

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: P1214069

Luminaire Tested: 4SNLED-LD5-19SL-RM-UNV-L950-CD1-U

Issue Date: 3/29/2018

Test Information

Test Method: LM-79-2019
Report Number: P1214069
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-L950-CD1-U
Description: 4FT LINEAR SNLED LED FIXTURE
METALIC FINISH REFLECTOR
Light Source: -
Ballast/Driver: -

Summary

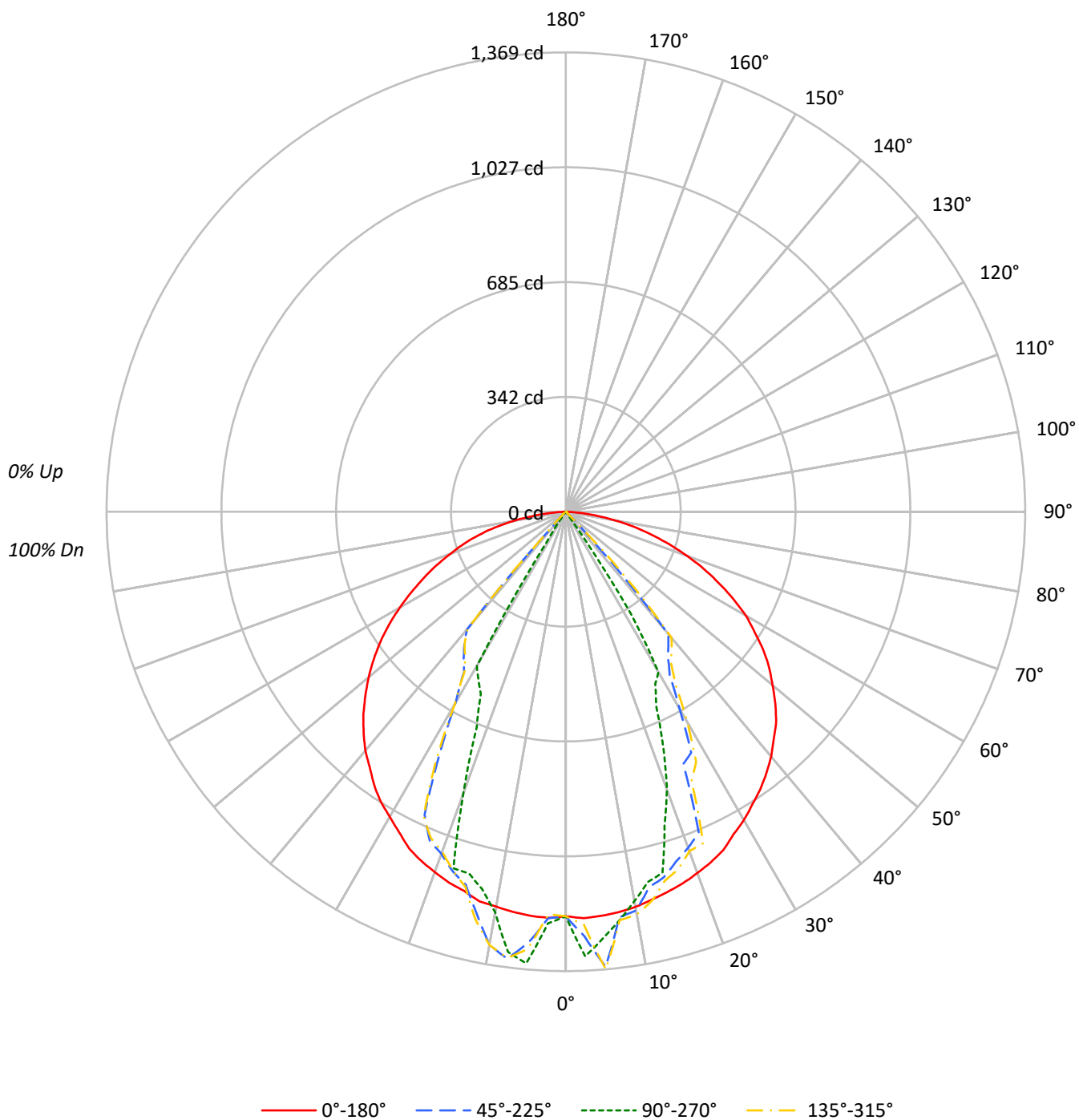
Lumens per Lamp: N/A
Luminaire Lumens: 1714.0 lumens
Efficiency: N/A
Efficacy: 131.8 lumens/watt
Spacing Criteria (0/90/45): 1.3 / 0.81 / 0.97
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.12')
CIE Type: Direct

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°	9741	9741	9741	9741
5°	9781	10019	9778	10609
10°	9757	9065	9751	9327
15°	9731	8462	9707	8484
20°	9742	6665	9715	6747
25°	9770	4823	9723	4551
30°	9726	4231	9623	4068
35°	9754	93	9611	113
40°	9788	20	9554	20
45°	9822	12	9454	9
50°	9747	10	9300	10
55°	9690	6	9094	6
60°	9507	7	8764	7
65°	9012	12	8369	7
70°	8360	13	7957	13
75°	7396	14	7516	14
80°	6005	16	6349	16
85°	3532	19	3607	19

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 2°

Vertical Angle: 45°

Luminance: 10606 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	120.9	7.1
10°-20°	329.9	19.2
20°-30°	419.8	24.5
30°-40°	354.6	20.7
40°-50°	231.8	13.5
50°-60°	146.1	8.5
60°-70°	77.8	4.5
70°-80°	28.3	1.7
80°-90°	4.9	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°	870.6	50.8
0°-40°	1225.1	71.5
0°-60°	1603.0	93.5
0°-90°	1714.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1714.0	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	1205	1205	1205	1205	1205	
5°	1209	1276	1209	1351	1209	115
15°	1173	1113	1170	1116	1173	332
25°	1112	636	1106	600	1112	511
35°	1010	12	996	14	1010	632
45°	886	1	853	1	886	682
55°	718	1	674	1	718	640
65°	503	1	467	1	503	498
75°	264	1	269	1	264	281
85°	52	1	53	1	52	65
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°	1205.4	1205.4	1205.4	1205.4	1205.4	1205.4	1205.4	1205.4	1205.4	1205.4	1205.4
2.5°	1212.3	1213.0	1213.4	1214.1	1215.2	1215.5	1216.3	1215.5	1215.5	1215.5	1215.5
5°	1209.0	1210.5	1211.6	1213.0	1215.5	1215.9	1218.8	1219.2	1220.6	1223.5	1225.7
7.5°	1203.6	1205.1	1207.2	1210.8	1214.5	1218.4	1223.5	1228.9	1236.5	1243.8	1252.8
10°	1195.6	1197.5	1200.0	1203.2	1221.0	1223.5	1234.7	1250.3	1254.6	1277.4	1294.4
12.5°	1184.1	1190.2	1196.7	1199.6	1216.6	1243.4	1281.0	1273.4	1265.1	1339.6	1338.5
15°	1172.9	1181.2	1177.9	1201.4	1217.0	1263.7	1247.7	1281.7	1344.0	1328.8	1329.5
17.5°	1160.9	1162.7	1180.8	1200.3	1228.2	1252.1	1271.6	1318.3	1330.6	1331.7	1318.3
20°	1145.7	1154.4	1180.8	1198.5	1245.6	1256.8	1299.1	1323.0	1317.9	1305.6	1282.8
22.5°	1130.2	1156.6	1183.3	1208.3	1241.2	1271.3	1292.2	1303.5	1277.0	1228.6	1202.5
25°	1111.7	1127.3	1162.4	1198.9	1240.1	1257.5	1269.8	1251.7	1217.4	1173.9	1130.2
27.5°	1083.1	1108.1	1153.0	1194.2	1231.5	1252.4	1232.5	1189.1	1133.8	1105.2	1085.3
30°	1061.1	1093.6	1130.5	1170.3	1209.0	1221.3	1170.7	1121.1	1083.1	1054.6	1050.2
32.5°	1034.3	1080.6	1115.7	1153.7	1186.2	1170.0	1120.8	1056.7	1025.3	1014.4	1018.7
35°	1010.4	1045.5	1091.5	1128.7	1152.2	1115.7	1037.9	998.1	982.9	989.1	981.1
37.5°	981.8	1028.1	1070.5	1102.7	1094.7	1039.7	973.9	948.6	950.4	945.3	930.1
40°	952.2	996.3	1040.4	1070.8	1043.0	959.0	915.3	909.8	910.9	894.7	872.9
42.5°	917.4	957.6	1001.7	1029.2	969.2	903.7	874.0	874.8	865.4	842.6	831.0
45°	886.3	923.2	969.2	971.7	897.9	843.3	834.6	825.2	804.2	796.6	787.9
47.5°	846.5	887.4	925.4	911.7	828.1	794.1	787.6	766.9	756.5	750.7	743.4
50°	804.2	845.5	880.2	841.1	762.2	754.3	732.9	716.7	709.4	703.3	696.8
52.5°	764.1	798.1	833.5	766.2	711.6	704.0	679.8	670.4	663.1	656.2	654.8
55°	718.5	748.5	772.7	695.0	663.1	645.4	628.0	621.5	614.6	611.4	616.8
57.5°	666.7	700.7	697.1	624.8	610.7	585.0	578.5	574.1	569.1	571.2	526.0
60°	620.1	646.1	628.4	573.4	549.5	532.2	526.4	523.5	526.4	482.2	424.0
62.5°	562.6	591.9	556.0	513.3	488.0	479.7	474.6	478.6	436.3	387.8	373.7
65°	502.9	534.7	481.9	449.0	433.0	425.8	425.4	391.8	350.2	331.4	331.4
67.5°	445.3	478.3	410.2	382.8	376.6	377.3	356.3	305.3	293.8	281.1	244.6
70°	384.2	413.1	339.0	322.3	318.7	316.2	265.2	251.4	237.7	204.0	201.1
72.5°	323.4	337.5	272.4	268.4	267.7	222.5	212.4	188.8	172.9	168.9	167.1
75°	264.5	260.1	215.3	218.9	184.5	168.6	152.3	138.6	136.4	134.9	33.6
77.5°	208.7	187.0	169.7	147.6	132.0	112.1	108.9	106.7	70.2	25.3	20.6
80°	151.9	121.2	112.9	95.9	81.8	78.5	80.3	24.6	19.5	16.3	14.1
82.5°	96.6	77.4	63.3	55.4	53.9	23.5	17.4	14.1	12.3	10.5	8.7
85°	51.7	34.4	31.8	26.8	15.9	10.9	9.0	6.9	5.8	4.7	4.3
87.5°	16.3	13.7	11.2	9.0	5.4	3.6	2.9	2.5	2.2	1.8	1.8
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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CANDELA DISTRIBUTION (continued):

	11°	12°	13°	14°	15°	16°	17°	18°	19°	20°	25°
0°	1205.4	1205.4	1205.4	1205.4	1205.4	1205.4	1205.4	1205.4	1205.4	1205.4	1205.4
2.5°	1214.8	1215.5	1215.2	1216.3	1216.3	1217.7	1218.8	1219.9	1222.1	1223.1	1231.5
5°	1230.4	1232.2	1237.6	1242.7	1248.8	1250.6	1261.1	1263.7	1276.0	1277.4	1317.9
7.5°	1265.1	1272.0	1285.0	1298.0	1311.0	1319.4	1333.8	1342.9	1352.7	1361.3	1393.5
10°	1307.1	1318.6	1331.3	1344.3	1351.9	1367.8	1376.5	1378.0	1375.4	1361.3	1309.2
12.5°	1348.3	1359.9	1354.5	1357.0	1366.0	1337.8	1341.8	1321.5	1335.6	1265.8	1214.1
15°	1342.5	1341.8	1328.4	1285.0	1292.2	1238.3	1216.6	1200.0	1213.4	1206.1	1198.2
17.5°	1325.2	1292.2	1269.1	1217.0	1194.9	1179.7	1180.1	1180.5	1173.9	1180.8	1160.6
20°	1251.7	1214.8	1180.5	1162.0	1155.5	1144.6	1150.1	1144.6	1145.0	1147.2	1116.1
22.5°	1154.0	1142.8	1122.9	1128.7	1126.5	1136.3	1129.1	1117.9	1121.5	1105.2	1081.7
25°	1114.6	1101.6	1100.9	1103.0	1099.8	1095.4	1088.9	1071.9	1070.8	1065.8	1054.9
27.5°	1074.8	1075.5	1077.7	1071.2	1059.6	1050.9	1041.2	1032.8	1036.1	1030.3	1015.5
30°	1047.3	1047.0	1033.9	1028.1	1006.8	1007.2	1004.6	999.6	996.3	996.7	987.3
32.5°	1008.2	997.0	982.2	975.0	973.2	966.6	961.6	962.7	965.2	956.2	965.9
35°	968.1	944.9	942.8	936.6	930.8	926.5	928.3	921.1	920.7	919.6	840.0
37.5°	914.2	903.0	901.9	895.4	891.4	890.3	883.4	884.5	887.8	893.6	716.3
40°	869.7	859.6	857.0	856.7	848.0	847.3	849.1	855.9	860.6	824.5	682.7
42.5°	821.9	822.7	814.7	809.6	810.7	814.0	822.7	798.8	692.1	659.5	624.1
45°	781.1	777.4	773.1	771.7	781.1	774.5	679.0	626.6	613.9	612.5	513.0
47.5°	738.4	737.3	735.5	736.6	683.0	608.9	587.2	580.3	582.4	581.0	440.6
50°	695.3	696.8	696.8	608.5	558.6	546.3	548.1	554.2	515.9	481.5	410.6
52.5°	658.1	646.8	554.2	522.4	511.2	516.6	503.6	455.5	420.7	400.5	379.9
55°	589.0	506.5	485.9	480.8	484.8	436.7	407.0	375.9	366.8	364.7	352.7
57.5°	463.4	446.8	448.6	428.3	382.4	355.3	343.3	339.0	335.0	332.1	28.9
60°	409.9	414.6	379.5	336.1	317.6	314.0	311.1	307.1	306.4	301.4	18.5
62.5°	375.2	329.9	299.5	288.7	284.4	283.3	277.8	276.0	234.4	32.2	13.7
65°	282.9	264.5	258.7	256.1	251.4	251.4	208.7	32.9	26.8	23.2	12.3
67.5°	230.8	229.4	226.5	223.2	151.9	31.8	27.9	24.2	21.0	18.5	10.9
70°	195.4	194.6	177.3	32.6	27.1	23.9	21.0	18.8	17.4	15.6	9.8
72.5°	160.3	32.6	27.5	23.9	20.6	18.8	17.0	15.2	13.7	12.7	8.0
75°	25.0	22.1	19.5	17.7	16.3	14.5	13.0	11.9	11.6	10.1	5.4
77.5°	18.1	15.6	14.1	12.7	11.2	10.1	8.7	7.6	6.9	5.8	4.0
80°	12.7	11.2	10.1	8.3	7.2	6.2	5.4	4.7	4.3	3.6	1.8
82.5°	7.2	6.2	5.4	4.3	4.0	3.3	2.9	2.5	2.5	1.8	1.8
85°	3.3	3.3	2.5	2.2	1.8	1.8	1.8	1.4	1.4	1.1	1.1
87.5°	1.4	1.4	1.4	1.4	1.4	1.1	1.1	1.1	1.1	1.1	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°	1205.4	1205.4	1205.4	1205.4	1205.4	1205.4	1205.4	1205.4	1205.4	1205.4	1205.4
2.5°	1243.0	1247.7	1256.8	1266.2	1255.7	1293.3	1290.4	1303.1	1310.0	1313.2	1320.8
5°	1353.7	1374.7	1381.6	1361.0	1349.0	1336.7	1308.9	1287.9	1290.4	1283.6	1258.6
7.5°	1351.6	1306.7	1246.3	1218.8	1216.6	1213.4	1222.1	1227.1	1227.8	1227.5	1226.8
10°	1237.2	1214.1	1210.1	1206.5	1207.9	1194.6	1188.4	1171.0	1180.5	1175.4	1177.2
12.5°	1202.5	1197.1	1175.7	1146.1	1163.8	1150.4	1142.8	1147.9	1142.1	1136.7	1134.9
15°	1181.9	1146.8	1134.9	1127.6	1122.6	1119.7	1122.2	1116.4	1114.6	1113.5	1116.1
17.5°	1139.2	1125.1	1112.1	1092.9	1093.3	1092.2	1099.4	1110.3	1111.0	1055.3	1005.0
20°	1105.6	1094.0	1077.3	1065.4	1081.7	1052.7	941.0	887.8	879.5	879.5	880.9
22.5°	1078.8	1053.1	1054.2	1035.4	883.1	852.0	852.7	855.9	841.1	790.5	785.0
25°	1042.3	1038.3	959.0	828.8	829.9	805.7	768.4	715.9	659.1	659.1	649.7
27.5°	1014.8	930.5	814.7	809.3	727.9	676.5	644.7	596.6	590.0	583.9	584.6
30°	991.2	787.2	790.1	676.5	616.5	573.8	571.2	563.3	559.3	558.2	554.2
32.5°	783.6	766.6	661.3	575.9	552.4	545.5	542.3	533.2	532.9	526.0	478.3
35°	734.8	672.9	553.5	530.4	523.5	517.0	511.5	343.3	40.5	16.3	14.1
37.5°	679.0	562.2	511.9	501.4	494.9	365.7	36.5	12.7	9.0	6.5	5.8
40°	575.6	502.1	486.2	474.6	195.7	12.7	8.0	6.2	3.6	3.3	2.9
42.5°	485.5	473.2	456.2	138.9	14.5	6.2	4.0	2.9	2.5	2.5	2.2
45°	454.4	443.5	183.8	13.7	9.0	2.9	2.5	2.5	2.2	1.4	1.4
47.5°	425.4	374.4	16.6	8.7	5.8	2.5	2.2	1.4	1.4	1.4	1.1
50°	394.7	20.6	11.6	6.5	3.6	1.4	1.4	1.4	1.4	1.1	1.1
52.5°	73.8	14.5	9.4	5.8	1.8	1.4	1.4	1.4	1.1	1.1	1.1
55°	17.4	11.6	8.7	5.1	1.4	1.4	1.4	1.1	1.1	1.1	0.7
57.5°	13.0	8.7	6.9	4.7	1.4	1.1	1.1	1.1	1.1	1.1	0.7
60°	10.9	6.2	5.4	4.3	1.1	1.1	1.1	1.1	1.1	1.1	0.7
62.5°	7.6	5.1	4.0	3.3	1.1	1.1	1.1	1.1	1.1	1.1	1.1
65°	6.2	4.0	3.3	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
67.5°	5.4	3.3	2.2	0.7	1.1	1.1	1.1	1.1	1.1	1.1	1.1
70°	4.3	1.1	1.1	0.7	1.1	1.1	1.1	1.1	1.1	1.1	1.1
72.5°	3.6	1.1	0.7	0.7	1.1	1.1	1.1	1.1	1.1	1.1	1.1
75°	3.6	1.8	0.7	0.7	1.1	1.1	1.4	1.4	1.1	1.1	1.1
77.5°	2.5	1.8	0.7	0.7	1.1	1.1	1.4	1.4	1.1	1.1	1.1
80°	1.4	1.8	0.7	1.1	1.1	2.2	2.5	1.4	1.1	1.1	1.1
82.5°	1.4	1.8	2.2	2.2	1.1	1.8	2.2	1.8	1.4	1.1	1.1
85°	1.4	1.1	1.4	1.8	1.1	1.8	1.8	1.4	1.4	1.1	1.1
87.5°	0.7	1.1	1.1	1.4	1.4	1.4	1.8	1.4	1.4	1.4	1.1
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: P1214069

CATALOG NUMBER: 4SNLED-LD5-19SL-RM-UNV-L950-CD1-U

CANDELA DISTRIBUTION (continued):

	85°	90°	95°	100°	105°	110°	115°	120°	125°	130°	135°
0°	1205.4	1205.4	1205.4	1205.4	1205.4	1205.4	1205.4	1205.4	1205.4	1205.4	1205.4
2.5°	1324.4	1325.9	1303.1	1295.1	1302.0	1300.6	1294.4	1271.6	1269.1	1253.9	1231.8
5°	1265.8	1275.6	1263.7	1284.3	1274.5	1284.3	1313.9	1327.7	1350.1	1363.9	1368.9
7.5°	1224.9	1227.1	1227.1	1228.9	1230.7	1231.1	1228.9	1227.5	1221.3	1213.7	1227.5
10°	1175.4	1177.9	1182.3	1181.5	1181.2	1188.8	1190.6	1206.1	1205.4	1208.3	1218.8
12.5°	1149.7	1130.2	1147.9	1143.2	1149.7	1139.6	1158.4	1155.1	1156.2	1164.9	1187.3
15°	1107.0	1113.2	1117.5	1117.5	1120.0	1117.9	1115.7	1130.5	1139.6	1139.9	1138.5
17.5°	1024.9	978.2	1026.0	1013.7	1111.7	1114.2	1105.9	1099.1	1099.1	1104.5	1116.1
20°	879.8	880.9	881.3	886.0	891.8	891.4	891.8	1034.3	1101.9	1086.4	1075.9
22.5°	771.3	757.9	782.9	781.1	812.2	846.5	879.5	876.2	878.4	978.9	1069.4
25°	618.3	635.6	621.5	627.7	662.8	703.6	729.0	795.2	867.2	862.1	885.6
27.5°	582.1	577.4	583.9	583.9	588.6	594.0	608.1	645.4	709.4	776.7	840.4
30°	547.7	551.7	552.4	558.9	562.6	566.2	568.3	582.4	596.9	643.6	722.1
32.5°	411.3	360.7	474.6	505.4	531.4	537.6	541.9	547.7	558.2	565.1	604.5
35°	11.9	11.9	12.7	14.5	18.5	124.4	473.9	522.4	529.3	537.9	545.2
37.5°	5.8	4.3	5.1	5.4	6.5	9.0	13.0	40.5	451.1	510.1	518.1
40°	2.5	2.5	2.5	2.5	2.9	3.6	5.4	9.0	13.7	362.9	489.5
42.5°	2.2	2.2	2.2	2.2	2.2	2.2	2.5	3.3	6.5	15.6	256.9
45°	1.4	1.4	1.1	1.4	1.4	1.8	2.2	2.2	2.9	9.8	17.7
47.5°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.8	2.2	6.5	9.4
50°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	5.1	6.5
52.5°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	2.2	5.8
55°	0.7	0.7	0.7	0.7	0.7	0.7	0.7	1.1	1.1	1.4	5.1
57.5°	0.7	0.7	0.7	0.7	0.7	1.1	0.7	0.7	1.1	1.1	4.7
60°	0.7	0.7	0.7	0.7	0.7	1.1	1.1	1.1	1.1	1.1	4.3
62.5°	1.1	1.1	0.7	1.1	0.7	0.7	1.1	1.1	1.1	1.1	2.9
65°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	0.7	1.1
67.5°	1.1	1.1	1.1	1.1	0.7	1.1	0.7	1.1	1.1	0.7	0.7
70°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	0.7	0.7	0.7	0.7
72.5°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	0.7	0.7	0.7	0.7
75°	1.1	1.1	1.1	1.1	1.1	1.1	1.4	1.4	0.7	0.7	0.7
77.5°	1.1	1.1	1.1	1.1	1.1	1.1	1.8	2.2	1.8	1.8	0.7
80°	1.1	1.1	1.1	1.1	1.1	1.1	1.8	1.8	1.8	1.8	2.5
82.5°	1.1	1.1	1.1	1.1	1.1	1.1	1.4	1.4	1.4	1.4	1.8
85°	1.1	1.1	1.1	1.1	1.1	1.1	1.4	1.4	1.4	1.1	1.4
87.5°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.4	1.1	1.1	1.1
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: P1214069

CATALOG NUMBER: 4SNLED-LD5-19SL-RM-UNV-L950-CD1-U

CANDELA DISTRIBUTION (continued):

	140°	145°	150°	155°	160°	161°	162°	163°	164°	165°	166°
0°	1205.4	1205.4	1205.4	1205.4	1205.4	1205.4	1205.4	1205.4	1205.4	1205.4	1205.4
2.5°	1233.6	1221.3	1217.4	1209.0	1208.3	1209.0	1207.2	1204.7	1206.1	1203.6	1201.4
5°	1371.8	1338.9	1317.6	1289.0	1249.5	1240.9	1238.7	1226.4	1222.1	1220.6	1214.8
7.5°	1260.0	1320.1	1356.3	1368.6	1322.3	1311.4	1298.7	1288.6	1278.9	1260.4	1249.2
10°	1210.5	1213.4	1248.1	1288.6	1354.5	1363.5	1370.4	1348.3	1342.2	1295.1	1285.0
12.5°	1198.9	1199.3	1203.2	1227.8	1279.6	1285.4	1309.6	1322.6	1338.5	1347.6	1340.4
15°	1146.1	1175.4	1197.1	1199.3	1204.0	1214.1	1221.3	1266.6	1285.7	1337.1	1334.2
17.5°	1121.5	1130.9	1162.4	1188.0	1183.7	1180.1	1185.9	1192.0	1210.5	1261.8	1261.1
20°	1080.6	1110.6	1127.6	1154.4	1178.6	1179.7	1173.2	1169.6	1162.4	1170.7	1178.3
22.5°	1063.2	1067.9	1099.8	1118.6	1146.1	1155.9	1157.3	1157.7	1153.7	1149.3	1147.2
25°	1061.4	1046.6	1062.9	1086.4	1106.7	1117.1	1129.1	1133.1	1131.6	1131.6	1129.4
27.5°	868.6	1041.9	1033.2	1048.8	1073.4	1080.6	1086.8	1099.1	1106.7	1112.1	1114.6
30°	827.4	858.5	1010.1	1012.2	1037.2	1036.5	1043.3	1053.5	1063.2	1075.9	1079.2
32.5°	731.9	808.2	924.7	975.7	1001.7	1004.3	1007.9	1010.8	1019.8	1033.9	1046.2
35°	586.4	736.2	792.3	958.3	963.0	968.1	970.3	977.1	980.0	985.8	996.7
37.5°	530.7	608.5	760.1	828.8	918.5	922.9	934.4	937.3	942.0	946.7	955.1
40°	498.5	519.9	632.7	740.2	882.7	885.6	889.6	896.8	897.2	902.6	910.2
42.5°	472.8	486.6	519.5	706.9	857.4	857.0	847.6	852.3	854.5	860.3	870.8
45°	377.7	456.6	477.5	577.4	682.7	731.9	826.3	810.7	810.4	812.5	823.7
47.5°	19.2	429.4	444.3	476.4	644.7	646.5	658.8	762.2	778.2	773.1	774.2
50°	13.0	29.7	413.9	428.7	555.7	600.5	609.6	614.3	674.0	740.5	729.7
52.5°	10.1	17.0	253.6	397.9	451.5	484.4	542.7	575.9	579.6	606.3	697.1
55°	9.0	13.0	27.5	367.2	383.8	391.1	425.1	483.3	530.4	544.5	545.5
57.5°	8.0	11.9	18.8	166.1	349.1	350.6	356.3	376.6	418.9	457.6	501.4
60°	7.2	10.5	14.8	28.6	317.3	320.9	322.0	327.4	332.5	358.9	409.2
62.5°	4.3	8.3	13.0	20.6	251.1	288.3	288.0	291.6	296.3	299.2	309.3
65°	3.6	6.5	11.2	17.4	30.8	38.3	233.0	259.0	261.9	265.9	267.7
67.5°	3.3	5.8	8.3	13.7	23.2	26.4	30.4	37.6	205.5	231.5	235.1
70°	2.9	4.0	6.9	11.6	18.8	20.3	22.8	26.0	30.8	38.0	185.9
72.5°	1.8	2.9	4.7	8.3	14.5	16.3	17.7	19.9	22.1	26.4	30.4
75°	0.7	2.2	4.0	6.2	11.2	12.3	13.4	14.8	16.6	19.5	21.7
77.5°	0.7	1.8	3.3	4.3	7.2	8.3	9.8	10.9	12.3	13.7	15.9
80°	2.5	1.4	2.2	3.3	5.1	5.4	6.2	6.9	8.0	9.0	10.5
82.5°	1.8	2.2	2.5	2.2	2.5	3.3	3.6	4.3	4.7	5.4	5.8
85°	1.4	1.4	1.8	1.8	1.8	1.8	1.8	1.8	2.2	2.5	3.3
87.5°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.4	1.4
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: P1214069

CATALOG NUMBER: 4SNLED-LD5-19SL-RM-UNV-L950-CD1-U

CANDELA DISTRIBUTION (continued):

	167°	168°	169°	170°	171°	172°	173°	174°	175°	176°	177°
0°	1205.4	1205.4	1205.4	1205.4	1205.4	1205.4	1205.4	1205.4	1205.4	1205.4	1205.4
2.5°	1201.4	1200.7	1198.5	1198.5	1198.2	1199.6	1200.7	1201.8	1201.4	1203.6	1201.4
5°	1210.5	1208.7	1205.4	1202.5	1201.4	1202.2	1201.1	1202.2	1200.7	1202.5	1199.3
7.5°	1235.4	1229.3	1216.6	1211.6	1205.1	1204.7	1201.4	1200.7	1198.5	1198.5	1194.6
10°	1279.6	1249.9	1246.3	1231.1	1225.7	1199.3	1205.1	1195.3	1194.2	1189.5	1187.7
12.5°	1315.8	1292.6	1285.7	1272.3	1257.1	1203.6	1215.5	1194.6	1193.5	1184.1	1174.3
15°	1316.5	1329.9	1311.0	1274.1	1270.9	1234.0	1209.8	1202.5	1193.1	1164.9	1169.6
17.5°	1274.1	1304.9	1313.9	1306.0	1282.8	1257.9	1223.9	1209.4	1181.2	1168.5	1159.8
20°	1205.4	1236.5	1275.2	1277.8	1292.2	1274.5	1230.0	1206.5	1172.5	1150.4	1143.2
22.5°	1150.8	1173.6	1218.1	1238.7	1256.4	1262.6	1234.4	1199.6	1157.3	1136.0	1131.6
25°	1121.8	1126.9	1140.3	1164.5	1203.6	1231.8	1235.8	1198.9	1176.8	1130.2	1105.6
27.5°	1111.4	1107.0	1101.6	1113.9	1143.2	1177.6	1200.3	1206.5	1151.5	1107.0	1082.4
30°	1084.6	1087.1	1078.8	1074.5	1093.6	1129.1	1169.6	1179.7	1137.4	1091.5	1063.2
32.5°	1051.7	1056.0	1057.4	1049.9	1045.9	1070.5	1114.2	1138.5	1136.3	1069.4	1037.9
35°	1010.4	1022.7	1026.0	1026.3	1019.8	1015.8	1041.2	1091.5	1110.6	1059.3	1013.7
37.5°	967.0	970.6	988.4	993.1	993.1	981.1	999.9	1040.1	1066.9	1036.5	984.0
40°	912.7	924.3	941.0	949.3	957.6	958.7	948.2	976.4	1020.5	1013.0	956.2
42.5°	873.3	880.9	891.0	902.3	919.3	923.6	912.7	917.8	963.8	983.6	920.0
45°	827.4	837.5	840.4	852.7	870.4	883.1	882.7	872.2	909.1	933.7	893.6
47.5°	780.3	790.1	795.2	801.3	814.3	830.6	839.7	835.0	842.2	890.3	858.5
50°	731.9	737.3	747.4	754.3	763.0	772.4	794.1	798.4	788.3	826.6	819.8
52.5°	685.9	687.7	694.6	701.5	713.0	719.9	737.3	750.3	749.6	760.8	776.7
55°	650.1	642.1	643.6	649.0	656.6	667.1	676.9	697.1	704.0	706.2	731.5
57.5°	507.9	589.7	596.9	596.6	605.6	610.3	619.3	632.7	657.3	651.9	680.1
60°	461.6	470.7	539.0	547.0	550.3	554.6	565.4	577.7	595.8	607.4	619.7
62.5°	352.0	407.0	427.6	488.0	497.4	500.0	507.2	513.0	531.8	558.2	553.1
65°	272.4	295.9	358.9	383.5	434.8	441.4	451.5	457.6	463.1	493.5	494.9
67.5°	235.5	239.1	256.1	303.5	336.1	386.4	392.5	397.9	406.3	428.0	441.4
70°	201.1	205.5	210.2	214.2	256.5	289.8	336.4	338.3	343.7	358.2	388.5
72.5°	38.0	171.8	174.7	177.3	182.0	204.0	248.5	284.7	286.9	293.8	321.6
75°	25.7	30.0	41.2	141.8	146.5	148.0	155.6	200.8	234.1	235.5	247.8
77.5°	18.5	20.6	25.0	29.7	75.6	113.6	115.4	123.7	158.1	183.1	185.2
80°	12.7	14.1	16.6	18.8	23.2	30.4	83.9	86.5	90.8	125.2	131.7
82.5°	7.2	8.3	9.8	11.9	13.7	17.4	22.4	28.9	59.0	62.9	83.6
85°	3.6	4.0	4.7	5.8	6.9	8.3	11.2	13.7	18.8	34.0	35.1
87.5°	1.8	1.8	1.8	1.8	2.9	3.3	4.0	5.1	6.5	9.8	12.7
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: P1214069

CATALOG NUMBER: 4SNLED-LD5-19SL-RM-UNV-L950-CD1-U

CANDELA DISTRIBUTION (continued):

	178°	179°	180°	181°	182°	183°	184°	185°	186°	187°	188°
0°	1205.4	1205.4	1205.4	1205.4	1205.4	1205.4	1205.4	1205.4	1205.4	1205.4	1205.4
2.5°	1201.8	1206.9	1211.2	1212.3	1212.3	1213.0	1214.1	1214.8	1215.5	1216.3	1215.5
5°	1199.6	1205.1	1208.7	1209.8	1209.8	1211.9	1213.7	1215.9	1217.0	1217.0	1216.3
7.5°	1194.2	1198.2	1202.9	1205.8	1206.1	1209.8	1213.0	1212.6	1214.1	1214.8	1216.6
10°	1187.0	1187.0	1194.9	1197.1	1198.9	1202.9	1204.0	1206.1	1211.2	1211.9	1216.6
12.5°	1183.3	1179.7	1189.1	1190.2	1196.4	1191.3	1197.8	1200.0	1194.9	1201.8	1192.8
15°	1167.1	1171.4	1170.0	1173.2	1184.1	1178.3	1196.0	1190.2	1203.2	1187.7	1215.2
17.5°	1153.7	1153.0	1158.7	1161.6	1163.8	1176.1	1180.8	1187.3	1192.4	1188.0	1198.9
20°	1143.9	1138.1	1142.5	1145.7	1153.3	1162.7	1165.6	1155.9	1172.9	1201.8	1208.7
22.5°	1125.5	1121.5	1126.5	1126.5	1138.1	1136.7	1147.5	1141.4	1157.3	1190.9	1226.0
25°	1100.5	1100.9	1106.3	1112.8	1115.0	1131.3	1137.0	1145.0	1164.9	1205.1	1226.4
27.5°	1075.2	1073.0	1076.3	1089.6	1100.9	1112.8	1114.6	1141.7	1168.9	1196.4	1215.2
30°	1049.9	1047.7	1049.9	1059.6	1073.0	1081.0	1100.9	1137.0	1162.4	1181.2	1198.9
32.5°	1022.7	1020.5	1025.6	1032.8	1056.4	1057.4	1096.9	1130.9	1150.8	1164.5	1161.3
35°	993.8	990.9	995.6	1006.8	1028.5	1036.5	1077.7	1103.0	1125.5	1132.0	1116.8
37.5°	959.0	954.0	959.8	975.3	998.1	1021.3	1055.6	1084.9	1096.9	1079.5	1061.4
40°	922.9	919.3	929.4	937.3	964.1	996.3	1035.7	1056.4	1048.8	1028.9	1009.0
42.5°	890.7	883.1	892.1	907.3	937.7	974.2	1006.1	1017.7	999.6	970.3	947.1
45°	851.2	842.2	853.1	873.3	905.9	947.5	972.4	968.5	937.7	912.4	880.5
47.5°	810.0	799.1	810.0	834.2	870.8	914.9	933.0	914.9	876.2	844.4	818.7
50°	769.5	756.8	767.3	803.8	839.7	873.7	873.3	838.2	815.1	780.3	757.9
52.5°	729.3	711.2	721.7	761.5	797.3	836.0	807.5	774.9	747.1	716.7	709.4
55°	679.8	660.2	674.3	732.2	759.7	782.5	736.9	708.3	680.8	665.7	656.6
57.5°	632.7	611.4	623.7	692.1	712.3	718.1	676.1	635.6	619.3	614.3	601.3
60°	584.3	560.0	571.6	650.5	664.6	641.1	599.8	568.3	565.1	555.0	544.8
62.5°	537.9	511.2	518.4	598.7	605.2	562.6	524.6	516.2	508.3	498.2	492.7
65°	484.8	456.9	467.0	543.7	537.6	482.6	461.3	459.4	449.0	440.6	448.6
67.5°	435.9	403.0	417.1	483.7	455.8	411.0	402.3	397.9	389.6	394.3	310.8
70°	382.4	346.6	365.7	418.9	377.7	348.0	344.8	338.3	338.6	269.2	226.8
72.5°	322.7	291.6	319.4	348.0	298.8	290.1	285.4	284.7	229.7	186.7	176.2
75°	270.2	238.8	268.8	279.6	238.0	232.3	231.9	191.7	150.9	144.0	140.7
77.5°	210.9	186.7	215.3	199.0	182.7	176.2	158.1	118.7	113.6	108.9	40.9
80°	142.2	144.0	160.6	137.1	130.2	111.1	87.5	83.9	72.4	28.9	22.8
82.5°	86.5	108.5	102.4	85.7	83.9	60.4	55.4	28.2	21.0	16.6	14.5
85°	44.9	55.0	52.8	46.7	34.7	31.1	17.4	13.4	10.9	8.3	6.9
87.5°	15.2	20.3	19.5	15.6	11.9	9.4	6.2	5.1	3.6	2.9	2.5
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: P1214069

CATALOG NUMBER: 4SNLED-LD5-19SL-RM-UNV-L950-CD1-U

CANDELA DISTRIBUTION (continued):

	189°	190°	191°	192°	193°	194°	195°	196°	197°	198°	199°
0°	1205.4	1205.4	1205.4	1205.4	1205.4	1205.4	1205.4	1205.4	1205.4	1205.4	1205.4
2.5°	1214.8	1214.8	1214.1	1214.8	1215.2	1214.5	1214.5	1215.2	1215.5	1215.9	1217.7
5°	1216.6	1217.4	1218.4	1220.6	1221.0	1225.3	1227.1	1228.2	1229.3	1229.7	1227.1
7.5°	1220.6	1223.1	1225.3	1224.9	1222.4	1215.5	1213.4	1211.6	1214.8	1223.1	1232.9
10°	1224.2	1212.6	1190.9	1220.6	1211.6	1219.9	1244.5	1249.9	1266.6	1290.1	1296.9
12.5°	1199.3	1231.1	1238.0	1204.7	1266.2	1243.4	1270.5	1294.4	1301.3	1325.2	1310.7
15°	1226.0	1241.6	1252.1	1285.4	1281.7	1301.3	1308.9	1304.2	1305.3	1311.4	1327.7
17.5°	1225.7	1256.8	1263.7	1286.1	1301.3	1301.6	1299.5	1297.3	1303.1	1307.8	1298.0
20°	1246.7	1256.8	1270.2	1279.2	1282.1	1285.7	1292.6	1287.2	1276.3	1265.8	1261.5
22.5°	1236.2	1259.0	1270.5	1272.0	1270.2	1259.0	1248.8	1233.6	1228.6	1223.1	1224.9
25°	1238.3	1248.8	1247.4	1241.6	1234.0	1213.0	1207.9	1201.4	1191.7	1168.2	1146.8
27.5°	1222.8	1217.4	1210.8	1196.7	1183.0	1171.8	1159.1	1138.1	1120.8	1095.4	1086.0
30°	1196.7	1175.0	1159.1	1150.8	1137.4	1118.6	1099.4	1073.7	1051.7	1046.6	1041.9
32.5°	1146.8	1125.5	1112.4	1092.2	1069.4	1047.0	1024.9	1014.8	1010.1	1010.8	1006.4
35°	1095.8	1077.0	1057.4	1027.1	1010.1	987.6	979.7	977.5	973.2	968.5	963.4
37.5°	1041.5	1019.5	990.2	972.1	955.1	946.0	942.0	938.8	931.2	922.9	917.1
40°	989.1	949.3	933.0	915.3	910.2	906.2	900.4	892.5	882.0	880.5	878.0
42.5°	918.9	890.3	876.2	872.6	866.4	859.6	854.5	845.8	841.5	844.4	846.5
45°	852.3	837.9	833.2	828.8	817.2	807.5	804.2	801.3	804.9	820.9	782.9
47.5°	798.4	792.6	786.8	779.6	768.8	761.5	764.8	767.7	770.9	654.1	596.9
50°	751.8	743.8	734.8	726.8	720.3	719.6	736.6	685.6	574.1	571.2	513.3
52.5°	700.7	688.8	683.4	678.7	681.6	692.4	573.0	531.8	510.1	443.2	413.5
55°	645.8	635.3	635.3	639.6	624.1	505.8	499.6	432.0	391.1	379.5	374.8
57.5°	590.8	589.7	595.8	544.8	459.1	440.3	370.1	355.3	348.7	347.3	339.7
60°	540.5	550.6	460.9	424.0	368.6	332.5	322.3	320.5	313.7	311.1	304.2
62.5°	500.3	414.9	386.4	315.5	297.0	292.3	286.9	284.4	278.2	245.6	72.0
65°	361.4	341.5	277.1	265.2	263.7	256.9	254.7	229.0	53.9	36.2	30.8
67.5°	272.8	242.0	233.7	231.5	224.7	210.9	62.6	35.8	30.8	26.8	23.5
70°	209.5	204.0	197.9	192.8	56.8	35.5	30.8	26.0	22.4	19.9	18.1
72.5°	171.5	167.9	97.7	37.3	30.4	25.7	22.8	19.9	17.4	15.9	14.5
75°	134.2	37.3	30.8	25.7	22.1	18.8	16.6	14.8	13.4	12.3	11.2
77.5°	30.4	24.6	21.0	17.7	15.9	14.1	12.7	10.9	9.8	8.7	7.2
80°	18.8	16.3	13.7	12.7	10.9	9.0	8.0	7.2	5.8	5.4	4.7
82.5°	12.3	9.8	8.7	7.2	5.8	5.4	4.7	3.6	3.3	2.9	2.5
85°	5.4	4.7	4.0	3.3	2.5	2.2	1.8	1.4	1.4	1.4	1.4
87.5°	1.8	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	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: P1214069

CATALOG NUMBER: 4SNLED-LD5-19SL-RM-UNV-L950-CD1-U

CANDELA DISTRIBUTION (continued):

	200°	205°	210°	215°	220°	225°	230°	235°	240°	245°	250°
0°	1205.4	1205.4	1205.4	1205.4	1205.4	1205.4	1205.4	1205.4	1205.4	1205.4	1205.4
2.5°	1218.4	1224.9	1231.1	1229.3	1222.8	1212.6	1209.8	1205.8	1208.7	1214.8	1217.4
5°	1227.1	1223.5	1236.5	1255.7	1286.8	1289.7	1311.4	1316.5	1333.8	1344.7	1344.3
7.5°	1239.4	1290.8	1312.1	1335.3	1345.8	1343.2	1346.5	1344.0	1340.0	1338.2	1336.0
10°	1302.0	1341.1	1349.0	1349.0	1332.8	1310.7	1301.3	1285.0	1252.4	1253.2	1247.7
12.5°	1338.5	1352.3	1333.5	1317.6	1252.1	1226.8	1199.3	1186.2	1178.6	1167.1	1171.4
15°	1319.4	1299.8	1288.6	1237.2	1197.1	1151.5	1152.2	1144.3	1136.0	1136.7	1131.3
17.5°	1291.2	1275.6	1196.0	1160.6	1141.0	1123.3	1120.0	1109.5	1104.1	1102.3	1101.9
20°	1252.4	1196.4	1137.0	1128.4	1104.8	1084.6	1081.3	1084.6	1101.2	1071.6	971.0
22.5°	1207.2	1126.5	1109.2	1084.6	1068.7	1060.7	1080.6	990.2	853.4	870.1	852.3
25°	1130.5	1095.4	1065.8	1047.0	1045.1	996.3	830.3	812.9	725.0	678.0	625.1
27.5°	1074.5	1059.3	1028.1	1024.9	1001.4	814.7	728.2	632.7	597.6	592.2	580.6
30°	1040.4	1018.7	999.9	917.8	799.1	655.9	584.3	570.9	564.7	558.2	548.1
32.5°	999.6	978.9	988.0	771.7	637.1	564.7	550.3	540.5	529.3	524.9	488.4
35°	958.0	948.6	772.0	648.7	547.7	530.4	519.5	509.4	405.2	98.0	33.3
37.5°	913.5	911.3	693.9	538.3	513.0	496.7	466.0	96.2	22.8	15.6	11.6
40°	878.7	694.2	548.4	504.7	484.0	458.4	64.4	15.9	10.1	6.2	4.0
42.5°	855.6	624.4	490.9	473.6	428.7	47.4	16.3	6.9	4.0	3.3	2.5
45°	659.5	493.1	458.7	440.6	54.3	16.3	9.4	3.3	2.5	2.2	1.4
47.5°	608.5	447.9	427.6	96.2	18.1	8.7	6.5	2.2	1.4	1.4	1.4
50°	460.9	413.9	340.4	23.5	11.6	6.2	4.7	1.4	1.4	1.4	1.1
52.5°	404.1	382.0	36.5	15.6	9.0	4.7	2.9	1.1	1.1	1.1	1.1
55°	369.4	242.4	21.7	11.9	7.6	4.3	1.8	1.1	1.1	1.1	0.7
57.5°	337.9	32.6	15.9	10.1	6.9	4.0	1.1	1.1	1.1	1.1	0.7
60°	286.5	23.5	13.0	9.0	6.5	3.6	1.1	1.1	1.1	1.1	1.1
62.5°	37.3	18.5	11.2	8.0	4.7	2.9	0.7	1.1	1.1	1.1	1.1
65°	27.1	14.5	10.1	5.4	2.9	1.1	0.7	1.1	1.1	1.1	1.1
67.5°	21.0	11.9	7.6	4.7	2.5	0.7	0.7	1.1	1.1	1.1	1.1
70°	16.6	10.1	6.2	4.0	2.2	0.7	0.7	1.1	1.1	1.1	1.1
72.5°	13.0	7.2	4.3	2.2	1.4	0.7	0.7	1.1	1.1	1.1	1.1
75°	9.8	5.8	3.3	1.8	0.7	0.7	0.7	1.1	1.1	1.1	1.1
77.5°	6.5	3.6	2.5	1.4	1.4	1.4	1.8	1.8	1.1	1.1	1.1
80°	4.3	2.5	1.8	1.8	1.8	1.4	1.8	1.8	1.1	1.8	1.1
82.5°	2.2	1.8	1.8	1.4	1.4	1.1	1.4	1.4	1.4	1.4	1.1
85°	1.4	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.4	1.4	1.1
87.5°	0.7	0.7	0.7	0.7	1.1	1.1	1.1	1.1	1.4	1.4	1.1
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: P1214069

CATALOG NUMBER: 4SNLED-LD5-19SL-RM-UNV-L950-CD1-U

CANDELA DISTRIBUTION (continued):

	255°	260°	265°	270°	275°	280°	285°	290°	295°	300°	305°
0°	1205.4	1205.4	1205.4	1205.4	1205.4	1205.4	1205.4	1205.4	1205.4	1205.4	1205.4
2.5°	1214.1	1215.2	1212.3	1227.8	1219.9	1220.6	1223.9	1215.5	1217.4	1211.6	1207.6
5°	1345.8	1347.9	1350.1	1350.8	1352.3	1354.1	1351.9	1350.8	1348.7	1341.4	1333.8
7.5°	1325.2	1322.6	1321.5	1323.0	1325.5	1326.6	1324.8	1327.3	1336.7	1340.7	1343.2
10°	1216.6	1205.1	1213.0	1211.9	1202.9	1233.3	1224.9	1229.7	1232.9	1266.2	1286.4
12.5°	1164.9	1172.1	1158.4	1151.5	1160.6	1166.7	1172.9	1159.8	1177.9	1169.6	1196.4
15°	1121.5	1117.1	1115.7	1116.1	1114.2	1122.9	1125.1	1128.0	1130.5	1141.7	1146.1
17.5°	1101.9	1109.2	1112.1	1114.2	1110.6	1106.7	1102.7	1096.9	1098.7	1095.8	1104.1
20°	903.3	879.1	877.7	891.8	876.2	884.9	905.9	1046.2	1041.5	1096.2	1077.7
22.5°	753.9	731.1	711.6	694.6	718.8	729.0	768.0	812.2	883.8	872.6	950.4
25°	615.7	607.4	602.3	599.8	601.6	600.9	609.6	630.2	662.8	739.5	838.6
27.5°	575.9	572.0	570.1	564.4	568.7	567.3	574.1	578.5	588.2	595.8	628.0
30°	544.5	539.8	536.5	530.4	534.7	535.1	537.2	548.4	552.4	558.9	569.1
32.5°	199.0	117.2	110.0	104.6	114.3	149.0	261.6	457.3	521.7	526.7	538.3
35°	19.5	16.3	14.5	14.5	14.8	16.3	21.7	57.2	104.6	404.1	505.8
37.5°	7.6	6.5	5.4	5.1	5.4	6.2	8.3	10.9	14.8	30.8	137.1
40°	3.3	2.9	2.5	2.5	2.5	2.5	2.9	3.6	5.4	10.1	15.9
42.5°	2.2	1.8	1.8	1.8	1.8	1.8	1.8	1.8	2.5	3.3	6.5
45°	1.4	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.4	1.8	2.9
47.5°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.4
50°	1.1	1.1	1.1	1.1	0.7	1.1	0.7	1.1	1.1	1.1	1.1
52.5°	1.1	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	1.1	1.1
55°	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	1.1
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	1.1	1.1	0.7
65°	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	1.1	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°	1.1	1.1	0.7	1.1	0.7	0.7	1.1	1.1	1.1	0.7	0.7
72.5°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	2.2	2.2	1.4
75°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.8	2.2	1.8
77.5°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.8	1.8	1.8
80°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.4	1.4	1.4
82.5°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.4	1.4	1.4
85°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
87.5°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
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: P1214069

CATALOG NUMBER: 4SNLED-LD5-19SL-RM-UNV-L950-CD1-U

CANDELA DISTRIBUTION (continued):

	310°	315°	320°	325°	330°	335°	340°	341°	342°	343°	344°
0°	1205.4	1205.4	1205.4	1205.4	1205.4	1205.4	1205.4	1205.4	1205.4	1205.4	1205.4
2.5°	1200.7	1200.3	1207.9	1213.7	1211.6	1213.7	1216.3	1216.6	1217.4	1214.5	1213.4
5°	1319.4	1308.2	1286.4	1270.9	1252.8	1219.9	1203.6	1205.4	1205.8	1204.7	1206.1
7.5°	1342.2	1341.1	1333.5	1330.2	1317.9	1294.4	1256.8	1250.3	1234.4	1224.2	1215.9
10°	1285.0	1311.0	1317.9	1329.5	1336.7	1332.4	1300.6	1295.9	1285.7	1274.1	1276.7
12.5°	1223.1	1244.5	1245.6	1308.5	1322.6	1324.1	1311.8	1318.3	1319.7	1293.7	1278.5
15°	1147.2	1157.3	1178.6	1237.2	1279.9	1306.7	1314.7	1318.3	1300.6	1299.5	1293.3
17.5°	1113.9	1120.4	1130.2	1163.1	1227.8	1267.3	1300.9	1298.4	1305.3	1300.2	1284.6
20°	1071.9	1077.3	1094.7	1111.4	1143.2	1195.6	1258.6	1263.3	1272.3	1271.3	1275.6
22.5°	1071.2	1052.0	1054.9	1067.9	1101.2	1148.3	1215.2	1230.7	1236.5	1240.5	1245.2
25°	849.8	1002.1	1030.0	1038.3	1060.0	1087.5	1166.3	1172.1	1183.0	1200.7	1213.7
27.5°	736.2	839.7	951.1	1009.0	1022.7	1045.5	1092.5	1101.2	1138.1	1142.5	1162.7
30°	581.0	661.0	827.4	966.6	989.4	1005.4	1038.6	1056.0	1071.9	1089.3	1110.6
32.5°	546.6	559.3	651.5	799.9	977.1	965.2	989.8	1000.3	1017.7	1032.8	1048.4
35°	515.2	523.8	543.4	655.2	795.9	932.3	948.9	955.8	965.6	977.1	988.4
37.5°	482.2	495.3	508.6	538.7	736.2	906.2	905.9	913.8	919.6	929.4	938.8
40°	87.5	454.7	476.4	496.0	570.9	722.8	865.4	869.0	872.9	879.1	888.9
42.5°	14.1	76.0	446.4	465.2	486.6	647.2	846.9	832.1	829.5	833.9	842.6
45°	7.2	18.5	89.7	434.5	453.7	516.2	692.4	806.4	803.8	795.5	797.3
47.5°	5.4	11.6	22.1	150.1	424.7	443.2	638.9	632.0	680.1	772.4	758.3
50°	4.7	8.0	13.0	30.8	375.2	408.1	492.0	574.9	600.2	603.4	714.1
52.5°	4.3	5.4	9.4	19.9	78.9	377.3	400.1	429.1	471.7	563.3	561.1
55°	4.0	5.1	8.0	13.4	27.5	340.1	363.6	369.0	378.0	421.8	479.7
57.5°	2.2	4.7	7.6	11.6	20.6	62.2	329.9	334.3	341.5	343.3	363.9
60°	1.1	4.3	6.9	10.1	15.2	28.9	296.7	301.7	306.1	306.8	313.3
62.5°	0.7	4.0	5.8	9.4	12.7	20.6	70.2	143.3	272.4	272.4	280.0
65°	0.7	2.9	3.6	6.2	11.6	17.0	29.7	34.4	66.9	164.6	245.6
67.5°	0.7	1.1	3.3	5.1	8.7	13.0	21.7	25.3	30.4	34.7	64.4
70°	0.7	0.7	2.9	3.3	5.4	9.8	15.6	17.7	20.6	23.5	27.1
72.5°	0.7	0.7	2.5	2.5	3.6	6.5	11.9	13.0	14.8	16.6	19.2
75°	1.8	1.4	2.2	2.2	2.5	5.1	9.0	10.1	10.9	12.3	14.1
77.5°	1.8	1.8	1.8	1.8	1.8	3.3	5.8	6.5	7.6	8.3	9.8
80°	1.4	1.4	1.4	1.8	1.8	2.2	3.6	4.0	4.3	5.4	5.8
82.5°	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	2.2	2.5	3.3
85°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.4	1.4	1.4	1.4
87.5°	1.1	1.1	1.1	0.7	0.7	1.1	1.1	1.1	1.1	1.1	1.1
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: P1214069

CATALOG NUMBER: 4SNLED-LD5-19SL-RM-UNV-L950-CD1-U

CANDELA DISTRIBUTION (continued):

	345°	346°	347°	348°	349°	350°	351°	352°	353°	354°	355°
0°	1205.4	1205.4	1205.4	1205.4	1205.4	1205.4	1205.4	1205.4	1205.4	1205.4	1205.4
2.5°	1213.0	1210.8	1209.0	1210.1	1206.9	1205.4	1206.5	1206.9	1207.6	1209.4	1209.8
5°	1209.8	1209.0	1212.3	1214.1	1213.4	1214.1	1214.1	1212.6	1210.5	1211.9	1208.7
7.5°	1207.6	1202.9	1199.3	1200.0	1196.4	1200.7	1204.7	1210.5	1212.3	1212.3	1208.7
10°	1244.8	1239.8	1219.5	1205.8	1196.7	1188.8	1207.6	1188.4	1197.5	1163.1	1202.5
12.5°	1275.6	1282.5	1273.4	1235.8	1229.3	1205.4	1219.2	1195.6	1188.8	1149.3	1162.0
15°	1287.9	1274.9	1272.0	1261.5	1247.4	1240.5	1203.6	1199.6	1188.4	1192.8	1176.1
17.5°	1277.0	1283.6	1274.9	1268.0	1253.5	1237.2	1215.2	1195.6	1180.1	1145.4	1174.7
20°	1266.6	1275.2	1249.2	1253.5	1255.0	1236.2	1224.6	1208.3	1188.8	1156.2	1130.9
22.5°	1249.2	1243.0	1245.2	1238.7	1233.3	1235.8	1219.9	1208.7	1175.7	1160.9	1126.5
25°	1221.0	1218.8	1224.6	1223.9	1210.8	1206.5	1198.5	1186.6	1173.6	1149.7	1121.5
27.5°	1175.0	1186.2	1196.4	1201.1	1194.2	1182.6	1178.3	1171.4	1162.4	1138.1	1117.1
30°	1126.5	1139.2	1150.8	1160.9	1167.1	1162.0	1158.0	1154.0	1140.3	1124.4	1100.9
32.5°	1071.2	1087.8	1103.8	1116.1	1129.4	1133.4	1130.5	1127.3	1115.7	1101.2	1082.4
35°	1007.2	1030.0	1053.1	1075.2	1081.0	1090.4	1099.8	1094.4	1088.2	1073.7	1056.4
37.5°	952.9	969.2	985.8	1013.7	1033.9	1045.9	1062.5	1064.7	1054.2	1047.3	1024.5
40°	896.8	911.7	935.9	952.2	980.0	993.8	1011.5	1019.5	1016.9	1013.0	993.1
42.5°	852.7	859.9	875.8	890.3	917.8	946.0	961.6	970.3	979.3	976.1	965.9
45°	805.7	812.2	817.6	830.3	857.0	882.0	901.2	914.2	930.5	938.1	925.8
47.5°	759.0	760.8	767.3	777.8	793.7	812.9	845.1	864.6	879.8	894.7	886.7
50°	723.2	716.7	717.7	724.3	737.3	756.1	779.2	806.7	824.1	842.2	844.0
52.5°	632.0	684.8	672.2	675.8	682.7	691.7	715.9	743.1	764.4	780.0	795.5
55°	530.4	540.8	642.5	628.0	632.4	640.3	651.5	678.7	699.3	721.0	742.7
57.5°	411.3	489.5	493.5	587.5	585.3	586.1	595.5	611.0	631.6	658.8	677.2
60°	319.8	352.7	416.8	449.3	531.8	534.7	540.1	549.2	566.9	592.6	621.9
62.5°	282.2	286.5	309.3	358.2	411.7	476.4	488.0	489.5	497.4	523.1	557.1
65°	247.8	250.7	257.6	262.6	307.5	370.1	425.8	434.8	439.9	455.1	484.0
67.5°	170.8	216.0	222.1	225.7	230.1	259.0	328.1	374.1	379.9	393.2	418.6
70°	32.9	68.4	187.0	191.0	193.2	199.7	210.9	284.0	322.3	335.0	346.6
72.5°	22.4	26.4	31.8	75.2	159.2	162.8	165.3	174.7	239.5	276.4	282.5
75°	16.3	18.1	21.3	26.4	32.6	106.0	131.3	136.0	140.7	194.3	225.4
77.5°	11.6	13.0	14.5	17.0	19.9	25.7	36.9	101.7	106.4	108.9	153.8
80°	6.5	8.0	9.8	11.2	12.7	14.5	18.8	23.5	52.5	76.7	80.7
82.5°	3.6	4.3	5.1	6.2	6.9	8.7	10.5	12.7	16.6	24.6	52.1
85°	1.8	1.8	1.8	2.5	2.9	4.0	4.7	5.4	7.6	10.5	14.5
87.5°	1.1	1.1	1.4	1.4	1.4	1.8	1.8	1.8	2.2	3.3	4.7
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: P1214069

CATALOG NUMBER: 4SNLED-LD5-19SL-RM-UNV-L950-CD1-U

CANDELA DISTRIBUTION (continued):

	356°	357°	358°	359°	360°
0°	1205.4	1205.4	1205.4	1205.4	1205.4
2.5°	1210.1	1209.0	1209.0	1213.4	1212.3
5°	1207.9	1206.9	1206.5	1211.2	1209.0
7.5°	1206.1	1202.2	1201.1	1205.4	1203.6
10°	1198.9	1196.0	1197.8	1196.4	1195.6
12.5°	1186.6	1184.8	1177.2	1177.9	1184.1
15°	1164.5	1171.8	1158.7	1170.3	1172.9
17.5°	1124.0	1140.3	1153.0	1159.8	1160.9
20°	1142.1	1147.5	1141.0	1141.4	1145.7
22.5°	1118.6	1121.1	1122.9	1120.8	1130.2
25°	1081.0	1071.2	1092.2	1096.5	1111.7
27.5°	1069.4	1061.4	1071.2	1070.5	1083.1
30°	1060.0	1034.3	1038.6	1045.5	1061.1
32.5°	1046.6	1006.1	1001.7	1016.9	1034.3
35°	1023.1	984.7	974.6	984.4	1010.4
37.5°	1003.2	955.1	934.8	947.8	981.8
40°	973.5	931.9	900.4	912.0	952.2
42.5°	938.1	912.0	863.5	871.5	917.4
45°	902.3	879.1	827.7	831.7	886.3
47.5°	865.7	844.4	790.5	791.2	846.5
50°	829.9	801.7	757.2	744.5	804.2
52.5°	783.2	757.2	723.5	702.9	764.1
55°	739.1	709.8	685.2	653.4	718.5
57.5°	696.0	663.5	646.8	606.0	666.7
60°	637.1	621.5	596.9	557.8	620.1
62.5°	576.7	571.6	546.6	506.1	562.6
65°	506.1	518.1	492.4	457.6	502.9
67.5°	439.5	460.9	432.7	411.3	445.3
70°	368.6	393.2	377.3	369.7	384.2
72.5°	298.8	322.7	324.1	318.7	323.4
75°	230.8	257.2	271.7	263.4	264.5
77.5°	175.1	187.8	203.7	210.2	208.7
80°	108.2	130.2	143.3	156.6	151.9
82.5°	54.6	73.1	89.0	103.5	96.6
85°	22.8	29.3	40.9	53.9	51.7
87.5°	6.9	11.6	12.3	17.4	16.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)