

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: P1214090

Luminaire Tested: 4SNLED-LD5-28SL-RW-UNV-L950-CD1-U

Issue Date: 3/29/2018

Test Information

Test Method: LM-79-2019
Report Number: P1214090
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P33525)
Test Lab: INNOVATIONS CENTER-P3
Issue Date: 3/29/2018
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: METALUX
Catalog Number: 4SNLED-LD5-28SL-RW-UNV-L950-CD1-U
Description: 4FT LINEAR SNLED LED FIXTURE
WHITE REFLECTOR
Light Source: -
Ballast/Driver: -

Summary

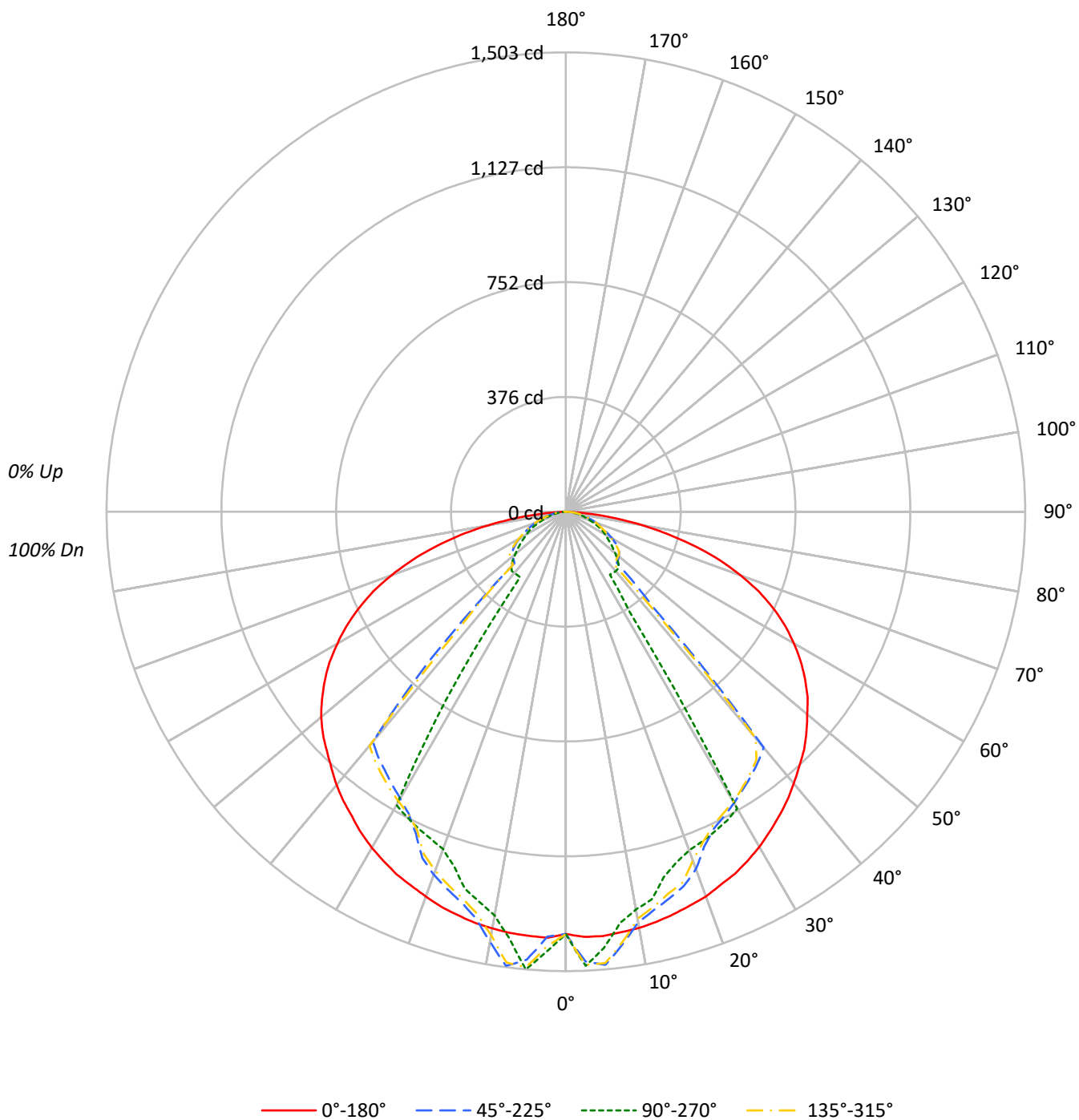
Lumens per Lamp: N/A
Luminaire Lumens: 2766.0 lumens
Efficiency: N/A
Efficacy: 131.7 lumens/watt
Spacing Criteria (0/90/45): 1.36 / 1.16 / 1.2
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.12')
CIE Type: Direct

Input Watts (W): 21
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT

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CATALOG NUMBER: 4SNLED-LD5-28SL-RW-UNV-L950-CD1-U

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

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	11162	11162	11162	11162
5°	11271	11246	11267	11803
10°	11282	10168	11298	10324
15°	11307	9408	11334	9706
20°	11390	8923	11390	8889
25°	11488	8752	11505	8670
30°	11605	8598	11633	8496
35°	11739	1958	11764	2042
40°	11927	2036	11999	2103
45°	12213	2025	12256	2099
50°	12499	1831	12667	1881
55°	12883	1625	12985	1649
60°	13210	1445	13239	1463
65°	13442	1261	13408	1241
70°	13251	1017	13210	979
75°	12303	782	12390	749
80°	9985	555	10385	509
85°	5404	333	5711	256

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 357.5°

Vertical Angle: 60°

Luminance: 13535 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	135.9	4.9
10°-20°	373.7	13.5
20°-30°	553.5	20.0
30°-40°	557.7	20.2
40°-50°	435.6	15.7
50°-60°	336.5	12.2
60°-70°	225.9	8.2
70°-80°	115.2	4.2
80°-90°	32.1	1.2
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	1063.0	38.4
0°-40°	1620.7	58.6
0°-60°	2392.8	86.5
0°-90°	2766.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2766.0	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	1381	1381	1381	1381	1381	
5°	1393	1432	1393	1503	1393	133
15°	1363	1238	1366	1277	1363	385
25°	1307	1153	1309	1143	1307	603
35°	1216	251	1219	261	1216	762
45°	1102	244	1106	253	1102	850
55°	955	177	963	180	955	853
65°	750	119	748	117	750	738
75°	440	60	443	58	440	460
85°	79	19	84	15	79	109
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	2.5°	5°	7.5°	10°	12.5°	15°	17.5°	20°	22.5°	25°
0°	1381.3	1381.3	1381.3	1381.3	1381.3	1381.3	1381.3	1381.3	1381.3	1381.3	1381.3
2.5°	1392.0	1397.1	1400.9	1403.4	1404.7	1404.7	1405.3	1406.0	1414.2	1418.0	1420.5
5°	1393.3	1398.4	1406.0	1416.1	1424.9	1432.5	1438.9	1447.7	1456.6	1466.1	1469.3
7.5°	1387.6	1393.9	1409.1	1427.5	1444.6	1456.6	1464.8	1470.5	1475.0	1475.6	1478.8
10°	1382.5	1393.9	1414.8	1438.9	1460.4	1475.0	1475.0	1471.8	1476.2	1459.1	1442.0
12.5°	1373.7	1386.3	1414.8	1446.5	1466.7	1472.4	1469.9	1457.2	1431.3	1410.4	1400.9
15°	1362.9	1380.0	1415.5	1450.9	1468.0	1469.9	1445.8	1413.6	1393.9	1381.3	1365.4
17.5°	1350.9	1373.7	1416.1	1451.5	1457.9	1449.0	1403.4	1383.2	1362.9	1333.2	1311.6
20°	1339.5	1361.6	1411.0	1442.7	1446.5	1406.6	1371.1	1349.6	1315.4	1289.5	1280.0
22.5°	1321.8	1347.7	1406.6	1430.6	1416.1	1369.9	1335.7	1301.5	1270.5	1262.9	1251.5
25°	1307.2	1334.4	1396.5	1416.1	1377.5	1336.3	1296.4	1256.6	1242.0	1231.2	1221.1
27.5°	1287.6	1321.1	1383.2	1389.5	1336.3	1300.2	1242.0	1224.3	1211.0	1199.0	1194.5
30°	1266.1	1307.2	1364.8	1352.8	1302.1	1249.0	1205.9	1189.5	1180.0	1167.3	1162.2
32.5°	1241.4	1286.3	1344.6	1310.4	1265.4	1199.0	1171.1	1158.4	1145.8	1136.3	1104.6
35°	1216.0	1268.0	1320.5	1269.9	1221.1	1161.0	1136.3	1124.9	1112.9	1078.0	1045.1
37.5°	1190.1	1247.7	1291.4	1226.2	1162.2	1121.7	1100.8	1088.2	1061.0	1016.6	1000.2
40°	1160.3	1223.0	1254.0	1181.2	1111.0	1081.8	1062.2	1049.6	988.2	968.5	963.5
42.5°	1130.6	1199.0	1208.5	1137.6	1068.6	1039.4	1023.0	981.2	939.4	929.3	931.2
45°	1102.1	1173.0	1158.4	1075.5	1024.2	1000.2	972.3	914.7	892.6	897.6	898.9
47.5°	1067.9	1142.0	1105.9	1013.5	978.7	954.6	892.6	857.8	854.6	861.6	865.4
50°	1031.2	1107.2	1050.2	957.1	929.3	900.8	830.5	812.8	816.6	823.6	828.0
52.5°	997.0	1067.9	992.6	904.6	880.5	815.3	767.9	771.0	777.4	785.6	788.1
55°	955.2	1020.4	931.2	851.4	828.6	743.2	721.7	729.2	735.6	742.5	747.6
57.5°	911.6	966.0	858.4	791.9	755.2	679.2	681.1	686.2	690.6	698.9	288.7
60°	861.6	904.0	778.6	736.8	664.0	628.6	630.5	639.4	643.8	359.6	198.8
62.5°	809.6	831.8	706.5	674.2	580.5	578.0	586.8	590.6	402.0	189.9	186.1
65°	750.1	745.7	635.6	584.3	523.5	526.0	535.5	516.6	177.9	177.9	176.6
67.5°	684.3	657.7	566.6	483.6	468.4	474.1	484.3	169.0	164.6	165.9	161.4
70°	609.0	571.6	495.0	409.6	414.6	420.3	163.3	153.2	151.3	148.1	139.3
72.5°	529.2	477.9	405.1	355.8	358.9	225.4	143.1	138.0	131.7	125.3	115.8
75°	440.0	373.5	297.5	297.5	302.0	128.5	124.7	116.5	109.5	101.3	95.6
77.5°	345.0	287.4	231.1	239.9	117.1	107.6	100.7	91.8	86.1	81.0	77.9
80°	252.6	200.7	174.1	155.7	91.2	81.7	74.7	69.6	67.1	63.9	60.1
82.5°	165.9	120.9	120.9	73.4	63.9	56.3	54.4	50.6	48.1	46.2	44.3
85°	79.1	70.3	53.2	44.9	39.9	36.1	34.8	32.9	32.9	32.3	31.7
87.5°	29.1	31.7	23.4	22.8	21.5	20.9	21.5	21.5	22.2	21.5	20.9
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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CANDELA DISTRIBUTION (continued):

	27.5°	30°	32.5°	35°	37.5°	40°	42.5°	45°	47.5°	50°	52.5°
0°	1381.3	1381.3	1381.3	1381.3	1381.3	1381.3	1381.3	1381.3	1381.3	1381.3	1381.3
2.5°	1426.8	1431.9	1435.7	1442.0	1450.3	1457.2	1463.6	1472.4	1486.4	1490.2	1493.3
5°	1469.3	1471.2	1475.6	1480.7	1481.9	1485.1	1484.5	1488.3	1490.2	1494.6	1485.1
7.5°	1471.8	1461.7	1449.6	1438.9	1431.3	1424.3	1419.9	1426.8	1430.6	1433.8	1424.3
10°	1418.6	1406.6	1399.6	1393.3	1385.7	1374.9	1360.4	1363.5	1362.3	1362.3	1359.1
12.5°	1385.1	1368.0	1350.3	1334.4	1327.5	1326.8	1327.5	1334.4	1334.4	1333.8	1330.0
15°	1332.5	1316.1	1307.2	1303.4	1303.4	1301.5	1301.5	1309.1	1307.2	1307.2	1305.3
17.5°	1297.7	1286.3	1280.0	1275.6	1273.7	1276.8	1280.6	1283.8	1284.4	1281.9	1271.8
20°	1269.2	1258.5	1250.9	1252.1	1251.5	1253.4	1255.3	1244.5	1231.2	1213.5	1205.3
22.5°	1239.5	1231.2	1225.5	1225.5	1217.9	1205.9	1188.2	1184.4	1182.5	1174.3	1167.3
25°	1211.0	1201.5	1193.3	1167.9	1152.1	1154.0	1150.8	1144.5	1143.9	1143.3	1145.8
27.5°	1182.5	1157.8	1126.2	1122.4	1116.0	1115.4	1119.2	1122.4	1122.4	1124.9	1128.1
30°	1123.6	1095.1	1089.4	1082.5	1085.0	1093.9	1095.8	1100.2	1101.5	1105.9	1108.4
32.5°	1069.8	1057.2	1052.1	1055.3	1063.5	1071.1	1075.5	1077.4	1080.6	1084.4	1087.5
35°	1026.1	1022.3	1026.8	1033.7	1042.0	1048.3	1052.1	1055.9	1059.1	1062.2	1064.8
37.5°	993.9	996.4	1002.7	1011.6	1019.8	1024.9	1028.0	1032.5	1036.9	1040.7	1025.5
40°	963.5	969.8	976.8	986.3	993.2	998.3	1001.5	1007.1	969.2	438.7	240.6
42.5°	936.9	943.8	948.9	956.5	964.1	967.9	940.0	419.7	237.4	236.1	239.3
45°	904.6	910.3	918.5	924.2	931.2	611.5	233.6	236.1	232.3	234.9	236.1
47.5°	871.7	880.5	885.0	844.5	251.3	232.3	229.8	232.3	229.8	233.0	231.1
50°	834.3	845.1	601.4	227.3	225.4	224.1	226.6	225.4	227.3	229.8	224.7
52.5°	796.4	493.1	220.3	219.0	220.3	219.0	223.5	220.3	220.9	218.4	212.1
55°	269.7	213.3	211.4	210.8	214.6	214.6	214.6	209.5	206.4	200.0	195.6
57.5°	206.4	206.4	205.7	206.4	205.1	203.8	198.1	193.7	189.3	180.4	177.9
60°	195.6	195.6	195.6	195.6	189.9	187.4	178.5	174.7	167.1	162.7	160.2
62.5°	186.7	185.5	179.8	177.9	171.6	164.6	159.5	155.7	148.1	145.6	143.7
65°	174.1	169.7	162.7	155.1	151.9	144.3	141.8	136.1	132.3	130.4	129.1
67.5°	153.2	146.9	141.2	136.1	130.4	127.9	124.7	120.3	117.7	116.5	115.2
70°	131.0	126.6	120.9	117.7	113.9	112.0	107.6	106.3	104.4	102.6	100.7
72.5°	109.5	107.0	104.4	100.0	98.8	97.5	93.1	90.5	88.0	85.5	84.2
75°	91.8	89.9	88.6	84.8	82.9	79.1	76.0	74.1	72.2	70.3	69.0
77.5°	75.3	74.1	70.3	67.7	66.5	63.3	62.0	62.7	61.4	58.9	57.6
80°	58.9	57.6	54.4	54.4	53.2	51.9	50.6	49.4	48.1	46.2	44.9
82.5°	44.9	43.7	42.4	41.1	39.9	39.2	38.6	37.3	36.1	34.8	34.2
85°	31.7	31.0	30.4	29.8	29.1	28.5	27.9	26.6	25.3	24.7	24.1
87.5°	21.5	20.9	20.3	19.6	19.0	18.4	17.7	17.1	15.8	15.2	14.6
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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CANDELA DISTRIBUTION (continued):

	55°	57.5°	60°	62.5°	65°	67.5°	70°	72.5°	75°	77.5°	80°
0°	1381.3	1381.3	1381.3	1381.3	1381.3	1381.3	1381.3	1381.3	1381.3	1381.3	1381.3
2.5°	1493.3	1496.5	1493.3	1486.4	1481.9	1480.0	1483.8	1483.8	1486.4	1489.5	1490.2
5°	1469.9	1462.3	1453.4	1444.6	1440.1	1437.6	1430.6	1431.9	1433.8	1435.1	1436.3
7.5°	1411.7	1401.5	1389.5	1378.1	1373.7	1369.9	1361.6	1361.6	1361.6	1362.3	1366.1
10°	1352.1	1347.7	1342.7	1335.1	1329.4	1327.5	1320.5	1322.4	1321.1	1323.0	1327.5
12.5°	1324.3	1319.2	1314.8	1307.2	1300.9	1298.3	1295.2	1297.1	1296.4	1299.6	1303.4
15°	1299.0	1296.4	1291.4	1285.7	1280.0	1274.9	1263.5	1259.7	1257.2	1254.0	1258.5
17.5°	1257.2	1239.5	1227.4	1218.6	1212.3	1207.8	1204.7	1204.7	1206.6	1208.5	1212.3
20°	1200.2	1195.2	1189.5	1180.0	1173.6	1171.1	1169.2	1169.2	1172.4	1174.9	1181.9
22.5°	1161.0	1160.3	1158.4	1154.0	1150.8	1150.8	1151.5	1152.7	1157.2	1161.0	1167.9
25°	1142.6	1145.1	1143.9	1141.4	1139.5	1140.1	1138.8	1140.1	1144.5	1148.3	1154.0
27.5°	1128.1	1131.9	1130.6	1126.8	1123.6	1124.9	1126.8	1125.5	1129.3	1133.8	1138.2
30°	1108.4	1109.1	1111.6	1107.2	1105.9	1107.8	1108.4	1109.7	1113.5	1116.7	1120.5
32.5°	1086.3	1091.3	1090.7	1086.3	1086.3	1088.2	1088.8	1046.4	967.3	833.1	796.4
35°	1064.8	1070.5	1061.0	894.5	619.1	330.4	255.1	246.2	248.1	249.4	250.7
37.5°	787.5	373.5	238.0	239.9	241.8	243.7	245.6	247.5	249.4	251.3	251.9
40°	236.8	236.1	238.0	240.6	242.5	243.7	246.2	248.1	250.0	251.9	252.6
42.5°	234.2	235.5	237.4	239.9	242.5	245.0	246.9	249.4	250.7	251.9	252.6
45°	233.0	235.5	238.0	239.9	241.8	243.1	244.3	245.0	244.3	244.3	245.6
47.5°	231.1	233.6	234.2	233.6	234.2	233.6	233.6	233.6	231.7	231.1	231.1
50°	224.1	224.1	222.8	220.3	219.7	219.0	217.8	217.1	214.6	214.0	214.0
52.5°	209.5	208.9	207.0	203.8	202.6	201.3	200.7	200.0	197.5	196.2	196.9
55°	192.4	191.2	189.3	185.5	184.8	183.6	182.9	182.3	179.8	181.0	179.1
57.5°	176.6	174.1	171.6	170.9	168.4	167.8	167.1	166.5	164.6	165.2	164.0
60°	157.6	157.0	155.7	153.2	153.2	152.6	152.6	151.3	150.0	149.4	149.4
62.5°	143.7	141.8	140.5	140.5	138.6	138.6	138.6	137.4	136.1	136.7	136.1
65°	128.5	127.9	127.2	126.0	126.0	125.3	125.3	124.1	122.2	122.8	121.5
67.5°	115.8	114.6	113.3	112.7	110.1	108.9	108.2	107.6	105.1	105.7	104.4
70°	100.0	98.1	96.9	95.6	93.7	92.4	92.4	91.2	89.3	89.9	88.6
72.5°	83.6	82.3	81.0	80.4	78.5	77.9	77.2	76.6	74.7	75.3	74.7
75°	69.6	69.6	69.0	68.4	66.5	64.6	63.3	62.7	61.4	62.0	60.8
77.5°	57.6	56.3	55.1	55.1	53.2	51.9	50.6	50.6	50.6	50.0	49.4
80°	44.9	43.7	43.7	43.0	41.8	40.5	39.9	39.9	39.2	39.2	38.6
82.5°	34.2	32.9	32.3	32.3	31.0	30.4	29.8	29.1	29.1	29.1	28.5
85°	24.1	22.8	22.2	22.2	20.9	20.3	20.3	19.6	19.6	19.0	19.0
87.5°	14.6	13.9	13.3	13.3	12.0	11.4	11.4	11.4	10.8	10.8	10.1
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: P1214090

CATALOG NUMBER: 4SNLED-LD5-28SL-RW-UNV-L950-CD1-U

CANDELA DISTRIBUTION (continued):

	82.5°	85°	87.5°	90°	92.5°	95°	97.5°	100°	102.5°	105°	107.5°
0°	1381.3	1381.3	1381.3	1381.3	1381.3	1381.3	1381.3	1381.3	1381.3	1381.3	1381.3
2.5°	1490.2	1490.2	1485.7	1487.0	1485.1	1487.6	1484.5	1484.5	1488.3	1488.3	1490.8
5°	1437.0	1433.8	1433.2	1431.9	1425.6	1428.1	1424.9	1421.8	1426.2	1426.2	1431.9
7.5°	1364.2	1358.5	1361.0	1357.2	1353.4	1347.7	1349.6	1347.1	1350.3	1354.7	1360.4
10°	1326.8	1321.8	1324.9	1321.1	1323.0	1314.8	1315.4	1316.1	1319.2	1320.5	1325.6
12.5°	1302.8	1301.5	1300.2	1299.0	1300.2	1295.8	1293.3	1293.9	1295.2	1295.8	1299.6
15°	1252.1	1243.9	1246.4	1237.6	1238.2	1238.8	1233.8	1238.8	1238.2	1246.4	1254.0
17.5°	1211.0	1211.0	1206.6	1202.8	1200.2	1199.6	1195.8	1198.3	1195.8	1200.9	1202.8
20°	1182.5	1181.9	1181.2	1179.3	1173.0	1173.6	1175.5	1169.8	1169.2	1168.6	1172.4
22.5°	1169.2	1169.8	1167.3	1167.3	1161.6	1162.9	1163.5	1157.2	1157.8	1155.9	1157.8
25°	1155.3	1156.5	1153.4	1153.4	1152.1	1151.5	1148.3	1149.6	1145.8	1142.6	1145.8
27.5°	1138.8	1141.4	1138.8	1140.1	1137.6	1136.3	1134.4	1133.1	1129.3	1128.7	1130.6
30°	1123.6	1124.9	1124.3	1121.1	1120.5	1116.7	1118.6	1114.8	1111.0	1111.6	1112.9
32.5°	576.1	550.1	424.1	383.0	379.2	393.1	465.9	567.2	734.9	897.6	1014.7
35°	251.3	251.3	251.3	250.7	250.7	250.0	249.4	248.8	248.1	247.5	246.9
37.5°	252.6	252.6	252.6	252.6	251.9	251.3	251.3	250.0	249.4	248.8	248.1
40°	253.2	253.8	253.8	253.8	253.2	253.2	252.6	251.3	250.7	249.4	248.1
42.5°	252.6	253.2	253.2	252.6	252.6	251.9	251.9	251.3	250.7	250.0	249.4
45°	244.3	245.0	243.7	243.7	243.1	243.1	243.1	243.1	243.1	243.7	243.7
47.5°	229.8	229.8	229.2	228.5	228.5	227.9	228.5	227.9	229.2	229.8	231.1
50°	212.7	212.7	211.4	210.8	210.8	210.8	210.8	211.4	212.1	213.3	214.6
52.5°	195.0	195.0	194.3	193.7	193.1	193.1	195.0	194.3	195.0	195.6	197.5
55°	177.9	178.5	177.2	177.2	176.6	176.6	176.6	177.2	177.9	178.5	180.4
57.5°	163.3	163.3	162.1	162.1	162.1	161.4	163.3	162.1	162.7	163.3	164.6
60°	148.8	148.1	148.1	147.5	147.5	147.5	148.8	148.1	148.1	148.8	150.0
62.5°	135.5	135.5	134.8	134.8	134.2	134.2	135.5	134.8	134.8	135.5	136.1
65°	120.3	120.3	119.6	119.0	120.9	119.0	120.9	119.6	120.9	121.5	122.8
67.5°	103.2	103.2	103.2	102.6	102.6	103.8	104.4	103.2	103.8	105.1	105.7
70°	88.0	88.0	87.4	87.4	87.4	88.6	89.3	88.0	88.6	89.3	90.5
72.5°	74.7	73.4	73.4	72.8	74.1	74.1	74.7	74.1	74.7	74.7	76.0
75°	61.4	60.1	60.1	60.1	61.4	60.8	61.4	60.8	61.4	61.4	62.0
77.5°	49.4	48.7	48.1	48.1	49.4	49.4	49.4	48.7	49.4	50.0	50.6
80°	38.6	38.0	37.3	37.3	38.6	38.6	38.6	39.2	38.6	39.2	39.9
82.5°	28.5	27.9	27.2	28.5	28.5	28.5	28.5	29.1	28.5	29.1	29.8
85°	19.0	18.4	17.7	19.0	19.0	19.0	19.0	19.6	19.0	19.6	20.3
87.5°	10.1	9.5	9.5	10.1	10.1	10.1	10.8	10.8	10.8	11.4	11.4
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: P1214090

CATALOG NUMBER: 4SNLED-LD5-28SL-RW-UNV-L950-CD1-U

CANDELA DISTRIBUTION (continued):

	110°	112.5°	115°	117.5°	120°	122.5°	125°	127.5°	130°	132.5°	135°
0°	1381.3	1381.3	1381.3	1381.3	1381.3	1381.3	1381.3	1381.3	1381.3	1381.3	1381.3
2.5°	1494.6	1496.5	1495.8	1492.0	1488.3	1483.8	1480.7	1481.3	1487.6	1489.5	1483.8
5°	1431.9	1443.9	1443.9	1452.2	1447.7	1443.9	1446.5	1460.4	1467.4	1478.1	1481.9
7.5°	1367.3	1373.0	1372.4	1380.6	1379.4	1379.4	1381.3	1399.6	1408.5	1417.4	1419.9
10°	1331.3	1337.0	1336.3	1337.0	1335.1	1330.6	1330.6	1338.9	1346.5	1350.9	1352.1
12.5°	1305.3	1308.5	1307.8	1307.8	1306.6	1302.8	1302.1	1309.1	1317.3	1323.0	1323.7
15°	1266.7	1275.6	1277.5	1285.7	1283.8	1278.7	1280.0	1285.7	1290.7	1295.8	1293.9
17.5°	1209.1	1213.5	1214.1	1217.3	1216.0	1216.0	1223.6	1244.5	1258.5	1270.5	1271.8
20°	1176.2	1179.3	1178.1	1185.0	1181.9	1181.2	1183.1	1192.0	1198.3	1204.0	1214.1
22.5°	1160.3	1162.9	1161.0	1161.6	1155.9	1150.8	1149.6	1156.5	1163.5	1171.1	1171.1
25°	1147.0	1148.9	1148.3	1147.0	1142.6	1135.7	1134.4	1135.7	1138.2	1138.8	1134.4
27.5°	1131.2	1132.5	1132.5	1133.1	1127.4	1121.1	1119.8	1118.6	1121.1	1120.5	1113.5
30°	1114.8	1112.9	1113.5	1114.1	1109.1	1103.4	1100.8	1100.2	1102.7	1102.1	1095.1
32.5°	1075.5	1090.1	1091.3	1092.6	1088.2	1083.1	1080.6	1078.7	1079.9	1079.3	1073.0
35°	246.2	250.7	307.0	695.1	943.8	1045.1	1055.9	1053.4	1054.0	1054.0	1048.9
37.5°	246.9	246.2	245.6	243.7	241.8	240.6	415.9	886.9	1027.4	1028.0	1023.6
40°	246.9	246.2	245.6	244.3	241.8	239.9	236.8	234.2	239.9	527.9	966.0
42.5°	248.1	246.9	245.6	244.3	241.8	239.3	236.8	233.6	235.5	234.2	231.1
45°	244.3	243.7	243.7	243.1	241.8	239.3	236.1	232.3	230.4	232.3	229.2
47.5°	232.3	233.0	234.9	235.5	235.5	236.1	234.2	231.7	228.5	230.4	226.6
50°	215.9	217.1	217.8	220.9	222.2	224.7	225.4	225.4	224.7	227.3	224.7
52.5°	198.1	199.4	202.6	203.8	205.1	208.9	210.2	212.1	213.3	217.1	219.7
55°	181.0	181.7	182.9	185.5	187.4	190.5	192.4	194.3	197.5	199.4	207.0
57.5°	165.2	165.9	168.4	169.0	170.3	172.8	174.7	177.2	179.8	181.0	189.9
60°	150.0	150.7	152.6	153.2	153.8	156.4	158.3	160.2	162.1	163.3	169.7
62.5°	136.7	136.7	138.6	138.6	139.3	141.2	142.4	143.7	145.6	146.2	149.4
65°	123.4	124.1	125.3	125.3	126.0	127.2	127.9	128.5	130.4	130.4	132.9
67.5°	107.0	107.6	109.5	110.8	111.4	113.9	114.6	115.2	116.5	117.1	118.4
70°	91.2	91.8	93.7	94.3	95.0	96.9	98.1	100.0	101.9	103.8	105.1
72.5°	76.6	77.2	79.1	79.1	81.0	81.7	82.9	83.6	85.5	86.7	88.6
75°	62.7	63.3	65.2	65.2	67.1	67.7	68.4	69.0	70.3	71.5	72.8
77.5°	51.3	51.3	53.8	55.1	56.3	56.3	57.0	57.0	57.0	57.6	58.9
80°	40.5	40.5	42.4	43.7	44.9	44.9	45.6	46.2	46.8	46.8	47.5
82.5°	30.4	30.4	32.3	32.9	34.2	34.2	34.2	34.8	35.4	34.8	36.1
85°	20.9	20.9	22.2	22.8	24.1	24.1	24.1	24.7	25.3	24.7	25.3
87.5°	12.0	12.7	13.3	13.9	14.6	15.2	15.2	15.2	15.8	15.8	16.5
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: P1214090

CATALOG NUMBER: 4SNLED-LD5-28SL-RW-UNV-L950-CD1-U

CANDELA DISTRIBUTION (continued):

	137.5°	140°	142.5°	145°	147.5°	150°	152.5°	155°	157.5°	160°	162.5°
0°	1381.3	1381.3	1381.3	1381.3	1381.3	1381.3	1381.3	1381.3	1381.3	1381.3	1381.3
2.5°	1477.5	1469.9	1469.3	1460.4	1457.9	1458.5	1451.5	1449.0	1437.6	1435.1	1423.0
5°	1483.2	1487.0	1485.1	1484.5	1486.4	1485.1	1480.0	1477.5	1475.6	1470.5	1460.4
7.5°	1420.5	1423.0	1424.9	1433.2	1440.1	1452.2	1464.8	1473.1	1479.4	1480.7	1472.4
10°	1356.6	1368.6	1376.8	1389.5	1399.6	1406.6	1414.2	1421.2	1439.5	1457.9	1468.6
12.5°	1323.7	1326.8	1326.2	1333.2	1340.1	1358.5	1376.2	1386.3	1400.3	1408.5	1428.1
15°	1295.8	1296.4	1298.3	1303.4	1307.2	1313.5	1321.8	1337.0	1364.8	1377.5	1388.2
17.5°	1270.5	1270.5	1271.8	1276.2	1281.3	1286.9	1292.0	1298.3	1312.3	1333.2	1359.7
20°	1230.0	1247.7	1249.6	1249.0	1251.5	1262.3	1263.5	1274.9	1281.9	1290.1	1316.1
22.5°	1169.8	1180.6	1195.8	1219.2	1228.1	1233.1	1236.9	1242.0	1252.8	1262.3	1273.0
25°	1136.9	1143.9	1148.3	1155.3	1173.6	1203.4	1209.1	1214.8	1221.7	1228.7	1242.0
27.5°	1107.8	1107.2	1110.3	1116.7	1121.7	1137.6	1165.4	1187.6	1188.8	1199.0	1210.4
30°	1086.9	1083.1	1078.7	1077.4	1084.4	1092.6	1100.8	1135.7	1159.7	1164.8	1176.8
32.5°	1067.3	1061.0	1054.6	1049.6	1045.1	1052.1	1057.2	1072.4	1103.4	1132.5	1138.8
35°	1043.2	1036.9	1029.3	1023.6	1016.6	1016.0	1015.4	1029.9	1040.1	1074.9	1105.3
37.5°	1018.5	1011.6	1005.3	998.9	992.0	986.9	983.7	987.5	997.0	1012.2	1062.9
40°	992.6	984.4	978.0	973.0	963.5	959.7	953.3	950.8	951.4	964.7	991.3
42.5°	593.1	945.7	948.9	943.2	935.0	929.9	923.0	919.8	913.5	919.8	935.0
45°	228.5	231.1	691.9	914.1	904.0	897.6	891.3	888.1	881.2	876.1	890.0
47.5°	224.1	226.6	221.6	314.0	862.8	864.7	857.1	854.0	847.0	843.2	839.4
50°	220.9	222.8	219.0	220.3	215.9	790.7	822.3	818.5	810.9	806.5	798.9
52.5°	217.8	217.8	215.2	212.1	210.8	211.4	665.3	782.4	773.6	769.1	759.0
55°	207.6	208.9	211.4	206.4	205.1	204.5	202.6	633.7	732.4	727.4	718.5
57.5°	192.4	195.0	201.9	200.7	200.7	195.6	194.3	194.3	588.1	684.9	676.1
60°	174.7	177.2	184.8	187.4	189.3	188.0	186.7	186.1	183.6	619.7	631.1
62.5°	156.4	158.9	161.4	169.7	172.2	175.3	179.1	177.2	174.7	174.7	583.7
65°	136.7	140.5	141.8	149.4	152.6	158.3	161.4	165.9	164.6	164.0	167.1
67.5°	119.6	124.1	124.7	127.9	133.6	136.1	139.9	148.1	151.9	153.2	154.5
70°	105.1	107.6	109.5	110.8	114.6	115.2	122.2	127.9	133.6	139.9	141.8
72.5°	90.5	92.4	96.2	95.0	96.2	98.8	102.6	106.3	112.0	120.9	126.6
75°	74.1	75.3	77.9	79.1	81.7	83.6	86.1	89.3	94.3	98.8	106.3
77.5°	59.5	60.1	62.0	62.7	65.2	67.1	71.5	73.4	76.6	79.8	84.2
80°	48.1	48.1	48.7	48.7	50.6	52.5	55.7	57.6	61.4	63.9	63.9
82.5°	36.7	36.7	38.6	38.6	39.9	39.9	41.8	41.8	43.7	44.9	46.2
85°	26.0	26.6	27.9	27.2	28.5	27.9	29.1	30.4	31.0	30.4	29.8
87.5°	17.1	17.1	18.4	17.7	18.4	18.4	19.6	19.6	20.3	20.3	19.6
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: P1214090

CATALOG NUMBER: 4SNLED-LD5-28SL-RW-UNV-L950-CD1-U

CANDELA DISTRIBUTION (continued):

	165°	167.5°	170°	172.5°	175°	177.5°	180°	182.5°	185°	187.5°	190°
0°	1381.3	1381.3	1381.3	1381.3	1381.3	1381.3	1381.3	1381.3	1381.3	1381.3	1381.3
2.5°	1418.6	1409.1	1403.4	1396.5	1394.6	1392.7	1395.2	1395.2	1391.4	1388.2	1382.5
5°	1451.5	1441.4	1430.6	1419.3	1408.5	1397.1	1392.7	1392.0	1385.1	1381.3	1379.4
7.5°	1468.6	1463.6	1451.5	1435.7	1419.3	1399.0	1390.1	1385.1	1378.1	1376.8	1376.8
10°	1470.5	1464.8	1458.5	1447.1	1428.1	1401.5	1384.4	1374.3	1368.0	1372.4	1380.6
12.5°	1452.2	1462.9	1457.2	1449.6	1434.4	1402.2	1377.5	1362.3	1360.4	1371.8	1393.3
15°	1405.3	1437.0	1452.8	1445.2	1433.2	1400.9	1366.1	1348.4	1348.4	1371.8	1399.6
17.5°	1369.9	1394.6	1433.2	1439.5	1425.6	1398.4	1355.3	1334.4	1340.1	1374.3	1404.1
20°	1340.8	1355.9	1393.3	1428.7	1415.5	1392.7	1339.5	1318.0	1329.4	1370.5	1410.4
22.5°	1295.2	1325.6	1348.4	1400.9	1405.3	1381.9	1323.7	1297.7	1320.5	1370.5	1407.2
25°	1250.9	1287.6	1311.6	1362.9	1390.1	1368.6	1309.1	1276.2	1311.0	1368.6	1404.7
27.5°	1219.8	1236.9	1280.6	1317.3	1367.3	1350.9	1289.5	1252.8	1299.0	1358.5	1390.1
30°	1186.9	1198.3	1241.4	1276.2	1337.0	1330.6	1269.2	1226.8	1283.8	1349.0	1352.1
32.5°	1150.8	1163.5	1185.7	1236.3	1294.5	1311.6	1246.4	1200.9	1267.3	1334.4	1307.8
35°	1114.1	1123.6	1141.4	1195.8	1245.2	1283.1	1218.6	1171.1	1255.9	1312.3	1265.4
37.5°	1077.4	1087.5	1102.7	1148.3	1193.3	1256.6	1194.5	1141.4	1235.0	1273.0	1221.1
40°	1042.6	1048.3	1064.1	1092.6	1150.2	1229.3	1167.3	1110.3	1213.5	1223.0	1161.0
42.5°	978.7	1007.1	1021.7	1044.5	1101.5	1192.0	1135.7	1077.4	1189.5	1173.0	1100.8
45°	909.7	971.7	978.0	1000.8	1058.4	1152.1	1105.9	1045.1	1166.7	1130.0	1043.9
47.5°	853.3	898.3	935.0	954.0	1007.1	1105.3	1078.0	1017.9	1132.5	1075.5	988.2
50°	803.3	827.4	893.8	907.8	945.7	1048.9	1045.1	986.3	1085.0	1007.1	933.7
52.5°	754.6	771.7	831.8	861.6	892.6	988.2	1005.9	955.2	1033.1	938.8	878.6
55°	712.2	717.9	750.8	813.4	841.3	926.8	962.8	919.2	967.3	873.6	825.5
57.5°	668.5	663.4	687.5	767.9	788.1	864.1	917.3	882.4	914.1	807.1	770.4
60°	622.9	615.9	626.1	679.2	731.8	802.0	863.5	841.9	849.5	741.3	709.0
62.5°	575.4	568.5	565.3	598.8	676.7	738.1	809.0	797.0	770.4	681.1	633.0
65°	526.0	519.1	514.0	527.3	615.9	655.2	748.2	745.1	683.7	617.8	533.0
67.5°	160.2	472.2	461.5	460.8	519.1	579.9	682.4	677.3	596.3	550.1	458.9
70°	144.3	383.0	407.0	401.3	426.7	503.3	607.1	603.3	511.5	441.2	405.8
72.5°	132.3	135.5	359.6	353.2	358.9	427.9	528.6	518.5	433.6	348.2	350.7
75°	113.3	119.0	124.1	298.2	290.6	354.5	443.1	427.3	357.7	287.4	293.1
77.5°	92.4	99.4	103.2	217.1	234.9	252.6	353.9	333.0	246.2	229.8	109.5
80°	69.0	74.7	81.0	86.7	178.5	176.6	262.7	241.8	171.6	143.1	85.5
82.5°	50.6	52.5	56.3	62.7	70.9	118.4	169.0	148.8	119.0	65.2	58.9
85°	31.7	34.2	36.1	38.0	43.0	70.9	83.6	66.5	50.0	39.9	37.3
87.5°	20.3	20.3	19.6	20.3	20.9	25.3	28.5	27.2	21.5	20.3	20.3
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: P1214090

CATALOG NUMBER: 4SNLED-LD5-28SL-RW-UNV-L950-CD1-U

CANDELA DISTRIBUTION (continued):

	192.5°	195°	197.5°	200°	202.5°	205°	207.5°	210°	212.5°	215°	217.5°
0°	1381.3	1381.3	1381.3	1381.3	1381.3	1381.3	1381.3	1381.3	1381.3	1381.3	1381.3
2.5°	1376.2	1367.3	1367.3	1364.8	1366.7	1366.7	1366.1	1366.7	1371.1	1373.7	1378.1
5°	1375.6	1373.0	1378.7	1385.7	1393.9	1404.1	1406.6	1415.5	1423.7	1434.4	1445.8
7.5°	1383.8	1392.7	1403.4	1414.8	1431.3	1443.3	1454.1	1464.8	1472.4	1482.6	1488.9
10°	1395.8	1413.6	1431.9	1446.5	1464.2	1474.3	1481.3	1482.6	1471.8	1454.7	1440.8
12.5°	1412.9	1433.8	1450.9	1464.8	1473.1	1469.3	1449.0	1428.1	1416.1	1398.4	1373.7
15°	1427.5	1446.5	1464.2	1458.5	1436.3	1415.5	1399.6	1374.9	1350.9	1334.4	1323.7
17.5°	1433.8	1452.2	1445.8	1416.1	1395.2	1371.1	1338.9	1319.9	1304.0	1291.4	1285.0
20°	1437.6	1434.4	1400.3	1378.7	1338.2	1316.1	1295.2	1277.5	1265.4	1259.1	1257.8
22.5°	1427.5	1388.9	1359.7	1321.1	1291.4	1273.0	1256.6	1242.0	1233.8	1228.7	1225.5
25°	1393.9	1349.0	1305.9	1275.6	1250.2	1234.4	1221.7	1209.7	1199.6	1197.1	1190.7
27.5°	1347.1	1310.4	1253.4	1230.0	1207.8	1200.2	1186.3	1174.3	1165.4	1157.8	1137.6
30°	1308.5	1250.2	1209.1	1187.6	1174.3	1165.4	1149.6	1136.9	1121.7	1093.9	1082.5
32.5°	1261.0	1203.4	1164.1	1152.1	1135.7	1128.1	1110.3	1082.5	1059.1	1047.7	1047.0
35°	1199.6	1152.1	1123.6	1112.9	1099.6	1086.9	1050.2	1024.9	1013.5	1014.7	1024.2
37.5°	1148.3	1105.9	1087.5	1072.4	1057.2	1024.9	993.9	981.8	985.0	991.3	995.8
40°	1096.4	1064.1	1043.2	1031.2	997.0	965.4	948.9	953.3	959.0	963.5	969.2
42.5°	1045.8	1023.0	1002.1	978.7	931.8	914.7	918.5	924.2	929.3	935.6	941.3
45°	997.7	977.4	953.3	900.2	876.7	881.2	886.9	891.3	898.9	903.3	909.0
47.5°	952.1	930.6	888.1	841.3	838.8	847.6	852.7	858.4	864.1	852.7	470.3
50°	900.8	878.6	814.1	796.4	802.0	810.3	816.6	822.3	732.4	291.2	224.1
52.5°	850.2	793.8	752.7	757.7	763.4	772.9	777.4	577.3	229.8	219.0	219.7
55°	793.8	721.7	709.6	716.0	721.0	730.5	484.3	212.1	210.8	210.2	215.2
57.5°	705.2	661.5	666.6	672.9	678.0	478.6	206.4	205.1	205.7	206.4	207.0
60°	626.1	616.6	622.3	628.0	444.4	199.4	195.6	196.2	198.8	196.9	191.8
62.5°	563.4	571.0	576.7	505.2	189.3	187.4	189.3	187.4	182.9	179.8	173.4
65°	515.3	522.9	527.3	177.9	177.2	179.8	177.9	171.6	164.6	155.7	153.8
67.5°	464.6	472.2	169.0	164.6	167.1	164.0	156.4	148.8	143.7	136.1	132.9
70°	412.1	176.6	153.2	152.6	148.1	143.1	134.8	127.2	120.9	117.7	114.6
72.5°	297.5	139.9	138.0	132.9	125.3	118.4	111.4	107.0	103.8	101.9	100.0
75°	124.1	121.5	115.8	107.0	99.4	96.2	91.2	88.0	86.7	82.9	81.7
77.5°	103.8	98.8	90.5	84.2	79.8	77.9	74.1	70.3	68.4	67.7	65.2
80°	79.8	72.8	69.0	65.8	64.6	60.1	55.7	53.8	52.5	51.9	50.0
82.5°	54.4	51.9	49.4	44.9	44.9	43.0	41.1	39.9	38.6	38.6	37.3
85°	35.4	33.6	32.9	31.0	31.0	29.8	29.1	28.5	27.9	27.2	26.6
87.5°	20.3	20.3	20.9	20.3	20.3	19.6	19.0	18.4	17.7	17.7	16.5
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: P1214090

CATALOG NUMBER: 4SNLED-LD5-28SL-RW-UNV-L950-CD1-U

CANDELA DISTRIBUTION (continued):

	220°	222.5°	225°	227.5°	230°	232.5°	235°	237.5°	240°	242.5°	245°
0°	1381.3	1381.3	1381.3	1381.3	1381.3	1381.3	1381.3	1381.3	1381.3	1381.3	1381.3
2.5°	1383.8	1390.1	1391.4	1412.9	1424.9	1424.3	1420.5	1431.9	1424.9	1421.2	1424.9
5°	1457.2	1464.8	1471.2	1494.6	1502.8	1506.6	1506.0	1512.3	1507.2	1502.8	1502.8
7.5°	1493.3	1495.8	1498.4	1492.7	1488.9	1482.6	1473.1	1459.1	1452.2	1444.6	1435.1
10°	1433.8	1425.6	1428.7	1417.4	1407.9	1400.9	1392.0	1380.6	1371.1	1364.2	1353.4
12.5°	1361.0	1360.4	1361.6	1363.5	1354.0	1348.4	1341.4	1333.2	1326.2	1318.6	1309.7
15°	1316.7	1317.3	1322.4	1320.5	1317.3	1314.2	1306.6	1304.0	1297.7	1289.5	1284.4
17.5°	1285.0	1288.2	1293.3	1290.7	1285.7	1282.5	1276.8	1271.1	1265.4	1259.1	1251.5
20°	1257.2	1260.4	1263.5	1260.4	1250.9	1246.4	1238.8	1221.1	1208.5	1195.8	1184.4
22.5°	1226.8	1228.7	1226.2	1216.0	1192.0	1180.6	1171.7	1166.7	1155.9	1148.9	1142.0
25°	1188.8	1178.1	1161.6	1150.2	1140.7	1135.7	1131.9	1131.2	1130.0	1128.7	1125.5
27.5°	1126.8	1123.0	1114.1	1109.7	1110.3	1112.2	1112.9	1114.8	1112.9	1110.3	1107.8
30°	1080.6	1082.5	1083.1	1084.4	1087.5	1089.4	1090.1	1092.6	1091.3	1089.4	1088.2
32.5°	1051.5	1055.9	1058.4	1062.2	1064.1	1067.3	1067.3	1071.1	1067.3	1066.7	1065.4
35°	1027.4	1031.2	1032.5	1038.2	1040.1	1043.2	1043.2	1046.4	1043.2	1010.9	798.2
37.5°	1003.4	1007.1	1009.7	1014.7	1015.4	1017.3	938.8	686.8	443.1	343.1	262.1
40°	974.9	979.3	981.8	983.7	691.3	438.7	302.0	245.6	245.6	247.5	249.4
42.5°	944.5	947.6	660.2	384.2	239.3	238.7	240.6	242.5	244.3	246.9	249.4
45°	742.5	374.8	238.0	232.3	234.2	236.8	239.3	241.8	245.0	247.5	248.8
47.5°	243.7	228.5	231.7	229.2	232.3	235.5	238.0	240.6	241.2	241.8	241.2
50°	225.4	225.4	227.3	227.3	229.8	231.1	231.1	231.1	228.5	227.9	226.0
52.5°	217.8	222.8	220.3	221.6	220.3	218.4	216.5	214.6	210.8	209.5	207.0
55°	214.0	215.9	209.5	207.6	205.1	200.0	197.5	195.0	191.8	190.5	187.4
57.5°	205.1	200.7	193.7	190.5	186.1	181.0	178.5	176.6	173.4	172.2	170.3
60°	188.6	179.8	175.3	171.6	166.5	162.1	160.2	158.9	156.4	155.7	153.8
62.5°	168.4	160.8	157.0	151.9	148.1	145.6	143.7	143.1	140.5	140.5	139.3
65°	146.2	142.4	139.3	134.2	132.3	129.8	129.1	128.5	127.2	126.6	125.3
67.5°	128.5	126.0	121.5	119.0	117.7	115.8	114.6	113.3	110.8	109.5	107.6
70°	112.7	110.8	106.3	104.4	101.9	98.8	96.9	95.6	93.7	92.4	90.5
72.5°	97.5	91.8	88.6	86.7	84.8	81.7	81.0	79.8	77.9	77.2	75.3
75°	78.5	74.1	72.2	70.9	69.0	67.1	67.1	67.1	65.2	64.6	63.9
77.5°	62.7	60.1	58.9	57.6	57.0	55.7	53.8	53.2	51.3	51.3	50.6
80°	48.1	46.8	45.6	44.9	44.3	43.0	41.8	41.1	39.2	39.2	38.6
82.5°	35.4	34.8	34.2	33.6	32.9	32.3	30.4	29.8	28.5	28.5	27.9
85°	25.3	24.7	23.4	22.8	22.8	22.2	20.3	19.6	18.4	18.4	18.4
87.5°	15.8	15.2	14.6	13.9	13.3	12.7	11.4	10.8	10.8	9.5	8.9
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

TEST NUMBER: P1214090

CATALOG NUMBER: 4SNLED-LD5-28SL-RW-UNV-L950-CD1-U

CANDELA DISTRIBUTION (continued):

	247.5°	250°	252.5°	255°	257.5°	260°	262.5°	265°	267.5°	270°	272.5°
0°	1381.3	1381.3	1381.3	1381.3	1381.3	1381.3	1381.3	1381.3	1381.3	1381.3	1381.3
2.5°	1417.4	1428.1	1426.8	1434.4	1436.3	1440.1	1441.4	1442.0	1432.5	1440.1	1440.8
5°	1500.9	1502.8	1504.1	1507.2	1510.4	1511.0	1507.9	1504.1	1505.3	1502.8	1496.5
7.5°	1433.8	1424.3	1422.4	1419.9	1418.6	1417.4	1411.7	1416.7	1411.0	1408.5	1399.6
10°	1351.5	1342.7	1342.0	1342.0	1343.9	1343.3	1342.0	1339.5	1344.6	1341.4	1339.5
12.5°	1308.5	1305.3	1307.2	1305.9	1311.0	1312.3	1311.0	1311.0	1309.7	1307.2	1308.5
15°	1282.5	1280.0	1281.9	1280.0	1283.8	1284.4	1281.3	1283.1	1280.0	1276.8	1275.6
17.5°	1248.3	1242.6	1238.2	1231.9	1232.5	1231.2	1227.4	1227.4	1224.3	1216.0	1216.7
20°	1182.5	1176.8	1174.3	1174.3	1177.4	1178.7	1178.1	1179.3	1176.2	1174.9	1169.8
22.5°	1141.4	1140.7	1142.0	1145.1	1150.2	1157.2	1157.8	1157.8	1157.8	1157.2	1150.8
25°	1126.8	1126.8	1128.1	1132.5	1136.3	1141.4	1142.6	1143.9	1142.6	1142.6	1136.9
27.5°	1110.3	1109.1	1111.6	1116.0	1120.5	1124.3	1127.4	1128.1	1126.2	1126.2	1128.1
30°	1090.1	1089.4	1092.6	1097.0	1100.8	1104.6	1107.8	1110.3	1107.8	1107.8	1105.9
32.5°	1069.2	1069.2	1070.5	1043.9	967.9	871.7	873.6	817.9	779.3	730.5	795.1
35°	667.2	485.5	417.2	353.2	308.3	279.2	278.5	269.0	264.6	261.4	260.8
37.5°	251.9	253.2	255.7	257.0	258.9	260.2	260.8	260.8	260.8	260.8	260.2
40°	251.3	253.8	255.7	257.6	259.5	260.8	260.8	261.4	262.1	262.1	262.1
42.5°	251.9	254.5	257.0	258.9	260.2	260.8	261.4	262.1	262.1	262.1	262.1
45°	251.3	252.6	252.6	253.2	253.2	253.2	253.8	253.8	253.2	252.6	253.8
47.5°	241.8	241.8	239.9	239.3	238.7	237.4	238.0	237.4	236.8	236.1	237.4
50°	225.4	222.8	221.6	220.3	219.7	218.4	219.0	218.4	217.8	216.5	218.4
52.5°	205.7	205.1	202.6	201.3	200.7	201.3	200.0	199.4	198.8	198.1	198.8
55°	186.7	184.2	183.6	182.3	181.7	182.3	181.7	181.0	180.4	179.8	180.4
57.5°	169.7	167.8	167.1	165.9	165.9	165.9	165.9	165.2	164.6	164.0	164.6
60°	153.2	151.9	151.3	151.3	150.7	150.7	150.7	150.0	149.4	149.4	150.0
62.5°	139.3	139.3	137.4	136.7	136.7	137.4	136.7	136.1	135.5	134.8	136.1
65°	124.7	122.2	121.5	120.3	119.0	119.6	119.0	118.4	117.7	117.1	118.4
67.5°	107.0	106.3	103.8	102.6	101.9	102.6	101.9	101.3	100.7	100.0	101.3
70°	89.9	89.9	87.4	86.7	86.1	86.1	85.5	85.5	84.8	84.2	85.5
72.5°	74.7	74.7	74.1	72.8	72.2	71.5	70.9	70.3	70.3	70.9	70.9
75°	62.0	60.8	58.2	58.9	58.2	57.6	57.6	57.0	56.3	57.6	57.0
77.5°	48.7	48.1	46.2	46.8	46.2	45.6	45.6	44.9	44.3	44.9	44.9
80°	36.7	36.7	36.1	35.4	35.4	34.8	34.2	34.2	33.6	34.2	34.2
82.5°	26.6	26.6	26.0	25.3	24.7	24.7	24.1	24.1	24.1	24.1	24.1
85°	17.1	16.5	16.5	15.2	15.2	15.2	14.6	14.6	14.6	14.6	14.6
87.5°	8.2	8.2	7.6	7.6	7.0	6.3	6.3	5.7	5.7	6.3	6.3
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: P1214090

CATALOG NUMBER: 4SNLED-LD5-28SL-RW-UNV-L950-CD1-U

CANDELA DISTRIBUTION (continued):

	275°	277.5°	280°	282.5°	285°	287.5°	290°	292.5°	295°	297.5°	300°
0°	1381.3	1381.3	1381.3	1381.3	1381.3	1381.3	1381.3	1381.3	1381.3	1381.3	1381.3
2.5°	1429.4	1437.6	1430.6	1433.8	1434.4	1445.2	1444.6	1447.1	1442.7	1437.6	1430.6
5°	1502.2	1498.4	1493.3	1505.3	1499.0	1506.6	1509.1	1514.2	1514.2	1513.6	1507.9
7.5°	1409.1	1400.9	1407.2	1411.7	1413.6	1408.5	1418.6	1430.0	1439.5	1445.2	1445.8
10°	1336.3	1338.9	1338.2	1340.1	1344.6	1343.9	1350.3	1356.6	1359.1	1362.9	1364.2
12.5°	1302.1	1301.5	1302.8	1307.2	1309.7	1309.1	1315.4	1319.2	1320.5	1321.1	1320.5
15°	1274.9	1270.5	1273.7	1274.3	1276.2	1276.2	1283.8	1289.5	1292.0	1293.3	1292.0
17.5°	1223.6	1212.9	1223.0	1223.0	1230.0	1228.7	1240.7	1250.2	1255.3	1259.1	1259.1
20°	1173.0	1167.9	1171.7	1170.5	1175.5	1174.9	1182.5	1188.8	1193.3	1196.4	1200.2
22.5°	1152.7	1154.0	1148.3	1148.9	1148.9	1148.3	1152.1	1155.3	1156.5	1158.4	1157.2
25°	1139.5	1140.7	1138.8	1135.7	1134.4	1135.7	1137.6	1141.4	1142.0	1140.7	1136.3
27.5°	1126.2	1122.4	1125.5	1119.8	1118.6	1121.1	1123.6	1124.3	1124.9	1124.9	1121.1
30°	1105.9	1102.7	1105.9	1103.4	1100.8	1103.4	1105.3	1105.3	1106.5	1107.2	1102.7
32.5°	772.9	779.3	881.8	943.8	1031.2	1075.5	1083.7	1083.7	1085.0	1085.0	1081.2
35°	263.3	264.0	285.5	309.6	360.8	424.1	507.1	550.1	695.7	869.8	1038.2
37.5°	260.2	259.5	258.9	258.3	257.6	257.0	255.7	255.1	258.9	307.0	416.5
40°	261.4	260.8	259.5	258.9	258.3	257.0	256.4	255.1	253.8	252.6	251.3
42.5°	261.4	260.8	260.2	259.5	258.9	258.3	257.0	255.7	254.5	252.6	250.7
45°	252.6	252.6	253.2	253.2	253.8	253.8	253.8	253.2	253.2	252.6	250.0
47.5°	236.1	236.1	238.0	238.0	239.3	240.6	240.6	241.8	243.7	245.0	245.6
50°	217.1	217.1	219.0	219.7	220.9	222.8	224.7	225.4	227.3	229.8	232.3
52.5°	198.1	198.1	200.0	200.0	201.3	203.2	205.1	205.7	208.3	210.8	214.0
55°	180.4	180.4	181.7	182.3	182.9	184.2	186.1	186.1	188.6	190.5	193.7
57.5°	164.6	165.9	165.9	165.9	166.5	167.8	169.0	169.0	170.9	172.8	175.3
60°	149.4	150.7	150.7	150.7	151.3	151.9	153.2	153.2	154.5	155.7	158.3
62.5°	135.5	136.7	136.7	137.4	137.4	138.0	139.3	138.6	139.9	140.5	142.4
65°	117.7	119.0	119.6	120.3	120.9	122.2	124.1	123.4	125.3	126.6	128.5
67.5°	100.7	101.9	101.9	102.6	103.2	104.4	105.7	105.7	107.6	108.9	111.4
70°	84.8	86.1	86.1	86.7	87.4	88.6	89.9	89.3	91.2	92.4	94.3
72.5°	70.3	71.5	71.5	72.2	72.2	73.4	74.7	76.0	76.0	77.2	78.5
75°	57.0	57.6	58.2	58.2	58.9	59.5	60.8	62.0	62.7	63.3	64.6
77.5°	44.9	45.6	46.2	46.2	46.8	47.5	48.1	50.6	51.9	52.5	52.5
80°	34.2	34.8	34.8	34.8	35.4	36.1	37.3	37.3	39.9	39.9	40.5
82.5°	24.1	24.7	24.7	24.7	25.3	26.6	27.2	27.9	29.1	29.8	29.8
85°	14.6	15.2	15.2	15.2	15.8	16.5	17.7	18.4	19.0	19.0	19.6
87.5°	5.7	6.3	7.0	7.0	7.6	8.2	8.9	9.5	10.1	10.1	10.8
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):

	302.5°	305°	307.5°	310°	312.5°	315°	317.5°	320°	322.5°	325°	327.5°
0°	1381.3	1381.3	1381.3	1381.3	1381.3	1381.3	1381.3	1381.3	1381.3	1381.3	1381.3
2.5°	1423.0	1427.5	1423.0	1425.6	1428.7	1423.0	1409.8	1404.7	1402.8	1395.2	1390.1
5°	1502.2	1502.2	1500.3	1505.3	1504.7	1495.8	1481.9	1475.6	1469.3	1461.0	1454.7
7.5°	1445.8	1450.9	1454.1	1473.7	1486.4	1487.6	1496.5	1498.4	1500.9	1498.4	1494.6
10°	1364.8	1362.9	1371.8	1390.1	1400.9	1406.6	1423.7	1431.9	1438.9	1452.8	1467.4
12.5°	1319.2	1321.8	1325.6	1338.9	1349.0	1346.5	1353.4	1359.1	1367.3	1381.3	1402.2
15°	1288.8	1291.4	1295.2	1305.3	1311.6	1308.5	1312.3	1316.1	1321.8	1328.7	1341.4
17.5°	1255.9	1260.4	1264.8	1275.6	1281.3	1280.6	1283.8	1285.0	1286.9	1291.4	1300.2
20°	1204.7	1218.6	1227.4	1242.0	1250.2	1249.0	1254.7	1256.6	1259.1	1263.5	1267.3
22.5°	1157.8	1161.6	1166.0	1181.9	1195.8	1212.9	1216.7	1221.7	1228.1	1232.5	1236.3
25°	1131.2	1128.7	1130.6	1141.4	1148.9	1150.2	1155.9	1172.4	1189.5	1197.1	1205.9
27.5°	1115.4	1112.9	1112.2	1117.3	1118.6	1115.4	1114.1	1119.2	1131.9	1144.5	1171.1
30°	1098.3	1095.1	1092.6	1097.0	1098.9	1094.5	1086.3	1081.8	1089.4	1092.6	1103.4
32.5°	1078.0	1074.9	1073.6	1076.1	1077.4	1073.6	1064.8	1059.7	1058.4	1055.9	1058.4
35°	1055.3	1052.1	1050.2	1050.8	1053.4	1050.2	1042.6	1036.3	1033.1	1026.1	1021.1
37.5°	543.8	770.4	1000.2	1024.2	1026.8	1026.1	1018.5	1011.6	1008.4	1000.2	997.7
40°	248.8	277.9	417.2	545.0	786.2	998.9	992.0	985.0	979.3	976.8	967.3
42.5°	248.1	248.8	249.4	246.2	305.1	519.7	767.2	957.8	954.0	947.6	940.7
45°	248.1	245.0	247.5	243.7	245.0	244.3	304.5	491.2	874.2	913.5	910.3
47.5°	245.6	243.7	246.2	243.1	239.3	241.2	238.7	241.8	377.3	640.0	876.7
50°	234.2	235.5	239.9	239.3	236.1	238.7	234.2	238.0	234.9	257.6	496.3
52.5°	217.1	219.7	224.1	227.9	229.2	232.3	231.1	232.3	229.8	230.4	231.1
55°	196.9	200.0	203.8	209.5	212.1	217.1	220.9	222.8	226.0	225.4	220.3
57.5°	177.9	181.0	184.2	189.9	195.6	198.1	205.1	208.9	217.1	215.2	214.0
60°	160.2	162.7	165.9	167.1	174.1	178.5	184.8	188.6	199.4	201.9	205.7
62.5°	144.3	145.6	148.1	150.0	154.5	158.9	162.1	168.4	174.1	182.3	188.0
65°	129.8	131.0	132.9	134.2	134.8	141.2	143.1	150.0	151.9	160.8	165.9
67.5°	113.3	115.8	118.4	119.6	120.9	124.7	126.0	129.1	133.6	137.4	143.7
70°	96.2	98.1	100.7	102.6	105.1	107.6	111.4	113.3	116.5	119.0	124.1
72.5°	80.4	82.3	83.6	85.5	87.4	89.3	92.4	96.9	99.4	103.8	105.1
75°	65.2	67.1	68.4	69.6	71.5	72.8	74.1	78.5	81.0	84.8	88.6
77.5°	53.8	53.8	55.1	58.9	58.2	58.2	59.5	62.0	63.9	66.5	70.3
80°	41.8	42.4	43.0	46.2	46.8	47.5	46.8	48.7	50.6	51.3	53.8
82.5°	31.0	31.7	31.7	33.6	35.4	35.4	35.4	36.1	38.0	38.6	39.9
85°	20.9	21.5	22.2	22.8	24.1	24.7	25.3	25.3	26.6	27.2	27.9
87.5°	11.4	12.7	13.3	13.9	14.6	15.2	15.8	16.5	17.1	17.7	18.4
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):

	330°	332.5°	335°	337.5°	340°	342.5°	345°	347.5°	350°	352.5°	355°
0°	1381.3	1381.3	1381.3	1381.3	1381.3	1381.3	1381.3	1381.3	1381.3	1381.3	1381.3
2.5°	1388.2	1385.1	1383.2	1378.1	1376.8	1368.6	1369.9	1368.6	1368.6	1370.5	1376.8
5°	1447.7	1432.5	1428.7	1418.0	1409.1	1393.9	1384.4	1379.4	1371.8	1368.6	1373.0
7.5°	1488.3	1476.9	1467.4	1457.9	1445.2	1427.5	1414.2	1399.0	1386.3	1374.3	1371.1
10°	1481.3	1493.9	1493.9	1488.3	1476.2	1458.5	1442.7	1423.7	1401.5	1382.5	1371.1
12.5°	1422.4	1444.6	1462.3	1475.6	1487.6	1475.6	1459.8	1444.6	1419.9	1392.0	1371.1
15°	1357.8	1380.6	1402.8	1430.6	1459.8	1471.8	1471.2	1453.4	1431.3	1402.2	1373.0
17.5°	1312.3	1328.1	1340.1	1370.5	1406.0	1437.0	1457.9	1459.1	1437.6	1411.7	1373.7
20°	1278.1	1289.5	1299.6	1316.7	1347.7	1385.7	1424.3	1445.8	1442.0	1413.6	1375.6
22.5°	1247.1	1255.3	1263.5	1276.2	1300.9	1325.6	1370.5	1414.8	1433.8	1410.4	1373.7
25°	1216.0	1224.9	1231.2	1240.1	1259.7	1280.0	1311.6	1366.7	1409.1	1407.9	1369.9
27.5°	1179.3	1191.4	1199.0	1211.0	1224.3	1239.5	1261.0	1312.9	1373.7	1395.2	1359.7
30°	1135.0	1152.7	1164.1	1177.4	1188.8	1202.1	1219.2	1250.9	1326.2	1370.5	1349.0
32.5°	1071.1	1102.7	1128.1	1140.7	1153.4	1164.8	1180.0	1206.6	1268.0	1337.0	1337.0
35°	1025.5	1040.1	1062.9	1099.6	1115.4	1126.8	1140.7	1161.6	1200.9	1297.1	1317.3
37.5°	990.1	995.8	1007.1	1043.2	1073.0	1091.3	1105.3	1118.6	1157.2	1242.6	1292.0
40°	963.5	961.6	960.3	977.4	1019.8	1048.9	1064.8	1078.0	1107.8	1177.4	1258.5
42.5°	932.5	930.6	924.2	928.7	949.5	998.3	1022.3	1036.9	1061.6	1109.1	1221.7
45°	900.2	897.0	894.5	890.0	897.6	924.9	974.2	995.8	1009.7	1052.1	1175.5
47.5°	867.2	862.8	859.7	855.9	851.4	864.1	910.9	949.5	973.6	1000.2	1119.8
50°	820.4	826.1	822.3	817.9	814.1	811.5	831.2	894.5	924.2	945.7	1052.1
52.5°	386.8	752.0	783.7	779.3	774.2	769.8	774.2	822.3	876.1	893.2	970.4
55°	220.3	334.9	697.0	736.8	732.4	726.1	722.3	738.7	819.1	841.9	895.7
57.5°	212.1	212.7	307.7	664.0	688.7	683.0	678.6	682.4	750.8	789.4	830.5
60°	205.1	205.1	205.1	293.7	634.9	636.8	631.1	624.8	654.6	730.5	764.7
62.5°	189.9	193.7	195.6	195.6	289.9	588.1	582.4	580.5	581.8	659.6	698.9
65°	170.3	179.1	182.9	185.5	185.5	304.5	532.4	529.2	524.8	554.5	632.4
67.5°	148.8	157.6	165.9	170.9	171.6	177.2	317.8	476.7	470.3	471.0	561.5
70°	126.6	134.2	143.1	150.7	157.6	160.8	165.9	395.6	416.5	407.7	481.1
72.5°	109.5	112.7	119.0	126.6	134.8	142.4	146.9	157.6	361.5	352.0	365.9
75°	91.2	93.7	98.1	103.2	109.5	118.4	126.0	133.6	191.8	295.0	293.1
77.5°	70.9	75.3	80.4	83.6	86.7	93.1	103.2	110.8	118.4	199.4	234.9
80°	54.4	57.6	60.1	63.3	67.1	71.5	75.3	84.2	93.1	100.0	179.8
82.5°	40.5	42.4	44.3	45.6	46.8	49.4	56.3	59.5	65.2	71.5	84.8
85°	28.5	29.8	31.0	31.7	32.3	32.9	35.4	36.1	41.8	43.0	51.3
87.5°	18.4	19.0	20.3	20.9	20.9	21.5	22.2	22.2	22.2	20.9	25.3
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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CANDELA DISTRIBUTION (continued):

	357.5°	360°
0°	1381.3	1381.3
2.5°	1381.9	1392.0
5°	1380.0	1393.3
7.5°	1374.9	1387.6
10°	1367.3	1382.5
12.5°	1359.1	1373.7
15°	1352.1	1362.9
17.5°	1344.6	1350.9
20°	1334.4	1339.5
22.5°	1324.3	1321.8
25°	1312.9	1307.2
27.5°	1298.3	1287.6
30°	1285.0	1266.1
32.5°	1272.4	1241.4
35°	1255.3	1216.0
37.5°	1237.6	1190.1
40°	1216.7	1160.3
42.5°	1194.5	1130.6
45°	1166.7	1102.1
47.5°	1142.0	1067.9
50°	1107.8	1031.2
52.5°	1066.0	997.0
55°	1016.6	955.2
57.5°	963.5	911.6
60°	906.5	861.6
62.5°	837.5	809.6
65°	756.5	750.1
67.5°	650.8	684.3
70°	533.6	609.0
72.5°	446.3	529.2
75°	365.9	440.0
77.5°	289.9	345.0
80°	181.0	252.6
82.5°	121.5	165.9
85°	73.4	79.1
87.5°	28.5	29.1
90°	0.0	0.0

(END OF REPORT)