

Scaled data based on original data using
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: METALUX

Report Number: P1213037

Luminaire Tested: 4SNLED-LD5-28SL-RW-UNV-L930-CD1-U

Issue Date: 3/29/2018

Test Information

Test Method: LM-79-2019
Report Number: P1213037
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P33525)
Test Lab: INNOVATIONS CENTER-P3
Issue Date: 3/29/2018
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: METALUX
Catalog Number: 4SNLED-LD5-28SL-RW-UNV-L930-CD1-U
Description: 4FT LINEAR SNLED LED FIXTURE
WHITE REFLECTOR
Light Source: -
Ballast/Driver: -

Summary

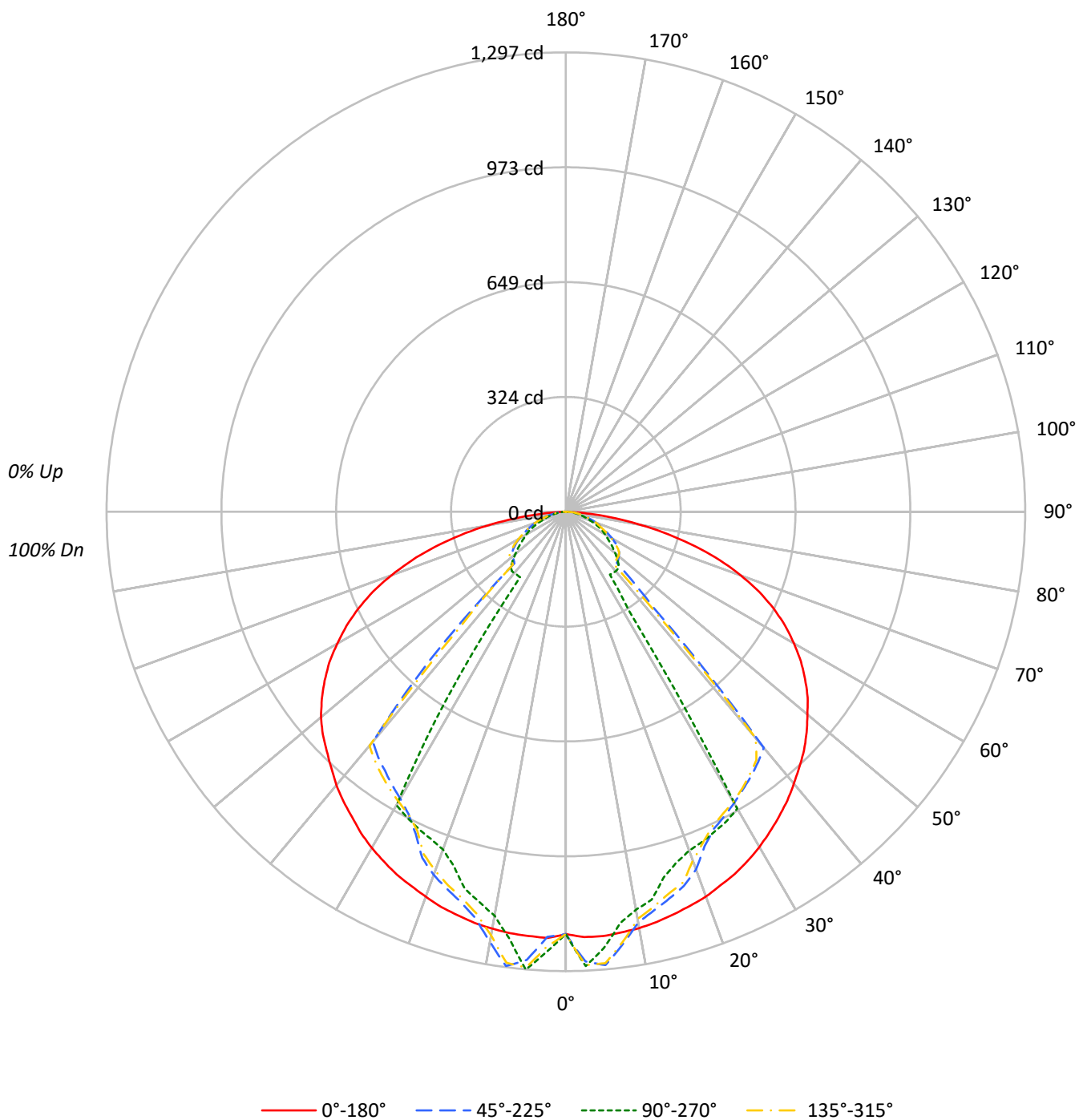
Lumens per Lamp: N/A
Luminaire Lumens: 2388.0 lumens
Efficiency: N/A
Efficacy: 113.7 lumens/watt
Spacing Criteria (0/90/45): 1.36 / 1.16 / 1.2
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.12')
CIE Type: Direct

Input Watts (W): 21
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: 24 FT

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Luminous Intensity Polar Plot



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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20			
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
RCR																				
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100		
1	110	106	102	99	108	104	101	98	100	97	94	96	94	92	92	91	89	87		
2	102	94	88	83	99	93	87	82	89	85	81	86	82	79	83	80	77	75		
3	94	84	77	72	91	83	76	71	80	74	70	77	73	69	75	71	67	65		
4	87	76	68	62	85	75	67	62	72	66	61	70	65	60	68	63	59	57		
5	81	69	61	55	79	68	60	55	66	59	54	64	58	53	62	57	53	51		
6	75	63	55	49	73	62	54	49	60	53	48	59	53	48	57	52	47	46		
7	70	58	50	44	68	57	49	44	55	48	43	54	48	43	53	47	43	41		
8	66	53	45	40	64	52	45	40	51	44	39	50	44	39	49	43	39	37		
9	62	49	41	36	60	48	41	36	47	41	36	46	40	36	45	40	36	34		
10	58	46	38	33	57	45	38	33	44	38	33	43	37	33	42	37	33	31		

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	9637	9637	9637	9637
5°	9731	9709	9726	10190
10°	9741	8778	9754	8913
15°	9763	8121	9785	8379
20°	9833	7704	9833	7674
25°	9919	7556	9933	7486
30°	10018	7423	10044	7335
35°	10136	1690	10157	1763
40°	10298	1758	10360	1815
45°	10544	1748	10581	1812
50°	10791	1581	10936	1623
55°	11123	1403	11212	1423
60°	11404	1247	11430	1263
65°	11605	1088	11577	1071
70°	11441	877	11404	846
75°	10620	675	10698	646
80°	8622	479	8966	439
85°	4666	287	4926	221

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 357.5°

Vertical Angle: 60°

Luminance: 11685 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	117.3	4.9
10°-20°	322.6	13.5
20°-30°	477.8	20.0
30°-40°	481.5	20.2
40°-50°	376.1	15.7
50°-60°	290.5	12.2
60°-70°	195.0	8.2
70°-80°	99.5	4.2
80°-90°	27.7	1.2
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	917.8	38.4
0°-40°	1399.2	58.6
0°-60°	2065.8	86.5
0°-90°	2388.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2388.0	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	1192	1192	1192	1192	1192	
5°	1203	1236	1202	1297	1203	114
15°	1177	1068	1179	1102	1177	333
25°	1129	996	1130	986	1129	521
35°	1050	216	1052	226	1050	658
45°	952	210	955	218	952	734
55°	825	153	831	155	825	737
65°	648	103	646	101	648	637
75°	380	52	383	50	380	397
85°	68	16	72	13	68	94
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	2.5°	5°	7.5°	10°	12.5°	15°	17.5°	20°	22.5°	25°
0°	1192.5	1192.5	1192.5	1192.5	1192.5	1192.5	1192.5	1192.5	1192.5	1192.5	1192.5
2.5°	1201.8	1206.2	1209.4	1211.6	1212.7	1212.7	1213.3	1213.8	1220.9	1224.2	1226.4
5°	1202.9	1207.3	1213.8	1222.6	1230.2	1236.8	1242.2	1249.9	1257.5	1265.7	1268.5
7.5°	1198.0	1203.4	1216.6	1232.4	1247.2	1257.5	1264.6	1269.6	1273.4	1273.9	1276.7
10°	1193.6	1203.4	1221.5	1242.2	1260.8	1273.4	1273.4	1270.7	1274.5	1259.7	1245.0
12.5°	1185.9	1196.9	1221.5	1248.8	1266.3	1271.2	1269.0	1258.1	1235.7	1217.6	1209.4
15°	1176.7	1191.4	1222.0	1252.6	1267.4	1269.0	1248.3	1220.4	1203.4	1192.5	1178.8
17.5°	1166.3	1185.9	1222.6	1253.2	1258.6	1251.0	1211.6	1194.1	1176.7	1151.0	1132.4
20°	1156.4	1175.6	1218.2	1245.5	1248.8	1214.4	1183.8	1165.2	1135.7	1113.3	1105.1
22.5°	1141.1	1163.5	1214.4	1235.1	1222.6	1182.7	1153.2	1123.6	1096.9	1090.3	1080.5
25°	1128.6	1152.1	1205.6	1222.6	1189.2	1153.7	1119.3	1084.8	1072.3	1063.0	1054.2
27.5°	1111.6	1140.6	1194.1	1199.6	1153.7	1122.6	1072.3	1057.0	1045.5	1035.1	1031.3
30°	1093.0	1128.6	1178.3	1167.9	1124.2	1078.3	1041.1	1026.9	1018.7	1007.8	1003.4
32.5°	1071.7	1110.5	1160.8	1131.3	1092.5	1035.1	1011.1	1000.1	989.2	981.0	953.7
35°	1049.9	1094.7	1140.0	1096.3	1054.2	1002.3	981.0	971.2	960.8	930.7	902.3
37.5°	1027.5	1077.2	1114.9	1058.6	1003.4	968.4	950.4	939.5	916.0	877.7	863.5
40°	1001.8	1055.9	1082.7	1019.8	959.1	934.0	917.1	906.1	853.1	836.2	831.8
42.5°	976.1	1035.1	1043.3	982.1	922.5	897.4	883.2	847.1	811.0	802.3	803.9
45°	951.5	1012.7	1000.1	928.5	884.3	863.5	839.5	789.7	770.6	775.0	776.1
47.5°	922.0	985.9	954.8	875.0	844.9	824.2	770.6	740.5	737.8	743.8	747.1
50°	890.3	955.9	906.7	826.3	802.3	777.7	717.0	701.7	705.0	711.0	714.8
52.5°	860.8	922.0	856.9	781.0	760.2	703.9	662.9	665.7	671.1	678.2	680.4
55°	824.7	881.0	803.9	735.1	715.4	641.6	623.0	629.6	635.1	641.1	645.4
57.5°	787.0	834.0	741.1	683.7	652.0	586.4	588.1	592.4	596.3	603.4	249.2
60°	743.8	780.4	672.2	636.1	573.3	542.7	544.3	552.0	555.8	310.4	171.6
62.5°	699.0	718.1	609.9	582.0	501.2	499.0	506.6	509.9	347.0	164.0	160.7
65°	647.6	643.8	548.7	504.4	452.0	454.2	462.4	446.0	153.6	153.6	152.5
67.5°	590.8	567.8	489.1	417.5	404.4	409.3	418.1	145.9	142.1	143.2	139.4
70°	525.8	493.5	427.4	353.6	358.0	362.9	141.0	132.3	130.6	127.9	120.2
72.5°	456.9	412.6	349.8	307.1	309.9	194.6	123.5	119.1	113.7	108.2	100.0
75°	379.8	322.4	256.9	256.9	260.7	110.9	107.7	100.6	94.5	87.4	82.5
77.5°	297.9	248.1	199.5	207.1	101.1	92.9	86.9	79.2	74.3	70.0	67.2
80°	218.1	173.2	150.3	134.4	78.7	70.5	64.5	60.1	57.9	55.2	51.9
82.5°	143.2	104.4	104.4	63.4	55.2	48.6	47.0	43.7	41.5	39.9	38.3
85°	68.3	60.7	45.9	38.8	34.4	31.2	30.1	28.4	28.4	27.9	27.3
87.5°	25.1	27.3	20.2	19.7	18.6	18.0	18.6	18.6	19.1	18.6	18.0
90°	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):

	27.5°	30°	32.5°	35°	37.5°	40°	42.5°	45°	47.5°	50°	52.5°
0°	1192.5	1192.5	1192.5	1192.5	1192.5	1192.5	1192.5	1192.5	1192.5	1192.5	1192.5
2.5°	1231.9	1236.2	1239.5	1245.0	1252.1	1258.1	1263.6	1271.2	1283.2	1286.5	1289.2
5°	1268.5	1270.1	1273.9	1278.3	1279.4	1282.1	1281.6	1284.9	1286.5	1290.3	1282.1
7.5°	1270.7	1261.9	1251.5	1242.2	1235.7	1229.7	1225.8	1231.9	1235.1	1237.9	1229.7
10°	1224.8	1214.4	1208.4	1202.9	1196.3	1187.0	1174.5	1177.2	1176.1	1176.1	1173.4
12.5°	1195.8	1181.0	1165.7	1152.1	1146.1	1145.5	1146.1	1152.1	1152.1	1151.5	1148.2
15°	1150.4	1136.2	1128.6	1125.3	1125.3	1123.6	1123.6	1130.2	1128.6	1128.6	1126.9
17.5°	1120.4	1110.5	1105.1	1101.2	1099.6	1102.3	1105.6	1108.3	1108.9	1106.7	1098.0
20°	1095.8	1086.5	1079.9	1081.0	1080.5	1082.1	1083.7	1074.5	1063.0	1047.7	1040.6
22.5°	1070.1	1063.0	1058.1	1058.1	1051.5	1041.1	1025.8	1022.5	1020.9	1013.8	1007.8
25°	1045.5	1037.3	1030.2	1008.3	994.7	996.3	993.6	988.1	987.6	987.0	989.2
27.5°	1020.9	999.6	972.3	969.0	963.5	963.0	966.2	969.0	969.0	971.2	973.9
30°	970.1	945.5	940.6	934.5	936.7	944.4	946.0	949.9	950.9	954.8	957.0
32.5°	923.6	912.7	908.3	911.0	918.2	924.7	928.5	930.2	932.9	936.2	938.9
35°	885.9	882.6	886.5	892.5	899.6	905.0	908.3	911.6	914.3	917.1	919.2
37.5°	858.0	860.2	865.7	873.3	880.4	884.8	887.5	891.4	895.2	898.5	885.4
40°	831.8	837.3	843.3	851.5	857.5	861.9	864.6	869.5	836.7	378.7	207.7
42.5°	808.8	814.9	819.2	825.8	832.3	835.6	811.6	362.3	204.9	203.9	206.6
45°	781.0	785.9	793.0	797.9	803.9	527.9	201.7	203.9	200.6	202.8	203.9
47.5°	752.6	760.2	764.0	729.1	217.0	200.6	198.4	200.6	198.4	201.1	199.5
50°	720.3	729.6	519.2	196.2	194.6	193.5	195.7	194.6	196.2	198.4	194.0
52.5°	687.5	425.7	190.2	189.1	190.2	189.1	192.9	190.2	190.7	188.5	183.1
55°	232.8	184.2	182.5	182.0	185.3	185.3	185.3	180.9	178.2	172.7	168.9
57.5°	178.2	178.2	177.6	178.2	177.1	176.0	171.1	167.2	163.4	155.8	153.6
60°	168.9	168.9	168.9	168.9	164.0	161.8	154.1	150.8	144.3	140.5	138.3
62.5°	161.2	160.1	155.2	153.6	148.1	142.1	137.7	134.4	127.9	125.7	124.1
65°	150.3	146.5	140.5	133.9	131.2	124.6	122.4	117.5	114.2	112.6	111.5
67.5°	132.3	126.8	121.9	117.5	112.6	110.4	107.7	103.8	101.7	100.6	99.5
70°	113.1	109.3	104.4	101.7	98.4	96.7	92.9	91.8	90.2	88.5	86.9
72.5°	94.5	92.4	90.2	86.4	85.3	84.2	80.3	78.2	76.0	73.8	72.7
75°	79.2	77.6	76.5	73.2	71.6	68.3	65.6	63.9	62.3	60.7	59.6
77.5°	65.0	63.9	60.7	58.5	57.4	54.7	53.6	54.1	53.0	50.8	49.7
80°	50.8	49.7	47.0	47.0	45.9	44.8	43.7	42.6	41.5	39.9	38.8
82.5°	38.8	37.7	36.6	35.5	34.4	33.9	33.3	32.2	31.2	30.1	29.5
85°	27.3	26.8	26.2	25.7	25.1	24.6	24.0	23.0	21.9	21.3	20.8
87.5°	18.6	18.0	17.5	16.9	16.4	15.8	15.3	14.8	13.7	13.1	12.6
90°	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°	57.5°	60°	62.5°	65°	67.5°	70°	72.5°	75°	77.5°	80°
0°	1192.5	1192.5	1192.5	1192.5	1192.5	1192.5	1192.5	1192.5	1192.5	1192.5	1192.5
2.5°	1289.2	1292.0	1289.2	1283.2	1279.4	1277.8	1281.0	1281.0	1283.2	1286.0	1286.5
5°	1269.0	1262.5	1254.8	1247.2	1243.3	1241.1	1235.1	1236.2	1237.9	1239.0	1240.1
7.5°	1218.7	1210.0	1199.6	1189.8	1185.9	1182.7	1175.6	1175.6	1175.6	1176.1	1179.4
10°	1167.4	1163.5	1159.2	1152.6	1147.7	1146.1	1140.0	1141.7	1140.6	1142.2	1146.1
12.5°	1143.3	1138.9	1135.1	1128.6	1123.1	1120.9	1118.2	1119.8	1119.3	1122.0	1125.3
15°	1121.5	1119.3	1114.9	1110.0	1105.1	1100.7	1090.9	1087.6	1085.4	1082.7	1086.5
17.5°	1085.4	1070.1	1059.7	1052.1	1046.6	1042.8	1040.0	1040.0	1041.7	1043.3	1046.6
20°	1036.2	1031.8	1026.9	1018.7	1013.2	1011.1	1009.4	1009.4	1012.2	1014.3	1020.4
22.5°	1002.3	1001.8	1000.1	996.3	993.6	993.6	994.1	995.2	999.0	1002.3	1008.3
25°	986.5	988.7	987.6	985.4	983.7	984.3	983.2	984.3	988.1	991.4	996.3
27.5°	973.9	977.2	976.1	972.8	970.1	971.2	972.8	971.7	975.0	978.8	982.6
30°	957.0	957.5	959.7	955.9	954.8	956.4	957.0	958.0	961.3	964.1	967.3
32.5°	937.8	942.2	941.7	937.8	937.8	939.5	940.0	903.4	835.1	719.2	687.5
35°	919.2	924.2	916.0	772.2	534.5	285.3	220.2	212.6	214.2	215.3	216.4
37.5°	679.9	322.4	205.5	207.1	208.8	210.4	212.0	213.7	215.3	217.0	217.5
40°	204.4	203.9	205.5	207.7	209.3	210.4	212.6	214.2	215.9	217.5	218.1
42.5°	202.2	203.3	204.9	207.1	209.3	211.5	213.1	215.3	216.4	217.5	218.1
45°	201.1	203.3	205.5	207.1	208.8	209.9	211.0	211.5	211.0	211.0	212.0
47.5°	199.5	201.7	202.2	201.7	202.2	201.7	201.7	201.7	200.0	199.5	199.5
50°	193.5	193.5	192.4	190.2	189.6	189.1	188.0	187.5	185.3	184.7	184.7
52.5°	180.9	180.4	178.7	176.0	174.9	173.8	173.2	172.7	170.5	169.4	170.0
55°	166.1	165.0	163.4	160.1	159.6	158.5	157.9	157.4	155.2	156.3	154.7
57.5°	152.5	150.3	148.1	147.6	145.4	144.8	144.3	143.7	142.1	142.6	141.5
60°	136.1	135.5	134.4	132.3	132.3	131.7	131.7	130.6	129.5	129.0	129.0
62.5°	124.1	122.4	121.3	121.3	119.7	119.7	119.7	118.6	117.5	118.0	117.5
65°	110.9	110.4	109.9	108.8	108.8	108.2	108.2	107.1	105.5	106.0	104.9
67.5°	100.0	98.9	97.8	97.3	95.1	94.0	93.5	92.9	90.7	91.3	90.2
70°	86.4	84.7	83.6	82.5	80.9	79.8	79.8	78.7	77.1	77.6	76.5
72.5°	72.1	71.0	70.0	69.4	67.8	67.2	66.7	66.1	64.5	65.0	64.5
75°	60.1	60.1	59.6	59.0	57.4	55.7	54.7	54.1	53.0	53.6	52.5
77.5°	49.7	48.6	47.5	47.5	45.9	44.8	43.7	43.7	43.7	43.2	42.6
80°	38.8	37.7	37.7	37.2	36.1	35.0	34.4	34.4	33.9	33.9	33.3
82.5°	29.5	28.4	27.9	27.9	26.8	26.2	25.7	25.1	25.1	25.1	24.6
85°	20.8	19.7	19.1	19.1	18.0	17.5	17.5	16.9	16.9	16.4	16.4
87.5°	12.6	12.0	11.5	11.5	10.4	9.8	9.8	9.8	9.3	9.3	8.7
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

TEST NUMBER: P1213037

CATALOG NUMBER: 4SNLED-LD5-28SL-RW-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	82.5°	85°	87.5°	90°	92.5°	95°	97.5°	100°	102.5°	105°	107.5°
0°	1192.5	1192.5	1192.5	1192.5	1192.5	1192.5	1192.5	1192.5	1192.5	1192.5	1192.5
2.5°	1286.5	1286.5	1282.7	1283.8	1282.1	1284.3	1281.6	1281.6	1284.9	1284.9	1287.1
5°	1240.6	1237.9	1237.3	1236.2	1230.8	1232.9	1230.2	1227.5	1231.3	1231.3	1236.2
7.5°	1177.7	1172.8	1175.0	1171.7	1168.5	1163.5	1165.2	1163.0	1165.7	1169.6	1174.5
10°	1145.5	1141.1	1143.9	1140.6	1142.2	1135.1	1135.7	1136.2	1138.9	1140.0	1144.4
12.5°	1124.7	1123.6	1122.6	1121.5	1122.6	1118.7	1116.5	1117.1	1118.2	1118.7	1122.0
15°	1081.0	1073.9	1076.1	1068.4	1069.0	1069.5	1065.2	1069.5	1069.0	1076.1	1082.7
17.5°	1045.5	1045.5	1041.7	1038.4	1036.2	1035.7	1032.4	1034.6	1032.4	1036.7	1038.4
20°	1020.9	1020.4	1019.8	1018.2	1012.7	1013.2	1014.9	1010.0	1009.4	1008.9	1012.2
22.5°	1009.4	1010.0	1007.8	1007.8	1002.9	1004.0	1004.5	999.0	999.6	997.9	999.6
25°	997.4	998.5	995.8	995.8	994.7	994.1	991.4	992.5	989.2	986.5	989.2
27.5°	983.2	985.4	983.2	984.3	982.1	981.0	979.4	978.3	975.0	974.4	976.1
30°	970.1	971.2	970.6	967.9	967.3	964.1	965.7	962.4	959.1	959.7	960.8
32.5°	497.3	474.9	366.2	330.6	327.4	339.4	402.2	489.7	634.5	775.0	876.1
35°	217.0	217.0	217.0	216.4	216.4	215.9	215.3	214.8	214.2	213.7	213.1
37.5°	218.1	218.1	218.1	218.1	217.5	217.0	217.0	215.9	215.3	214.8	214.2
40°	218.6	219.2	219.2	219.2	218.6	218.6	218.1	217.0	216.4	215.3	214.2
42.5°	218.1	218.6	218.6	218.1	218.1	217.5	217.5	217.0	216.4	215.9	215.3
45°	211.0	211.5	210.4	210.4	209.9	209.9	209.9	209.9	209.9	210.4	210.4
47.5°	198.4	198.4	197.8	197.3	197.3	196.7	197.3	196.7	197.8	198.4	199.5
50°	183.6	183.6	182.5	182.0	182.0	182.0	182.0	182.5	183.1	184.2	185.3
52.5°	168.3	168.3	167.8	167.2	166.7	166.7	168.3	167.8	168.3	168.9	170.5
55°	153.6	154.1	153.0	153.0	152.5	152.5	152.5	153.0	153.6	154.1	155.8
57.5°	141.0	141.0	139.9	139.9	139.9	139.4	141.0	139.9	140.5	141.0	142.1
60°	128.4	127.9	127.9	127.3	127.3	127.3	128.4	127.9	127.9	128.4	129.5
62.5°	117.0	117.0	116.4	116.4	115.9	115.9	117.0	116.4	116.4	117.0	117.5
65°	103.8	103.8	103.3	102.7	104.4	102.7	104.4	103.3	104.4	104.9	106.0
67.5°	89.1	89.1	89.1	88.5	88.5	89.6	90.2	89.1	89.6	90.7	91.3
70°	76.0	76.0	75.4	75.4	75.4	76.5	77.1	76.0	76.5	77.1	78.2
72.5°	64.5	63.4	63.4	62.8	63.9	63.9	64.5	63.9	64.5	64.5	65.6
75°	53.0	51.9	51.9	51.9	53.0	52.5	53.0	52.5	53.0	53.0	53.6
77.5°	42.6	42.1	41.5	41.5	42.6	42.6	42.6	42.1	42.6	43.2	43.7
80°	33.3	32.8	32.2	32.2	33.3	33.3	33.3	33.9	33.3	33.9	34.4
82.5°	24.6	24.0	23.5	24.6	24.6	24.6	24.6	25.1	24.6	25.1	25.7
85°	16.4	15.8	15.3	16.4	16.4	16.4	16.4	16.9	16.4	16.9	17.5
87.5°	8.7	8.2	8.2	8.7	8.7	8.7	9.3	9.3	9.3	9.8	9.8
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

TEST NUMBER: P1213037

CATALOG NUMBER: 4SNLED-LD5-28SL-RW-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	110°	112.5°	115°	117.5°	120°	122.5°	125°	127.5°	130°	132.5°	135°
0°	1192.5	1192.5	1192.5	1192.5	1192.5	1192.5	1192.5	1192.5	1192.5	1192.5	1192.5
2.5°	1290.3	1292.0	1291.4	1288.1	1284.9	1281.0	1278.3	1278.9	1284.3	1286.0	1281.0
5°	1236.2	1246.6	1246.6	1253.7	1249.9	1246.6	1248.8	1260.8	1266.8	1276.1	1279.4
7.5°	1180.5	1185.4	1184.9	1192.0	1190.9	1190.9	1192.5	1208.4	1216.0	1223.7	1225.8
10°	1149.3	1154.2	1153.7	1154.2	1152.6	1148.8	1148.8	1155.9	1162.4	1166.3	1167.4
12.5°	1126.9	1129.7	1129.1	1129.1	1128.0	1124.7	1124.2	1130.2	1137.3	1142.2	1142.8
15°	1093.6	1101.2	1102.9	1110.0	1108.3	1104.0	1105.1	1110.0	1114.4	1118.7	1117.1
17.5°	1043.9	1047.7	1048.2	1051.0	1049.9	1049.9	1056.4	1074.5	1086.5	1096.9	1098.0
20°	1015.4	1018.2	1017.1	1023.1	1020.4	1019.8	1021.4	1029.1	1034.6	1039.5	1048.2
22.5°	1001.8	1004.0	1002.3	1002.9	997.9	993.6	992.5	998.5	1004.5	1011.1	1011.1
25°	990.3	991.9	991.4	990.3	986.5	980.5	979.4	980.5	982.6	983.2	979.4
27.5°	976.6	977.7	977.7	978.3	973.4	967.9	966.8	965.7	967.9	967.3	961.3
30°	962.4	960.8	961.3	961.9	957.5	952.6	950.4	949.9	952.0	951.5	945.5
32.5°	928.5	941.1	942.2	943.3	939.5	935.1	932.9	931.3	932.4	931.8	926.4
35°	212.6	216.4	265.1	600.1	814.9	902.3	911.6	909.4	910.0	910.0	905.6
37.5°	213.1	212.6	212.0	210.4	208.8	207.7	359.1	765.7	887.0	887.5	883.7
40°	213.1	212.6	212.0	211.0	208.8	207.1	204.4	202.2	207.1	455.8	834.0
42.5°	214.2	213.1	212.0	211.0	208.8	206.6	204.4	201.7	203.3	202.2	199.5
45°	211.0	210.4	210.4	209.9	208.8	206.6	203.9	200.6	198.9	200.6	197.8
47.5°	200.6	201.1	202.8	203.3	203.3	203.9	202.2	200.0	197.3	198.9	195.7
50°	186.4	187.5	188.0	190.7	191.8	194.0	194.6	194.6	194.0	196.2	194.0
52.5°	171.1	172.2	174.9	176.0	177.1	180.4	181.4	183.1	184.2	187.5	189.6
55°	156.3	156.9	157.9	160.1	161.8	164.5	166.1	167.8	170.5	172.2	178.7
57.5°	142.6	143.2	145.4	145.9	147.0	149.2	150.8	153.0	155.2	156.3	164.0
60°	129.5	130.1	131.7	132.3	132.8	135.0	136.6	138.3	139.9	141.0	146.5
62.5°	118.0	118.0	119.7	119.7	120.2	121.9	123.0	124.1	125.7	126.2	129.0
65°	106.6	107.1	108.2	108.2	108.8	109.9	110.4	110.9	112.6	112.6	114.8
67.5°	92.4	92.9	94.5	95.6	96.2	98.4	98.9	99.5	100.6	101.1	102.2
70°	78.7	79.2	80.9	81.4	82.0	83.6	84.7	86.4	88.0	89.6	90.7
72.5°	66.1	66.7	68.3	68.3	70.0	70.5	71.6	72.1	73.8	74.9	76.5
75°	54.1	54.7	56.3	56.3	57.9	58.5	59.0	59.6	60.7	61.8	62.8
77.5°	44.3	44.3	46.5	47.5	48.6	48.6	49.2	49.2	49.2	49.7	50.8
80°	35.0	35.0	36.6	37.7	38.8	38.8	39.3	39.9	40.4	40.4	41.0
82.5°	26.2	26.2	27.9	28.4	29.5	29.5	29.5	30.1	30.6	30.1	31.2
85°	18.0	18.0	19.1	19.7	20.8	20.8	20.8	21.3	21.9	21.3	21.9
87.5°	10.4	10.9	11.5	12.0	12.6	13.1	13.1	13.1	13.7	13.7	14.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

TEST NUMBER: P1213037

CATALOG NUMBER: 4SNLED-LD5-28SL-RW-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	137.5°	140°	142.5°	145°	147.5°	150°	152.5°	155°	157.5°	160°	162.5°
0°	1192.5	1192.5	1192.5	1192.5	1192.5	1192.5	1192.5	1192.5	1192.5	1192.5	1192.5
2.5°	1275.6	1269.0	1268.5	1260.8	1258.6	1259.2	1253.2	1251.0	1241.1	1239.0	1228.6
5°	1280.5	1283.8	1282.1	1281.6	1283.2	1282.1	1277.8	1275.6	1273.9	1269.6	1260.8
7.5°	1226.4	1228.6	1230.2	1237.3	1243.3	1253.7	1264.6	1271.8	1277.2	1278.3	1271.2
10°	1171.2	1181.6	1188.7	1199.6	1208.4	1214.4	1220.9	1226.9	1242.8	1258.6	1267.9
12.5°	1142.8	1145.5	1145.0	1151.0	1157.0	1172.8	1188.1	1196.9	1208.9	1216.0	1232.9
15°	1118.7	1119.3	1120.9	1125.3	1128.6	1134.0	1141.1	1154.2	1178.3	1189.2	1198.5
17.5°	1096.9	1096.9	1098.0	1101.8	1106.2	1111.1	1115.4	1120.9	1132.9	1151.0	1173.9
20°	1061.9	1077.2	1078.8	1078.3	1080.5	1089.8	1090.9	1100.7	1106.7	1113.8	1136.2
22.5°	1010.0	1019.3	1032.4	1052.6	1060.2	1064.6	1067.9	1072.3	1081.6	1089.8	1099.1
25°	981.5	987.6	991.4	997.4	1013.2	1038.9	1043.9	1048.8	1054.8	1060.8	1072.3
27.5°	956.4	955.9	958.6	964.1	968.4	982.1	1006.1	1025.3	1026.4	1035.1	1044.9
30°	938.4	935.1	931.3	930.2	936.2	943.3	950.4	980.5	1001.2	1005.6	1016.0
32.5°	921.4	916.0	910.5	906.1	902.3	908.3	912.7	925.8	952.6	977.7	983.2
35°	900.7	895.2	888.6	883.7	877.7	877.2	876.6	889.2	897.9	928.0	954.2
37.5°	879.4	873.3	867.9	862.4	856.4	852.0	849.3	852.6	860.8	873.9	917.6
40°	856.9	849.8	844.4	840.0	831.8	828.5	823.1	820.9	821.4	832.9	855.8
42.5°	512.1	816.5	819.2	814.3	807.2	802.8	796.8	794.1	788.6	794.1	807.2
45°	197.3	199.5	597.3	789.2	780.4	775.0	769.5	766.8	760.8	756.4	768.4
47.5°	193.5	195.7	191.3	271.1	744.9	746.5	740.0	737.3	731.2	728.0	724.7
50°	190.7	192.4	189.1	190.2	186.4	682.6	709.9	706.6	700.1	696.3	689.7
52.5°	188.0	188.0	185.8	183.1	182.0	182.5	574.4	675.5	667.8	664.0	655.3
55°	179.3	180.4	182.5	178.2	177.1	176.5	174.9	547.1	632.3	628.0	620.3
57.5°	166.1	168.3	174.3	173.2	173.2	168.9	167.8	167.8	507.7	591.3	583.7
60°	150.8	153.0	159.6	161.8	163.4	162.3	161.2	160.7	158.5	535.0	544.9
62.5°	135.0	137.2	139.4	146.5	148.7	151.4	154.7	153.0	150.8	150.8	503.9
65°	118.0	121.3	122.4	129.0	131.7	136.6	139.4	143.2	142.1	141.5	144.3
67.5°	103.3	107.1	107.7	110.4	115.3	117.5	120.8	127.9	131.2	132.3	133.4
70°	90.7	92.9	94.5	95.6	98.9	99.5	105.5	110.4	115.3	120.8	122.4
72.5°	78.2	79.8	83.1	82.0	83.1	85.3	88.5	91.8	96.7	104.4	109.3
75°	63.9	65.0	67.2	68.3	70.5	72.1	74.3	77.1	81.4	85.3	91.8
77.5°	51.4	51.9	53.6	54.1	56.3	57.9	61.8	63.4	66.1	68.9	72.7
80°	41.5	41.5	42.1	42.1	43.7	45.4	48.1	49.7	53.0	55.2	55.2
82.5°	31.7	31.7	33.3	33.3	34.4	34.4	36.1	36.1	37.7	38.8	39.9
85°	22.4	23.0	24.0	23.5	24.6	24.0	25.1	26.2	26.8	26.2	25.7
87.5°	14.8	14.8	15.8	15.3	15.8	15.8	16.9	16.9	17.5	17.5	16.9
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

TEST NUMBER: P1213037

CATALOG NUMBER: 4SNLED-LD5-28SL-RW-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	165°	167.5°	170°	172.5°	175°	177.5°	180°	182.5°	185°	187.5°	190°
0°	1192.5	1192.5	1192.5	1192.5	1192.5	1192.5	1192.5	1192.5	1192.5	1192.5	1192.5
2.5°	1224.8	1216.6	1211.6	1205.6	1204.0	1202.3	1204.5	1204.5	1201.3	1198.5	1193.6
5°	1253.2	1244.4	1235.1	1225.3	1216.0	1206.2	1202.3	1201.8	1195.8	1192.5	1190.9
7.5°	1267.9	1263.6	1253.2	1239.5	1225.3	1207.8	1200.2	1195.8	1189.8	1188.7	1188.7
10°	1269.6	1264.6	1259.2	1249.3	1232.9	1210.0	1195.2	1186.5	1181.0	1184.9	1192.0
12.5°	1253.7	1263.0	1258.1	1251.5	1238.4	1210.5	1189.2	1176.1	1174.5	1184.3	1202.9
15°	1213.3	1240.6	1254.3	1247.7	1237.3	1209.4	1179.4	1164.1	1164.1	1184.3	1208.4
17.5°	1182.7	1204.0	1237.3	1242.8	1230.8	1207.3	1170.1	1152.1	1157.0	1186.5	1212.2
20°	1157.5	1170.6	1202.9	1233.5	1222.0	1202.3	1156.4	1137.9	1147.7	1183.2	1217.6
22.5°	1118.2	1144.4	1164.1	1209.4	1213.3	1193.1	1142.8	1120.4	1140.0	1183.2	1214.9
25°	1079.9	1111.6	1132.4	1176.7	1200.2	1181.6	1130.2	1101.8	1131.8	1181.6	1212.7
27.5°	1053.1	1067.9	1105.6	1137.3	1180.5	1166.3	1113.3	1081.6	1121.5	1172.8	1200.2
30°	1024.7	1034.6	1071.7	1101.8	1154.2	1148.8	1095.8	1059.2	1108.3	1164.6	1167.4
32.5°	993.6	1004.5	1023.6	1067.4	1117.6	1132.4	1076.1	1036.7	1094.1	1152.1	1129.1
35°	961.9	970.1	985.4	1032.4	1075.0	1107.8	1052.1	1011.1	1084.3	1132.9	1092.5
37.5°	930.2	938.9	952.0	991.4	1030.2	1084.8	1031.3	985.4	1066.3	1099.1	1054.2
40°	900.1	905.0	918.7	943.3	993.0	1061.3	1007.8	958.6	1047.7	1055.9	1002.3
42.5°	844.9	869.5	882.1	901.8	950.9	1029.1	980.5	930.2	1026.9	1012.7	950.4
45°	785.3	838.9	844.4	864.0	913.8	994.7	954.8	902.3	1007.2	975.5	901.2
47.5°	736.7	775.5	807.2	823.6	869.5	954.2	930.7	878.8	977.7	928.5	853.1
50°	693.5	714.3	771.7	783.7	816.5	905.6	902.3	851.5	936.7	869.5	806.1
52.5°	651.5	666.2	718.1	743.8	770.6	853.1	868.4	824.7	891.9	810.5	758.6
55°	614.8	619.8	648.2	702.3	726.3	800.1	831.3	793.5	835.1	754.2	712.7
57.5°	577.1	572.8	593.5	662.9	680.4	746.0	791.9	761.8	789.2	696.8	665.1
60°	537.8	531.8	540.5	586.4	631.8	692.4	745.5	726.9	733.4	640.0	612.1
62.5°	496.8	490.8	488.0	517.0	584.2	637.2	698.5	688.1	665.1	588.1	546.5
65°	454.2	448.1	443.8	455.3	531.8	565.6	646.0	643.3	590.2	533.4	460.2
67.5°	138.3	407.7	398.4	397.9	448.1	500.6	589.1	584.8	514.8	474.9	396.2
70°	124.6	330.6	351.4	346.5	368.4	434.5	524.1	520.8	441.6	380.9	350.3
72.5°	114.2	117.0	310.4	305.0	309.9	369.4	456.3	447.6	374.4	300.6	302.8
75°	97.8	102.7	107.1	257.4	250.9	306.1	382.6	368.9	308.8	248.1	253.0
77.5°	79.8	85.8	89.1	187.5	202.8	218.1	305.5	287.5	212.6	198.4	94.5
80°	59.6	64.5	70.0	74.9	154.1	152.5	226.8	208.8	148.1	123.5	73.8
82.5°	43.7	45.4	48.6	54.1	61.2	102.2	145.9	128.4	102.7	56.3	50.8
85°	27.3	29.5	31.2	32.8	37.2	61.2	72.1	57.4	43.2	34.4	32.2
87.5°	17.5	17.5	16.9	17.5	18.0	21.9	24.6	23.5	18.6	17.5	17.5
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

TEST NUMBER: P1213037

CATALOG NUMBER: 4SNLED-LD5-28SL-RW-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	192.5°	195°	197.5°	200°	202.5°	205°	207.5°	210°	212.5°	215°	217.5°
0°	1192.5	1192.5	1192.5	1192.5	1192.5	1192.5	1192.5	1192.5	1192.5	1192.5	1192.5
2.5°	1188.1	1180.5	1180.5	1178.3	1179.9	1179.9	1179.4	1179.9	1183.8	1185.9	1189.8
5°	1187.6	1185.4	1190.3	1196.3	1203.4	1212.2	1214.4	1222.0	1229.1	1238.4	1248.3
7.5°	1194.7	1202.3	1211.6	1221.5	1235.7	1246.1	1255.4	1264.6	1271.2	1279.9	1285.4
10°	1205.1	1220.4	1236.2	1248.8	1264.1	1272.8	1278.9	1279.9	1270.7	1255.9	1243.9
12.5°	1219.8	1237.9	1252.6	1264.6	1271.8	1268.5	1251.0	1232.9	1222.6	1207.3	1185.9
15°	1232.4	1248.8	1264.1	1259.2	1240.1	1222.0	1208.4	1187.0	1166.3	1152.1	1142.8
17.5°	1237.9	1253.7	1248.3	1222.6	1204.5	1183.8	1155.9	1139.5	1125.8	1114.9	1109.4
20°	1241.1	1238.4	1208.9	1190.3	1155.3	1136.2	1118.2	1102.9	1092.5	1087.0	1085.9
22.5°	1232.4	1199.1	1173.9	1140.6	1114.9	1099.1	1084.8	1072.3	1065.2	1060.8	1058.1
25°	1203.4	1164.6	1127.5	1101.2	1079.4	1065.7	1054.8	1044.4	1035.7	1033.5	1028.0
27.5°	1163.0	1131.3	1082.1	1061.9	1042.8	1036.2	1024.2	1013.8	1006.1	999.6	982.1
30°	1129.7	1079.4	1043.9	1025.3	1013.8	1006.1	992.5	981.5	968.4	944.4	934.5
32.5°	1088.7	1038.9	1005.0	994.7	980.5	973.9	958.6	934.5	914.3	904.5	903.9
35°	1035.7	994.7	970.1	960.8	949.3	938.4	906.7	884.8	875.0	876.1	884.3
37.5°	991.4	954.8	938.9	925.8	912.7	884.8	858.0	847.7	850.4	855.8	859.7
40°	946.6	918.7	900.7	890.3	860.8	833.4	819.2	823.1	828.0	831.8	836.7
42.5°	902.9	883.2	865.1	844.9	804.5	789.7	793.0	797.9	802.3	807.8	812.7
45°	861.3	843.8	823.1	777.2	756.9	760.8	765.7	769.5	776.1	779.9	784.8
47.5°	822.0	803.4	766.8	726.3	724.1	731.8	736.2	741.1	746.0	736.2	406.1
50°	777.7	758.6	702.8	687.5	692.4	699.5	705.0	709.9	632.3	251.4	193.5
52.5°	734.0	685.3	649.8	654.2	659.1	667.3	671.1	498.4	198.4	189.1	189.6
55°	685.3	623.0	612.6	618.1	622.5	630.7	418.1	183.1	182.0	181.4	185.8
57.5°	608.8	571.1	575.5	581.0	585.3	413.2	178.2	177.1	177.6	178.2	178.7
60°	540.5	532.3	537.2	542.1	383.7	172.2	168.9	169.4	171.6	170.0	165.6
62.5°	486.4	493.0	497.9	436.1	163.4	161.8	163.4	161.8	157.9	155.2	149.7
65°	444.9	451.4	455.3	153.6	153.0	155.2	153.6	148.1	142.1	134.4	132.8
67.5°	401.1	407.7	145.9	142.1	144.3	141.5	135.0	128.4	124.1	117.5	114.8
70°	355.8	152.5	132.3	131.7	127.9	123.5	116.4	109.9	104.4	101.7	98.9
72.5°	256.9	120.8	119.1	114.8	108.2	102.2	96.2	92.4	89.6	88.0	86.4
75°	107.1	104.9	100.0	92.4	85.8	83.1	78.7	76.0	74.9	71.6	70.5
77.5°	89.6	85.3	78.2	72.7	68.9	67.2	63.9	60.7	59.0	58.5	56.3
80°	68.9	62.8	59.6	56.8	55.7	51.9	48.1	46.5	45.4	44.8	43.2
82.5°	47.0	44.8	42.6	38.8	38.8	37.2	35.5	34.4	33.3	33.3	32.2
85°	30.6	29.0	28.4	26.8	26.8	25.7	25.1	24.6	24.0	23.5	23.0
87.5°	17.5	17.5	18.0	17.5	17.5	16.9	16.4	15.8	15.3	15.3	14.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

TEST NUMBER: P1213037

CATALOG NUMBER: 4SNLED-LD5-28SL-RW-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	220°	222.5°	225°	227.5°	230°	232.5°	235°	237.5°	240°	242.5°	245°
0°	1192.5	1192.5	1192.5	1192.5	1192.5	1192.5	1192.5	1192.5	1192.5	1192.5	1192.5
2.5°	1194.7	1200.2	1201.3	1219.8	1230.2	1229.7	1226.4	1236.2	1230.2	1226.9	1230.2
5°	1258.1	1264.6	1270.1	1290.3	1297.4	1300.7	1300.2	1305.6	1301.3	1297.4	1297.4
7.5°	1289.2	1291.4	1293.6	1288.7	1285.4	1279.9	1271.8	1259.7	1253.7	1247.2	1239.0
10°	1237.9	1230.8	1233.5	1223.7	1215.5	1209.4	1201.8	1192.0	1183.8	1177.7	1168.5
12.5°	1175.0	1174.5	1175.6	1177.2	1169.0	1164.1	1158.1	1151.0	1145.0	1138.4	1130.7
15°	1136.8	1137.3	1141.7	1140.0	1137.3	1134.6	1128.0	1125.8	1120.4	1113.3	1108.9
17.5°	1109.4	1112.2	1116.5	1114.4	1110.0	1107.2	1102.3	1097.4	1092.5	1087.0	1080.5
20°	1085.4	1088.1	1090.9	1088.1	1079.9	1076.1	1069.5	1054.2	1043.3	1032.4	1022.5
22.5°	1059.2	1060.8	1058.6	1049.9	1029.1	1019.3	1011.6	1007.2	997.9	991.9	985.9
25°	1026.4	1017.1	1002.9	993.0	984.8	980.5	977.2	976.6	975.5	974.4	971.7
27.5°	972.8	969.5	961.9	958.0	958.6	960.2	960.8	962.4	960.8	958.6	956.4
30°	932.9	934.5	935.1	936.2	938.9	940.6	941.1	943.3	942.2	940.6	939.5
32.5°	907.8	911.6	913.8	917.1	918.7	921.4	921.4	924.7	921.4	920.9	919.8
35°	887.0	890.3	891.4	896.3	897.9	900.7	900.7	903.4	900.7	872.8	689.2
37.5°	866.2	869.5	871.7	876.1	876.6	878.3	810.5	593.0	382.6	296.2	226.3
40°	841.6	845.5	847.7	849.3	596.8	378.7	260.7	212.0	212.0	213.7	215.3
42.5°	815.4	818.1	570.0	331.7	206.6	206.0	207.7	209.3	211.0	213.1	215.3
45°	641.1	323.5	205.5	200.6	202.2	204.4	206.6	208.8	211.5	213.7	214.8
47.5°	210.4	197.3	200.0	197.8	200.6	203.3	205.5	207.7	208.2	208.8	208.2
50°	194.6	194.6	196.2	196.2	198.4	199.5	199.5	199.5	197.3	196.7	195.1
52.5°	188.0	192.4	190.2	191.3	190.2	188.5	186.9	185.3	182.0	180.9	178.7
55°	184.7	186.4	180.9	179.3	177.1	172.7	170.5	168.3	165.6	164.5	161.8
57.5°	177.1	173.2	167.2	164.5	160.7	156.3	154.1	152.5	149.7	148.7	147.0
60°	162.9	155.2	151.4	148.1	143.7	139.9	138.3	137.2	135.0	134.4	132.8
62.5°	145.4	138.8	135.5	131.2	127.9	125.7	124.1	123.5	121.3	121.3	120.2
65°	126.2	123.0	120.2	115.9	114.2	112.0	111.5	110.9	109.9	109.3	108.2
67.5°	110.9	108.8	104.9	102.7	101.7	100.0	98.9	97.8	95.6	94.5	92.9
70°	97.3	95.6	91.8	90.2	88.0	85.3	83.6	82.5	80.9	79.8	78.2
72.5°	84.2	79.2	76.5	74.9	73.2	70.5	70.0	68.9	67.2	66.7	65.0
75°	67.8	63.9	62.3	61.2	59.6	57.9	57.9	57.9	56.3	55.7	55.2
77.5°	54.1	51.9	50.8	49.7	49.2	48.1	46.5	45.9	44.3	44.3	43.7
80°	41.5	40.4	39.3	38.8	38.3	37.2	36.1	35.5	33.9	33.9	33.3
82.5°	30.6	30.1	29.5	29.0	28.4	27.9	26.2	25.7	24.6	24.6	24.0
85°	21.9	21.3	20.2	19.7	19.7	19.1	17.5	16.9	15.8	15.8	15.8
87.5°	13.7	13.1	12.6	12.0	11.5	10.9	9.8	9.3	9.3	8.2	7.7
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

TEST NUMBER: P1213037

CATALOG NUMBER: 4SNLED-LD5-28SL-RW-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	247.5°	250°	252.5°	255°	257.5°	260°	262.5°	265°	267.5°	270°	272.5°
0°	1192.5	1192.5	1192.5	1192.5	1192.5	1192.5	1192.5	1192.5	1192.5	1192.5	1192.5
2.5°	1223.7	1232.9	1231.9	1238.4	1240.1	1243.3	1244.4	1245.0	1236.8	1243.3	1243.9
5°	1295.8	1297.4	1298.5	1301.3	1304.0	1304.5	1301.8	1298.5	1299.6	1297.4	1292.0
7.5°	1237.9	1229.7	1228.0	1225.8	1224.8	1223.7	1218.7	1223.1	1218.2	1216.0	1208.4
10°	1166.8	1159.2	1158.6	1158.6	1160.3	1159.7	1158.6	1156.4	1160.8	1158.1	1156.4
12.5°	1129.7	1126.9	1128.6	1127.5	1131.8	1132.9	1131.8	1131.8	1130.7	1128.6	1129.7
15°	1107.2	1105.1	1106.7	1105.1	1108.3	1108.9	1106.2	1107.8	1105.1	1102.3	1101.2
17.5°	1077.7	1072.8	1069.0	1063.5	1064.1	1063.0	1059.7	1059.7	1057.0	1049.9	1050.4
20°	1020.9	1016.0	1013.8	1013.8	1016.5	1017.6	1017.1	1018.2	1015.4	1014.3	1010.0
22.5°	985.4	984.8	985.9	988.7	993.0	999.0	999.6	999.6	999.6	999.0	993.6
25°	972.8	972.8	973.9	977.7	981.0	985.4	986.5	987.6	986.5	986.5	981.5
27.5°	958.6	957.5	959.7	963.5	967.3	970.6	973.4	973.9	972.3	972.3	973.9
30°	941.1	940.6	943.3	947.1	950.4	953.7	956.4	958.6	956.4	956.4	954.8
32.5°	923.1	923.1	924.2	901.2	835.6	752.6	754.2	706.1	672.8	630.7	686.4
35°	576.0	419.2	360.2	305.0	266.2	241.0	240.5	232.3	228.4	225.7	225.2
37.5°	217.5	218.6	220.8	221.9	223.5	224.6	225.2	225.2	225.2	225.2	224.6
40°	217.0	219.2	220.8	222.4	224.1	225.2	225.2	225.7	226.3	226.3	226.3
42.5°	217.5	219.7	221.9	223.5	224.6	225.2	225.7	226.3	226.3	226.3	226.3
45°	217.0	218.1	218.1	218.6	218.6	218.6	219.2	219.2	218.6	218.1	219.2
47.5°	208.8	208.8	207.1	206.6	206.0	204.9	205.5	204.9	204.4	203.9	204.9
50°	194.6	192.4	191.3	190.2	189.6	188.5	189.1	188.5	188.0	186.9	188.5
52.5°	177.6	177.1	174.9	173.8	173.2	173.8	172.7	172.2	171.6	171.1	171.6
55°	161.2	159.0	158.5	157.4	156.9	157.4	156.9	156.3	155.8	155.2	155.8
57.5°	146.5	144.8	144.3	143.2	143.2	143.2	143.2	142.6	142.1	141.5	142.1
60°	132.3	131.2	130.6	130.6	130.1	130.1	130.1	129.5	129.0	129.0	129.5
62.5°	120.2	120.2	118.6	118.0	118.0	118.6	118.0	117.5	117.0	116.4	117.5
65°	107.7	105.5	104.9	103.8	102.7	103.3	102.7	102.2	101.7	101.1	102.2
67.5°	92.4	91.8	89.6	88.5	88.0	88.5	88.0	87.4	86.9	86.4	87.4
70°	77.6	77.6	75.4	74.9	74.3	74.3	73.8	73.8	73.2	72.7	73.8
72.5°	64.5	64.5	63.9	62.8	62.3	61.8	61.2	60.7	60.7	61.2	61.2
75°	53.6	52.5	50.3	50.8	50.3	49.7	49.7	49.2	48.6	49.7	49.2
77.5°	42.1	41.5	39.9	40.4	39.9	39.3	39.3	38.8	38.3	38.8	38.8
80°	31.7	31.7	31.2	30.6	30.6	30.1	29.5	29.5	29.0	29.5	29.5
82.5°	23.0	23.0	22.4	21.9	21.3	21.3	20.8	20.8	20.8	20.8	20.8
85°	14.8	14.2	14.2	13.1	13.1	13.1	12.6	12.6	12.6	12.6	12.6
87.5°	7.1	7.1	6.6	6.6	6.0	5.5	5.5	4.9	4.9	5.5	5.5
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

TEST NUMBER: P1213037

CATALOG NUMBER: 4SNLED-LD5-28SL-RW-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	275°	277.5°	280°	282.5°	285°	287.5°	290°	292.5°	295°	297.5°	300°
0°	1192.5	1192.5	1192.5	1192.5	1192.5	1192.5	1192.5	1192.5	1192.5	1192.5	1192.5
2.5°	1234.0	1241.1	1235.1	1237.9	1238.4	1247.7	1247.2	1249.3	1245.5	1241.1	1235.1
5°	1296.9	1293.6	1289.2	1299.6	1294.2	1300.7	1302.9	1307.3	1307.3	1306.7	1301.8
7.5°	1216.6	1209.4	1214.9	1218.7	1220.4	1216.0	1224.8	1234.6	1242.8	1247.7	1248.3
10°	1153.7	1155.9	1155.3	1157.0	1160.8	1160.3	1165.7	1171.2	1173.4	1176.7	1177.7
12.5°	1124.2	1123.6	1124.7	1128.6	1130.7	1130.2	1135.7	1138.9	1140.0	1140.6	1140.0
15°	1100.7	1096.9	1099.6	1100.1	1101.8	1101.8	1108.3	1113.3	1115.4	1116.5	1115.4
17.5°	1056.4	1047.1	1055.9	1055.9	1061.9	1060.8	1071.2	1079.4	1083.7	1087.0	1087.0
20°	1012.7	1008.3	1011.6	1010.5	1014.9	1014.3	1020.9	1026.4	1030.2	1032.9	1036.2
22.5°	995.2	996.3	991.4	991.9	991.9	991.4	994.7	997.4	998.5	1000.1	999.0
25°	983.7	984.8	983.2	980.5	979.4	980.5	982.1	985.4	985.9	984.8	981.0
27.5°	972.3	969.0	971.7	966.8	965.7	967.9	970.1	970.6	971.2	971.2	967.9
30°	954.8	952.0	954.8	952.6	950.4	952.6	954.2	954.2	955.3	955.9	952.0
32.5°	667.3	672.8	761.3	814.9	890.3	928.5	935.6	935.6	936.7	936.7	933.5
35°	227.4	227.9	246.5	267.2	311.5	366.2	437.8	474.9	600.6	750.9	896.3
37.5°	224.6	224.1	223.5	223.0	222.4	221.9	220.8	220.2	223.5	265.1	359.6
40°	225.7	225.2	224.1	223.5	223.0	221.9	221.3	220.2	219.2	218.1	217.0
42.5°	225.7	225.2	224.6	224.1	223.5	223.0	221.9	220.8	219.7	218.1	216.4
45°	218.1	218.1	218.6	218.6	219.2	219.2	219.2	218.6	218.6	218.1	215.9
47.5°	203.9	203.9	205.5	205.5	206.6	207.7	207.7	208.8	210.4	211.5	212.0
50°	187.5	187.5	189.1	189.6	190.7	192.4	194.0	194.6	196.2	198.4	200.6
52.5°	171.1	171.1	172.7	172.7	173.8	175.4	177.1	177.6	179.8	182.0	184.7
55°	155.8	155.8	156.9	157.4	157.9	159.0	160.7	160.7	162.9	164.5	167.2
57.5°	142.1	143.2	143.2	143.2	143.7	144.8	145.9	145.9	147.6	149.2	151.4
60°	129.0	130.1	130.1	130.1	130.6	131.2	132.3	132.3	133.4	134.4	136.6
62.5°	117.0	118.0	118.0	118.6	118.6	119.1	120.2	119.7	120.8	121.3	123.0
65°	101.7	102.7	103.3	103.8	104.4	105.5	107.1	106.6	108.2	109.3	110.9
67.5°	86.9	88.0	88.0	88.5	89.1	90.2	91.3	91.3	92.9	94.0	96.2
70°	73.2	74.3	74.3	74.9	75.4	76.5	77.6	77.1	78.7	79.8	81.4
72.5°	60.7	61.8	61.8	62.3	62.3	63.4	64.5	65.6	65.6	66.7	67.8
75°	49.2	49.7	50.3	50.3	50.8	51.4	52.5	53.6	54.1	54.7	55.7
77.5°	38.8	39.3	39.9	39.9	40.4	41.0	41.5	43.7	44.8	45.4	45.4
80°	29.5	30.1	30.1	30.1	30.6	31.2	32.2	32.2	34.4	34.4	35.0
82.5°	20.8	21.3	21.3	21.3	21.9	23.0	23.5	24.0	25.1	25.7	25.7
85°	12.6	13.1	13.1	13.1	13.7	14.2	15.3	15.8	16.4	16.4	16.9
87.5°	4.9	5.5	6.0	6.0	6.6	7.1	7.7	8.2	8.7	8.7	9.3
90°	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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CATALOG NUMBER: 4SNLED-LD5-28SL-RW-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	302.5°	305°	307.5°	310°	312.5°	315°	317.5°	320°	322.5°	325°	327.5°
0°	1192.5	1192.5	1192.5	1192.5	1192.5	1192.5	1192.5	1192.5	1192.5	1192.5	1192.5
2.5°	1228.6	1232.4	1228.6	1230.8	1233.5	1228.6	1217.1	1212.7	1211.1	1204.5	1200.2
5°	1296.9	1296.9	1295.3	1299.6	1299.1	1291.4	1279.4	1273.9	1268.5	1261.4	1255.9
7.5°	1248.3	1252.6	1255.4	1272.3	1283.2	1284.3	1292.0	1293.6	1295.8	1293.6	1290.3
10°	1178.3	1176.7	1184.3	1200.2	1209.4	1214.4	1229.1	1236.2	1242.2	1254.3	1266.8
12.5°	1138.9	1141.1	1144.4	1155.9	1164.6	1162.4	1168.5	1173.4	1180.5	1192.5	1210.5
15°	1112.7	1114.9	1118.2	1126.9	1132.4	1129.7	1132.9	1136.2	1141.1	1147.1	1158.1
17.5°	1084.3	1088.1	1091.9	1101.2	1106.2	1105.6	1108.3	1109.4	1111.1	1114.9	1122.6
20°	1040.0	1052.1	1059.7	1072.3	1079.4	1078.3	1083.2	1084.8	1087.0	1090.9	1094.1
22.5°	999.6	1002.9	1006.7	1020.4	1032.4	1047.1	1050.4	1054.8	1060.2	1064.1	1067.4
25°	976.6	974.4	976.1	985.4	991.9	993.0	997.9	1012.2	1026.9	1033.5	1041.1
27.5°	963.0	960.8	960.2	964.6	965.7	963.0	961.9	966.2	977.2	988.1	1011.1
30°	948.2	945.5	943.3	947.1	948.8	944.9	937.8	934.0	940.6	943.3	952.6
32.5°	930.7	928.0	926.9	929.1	930.2	926.9	919.2	914.9	913.8	911.6	913.8
35°	911.0	908.3	906.7	907.2	909.4	906.7	900.1	894.7	891.9	885.9	881.5
37.5°	469.5	665.1	863.5	884.3	886.5	885.9	879.4	873.3	870.6	863.5	861.3
40°	214.8	239.9	360.2	470.6	678.8	862.4	856.4	850.4	845.5	843.3	835.1
42.5°	214.2	214.8	215.3	212.6	263.4	448.7	662.4	826.9	823.6	818.1	812.1
45°	214.2	211.5	213.7	210.4	211.5	211.0	262.9	424.1	754.7	788.6	785.9
47.5°	212.0	210.4	212.6	209.9	206.6	208.2	206.0	208.8	325.7	552.5	756.9
50°	202.2	203.3	207.1	206.6	203.9	206.0	202.2	205.5	202.8	222.4	428.5
52.5°	187.5	189.6	193.5	196.7	197.8	200.6	199.5	200.6	198.4	198.9	199.5
55°	170.0	172.7	176.0	180.9	183.1	187.5	190.7	192.4	195.1	194.6	190.2
57.5°	153.6	156.3	159.0	164.0	168.9	171.1	177.1	180.4	187.5	185.8	184.7
60°	138.3	140.5	143.2	144.3	150.3	154.1	159.6	162.9	172.2	174.3	177.6
62.5°	124.6	125.7	127.9	129.5	133.4	137.2	139.9	145.4	150.3	157.4	162.3
65°	112.0	113.1	114.8	115.9	116.4	121.9	123.5	129.5	131.2	138.8	143.2
67.5°	97.8	100.0	102.2	103.3	104.4	107.7	108.8	111.5	115.3	118.6	124.1
70°	83.1	84.7	86.9	88.5	90.7	92.9	96.2	97.8	100.6	102.7	107.1
72.5°	69.4	71.0	72.1	73.8	75.4	77.1	79.8	83.6	85.8	89.6	90.7
75°	56.3	57.9	59.0	60.1	61.8	62.8	63.9	67.8	70.0	73.2	76.5
77.5°	46.5	46.5	47.5	50.8	50.3	50.3	51.4	53.6	55.2	57.4	60.7
80°	36.1	36.6	37.2	39.9	40.4	41.0	40.4	42.1	43.7	44.3	46.5
82.5°	26.8	27.3	27.3	29.0	30.6	30.6	30.6	31.2	32.8	33.3	34.4
85°	18.0	18.6	19.1	19.7	20.8	21.3	21.9	21.9	23.0	23.5	24.0
87.5°	9.8	10.9	11.5	12.0	12.6	13.1	13.7	14.2	14.8	15.3	15.8
90°	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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CATALOG NUMBER: 4SNLED-LD5-28SL-RW-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	330°	332.5°	335°	337.5°	340°	342.5°	345°	347.5°	350°	352.5°	355°
0°	1192.5	1192.5	1192.5	1192.5	1192.5	1192.5	1192.5	1192.5	1192.5	1192.5	1192.5
2.5°	1198.5	1195.8	1194.1	1189.8	1188.7	1181.6	1182.7	1181.6	1181.6	1183.2	1188.7
5°	1249.9	1236.8	1233.5	1224.2	1216.6	1203.4	1195.2	1190.9	1184.3	1181.6	1185.4
7.5°	1284.9	1275.0	1266.8	1258.6	1247.7	1232.4	1220.9	1207.8	1196.9	1186.5	1183.8
10°	1278.9	1289.8	1289.8	1284.9	1274.5	1259.2	1245.5	1229.1	1210.0	1193.6	1183.8
12.5°	1228.0	1247.2	1262.5	1273.9	1284.3	1273.9	1260.3	1247.2	1225.8	1201.8	1183.8
15°	1172.3	1192.0	1211.1	1235.1	1260.3	1270.7	1270.1	1254.8	1235.7	1210.5	1185.4
17.5°	1132.9	1146.6	1157.0	1183.2	1213.8	1240.6	1258.6	1259.7	1241.1	1218.7	1185.9
20°	1103.4	1113.3	1122.0	1136.8	1163.5	1196.3	1229.7	1248.3	1245.0	1220.4	1187.6
22.5°	1076.6	1083.7	1090.9	1101.8	1123.1	1144.4	1183.2	1221.5	1237.9	1217.6	1185.9
25°	1049.9	1057.5	1063.0	1070.6	1087.6	1105.1	1132.4	1179.9	1216.6	1215.5	1182.7
27.5°	1018.2	1028.5	1035.1	1045.5	1057.0	1070.1	1088.7	1133.5	1185.9	1204.5	1173.9
30°	979.9	995.2	1005.0	1016.5	1026.4	1037.8	1052.6	1079.9	1145.0	1183.2	1164.6
32.5°	924.7	952.0	973.9	984.8	995.8	1005.6	1018.7	1041.7	1094.7	1154.2	1154.2
35°	885.4	897.9	917.6	949.3	963.0	972.8	984.8	1002.9	1036.7	1119.8	1137.3
37.5°	854.8	859.7	869.5	900.7	926.4	942.2	954.2	965.7	999.0	1072.8	1115.4
40°	831.8	830.2	829.1	843.8	880.4	905.6	919.2	930.7	956.4	1016.5	1086.5
42.5°	805.0	803.4	797.9	801.7	819.8	861.9	882.6	895.2	916.5	957.5	1054.8
45°	777.2	774.4	772.2	768.4	775.0	798.5	841.1	859.7	871.7	908.3	1014.9
47.5°	748.7	744.9	742.2	738.9	735.1	746.0	786.4	819.8	840.5	863.5	966.8
50°	708.3	713.2	709.9	706.1	702.8	700.6	717.6	772.2	797.9	816.5	908.3
52.5°	333.9	649.3	676.6	672.8	668.4	664.6	668.4	709.9	756.4	771.1	837.8
55°	190.2	289.1	601.7	636.1	632.3	626.9	623.6	637.8	707.2	726.9	773.3
57.5°	183.1	183.6	265.6	573.3	594.6	589.7	585.9	589.1	648.2	681.5	717.0
60°	177.1	177.1	177.1	253.6	548.2	549.8	544.9	539.4	565.1	630.7	660.2
62.5°	164.0	167.2	168.9	168.9	250.3	507.7	502.8	501.2	502.3	569.5	603.4
65°	147.0	154.7	157.9	160.1	160.1	262.9	459.6	456.9	453.1	478.8	546.0
67.5°	128.4	136.1	143.2	147.6	148.1	153.0	274.4	411.5	406.1	406.6	484.8
70°	109.3	115.9	123.5	130.1	136.1	138.8	143.2	341.6	359.6	352.0	415.4
72.5°	94.5	97.3	102.7	109.3	116.4	123.0	126.8	136.1	312.1	303.9	315.9
75°	78.7	80.9	84.7	89.1	94.5	102.2	108.8	115.3	165.6	254.7	253.0
77.5°	61.2	65.0	69.4	72.1	74.9	80.3	89.1	95.6	102.2	172.2	202.8
80°	47.0	49.7	51.9	54.7	57.9	61.8	65.0	72.7	80.3	86.4	155.2
82.5°	35.0	36.6	38.3	39.3	40.4	42.6	48.6	51.4	56.3	61.8	73.2
85°	24.6	25.7	26.8	27.3	27.9	28.4	30.6	31.2	36.1	37.2	44.3
87.5°	15.8	16.4	17.5	18.0	18.0	18.6	19.1	19.1	19.1	18.0	21.9
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P1213037

CATALOG NUMBER: 4SNLED-LD5-28SL-RW-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	357.5°	360°
0°	1192.5	1192.5
2.5°	1193.1	1201.8
5°	1191.4	1202.9
7.5°	1187.0	1198.0
10°	1180.5	1193.6
12.5°	1173.4	1185.9
15°	1167.4	1176.7
17.5°	1160.8	1166.3
20°	1152.1	1156.4
22.5°	1143.3	1141.1
25°	1133.5	1128.6
27.5°	1120.9	1111.6
30°	1109.4	1093.0
32.5°	1098.5	1071.7
35°	1083.7	1049.9
37.5°	1068.4	1027.5
40°	1050.4	1001.8
42.5°	1031.3	976.1
45°	1007.2	951.5
47.5°	985.9	922.0
50°	956.4	890.3
52.5°	920.3	860.8
55°	877.7	824.7
57.5°	831.8	787.0
60°	782.6	743.8
62.5°	723.0	699.0
65°	653.1	647.6
67.5°	561.8	590.8
70°	460.7	525.8
72.5°	385.3	456.9
75°	315.9	379.8
77.5°	250.3	297.9
80°	156.3	218.1
82.5°	104.9	143.2
85°	63.4	68.3
87.5°	24.6	25.1
90°	0.0	0.0

(END OF REPORT)