

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: P1213868

Luminaire Tested: 4SNLED-LD5-70SL-LW-UNV-L940-CD1-U

Issue Date: 3/29/2018

Test Information

Test Method: LM-79-2019
Report Number: P1213868
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-LD5-70SL-LW-UNV-L940-CD1-U
Description: 4FT LINEAR SNLED LED FIXTURE
WIDE FROSTED LENS
Light Source: -
Ballast/Driver: -

Summary

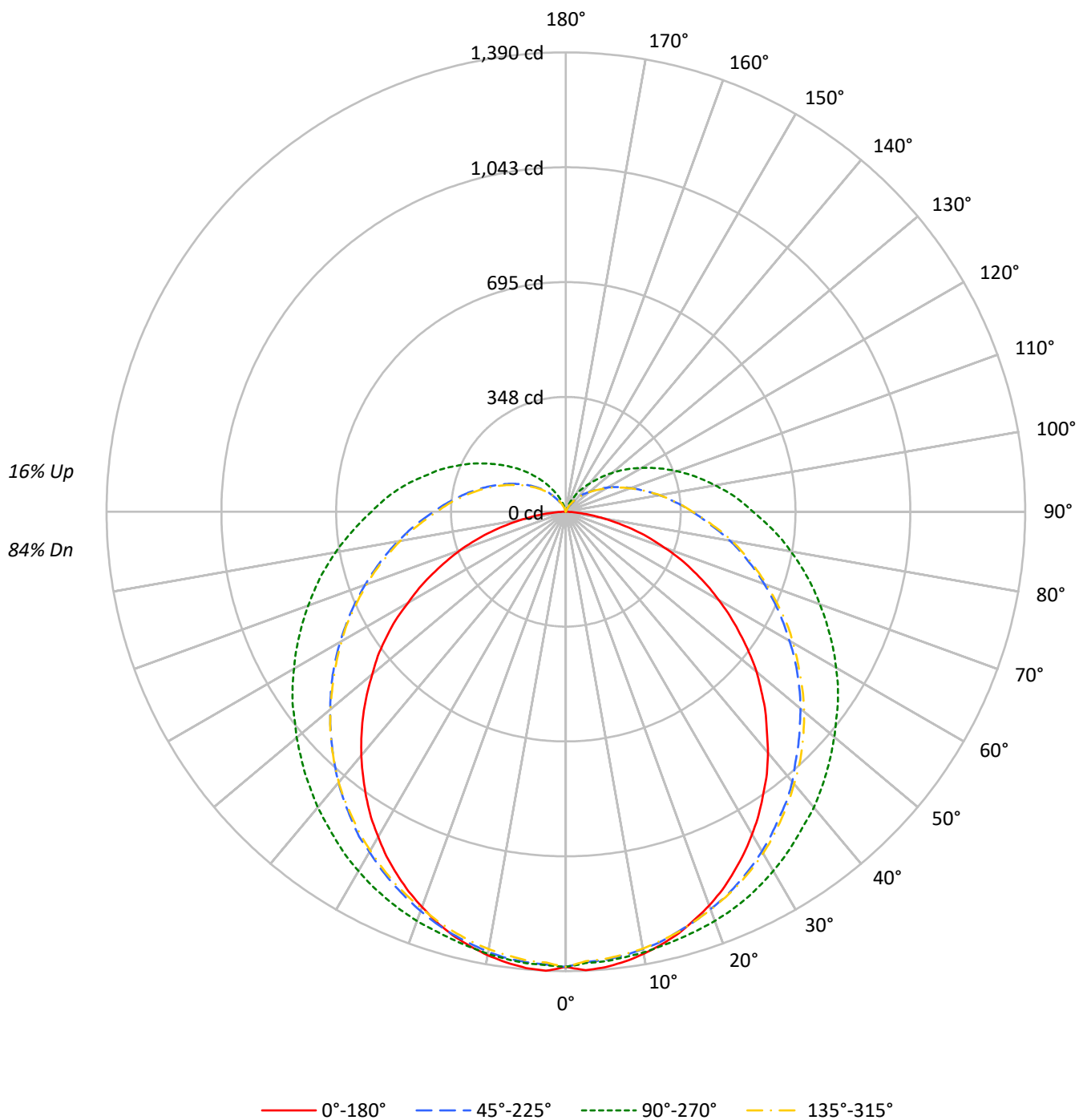
Lumens per Lamp: N/A
Luminaire Lumens: 5983.0 lumens
Efficiency: N/A
Efficacy: 85.5 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.36 / 1.44
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.12')
CIE Type: Semi-Direct

Input Watts (W): 70
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT

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Luminous Intensity Polar Plot



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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20			
RC	80				70				50				30				10			0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10
RCR																				
0	115	115	115	115	111	111	111	111	102	102	102	94	94	94	87	87	87	84		
1	102	96	91	86	98	92	87	83	85	81	77	78	75	72	72	70	67	64		
2	92	82	74	68	87	79	72	66	73	67	62	67	62	58	62	58	54	51		
3	83	71	62	55	79	69	60	54	63	56	51	58	52	48	54	49	45	42		
4	76	63	53	46	72	60	52	45	56	48	42	51	45	40	47	42	38	35		
5	69	56	46	39	66	54	45	38	50	42	36	46	39	34	42	37	33	30		
6	64	50	41	34	61	48	39	33	45	37	31	41	35	30	38	33	28	26		
7	59	45	36	30	56	43	35	29	40	33	28	38	31	26	35	29	25	23		
8	55	41	32	26	52	40	31	26	37	30	24	34	28	23	32	26	22	20		
9	51	37	29	23	49	36	28	23	34	27	22	32	25	21	30	24	20	18		
10	48	34	26	21	46	33	26	21	31	24	20	29	23	19	27	22	18	16		

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	11128	11128	11128	11128
5°	11187	10725	11211	10770
10°	11084	10420	11120	10453
15°	10956	10159	11004	10170
20°	10783	9969	10820	9969
25°	10571	9799	10635	9789
30°	10333	9625	10412	9625
35°	10054	9464	10167	9476
40°	9781	9369	9900	9369
45°	9466	9270	9610	9282
50°	9138	9211	9261	9236
55°	8679	9220	8954	9260
60°	8197	9248	8463	9304
65°	7654	9341	7992	9434
70°	6891	9512	7429	9648
75°	6012	9824	6579	10012
80°	4653	10285	5281	10521
85°	2781	11023	3471	11328

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 270°

Vertical Angle: 90°

Luminance: 12665 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	130.5	2.2
10°-20°	374.9	6.3
20°-30°	574.8	9.6
30°-40°	709.2	11.9
40°-50°	769.4	12.9
50°-60°	758.3	12.7
60°-70°	685.6	11.5
70°-80°	571.2	9.5
80°-90°	442.4	7.4
90°-100°	335.5	5.6
100°-110°	248.3	4.1
110°-120°	172.7	2.9
120°-130°	110.2	1.8
130°-140°	61.8	1.0
140°-150°	28.2	0.5
150°-160°	8.8	0.1
160°-170°	1.1	0.0
170°-180°	0.0	0.0
0°-30°	1080.2	18.1
0°-40°	1789.4	29.9
0°-60°	3317.1	55.4
0°-90°	5016.4	83.8
90°-120°	756.5	12.6
90°-150°	956.8	16.0
90°-180°	967.0	16.2
0°-180°	5983.0	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	1377	1377	1377	1377	1377	
5°	1383	1366	1386	1371	1383	131
15°	1320	1336	1326	1338	1320	372
25°	1203	1291	1210	1290	1203	554
35°	1042	1212	1053	1213	1042	652
45°	854	1116	867	1117	854	658
55°	644	1005	664	1010	644	576
65°	427	882	446	890	427	423
75°	215	755	235	770	215	228
85°	41	629	51	646	41	49
90°	2	566	3	588	2	2
95°	2	514	2	539	2	1
105°	2	408	2	433	2	2
115°	2	311	2	338	2	1
125°	2	224	2	248	2	1
135°	2	145	2	171	2	1
145°	2	84	2	103	2	1
155°	2	35	2	48	2	1
165°	2	6	2	9	2	0
175°	0	0	0	0	0	0
180°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1377.1	1377.1	1377.1	1377.1	1377.1	1377.1	1377.1	1377.1	1377.1	1377.1	1377.1
2.5°	1388.7	1388.7	1387.3	1384.4	1385.8	1390.2	1387.3	1380.0	1375.7	1364.0	1366.9
5°	1382.9	1382.9	1381.5	1378.6	1380.0	1385.8	1382.9	1377.1	1371.3	1361.1	1365.5
7.5°	1372.8	1372.8	1371.3	1368.4	1371.3	1377.1	1374.2	1368.4	1364.0	1353.9	1358.2
10°	1358.2	1359.7	1358.2	1353.9	1359.7	1365.5	1364.0	1356.8	1352.4	1343.7	1348.1
12.5°	1340.8	1342.2	1340.8	1339.3	1342.2	1351.0	1348.1	1342.2	1339.3	1332.1	1336.4
15°	1320.5	1321.9	1319.0	1319.0	1321.9	1330.6	1330.6	1324.8	1321.9	1314.6	1323.4
17.5°	1294.3	1295.8	1294.3	1294.3	1297.2	1305.9	1307.4	1304.5	1301.6	1298.7	1307.4
20°	1268.2	1266.7	1266.7	1265.3	1271.1	1284.1	1282.7	1282.7	1279.8	1279.8	1290.0
22.5°	1237.7	1237.7	1236.2	1236.2	1243.5	1255.1	1255.1	1258.0	1255.1	1260.9	1269.6
25°	1202.8	1204.2	1202.8	1205.7	1211.5	1224.6	1226.0	1230.4	1231.8	1237.7	1247.8
27.5°	1166.5	1167.9	1166.5	1169.4	1179.6	1189.7	1197.0	1202.8	1204.2	1213.0	1226.0
30°	1127.3	1127.3	1128.7	1131.6	1143.2	1159.2	1165.0	1172.3	1172.3	1186.8	1199.9
32.5°	1086.6	1086.6	1086.6	1092.4	1105.5	1124.4	1131.6	1140.3	1143.2	1157.8	1172.3
35°	1041.5	1043.0	1043.0	1047.4	1064.8	1083.7	1093.8	1104.0	1109.8	1127.3	1141.8
37.5°	999.4	1002.3	998.0	1003.8	1028.5	1044.5	1056.1	1066.2	1076.4	1099.7	1111.3
40°	951.5	954.4	952.9	964.6	984.9	1005.2	1018.3	1028.5	1043.0	1066.2	1079.3
42.5°	900.6	903.5	906.5	919.5	941.3	961.7	977.6	990.7	1008.1	1028.5	1050.3
45°	854.2	854.2	858.5	874.5	897.7	919.5	938.4	952.9	973.3	995.1	1016.9
47.5°	801.9	803.3	809.1	828.0	852.7	878.9	896.3	915.2	937.0	960.2	984.9
50°	753.9	753.9	762.6	783.0	806.2	835.3	854.2	875.9	899.2	926.8	951.5
52.5°	698.7	701.6	714.7	733.6	764.1	790.2	812.0	835.3	862.9	891.9	919.5
55°	643.5	649.3	659.5	685.7	717.6	742.3	768.5	797.5	823.7	855.6	887.6
57.5°	589.8	594.1	610.1	636.3	669.7	700.2	727.8	755.4	787.3	819.3	852.7
60°	534.6	540.4	559.3	585.4	621.7	653.7	685.7	714.7	748.1	781.5	816.4
62.5°	482.3	486.6	508.4	538.9	575.2	610.1	642.1	676.9	713.3	745.2	780.1
65°	427.1	434.3	459.0	486.6	528.8	563.6	599.9	637.7	675.5	710.3	743.8
67.5°	376.2	380.6	406.7	438.7	480.8	520.0	557.8	598.5	637.7	674.0	707.4
70°	316.7	331.2	357.4	390.8	435.8	476.5	517.1	559.3	601.4	639.2	671.1
72.5°	267.3	278.9	308.0	344.3	387.9	435.8	477.9	523.0	565.1	604.3	637.7
75°	215.0	226.6	260.0	300.7	345.7	396.6	440.2	486.6	530.2	569.4	604.3
77.5°	164.1	178.7	215.0	257.1	306.5	358.8	403.8	450.3	495.4	537.5	572.3
80°	117.7	133.6	172.9	220.8	268.7	321.0	370.4	416.9	461.9	504.1	540.4
82.5°	75.5	93.0	135.1	183.0	233.9	286.2	337.0	383.5	428.5	470.7	508.4
85°	40.7	59.6	103.1	151.1	201.9	254.2	305.1	354.4	398.0	437.2	477.9
87.5°	11.6	34.9	77.0	124.9	177.2	225.2	274.6	323.9	367.5	409.6	446.0
90°	1.5	20.3	58.1	103.1	154.0	200.5	249.9	296.3	339.9	382.0	418.4
92.5°	1.5	13.1	45.0	85.7	132.2	180.1	229.5	274.6	315.2	357.4	393.7
95°	1.5	10.2	36.3	72.6	116.2	161.2	207.7	251.3	293.4	332.7	369.0
97.5°	1.5	7.3	29.1	62.5	101.7	143.8	188.8	232.4	273.1	310.9	344.3
100°	1.5	5.8	23.2	53.7	88.6	129.3	170.0	212.1	251.3	287.6	322.5
102.5°	1.5	4.4	20.3	45.0	78.4	114.8	154.0	193.2	231.0	265.8	300.7
105°	1.5	4.4	17.4	39.2	69.7	103.1	139.5	177.2	212.1	245.5	277.5
107.5°	1.5	2.9	14.5	33.4	61.0	93.0	126.4	162.7	194.7	226.6	257.1
110°	1.5	2.9	11.6	30.5	53.7	82.8	114.8	148.2	178.7	209.2	238.2

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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	1.5	2.9	10.2	26.1	46.5	74.1	103.1	133.6	162.7	193.2	219.3
115°	1.5	2.9	8.7	23.2	43.6	63.9	93.0	120.6	149.6	177.2	201.9
117.5°	1.5	2.9	7.3	18.9	37.8	58.1	81.3	108.9	135.1	161.2	184.5
120°	1.5	2.9	5.8	17.4	33.4	52.3	72.6	97.3	122.0	146.7	171.4
122.5°	1.5	1.5	5.8	14.5	29.1	46.5	66.8	85.7	108.9	132.2	154.0
125°	1.5	1.5	5.8	13.1	24.7	42.1	59.6	77.0	97.3	117.7	136.5
127.5°	1.5	1.5	4.4	10.2	21.8	36.3	52.3	71.2	85.7	104.6	123.5
130°	1.5	1.5	4.4	8.7	18.9	30.5	46.5	62.5	79.9	93.0	108.9
132.5°	1.5	1.5	4.4	7.3	14.5	24.7	39.2	53.7	69.7	84.3	97.3
135°	1.5	1.5	2.9	5.8	11.6	20.3	32.0	45.0	61.0	75.5	88.6
137.5°	1.5	1.5	2.9	5.8	8.7	17.4	24.7	36.3	50.8	63.9	77.0
140°	1.5	1.5	2.9	4.4	7.3	13.1	20.3	29.1	40.7	52.3	66.8
142.5°	1.5	1.5	1.5	4.4	5.8	10.2	16.0	23.2	32.0	42.1	53.7
145°	1.5	1.5	1.5	4.4	5.8	7.3	13.1	18.9	24.7	32.0	42.1
147.5°	1.5	1.5	1.5	2.9	4.4	5.8	10.2	14.5	18.9	24.7	30.5
150°	1.5	1.5	1.5	2.9	4.4	5.8	7.3	10.2	14.5	20.3	24.7
152.5°	1.5	1.5	1.5	2.9	2.9	4.4	5.8	7.3	10.2	14.5	17.4
155°	1.5	1.5	1.5	1.5	2.9	4.4	5.8	5.8	7.3	10.2	13.1
157.5°	1.5	1.5	1.5	1.5	2.9	2.9	4.4	4.4	5.8	5.8	8.7
160°	1.5	1.5	1.5	1.5	1.5	2.9	2.9	4.4	4.4	4.4	4.4
162.5°	1.5	1.5	1.5	1.5	1.5	1.5	2.9	2.9	2.9	4.4	4.4
165°	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	2.9	2.9	2.9
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°	1377.1	1377.1	1377.1	1377.1	1377.1	1377.1	1377.1	1377.1	1377.1	1377.1	1377.1
2.5°	1366.9	1368.4	1372.8	1372.8	1369.8	1369.8	1368.4	1366.9	1368.4	1371.3	1371.3
5°	1364.0	1365.5	1369.8	1371.3	1368.4	1366.9	1366.9	1365.5	1366.9	1369.8	1369.8
7.5°	1358.2	1359.7	1364.0	1365.5	1362.6	1362.6	1361.1	1359.7	1362.6	1364.0	1364.0
10°	1349.5	1351.0	1356.8	1358.2	1356.8	1355.3	1355.3	1353.9	1355.3	1358.2	1358.2
12.5°	1337.9	1340.8	1348.1	1348.1	1348.1	1346.6	1346.6	1345.2	1346.6	1349.5	1348.1
15°	1324.8	1330.6	1336.4	1339.3	1339.3	1339.3	1337.9	1336.4	1339.3	1340.8	1339.3
17.5°	1310.3	1317.6	1326.3	1329.2	1329.2	1330.6	1329.2	1327.7	1330.6	1330.6	1329.2
20°	1295.8	1303.0	1311.7	1314.6	1317.6	1319.0	1319.0	1317.6	1319.0	1320.5	1319.0
22.5°	1276.9	1285.6	1295.8	1300.1	1303.0	1305.9	1305.9	1305.9	1307.4	1308.8	1305.9
25°	1256.5	1266.7	1278.3	1282.7	1288.5	1290.0	1291.4	1291.4	1292.9	1294.3	1290.0
27.5°	1234.8	1246.4	1258.0	1265.3	1269.6	1272.5	1272.5	1274.0	1275.4	1276.9	1272.5
30°	1208.6	1226.0	1236.2	1242.0	1247.8	1252.2	1253.6	1255.1	1256.5	1258.0	1253.6
32.5°	1185.4	1199.9	1213.0	1220.2	1227.5	1233.3	1234.8	1234.8	1237.7	1237.7	1233.3
35°	1157.8	1175.2	1188.3	1195.5	1204.2	1208.6	1211.5	1211.5	1214.4	1214.4	1210.1
37.5°	1130.2	1147.6	1162.1	1170.8	1181.0	1186.8	1188.3	1188.3	1191.2	1191.2	1185.4
40°	1101.1	1120.0	1136.0	1146.1	1154.9	1162.1	1163.6	1167.9	1167.9	1166.5	1160.7
42.5°	1072.1	1089.5	1106.9	1118.5	1130.2	1137.4	1140.3	1141.8	1141.8	1140.3	1136.0
45°	1040.1	1060.4	1076.4	1090.9	1102.6	1109.8	1114.2	1115.6	1115.6	1112.7	1108.4
47.5°	1009.6	1029.9	1045.9	1061.9	1073.5	1082.2	1086.6	1088.0	1086.6	1085.1	1080.8
50°	977.6	1000.9	1016.9	1032.8	1044.5	1051.7	1059.0	1060.4	1059.0	1057.5	1048.8
52.5°	944.2	968.9	986.3	1002.3	1015.4	1024.1	1029.9	1031.4	1031.4	1028.5	1022.7
55°	910.8	932.6	954.4	971.8	986.3	995.1	1002.3	1005.2	1002.3	999.4	992.2
57.5°	880.3	900.6	922.4	941.3	955.8	967.5	973.3	976.2	973.3	968.9	961.7
60°	844.0	865.8	890.5	907.9	923.9	935.5	938.4	944.2	941.3	937.0	929.7
62.5°	809.1	835.3	857.1	878.9	891.9	905.0	910.8	913.7	910.8	906.5	899.2
65°	772.8	801.9	823.7	845.4	860.0	873.0	880.3	881.8	878.9	874.5	867.2
67.5°	739.4	767.0	790.2	813.5	826.6	839.6	846.9	849.8	846.9	841.1	833.8
70°	706.0	733.6	761.2	778.6	794.6	809.1	813.5	817.8	814.9	809.1	800.4
72.5°	672.6	701.6	729.2	746.7	764.1	777.2	783.0	787.3	784.4	778.6	768.5
75°	637.7	668.2	695.8	714.7	732.1	745.2	751.0	755.4	752.5	746.7	735.0
77.5°	605.8	636.3	662.4	682.7	700.2	711.8	722.0	723.4	720.5	714.7	703.1
80°	572.3	602.8	630.4	650.8	668.2	679.8	687.1	691.5	688.6	682.7	671.1
82.5°	543.3	570.9	598.5	618.8	636.3	650.8	656.6	661.0	659.5	650.8	642.1
85°	511.3	543.3	565.1	586.9	604.3	618.8	623.2	629.0	627.5	620.3	608.7
87.5°	479.4	511.3	537.5	559.3	575.2	586.9	594.1	597.0	595.6	588.3	575.2
90°	453.2	482.3	508.4	531.7	544.7	557.8	565.1	566.5	566.5	557.8	547.6
92.5°	428.5	456.1	482.3	504.1	520.0	531.7	537.5	540.4	538.9	531.7	520.0
95°	400.9	431.4	456.1	477.9	493.9	505.5	511.3	514.2	512.8	505.5	493.9
97.5°	377.7	405.3	430.0	450.3	466.3	477.9	483.7	486.6	486.6	479.4	467.8
100°	354.4	382.0	405.3	425.6	440.2	451.8	457.6	459.0	457.6	451.8	440.2
102.5°	331.2	357.4	380.6	399.5	415.5	425.6	431.4	432.9	432.9	425.6	414.0
105°	308.0	334.1	355.9	376.2	389.3	399.5	403.8	408.2	406.7	400.9	389.3
107.5°	286.2	312.3	332.7	351.5	364.6	374.8	379.1	383.5	382.0	376.2	364.6
110°	265.8	290.5	309.4	328.3	339.9	350.1	357.4	358.8	355.9	350.1	339.9

TEST NUMBER: P1213868

CATALOG NUMBER: 4SNLED-LD5-70SL-LW-UNV-L940-CD1-U

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
112.5°	247.0	268.7	287.6	305.1	318.1	325.4	331.2	334.1	331.2	325.4	318.1
115°	226.6	248.4	267.3	283.3	294.9	303.6	308.0	310.9	308.0	302.2	294.9
117.5°	207.7	228.1	247.0	262.9	273.1	280.4	284.7	287.6	284.7	280.4	273.1
120°	191.7	209.2	226.6	241.1	252.8	258.6	262.9	265.8	264.4	258.6	251.3
122.5°	172.9	191.7	207.7	222.3	232.4	238.2	241.1	244.0	242.6	238.2	231.0
125°	156.9	172.9	188.8	201.9	212.1	217.9	220.8	223.7	222.3	217.9	209.2
127.5°	139.5	156.9	170.0	183.0	190.3	199.0	200.5	203.4	201.9	197.6	190.3
130°	126.4	139.5	152.5	164.1	172.9	178.7	181.6	183.0	180.1	177.2	170.0
132.5°	110.4	124.9	136.5	146.7	152.5	158.3	161.2	162.7	162.7	158.3	152.5
135°	98.8	108.9	119.1	129.3	135.1	140.9	143.8	145.3	143.8	140.9	135.1
137.5°	88.6	97.3	104.6	113.3	120.6	123.5	126.4	126.4	124.9	123.5	119.1
140°	77.0	87.2	94.4	100.2	106.0	107.5	110.4	110.4	108.9	107.5	104.6
142.5°	65.4	74.1	81.3	88.6	93.0	95.9	97.3	98.8	97.3	95.9	91.5
145°	52.3	62.5	69.7	74.1	79.9	81.3	82.8	84.3	82.8	81.3	77.0
147.5°	40.7	49.4	56.7	62.5	66.8	68.3	69.7	71.2	69.7	66.8	65.4
150°	29.1	36.3	45.0	50.8	53.7	56.7	56.7	56.7	58.1	55.2	52.3
152.5°	23.2	26.1	32.0	37.8	42.1	43.6	45.0	45.0	43.6	43.6	40.7
155°	16.0	18.9	23.2	27.6	32.0	33.4	34.9	34.9	33.4	33.4	32.0
157.5°	10.2	13.1	16.0	18.9	23.2	24.7	26.1	26.1	26.1	24.7	23.2
160°	5.8	7.3	8.7	11.6	14.5	16.0	17.4	17.4	17.4	17.4	16.0
162.5°	4.4	4.4	4.4	5.8	7.3	8.7	10.2	10.2	10.2	10.2	8.7
165°	2.9	2.9	2.9	2.9	2.9	4.4	5.8	5.8	5.8	5.8	5.8
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: P1213868

CATALOG NUMBER: 4SNLED-LD5-70SL-LW-UNV-L940-CD1-U

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	1377.1	1377.1	1377.1	1377.1	1377.1	1377.1	1377.1	1377.1	1377.1	1377.1	1377.1
2.5°	1369.8	1369.8	1371.3	1368.4	1359.7	1361.1	1361.1	1366.9	1369.8	1371.3	1378.6
5°	1366.9	1366.9	1369.8	1365.5	1358.2	1358.2	1358.2	1364.0	1365.5	1368.4	1374.2
7.5°	1362.6	1362.6	1364.0	1359.7	1351.0	1351.0	1349.5	1355.3	1358.2	1359.7	1365.5
10°	1355.3	1355.3	1356.8	1352.4	1342.2	1342.2	1340.8	1345.2	1346.6	1349.5	1353.9
12.5°	1345.2	1345.2	1345.2	1340.8	1330.6	1329.2	1327.7	1332.1	1332.1	1333.5	1337.9
15°	1336.4	1333.5	1333.5	1329.2	1319.0	1316.1	1313.2	1314.6	1317.6	1316.1	1319.0
17.5°	1326.3	1323.4	1320.5	1316.1	1303.0	1298.7	1295.8	1297.2	1295.8	1294.3	1297.2
20°	1314.6	1310.3	1308.8	1301.6	1288.5	1281.2	1275.4	1272.5	1274.0	1269.6	1271.1
22.5°	1301.6	1295.8	1292.9	1284.1	1271.1	1262.4	1255.1	1249.3	1247.8	1242.0	1243.5
25°	1285.6	1278.3	1274.0	1266.7	1252.2	1242.0	1233.3	1224.6	1220.2	1213.0	1211.5
27.5°	1266.7	1259.4	1253.6	1246.4	1231.8	1218.8	1208.6	1197.0	1191.2	1182.5	1178.1
30°	1247.8	1239.1	1230.4	1224.6	1208.6	1194.1	1178.1	1167.9	1159.2	1149.0	1141.8
32.5°	1224.6	1215.9	1207.2	1198.4	1183.9	1166.5	1153.4	1137.4	1127.3	1115.6	1106.9
35°	1201.3	1189.7	1181.0	1169.4	1156.3	1136.0	1120.0	1104.0	1090.9	1077.9	1067.7
37.5°	1175.2	1166.5	1153.4	1143.2	1127.3	1106.9	1089.5	1069.1	1057.5	1040.1	1027.0
40°	1150.5	1140.3	1127.3	1114.2	1098.2	1075.0	1056.1	1032.8	1019.8	999.4	986.3
42.5°	1125.8	1111.3	1098.2	1083.7	1066.2	1044.5	1021.2	998.0	980.5	961.7	942.8
45°	1098.2	1082.2	1066.2	1050.3	1032.8	1011.0	986.3	961.7	939.9	922.4	899.2
47.5°	1069.1	1053.2	1034.3	1016.9	998.0	976.2	950.0	923.9	900.6	880.3	855.6
50°	1040.1	1024.1	1003.8	984.9	963.1	941.3	913.7	883.2	858.5	832.4	810.6
52.5°	1009.6	993.6	974.7	950.0	926.8	905.0	875.9	844.0	816.4	794.6	767.0
55°	979.1	963.1	941.3	916.6	893.4	865.8	838.2	806.2	775.7	749.6	722.0
57.5°	947.1	932.6	907.9	887.6	858.5	829.5	800.4	769.9	736.5	706.0	674.0
60°	915.2	899.2	875.9	851.3	822.2	793.1	762.6	729.2	694.4	661.0	631.9
62.5°	886.1	865.8	844.0	817.8	787.3	759.7	724.9	688.6	653.7	618.8	584.0
65°	852.7	830.9	810.6	784.4	752.5	720.5	685.7	649.3	611.6	573.8	538.9
67.5°	819.3	797.5	775.7	749.6	716.2	682.7	646.4	610.1	568.0	531.7	491.0
70°	785.9	768.5	740.9	713.3	682.7	646.4	610.1	570.9	527.3	488.1	446.0
72.5°	752.5	735.0	707.4	678.4	649.3	611.6	572.3	533.1	492.4	447.4	402.4
75°	720.5	698.7	674.0	646.4	615.9	576.7	537.5	496.8	448.9	406.7	360.3
77.5°	690.0	669.7	645.0	614.5	581.1	543.3	502.6	460.5	412.6	367.5	316.7
80°	656.6	636.3	611.6	581.1	547.6	511.3	467.8	424.2	377.7	328.3	276.0
82.5°	624.6	605.8	578.2	550.6	514.2	477.9	434.3	390.8	341.4	293.4	242.6
85°	591.2	572.3	546.2	517.1	482.3	443.1	402.4	358.8	309.4	260.0	209.2
87.5°	562.2	540.4	514.2	485.2	450.3	412.6	373.3	326.8	278.9	231.0	178.7
90°	531.7	511.3	485.2	456.1	421.3	383.5	342.8	299.2	252.8	203.4	154.0
92.5°	505.5	483.7	459.0	430.0	395.1	358.8	318.1	274.6	229.5	181.6	133.6
95°	479.4	457.6	434.3	405.3	370.4	334.1	293.4	251.3	207.7	161.2	116.2
97.5°	450.3	431.4	408.2	380.6	345.7	310.9	271.6	231.0	188.8	143.8	101.7
100°	427.1	405.3	383.5	354.4	322.5	289.1	249.9	210.6	170.0	127.8	88.6
102.5°	400.9	380.6	358.8	331.2	299.2	265.8	229.5	191.7	154.0	114.8	77.0
105°	376.2	357.4	334.1	308.0	277.5	245.5	210.6	175.8	139.5	101.7	68.3
107.5°	351.5	332.7	310.9	286.2	257.1	225.2	193.2	158.3	124.9	91.5	61.0
110°	326.8	309.4	289.1	264.4	236.8	207.7	177.2	145.3	111.9	81.3	53.7

TEST NUMBER: P1213868

CATALOG NUMBER: 4SNLED-LD5-70SL-LW-UNV-L940-CD1-U

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
112.5°	305.1	287.6	267.3	244.0	217.9	190.3	161.2	130.7	100.2	72.6	46.5
115°	283.3	267.3	247.0	226.6	200.5	174.3	146.7	117.7	90.1	65.4	40.7
117.5°	261.5	245.5	226.6	206.3	183.0	158.3	132.2	104.6	81.3	58.1	36.3
120°	239.7	225.2	207.7	188.8	168.5	143.8	117.7	94.4	72.6	50.8	32.0
122.5°	219.3	206.3	190.3	172.9	151.1	127.8	106.0	85.7	65.4	45.0	26.1
125°	200.5	187.4	172.9	155.4	135.1	114.8	95.9	77.0	56.7	39.2	21.8
127.5°	181.6	168.5	154.0	138.0	122.0	103.1	85.7	68.3	50.8	34.9	18.9
130°	162.7	151.1	138.0	124.9	108.9	91.5	77.0	59.6	43.6	27.6	16.0
132.5°	143.8	135.1	123.5	110.4	95.9	82.8	66.8	52.3	37.8	24.7	14.5
135°	127.8	119.1	108.9	97.3	85.7	72.6	58.1	45.0	32.0	20.3	11.6
137.5°	113.3	106.0	95.9	85.7	75.5	62.5	50.8	37.8	26.1	17.4	8.7
140°	100.2	93.0	84.3	74.1	65.4	53.7	42.1	30.5	23.2	14.5	7.3
142.5°	87.2	79.9	72.6	63.9	55.2	45.0	34.9	26.1	18.9	11.6	7.3
145°	74.1	68.3	61.0	53.7	45.0	36.3	29.1	21.8	14.5	8.7	5.8
147.5°	61.0	56.7	49.4	43.6	36.3	29.1	23.2	17.4	11.6	7.3	4.4
150°	49.4	45.0	39.2	33.4	29.1	23.2	18.9	13.1	8.7	7.3	4.4
152.5°	37.8	34.9	30.5	27.6	23.2	17.4	13.1	10.2	7.3	5.8	2.9
155°	30.5	27.6	24.7	20.3	17.4	13.1	10.2	7.3	5.8	4.4	2.9
157.5°	21.8	20.3	17.4	14.5	11.6	8.7	7.3	7.3	4.4	2.9	1.5
160°	14.5	13.1	11.6	8.7	7.3	7.3	5.8	4.4	2.9	2.9	1.5
162.5°	8.7	7.3	7.3	7.3	5.8	5.8	4.4	2.9	2.9	1.5	1.5
165°	5.8	5.8	5.8	4.4	4.4	4.4	2.9	1.5	1.5	1.5	1.5
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: P1213868

CATALOG NUMBER: 4SNLED-LD5-70SL-LW-UNV-L940-CD1-U

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
0°	1377.1	1377.1	1377.1	1377.1	1377.1	1377.1	1377.1	1377.1	1377.1	1377.1	1377.1
2.5°	1378.6	1374.2	1380.0	1390.2	1391.6	1390.2	1387.3	1391.6	1397.4	1396.0	1385.8
5°	1375.7	1369.8	1375.7	1385.8	1385.8	1384.4	1382.9	1387.3	1393.1	1391.6	1382.9
7.5°	1366.9	1361.1	1366.9	1375.7	1377.1	1374.2	1374.2	1378.6	1384.4	1382.9	1375.7
10°	1355.3	1349.5	1352.4	1362.6	1365.5	1362.6	1362.6	1366.9	1374.2	1372.8	1364.0
12.5°	1337.9	1333.5	1336.4	1345.2	1348.1	1346.6	1345.2	1351.0	1358.2	1358.2	1349.5
15°	1319.0	1313.2	1316.1	1326.3	1327.7	1324.8	1326.3	1330.6	1339.3	1339.3	1332.1
17.5°	1297.2	1290.0	1294.3	1301.6	1303.0	1303.0	1303.0	1308.8	1319.0	1317.6	1311.7
20°	1272.5	1262.4	1265.3	1272.5	1275.4	1275.4	1275.4	1285.6	1292.9	1292.9	1287.0
22.5°	1243.5	1236.2	1236.2	1243.5	1247.8	1246.4	1246.4	1255.1	1265.3	1263.8	1263.8
25°	1210.1	1204.2	1201.3	1210.1	1211.5	1213.0	1215.9	1224.6	1236.2	1236.2	1237.7
27.5°	1175.2	1169.4	1167.9	1175.2	1176.6	1178.1	1181.0	1191.2	1202.8	1204.2	1207.2
30°	1141.8	1133.1	1130.2	1136.0	1138.9	1140.3	1140.3	1156.3	1166.5	1170.8	1176.6
32.5°	1102.6	1093.8	1086.6	1096.7	1098.2	1101.1	1102.6	1118.5	1130.2	1137.4	1146.1
35°	1063.3	1048.8	1045.9	1053.2	1056.1	1057.5	1060.4	1077.9	1093.8	1099.7	1111.3
37.5°	1019.8	1009.6	1000.9	1008.1	1011.0	1012.5	1021.2	1037.2	1053.2	1061.9	1073.5
40°	979.1	966.0	958.7	963.1	966.0	967.5	977.6	995.1	1013.9	1024.1	1038.6
42.5°	934.1	916.6	910.8	915.2	916.6	921.0	929.7	952.9	971.8	986.3	998.0
45°	889.0	875.9	862.9	867.2	868.7	871.6	884.7	909.4	929.7	947.1	960.2
47.5°	842.5	826.6	813.5	816.4	822.2	823.7	838.2	867.2	886.1	905.0	922.4
50°	796.1	774.3	764.1	764.1	767.0	774.3	793.1	822.2	842.5	864.3	883.2
52.5°	748.1	727.8	716.2	717.6	720.5	729.2	746.7	775.7	799.0	822.2	845.4
55°	700.2	678.4	666.8	663.9	666.8	678.4	698.7	729.2	752.5	780.1	804.8
57.5°	652.2	626.1	615.9	611.6	614.5	629.0	649.3	681.3	710.3	736.5	765.5
60°	599.9	579.6	562.2	552.0	559.3	578.2	599.9	633.4	663.9	692.9	724.9
62.5°	554.9	528.8	509.9	499.7	507.0	523.0	553.5	585.4	618.8	652.2	684.2
65°	504.1	477.9	456.1	446.0	453.2	472.1	502.6	537.5	573.8	607.2	645.0
67.5°	454.7	427.1	400.9	390.8	399.5	419.8	453.2	492.4	531.7	566.5	607.2
70°	406.7	376.2	348.6	341.4	347.2	374.8	406.7	446.0	486.6	527.3	569.4
72.5°	363.2	325.4	296.3	287.6	294.9	325.4	361.7	402.4	446.0	489.5	534.6
75°	312.3	277.5	245.5	235.3	244.0	271.6	316.7	360.3	406.7	453.2	495.4
77.5°	271.6	231.0	197.6	181.6	196.1	231.0	274.6	321.0	369.0	416.9	464.8
80°	229.5	187.4	151.1	133.6	149.6	187.4	231.0	281.8	335.6	383.5	427.1
82.5°	191.7	146.7	108.9	90.1	107.5	149.6	197.6	248.4	300.7	348.6	399.5
85°	156.9	110.4	71.2	50.8	75.5	113.3	164.1	216.4	270.2	319.6	369.0
87.5°	127.8	82.8	43.6	21.8	46.5	88.6	136.5	188.8	242.6	292.0	338.5
90°	104.6	59.6	23.2	2.9	27.6	66.8	113.3	164.1	215.0	265.8	312.3
92.5°	85.7	45.0	13.1	1.5	17.4	53.7	97.3	145.3	194.7	244.0	289.1
95°	71.2	34.9	8.7	1.5	13.1	42.1	82.8	129.3	175.8	223.7	268.7
97.5°	61.0	29.1	7.3	1.5	10.2	36.3	71.2	114.8	159.8	204.8	248.4
100°	52.3	23.2	5.8	1.5	8.7	30.5	62.5	101.7	143.8	187.4	229.5
102.5°	45.0	18.9	4.4	1.5	7.3	26.1	55.2	91.5	129.3	171.4	212.1
105°	39.2	16.0	4.4	1.5	5.8	23.2	49.4	81.3	119.1	156.9	196.1
107.5°	33.4	13.1	2.9	1.5	4.4	18.9	43.6	74.1	107.5	143.8	180.1
110°	29.1	11.6	2.9	1.5	4.4	17.4	37.8	66.8	97.3	130.7	165.6

TEST NUMBER: P1213868

CATALOG NUMBER: 4SNLED-LD5-70SL-LW-UNV-L940-CD1-U

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
112.5°	24.7	8.7	2.9	1.5	2.9	14.5	33.4	59.6	88.6	119.1	152.5
115°	21.8	7.3	1.5	1.5	2.9	13.1	30.5	53.7	79.9	108.9	139.5
117.5°	17.4	5.8	1.5	1.5	1.5	10.2	26.1	47.9	72.6	100.2	127.8
120°	14.5	5.8	1.5	1.5	1.5	8.7	23.2	42.1	65.4	90.1	116.2
122.5°	13.1	4.4	1.5	1.5	1.5	7.3	20.3	37.8	58.1	81.3	106.0
125°	11.6	4.4	1.5	1.5	1.5	5.8	17.4	33.4	52.3	72.6	95.9
127.5°	8.7	4.4	1.5	1.5	1.5	4.4	16.0	29.1	46.5	65.4	85.7
130°	7.3	2.9	1.5	1.5	1.5	4.4	13.1	26.1	40.7	58.1	77.0
132.5°	5.8	2.9	1.5	1.5	1.5	2.9	10.2	20.3	34.9	50.8	68.3
135°	5.8	2.9	1.5	1.5	1.5	2.9	7.3	17.4	29.1	43.6	58.1
137.5°	5.8	1.5	1.5	1.5	1.5	2.9	5.8	13.1	23.2	34.9	47.9
140°	4.4	1.5	1.5	1.5	1.5	1.5	4.4	10.2	18.9	29.1	40.7
142.5°	4.4	1.5	1.5	1.5	1.5	1.5	4.4	7.3	14.5	23.2	32.0
145°	2.9	1.5	1.5	1.5	1.5	1.5	2.9	5.8	11.6	17.4	26.1
147.5°	2.9	1.5	1.5	1.5	1.5	1.5	2.9	4.4	8.7	14.5	20.3
150°	2.9	1.5	1.5	1.5	1.5	1.5	2.9	4.4	5.8	10.2	16.0
152.5°	1.5	1.5	1.5	1.5	1.5	1.5	2.9	2.9	4.4	7.3	10.2
155°	1.5	1.5	1.5	1.5	1.5	1.5	1.5	2.9	4.4	5.8	7.3
157.5°	1.5	1.5	1.5	1.5	1.5	1.5	1.5	2.9	2.9	4.4	5.8
160°	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	2.9	2.9	4.4
162.5°	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	2.9	2.9
165°	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
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: P1213868

CATALOG NUMBER: 4SNLED-LD5-70SL-LW-UNV-L940-CD1-U

CANDELA DISTRIBUTION (continued):

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
0°	1377.1	1377.1	1377.1	1377.1	1377.1	1377.1	1377.1	1377.1	1377.1	1377.1	1377.1
2.5°	1381.5	1371.3	1374.2	1372.8	1375.7	1380.0	1380.0	1378.6	1378.6	1375.7	1372.8
5°	1378.6	1368.4	1372.8	1371.3	1374.2	1378.6	1378.6	1377.1	1377.1	1372.8	1371.3
7.5°	1369.8	1362.6	1365.5	1365.5	1368.4	1372.8	1372.8	1371.3	1371.3	1366.9	1365.5
10°	1361.1	1352.4	1356.8	1356.8	1359.7	1365.5	1365.5	1364.0	1364.0	1359.7	1358.2
12.5°	1346.6	1337.9	1345.2	1346.6	1349.5	1355.3	1353.9	1353.9	1353.9	1349.5	1348.1
15°	1329.2	1323.4	1330.6	1332.1	1336.4	1343.7	1343.7	1343.7	1343.7	1339.3	1337.9
17.5°	1310.3	1305.9	1313.2	1316.1	1321.9	1329.2	1329.2	1330.6	1332.1	1329.2	1327.7
20°	1288.5	1285.6	1292.9	1298.7	1307.4	1314.6	1317.6	1319.0	1321.9	1319.0	1317.6
22.5°	1263.8	1263.8	1274.0	1279.8	1290.0	1297.2	1301.6	1305.9	1308.8	1305.9	1304.5
25°	1236.2	1240.6	1250.7	1260.9	1272.5	1279.8	1284.1	1290.0	1292.9	1291.4	1290.0
27.5°	1210.1	1215.9	1228.9	1239.1	1249.3	1260.9	1265.3	1272.5	1275.4	1275.4	1274.0
30°	1179.6	1188.3	1202.8	1214.4	1227.5	1239.1	1244.9	1252.2	1256.5	1253.6	1255.1
32.5°	1150.5	1165.0	1176.6	1189.7	1204.2	1215.9	1223.1	1231.8	1236.2	1234.8	1236.2
35°	1118.5	1133.1	1149.0	1162.1	1179.6	1191.2	1201.3	1208.6	1214.4	1213.0	1213.0
37.5°	1083.7	1102.6	1118.5	1136.0	1152.0	1165.0	1175.2	1183.9	1189.7	1189.7	1189.7
40°	1050.3	1070.6	1086.6	1106.9	1127.3	1138.9	1150.5	1159.2	1165.0	1166.5	1167.9
42.5°	1013.9	1035.7	1054.6	1076.4	1096.7	1111.3	1124.4	1134.5	1140.3	1143.2	1141.8
45°	980.5	1000.9	1022.7	1047.4	1066.2	1080.8	1096.7	1108.4	1114.2	1115.6	1117.1
47.5°	942.8	966.0	990.7	1015.4	1034.3	1053.2	1067.7	1079.3	1085.1	1089.5	1089.5
50°	906.5	931.1	958.7	984.9	1005.2	1024.1	1038.6	1051.7	1059.0	1061.9	1063.3
52.5°	873.0	896.3	925.3	951.5	971.8	990.7	1009.6	1024.1	1031.4	1034.3	1034.3
55°	832.4	861.4	893.4	918.1	939.9	961.7	980.5	995.1	1002.3	1006.7	1009.6
57.5°	794.6	825.1	858.5	884.7	910.8	931.1	948.6	967.5	973.3	979.1	980.5
60°	758.3	788.8	820.7	849.8	875.9	897.7	918.1	934.1	944.2	947.1	950.0
62.5°	720.5	752.5	785.9	814.9	842.5	868.7	887.6	902.1	913.7	918.1	921.0
65°	684.2	717.6	751.0	781.5	810.6	836.7	855.6	870.1	881.8	889.0	890.5
67.5°	645.0	681.3	716.2	748.1	777.2	804.8	823.7	838.2	849.8	858.5	860.0
70°	608.7	646.4	681.3	716.2	745.2	772.8	793.1	807.7	820.7	826.6	829.5
72.5°	573.8	613.0	649.3	684.2	713.3	740.9	762.6	777.2	790.2	797.5	799.0
75°	540.4	579.6	618.8	652.2	682.7	710.3	732.1	748.1	759.7	767.0	769.9
77.5°	507.0	547.6	586.9	620.3	652.2	679.8	698.7	717.6	729.2	737.9	737.9
80°	473.6	515.7	556.4	589.8	621.7	646.4	668.2	687.1	698.7	707.4	707.4
82.5°	444.5	485.2	524.4	557.8	589.8	617.4	639.2	656.6	669.7	675.5	676.9
85°	411.1	456.1	492.4	528.8	559.3	585.4	607.2	626.1	637.7	643.5	646.4
87.5°	383.5	427.1	466.3	498.3	528.8	554.9	579.6	595.6	607.2	614.5	617.4
90°	357.4	399.5	438.7	470.7	502.6	527.3	550.6	566.5	579.6	585.4	588.3
92.5°	334.1	376.2	414.0	446.0	476.5	504.1	525.9	541.8	553.5	559.3	563.6
95°	312.3	353.0	389.3	424.2	453.2	477.9	501.2	517.1	530.2	534.6	538.9
97.5°	290.5	329.8	366.1	399.5	430.0	453.2	475.0	491.0	501.2	508.4	512.8
100°	271.6	309.4	344.3	376.2	405.3	427.1	450.3	464.8	475.0	480.8	486.6
102.5°	251.3	289.1	322.5	353.0	383.5	403.8	425.6	440.2	448.9	459.0	459.0
105°	233.9	268.7	302.2	331.2	357.4	382.0	400.9	415.5	425.6	432.9	432.9
107.5°	215.0	249.9	281.8	312.3	337.0	360.3	377.7	390.8	402.4	406.7	411.1
110°	200.5	231.0	262.9	292.0	315.2	337.0	354.4	369.0	379.1	383.5	386.4

TEST NUMBER: P1213868

CATALOG NUMBER: 4SNLED-LD5-70SL-LW-UNV-L940-CD1-U

CANDELA DISTRIBUTION (continued):

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
112.5°	183.0	215.0	244.0	271.6	294.9	315.2	332.7	344.3	354.4	360.3	361.7
115°	168.5	199.0	225.2	251.3	276.0	293.4	309.4	321.0	331.2	335.6	338.5
117.5°	155.4	183.0	209.2	231.0	254.2	273.1	289.1	299.2	308.0	313.8	316.7
120°	142.4	168.5	191.7	213.5	235.3	252.8	267.3	277.5	287.6	292.0	292.0
122.5°	129.3	154.0	175.8	196.1	216.4	232.4	248.4	257.1	265.8	270.2	270.2
125°	117.7	140.9	161.2	180.1	199.0	213.5	226.6	236.8	245.5	248.4	248.4
127.5°	106.0	127.8	146.7	164.1	180.1	194.7	207.7	217.9	225.2	228.1	228.1
130°	95.9	114.8	132.2	149.6	165.6	177.2	190.3	199.0	203.4	207.7	209.2
132.5°	85.7	103.1	119.1	133.6	149.6	161.2	171.4	180.1	184.5	188.8	190.3
135°	75.5	91.5	106.0	120.6	133.6	145.3	154.0	161.2	167.1	170.0	171.4
137.5°	63.9	81.3	94.4	106.0	120.6	129.3	139.5	143.8	149.6	152.5	152.5
140°	53.7	66.8	81.3	93.0	104.6	113.3	122.0	129.3	133.6	135.1	135.1
142.5°	43.6	55.2	66.8	81.3	91.5	98.8	107.5	113.3	116.2	117.7	119.1
145°	34.9	43.6	53.7	66.8	78.4	87.2	91.5	97.3	100.2	101.7	103.1
147.5°	26.1	34.9	43.6	52.3	63.9	72.6	77.0	82.8	85.7	87.2	87.2
150°	20.3	26.1	32.0	40.7	49.4	59.6	65.4	69.7	71.2	72.6	72.6
152.5°	14.5	20.3	24.7	30.5	36.3	45.0	53.7	56.7	58.1	59.6	59.6
155°	10.2	14.5	17.4	21.8	26.1	33.4	40.7	45.0	46.5	47.9	47.9
157.5°	7.3	10.2	11.6	16.0	18.9	21.8	27.6	34.9	36.3	36.3	36.3
160°	4.4	5.8	7.3	10.2	11.6	14.5	17.4	21.8	26.1	26.1	26.1
162.5°	2.9	4.4	4.4	5.8	5.8	8.7	10.2	11.6	16.0	17.4	17.4
165°	1.5	2.9	2.9	2.9	2.9	2.9	4.4	4.4	7.3	8.7	8.7
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: P1213868

CATALOG NUMBER: 4SNLED-LD5-70SL-LW-UNV-L940-CD1-U

CANDELA DISTRIBUTION (continued):

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°
0°	1377.1	1377.1	1377.1	1377.1	1377.1	1377.1	1377.1	1377.1	1377.1	1377.1	1377.1
2.5°	1374.2	1377.1	1375.7	1375.7	1375.7	1378.6	1375.7	1362.6	1365.5	1368.4	1371.3
5°	1372.8	1374.2	1374.2	1372.8	1372.8	1375.7	1372.8	1359.7	1362.6	1365.5	1366.9
7.5°	1366.9	1368.4	1368.4	1368.4	1366.9	1369.8	1365.5	1353.9	1353.9	1356.8	1358.2
10°	1359.7	1362.6	1361.1	1359.7	1359.7	1359.7	1356.8	1343.7	1343.7	1345.2	1346.6
12.5°	1351.0	1351.0	1351.0	1349.5	1348.1	1348.1	1345.2	1332.1	1330.6	1333.5	1332.1
15°	1339.3	1342.2	1339.3	1337.9	1335.0	1335.0	1330.6	1317.6	1314.6	1316.1	1314.6
17.5°	1329.2	1330.6	1327.7	1324.8	1321.9	1320.5	1316.1	1301.6	1297.2	1298.7	1295.8
20°	1319.0	1319.0	1316.1	1313.2	1308.8	1304.5	1298.7	1284.1	1276.9	1276.9	1271.1
22.5°	1305.9	1305.9	1303.0	1298.7	1294.3	1288.5	1282.7	1268.2	1256.5	1253.6	1249.3
25°	1291.4	1290.0	1288.5	1284.1	1275.4	1269.6	1263.8	1247.8	1234.8	1228.9	1221.7
27.5°	1274.0	1274.0	1269.6	1265.3	1256.5	1249.3	1242.0	1227.5	1210.1	1202.8	1192.6
30°	1255.1	1255.1	1250.7	1244.9	1236.2	1227.5	1218.8	1201.3	1183.9	1173.7	1162.1
32.5°	1236.2	1234.8	1230.4	1224.6	1215.9	1202.8	1195.5	1178.1	1157.8	1146.1	1130.2
35°	1213.0	1211.5	1207.2	1199.9	1188.3	1178.1	1166.5	1150.5	1127.3	1112.7	1095.3
37.5°	1189.7	1188.3	1185.4	1175.2	1163.6	1152.0	1137.4	1121.4	1099.7	1080.8	1063.3
40°	1166.5	1165.0	1159.2	1152.0	1137.4	1122.9	1108.4	1092.4	1069.1	1047.4	1028.5
42.5°	1141.8	1140.3	1133.1	1124.4	1108.4	1093.8	1076.4	1059.0	1035.7	1009.6	990.7
45°	1117.1	1114.2	1106.9	1096.7	1079.3	1063.3	1045.9	1025.6	1002.3	977.6	952.9
47.5°	1090.9	1086.6	1079.3	1064.8	1050.3	1032.8	1012.5	990.7	967.5	939.9	913.7
50°	1061.9	1059.0	1050.3	1037.2	1019.8	1002.3	979.1	957.3	929.7	903.5	871.6
52.5°	1034.3	1028.5	1021.2	1006.7	989.3	970.4	945.7	919.5	891.9	867.2	833.8
55°	1005.2	1002.3	992.2	980.5	958.7	937.0	913.7	886.1	855.6	826.6	794.6
57.5°	977.6	971.8	963.1	947.1	928.2	906.5	881.8	852.7	819.3	788.8	753.9
60°	950.0	941.3	931.1	916.6	896.3	873.0	846.9	816.4	783.0	749.6	713.3
62.5°	919.5	912.3	900.6	886.1	865.8	841.1	813.5	781.5	749.6	714.7	675.5
65°	889.0	881.8	870.1	855.6	835.3	807.7	778.6	746.7	710.3	676.9	634.8
67.5°	858.5	851.3	838.2	822.2	801.9	775.7	745.2	711.8	675.5	639.2	595.6
70°	828.0	819.3	807.7	790.2	769.9	742.3	711.8	676.9	640.6	601.4	557.8
72.5°	797.5	790.2	775.7	759.7	737.9	710.3	679.8	645.0	607.2	566.5	523.0
75°	767.0	758.3	748.1	729.2	706.0	679.8	647.9	613.0	572.3	533.1	488.1
77.5°	736.5	729.2	716.2	697.3	675.5	647.9	615.9	581.1	540.4	499.7	451.8
80°	706.0	697.3	687.1	669.7	645.0	617.4	584.0	549.1	508.4	466.3	418.4
82.5°	675.5	666.8	655.1	637.7	614.5	586.9	554.9	517.1	476.5	432.9	387.9
85°	645.0	637.7	624.6	607.2	582.5	554.9	523.0	489.5	446.0	402.4	357.4
87.5°	614.5	607.2	594.1	576.7	553.5	525.9	493.9	459.0	416.9	376.2	326.8
90°	585.4	579.6	566.5	549.1	525.9	498.3	469.2	431.4	390.8	350.1	303.6
92.5°	559.3	553.5	541.8	524.4	504.1	473.6	444.5	408.2	367.5	325.4	280.4
95°	536.0	528.8	517.1	501.2	476.5	450.3	421.3	385.0	345.7	303.6	260.0
97.5°	509.9	502.6	491.0	473.6	453.2	425.6	396.6	361.7	322.5	283.3	239.7
100°	483.7	476.5	463.4	448.9	428.5	400.9	373.3	338.5	302.2	264.4	222.3
102.5°	457.6	450.3	438.7	424.2	403.8	379.1	351.5	318.1	281.8	244.0	204.8
105°	432.9	425.6	414.0	399.5	380.6	355.9	326.8	297.8	262.9	226.6	188.8
107.5°	408.2	400.9	390.8	376.2	357.4	334.1	306.5	276.0	244.0	209.2	172.9
110°	383.5	377.7	366.1	353.0	334.1	310.9	286.2	257.1	225.2	193.2	158.3

TEST NUMBER: P1213868

CATALOG NUMBER: 4SNLED-LD5-70SL-LW-UNV-L940-CD1-U

CANDELA DISTRIBUTION (continued):

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°
112.5°	360.3	354.4	342.8	328.3	312.3	290.5	265.8	238.2	207.7	177.2	143.8
115°	337.0	329.8	319.6	306.5	290.5	270.2	247.0	222.3	191.7	162.7	132.2
117.5°	313.8	308.0	297.8	284.7	270.2	249.9	228.1	204.8	175.8	148.2	120.6
120°	290.5	286.2	276.0	264.4	249.9	231.0	210.6	187.4	161.2	135.1	108.9
122.5°	268.7	264.4	254.2	244.0	229.5	212.1	193.2	171.4	148.2	123.5	100.2
125°	248.4	242.6	233.9	223.7	210.6	194.7	175.8	155.4	133.6	111.9	90.1
127.5°	226.6	222.3	216.4	204.8	191.7	177.2	159.8	142.4	122.0	101.7	81.3
130°	209.2	203.4	196.1	187.4	175.8	161.2	145.3	127.8	110.4	91.5	71.2
132.5°	188.8	183.0	177.2	168.5	158.3	145.3	130.7	114.8	98.8	81.3	63.9
135°	170.0	165.6	159.8	151.1	140.9	130.7	116.2	101.7	87.2	71.2	56.7
137.5°	152.5	148.2	142.4	136.5	126.4	116.2	103.1	90.1	77.0	62.5	49.4
140°	135.1	132.2	126.4	120.6	111.9	101.7	90.1	78.4	66.8	53.7	42.1
142.5°	117.7	114.8	110.4	104.6	97.3	88.6	78.4	68.3	56.7	46.5	36.3
145°	101.7	100.2	95.9	90.1	84.3	75.5	66.8	58.1	47.9	39.2	29.1
147.5°	85.7	84.3	81.3	77.0	71.2	63.9	56.7	47.9	40.7	32.0	23.2
150°	71.2	69.7	68.3	62.5	59.6	52.3	46.5	39.2	33.4	24.7	18.9
152.5°	58.1	58.1	55.2	50.8	47.9	42.1	37.8	32.0	26.1	20.3	14.5
155°	46.5	45.0	43.6	40.7	37.8	33.4	29.1	24.7	20.3	14.5	10.2
157.5°	36.3	34.9	33.4	30.5	27.6	26.1	21.8	17.4	13.1	10.2	7.3
160°	26.1	24.7	23.2	21.8	20.3	17.4	14.5	11.6	8.7	5.8	4.4
162.5°	17.4	16.0	16.0	14.5	13.1	10.2	8.7	7.3	5.8	4.4	2.9
165°	8.7	8.7	7.3	7.3	5.8	4.4	4.4	4.4	2.9	2.9	1.5
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-LD5-70SL-LW-UNV-L940-CD1-U

CANDELA DISTRIBUTION (continued):

	330°	335°	340°	345°	350°	355°	360°
0°	1377.1	1377.1	1377.1	1377.1	1377.1	1377.1	1377.1
2.5°	1369.8	1369.8	1375.7	1374.2	1369.8	1378.6	1388.7
5°	1365.5	1365.5	1369.8	1369.8	1365.5	1374.2	1382.9
7.5°	1358.2	1356.8	1361.1	1361.1	1355.3	1362.6	1372.8
10°	1345.2	1343.7	1348.1	1348.1	1342.2	1349.5	1358.2
12.5°	1330.6	1327.7	1332.1	1330.6	1324.8	1332.1	1340.8
15°	1311.7	1310.3	1313.2	1310.3	1304.5	1311.7	1320.5
17.5°	1292.9	1288.5	1290.0	1290.0	1279.8	1287.0	1294.3
20°	1268.2	1262.4	1263.8	1262.4	1255.1	1259.4	1268.2
22.5°	1243.5	1234.8	1234.8	1233.3	1224.6	1230.4	1237.7
25°	1213.0	1202.8	1202.8	1201.3	1191.2	1195.5	1202.8
27.5°	1182.5	1172.3	1167.9	1166.5	1156.3	1156.3	1166.5
30°	1150.5	1136.0	1133.1	1128.7	1118.5	1118.5	1127.3
32.5°	1120.0	1099.7	1093.8	1088.0	1077.9	1076.4	1086.6
35°	1079.3	1063.3	1053.2	1047.4	1035.7	1032.8	1041.5
37.5°	1045.9	1025.6	1011.0	1003.8	992.2	987.8	999.4
40°	1009.6	987.8	968.9	964.6	947.1	941.3	951.5
42.5°	968.9	945.7	926.8	918.1	905.0	899.2	900.6
45°	928.2	903.5	883.2	871.6	858.5	848.3	854.2
47.5°	886.1	864.3	839.6	822.2	806.2	799.0	801.9
50°	844.0	817.8	794.6	775.7	756.8	748.1	753.9
52.5°	801.9	774.3	748.1	727.8	706.0	697.3	698.7
55°	761.2	732.1	701.6	679.8	659.5	646.4	643.5
57.5°	720.5	688.6	656.6	631.9	605.8	594.1	589.8
60°	676.9	643.5	610.1	581.1	553.5	540.4	534.6
62.5°	636.3	599.9	562.2	531.7	504.1	486.6	482.3
65°	597.0	554.9	517.1	482.3	451.8	432.9	427.1
67.5°	554.9	511.3	470.7	432.9	403.8	379.1	376.2
70°	515.7	469.2	424.2	385.0	353.0	328.3	316.7
72.5°	476.5	428.5	382.0	339.9	299.2	276.0	267.3
75°	438.7	389.3	339.9	296.3	251.3	223.7	215.0
77.5°	403.8	353.0	300.7	252.8	210.6	175.8	164.1
80°	370.4	318.1	262.9	213.5	168.5	130.7	117.7
82.5°	335.6	286.2	229.5	177.2	130.7	91.5	75.5
85°	305.1	255.7	199.0	146.7	100.2	58.1	40.7
87.5°	280.4	226.6	175.8	123.5	75.5	33.4	11.6
90°	255.7	203.4	152.5	101.7	56.7	18.9	1.5
92.5°	233.9	184.5	133.6	87.2	43.6	13.1	1.5
95°	213.5	165.6	117.7	72.6	34.9	8.7	1.5
97.5°	194.7	149.6	104.6	62.5	29.1	7.3	1.5
100°	178.7	135.1	93.0	55.2	24.7	5.8	1.5
102.5°	162.7	122.0	82.8	47.9	21.8	4.4	1.5
105°	149.6	110.4	74.1	43.6	18.9	4.4	1.5
107.5°	136.5	100.2	66.8	37.8	16.0	2.9	1.5
110°	123.5	91.5	59.6	33.4	14.5	2.9	1.5



TEST NUMBER: P1213868

CATALOG NUMBER: 4SNLED-LD5-70SL-LW-UNV-L940-CD1-U

CANDELA DISTRIBUTION (continued):

	330°	335°	340°	345°	350°	355°	360°
112.5°	113.3	82.8	53.7	30.5	11.6	2.9	1.5
115°	103.1	74.1	47.9	26.1	10.2	1.5	1.5
117.5°	93.0	66.8	42.1	23.2	8.7	1.5	1.5
120°	84.3	59.6	37.8	20.3	7.3	1.5	1.5
122.5°	75.5	53.7	33.4	17.4	5.8	1.5	1.5
125°	68.3	47.9	29.1	14.5	4.4	1.5	1.5
127.5°	61.0	42.1	26.1	13.1	4.4	1.5	1.5
130°	53.7	37.8	21.8	10.2	2.9	1.5	1.5
132.5°	47.9	32.0	18.9	8.7	2.9	1.5	1.5
135°	42.1	27.6	16.0	5.8	2.9	1.5	1.5
137.5°	36.3	23.2	13.1	4.4	1.5	1.5	1.5
140°	30.5	20.3	10.2	4.4	1.5	1.5	1.5
142.5°	26.1	16.0	7.3	2.9	1.5	1.5	1.5
145°	20.3	13.1	5.8	2.9	1.5	1.5	1.5
147.5°	16.0	10.2	4.4	2.9	1.5	1.5	1.5
150°	11.6	7.3	4.4	1.5	1.5	1.5	1.5
152.5°	8.7	5.8	2.9	1.5	1.5	1.5	1.5
155°	5.8	4.4	2.9	1.5	1.5	1.5	1.5
157.5°	4.4	2.9	1.5	1.5	1.5	1.5	1.5
160°	2.9	1.5	1.5	1.5	1.5	1.5	1.5
162.5°	1.5	1.5	1.5	1.5	1.5	1.5	1.5
165°	1.5	1.5	1.5	1.5	1.5	1.5	1.5
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)