1	14.2
130°	121.9	113.2	103.4	93.6	81.7	68.6	57.7	44.6	32.7	20.7	12.0
132.5°	107.8	101.2	92.5	82.7	71.9	62.1	50.1	39.2	28.3	18.5	10.9
135°	95.8	89.3	81.7	72.9	64.2	54.4	43.5	33.7	24.0	15.2	8.7
137.5°	84.9	79.5	71.9	64.2	56.6	46.8	38.1	28.3	19.6	13.1	6.5
140°	75.1	69.7	63.1	55.5	49.0	40.3	31.6	22.9	17.4	10.9	5.4
142.5°	65.3	59.9	54.4	47.9	41.4	33.7	26.1	19.6	14.2	8.7	5.4
145°	55.5	51.2	45.7	40.3	33.7	27.2	21.8	16.3	10.9	6.5	4.4
147.5°	45.7	42.5	37.0	32.7	27.2	21.8	17.4	13.1	8.7	5.4	3.3
150°	37.0	33.7	29.4	25.0	21.8	17.4	14.2	9.8	6.5	5.4	3.3
152.5°	28.3	26.1	22.9	20.7	17.4	13.1	9.8	7.6	5.4	4.4	2.2
155°	22.9	20.7	18.5	15.2	13.1	9.8	7.6	5.4	4.4	3.3	2.2
157.5°	16.3	15.2	13.1	10.9	8.7	6.5	5.4	5.4	3.3	2.2	1.1
160°	10.9	9.8	8.7	6.5	5.4	5.4	4.4	3.3	2.2	2.2	1.1
162.5°	6.5	5.4	5.4	5.4	4.4	4.4	3.3	2.2	2.2	1.1	1.1
165°	4.4	4.4	4.4	3.3	3.3	3.3	2.2	1.1	1.1	1.1	1.1
167.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-47SL-LW-UNV-L950-CD1-U

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
0°	1032.1	1032.1	1032.1	1032.1	1032.1	1032.1	1032.1	1032.1	1032.1	1032.1	1032.1
2.5°	1033.2	1029.9	1034.3	1041.9	1043.0	1041.9	1039.7	1043.0	1047.3	1046.2	1038.6
5°	1031.0	1026.6	1031.0	1038.6	1038.6	1037.5	1036.4	1039.7	1044.1	1043.0	1036.4
7.5°	1024.5	1020.1	1024.5	1031.0	1032.1	1029.9	1029.9	1033.2	1037.5	1036.4	1031.0
10°	1015.8	1011.4	1013.6	1021.2	1023.4	1021.2	1021.2	1024.5	1029.9	1028.8	1022.3
12.5°	1002.7	999.4	1001.6	1008.1	1010.3	1009.2	1008.1	1012.5	1017.9	1017.9	1011.4
15°	988.5	984.2	986.4	994.0	995.1	992.9	994.0	997.2	1003.8	1003.8	998.3
17.5°	972.2	966.8	970.0	975.5	976.6	976.6	976.6	980.9	988.5	987.4	983.1
20°	953.7	946.1	948.3	953.7	955.9	955.9	955.9	963.5	968.9	968.9	964.6
22.5°	931.9	926.5	926.5	931.9	935.2	934.1	934.1	940.6	948.3	947.2	947.2
25°	906.9	902.5	900.4	906.9	908.0	909.1	911.2	917.8	926.5	926.5	927.6
27.5°	880.8	876.4	875.3	880.8	881.8	882.9	885.1	892.7	901.4	902.5	904.7
30°	855.7	849.2	847.0	851.4	853.5	854.6	854.6	866.6	874.2	877.5	881.8
32.5°	826.3	819.8	814.3	822.0	823.1	825.2	826.3	838.3	847.0	852.5	859.0
35°	796.9	786.0	783.9	789.3	791.5	792.6	794.7	807.8	819.8	824.1	832.9
37.5°	764.3	756.6	750.1	755.6	757.7	758.8	765.4	777.3	789.3	795.8	804.5
40°	733.8	724.0	718.5	721.8	724.0	725.1	732.7	745.8	759.9	767.5	778.4
42.5°	700.0	687.0	682.6	685.9	687.0	690.2	696.8	714.2	728.3	739.2	747.9
45°	666.3	656.5	646.7	650.0	651.0	653.2	663.0	681.5	696.8	709.8	719.6
47.5°	631.4	619.5	609.7	611.8	616.2	617.3	628.2	650.0	664.1	678.3	691.3
50°	596.6	580.3	572.7	572.7	574.8	580.3	594.4	616.2	631.4	647.8	661.9
52.5°	560.7	545.4	536.7	537.8	540.0	546.5	559.6	581.4	598.8	616.2	633.6
55°	524.8	508.4	499.7	497.5	499.7	508.4	523.7	546.5	563.9	584.6	603.1
57.5°	488.8	469.2	461.6	458.3	460.5	471.4	486.6	510.6	532.4	552.0	573.7
60°	449.6	434.4	421.3	413.7	419.1	433.3	449.6	474.7	497.5	519.3	543.3
62.5°	415.9	396.3	382.1	374.5	380.0	391.9	414.8	438.7	463.8	488.8	512.8
65°	377.8	358.2	341.9	334.2	339.7	353.8	376.7	402.8	430.0	455.1	483.4
67.5°	340.8	320.1	300.5	292.9	299.4	314.6	339.7	369.1	398.5	424.6	455.1
70°	304.8	282.0	261.3	255.8	260.2	280.9	304.8	334.2	364.7	395.2	426.8
72.5°	272.2	243.9	222.1	215.6	221.0	243.9	271.1	301.6	334.2	366.9	400.6
75°	234.1	207.9	184.0	176.4	182.9	203.6	237.3	270.0	304.8	339.7	371.2
77.5°	203.6	173.1	148.1	136.1	147.0	173.1	205.8	240.6	276.5	312.5	348.4
80°	172.0	140.4	113.2	100.2	112.1	140.4	173.1	211.2	251.5	287.4	320.1
82.5°	143.7	110.0	81.7	67.5	80.6	112.1	148.1	186.2	225.4	261.3	299.4
85°	117.6	82.7	53.3	38.1	56.6	84.9	123.0	162.2	202.5	239.5	276.5
87.5°	95.8	62.1	32.7	16.3	34.8	66.4	102.3	141.5	181.8	218.8	253.7
90°	78.4	44.6	17.4	2.2	20.7	50.1	84.9	123.0	161.1	199.2	234.1
92.5°	64.2	33.7	9.8	1.1	13.1	40.3	72.9	108.9	145.9	182.9	216.7
95°	53.3	26.1	6.5	1.1	9.8	31.6	62.1	96.9	131.7	167.7	201.4
97.5°	45.7	21.8	5.4	1.1	7.6	27.2	53.3	86.0	119.8	153.5	186.2
100°	39.2	17.4	4.4	1.1	6.5	22.9	46.8	76.2	107.8	140.4	172.0
102.5°	33.7	14.2	3.3	1.1	5.4	19.6	41.4	68.6	96.9	128.5	158.9
105°	29.4	12.0	3.3	1.1	4.4	17.4	37.0	61.0	89.3	117.6	147.0
107.5°	25.0	9.8	2.2	1.1	3.3	14.2	32.7	55.5	80.6	107.8	135.0
110°	21.8	8.7	2.2	1.1	3.3	13.1	28.3	50.1	72.9	98.0	124.1



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-47SL-LW-UNV-L950-CD1-U

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
112.5°	18.5	6.5	2.2	1.1	2.2	10.9	25.0	44.6	66.4	89.3	114.3
115°	16.3	5.4	1.1	1.1	2.2	9.8	22.9	40.3	59.9	81.7	104.5
117.5°	13.1	4.4	1.1	1.1	1.1	7.6	19.6	35.9	54.4	75.1	95.8
120°	10.9	4.4	1.1	1.1	1.1	6.5	17.4	31.6	49.0	67.5	87.1
122.5°	9.8	3.3	1.1	1.1	1.1	5.4	15.2	28.3	43.5	61.0	79.5
125°	8.7	3.3	1.1	1.1	1.1	4.4	13.1	25.0	39.2	54.4	71.9
127.5°	6.5	3.3	1.1	1.1	1.1	3.3	12.0	21.8	34.8	49.0	64.2
130°	5.4	2.2	1.1	1.1	1.1	3.3	9.8	19.6	30.5	43.5	57.7
132.5°	4.4	2.2	1.1	1.1	1.1	2.2	7.6	15.2	26.1	38.1	51.2
135°	4.4	2.2	1.1	1.1	1.1	2.2	5.4	13.1	21.8	32.7	43.5
137.5°	4.4	1.1	1.1	1.1	1.1	2.2	4.4	9.8	17.4	26.1	35.9
140°	3.3	1.1	1.1	1.1	1.1	1.1	3.3	7.6	14.2	21.8	30.5
142.5°	3.3	1.1	1.1	1.1	1.1	1.1	3.3	5.4	10.9	17.4	24.0
145°	2.2	1.1	1.1	1.1	1.1	1.1	2.2	4.4	8.7	13.1	19.6
147.5°	2.2	1.1	1.1	1.1	1.1	1.1	2.2	3.3	6.5	10.9	15.2
150°	2.2	1.1	1.1	1.1	1.1	1.1	2.2	3.3	4.4	7.6	12.0
152.5°	1.1	1.1	1.1	1.1	1.1	1.1	2.2	2.2	3.3	5.4	7.6
155°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	2.2	3.3	4.4	5.4
157.5°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	2.2	2.2	3.3	4.4
160°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	2.2	2.2	3.3
162.5°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	2.2	2.2
165°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
167.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-47SL-LW-UNV-L950-CD1-U

CANDELA DISTRIBUTION (continued):

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
0°	1032.1	1032.1	1032.1	1032.1	1032.1	1032.1	1032.1	1032.1	1032.1	1032.1	1032.1
2.5°	1035.4	1027.7	1029.9	1028.8	1031.0	1034.3	1034.3	1033.2	1033.2	1031.0	1028.8
5°	1033.2	1025.6	1028.8	1027.7	1029.9	1033.2	1033.2	1032.1	1032.1	1028.8	1027.7
7.5°	1026.6	1021.2	1023.4	1023.4	1025.6	1028.8	1028.8	1027.7	1027.7	1024.5	1023.4
10°	1020.1	1013.6	1016.8	1016.8	1019.0	1023.4	1023.4	1022.3	1022.3	1019.0	1017.9
12.5°	1009.2	1002.7	1008.1	1009.2	1011.4	1015.8	1014.7	1014.7	1014.7	1011.4	1010.3
15°	996.2	991.8	997.2	998.3	1001.6	1007.0	1007.0	1007.0	1007.0	1003.8	1002.7
17.5°	982.0	978.7	984.2	986.4	990.7	996.2	996.2	997.2	998.3	996.2	995.1
20°	965.7	963.5	968.9	973.3	979.8	985.3	987.4	988.5	990.7	988.5	987.4
22.5°	947.2	947.2	954.8	959.1	966.8	972.2	975.5	978.7	980.9	978.7	977.7
25°	926.5	929.7	937.4	945.0	953.7	959.1	962.4	966.8	968.9	967.9	966.8
27.5°	906.9	911.2	921.0	928.7	936.3	945.0	948.3	953.7	955.9	955.9	954.8
30°	884.0	890.6	901.4	910.2	919.9	928.7	933.0	938.5	941.7	939.5	940.6
32.5°	862.2	873.1	881.8	891.6	902.5	911.2	916.7	923.2	926.5	925.4	926.5
35°	838.3	849.2	861.2	871.0	884.0	892.7	900.4	905.8	910.2	909.1	909.1
37.5°	812.2	826.3	838.3	851.4	863.3	873.1	880.8	887.3	891.6	891.6	891.6
40°	787.1	802.4	814.3	829.6	844.8	853.5	862.2	868.8	873.1	874.2	875.3
42.5°	759.9	776.2	790.4	806.7	822.0	832.9	842.7	850.3	854.6	856.8	855.7
45°	734.9	750.1	766.4	785.0	799.1	810.0	822.0	830.7	835.0	836.1	837.2
47.5°	706.6	724.0	742.5	761.0	775.2	789.3	800.2	808.9	813.3	816.5	816.5
50°	679.3	697.9	718.5	738.1	753.4	767.5	778.4	788.2	793.7	795.8	796.9
52.5°	654.3	671.7	693.5	713.1	728.3	742.5	756.6	767.5	773.0	775.2	775.2
55°	623.8	645.6	669.5	688.1	704.4	720.7	734.9	745.8	751.2	754.5	756.6
57.5°	595.5	618.4	643.4	663.0	682.6	697.9	710.9	725.1	729.4	733.8	734.9
60°	568.3	591.2	615.1	636.9	656.5	672.8	688.1	700.0	707.7	709.8	712.0
62.5°	540.0	563.9	589.0	610.8	631.4	651.0	665.2	676.1	684.8	688.1	690.2
65°	512.8	537.8	562.9	585.7	607.5	627.1	641.2	652.1	660.8	666.3	667.4
67.5°	483.4	510.6	536.7	560.7	582.5	603.1	617.3	628.2	636.9	643.4	644.5
70°	456.2	484.5	510.6	536.7	558.5	579.2	594.4	605.3	615.1	619.5	621.6
72.5°	430.0	459.4	486.6	512.8	534.6	555.2	571.6	582.5	592.3	597.7	598.8
75°	405.0	434.4	463.8	488.8	511.7	532.4	548.7	560.7	569.4	574.8	577.0
77.5°	380.0	410.4	439.8	464.9	488.8	509.5	523.7	537.8	546.5	553.1	553.1
80°	354.9	386.5	417.0	442.0	466.0	484.5	500.8	515.0	523.7	530.2	530.2
82.5°	333.1	363.6	393.0	418.1	442.0	462.7	479.0	492.1	501.9	506.2	507.3
85°	308.1	341.9	369.1	396.3	419.1	438.7	455.1	469.2	477.9	482.3	484.5
87.5°	287.4	320.1	349.5	373.4	396.3	415.9	434.4	446.4	455.1	460.5	462.7
90°	267.8	299.4	328.8	352.7	376.7	395.2	412.6	424.6	434.4	438.7	440.9
92.5°	250.4	282.0	310.3	334.2	357.1	377.8	394.1	406.1	414.8	419.1	422.4
95°	234.1	264.6	291.8	317.9	339.7	358.2	375.6	387.6	397.4	400.6	403.9
97.5°	217.7	247.1	274.4	299.4	322.3	339.7	356.0	368.0	375.6	381.0	384.3
100°	203.6	231.9	258.0	282.0	303.7	320.1	337.5	348.4	356.0	360.4	364.7
102.5°	188.3	216.7	241.7	264.6	287.4	302.7	319.0	329.9	336.4	344.0	344.0
105°	175.3	201.4	226.4	248.2	267.8	286.3	300.5	311.4	319.0	324.4	324.4
107.5°	161.1	187.3	211.2	234.1	252.6	270.0	283.1	292.9	301.6	304.8	308.1
110°	150.2	173.1	197.1	218.8	236.2	252.6	265.6	276.5	284.2	287.4	289.6



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-47SL-LW-UNV-L950-CD1-U

CANDELA DISTRIBUTION (continued):

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
112.5°	137.2	161.1	182.9	203.6	221.0	236.2	249.3	258.0	265.6	270.0	271.1
115°	126.3	149.2	168.7	188.3	206.9	219.9	231.9	240.6	248.2	251.5	253.7
117.5°	116.5	137.2	156.8	173.1	190.5	204.7	216.7	224.3	230.8	235.2	237.3
120°	106.7	126.3	143.7	160.0	176.4	189.4	200.3	207.9	215.6	218.8	218.8
122.5°	96.9	115.4	131.7	147.0	162.2	174.2	186.2	192.7	199.2	202.5	202.5
125°	88.2	105.6	120.8	135.0	149.2	160.0	169.8	177.5	184.0	186.2	186.2
127.5°	79.5	95.8	110.0	123.0	135.0	145.9	155.7	163.3	168.7	170.9	170.9
130°	71.9	86.0	99.1	112.1	124.1	132.8	142.6	149.2	152.4	155.7	156.8
132.5°	64.2	77.3	89.3	100.2	112.1	120.8	128.5	135.0	138.3	141.5	142.6
135°	56.6	68.6	79.5	90.4	100.2	108.9	115.4	120.8	125.2	127.4	128.5
137.5°	47.9	61.0	70.8	79.5	90.4	96.9	104.5	107.8	112.1	114.3	114.3
140°	40.3	50.1	61.0	69.7	78.4	84.9	91.5	96.9	100.2	101.2	101.2
142.5°	32.7	41.4	50.1	61.0	68.6	74.0	80.6	84.9	87.1	88.2	89.3
145°	26.1	32.7	40.3	50.1	58.8	65.3	68.6	72.9	75.1	76.2	77.3
147.5°	19.6	26.1	32.7	39.2	47.9	54.4	57.7	62.1	64.2	65.3	65.3
150°	15.2	19.6	24.0	30.5	37.0	44.6	49.0	52.3	53.3	54.4	54.4
152.5°	10.9	15.2	18.5	22.9	27.2	33.7	40.3	42.5	43.5	44.6	44.6
155°	7.6	10.9	13.1	16.3	19.6	25.0	30.5	33.7	34.8	35.9	35.9
157.5°	5.4	7.6	8.7	12.0	14.2	16.3	20.7	26.1	27.2	27.2	27.2
160°	3.3	4.4	5.4	7.6	8.7	10.9	13.1	16.3	19.6	19.6	19.6
162.5°	2.2	3.3	3.3	4.4	4.4	6.5	7.6	8.7	12.0	13.1	13.1
165°	1.1	2.2	2.2	2.2	2.2	2.2	3.3	3.3	5.4	6.5	6.5
167.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-47SL-LW-UNV-L950-CD1-U

CANDELA DISTRIBUTION (continued):

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°
0°	1032.1	1032.1	1032.1	1032.1	1032.1	1032.1	1032.1	1032.1	1032.1	1032.1	1032.1
2.5°	1029.9	1032.1	1031.0	1031.0	1031.0	1033.2	1031.0	1021.2	1023.4	1025.6	1027.7
5°	1028.8	1029.9	1029.9	1028.8	1028.8	1031.0	1028.8	1019.0	1021.2	1023.4	1024.5
7.5°	1024.5	1025.6	1025.6	1025.6	1024.5	1026.6	1023.4	1014.7	1014.7	1016.8	1017.9
10°	1019.0	1021.2	1020.1	1019.0	1019.0	1019.0	1016.8	1007.0	1007.0	1008.1	1009.2
12.5°	1012.5	1012.5	1012.5	1011.4	1010.3	1010.3	1008.1	998.3	997.2	999.4	998.3
15°	1003.8	1006.0	1003.8	1002.7	1000.5	1000.5	997.2	987.4	985.3	986.4	985.3
17.5°	996.2	997.2	995.1	992.9	990.7	989.6	986.4	975.5	972.2	973.3	971.1
20°	988.5	988.5	986.4	984.2	980.9	977.7	973.3	962.4	957.0	957.0	952.6
22.5°	978.7	978.7	976.6	973.3	970.0	965.7	961.3	950.4	941.7	939.5	936.3
25°	967.9	966.8	965.7	962.4	955.9	951.5	947.2	935.2	925.4	921.0	915.6
27.5°	954.8	954.8	951.5	948.3	941.7	936.3	930.8	919.9	906.9	901.4	893.8
30°	940.6	940.6	937.4	933.0	926.5	919.9	913.4	900.4	887.3	879.7	871.0
32.5°	926.5	925.4	922.1	917.8	911.2	901.4	896.0	882.9	867.7	859.0	847.0
35°	909.1	908.0	904.7	899.3	890.6	882.9	874.2	862.2	844.8	833.9	820.9
37.5°	891.6	890.6	888.4	880.8	872.0	863.3	852.5	840.5	824.1	810.0	796.9
40°	874.2	873.1	868.8	863.3	852.5	841.6	830.7	818.7	801.3	785.0	770.8
42.5°	855.7	854.6	849.2	842.7	830.7	819.8	806.7	793.7	776.2	756.6	742.5
45°	837.2	835.0	829.6	822.0	808.9	796.9	783.9	768.6	751.2	732.7	714.2
47.5°	817.6	814.3	808.9	798.0	787.1	774.1	758.8	742.5	725.1	704.4	684.8
50°	795.8	793.7	787.1	777.3	764.3	751.2	733.8	717.5	696.8	677.2	653.2
52.5°	775.2	770.8	765.4	754.5	741.4	727.2	708.7	689.1	668.5	650.0	624.9
55°	753.4	751.2	743.6	734.9	718.5	702.2	684.8	664.1	641.2	619.5	595.5
57.5°	732.7	728.3	721.8	709.8	695.7	679.3	660.8	639.1	614.0	591.2	565.0
60°	712.0	705.5	697.9	687.0	671.7	654.3	634.7	611.8	586.8	561.8	534.6
62.5°	689.1	683.7	675.0	664.1	648.9	630.4	609.7	585.7	561.8	535.6	506.2
65°	666.3	660.8	652.1	641.2	626.0	605.3	583.5	559.6	532.4	507.3	475.8
67.5°	643.4	638.0	628.2	616.2	601.0	581.4	558.5	533.5	506.2	479.0	446.4
70°	620.6	614.0	605.3	592.3	577.0	556.3	533.5	507.3	480.1	450.7	418.1
72.5°	597.7	592.3	581.4	569.4	553.1	532.4	509.5	483.4	455.1	424.6	391.9
75°	574.8	568.3	560.7	546.5	529.1	509.5	485.6	459.4	428.9	399.6	365.8
77.5°	552.0	546.5	536.7	522.6	506.2	485.6	461.6	435.5	405.0	374.5	338.6
80°	529.1	522.6	515.0	501.9	483.4	462.7	437.7	411.5	381.0	349.5	313.5
82.5°	506.2	499.7	491.0	477.9	460.5	439.8	415.9	387.6	357.1	324.4	290.7
85°	483.4	477.9	468.1	455.1	436.6	415.9	391.9	366.9	334.2	301.6	267.8
87.5°	460.5	455.1	445.3	432.2	414.8	394.1	370.2	344.0	312.5	282.0	245.0
90°	438.7	434.4	424.6	411.5	394.1	373.4	351.6	323.3	292.9	262.4	227.5
92.5°	419.1	414.8	406.1	393.0	377.8	354.9	333.1	305.9	275.4	243.9	210.1
95°	401.7	396.3	387.6	375.6	357.1	337.5	315.7	288.5	259.1	227.5	194.9
97.5°	382.1	376.7	368.0	354.9	339.7	319.0	297.2	271.1	241.7	212.3	179.6
100°	362.5	357.1	347.3	336.4	321.2	300.5	279.8	253.7	226.4	198.1	166.6
102.5°	342.9	337.5	328.8	317.9	302.7	284.2	263.5	238.4	211.2	182.9	153.5
105°	324.4	319.0	310.3	299.4	285.2	266.7	245.0	223.2	197.1	169.8	141.5
107.5°	305.9	300.5	292.9	282.0	267.8	250.4	229.7	206.9	182.9	156.8	129.6
110°	287.4	283.1	274.4	264.6	250.4	233.0	214.5	192.7	168.7	144.8	118.7



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-47SL-LW-UNV-L950-CD1-U

CANDELA DISTRIBUTION (continued):

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°
112.5°	270.0	265.6	256.9	246.0	234.1	217.7	199.2	178.5	155.7	132.8	107.8
115°	252.6	247.1	239.5	229.7	217.7	202.5	185.1	166.6	143.7	121.9	99.1
117.5°	235.2	230.8	223.2	213.4	202.5	187.3	170.9	153.5	131.7	111.0	90.4
120°	217.7	214.5	206.9	198.1	187.3	173.1	157.9	140.4	120.8	101.2	81.7
122.5°	201.4	198.1	190.5	182.9	172.0	158.9	144.8	128.5	111.0	92.5	75.1
125°	186.2	181.8	175.3	167.7	157.9	145.9	131.7	116.5	100.2	83.8	67.5
127.5°	169.8	166.6	162.2	153.5	143.7	132.8	119.8	106.7	91.5	76.2	61.0
130°	156.8	152.4	147.0	140.4	131.7	120.8	108.9	95.8	82.7	68.6	53.3
132.5°	141.5	137.2	132.8	126.3	118.7	108.9	98.0	86.0	74.0	61.0	47.9
135°	127.4	124.1	119.8	113.2	105.6	98.0	87.1	76.2	65.3	53.3	42.5
137.5°	114.3	111.0	106.7	102.3	94.7	87.1	77.3	67.5	57.7	46.8	37.0
140°	101.2	99.1	94.7	90.4	83.8	76.2	67.5	58.8	50.1	40.3	31.6
142.5°	88.2	86.0	82.7	78.4	72.9	66.4	58.8	51.2	42.5	34.8	27.2
145°	76.2	75.1	71.9	67.5	63.1	56.6	50.1	43.5	35.9	29.4	21.8
147.5°	64.2	63.1	61.0	57.7	53.3	47.9	42.5	35.9	30.5	24.0	17.4
150°	53.3	52.3	51.2	46.8	44.6	39.2	34.8	29.4	25.0	18.5	14.2
152.5°	43.5	43.5	41.4	38.1	35.9	31.6	28.3	24.0	19.6	15.2	10.9
155°	34.8	33.7	32.7	30.5	28.3	25.0	21.8	18.5	15.2	10.9	7.6
157.5°	27.2	26.1	25.0	22.9	20.7	19.6	16.3	13.1	9.8	7.6	5.4
160°	19.6	18.5	17.4	16.3	15.2	13.1	10.9	8.7	6.5	4.4	3.3
162.5°	13.1	12.0	12.0	10.9	9.8	7.6	6.5	5.4	4.4	3.3	2.2
165°	6.5	6.5	5.4	5.4	4.4	3.3	3.3	3.3	2.2	2.2	1.1
167.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-47SL-LW-UNV-L950-CD1-U

CANDELA DISTRIBUTION (continued):

	330°	335°	340°	345°	350°	355°	360°
0°	1032.1	1032.1	1032.1	1032.1	1032.1	1032.1	1032.1
2.5°	1026.6	1026.6	1031.0	1029.9	1026.6	1033.2	1040.8
5°	1023.4	1023.4	1026.6	1026.6	1023.4	1029.9	1036.4
7.5°	1017.9	1016.8	1020.1	1020.1	1015.8	1021.2	1028.8
10°	1008.1	1007.0	1010.3	1010.3	1006.0	1011.4	1017.9
12.5°	997.2	995.1	998.3	997.2	992.9	998.3	1004.9
15°	983.1	982.0	984.2	982.0	977.7	983.1	989.6
17.5°	968.9	965.7	966.8	966.8	959.1	964.6	970.0
20°	950.4	946.1	947.2	946.1	940.6	943.9	950.4
22.5°	931.9	925.4	925.4	924.3	917.8	922.1	927.6
25°	909.1	901.4	901.4	900.4	892.7	896.0	901.4
27.5°	886.2	878.6	875.3	874.2	866.6	866.6	874.2
30°	862.2	851.4	849.2	845.9	838.3	838.3	844.8
32.5°	839.4	824.1	819.8	815.4	807.8	806.7	814.3
35°	808.9	796.9	789.3	785.0	776.2	774.1	780.6
37.5°	783.9	768.6	757.7	752.3	743.6	740.3	749.0
40°	756.6	740.3	726.2	722.9	709.8	705.5	713.1
42.5°	726.2	708.7	694.6	688.1	678.3	673.9	675.0
45°	695.7	677.2	661.9	653.2	643.4	635.8	640.2
47.5°	664.1	647.8	629.3	616.2	604.2	598.8	601.0
50°	632.5	612.9	595.5	581.4	567.2	560.7	565.0
52.5°	601.0	580.3	560.7	545.4	529.1	522.6	523.7
55°	570.5	548.7	525.8	509.5	494.3	484.5	482.3
57.5°	540.0	516.0	492.1	473.6	454.0	445.3	442.0
60°	507.3	482.3	457.3	435.5	414.8	405.0	400.6
62.5°	476.8	449.6	421.3	398.5	377.8	364.7	361.4
65°	447.5	415.9	387.6	361.4	338.6	324.4	320.1
67.5°	415.9	383.2	352.7	324.4	302.7	284.2	282.0
70°	386.5	351.6	317.9	288.5	264.6	246.0	237.3
72.5°	357.1	321.2	286.3	254.8	224.3	206.9	200.3
75°	328.8	291.8	254.8	222.1	188.3	167.7	161.1
77.5°	302.7	264.6	225.4	189.4	157.9	131.7	123.0
80°	277.6	238.4	197.1	160.0	126.3	98.0	88.2
82.5°	251.5	214.5	172.0	132.8	98.0	68.6	56.6
85°	228.6	191.6	149.2	110.0	75.1	43.5	30.5
87.5°	210.1	169.8	131.7	92.5	56.6	25.0	8.7
90°	191.6	152.4	114.3	76.2	42.5	14.2	1.1
92.5°	175.3	138.3	100.2	65.3	32.7	9.8	1.1
95°	160.0	124.1	88.2	54.4	26.1	6.5	1.1
97.5°	145.9	112.1	78.4	46.8	21.8	5.4	1.1
100°	133.9	101.2	69.7	41.4	18.5	4.4	1.1
102.5°	121.9	91.5	62.1	35.9	16.3	3.3	1.1
105°	112.1	82.7	55.5	32.7	14.2	3.3	1.1
107.5°	102.3	75.1	50.1	28.3	12.0	2.2	1.1
110°	92.5	68.6	44.6	25.0	10.9	2.2	1.1



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-47SL-LW-UNV-L950-CD1-U

CANDELA DISTRIBUTION (continued):

	330°	335°	340°	345°	350°	355°	360°
112.5°	84.9	62.1	40.3	22.9	8.7	2.2	1.1
115°	77.3	55.5	35.9	19.6	7.6	1.1	1.1
117.5°	69.7	50.1	31.6	17.4	6.5	1.1	1.1
120°	63.1	44.6	28.3	15.2	5.4	1.1	1.1
122.5°	56.6	40.3	25.0	13.1	4.4	1.1	1.1
125°	51.2	35.9	21.8	10.9	3.3	1.1	1.1
127.5°	45.7	31.6	19.6	9.8	3.3	1.1	1.1
130°	40.3	28.3	16.3	7.6	2.2	1.1	1.1
132.5°	35.9	24.0	14.2	6.5	2.2	1.1	1.1
135°	31.6	20.7	12.0	4.4	2.2	1.1	1.1
137.5°	27.2	17.4	9.8	3.3	1.1	1.1	1.1
140°	22.9	15.2	7.6	3.3	1.1	1.1	1.1
142.5°	19.6	12.0	5.4	2.2	1.1	1.1	1.1
145°	15.2	9.8	4.4	2.2	1.1	1.1	1.1
147.5°	12.0	7.6	3.3	2.2	1.1	1.1	1.1
150°	8.7	5.4	3.3	1.1	1.1	1.1	1.1
152.5°	6.5	4.4	2.2	1.1	1.1	1.1	1.1
155°	4.4	3.3	2.2	1.1	1.1	1.1	1.1
157.5°	3.3	2.2	1.1	1.1	1.1	1.1	1.1
160°	2.2	1.1	1.1	1.1	1.1	1.1	1.1
162.5°	1.1	1.1	1.1	1.1	1.1	1.1	1.1
165°	1.1	1.1	1.1	1.1	1.1	1.1	1.1
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)