

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: P1213530

Luminaire Tested: 4SNLED-LD5-77SL-LW-UNV-L935-CD1-U

Issue Date: 3/29/2018

Test Information

Test Method: LM-79-2019
Report Number: P1213530
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P33520)
Test Lab: INNOVATIONS CENTER-P3
Issue Date: 3/29/2018
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: METALUX
Catalog Number: 4SNLED-LD5-77SL-LW-UNV-L935-CD1-U
Description: 4FT LINEAR SNLED LED FIXTURE
WIDE FROSTED LENS
Light Source: -
Ballast/Driver: -

Summary

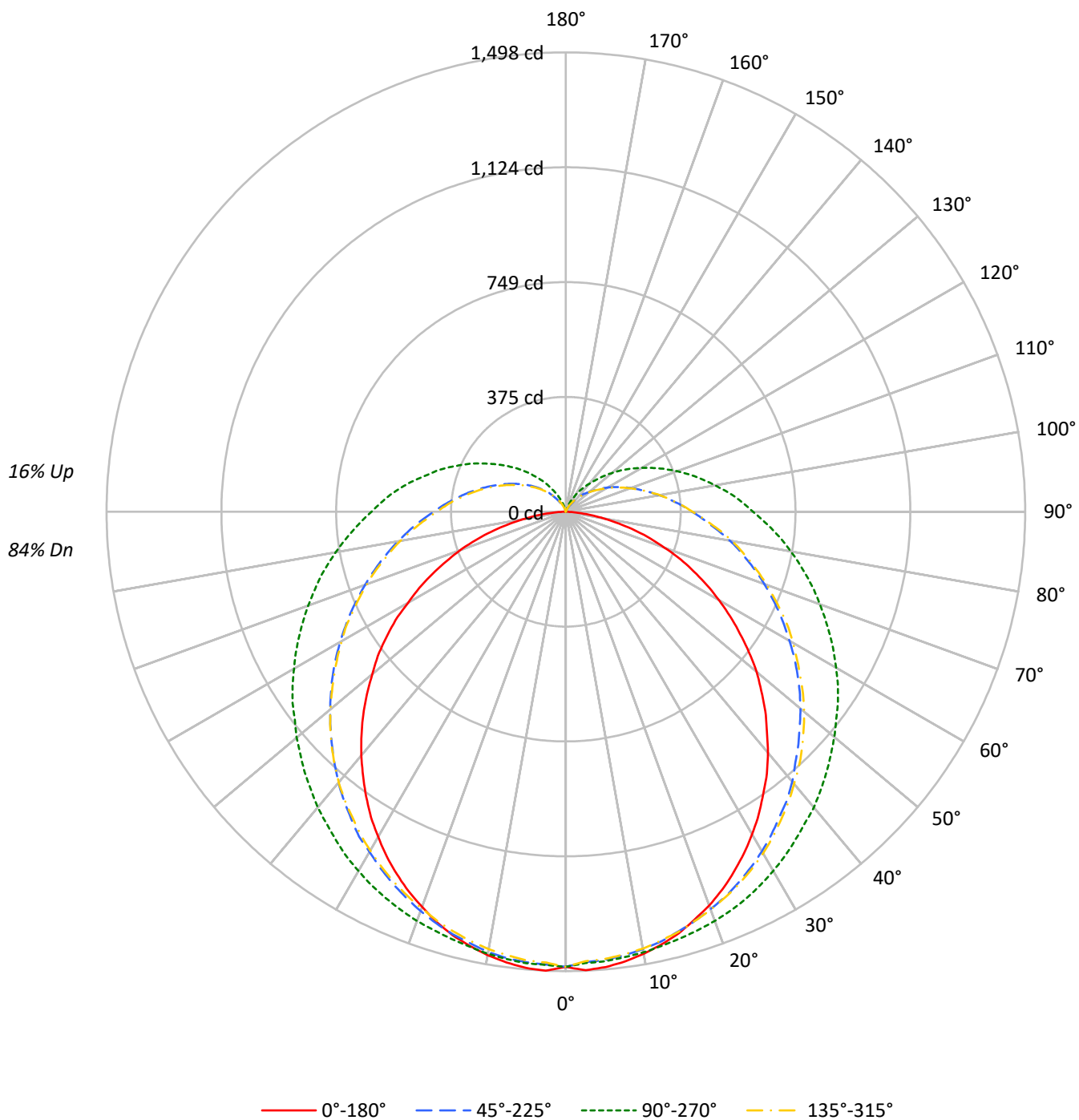
Lumens per Lamp: N/A
Luminaire Lumens: 6447.0 lumens
Efficiency: N/A
Efficacy: 75.8 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.36 / 1.44
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.12')
CIE Type: Semi-Direct

Input Watts (W): 85
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
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10
RCR																	
0	115	115	115	115	111	111	111	111	102	102	102	94	94	94	87	87	87
1	102	96	91	86	98	92	87	83	85	81	77	78	75	72	72	70	67
2	92	82	74	68	87	79	72	66	73	67	62	67	62	58	62	58	54
3	83	71	62	55	79	69	60	54	63	56	51	58	52	48	54	49	45
4	76	63	53	46	72	60	52	45	56	48	42	51	45	40	47	42	38
5	69	56	46	39	66	54	45	38	50	42	36	46	39	34	42	37	33
6	64	50	41	34	61	48	39	33	45	37	31	41	35	30	38	33	28
7	59	45	36	30	56	43	35	29	40	33	28	38	31	26	35	29	25
8	55	41	32	26	52	40	31	26	37	30	24	34	28	23	32	26	22
9	51	37	29	23	49	36	28	23	34	27	22	32	25	21	30	24	20
10	48	34	26	21	46	33	26	21	31	24	20	29	23	19	27	22	18

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	11991	11991	11991	11991
5°	12055	11556	12080	11605
10°	11944	11228	11982	11264
15°	11805	10947	11857	10958
20°	11619	10741	11659	10741
25°	11391	10560	11459	10548
30°	11134	10372	11220	10372
35°	10835	10198	10955	10210
40°	10540	10096	10668	10096
45°	10200	9989	10356	10002
50°	9847	9926	9980	9953
55°	9352	9935	9647	9978
60°	8831	9965	9120	10026
65°	8247	10065	8611	10165
70°	7424	10251	8003	10396
75°	6479	10586	7091	10788
80°	5013	11082	5692	11338
85°	2992	11879	3744	12208

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 270°

Vertical Angle: 90°

Luminance: 13646 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	140.6	2.2
10°-20°	404.0	6.3
20°-30°	619.4	9.6
30°-40°	764.2	11.9
40°-50°	829.1	12.9
50°-60°	817.1	12.7
60°-70°	738.8	11.5
70°-80°	615.5	9.5
80°-90°	476.7	7.4
90°-100°	361.5	5.6
100°-110°	267.6	4.2
110°-120°	186.1	2.9
120°-130°	118.7	1.8
130°-140°	66.6	1.0
140°-150°	30.4	0.5
150°-160°	9.4	0.1
160°-170°	1.2	0.0
170°-180°	0.0	0.0
0°-30°	1164.0	18.1
0°-40°	1928.2	29.9
0°-60°	3574.4	55.4
0°-90°	5405.4	83.8
90°-120°	815.2	12.6
90°-150°	1031.0	16.0
90°-180°	1042.0	16.2
0°-180°	6447.0	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	1484	1484	1484	1484	1484	
5°	1490	1471	1493	1478	1490	141
15°	1423	1440	1429	1442	1423	401
25°	1296	1392	1304	1390	1296	597
35°	1122	1306	1135	1307	1122	703
45°	920	1202	934	1204	920	709
55°	693	1083	715	1088	693	621
65°	460	950	480	960	460	456
75°	232	814	254	830	232	245
85°	44	678	55	697	44	53
90°	2	610	3	634	2	2
95°	2	554	2	581	2	1
105°	2	440	2	466	2	2
115°	2	335	2	365	2	2
125°	2	241	2	268	2	1
135°	2	156	2	185	2	1
145°	2	91	2	111	2	1
155°	2	38	2	52	2	1
165°	2	6	2	9	2	0
175°	0	0	0	0	0	0
180°	0	0	0	0	0	0

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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1483.9	1483.9	1483.9	1483.9	1483.9	1483.9	1483.9	1483.9	1483.9	1483.9	1483.9
2.5°	1496.4	1496.4	1494.9	1491.7	1493.3	1498.0	1494.9	1487.0	1482.3	1469.8	1473.0
5°	1490.2	1490.2	1488.6	1485.5	1487.0	1493.3	1490.2	1483.9	1477.6	1466.7	1471.4
7.5°	1479.2	1479.2	1477.6	1474.5	1477.6	1483.9	1480.8	1474.5	1469.8	1458.9	1463.6
10°	1463.6	1465.1	1463.6	1458.9	1465.1	1471.4	1469.8	1462.0	1457.3	1447.9	1452.6
12.5°	1444.8	1446.3	1444.8	1443.2	1446.3	1455.7	1452.6	1446.3	1443.2	1435.4	1440.1
15°	1422.9	1424.4	1421.3	1421.3	1424.4	1433.8	1433.8	1427.6	1424.4	1416.6	1426.0
17.5°	1394.7	1396.3	1394.7	1394.7	1397.8	1407.2	1408.8	1405.6	1402.5	1399.4	1408.8
20°	1366.5	1364.9	1364.9	1363.4	1369.6	1383.7	1382.2	1382.2	1379.0	1379.0	1390.0
22.5°	1333.6	1333.6	1332.1	1332.1	1339.9	1352.4	1352.4	1355.6	1352.4	1358.7	1368.1
25°	1296.1	1297.6	1296.1	1299.2	1305.5	1319.6	1321.1	1325.8	1327.4	1333.6	1344.6
27.5°	1256.9	1258.5	1256.9	1260.1	1271.0	1282.0	1289.8	1296.1	1297.6	1307.0	1321.1
30°	1214.7	1214.7	1216.2	1219.4	1231.9	1249.1	1255.4	1263.2	1263.2	1278.9	1292.9
32.5°	1170.8	1170.8	1170.8	1177.1	1191.2	1211.5	1219.4	1228.8	1231.9	1247.5	1263.2
35°	1122.3	1123.9	1123.9	1128.6	1147.4	1167.7	1178.7	1189.6	1195.9	1214.7	1230.3
37.5°	1076.9	1080.1	1075.4	1081.6	1108.2	1125.5	1138.0	1148.9	1159.9	1184.9	1197.5
40°	1025.3	1028.4	1026.8	1039.4	1061.3	1083.2	1097.3	1108.2	1123.9	1148.9	1163.0
42.5°	970.5	973.6	976.8	990.8	1014.3	1036.2	1053.5	1067.5	1086.3	1108.2	1131.7
45°	920.4	920.4	925.1	942.3	967.4	990.8	1011.2	1026.8	1048.8	1072.2	1095.7
47.5°	864.0	865.6	871.9	892.2	918.8	947.0	965.8	986.1	1009.6	1034.7	1061.3
50°	812.4	812.4	821.8	843.7	868.7	900.1	920.4	943.9	968.9	998.7	1025.3
52.5°	752.9	756.0	770.1	790.5	823.4	851.5	875.0	900.1	929.8	961.1	990.8
55°	693.4	699.7	710.6	738.8	773.3	799.9	828.0	859.4	887.5	922.0	956.4
57.5°	635.5	640.2	657.4	685.6	721.6	754.5	784.2	814.0	848.4	882.8	918.8
60°	576.0	582.3	602.6	630.8	670.0	704.4	738.8	770.1	806.1	842.1	879.7
62.5°	519.7	524.4	547.9	580.7	619.9	657.4	691.9	729.4	768.6	803.0	840.6
65°	460.2	468.0	494.6	524.4	569.8	607.3	646.5	687.2	727.9	765.4	801.4
67.5°	405.4	410.1	438.3	472.7	518.1	560.4	601.1	644.9	687.2	726.3	762.3
70°	341.2	356.9	385.1	421.1	469.6	513.4	557.2	602.6	648.0	688.7	723.2
72.5°	288.0	300.5	331.8	371.0	417.9	469.6	515.0	563.5	608.9	651.2	687.2
75°	231.7	244.2	280.2	324.0	372.5	427.3	474.3	524.4	571.3	613.6	651.2
77.5°	176.9	192.5	231.7	277.1	330.3	386.6	435.2	485.2	533.8	579.2	616.7
80°	126.8	144.0	186.3	237.9	289.6	345.9	399.2	449.2	497.8	543.2	582.3
82.5°	81.4	100.2	145.6	197.2	252.0	308.4	363.2	413.2	461.8	507.2	547.9
85°	43.8	64.2	111.1	162.8	217.6	273.9	328.7	381.9	428.9	471.2	515.0
87.5°	12.5	37.6	83.0	134.6	191.0	242.6	295.8	349.1	396.0	441.4	480.5
90°	1.6	21.9	62.6	111.1	165.9	216.0	269.2	319.3	366.3	411.7	450.8
92.5°	1.6	14.1	48.5	92.4	142.4	194.1	247.3	295.8	339.7	385.1	424.2
95°	1.6	11.0	39.1	78.3	125.2	173.7	223.8	270.8	316.2	358.5	397.6
97.5°	1.6	7.8	31.3	67.3	109.6	155.0	203.5	250.4	294.3	335.0	371.0
100°	1.6	6.3	25.0	57.9	95.5	139.3	183.1	228.5	270.8	309.9	347.5
102.5°	1.6	4.7	21.9	48.5	84.5	123.7	165.9	208.2	248.9	286.5	324.0
105°	1.6	4.7	18.8	42.3	75.1	111.1	150.3	191.0	228.5	264.5	299.0
107.5°	1.6	3.1	15.7	36.0	65.7	100.2	136.2	175.3	209.8	244.2	277.1
110°	1.6	3.1	12.5	32.9	57.9	89.2	123.7	159.7	192.5	225.4	256.7



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	1.6	3.1	11.0	28.2	50.1	79.8	111.1	144.0	175.3	208.2	236.4
115°	1.6	3.1	9.4	25.0	47.0	68.9	100.2	129.9	161.2	191.0	217.6
117.5°	1.6	3.1	7.8	20.3	40.7	62.6	87.7	117.4	145.6	173.7	198.8
120°	1.6	3.1	6.3	18.8	36.0	56.4	78.3	104.9	131.5	158.1	184.7
122.5°	1.6	1.6	6.3	15.7	31.3	50.1	72.0	92.4	117.4	142.4	165.9
125°	1.6	1.6	6.3	14.1	26.6	45.4	64.2	83.0	104.9	126.8	147.1
127.5°	1.6	1.6	4.7	11.0	23.5	39.1	56.4	76.7	92.4	112.7	133.1
130°	1.6	1.6	4.7	9.4	20.3	32.9	50.1	67.3	86.1	100.2	117.4
132.5°	1.6	1.6	4.7	7.8	15.7	26.6	42.3	57.9	75.1	90.8	104.9
135°	1.6	1.6	3.1	6.3	12.5	21.9	34.4	48.5	65.7	81.4	95.5
137.5°	1.6	1.6	3.1	6.3	9.4	18.8	26.6	39.1	54.8	68.9	83.0
140°	1.6	1.6	3.1	4.7	7.8	14.1	21.9	31.3	43.8	56.4	72.0
142.5°	1.6	1.6	1.6	4.7	6.3	11.0	17.2	25.0	34.4	45.4	57.9
145°	1.6	1.6	1.6	4.7	6.3	7.8	14.1	20.3	26.6	34.4	45.4
147.5°	1.6	1.6	1.6	3.1	4.7	6.3	11.0	15.7	20.3	26.6	32.9
150°	1.6	1.6	1.6	3.1	4.7	6.3	7.8	11.0	15.7	21.9	26.6
152.5°	1.6	1.6	1.6	3.1	3.1	4.7	6.3	7.8	11.0	15.7	18.8
155°	1.6	1.6	1.6	1.6	3.1	4.7	6.3	6.3	7.8	11.0	14.1
157.5°	1.6	1.6	1.6	1.6	3.1	3.1	4.7	4.7	6.3	6.3	9.4
160°	1.6	1.6	1.6	1.6	1.6	3.1	3.1	4.7	4.7	4.7	4.7
162.5°	1.6	1.6	1.6	1.6	1.6	1.6	3.1	3.1	3.1	4.7	4.7
165°	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	3.1	3.1	3.1
167.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	1483.9	1483.9	1483.9	1483.9	1483.9	1483.9	1483.9	1483.9	1483.9	1483.9	1483.9
2.5°	1473.0	1474.5	1479.2	1479.2	1476.1	1476.1	1474.5	1473.0	1474.5	1477.6	1477.6
5°	1469.8	1471.4	1476.1	1477.6	1474.5	1473.0	1473.0	1471.4	1473.0	1476.1	1476.1
7.5°	1463.6	1465.1	1469.8	1471.4	1468.3	1468.3	1466.7	1465.1	1468.3	1469.8	1469.8
10°	1454.2	1455.7	1462.0	1463.6	1462.0	1460.4	1460.4	1458.9	1460.4	1463.6	1463.6
12.5°	1441.6	1444.8	1452.6	1452.6	1452.6	1451.0	1451.0	1449.5	1451.0	1454.2	1452.6
15°	1427.6	1433.8	1440.1	1443.2	1443.2	1443.2	1441.6	1440.1	1443.2	1444.8	1443.2
17.5°	1411.9	1419.7	1429.1	1432.3	1432.3	1433.8	1432.3	1430.7	1433.8	1433.8	1432.3
20°	1396.3	1404.1	1413.5	1416.6	1419.7	1421.3	1421.3	1419.7	1421.3	1422.9	1421.3
22.5°	1375.9	1385.3	1396.3	1400.9	1404.1	1407.2	1407.2	1407.2	1408.8	1410.3	1407.2
25°	1354.0	1364.9	1377.5	1382.2	1388.4	1390.0	1391.6	1391.6	1393.1	1394.7	1390.0
27.5°	1330.5	1343.0	1355.6	1363.4	1368.1	1371.2	1371.2	1372.8	1374.3	1375.9	1371.2
30°	1302.3	1321.1	1332.1	1338.3	1344.6	1349.3	1350.9	1352.4	1354.0	1355.6	1350.9
32.5°	1277.3	1292.9	1307.0	1314.9	1322.7	1328.9	1330.5	1330.5	1333.6	1333.6	1328.9
35°	1247.5	1266.3	1280.4	1288.2	1297.6	1302.3	1305.5	1305.5	1308.6	1308.6	1303.9
37.5°	1217.8	1236.6	1252.2	1261.6	1272.6	1278.9	1280.4	1280.4	1283.6	1283.6	1277.3
40°	1186.5	1206.9	1224.1	1235.0	1244.4	1252.2	1253.8	1258.5	1258.5	1256.9	1250.7
42.5°	1155.2	1174.0	1192.8	1205.3	1217.8	1225.6	1228.8	1230.3	1230.3	1228.8	1224.1
45°	1120.8	1142.7	1159.9	1175.5	1188.1	1195.9	1200.6	1202.2	1202.2	1199.0	1194.3
47.5°	1087.9	1109.8	1127.0	1144.2	1156.8	1166.2	1170.8	1172.4	1170.8	1169.3	1164.6
50°	1053.5	1078.5	1095.7	1112.9	1125.5	1133.3	1141.1	1142.7	1141.1	1139.5	1130.2
52.5°	1017.4	1044.1	1062.8	1080.1	1094.1	1103.5	1109.8	1111.4	1111.4	1108.2	1102.0
55°	981.4	1004.9	1028.4	1047.2	1062.8	1072.2	1080.1	1083.2	1080.1	1076.9	1069.1
57.5°	948.6	970.5	994.0	1014.3	1030.0	1042.5	1048.8	1051.9	1048.8	1044.1	1036.2
60°	909.4	932.9	959.5	978.3	995.5	1008.1	1011.2	1017.4	1014.3	1009.6	1001.8
62.5°	871.9	900.1	923.5	947.0	961.1	975.2	981.4	984.6	981.4	976.8	968.9
65°	832.7	864.0	887.5	911.0	926.7	940.7	948.6	950.1	947.0	942.3	934.5
67.5°	796.7	826.5	851.5	876.6	890.7	904.7	912.6	915.7	912.6	906.3	898.5
70°	760.7	790.5	820.2	839.0	856.2	871.9	876.6	881.3	878.1	871.9	862.5
72.5°	724.7	756.0	785.8	804.6	823.4	837.4	843.7	848.4	845.3	839.0	828.0
75°	687.2	720.0	749.8	770.1	788.9	803.0	809.3	814.0	810.8	804.6	792.0
77.5°	652.7	685.6	713.8	735.7	754.5	767.0	778.0	779.5	776.4	770.1	757.6
80°	616.7	649.6	679.3	701.3	720.0	732.6	740.4	745.1	742.0	735.7	723.2
82.5°	585.4	615.2	644.9	666.8	685.6	701.3	707.5	712.2	710.6	701.3	691.9
85°	551.0	585.4	608.9	632.4	651.2	666.8	671.5	677.8	676.2	668.4	655.9
87.5°	516.6	551.0	579.2	602.6	619.9	632.4	640.2	643.3	641.8	633.9	619.9
90°	488.4	519.7	547.9	572.9	587.0	601.1	608.9	610.5	610.5	601.1	590.1
92.5°	461.8	491.5	519.7	543.2	560.4	572.9	579.2	582.3	580.7	572.9	560.4
95°	432.0	464.9	491.5	515.0	532.2	544.7	551.0	554.1	552.6	544.7	532.2
97.5°	407.0	436.7	463.3	485.2	502.5	515.0	521.2	524.4	524.4	516.6	504.0
100°	381.9	411.7	436.7	458.6	474.3	486.8	493.1	494.6	493.1	486.8	474.3
102.5°	356.9	385.1	410.1	430.5	447.7	458.6	464.9	466.5	466.5	458.6	446.1
105°	331.8	360.0	383.5	405.4	419.5	430.5	435.2	439.9	438.3	432.0	419.5
107.5°	308.4	336.5	358.5	378.8	392.9	403.8	408.5	413.2	411.7	405.4	392.9
110°	286.5	313.1	333.4	353.8	366.3	377.2	385.1	386.6	383.5	377.2	366.3

TEST NUMBER: P1213530

CATALOG NUMBER: 4SNLED-LD5-77SL-LW-UNV-L935-CD1-U

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
112.5°	266.1	289.6	309.9	328.7	342.8	350.6	356.9	360.0	356.9	350.6	342.8
115°	244.2	267.7	288.0	305.2	317.8	327.1	331.8	335.0	331.8	325.6	317.8
117.5°	223.8	245.8	266.1	283.3	294.3	302.1	306.8	309.9	306.8	302.1	294.3
120°	206.6	225.4	244.2	259.8	272.4	278.6	283.3	286.5	284.9	278.6	270.8
122.5°	186.3	206.6	223.8	239.5	250.4	256.7	259.8	263.0	261.4	256.7	248.9
125°	169.1	186.3	203.5	217.6	228.5	234.8	237.9	241.1	239.5	234.8	225.4
127.5°	150.3	169.1	183.1	197.2	205.1	214.4	216.0	219.1	217.6	212.9	205.1
130°	136.2	150.3	164.4	176.9	186.3	192.5	195.7	197.2	194.1	191.0	183.1
132.5°	119.0	134.6	147.1	158.1	164.4	170.6	173.7	175.3	175.3	170.6	164.4
135°	106.4	117.4	128.4	139.3	145.6	151.8	155.0	156.5	155.0	151.8	145.6
137.5°	95.5	104.9	112.7	122.1	129.9	133.1	136.2	136.2	134.6	133.1	128.4
140°	83.0	93.9	101.7	108.0	114.3	115.8	119.0	119.0	117.4	115.8	112.7
142.5°	70.4	79.8	87.7	95.5	100.2	103.3	104.9	106.4	104.9	103.3	98.6
145°	56.4	67.3	75.1	79.8	86.1	87.7	89.2	90.8	89.2	87.7	83.0
147.5°	43.8	53.2	61.0	67.3	72.0	73.6	75.1	76.7	75.1	72.0	70.4
150°	31.3	39.1	48.5	54.8	57.9	61.0	61.0	61.0	62.6	59.5	56.4
152.5°	25.0	28.2	34.4	40.7	45.4	47.0	48.5	48.5	47.0	47.0	43.8
155°	17.2	20.3	25.0	29.7	34.4	36.0	37.6	37.6	36.0	36.0	34.4
157.5°	11.0	14.1	17.2	20.3	25.0	26.6	28.2	28.2	28.2	26.6	25.0
160°	6.3	7.8	9.4	12.5	15.7	17.2	18.8	18.8	18.8	18.8	17.2
162.5°	4.7	4.7	4.7	6.3	7.8	9.4	11.0	11.0	11.0	11.0	9.4
165°	3.1	3.1	3.1	3.1	3.1	4.7	6.3	6.3	6.3	6.3	6.3
167.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

TEST NUMBER: P1213530

CATALOG NUMBER: 4SNLED-LD5-77SL-LW-UNV-L935-CD1-U

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	1483.9	1483.9	1483.9	1483.9	1483.9	1483.9	1483.9	1483.9	1483.9	1483.9	1483.9
2.5°	1476.1	1476.1	1477.6	1474.5	1465.1	1466.7	1466.7	1473.0	1476.1	1477.6	1485.5
5°	1473.0	1473.0	1476.1	1471.4	1463.6	1463.6	1463.6	1469.8	1471.4	1474.5	1480.8
7.5°	1468.3	1468.3	1469.8	1465.1	1455.7	1455.7	1454.2	1460.4	1463.6	1465.1	1471.4
10°	1460.4	1460.4	1462.0	1457.3	1446.3	1446.3	1444.8	1449.5	1451.0	1454.2	1458.9
12.5°	1449.5	1449.5	1449.5	1444.8	1433.8	1432.3	1430.7	1435.4	1435.4	1437.0	1441.6
15°	1440.1	1437.0	1437.0	1432.3	1421.3	1418.2	1415.0	1416.6	1419.7	1418.2	1421.3
17.5°	1429.1	1426.0	1422.9	1418.2	1404.1	1399.4	1396.3	1397.8	1396.3	1394.7	1397.8
20°	1416.6	1411.9	1410.3	1402.5	1388.4	1380.6	1374.3	1371.2	1372.8	1368.1	1369.6
22.5°	1402.5	1396.3	1393.1	1383.7	1369.6	1360.3	1352.4	1346.2	1344.6	1338.3	1339.9
25°	1385.3	1377.5	1372.8	1364.9	1349.3	1338.3	1328.9	1319.6	1314.9	1307.0	1305.5
27.5°	1364.9	1357.1	1350.9	1343.0	1327.4	1313.3	1302.3	1289.8	1283.6	1274.2	1269.5
30°	1344.6	1335.2	1325.8	1319.6	1302.3	1286.7	1269.5	1258.5	1249.1	1238.2	1230.3
32.5°	1319.6	1310.2	1300.8	1291.4	1275.7	1256.9	1242.9	1225.6	1214.7	1202.2	1192.8
35°	1294.5	1282.0	1272.6	1260.1	1246.0	1224.1	1206.9	1189.6	1175.5	1161.5	1150.5
37.5°	1266.3	1256.9	1242.9	1231.9	1214.7	1192.8	1174.0	1152.1	1139.5	1120.8	1106.7
40°	1239.7	1228.8	1214.7	1200.6	1183.4	1158.3	1138.0	1112.9	1098.8	1076.9	1062.8
42.5°	1213.1	1197.5	1183.4	1167.7	1148.9	1125.5	1100.4	1075.4	1056.6	1036.2	1015.9
45°	1183.4	1166.2	1148.9	1131.7	1112.9	1089.5	1062.8	1036.2	1012.8	994.0	968.9
47.5°	1152.1	1134.8	1114.5	1095.7	1075.4	1051.9	1023.7	995.5	970.5	948.6	922.0
50°	1120.8	1103.5	1081.6	1061.3	1037.8	1014.3	984.6	951.7	925.1	896.9	873.4
52.5°	1087.9	1070.7	1050.3	1023.7	998.7	975.2	943.9	909.4	879.7	856.2	826.5
55°	1055.0	1037.8	1014.3	987.7	962.7	932.9	903.2	868.7	835.9	807.7	778.0
57.5°	1020.6	1004.9	978.3	956.4	925.1	893.8	862.5	829.6	793.6	760.7	726.3
60°	986.1	968.9	943.9	917.3	886.0	854.7	821.8	785.8	748.2	712.2	680.9
62.5°	954.8	932.9	909.4	881.3	848.4	818.7	781.1	742.0	704.4	666.8	629.3
65°	918.8	895.4	873.4	845.3	810.8	776.4	738.8	699.7	659.0	618.3	580.7
67.5°	882.8	859.4	835.9	807.7	771.7	735.7	696.6	657.4	612.0	572.9	529.1
70°	846.8	828.0	798.3	768.6	735.7	696.6	657.4	615.2	568.2	525.9	480.5
72.5°	810.8	792.0	762.3	731.0	699.7	659.0	616.7	574.5	530.6	482.1	433.6
75°	776.4	752.9	726.3	696.6	663.7	621.4	579.2	535.3	483.7	438.3	388.2
77.5°	743.5	721.6	695.0	662.1	626.1	585.4	541.6	496.2	444.5	396.0	341.2
80°	707.5	685.6	659.0	626.1	590.1	551.0	504.0	457.1	407.0	353.8	297.4
82.5°	673.1	652.7	623.0	593.3	554.1	515.0	468.0	421.1	367.8	316.2	261.4
85°	637.1	616.7	588.6	557.2	519.7	477.4	433.6	386.6	333.4	280.2	225.4
87.5°	605.8	582.3	554.1	522.8	485.2	444.5	402.3	352.2	300.5	248.9	192.5
90°	572.9	551.0	522.8	491.5	453.9	413.2	369.4	322.5	272.4	219.1	165.9
92.5°	544.7	521.2	494.6	463.3	425.8	386.6	342.8	295.8	247.3	195.7	144.0
95°	516.6	493.1	468.0	436.7	399.2	360.0	316.2	270.8	223.8	173.7	125.2
97.5°	485.2	464.9	439.9	410.1	372.5	335.0	292.7	248.9	203.5	155.0	109.6
100°	460.2	436.7	413.2	381.9	347.5	311.5	269.2	227.0	183.1	137.7	95.5
102.5°	432.0	410.1	386.6	356.9	322.5	286.5	247.3	206.6	165.9	123.7	83.0
105°	405.4	385.1	360.0	331.8	299.0	264.5	227.0	189.4	150.3	109.6	73.6
107.5°	378.8	358.5	335.0	308.4	277.1	242.6	208.2	170.6	134.6	98.6	65.7
110°	352.2	333.4	311.5	284.9	255.1	223.8	191.0	156.5	120.5	87.7	57.9

TEST NUMBER: P1213530

CATALOG NUMBER: 4SNLED-LD5-77SL-LW-UNV-L935-CD1-U

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
112.5°	328.7	309.9	288.0	263.0	234.8	205.1	173.7	140.9	108.0	78.3	50.1
115°	305.2	288.0	266.1	244.2	216.0	187.8	158.1	126.8	97.0	70.4	43.8
117.5°	281.8	264.5	244.2	222.3	197.2	170.6	142.4	112.7	87.7	62.6	39.1
120°	258.3	242.6	223.8	203.5	181.6	155.0	126.8	101.7	78.3	54.8	34.4
122.5°	236.4	222.3	205.1	186.3	162.8	137.7	114.3	92.4	70.4	48.5	28.2
125°	216.0	201.9	186.3	167.5	145.6	123.7	103.3	83.0	61.0	42.3	23.5
127.5°	195.7	181.6	165.9	148.7	131.5	111.1	92.4	73.6	54.8	37.6	20.3
130°	175.3	162.8	148.7	134.6	117.4	98.6	83.0	64.2	47.0	29.7	17.2
132.5°	155.0	145.6	133.1	119.0	103.3	89.2	72.0	56.4	40.7	26.6	15.7
135°	137.7	128.4	117.4	104.9	92.4	78.3	62.6	48.5	34.4	21.9	12.5
137.5°	122.1	114.3	103.3	92.4	81.4	67.3	54.8	40.7	28.2	18.8	9.4
140°	108.0	100.2	90.8	79.8	70.4	57.9	45.4	32.9	25.0	15.7	7.8
142.5°	93.9	86.1	78.3	68.9	59.5	48.5	37.6	28.2	20.3	12.5	7.8
145°	79.8	73.6	65.7	57.9	48.5	39.1	31.3	23.5	15.7	9.4	6.3
147.5°	65.7	61.0	53.2	47.0	39.1	31.3	25.0	18.8	12.5	7.8	4.7
150°	53.2	48.5	42.3	36.0	31.3	25.0	20.3	14.1	9.4	7.8	4.7
152.5°	40.7	37.6	32.9	29.7	25.0	18.8	14.1	11.0	7.8	6.3	3.1
155°	32.9	29.7	26.6	21.9	18.8	14.1	11.0	7.8	6.3	4.7	3.1
157.5°	23.5	21.9	18.8	15.7	12.5	9.4	7.8	7.8	4.7	3.1	1.6
160°	15.7	14.1	12.5	9.4	7.8	7.8	6.3	4.7	3.1	3.1	1.6
162.5°	9.4	7.8	7.8	7.8	6.3	6.3	4.7	3.1	3.1	1.6	1.6
165°	6.3	6.3	6.3	4.7	4.7	4.7	3.1	1.6	1.6	1.6	1.6
167.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

TEST NUMBER: P1213530

CATALOG NUMBER: 4SNLED-LD5-77SL-LW-UNV-L935-CD1-U

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
0°	1483.9	1483.9	1483.9	1483.9	1483.9	1483.9	1483.9	1483.9	1483.9	1483.9	1483.9
2.5°	1485.5	1480.8	1487.0	1498.0	1499.6	1498.0	1494.9	1499.6	1505.8	1504.3	1493.3
5°	1482.3	1476.1	1482.3	1493.3	1493.3	1491.7	1490.2	1494.9	1501.1	1499.6	1490.2
7.5°	1473.0	1466.7	1473.0	1482.3	1483.9	1480.8	1480.8	1485.5	1491.7	1490.2	1482.3
10°	1460.4	1454.2	1457.3	1468.3	1471.4	1468.3	1468.3	1473.0	1480.8	1479.2	1469.8
12.5°	1441.6	1437.0	1440.1	1449.5	1452.6	1451.0	1449.5	1455.7	1463.6	1463.6	1454.2
15°	1421.3	1415.0	1418.2	1429.1	1430.7	1427.6	1429.1	1433.8	1443.2	1443.2	1435.4
17.5°	1397.8	1390.0	1394.7	1402.5	1404.1	1404.1	1404.1	1410.3	1421.3	1419.7	1413.5
20°	1371.2	1360.3	1363.4	1371.2	1374.3	1374.3	1374.3	1385.3	1393.1	1393.1	1386.9
22.5°	1339.9	1332.1	1332.1	1339.9	1344.6	1343.0	1343.0	1352.4	1363.4	1361.8	1361.8
25°	1303.9	1297.6	1294.5	1303.9	1305.5	1307.0	1310.2	1319.6	1332.1	1332.1	1333.6
27.5°	1266.3	1260.1	1258.5	1266.3	1267.9	1269.5	1272.6	1283.6	1296.1	1297.6	1300.8
30°	1230.3	1220.9	1217.8	1224.1	1227.2	1228.8	1228.8	1246.0	1256.9	1261.6	1267.9
32.5°	1188.1	1178.7	1170.8	1181.8	1183.4	1186.5	1188.1	1205.3	1217.8	1225.6	1235.0
35°	1145.8	1130.2	1127.0	1134.8	1138.0	1139.5	1142.7	1161.5	1178.7	1184.9	1197.5
37.5°	1098.8	1087.9	1078.5	1086.3	1089.5	1091.0	1100.4	1117.6	1134.8	1144.2	1156.8
40°	1055.0	1040.9	1033.1	1037.8	1040.9	1042.5	1053.5	1072.2	1092.6	1103.5	1119.2
42.5°	1006.5	987.7	981.4	986.1	987.7	992.4	1001.8	1026.8	1047.2	1062.8	1075.4
45°	958.0	943.9	929.8	934.5	936.1	939.2	953.3	979.9	1001.8	1020.6	1034.7
47.5°	907.9	890.7	876.6	879.7	886.0	887.5	903.2	934.5	954.8	975.2	994.0
50°	857.8	834.3	823.4	823.4	826.5	834.3	854.7	886.0	907.9	931.4	951.7
52.5°	806.1	784.2	771.7	773.3	776.4	785.8	804.6	835.9	860.9	886.0	911.0
55°	754.5	731.0	718.5	715.3	718.5	731.0	752.9	785.8	810.8	840.6	867.2
57.5°	702.8	674.6	663.7	659.0	662.1	677.8	699.7	734.1	765.4	793.6	824.9
60°	646.5	624.6	605.8	594.8	602.6	623.0	646.5	682.5	715.3	746.7	781.1
62.5°	597.9	569.8	549.4	538.5	546.3	563.5	596.4	630.8	666.8	702.8	737.3
65°	543.2	515.0	491.5	480.5	488.4	508.7	541.6	579.2	618.3	654.3	695.0
67.5°	489.9	460.2	432.0	421.1	430.5	452.4	488.4	530.6	572.9	610.5	654.3
70°	438.3	405.4	375.7	367.8	374.1	403.8	438.3	480.5	524.4	568.2	613.6
72.5°	391.3	350.6	319.3	309.9	317.8	350.6	389.8	433.6	480.5	527.5	576.0
75°	336.5	299.0	264.5	253.6	263.0	292.7	341.2	388.2	438.3	488.4	533.8
77.5°	292.7	248.9	212.9	195.7	211.3	248.9	295.8	345.9	397.6	449.2	500.9
80°	247.3	201.9	162.8	144.0	161.2	201.9	248.9	303.7	361.6	413.2	460.2
82.5°	206.6	158.1	117.4	97.0	115.8	161.2	212.9	267.7	324.0	375.7	430.5
85°	169.1	119.0	76.7	54.8	81.4	122.1	176.9	233.2	291.1	344.4	397.6
87.5°	137.7	89.2	47.0	23.5	50.1	95.5	147.1	203.5	261.4	314.6	364.7
90°	112.7	64.2	25.0	3.1	29.7	72.0	122.1	176.9	231.7	286.5	336.5
92.5°	92.4	48.5	14.1	1.6	18.8	57.9	104.9	156.5	209.8	263.0	311.5
95°	76.7	37.6	9.4	1.6	14.1	45.4	89.2	139.3	189.4	241.1	289.6
97.5°	65.7	31.3	7.8	1.6	11.0	39.1	76.7	123.7	172.2	220.7	267.7
100°	56.4	25.0	6.3	1.6	9.4	32.9	67.3	109.6	155.0	201.9	247.3
102.5°	48.5	20.3	4.7	1.6	7.8	28.2	59.5	98.6	139.3	184.7	228.5
105°	42.3	17.2	4.7	1.6	6.3	25.0	53.2	87.7	128.4	169.1	211.3
107.5°	36.0	14.1	3.1	1.6	4.7	20.3	47.0	79.8	115.8	155.0	194.1
110°	31.3	12.5	3.1	1.6	4.7	18.8	40.7	72.0	104.9	140.9	178.4

TEST NUMBER: P1213530

CATALOG NUMBER: 4SNLED-LD5-77SL-LW-UNV-L935-CD1-U

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
112.5°	26.6	9.4	3.1	1.6	3.1	15.7	36.0	64.2	95.5	128.4	164.4
115°	23.5	7.8	1.6	1.6	3.1	14.1	32.9	57.9	86.1	117.4	150.3
117.5°	18.8	6.3	1.6	1.6	1.6	11.0	28.2	51.7	78.3	108.0	137.7
120°	15.7	6.3	1.6	1.6	1.6	9.4	25.0	45.4	70.4	97.0	125.2
122.5°	14.1	4.7	1.6	1.6	1.6	7.8	21.9	40.7	62.6	87.7	114.3
125°	12.5	4.7	1.6	1.6	1.6	6.3	18.8	36.0	56.4	78.3	103.3
127.5°	9.4	4.7	1.6	1.6	1.6	4.7	17.2	31.3	50.1	70.4	92.4
130°	7.8	3.1	1.6	1.6	1.6	4.7	14.1	28.2	43.8	62.6	83.0
132.5°	6.3	3.1	1.6	1.6	1.6	3.1	11.0	21.9	37.6	54.8	73.6
135°	6.3	3.1	1.6	1.6	1.6	3.1	7.8	18.8	31.3	47.0	62.6
137.5°	6.3	1.6	1.6	1.6	1.6	3.1	6.3	14.1	25.0	37.6	51.7
140°	4.7	1.6	1.6	1.6	1.6	1.6	4.7	11.0	20.3	31.3	43.8
142.5°	4.7	1.6	1.6	1.6	1.6	1.6	4.7	7.8	15.7	25.0	34.4
145°	3.1	1.6	1.6	1.6	1.6	1.6	3.1	6.3	12.5	18.8	28.2
147.5°	3.1	1.6	1.6	1.6	1.6	1.6	3.1	4.7	9.4	15.7	21.9
150°	3.1	1.6	1.6	1.6	1.6	1.6	3.1	4.7	6.3	11.0	17.2
152.5°	1.6	1.6	1.6	1.6	1.6	1.6	3.1	3.1	4.7	7.8	11.0
155°	1.6	1.6	1.6	1.6	1.6	1.6	1.6	3.1	4.7	6.3	7.8
157.5°	1.6	1.6	1.6	1.6	1.6	1.6	1.6	3.1	3.1	4.7	6.3
160°	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	3.1	3.1	4.7
162.5°	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	3.1	3.1
165°	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
167.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

TEST NUMBER: P1213530

CATALOG NUMBER: 4SNLED-LD5-77SL-LW-UNV-L935-CD1-U

CANDELA DISTRIBUTION (continued):

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
0°	1483.9	1483.9	1483.9	1483.9	1483.9	1483.9	1483.9	1483.9	1483.9	1483.9	1483.9
2.5°	1488.6	1477.6	1480.8	1479.2	1482.3	1487.0	1487.0	1485.5	1485.5	1482.3	1479.2
5°	1485.5	1474.5	1479.2	1477.6	1480.8	1485.5	1485.5	1483.9	1483.9	1479.2	1477.6
7.5°	1476.1	1468.3	1471.4	1471.4	1474.5	1479.2	1479.2	1477.6	1477.6	1473.0	1471.4
10°	1466.7	1457.3	1462.0	1462.0	1465.1	1471.4	1471.4	1469.8	1469.8	1465.1	1463.6
12.5°	1451.0	1441.6	1449.5	1451.0	1454.2	1460.4	1458.9	1458.9	1458.9	1454.2	1452.6
15°	1432.3	1426.0	1433.8	1435.4	1440.1	1447.9	1447.9	1447.9	1447.9	1443.2	1441.6
17.5°	1411.9	1407.2	1415.0	1418.2	1424.4	1432.3	1432.3	1433.8	1435.4	1432.3	1430.7
20°	1388.4	1385.3	1393.1	1399.4	1408.8	1416.6	1419.7	1421.3	1424.4	1421.3	1419.7
22.5°	1361.8	1361.8	1372.8	1379.0	1390.0	1397.8	1402.5	1407.2	1410.3	1407.2	1405.6
25°	1332.1	1336.8	1347.7	1358.7	1371.2	1379.0	1383.7	1390.0	1393.1	1391.6	1390.0
27.5°	1303.9	1310.2	1324.2	1335.2	1346.2	1358.7	1363.4	1371.2	1374.3	1374.3	1372.8
30°	1271.0	1280.4	1296.1	1308.6	1322.7	1335.2	1341.5	1349.3	1354.0	1350.9	1352.4
32.5°	1239.7	1255.4	1267.9	1282.0	1297.6	1310.2	1318.0	1327.4	1332.1	1330.5	1332.1
35°	1205.3	1220.9	1238.2	1252.2	1271.0	1283.6	1294.5	1302.3	1308.6	1307.0	1307.0
37.5°	1167.7	1188.1	1205.3	1224.1	1241.3	1255.4	1266.3	1275.7	1282.0	1282.0	1282.0
40°	1131.7	1153.6	1170.8	1192.8	1214.7	1227.2	1239.7	1249.1	1255.4	1256.9	1258.5
42.5°	1092.6	1116.1	1136.4	1159.9	1181.8	1197.5	1211.5	1222.5	1228.8	1231.9	1230.3
45°	1056.6	1078.5	1102.0	1128.6	1148.9	1164.6	1181.8	1194.3	1200.6	1202.2	1203.7
47.5°	1015.9	1040.9	1067.5	1094.1	1114.5	1134.8	1150.5	1163.0	1169.3	1174.0	1174.0
50°	976.8	1003.4	1033.1	1061.3	1083.2	1103.5	1119.2	1133.3	1141.1	1144.2	1145.8
52.5°	940.7	965.8	997.1	1025.3	1047.2	1067.5	1087.9	1103.5	1111.4	1114.5	1114.5
55°	896.9	928.2	962.7	989.3	1012.8	1036.2	1056.6	1072.2	1080.1	1084.8	1087.9
57.5°	856.2	889.1	925.1	953.3	981.4	1003.4	1022.1	1042.5	1048.8	1055.0	1056.6
60°	817.1	850.0	884.4	915.7	943.9	967.4	989.3	1006.5	1017.4	1020.6	1023.7
62.5°	776.4	810.8	846.8	878.1	907.9	936.1	956.4	972.1	984.6	989.3	992.4
65°	737.3	773.3	809.3	842.1	873.4	901.6	922.0	937.6	950.1	958.0	959.5
67.5°	695.0	734.1	771.7	806.1	837.4	867.2	887.5	903.2	915.7	925.1	926.7
70°	655.9	696.6	734.1	771.7	803.0	832.7	854.7	870.3	884.4	890.7	893.8
72.5°	618.3	660.6	699.7	737.3	768.6	798.3	821.8	837.4	851.5	859.4	860.9
75°	582.3	624.6	666.8	702.8	735.7	765.4	788.9	806.1	818.7	826.5	829.6
77.5°	546.3	590.1	632.4	668.4	702.8	732.6	752.9	773.3	785.8	795.2	795.2
80°	510.3	555.7	599.5	635.5	670.0	696.6	720.0	740.4	752.9	762.3	762.3
82.5°	479.0	522.8	565.1	601.1	635.5	665.3	688.7	707.5	721.6	727.9	729.4
85°	443.0	491.5	530.6	569.8	602.6	630.8	654.3	674.6	687.2	693.4	696.6
87.5°	413.2	460.2	502.5	536.9	569.8	597.9	624.6	641.8	654.3	662.1	665.3
90°	385.1	430.5	472.7	507.2	541.6	568.2	593.3	610.5	624.6	630.8	633.9
92.5°	360.0	405.4	446.1	480.5	513.4	543.2	566.6	583.9	596.4	602.6	607.3
95°	336.5	380.4	419.5	457.1	488.4	515.0	540.0	557.2	571.3	576.0	580.7
97.5°	313.1	355.3	394.5	430.5	463.3	488.4	511.9	529.1	540.0	547.9	552.6
100°	292.7	333.4	371.0	405.4	436.7	460.2	485.2	500.9	511.9	518.1	524.4
102.5°	270.8	311.5	347.5	380.4	413.2	435.2	458.6	474.3	483.7	494.6	494.6
105°	252.0	289.6	325.6	356.9	385.1	411.7	432.0	447.7	458.6	466.5	466.5
107.5°	231.7	269.2	303.7	336.5	363.2	388.2	407.0	421.1	433.6	438.3	443.0
110°	216.0	248.9	283.3	314.6	339.7	363.2	381.9	397.6	408.5	413.2	416.4

TEST NUMBER: P1213530

CATALOG NUMBER: 4SNLED-LD5-77SL-LW-UNV-L935-CD1-U

CANDELA DISTRIBUTION (continued):

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
112.5°	197.2	231.7	263.0	292.7	317.8	339.7	358.5	371.0	381.9	388.2	389.8
115°	181.6	214.4	242.6	270.8	297.4	316.2	333.4	345.9	356.9	361.6	364.7
117.5°	167.5	197.2	225.4	248.9	273.9	294.3	311.5	322.5	331.8	338.1	341.2
120°	153.4	181.6	206.6	230.1	253.6	272.4	288.0	299.0	309.9	314.6	314.6
122.5°	139.3	165.9	189.4	211.3	233.2	250.4	267.7	277.1	286.5	291.1	291.1
125°	126.8	151.8	173.7	194.1	214.4	230.1	244.2	255.1	264.5	267.7	267.7
127.5°	114.3	137.7	158.1	176.9	194.1	209.8	223.8	234.8	242.6	245.8	245.8
130°	103.3	123.7	142.4	161.2	178.4	191.0	205.1	214.4	219.1	223.8	225.4
132.5°	92.4	111.1	128.4	144.0	161.2	173.7	184.7	194.1	198.8	203.5	205.1
135°	81.4	98.6	114.3	129.9	144.0	156.5	165.9	173.7	180.0	183.1	184.7
137.5°	68.9	87.7	101.7	114.3	129.9	139.3	150.3	155.0	161.2	164.4	164.4
140°	57.9	72.0	87.7	100.2	112.7	122.1	131.5	139.3	144.0	145.6	145.6
142.5°	47.0	59.5	72.0	87.7	98.6	106.4	115.8	122.1	125.2	126.8	128.4
145°	37.6	47.0	57.9	72.0	84.5	93.9	98.6	104.9	108.0	109.6	111.1
147.5°	28.2	37.6	47.0	56.4	68.9	78.3	83.0	89.2	92.4	93.9	93.9
150°	21.9	28.2	34.4	43.8	53.2	64.2	70.4	75.1	76.7	78.3	78.3
152.5°	15.7	21.9	26.6	32.9	39.1	48.5	57.9	61.0	62.6	64.2	64.2
155°	11.0	15.7	18.8	23.5	28.2	36.0	43.8	48.5	50.1	51.7	51.7
157.5°	7.8	11.0	12.5	17.2	20.3	23.5	29.7	37.6	39.1	39.1	39.1
160°	4.7	6.3	7.8	11.0	12.5	15.7	18.8	23.5	28.2	28.2	28.2
162.5°	3.1	4.7	4.7	6.3	6.3	9.4	11.0	12.5	17.2	18.8	18.8
165°	1.6	3.1	3.1	3.1	3.1	3.1	4.7	4.7	7.8	9.4	9.4
167.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

TEST NUMBER: P1213530

CATALOG NUMBER: 4SNLED-LD5-77SL-LW-UNV-L935-CD1-U

CANDELA DISTRIBUTION (continued):

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°
0°	1483.9	1483.9	1483.9	1483.9	1483.9	1483.9	1483.9	1483.9	1483.9	1483.9	1483.9
2.5°	1480.8	1483.9	1482.3	1482.3	1482.3	1485.5	1482.3	1468.3	1471.4	1474.5	1477.6
5°	1479.2	1480.8	1480.8	1479.2	1479.2	1482.3	1479.2	1465.1	1468.3	1471.4	1473.0
7.5°	1473.0	1474.5	1474.5	1474.5	1473.0	1476.1	1471.4	1458.9	1458.9	1462.0	1463.6
10°	1465.1	1468.3	1466.7	1465.1	1465.1	1465.1	1462.0	1447.9	1447.9	1449.5	1451.0
12.5°	1455.7	1455.7	1455.7	1454.2	1452.6	1452.6	1449.5	1435.4	1433.8	1437.0	1435.4
15°	1443.2	1446.3	1443.2	1441.6	1438.5	1438.5	1433.8	1419.7	1416.6	1418.2	1416.6
17.5°	1432.3	1433.8	1430.7	1427.6	1424.4	1422.9	1418.2	1402.5	1397.8	1399.4	1396.3
20°	1421.3	1421.3	1418.2	1415.0	1410.3	1405.6	1399.4	1383.7	1375.9	1375.9	1369.6
22.5°	1407.2	1407.2	1404.1	1399.4	1394.7	1388.4	1382.2	1366.5	1354.0	1350.9	1346.2
25°	1391.6	1390.0	1388.4	1383.7	1374.3	1368.1	1361.8	1344.6	1330.5	1324.2	1316.4
27.5°	1372.8	1372.8	1368.1	1363.4	1354.0	1346.2	1338.3	1322.7	1303.9	1296.1	1285.1
30°	1352.4	1352.4	1347.7	1341.5	1332.1	1322.7	1313.3	1294.5	1275.7	1264.8	1252.2
32.5°	1332.1	1330.5	1325.8	1319.6	1310.2	1296.1	1288.2	1269.5	1247.5	1235.0	1217.8
35°	1307.0	1305.5	1300.8	1292.9	1280.4	1269.5	1256.9	1239.7	1214.7	1199.0	1180.2
37.5°	1282.0	1280.4	1277.3	1266.3	1253.8	1241.3	1225.6	1208.4	1184.9	1164.6	1145.8
40°	1256.9	1255.4	1249.1	1241.3	1225.6	1210.0	1194.3	1177.1	1152.1	1128.6	1108.2
42.5°	1230.3	1228.8	1220.9	1211.5	1194.3	1178.7	1159.9	1141.1	1116.1	1087.9	1067.5
45°	1203.7	1200.6	1192.8	1181.8	1163.0	1145.8	1127.0	1105.1	1080.1	1053.5	1026.8
47.5°	1175.5	1170.8	1163.0	1147.4	1131.7	1112.9	1091.0	1067.5	1042.5	1012.8	984.6
50°	1144.2	1141.1	1131.7	1117.6	1098.8	1080.1	1055.0	1031.5	1001.8	973.6	939.2
52.5°	1114.5	1108.2	1100.4	1084.8	1066.0	1045.6	1019.0	990.8	961.1	934.5	898.5
55°	1083.2	1080.1	1069.1	1056.6	1033.1	1009.6	984.6	954.8	922.0	890.7	856.2
57.5°	1053.5	1047.2	1037.8	1020.6	1000.2	976.8	950.1	918.8	882.8	850.0	812.4
60°	1023.7	1014.3	1003.4	987.7	965.8	940.7	912.6	879.7	843.7	807.7	768.6
62.5°	990.8	983.0	970.5	954.8	932.9	906.3	876.6	842.1	807.7	770.1	727.9
65°	958.0	950.1	937.6	922.0	900.1	870.3	839.0	804.6	765.4	729.4	684.0
67.5°	925.1	917.3	903.2	886.0	864.0	835.9	803.0	767.0	727.9	688.7	641.8
70°	892.2	882.8	870.3	851.5	829.6	799.9	767.0	729.4	690.3	648.0	601.1
72.5°	859.4	851.5	835.9	818.7	795.2	765.4	732.6	695.0	654.3	610.5	563.5
75°	826.5	817.1	806.1	785.8	760.7	732.6	698.1	660.6	616.7	574.5	525.9
77.5°	793.6	785.8	771.7	751.3	727.9	698.1	663.7	626.1	582.3	538.5	486.8
80°	760.7	751.3	740.4	721.6	695.0	665.3	629.3	591.7	547.9	502.5	450.8
82.5°	727.9	718.5	706.0	687.2	662.1	632.4	597.9	557.2	513.4	466.5	417.9
85°	695.0	687.2	673.1	654.3	627.7	597.9	563.5	527.5	480.5	433.6	385.1
87.5°	662.1	654.3	640.2	621.4	596.4	566.6	532.2	494.6	449.2	405.4	352.2
90°	630.8	624.6	610.5	591.7	566.6	536.9	505.6	464.9	421.1	377.2	327.1
92.5°	602.6	596.4	583.9	565.1	543.2	510.3	479.0	439.9	396.0	350.6	302.1
95°	577.6	569.8	557.2	540.0	513.4	485.2	453.9	414.8	372.5	327.1	280.2
97.5°	549.4	541.6	529.1	510.3	488.4	458.6	427.3	389.8	347.5	305.2	258.3
100°	521.2	513.4	499.3	483.7	461.8	432.0	402.3	364.7	325.6	284.9	239.5
102.5°	493.1	485.2	472.7	457.1	435.2	408.5	378.8	342.8	303.7	263.0	220.7
105°	466.5	458.6	446.1	430.5	410.1	383.5	352.2	320.9	283.3	244.2	203.5
107.5°	439.9	432.0	421.1	405.4	385.1	360.0	330.3	297.4	263.0	225.4	186.3
110°	413.2	407.0	394.5	380.4	360.0	335.0	308.4	277.1	242.6	208.2	170.6

TEST NUMBER: P1213530

CATALOG NUMBER: 4SNLED-LD5-77SL-LW-UNV-L935-CD1-U

CANDELA DISTRIBUTION (continued):

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°
112.5°	388.2	381.9	369.4	353.8	336.5	313.1	286.5	256.7	223.8	191.0	155.0
115°	363.2	355.3	344.4	330.3	313.1	291.1	266.1	239.5	206.6	175.3	142.4
117.5°	338.1	331.8	320.9	306.8	291.1	269.2	245.8	220.7	189.4	159.7	129.9
120°	313.1	308.4	297.4	284.9	269.2	248.9	227.0	201.9	173.7	145.6	117.4
122.5°	289.6	284.9	273.9	263.0	247.3	228.5	208.2	184.7	159.7	133.1	108.0
125°	267.7	261.4	252.0	241.1	227.0	209.8	189.4	167.5	144.0	120.5	97.0
127.5°	244.2	239.5	233.2	220.7	206.6	191.0	172.2	153.4	131.5	109.6	87.7
130°	225.4	219.1	211.3	201.9	189.4	173.7	156.5	137.7	119.0	98.6	76.7
132.5°	203.5	197.2	191.0	181.6	170.6	156.5	140.9	123.7	106.4	87.7	68.9
135°	183.1	178.4	172.2	162.8	151.8	140.9	125.2	109.6	93.9	76.7	61.0
137.5°	164.4	159.7	153.4	147.1	136.2	125.2	111.1	97.0	83.0	67.3	53.2
140°	145.6	142.4	136.2	129.9	120.5	109.6	97.0	84.5	72.0	57.9	45.4
142.5°	126.8	123.7	119.0	112.7	104.9	95.5	84.5	73.6	61.0	50.1	39.1
145°	109.6	108.0	103.3	97.0	90.8	81.4	72.0	62.6	51.7	42.3	31.3
147.5°	92.4	90.8	87.7	83.0	76.7	68.9	61.0	51.7	43.8	34.4	25.0
150°	76.7	75.1	73.6	67.3	64.2	56.4	50.1	42.3	36.0	26.6	20.3
152.5°	62.6	62.6	59.5	54.8	51.7	45.4	40.7	34.4	28.2	21.9	15.7
155°	50.1	48.5	47.0	43.8	40.7	36.0	31.3	26.6	21.9	15.7	11.0
157.5°	39.1	37.6	36.0	32.9	29.7	28.2	23.5	18.8	14.1	11.0	7.8
160°	28.2	26.6	25.0	23.5	21.9	18.8	15.7	12.5	9.4	6.3	4.7
162.5°	18.8	17.2	17.2	15.7	14.1	11.0	9.4	7.8	6.3	4.7	3.1
165°	9.4	9.4	7.8	7.8	6.3	4.7	4.7	4.7	3.1	3.1	1.6
167.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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CATALOG NUMBER: 4SNLED-LD5-77SL-LW-UNV-L935-CD1-U

CANDELA DISTRIBUTION (continued):

	330°	335°	340°	345°	350°	355°	360°
0°	1483.9	1483.9	1483.9	1483.9	1483.9	1483.9	1483.9
2.5°	1476.1	1476.1	1482.3	1480.8	1476.1	1485.5	1496.4
5°	1471.4	1471.4	1476.1	1476.1	1471.4	1480.8	1490.2
7.5°	1463.6	1462.0	1466.7	1466.7	1460.4	1468.3	1479.2
10°	1449.5	1447.9	1452.6	1452.6	1446.3	1454.2	1463.6
12.5°	1433.8	1430.7	1435.4	1433.8	1427.6	1435.4	1444.8
15°	1413.5	1411.9	1415.0	1411.9	1405.6	1413.5	1422.9
17.5°	1393.1	1388.4	1390.0	1390.0	1379.0	1386.9	1394.7
20°	1366.5	1360.3	1361.8	1360.3	1352.4	1357.1	1366.5
22.5°	1339.9	1330.5	1330.5	1328.9	1319.6	1325.8	1333.6
25°	1307.0	1296.1	1296.1	1294.5	1283.6	1288.2	1296.1
27.5°	1274.2	1263.2	1258.5	1256.9	1246.0	1246.0	1256.9
30°	1239.7	1224.1	1220.9	1216.2	1205.3	1205.3	1214.7
32.5°	1206.9	1184.9	1178.7	1172.4	1161.5	1159.9	1170.8
35°	1163.0	1145.8	1134.8	1128.6	1116.1	1112.9	1122.3
37.5°	1127.0	1105.1	1089.5	1081.6	1069.1	1064.4	1076.9
40°	1087.9	1064.4	1044.1	1039.4	1020.6	1014.3	1025.3
42.5°	1044.1	1019.0	998.7	989.3	975.2	968.9	970.5
45°	1000.2	973.6	951.7	939.2	925.1	914.1	920.4
47.5°	954.8	931.4	904.7	886.0	868.7	860.9	864.0
50°	909.4	881.3	856.2	835.9	815.5	806.1	812.4
52.5°	864.0	834.3	806.1	784.2	760.7	751.3	752.9
55°	820.2	788.9	756.0	732.6	710.6	696.6	693.4
57.5°	776.4	742.0	707.5	680.9	652.7	640.2	635.5
60°	729.4	693.4	657.4	626.1	596.4	582.3	576.0
62.5°	685.6	646.5	605.8	572.9	543.2	524.4	519.7
65°	643.3	597.9	557.2	519.7	486.8	466.5	460.2
67.5°	597.9	551.0	507.2	466.5	435.2	408.5	405.4
70°	555.7	505.6	457.1	414.8	380.4	353.8	341.2
72.5°	513.4	461.8	411.7	366.3	322.5	297.4	288.0
75°	472.7	419.5	366.3	319.3	270.8	241.1	231.7
77.5°	435.2	380.4	324.0	272.4	227.0	189.4	176.9
80°	399.2	342.8	283.3	230.1	181.6	140.9	126.8
82.5°	361.6	308.4	247.3	191.0	140.9	98.6	81.4
85°	328.7	275.5	214.4	158.1	108.0	62.6	43.8
87.5°	302.1	244.2	189.4	133.1	81.4	36.0	12.5
90°	275.5	219.1	164.4	109.6	61.0	20.3	1.6
92.5°	252.0	198.8	144.0	93.9	47.0	14.1	1.6
95°	230.1	178.4	126.8	78.3	37.6	9.4	1.6
97.5°	209.8	161.2	112.7	67.3	31.3	7.8	1.6
100°	192.5	145.6	100.2	59.5	26.6	6.3	1.6
102.5°	175.3	131.5	89.2	51.7	23.5	4.7	1.6
105°	161.2	119.0	79.8	47.0	20.3	4.7	1.6
107.5°	147.1	108.0	72.0	40.7	17.2	3.1	1.6
110°	133.1	98.6	64.2	36.0	15.7	3.1	1.6



TEST NUMBER: P1213530

CATALOG NUMBER: 4SNLED-LD5-77SL-LW-UNV-L935-CD1-U

CANDELA DISTRIBUTION (continued):

	330°	335°	340°	345°	350°	355°	360°
112.5°	122.1	89.2	57.9	32.9	12.5	3.1	1.6
115°	111.1	79.8	51.7	28.2	11.0	1.6	1.6
117.5°	100.2	72.0	45.4	25.0	9.4	1.6	1.6
120°	90.8	64.2	40.7	21.9	7.8	1.6	1.6
122.5°	81.4	57.9	36.0	18.8	6.3	1.6	1.6
125°	73.6	51.7	31.3	15.7	4.7	1.6	1.6
127.5°	65.7	45.4	28.2	14.1	4.7	1.6	1.6
130°	57.9	40.7	23.5	11.0	3.1	1.6	1.6
132.5°	51.7	34.4	20.3	9.4	3.1	1.6	1.6
135°	45.4	29.7	17.2	6.3	3.1	1.6	1.6
137.5°	39.1	25.0	14.1	4.7	1.6	1.6	1.6
140°	32.9	21.9	11.0	4.7	1.6	1.6	1.6
142.5°	28.2	17.2	7.8	3.1	1.6	1.6	1.6
145°	21.9	14.1	6.3	3.1	1.6	1.6	1.6
147.5°	17.2	11.0	4.7	3.1	1.6	1.6	1.6
150°	12.5	7.8	4.7	1.6	1.6	1.6	1.6
152.5°	9.4	6.3	3.1	1.6	1.6	1.6	1.6
155°	6.3	4.7	3.1	1.6	1.6	1.6	1.6
157.5°	4.7	3.1	1.6	1.6	1.6	1.6	1.6
160°	3.1	1.6	1.6	1.6	1.6	1.6	1.6
162.5°	1.6	1.6	1.6	1.6	1.6	1.6	1.6
165°	1.6	1.6	1.6	1.6	1.6	1.6	1.6
167.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180°	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)