

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: P1213367

Luminaire Tested: 4SNLED-LD5-19SL-RM-UNV-L935-CD1-U

Issue Date: 3/29/2018

Test Information

Test Method: LM-79-2019
Report Number: P1213367
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P33524)
Test Lab: INNOVATIONS CENTER-P3
Issue Date: 3/29/2018
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: METALUX
Catalog Number: 4SNLED-LD5-19SL-RM-UNV-L935-CD1-U
Description: 4FT LINEAR SNLED LED FIXTURE
METALIC FINISH REFLECTOR
Light Source: -
Ballast/Driver: -

Summary

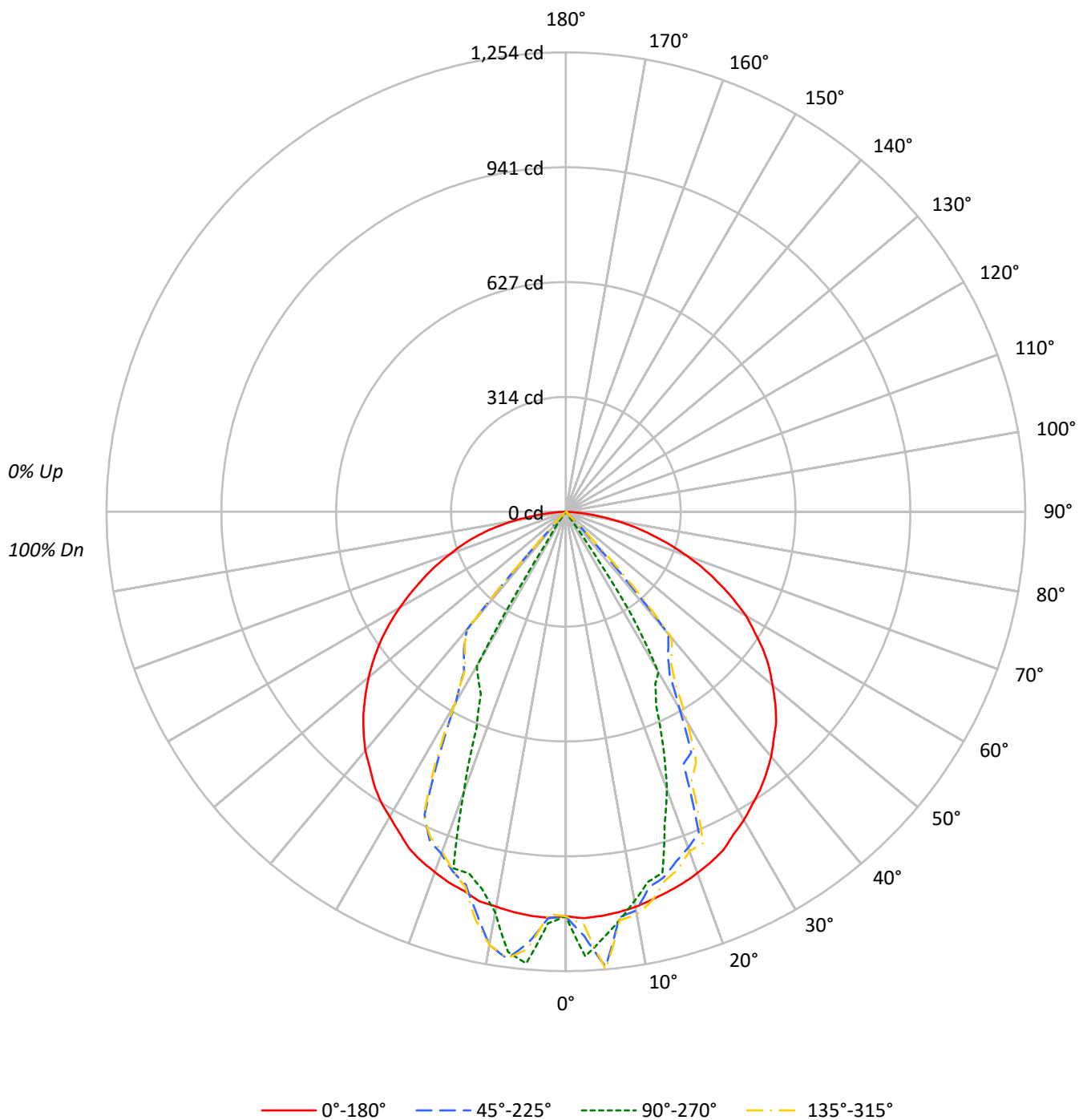
Lumens per Lamp: N/A
Luminaire Lumens: 1570.0 lumens
Efficiency: N/A
Efficacy: 120.8 lumens/watt
Spacing Criteria (0/90/45): 1.3 / 0.81 / 0.97
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.12')
CIE Type: Direct

Input Watts (W): 13
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	0
RCR																				
0	119	119	119	119	116	116	116	116	111	111	111		106	106	106		102	102	102	100
1	112	108	105	103	109	106	103	101	102	100	98		98	96	95		95	93	92	90
2	105	98	93	89	102	97	92	88	93	89	86		90	87	84		87	85	82	81
3	98	90	83	78	95	88	82	78	85	80	76		83	79	75		80	77	74	72
4	91	82	75	70	89	81	74	69	78	73	69		76	72	68		74	70	67	65
5	85	75	68	63	84	74	68	63	72	66	62		71	65	61		69	64	61	59
6	80	69	62	57	79	69	62	57	67	61	56		65	60	56		64	59	55	54
7	75	64	57	52	74	64	57	52	62	56	52		61	55	51		60	55	51	49
8	71	60	53	48	70	59	52	48	58	52	47		57	51	47		56	51	47	45
9	67	56	49	44	66	55	49	44	54	48	44		53	48	44		52	47	44	42
10	63	52	45	41	62	52	45	41	51	45	41		50	44	41		49	44	40	39

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	8922	8922	8922	8922
5°	8959	9177	8956	9718
10°	8938	8304	8932	8544
15°	8913	7751	8891	7771
20°	8924	6105	8898	6180
25°	8949	4418	8905	4169
30°	8908	3875	8815	3726
35°	8935	85	8803	104
40°	8966	18	8751	18
45°	8997	11	8659	8
50°	8928	9	8518	9
55°	8876	6	8331	6
60°	8709	7	8028	7
65°	8254	11	7666	7
70°	7657	12	7289	12
75°	6772	13	6884	13
80°	5503	15	5815	15
85°	3238	18	3307	18

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 2°

Vertical Angle: 45°

Luminance: 9715 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	110.8	7.1
10°-20°	302.2	19.2
20°-30°	384.5	24.5
30°-40°	324.8	20.7
40°-50°	212.3	13.5
50°-60°	133.8	8.5
60°-70°	71.2	4.5
70°-80°	26.0	1.7
80°-90°	4.5	0.3
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°	797.4	50.8
0°-40°	1122.2	71.5
0°-60°	1468.4	93.5
0°-90°	1570.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1570.0	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	1104	1104	1104	1104	1104	
5°	1108	1168	1107	1237	1108	105
15°	1074	1020	1072	1022	1074	304
25°	1018	582	1013	549	1018	468
35°	926	11	912	13	926	579
45°	812	1	781	1	812	624
55°	658	1	618	1	658	586
65°	461	1	428	1	461	456
75°	242	1	246	1	242	257
85°	47	1	48	1	47	60
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°	10°
0°	1104.1	1104.1	1104.1	1104.1	1104.1	1104.1	1104.1	1104.1	1104.1	1104.1	1104.1
2.5°	1110.4	1111.1	1111.4	1112.1	1113.1	1113.4	1114.1	1113.4	1113.4	1113.4	1113.4
5°	1107.5	1108.8	1109.8	1111.1	1113.4	1113.8	1116.4	1116.7	1118.1	1120.7	1122.7
7.5°	1102.5	1103.8	1105.8	1109.1	1112.4	1116.1	1120.7	1125.7	1132.6	1139.3	1147.6
10°	1095.2	1096.9	1099.2	1102.2	1118.4	1120.7	1131.0	1145.2	1149.2	1170.1	1185.7
12.5°	1084.6	1090.2	1096.2	1098.8	1114.4	1138.9	1173.4	1166.4	1158.8	1227.1	1226.1
15°	1074.3	1081.9	1079.0	1100.5	1114.7	1157.5	1142.9	1174.1	1231.1	1217.1	1217.8
17.5°	1063.4	1065.0	1081.6	1099.5	1125.0	1146.9	1164.8	1207.5	1218.8	1219.8	1207.5
20°	1049.5	1057.4	1081.6	1097.8	1140.9	1151.2	1190.0	1211.8	1207.2	1195.9	1175.1
22.5°	1035.2	1059.4	1083.9	1106.8	1136.9	1164.5	1183.7	1193.9	1169.8	1125.3	1101.5
25°	1018.3	1032.6	1064.7	1098.2	1136.0	1151.9	1163.1	1146.6	1115.1	1075.3	1035.2
27.5°	992.1	1015.0	1056.1	1093.9	1128.0	1147.2	1129.0	1089.2	1038.5	1012.4	994.1
30°	971.9	1001.7	1035.5	1072.0	1107.5	1118.7	1072.3	1026.9	992.1	966.0	962.0
32.5°	947.4	989.8	1022.0	1056.8	1086.6	1071.7	1026.6	967.9	939.1	929.2	933.2
35°	925.5	957.7	999.8	1033.9	1055.4	1022.0	950.7	914.3	900.3	906.0	898.7
37.5°	899.4	941.8	980.5	1010.0	1002.7	952.4	892.1	868.9	870.5	865.9	852.0
40°	872.2	912.6	953.0	980.9	955.4	878.5	838.4	833.4	834.4	819.5	799.6
42.5°	840.4	877.1	917.6	942.8	887.8	827.8	800.6	801.3	792.6	771.8	761.2
45°	811.9	845.7	887.8	890.1	822.5	772.4	764.5	755.9	736.6	729.7	721.7
47.5°	775.4	812.9	847.7	835.1	758.5	727.4	721.4	702.5	692.9	687.6	681.0
50°	736.6	774.4	806.2	770.4	698.2	690.9	671.4	656.5	649.8	644.2	638.2
52.5°	699.9	731.0	763.5	701.9	651.8	644.9	622.7	614.0	607.4	601.1	599.8
55°	658.1	685.6	707.8	636.6	607.4	591.2	575.3	569.3	563.0	560.0	565.0
57.5°	610.7	641.9	638.6	572.3	559.4	535.8	529.9	525.9	521.3	523.2	481.8
60°	568.0	591.8	575.6	525.2	503.4	487.5	482.2	479.5	482.2	441.7	388.4
62.5°	515.3	542.1	509.3	470.2	447.0	439.4	434.8	438.4	399.6	355.2	342.3
65°	460.6	489.8	441.4	411.2	396.7	390.0	389.7	358.9	320.8	303.5	303.5
67.5°	407.9	438.1	375.8	350.6	345.0	345.6	326.4	279.7	269.1	257.5	224.0
70°	351.9	378.4	310.5	295.3	291.9	289.6	242.9	230.3	217.7	186.9	184.2
72.5°	296.2	309.2	249.5	245.9	245.2	203.8	194.5	173.0	158.4	154.8	153.1
75°	242.2	238.3	197.2	200.5	169.0	154.4	139.5	126.9	124.9	123.6	30.8
77.5°	191.2	171.3	155.4	135.2	121.0	102.7	99.7	97.8	64.3	23.2	18.9
80°	139.2	111.0	103.4	87.8	74.9	71.9	73.6	22.5	17.9	14.9	12.9
82.5°	88.5	70.9	58.0	50.7	49.4	21.5	15.9	12.9	11.3	9.6	8.0
85°	47.4	31.5	29.2	24.5	14.6	9.9	8.3	6.3	5.3	4.3	4.0
87.5°	14.9	12.6	10.3	8.3	5.0	3.3	2.7	2.3	2.0	1.7	1.7
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):

	11°	12°	13°	14°	15°	16°	17°	18°	19°	20°	25°
0°	1104.1	1104.1	1104.1	1104.1	1104.1	1104.1	1104.1	1104.1	1104.1	1104.1	1104.1
2.5°	1112.8	1113.4	1113.1	1114.1	1114.1	1115.4	1116.4	1117.4	1119.4	1120.4	1128.0
5°	1127.0	1128.7	1133.6	1138.3	1143.9	1145.6	1155.2	1157.5	1168.8	1170.1	1207.2
7.5°	1158.8	1165.1	1177.0	1189.0	1200.9	1208.5	1221.8	1230.1	1239.0	1247.0	1276.5
10°	1197.3	1207.9	1219.5	1231.4	1238.3	1252.9	1260.9	1262.2	1259.9	1247.0	1199.2
12.5°	1235.0	1245.6	1240.7	1243.0	1251.3	1225.4	1229.1	1210.5	1223.4	1159.5	1112.1
15°	1229.7	1229.1	1216.8	1177.0	1183.7	1134.3	1114.4	1099.2	1111.4	1104.8	1097.5
17.5°	1213.8	1183.7	1162.5	1114.7	1094.5	1080.6	1080.9	1081.3	1075.3	1081.6	1063.1
20°	1146.6	1112.8	1081.3	1064.4	1058.4	1048.5	1053.4	1048.5	1048.8	1050.8	1022.3
22.5°	1057.1	1046.8	1028.6	1033.9	1031.9	1040.8	1034.2	1023.9	1027.3	1012.4	990.8
25°	1021.0	1009.0	1008.4	1010.4	1007.4	1003.4	997.4	981.9	980.9	976.2	966.3
27.5°	984.5	985.2	987.2	981.2	970.6	962.6	953.7	946.1	949.1	943.8	930.2
30°	959.3	959.0	947.1	941.8	922.2	922.5	920.2	915.6	912.6	912.9	904.3
32.5°	923.5	913.3	899.7	893.1	891.4	885.4	880.8	881.8	884.1	875.8	884.8
35°	886.8	865.6	863.6	857.9	852.6	848.7	850.3	843.7	843.3	842.4	769.5
37.5°	837.4	827.1	826.1	820.2	816.5	815.5	809.2	810.2	813.2	818.5	656.1
40°	796.6	787.3	785.0	784.7	776.7	776.1	777.7	784.0	788.3	755.2	625.3
42.5°	752.9	753.5	746.3	741.6	742.6	745.6	753.5	731.7	633.9	604.1	571.6
45°	715.4	712.1	708.1	706.8	715.4	709.5	622.0	573.9	562.3	561.0	469.9
47.5°	676.3	675.3	673.7	674.7	625.6	557.7	537.8	531.5	533.5	532.2	403.6
50°	636.9	638.2	638.2	557.4	511.6	500.4	502.0	507.7	472.5	441.1	376.1
52.5°	602.8	592.5	507.7	478.5	468.2	473.2	461.3	417.2	385.4	366.8	347.9
55°	539.5	463.9	445.0	440.4	444.0	400.0	372.8	344.3	336.0	334.0	323.1
57.5°	424.5	409.2	410.9	392.3	350.3	325.4	314.5	310.5	306.9	304.2	26.5
60°	375.4	379.8	347.6	307.8	290.9	287.6	285.0	281.3	280.7	276.0	16.9
62.5°	343.6	302.2	274.4	264.4	260.5	259.5	254.5	252.8	214.7	29.5	12.6
65°	259.1	242.2	236.9	234.6	230.3	230.3	191.2	30.2	24.5	21.2	11.3
67.5°	211.4	210.1	207.4	204.5	139.2	29.2	25.5	22.2	19.2	16.9	9.9
70°	178.9	178.3	162.4	29.8	24.9	21.9	19.2	17.2	15.9	14.2	8.9
72.5°	146.8	29.8	25.2	21.9	18.9	17.2	15.6	13.9	12.6	11.6	7.3
75°	22.9	20.2	17.9	16.2	14.9	13.3	11.9	10.9	10.6	9.3	5.0
77.5°	16.6	14.2	12.9	11.6	10.3	9.3	8.0	7.0	6.3	5.3	3.6
80°	11.6	10.3	9.3	7.6	6.6	5.6	5.0	4.3	4.0	3.3	1.7
82.5°	6.6	5.6	5.0	4.0	3.6	3.0	2.7	2.3	2.3	1.7	1.7
85°	3.0	3.0	2.3	2.0	1.7	1.7	1.7	1.3	1.3	1.0	1.0
87.5°	1.3	1.3	1.3	1.3	1.3	1.0	1.0	1.0	1.0	1.0	0.7
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):

	30°	35°	40°	45°	50°	55°	60°	65°	70°	75°	80°
0°	1104.1	1104.1	1104.1	1104.1	1104.1	1104.1	1104.1	1104.1	1104.1	1104.1	1104.1
2.5°	1138.6	1142.9	1151.2	1159.8	1150.2	1184.7	1182.0	1193.6	1199.9	1202.9	1209.9
5°	1240.0	1259.2	1265.5	1246.6	1235.7	1224.4	1198.9	1179.7	1182.0	1175.7	1152.9
7.5°	1238.0	1196.9	1141.6	1116.4	1114.4	1111.4	1119.4	1124.0	1124.7	1124.4	1123.7
10°	1133.3	1112.1	1108.4	1105.1	1106.5	1094.2	1088.6	1072.7	1081.3	1076.6	1078.3
12.5°	1101.5	1096.5	1077.0	1049.8	1066.0	1053.8	1046.8	1051.5	1046.2	1041.2	1039.5
15°	1082.6	1050.5	1039.5	1032.9	1028.3	1025.6	1027.9	1022.6	1021.0	1020.0	1022.3
17.5°	1043.5	1030.6	1018.6	1001.1	1001.4	1000.4	1007.0	1017.0	1017.7	966.6	920.6
20°	1012.7	1002.1	986.8	975.9	990.8	964.3	861.9	813.2	805.6	805.6	806.9
22.5°	988.2	964.6	965.6	948.4	808.9	780.4	781.1	784.0	770.4	724.1	719.1
25°	954.7	951.0	878.5	759.2	760.2	738.0	703.8	655.8	603.8	603.8	595.1
27.5°	929.5	852.3	746.3	741.3	666.7	619.7	590.5	546.4	540.5	534.8	535.5
30°	908.0	721.1	723.7	619.7	564.7	525.6	523.2	516.0	512.3	511.3	507.7
32.5°	717.8	702.2	605.8	527.5	506.0	499.7	496.7	488.4	488.1	481.8	438.1
35°	673.0	616.4	507.0	485.8	479.5	473.5	468.6	314.5	37.1	14.9	12.9
37.5°	622.0	515.0	468.9	459.3	453.3	335.0	33.5	11.6	8.3	6.0	5.3
40°	527.2	459.9	445.4	434.8	179.3	11.6	7.3	5.6	3.3	3.0	2.7
42.5°	444.7	433.4	417.9	127.2	13.3	5.6	3.6	2.7	2.3	2.3	2.0
45°	416.2	406.3	168.3	12.6	8.3	2.7	2.3	2.3	2.0	1.3	1.3
47.5°	389.7	343.0	15.2	8.0	5.3	2.3	2.0	1.3	1.3	1.3	1.0
50°	361.5	18.9	10.6	6.0	3.3	1.3	1.3	1.3	1.3	1.0	1.0
52.5°	67.6	13.3	8.6	5.3	1.7	1.3	1.3	1.3	1.0	1.0	1.0
55°	15.9	10.6	8.0	4.6	1.3	1.3	1.3	1.0	1.0	1.0	0.7
57.5°	11.9	8.0	6.3	4.3	1.3	1.0	1.0	1.0	1.0	1.0	0.7
60°	9.9	5.6	5.0	4.0	1.0	1.0	1.0	1.0	1.0	1.0	0.7
62.5°	7.0	4.6	3.6	3.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
65°	5.6	3.6	3.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
67.5°	5.0	3.0	2.0	0.7	1.0	1.0	1.0	1.0	1.0	1.0	1.0
70°	4.0	1.0	1.0	0.7	1.0	1.0	1.0	1.0	1.0	1.0	1.0
72.5°	3.3	1.0	0.7	0.7	1.0	1.0	1.0	1.0	1.0	1.0	1.0
75°	3.3	1.7	0.7	0.7	1.0	1.0	1.3	1.3	1.0	1.0	1.0
77.5°	2.3	1.7	0.7	0.7	1.0	1.0	1.3	1.3	1.0	1.0	1.0
80°	1.3	1.7	0.7	1.0	1.0	2.0	2.3	1.3	1.0	1.0	1.0
82.5°	1.3	1.7	2.0	2.0	1.0	1.7	2.0	1.7	1.3	1.0	1.0
85°	1.3	1.0	1.3	1.7	1.0	1.7	1.7	1.3	1.3	1.0	1.0
87.5°	0.7	1.0	1.0	1.3	1.3	1.3	1.7	1.3	1.3	1.3	1.0
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: P1213367

CATALOG NUMBER: 4SNLED-LD5-19SL-RM-UNV-L935-CD1-U

CANDELA DISTRIBUTION (continued):

	85°	90°	95°	100°	105°	110°	115°	120°	125°	130°	135°
0°	1104.1	1104.1	1104.1	1104.1	1104.1	1104.1	1104.1	1104.1	1104.1	1104.1	1104.1
2.5°	1213.2	1214.5	1193.6	1186.3	1192.6	1191.3	1185.7	1164.8	1162.5	1148.5	1128.3
5°	1159.5	1168.4	1157.5	1176.4	1167.4	1176.4	1203.6	1216.1	1236.7	1249.3	1253.9
7.5°	1122.0	1124.0	1124.0	1125.7	1127.3	1127.7	1125.7	1124.4	1118.7	1111.8	1124.4
10°	1076.6	1079.0	1082.9	1082.3	1081.9	1088.9	1090.6	1104.8	1104.1	1106.8	1116.4
12.5°	1053.1	1035.2	1051.5	1047.1	1053.1	1043.8	1061.1	1058.1	1059.1	1067.0	1087.6
15°	1014.0	1019.6	1023.6	1023.6	1025.9	1023.9	1022.0	1035.5	1043.8	1044.2	1042.8
17.5°	938.8	896.0	939.8	928.5	1018.3	1020.6	1013.0	1006.7	1006.7	1011.7	1022.3
20°	805.9	806.9	807.2	811.5	816.8	816.5	816.8	947.4	1009.4	995.1	985.5
22.5°	706.5	694.2	717.1	715.4	743.9	775.4	805.6	802.6	804.6	896.7	979.5
25°	566.3	582.2	569.3	574.9	607.1	644.5	667.7	728.4	794.3	789.7	811.2
27.5°	533.2	528.9	534.8	534.8	539.1	544.1	557.0	591.2	649.8	711.5	769.8
30°	501.7	505.3	506.0	512.0	515.3	518.6	520.6	533.5	546.8	589.5	661.4
32.5°	376.8	330.4	434.8	462.9	486.8	492.4	496.4	501.7	511.3	517.6	553.7
35°	10.9	10.9	11.6	13.3	16.9	114.0	434.1	478.5	484.8	492.8	499.4
37.5°	5.3	4.0	4.6	5.0	6.0	8.3	11.9	37.1	413.2	467.2	474.5
40°	2.3	2.3	2.3	2.3	2.7	3.3	5.0	8.3	12.6	332.4	448.4
42.5°	2.0	2.0	2.0	2.0	2.0	2.0	2.3	3.0	6.0	14.2	235.3
45°	1.3	1.3	1.0	1.3	1.3	1.7	2.0	2.0	2.7	8.9	16.2
47.5°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.7	2.0	6.0	8.6
50°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	4.6	6.0
52.5°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	2.0	5.3
55°	0.7	0.7	0.7	0.7	0.7	0.7	0.7	1.0	1.0	1.3	4.6
57.5°	0.7	0.7	0.7	0.7	0.7	1.0	0.7	0.7	1.0	1.0	4.3
60°	0.7	0.7	0.7	0.7	0.7	1.0	1.0	1.0	1.0	1.0	4.0
62.5°	1.0	1.0	0.7	1.0	0.7	0.7	1.0	1.0	1.0	1.0	2.7
65°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	0.7	1.0
67.5°	1.0	1.0	1.0	1.0	0.7	1.0	0.7	1.0	1.0	0.7	0.7
70°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	0.7	0.7	0.7	0.7
72.5°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	0.7	0.7	0.7	0.7
75°	1.0	1.0	1.0	1.0	1.0	1.0	1.3	1.3	0.7	0.7	0.7
77.5°	1.0	1.0	1.0	1.0	1.0	1.0	1.7	2.0	1.7	1.7	0.7
80°	1.0	1.0	1.0	1.0	1.0	1.0	1.7	1.7	1.7	1.7	2.3
82.5°	1.0	1.0	1.0	1.0	1.0	1.0	1.3	1.3	1.3	1.3	1.7
85°	1.0	1.0	1.0	1.0	1.0	1.0	1.3	1.3	1.3	1.0	1.3
87.5°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.3	1.0	1.0	1.0
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: P1213367

CATALOG NUMBER: 4SNLED-LD5-19SL-RM-UNV-L935-CD1-U

CANDELA DISTRIBUTION (continued):

	140°	145°	150°	155°	160°	161°	162°	163°	164°	165°	166°
0°	1104.1	1104.1	1104.1	1104.1	1104.1	1104.1	1104.1	1104.1	1104.1	1104.1	1104.1
2.5°	1130.0	1118.7	1115.1	1107.5	1106.8	1107.5	1105.8	1103.5	1104.8	1102.5	1100.5
5°	1256.6	1226.4	1206.9	1180.7	1144.6	1136.6	1134.6	1123.4	1119.4	1118.1	1112.8
7.5°	1154.2	1209.2	1242.3	1253.6	1211.2	1201.2	1189.6	1180.4	1171.4	1154.5	1144.2
10°	1108.8	1111.4	1143.2	1180.4	1240.7	1249.0	1255.2	1235.0	1229.4	1186.3	1177.0
12.5°	1098.2	1098.5	1102.2	1124.7	1172.1	1177.4	1199.6	1211.5	1226.1	1234.4	1227.7
15°	1049.8	1076.6	1096.5	1098.5	1102.8	1112.1	1118.7	1160.1	1177.7	1224.8	1222.1
17.5°	1027.3	1035.9	1064.7	1088.2	1084.3	1080.9	1086.2	1091.9	1108.8	1155.8	1155.2
20°	989.8	1017.3	1032.9	1057.4	1079.6	1080.6	1074.6	1071.3	1064.7	1072.3	1079.3
22.5°	973.9	978.2	1007.4	1024.6	1049.8	1058.7	1060.1	1060.4	1056.8	1052.8	1050.8
25°	972.3	958.7	973.6	995.1	1013.7	1023.3	1034.2	1037.9	1036.5	1036.5	1034.6
27.5°	795.6	954.4	946.4	960.7	983.2	989.8	995.5	1006.7	1013.7	1018.6	1021.0
30°	757.9	786.4	925.2	927.2	950.1	949.4	955.7	965.0	973.9	985.5	988.5
32.5°	670.4	740.3	847.0	893.7	917.6	919.9	923.2	925.9	934.1	947.1	958.3
35°	537.2	674.3	725.7	877.8	882.1	886.8	888.7	895.0	897.7	903.0	912.9
37.5°	486.1	557.4	696.2	759.2	841.4	845.3	855.9	858.6	862.9	867.2	874.8
40°	456.6	476.2	579.6	678.0	808.6	811.2	814.9	821.5	821.8	826.8	833.7
42.5°	433.1	445.7	475.9	647.5	785.4	785.0	776.4	780.7	782.7	788.0	797.6
45°	346.0	418.2	437.4	528.9	625.3	670.4	756.9	742.6	742.3	744.3	754.5
47.5°	17.6	393.3	406.9	436.4	590.5	592.2	603.4	698.2	712.8	708.1	709.1
50°	11.9	27.2	379.1	392.7	509.0	550.1	558.4	562.7	617.4	678.3	668.4
52.5°	9.3	15.6	232.3	364.5	413.6	443.7	497.1	527.5	530.9	555.4	638.6
55°	8.3	11.9	25.2	336.3	351.6	358.2	389.4	442.7	485.8	498.7	499.7
57.5°	7.3	10.9	17.2	152.1	319.8	321.1	326.4	345.0	383.7	419.2	459.3
60°	6.6	9.6	13.6	26.2	290.6	293.9	294.9	299.9	304.5	328.7	374.8
62.5°	4.0	7.6	11.9	18.9	230.0	264.1	263.8	267.1	271.4	274.0	283.3
65°	3.3	6.0	10.3	15.9	28.2	35.1	213.4	237.3	239.9	243.6	245.2
67.5°	3.0	5.3	7.6	12.6	21.2	24.2	27.8	34.5	188.2	212.1	215.4
70°	2.7	3.6	6.3	10.6	17.2	18.6	20.9	23.9	28.2	34.8	170.3
72.5°	1.7	2.7	4.3	7.6	13.3	14.9	16.2	18.2	20.2	24.2	27.8
75°	0.7	2.0	3.6	5.6	10.3	11.3	12.3	13.6	15.2	17.9	19.9
77.5°	0.7	1.7	3.0	4.0	6.6	7.6	8.9	9.9	11.3	12.6	14.6
80°	2.3	1.3	2.0	3.0	4.6	5.0	5.6	6.3	7.3	8.3	9.6
82.5°	1.7	2.0	2.3	2.0	2.3	3.0	3.3	4.0	4.3	5.0	5.3
85°	1.3	1.3	1.7	1.7	1.7	1.7	1.7	1.7	2.0	2.3	3.0
87.5°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.3	1.3
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: P1213367

CATALOG NUMBER: 4SNLED-LD5-19SL-RM-UNV-L935-CD1-U

CANDELA DISTRIBUTION (continued):

	167°	168°	169°	170°	171°	172°	173°	174°	175°	176°	177°
0°	1104.1	1104.1	1104.1	1104.1	1104.1	1104.1	1104.1	1104.1	1104.1	1104.1	1104.1
2.5°	1100.5	1099.8	1097.8	1097.8	1097.5	1098.8	1099.8	1100.8	1100.5	1102.5	1100.5
5°	1108.8	1107.1	1104.1	1101.5	1100.5	1101.2	1100.2	1101.2	1099.8	1101.5	1098.5
7.5°	1131.6	1126.0	1114.4	1109.8	1103.8	1103.5	1100.5	1099.8	1097.8	1097.8	1094.2
10°	1172.1	1144.9	1141.6	1127.7	1122.7	1098.5	1103.8	1094.9	1093.9	1089.6	1087.9
12.5°	1205.2	1184.0	1177.7	1165.4	1151.5	1102.5	1113.4	1094.2	1093.2	1084.6	1075.6
15°	1205.9	1218.1	1200.9	1167.1	1164.1	1130.3	1108.1	1101.5	1092.9	1067.0	1071.3
17.5°	1167.1	1195.3	1203.6	1196.3	1175.1	1152.2	1121.0	1107.8	1081.9	1070.3	1062.4
20°	1104.1	1132.6	1168.1	1170.4	1183.7	1167.4	1126.7	1105.1	1074.0	1053.8	1047.1
22.5°	1054.1	1075.0	1115.7	1134.6	1150.9	1156.5	1130.7	1098.8	1060.1	1040.5	1036.5
25°	1027.6	1032.2	1044.5	1066.7	1102.5	1128.3	1132.0	1098.2	1078.0	1035.2	1012.7
27.5°	1018.0	1014.0	1009.0	1020.3	1047.1	1078.6	1099.5	1105.1	1054.8	1014.0	991.5
30°	993.5	995.8	988.2	984.2	1001.7	1034.2	1071.3	1080.6	1041.8	999.8	973.9
32.5°	963.3	967.3	968.6	961.7	958.0	980.5	1020.6	1042.8	1040.8	979.5	950.7
35°	925.5	936.8	939.8	940.1	934.1	930.5	953.7	999.8	1017.3	970.3	928.5
37.5°	885.8	889.1	905.3	909.6	909.6	898.7	915.9	952.7	977.2	949.4	901.3
40°	836.1	846.7	861.9	869.5	877.1	878.1	868.5	894.4	934.8	927.8	875.8
42.5°	799.9	806.9	816.2	826.4	842.0	846.0	836.1	840.7	882.8	901.0	842.7
45°	757.9	767.1	769.8	781.1	797.3	808.9	808.6	798.9	832.7	855.3	818.5
47.5°	714.8	723.7	728.4	734.0	745.9	760.8	769.1	764.8	771.4	815.5	786.4
50°	670.4	675.3	684.6	690.9	698.9	707.5	727.4	731.3	722.1	757.2	750.9
52.5°	628.3	629.9	636.2	642.5	653.1	659.4	675.3	687.3	686.6	696.9	711.5
55°	595.5	588.2	589.5	594.5	601.4	611.1	620.0	638.6	644.9	646.8	670.0
57.5°	465.3	540.1	546.8	546.4	554.7	559.0	567.3	579.6	602.1	597.1	623.0
60°	422.8	431.1	493.7	501.0	504.0	508.0	517.9	529.2	545.8	556.4	567.6
62.5°	322.4	372.8	391.7	447.0	455.6	458.0	464.6	469.9	487.1	511.3	506.7
65°	249.5	271.1	328.7	351.3	398.3	404.3	413.6	419.2	424.2	452.0	453.3
67.5°	215.7	219.0	234.6	278.0	307.8	353.9	359.5	364.5	372.1	392.0	404.3
70°	184.2	188.2	192.5	196.2	234.9	265.4	308.2	309.8	314.8	328.1	355.9
72.5°	34.8	157.4	160.1	162.4	166.7	186.9	227.7	260.8	262.8	269.1	294.6
75°	23.5	27.5	37.8	129.9	134.2	135.5	142.5	183.9	214.4	215.7	227.0
77.5°	16.9	18.9	22.9	27.2	69.3	104.1	105.7	113.3	144.8	167.7	169.7
80°	11.6	12.9	15.2	17.2	21.2	27.8	76.9	79.2	83.2	114.7	120.6
82.5°	6.6	7.6	8.9	10.9	12.6	15.9	20.5	26.5	54.0	57.7	76.5
85°	3.3	3.6	4.3	5.3	6.3	7.6	10.3	12.6	17.2	31.1	32.1
87.5°	1.7	1.7	1.7	1.7	2.7	3.0	3.6	4.6	6.0	8.9	11.6
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: P1213367

CATALOG NUMBER: 4SNLED-LD5-19SL-RM-UNV-L935-CD1-U

CANDELA DISTRIBUTION (continued):

	178°	179°	180°	181°	182°	183°	184°	185°	186°	187°	188°
0°	1104.1	1104.1	1104.1	1104.1	1104.1	1104.1	1104.1	1104.1	1104.1	1104.1	1104.1
2.5°	1100.8	1105.5	1109.4	1110.4	1110.4	1111.1	1112.1	1112.8	1113.4	1114.1	1113.4
5°	1098.8	1103.8	1107.1	1108.1	1108.1	1110.1	1111.8	1113.8	1114.7	1114.7	1114.1
7.5°	1093.9	1097.5	1101.8	1104.5	1104.8	1108.1	1111.1	1110.8	1112.1	1112.8	1114.4
10°	1087.2	1087.2	1094.5	1096.5	1098.2	1101.8	1102.8	1104.8	1109.4	1110.1	1114.4
12.5°	1083.9	1080.6	1089.2	1090.2	1095.9	1091.2	1097.2	1099.2	1094.5	1100.8	1092.5
15°	1069.0	1073.0	1071.7	1074.6	1084.6	1079.3	1095.5	1090.2	1102.2	1087.9	1113.1
17.5°	1056.8	1056.1	1061.4	1064.0	1066.0	1077.3	1081.6	1087.6	1092.2	1088.2	1098.2
20°	1047.8	1042.5	1046.5	1049.5	1056.4	1065.0	1067.7	1058.7	1074.3	1100.8	1107.1
22.5°	1030.9	1027.3	1031.9	1031.9	1042.5	1041.2	1051.1	1045.5	1060.1	1090.9	1123.0
25°	1008.0	1008.4	1013.3	1019.3	1021.3	1036.2	1041.5	1048.8	1067.0	1103.8	1123.4
27.5°	984.8	982.9	985.8	998.1	1008.4	1019.3	1021.0	1045.8	1070.7	1095.9	1113.1
30°	961.7	959.7	961.7	970.6	982.9	990.1	1008.4	1041.5	1064.7	1081.9	1098.2
32.5°	936.8	934.8	939.4	946.1	967.6	968.6	1004.7	1035.9	1054.1	1066.7	1063.7
35°	910.3	907.6	911.9	922.2	942.1	949.4	987.2	1010.4	1030.9	1036.9	1023.0
37.5°	878.5	873.8	879.1	893.4	914.3	935.5	967.0	993.8	1004.7	988.8	972.3
40°	845.3	842.0	851.3	858.6	883.1	912.6	948.7	967.6	960.7	942.4	924.2
42.5°	815.8	808.9	817.2	831.1	858.9	892.4	921.6	932.2	915.6	888.7	867.5
45°	779.7	771.4	781.4	799.9	829.8	867.9	890.7	887.1	858.9	835.7	806.6
47.5°	741.9	732.0	741.9	764.2	797.6	838.0	854.6	838.0	802.6	773.4	749.9
50°	704.8	693.2	702.8	736.3	769.1	800.3	799.9	767.8	746.6	714.8	694.2
52.5°	668.1	651.5	661.1	697.5	730.4	765.8	739.6	709.8	684.3	656.5	649.8
55°	622.7	604.8	617.7	670.7	695.9	716.8	675.0	648.8	623.6	609.7	601.4
57.5°	579.6	560.0	571.3	633.9	652.5	657.8	619.3	582.2	567.3	562.7	550.7
60°	535.2	513.0	523.6	595.8	608.7	587.2	549.4	520.6	517.6	508.3	499.1
62.5°	492.8	468.2	474.9	548.4	554.4	515.3	480.5	472.9	465.6	456.3	451.3
65°	444.0	418.5	427.8	498.1	492.4	442.1	422.5	420.8	411.2	403.6	410.9
67.5°	399.3	369.2	382.1	443.0	417.5	376.4	368.5	364.5	356.9	361.2	284.7
70°	350.3	317.5	335.0	383.7	346.0	318.8	315.8	309.8	310.2	246.5	207.8
72.5°	295.6	267.1	292.6	318.8	273.7	265.8	261.5	260.8	210.4	171.0	161.4
75°	247.5	218.7	246.2	256.2	218.0	212.7	212.4	175.6	138.2	131.9	128.9
77.5°	193.2	171.0	197.2	182.3	167.3	161.4	144.8	108.7	104.1	99.7	37.4
80°	130.2	131.9	147.1	125.6	119.3	101.7	80.2	76.9	66.3	26.5	20.9
82.5°	79.2	99.4	93.8	78.5	76.9	55.3	50.7	25.8	19.2	15.2	13.3
85°	41.1	50.4	48.4	42.7	31.8	28.5	15.9	12.3	9.9	7.6	6.3
87.5°	13.9	18.6	17.9	14.2	10.9	8.6	5.6	4.6	3.3	2.7	2.3
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: P1213367

CATALOG NUMBER: 4SNLED-LD5-19SL-RM-UNV-L935-CD1-U

CANDELA DISTRIBUTION (continued):

	189°	190°	191°	192°	193°	194°	195°	196°	197°	198°	199°
0°	1104.1	1104.1	1104.1	1104.1	1104.1	1104.1	1104.1	1104.1	1104.1	1104.1	1104.1
2.5°	1112.8	1112.8	1112.1	1112.8	1113.1	1112.4	1112.4	1113.1	1113.4	1113.8	1115.4
5°	1114.4	1115.1	1116.1	1118.1	1118.4	1122.4	1124.0	1125.0	1126.0	1126.3	1124.0
7.5°	1118.1	1120.4	1122.4	1122.0	1119.7	1113.4	1111.4	1109.8	1112.8	1120.4	1129.3
10°	1121.4	1110.8	1090.9	1118.1	1109.8	1117.4	1139.9	1144.9	1160.1	1181.7	1188.0
12.5°	1098.5	1127.7	1134.0	1103.5	1159.8	1138.9	1163.8	1185.7	1192.0	1213.8	1200.6
15°	1123.0	1137.3	1146.9	1177.4	1174.1	1192.0	1198.9	1194.6	1195.6	1201.2	1216.1
17.5°	1122.7	1151.2	1157.5	1178.0	1192.0	1192.3	1190.3	1188.3	1193.6	1197.9	1189.0
20°	1141.9	1151.2	1163.5	1171.7	1174.4	1177.7	1184.0	1179.0	1169.1	1159.5	1155.5
22.5°	1132.3	1153.2	1163.8	1165.1	1163.5	1153.2	1143.9	1130.0	1125.3	1120.4	1122.0
25°	1134.3	1143.9	1142.6	1137.3	1130.3	1111.1	1106.5	1100.5	1091.5	1070.0	1050.5
27.5°	1120.0	1115.1	1109.1	1096.2	1083.6	1073.3	1061.7	1042.5	1026.6	1003.4	994.8
30°	1096.2	1076.3	1061.7	1054.1	1041.8	1024.6	1007.0	983.5	963.3	958.7	954.4
32.5°	1050.5	1030.9	1019.0	1000.4	979.5	959.0	938.8	929.5	925.2	925.9	921.9
35°	1003.7	986.5	968.6	940.8	925.2	904.7	897.4	895.4	891.4	887.1	882.5
37.5°	954.0	933.8	907.0	890.4	874.8	866.5	862.9	859.9	853.0	845.3	840.0
40°	906.0	869.5	854.6	838.4	833.7	830.1	824.8	817.5	807.9	806.6	804.2
42.5°	841.7	815.5	802.6	799.3	793.6	787.3	782.7	774.8	770.8	773.4	775.4
45°	780.7	767.5	763.2	759.2	748.6	739.6	736.6	734.0	737.3	751.9	717.1
47.5°	731.3	726.0	720.7	714.1	704.2	697.5	700.5	703.2	706.2	599.1	546.8
50°	688.6	681.3	673.0	665.7	659.8	659.1	674.7	628.0	525.9	523.2	470.2
52.5°	641.9	630.9	626.0	621.7	624.3	634.3	524.9	487.1	467.2	405.9	378.8
55°	591.5	581.9	581.9	585.9	571.6	463.3	457.6	395.7	358.2	347.6	343.3
57.5°	541.1	540.1	545.8	499.1	420.5	403.3	339.0	325.4	319.4	318.1	311.2
60°	495.1	504.4	422.2	388.4	337.7	304.5	295.3	293.6	287.3	285.0	278.7
62.5°	458.3	380.1	353.9	289.0	272.1	267.8	262.8	260.5	254.8	225.0	65.9
65°	331.0	312.8	253.8	242.9	241.6	235.3	233.3	209.8	49.4	33.1	28.2
67.5°	249.9	221.7	214.1	212.1	205.8	193.2	57.3	32.8	28.2	24.5	21.5
70°	191.9	186.9	181.3	176.6	52.0	32.5	28.2	23.9	20.5	18.2	16.6
72.5°	157.1	153.8	89.5	34.1	27.8	23.5	20.9	18.2	15.9	14.6	13.3
75°	122.9	34.1	28.2	23.5	20.2	17.2	15.2	13.6	12.3	11.3	10.3
77.5°	27.8	22.5	19.2	16.2	14.6	12.9	11.6	9.9	8.9	8.0	6.6
80°	17.2	14.9	12.6	11.6	9.9	8.3	7.3	6.6	5.3	5.0	4.3
82.5°	11.3	8.9	8.0	6.6	5.3	5.0	4.3	3.3	3.0	2.7	2.3
85°	5.0	4.3	3.6	3.0	2.3	2.0	1.7	1.3	1.3	1.3	1.3
87.5°	1.7	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	0.7	0.7
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: P1213367

CATALOG NUMBER: 4SNLED-LD5-19SL-RM-UNV-L935-CD1-U

CANDELA DISTRIBUTION (continued):

	200°	205°	210°	215°	220°	225°	230°	235°	240°	245°	250°
0°	1104.1	1104.1	1104.1	1104.1	1104.1	1104.1	1104.1	1104.1	1104.1	1104.1	1104.1
2.5°	1116.1	1122.0	1127.7	1126.0	1120.0	1110.8	1108.1	1104.5	1107.1	1112.8	1115.1
5°	1124.0	1120.7	1132.6	1150.2	1178.7	1181.4	1201.2	1205.9	1221.8	1231.7	1231.4
7.5°	1135.3	1182.3	1201.9	1223.1	1232.7	1230.4	1233.4	1231.1	1227.4	1225.8	1223.8
10°	1192.6	1228.4	1235.7	1235.7	1220.8	1200.6	1192.0	1177.0	1147.2	1147.9	1142.9
12.5°	1226.1	1238.7	1221.4	1206.9	1146.9	1123.7	1098.5	1086.6	1079.6	1069.0	1073.0
15°	1208.5	1190.6	1180.4	1133.3	1096.5	1054.8	1055.4	1048.1	1040.5	1041.2	1036.2
17.5°	1182.7	1168.4	1095.5	1063.1	1045.2	1028.9	1025.9	1016.3	1011.4	1009.7	1009.4
20°	1147.2	1095.9	1041.5	1033.6	1012.0	993.5	990.5	993.5	1008.7	981.5	889.4
22.5°	1105.8	1031.9	1016.0	993.5	978.9	971.6	989.8	907.0	781.7	797.0	780.7
25°	1035.5	1003.4	976.2	959.0	957.3	912.6	760.5	744.6	664.1	621.0	572.6
27.5°	984.2	970.3	941.8	938.8	917.2	746.3	667.1	579.6	547.4	542.5	531.9
30°	953.0	933.2	915.9	840.7	732.0	600.8	535.2	522.9	517.3	511.3	502.0
32.5°	915.6	896.7	905.0	706.8	583.6	517.3	504.0	495.1	484.8	480.8	447.4
35°	877.5	868.9	707.2	594.2	501.7	485.8	475.9	466.6	371.1	89.8	30.5
37.5°	836.7	834.7	635.6	493.1	469.9	455.0	426.8	88.1	20.9	14.2	10.6
40°	804.9	635.9	502.4	462.3	443.4	419.9	59.0	14.6	9.3	5.6	3.6
42.5°	783.7	572.0	449.7	433.8	392.7	43.4	14.9	6.3	3.6	3.0	2.3
45°	604.1	451.7	420.2	403.6	49.7	14.9	8.6	3.0	2.3	2.0	1.3
47.5°	557.4	410.2	391.7	88.1	16.6	8.0	6.0	2.0	1.3	1.3	1.3
50°	422.2	379.1	311.8	21.5	10.6	5.6	4.3	1.3	1.3	1.3	1.0
52.5°	370.1	349.9	33.5	14.2	8.3	4.3	2.7	1.0	1.0	1.0	1.0
55°	338.3	222.0	19.9	10.9	7.0	4.0	1.7	1.0	1.0	1.0	0.7
57.5°	309.5	29.8	14.6	9.3	6.3	3.6	1.0	1.0	1.0	1.0	0.7
60°	262.4	21.5	11.9	8.3	6.0	3.3	1.0	1.0	1.0	1.0	1.0
62.5°	34.1	16.9	10.3	7.3	4.3	2.7	0.7	1.0	1.0	1.0	1.0
65°	24.9	13.3	9.3	5.0	2.7	1.0	0.7	1.0	1.0	1.0	1.0
67.5°	19.2	10.9	7.0	4.3	2.3	0.7	0.7	1.0	1.0	1.0	1.0
70°	15.2	9.3	5.6	3.6	2.0	0.7	0.7	1.0	1.0	1.0	1.0
72.5°	11.9	6.6	4.0	2.0	1.3	0.7	0.7	1.0	1.0	1.0	1.0
75°	8.9	5.3	3.0	1.7	0.7	0.7	0.7	1.0	1.0	1.0	1.0
77.5°	6.0	3.3	2.3	1.3	1.3	1.3	1.7	1.7	1.0	1.0	1.0
80°	4.0	2.3	1.7	1.7	1.7	1.3	1.7	1.7	1.0	1.7	1.0
82.5°	2.0	1.7	1.7	1.3	1.3	1.0	1.3	1.3	1.3	1.3	1.0
85°	1.3	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.3	1.3	1.0
87.5°	0.7	0.7	0.7	0.7	1.0	1.0	1.0	1.0	1.3	1.3	1.0
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: P1213367

CATALOG NUMBER: 4SNLED-LD5-19SL-RM-UNV-L935-CD1-U

CANDELA DISTRIBUTION (continued):

	255°	260°	265°	270°	275°	280°	285°	290°	295°	300°	305°
0°	1104.1	1104.1	1104.1	1104.1	1104.1	1104.1	1104.1	1104.1	1104.1	1104.1	1104.1
2.5°	1112.1	1113.1	1110.4	1124.7	1117.4	1118.1	1121.0	1113.4	1115.1	1109.8	1106.1
5°	1232.7	1234.7	1236.7	1237.4	1238.7	1240.3	1238.3	1237.4	1235.4	1228.7	1221.8
7.5°	1213.8	1211.5	1210.5	1211.8	1214.2	1215.2	1213.5	1215.8	1224.4	1228.1	1230.4
10°	1114.4	1103.8	1111.1	1110.1	1101.8	1129.7	1122.0	1126.3	1129.3	1159.8	1178.4
12.5°	1067.0	1073.7	1061.1	1054.8	1063.1	1068.7	1074.3	1062.4	1079.0	1071.3	1095.9
15°	1027.3	1023.3	1022.0	1022.3	1020.6	1028.6	1030.6	1033.2	1035.5	1045.8	1049.8
17.5°	1009.4	1016.0	1018.6	1020.6	1017.3	1013.7	1010.0	1004.7	1006.4	1003.7	1011.4
20°	827.4	805.2	803.9	816.8	802.6	810.5	829.8	958.3	954.0	1004.1	987.2
22.5°	690.6	669.7	651.8	636.2	658.4	667.7	703.5	743.9	809.5	799.3	870.5
25°	564.0	556.4	551.7	549.4	551.1	550.4	558.4	577.3	607.1	677.3	768.1
27.5°	527.5	523.9	522.2	516.9	520.9	519.6	525.9	529.9	538.8	545.8	575.3
30°	498.7	494.4	491.4	485.8	489.8	490.1	492.1	502.4	506.0	512.0	521.3
32.5°	182.3	107.4	100.7	95.8	104.7	136.5	239.6	418.9	477.8	482.5	493.1
35°	17.9	14.9	13.3	13.3	13.6	14.9	19.9	52.4	95.8	370.1	463.3
37.5°	7.0	6.0	5.0	4.6	5.0	5.6	7.6	9.9	13.6	28.2	125.6
40°	3.0	2.7	2.3	2.3	2.3	2.3	2.7	3.3	5.0	9.3	14.6
42.5°	2.0	1.7	1.7	1.7	1.7	1.7	1.7	1.7	2.3	3.0	6.0
45°	1.3	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.3	1.7	2.7
47.5°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.3
50°	1.0	1.0	1.0	1.0	0.7	1.0	0.7	1.0	1.0	1.0	1.0
52.5°	1.0	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	1.0	1.0
55°	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	1.0
57.5°	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
60°	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
62.5°	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	1.0	1.0	0.7
65°	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	1.0	0.7
67.5°	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
70°	1.0	1.0	0.7	1.0	0.7	0.7	1.0	1.0	1.0	0.7	0.7
72.5°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	2.0	2.0	1.3
75°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.7	2.0	1.7
77.5°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.7	1.7	1.7
80°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.3	1.3	1.3
82.5°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.3	1.3	1.3
85°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
87.5°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
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: P1213367

CATALOG NUMBER: 4SNLED-LD5-19SL-RM-UNV-L935-CD1-U

CANDELA DISTRIBUTION (continued):

	310°	315°	320°	325°	330°	335°	340°	341°	342°	343°	344°
0°	1104.1	1104.1	1104.1	1104.1	1104.1	1104.1	1104.1	1104.1	1104.1	1104.1	1104.1
2.5°	1099.8	1099.5	1106.5	1111.8	1109.8	1111.8	1114.1	1114.4	1115.1	1112.4	1111.4
5°	1208.5	1198.3	1178.4	1164.1	1147.6	1117.4	1102.5	1104.1	1104.5	1103.5	1104.8
7.5°	1229.4	1228.4	1221.4	1218.5	1207.2	1185.7	1151.2	1145.2	1130.7	1121.4	1113.8
10°	1177.0	1200.9	1207.2	1217.8	1224.4	1220.5	1191.3	1187.0	1177.7	1167.1	1169.4
12.5°	1120.4	1139.9	1140.9	1198.6	1211.5	1212.8	1201.6	1207.5	1208.9	1185.0	1171.1
15°	1050.8	1060.1	1079.6	1133.3	1172.4	1196.9	1204.2	1207.5	1191.3	1190.3	1184.7
17.5°	1020.3	1026.3	1035.2	1065.4	1124.7	1160.8	1191.6	1189.3	1195.6	1191.0	1176.7
20°	981.9	986.8	1002.7	1018.0	1047.1	1095.2	1152.9	1157.2	1165.4	1164.5	1168.4
22.5°	981.2	963.6	966.3	978.2	1008.7	1051.8	1113.1	1127.3	1132.6	1136.3	1140.6
25°	778.4	917.9	943.4	951.0	970.9	996.1	1068.4	1073.7	1083.6	1099.8	1111.8
27.5°	674.3	769.1	871.2	924.2	936.8	957.7	1000.8	1008.7	1042.5	1046.5	1065.0
30°	532.2	605.4	757.9	885.4	906.3	920.9	951.4	967.3	981.9	997.8	1017.3
32.5°	500.7	512.3	596.8	732.7	895.0	884.1	906.6	916.3	932.2	946.1	960.3
35°	471.9	479.8	497.7	600.1	729.0	854.0	869.2	875.5	884.4	895.0	905.3
37.5°	441.7	453.7	465.9	493.4	674.3	830.1	829.8	837.1	842.4	851.3	859.9
40°	80.2	416.5	436.4	454.3	522.9	662.1	792.6	796.0	799.6	805.2	814.2
42.5°	12.9	69.6	408.9	426.1	445.7	592.8	775.7	762.2	759.8	763.8	771.8
45°	6.6	16.9	82.2	398.0	415.5	472.9	634.3	738.6	736.3	728.7	730.4
47.5°	5.0	10.6	20.2	137.5	389.0	405.9	585.2	578.9	623.0	707.5	694.6
50°	4.3	7.3	11.9	28.2	343.6	373.8	450.7	526.6	549.8	552.7	654.1
52.5°	4.0	5.0	8.6	18.2	72.2	345.6	366.5	393.0	432.1	516.0	514.0
55°	3.6	4.6	7.3	12.3	25.2	311.5	333.0	338.0	346.3	386.4	439.4
57.5°	2.0	4.3	7.0	10.6	18.9	57.0	302.2	306.2	312.8	314.5	333.4
60°	1.0	4.0	6.3	9.3	13.9	26.5	271.7	276.4	280.3	281.0	287.0
62.5°	0.7	3.6	5.3	8.6	11.6	18.9	64.3	131.2	249.5	249.5	256.5
65°	0.7	2.7	3.3	5.6	10.6	15.6	27.2	31.5	61.3	150.8	225.0
67.5°	0.7	1.0	3.0	4.6	8.0	11.9	19.9	23.2	27.8	31.8	59.0
70°	0.7	0.7	2.7	3.0	5.0	8.9	14.2	16.2	18.9	21.5	24.9
72.5°	0.7	0.7	2.3	2.3	3.3	6.0	10.9	11.9	13.6	15.2	17.6
75°	1.7	1.3	2.0	2.0	2.3	4.6	8.3	9.3	9.9	11.3	12.9
77.5°	1.7	1.7	1.7	1.7	1.7	3.0	5.3	6.0	7.0	7.6	8.9
80°	1.3	1.3	1.3	1.7	1.7	2.0	3.3	3.6	4.0	5.0	5.3
82.5°	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	2.0	2.3	3.0
85°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.3	1.3	1.3	1.3
87.5°	1.0	1.0	1.0	0.7	0.7	1.0	1.0	1.0	1.0	1.0	1.0
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: P1213367

CATALOG NUMBER: 4SNLED-LD5-19SL-RM-UNV-L935-CD1-U

CANDELA DISTRIBUTION (continued):

	345°	346°	347°	348°	349°	350°	351°	352°	353°	354°	355°
0°	1104.1	1104.1	1104.1	1104.1	1104.1	1104.1	1104.1	1104.1	1104.1	1104.1	1104.1
2.5°	1111.1	1109.1	1107.5	1108.4	1105.5	1104.1	1105.1	1105.5	1106.1	1107.8	1108.1
5°	1108.1	1107.5	1110.4	1112.1	1111.4	1112.1	1112.1	1110.8	1108.8	1110.1	1107.1
7.5°	1106.1	1101.8	1098.5	1099.2	1095.9	1099.8	1103.5	1108.8	1110.4	1110.4	1107.1
10°	1140.3	1135.6	1117.1	1104.5	1096.2	1088.9	1106.1	1088.6	1096.9	1065.4	1101.5
12.5°	1168.4	1174.7	1166.4	1132.0	1126.0	1104.1	1116.7	1095.2	1088.9	1052.8	1064.4
15°	1179.7	1167.8	1165.1	1155.5	1142.6	1136.3	1102.5	1098.8	1088.6	1092.5	1077.3
17.5°	1169.8	1175.7	1167.8	1161.5	1148.2	1133.3	1113.1	1095.2	1080.9	1049.1	1076.0
20°	1160.1	1168.1	1144.2	1148.2	1149.5	1132.3	1121.7	1106.8	1088.9	1059.1	1035.9
22.5°	1144.2	1138.6	1140.6	1134.6	1129.7	1132.0	1117.4	1107.1	1077.0	1063.4	1031.9
25°	1118.4	1116.4	1121.7	1121.0	1109.1	1105.1	1097.8	1086.9	1075.0	1053.1	1027.3
27.5°	1076.3	1086.6	1095.9	1100.2	1093.9	1083.3	1079.3	1073.0	1064.7	1042.5	1023.3
30°	1031.9	1043.5	1054.1	1063.4	1069.0	1064.4	1060.7	1057.1	1044.5	1029.9	1008.4
32.5°	981.2	996.4	1011.0	1022.3	1034.6	1038.2	1035.5	1032.6	1022.0	1008.7	991.5
35°	922.5	943.4	964.6	984.8	990.1	998.8	1007.4	1002.4	996.8	983.5	967.6
37.5°	872.8	887.8	903.0	928.5	947.1	958.0	973.2	975.2	965.6	959.3	938.5
40°	821.5	835.1	857.3	872.2	897.7	910.3	926.5	933.8	931.5	927.8	909.6
42.5°	781.1	787.7	802.3	815.5	840.7	866.5	880.8	888.7	897.0	894.0	884.8
45°	738.0	743.9	748.9	760.5	785.0	807.9	825.5	837.4	852.3	859.3	848.0
47.5°	695.2	696.9	702.8	712.5	727.0	744.6	774.1	792.0	805.9	819.5	812.2
50°	662.4	656.5	657.4	663.4	675.3	692.6	713.8	739.0	754.9	771.4	773.1
52.5°	578.9	627.3	615.7	619.0	625.3	633.6	655.8	680.6	700.2	714.4	728.7
55°	485.8	495.4	588.5	575.3	579.2	586.5	596.8	621.7	640.5	660.4	680.3
57.5°	376.8	448.4	452.0	538.2	536.2	536.8	545.4	559.7	578.6	603.4	620.3
60°	292.9	323.1	381.7	411.6	487.1	489.8	494.7	503.0	519.3	542.8	569.6
62.5°	258.5	262.4	283.3	328.1	377.1	436.4	447.0	448.4	455.6	479.2	510.3
65°	227.0	229.6	235.9	240.6	281.7	339.0	390.0	398.3	403.0	416.9	443.4
67.5°	156.4	197.8	203.5	206.8	210.8	237.3	300.6	342.6	347.9	360.2	383.4
70°	30.2	62.6	171.3	175.0	177.0	182.9	193.2	260.1	295.3	306.9	317.5
72.5°	20.5	24.2	29.2	68.9	145.8	149.1	151.4	160.1	219.4	253.2	258.8
75°	14.9	16.6	19.6	24.2	29.8	97.1	120.3	124.6	128.9	177.9	206.4
77.5°	10.6	11.9	13.3	15.6	18.2	23.5	33.8	93.1	97.4	99.7	140.8
80°	6.0	7.3	8.9	10.3	11.6	13.3	17.2	21.5	48.0	70.3	73.9
82.5°	3.3	4.0	4.6	5.6	6.3	8.0	9.6	11.6	15.2	22.5	47.7
85°	1.7	1.7	1.7	2.3	2.7	3.6	4.3	5.0	7.0	9.6	13.3
87.5°	1.0	1.0	1.3	1.3	1.3	1.7	1.7	1.7	2.0	3.0	4.3
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: P1213367

CATALOG NUMBER: 4SNLED-LD5-19SL-RM-UNV-L935-CD1-U

CANDELA DISTRIBUTION (continued):

	356°	357°	358°	359°	360°
0°	1104.1	1104.1	1104.1	1104.1	1104.1
2.5°	1108.4	1107.5	1107.5	1111.4	1110.4
5°	1106.5	1105.5	1105.1	1109.4	1107.5
7.5°	1104.8	1101.2	1100.2	1104.1	1102.5
10°	1098.2	1095.5	1097.2	1095.9	1095.2
12.5°	1086.9	1085.3	1078.3	1079.0	1084.6
15°	1066.7	1073.3	1061.4	1072.0	1074.3
17.5°	1029.6	1044.5	1056.1	1062.4	1063.4
20°	1046.2	1051.1	1045.2	1045.5	1049.5
22.5°	1024.6	1026.9	1028.6	1026.6	1035.2
25°	990.1	981.2	1000.4	1004.4	1018.3
27.5°	979.5	972.3	981.2	980.5	992.1
30°	970.9	947.4	951.4	957.7	971.9
32.5°	958.7	921.6	917.6	931.5	947.4
35°	937.1	902.0	892.7	901.7	925.5
37.5°	918.9	874.8	856.3	868.2	899.4
40°	891.7	853.6	824.8	835.4	872.2
42.5°	859.3	835.4	791.0	798.3	840.4
45°	826.4	805.2	758.2	761.8	811.9
47.5°	793.0	773.4	724.1	724.7	775.4
50°	760.2	734.3	693.6	682.0	736.6
52.5°	717.4	693.6	662.7	643.9	699.9
55°	677.0	650.2	627.6	598.5	658.1
57.5°	637.6	607.7	592.5	555.1	610.7
60°	583.6	569.3	546.8	511.0	568.0
62.5°	528.2	523.6	500.7	463.6	515.3
65°	463.6	474.5	451.0	419.2	460.6
67.5°	402.6	422.2	396.3	376.8	407.9
70°	337.7	360.2	345.6	338.7	351.9
72.5°	273.7	295.6	296.9	291.9	296.2
75°	211.4	235.6	248.9	241.2	242.2
77.5°	160.4	172.0	186.6	192.5	191.2
80°	99.1	119.3	131.2	143.5	139.2
82.5°	50.0	66.9	81.5	94.8	88.5
85°	20.9	26.8	37.4	49.4	47.4
87.5°	6.3	10.6	11.3	15.9	14.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)