

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: P1213432

Luminaire Tested: 4SNLED-LD5-46SL-LN-UNV-L935-CD1-U

Issue Date: 3/29/2018

Test Information

Test Method: LM-79-2019
Report Number: P1213432
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P33519)
Test Lab: INNOVATIONS CENTER-P3
Issue Date: 3/29/2018
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: METALUX
Catalog Number: 4SNLED-LD5-46SL-LN-UNV-L935-CD1-U
Description: 4FT LINEAR SNLED LED FIXTURE
NARROW LENS
Light Source: -
Ballast/Driver: -

Summary

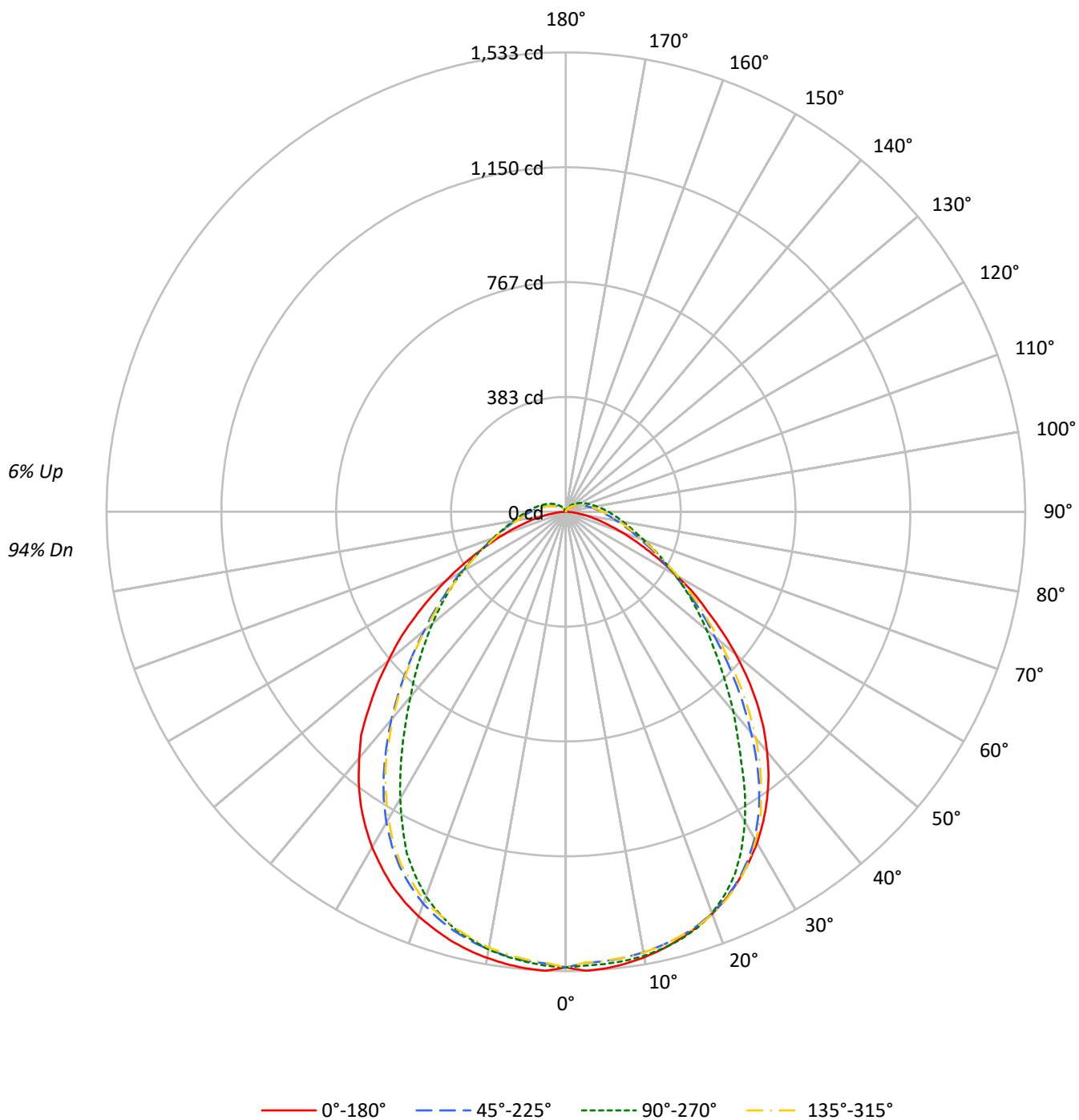
Lumens per Lamp: N/A
Luminaire Lumens: 3848.0 lumens
Efficiency: N/A
Efficacy: 109.9 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.14 / 1.24
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.12')
CIE Type: Direct

Input Watts (W): 35
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	118	118	118	118	114	114	114	114	108	108	108	102	102	102	96	96	96
1	107	103	98	95	104	100	96	92	94	91	88	89	87	85	85	83	81
2	98	90	84	78	95	88	82	77	83	78	74	79	75	72	75	72	69
3	90	80	72	66	87	78	71	65	74	68	63	71	66	61	67	63	60
4	83	72	63	57	80	70	62	56	67	60	55	64	58	53	61	56	52
5	77	64	56	50	74	63	55	49	60	53	48	58	52	47	55	50	46
6	71	58	50	44	69	57	49	43	55	48	42	52	46	42	50	45	41
7	66	53	45	39	64	52	44	39	50	43	38	48	42	37	46	41	37
8	62	49	41	35	60	48	40	35	46	39	34	44	38	34	43	37	33
9	58	45	37	32	56	44	37	31	42	36	31	41	35	30	40	34	30
10	54	42	34	29	53	41	34	29	39	33	28	38	32	28	37	31	27

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	12287	12287	12287	12287
5°	12375	11896	12375	11844
10°	12319	11580	12340	11419
15°	12240	11234	12296	10942
20°	12146	10789	12218	10334
25°	11951	10129	12084	9532
30°	11698	9159	11851	8480
35°	11304	7971	11522	7422
40°	10738	6971	11022	6468
45°	9992	6060	10316	5713
50°	8972	5325	9367	5056
55°	7760	4702	8324	4465
60°	6527	4128	7117	3891
65°	5351	3651	5890	3385
70°	4258	3239	4767	2996
75°	3344	2991	3766	2752
80°	2415	2885	2842	2637
85°	1482	2902	2002	2667

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 180°

Vertical Angle: 45°

Luminance: 10316 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	144.2	3.7
10°-20°	413.3	10.7
20°-30°	612.6	15.9
30°-40°	680.6	17.7
40°-50°	616.9	16.0
50°-60°	478.1	12.4
60°-70°	324.6	8.4
70°-80°	206.5	5.4
80°-90°	132.0	3.4
90°-100°	89.0	2.3
100°-110°	61.0	1.6
110°-120°	40.7	1.1
120°-130°	25.3	0.7
130°-140°	14.0	0.4
140°-150°	6.6	0.2
150°-160°	2.4	0.1
160°-170°	0.1	0.0
170°-180°	0.0	0.0
0°-30°	1170.1	30.4
0°-40°	1850.7	48.1
0°-60°	2945.7	76.6
0°-90°	3608.9	93.8
90°-120°	190.7	5.0
90°-150°	236.5	6.1
90°-180°	239.0	6.2
0°-180°	3848.0	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	1520	1520	1520	1520	1520	
5°	1530	1515	1530	1508	1530	145
15°	1475	1478	1482	1439	1475	416
25°	1360	1335	1375	1256	1360	626
35°	1171	1020	1194	950	1171	730
45°	902	729	931	688	902	692
55°	575	513	617	487	575	518
65°	299	345	329	320	299	299
75°	120	230	135	212	120	129
85°	22	166	29	152	22	26
90°	0	143	2	130	0	1
95°	1	122	0	114	1	1
105°	1	90	0	84	1	1
115°	1	68	0	63	1	1
125°	1	50	1	44	1	1
135°	1	35	1	28	1	1
145°	1	23	1	16	1	1
155°	1	12	1	6	1	1
165°	0	0	0	0	0	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°	1520.5	1520.5	1520.5	1520.5	1520.5	1520.5	1520.5	1520.5	1520.5	1520.5	1520.5
2.5°	1533.1	1531.4	1529.7	1527.2	1529.7	1536.4	1532.2	1523.0	1521.3	1506.3	1513.0
5°	1529.7	1527.2	1525.5	1523.0	1526.4	1534.7	1530.5	1522.2	1519.7	1505.5	1513.0
7.5°	1521.3	1519.7	1517.2	1517.2	1520.5	1528.9	1525.5	1516.3	1514.7	1500.4	1508.8
10°	1509.6	1508.8	1507.1	1507.1	1510.5	1520.5	1516.3	1508.0	1506.3	1492.9	1502.1
12.5°	1494.6	1495.4	1492.9	1492.9	1497.9	1508.0	1504.6	1495.4	1493.7	1482.0	1491.2
15°	1475.3	1476.2	1474.5	1475.3	1480.4	1492.1	1487.9	1479.5	1477.9	1468.7	1476.2
17.5°	1453.6	1454.4	1454.4	1453.6	1459.5	1471.2	1467.8	1460.3	1457.8	1450.3	1459.5
20°	1428.5	1428.5	1428.5	1428.5	1435.2	1446.9	1442.7	1436.9	1431.9	1426.0	1433.5
22.5°	1397.6	1396.7	1397.6	1400.1	1406.8	1416.0	1413.5	1406.8	1399.2	1395.9	1401.7
25°	1359.9	1362.4	1363.3	1365.8	1374.1	1381.7	1379.2	1372.5	1360.8	1358.3	1359.9
27.5°	1320.6	1322.3	1324.8	1324.0	1335.7	1343.2	1338.2	1332.3	1315.6	1313.1	1311.4
30°	1276.3	1278.8	1280.5	1279.6	1288.8	1297.2	1292.2	1284.7	1262.1	1260.4	1247.0
32.5°	1226.1	1228.6	1230.3	1230.3	1243.7	1247.0	1237.8	1226.9	1202.7	1196.8	1185.1
35°	1170.9	1173.4	1174.3	1174.3	1187.6	1186.8	1175.1	1160.0	1133.3	1125.7	1105.7
37.5°	1111.5	1113.2	1114.0	1119.1	1124.9	1119.9	1104.8	1085.6	1065.5	1044.6	1022.9
40°	1044.6	1047.1	1048.8	1052.1	1058.0	1052.1	1030.4	1007.0	985.2	961.8	940.1
42.5°	976.0	983.6	981.9	981.1	984.4	968.5	951.8	925.0	903.3	879.0	857.3
45°	901.6	900.8	904.9	906.6	905.8	892.4	869.0	844.7	823.0	797.9	779.5
47.5°	823.0	822.1	825.5	827.2	822.1	807.9	789.5	761.9	743.5	721.8	707.6
50°	740.2	740.2	745.2	740.2	737.7	723.5	708.4	680.8	666.6	647.3	639.0
52.5°	657.4	664.9	659.9	658.2	655.7	641.5	629.8	607.2	595.5	587.1	577.1
55°	575.4	583.8	580.4	577.9	577.1	565.4	554.5	537.8	530.3	524.4	518.5
57.5°	506.0	505.2	503.5	501.0	501.8	492.6	481.7	472.5	469.2	466.7	468.4
60°	425.7	432.4	429.9	430.7	431.6	429.9	420.7	414.8	415.7	416.5	419.0
62.5°	359.6	365.5	369.7	366.3	368.0	370.5	365.5	363.8	367.2	370.5	373.9
65°	298.6	304.4	308.6	307.8	312.8	317.8	317.0	318.7	326.2	330.4	334.5
67.5°	243.4	249.2	255.1	255.9	263.5	271.0	274.3	280.2	288.5	294.4	299.4
70°	195.7	200.7	207.4	211.6	221.6	231.7	237.5	249.2	254.3	262.6	266.0
72.5°	153.1	157.2	166.4	176.5	184.8	197.4	209.1	219.1	226.7	235.9	240.0
75°	119.6	121.3	131.3	143.0	154.7	168.9	181.5	192.4	202.4	211.6	218.3
77.5°	87.8	90.3	99.5	115.4	128.8	143.9	158.1	169.8	180.7	189.9	199.1
80°	61.1	66.1	76.1	92.0	107.1	123.8	137.2	150.5	162.3	171.5	180.7
82.5°	39.3	43.5	57.7	73.6	89.5	106.2	120.4	133.8	146.4	156.4	164.8
85°	21.7	27.6	41.8	58.5	74.4	91.2	106.2	119.6	132.1	141.3	149.7
87.5°	8.4	16.7	30.1	46.0	61.9	77.8	93.7	106.2	118.8	128.8	136.3
90°	0.0	10.0	22.6	38.5	54.4	70.3	85.3	98.7	110.4	119.6	128.0
92.5°	0.8	6.7	17.6	30.9	46.0	61.1	75.3	88.7	100.4	109.6	117.1
95°	0.8	5.0	14.2	26.8	40.1	54.4	67.7	80.3	91.2	100.4	107.9
97.5°	0.8	3.3	11.7	23.4	35.1	49.3	61.9	73.6	83.6	92.8	98.7
100°	0.8	3.3	10.0	20.1	31.8	44.3	56.0	67.7	76.9	84.5	91.2
102.5°	0.8	2.5	8.4	17.6	28.4	39.3	51.0	61.9	70.3	77.8	84.5
105°	0.8	2.5	7.5	15.1	25.1	36.0	46.0	56.0	65.2	71.9	77.8
107.5°	0.8	1.7	6.7	12.5	21.7	32.6	42.7	51.0	59.4	66.1	71.9
110°	0.8	1.7	5.9	11.7	19.2	29.3	38.5	46.8	54.4	61.1	66.1

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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	0.8	1.7	5.0	10.9	17.6	25.9	35.1	42.7	50.2	56.0	61.1
115°	0.8	1.7	5.0	10.0	15.9	22.6	30.9	39.3	45.2	51.9	56.0
117.5°	0.8	1.7	4.2	8.4	15.1	20.9	28.4	35.1	41.8	47.7	51.9
120°	0.8	1.7	4.2	7.5	13.4	19.2	25.1	31.8	38.5	42.7	46.8
122.5°	0.8	1.7	3.3	7.5	11.7	17.6	22.6	28.4	34.3	39.3	43.5
125°	0.8	1.7	3.3	6.7	10.9	15.9	20.9	25.1	30.9	35.1	39.3
127.5°	0.8	1.7	3.3	5.9	10.0	14.2	19.2	23.4	27.6	31.8	35.1
130°	0.8	1.7	2.5	5.0	9.2	12.5	16.7	21.7	25.1	28.4	31.8
132.5°	0.8	1.7	2.5	5.0	7.5	10.9	15.1	19.2	22.6	25.9	28.4
135°	0.8	1.7	2.5	4.2	6.7	10.0	12.5	16.7	20.1	23.4	25.9
137.5°	0.8	1.7	2.5	4.2	5.9	8.4	10.9	14.2	17.6	20.1	23.4
140°	0.8	1.7	2.5	3.3	5.0	7.5	10.0	11.7	15.1	17.6	20.1
142.5°	0.8	1.7	2.5	3.3	5.0	6.7	8.4	10.0	12.5	15.1	17.6
145°	0.8	1.7	2.5	3.3	4.2	5.9	7.5	9.2	10.0	12.5	14.2
147.5°	0.8	1.7	2.5	3.3	3.3	5.0	6.7	7.5	9.2	10.0	11.7
150°	0.8	1.7	2.5	2.5	3.3	4.2	5.9	6.7	7.5	9.2	10.0
152.5°	0.8	1.7	2.5	2.5	3.3	4.2	5.0	5.9	6.7	7.5	8.4
155°	0.8	1.7	2.5	2.5	2.5	3.3	4.2	5.0	5.9	6.7	7.5
157.5°	1.7	1.7	1.7	2.5	2.5	3.3	3.3	4.2	5.0	5.0	5.9
160°	1.7	1.7	1.7	2.5	2.5	2.5	3.3	3.3	4.2	4.2	5.0
162.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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°	1520.5	1520.5	1520.5	1520.5	1520.5	1520.5	1520.5	1520.5	1520.5	1520.5	1520.5
2.5°	1511.3	1513.8	1521.3	1521.3	1519.7	1518.0	1518.0	1515.5	1517.2	1520.5	1518.8
5°	1511.3	1513.8	1521.3	1521.3	1519.7	1518.0	1517.2	1514.7	1517.2	1520.5	1518.8
7.5°	1506.3	1509.6	1517.2	1517.2	1515.5	1514.7	1513.0	1511.3	1513.8	1517.2	1515.5
10°	1499.6	1502.9	1510.5	1510.5	1508.8	1508.8	1506.3	1504.6	1508.0	1510.5	1509.6
12.5°	1489.6	1493.7	1500.4	1499.6	1497.9	1498.8	1496.3	1492.9	1496.3	1498.8	1499.6
15°	1475.3	1480.4	1487.1	1485.4	1482.9	1484.5	1480.4	1477.9	1480.4	1485.4	1484.5
17.5°	1456.9	1460.3	1465.3	1465.3	1462.8	1461.1	1459.5	1456.9	1458.6	1462.0	1462.8
20°	1431.0	1435.2	1437.7	1435.2	1434.4	1431.9	1428.5	1426.0	1429.3	1434.4	1435.2
22.5°	1396.7	1397.6	1403.4	1397.6	1393.4	1392.5	1389.2	1384.2	1389.2	1393.4	1394.2
25°	1354.1	1358.3	1355.7	1345.7	1345.7	1339.0	1337.3	1334.8	1335.7	1343.2	1346.5
27.5°	1299.7	1301.4	1294.7	1286.3	1278.8	1274.6	1268.8	1269.6	1269.6	1279.6	1283.0
30°	1240.3	1231.1	1225.3	1211.9	1206.0	1196.0	1194.3	1194.3	1192.7	1197.7	1212.7
32.5°	1169.2	1156.7	1147.5	1134.9	1124.9	1114.9	1109.9	1112.4	1111.5	1124.1	1129.1
35°	1091.5	1083.9	1064.7	1048.8	1042.9	1027.9	1027.9	1020.4	1025.4	1039.6	1045.5
37.5°	1009.5	997.8	981.9	964.3	960.1	948.4	944.3	940.1	950.9	953.5	959.3
40°	925.9	915.0	899.9	883.2	883.2	869.0	869.0	869.0	869.8	874.8	885.7
42.5°	846.4	834.7	821.3	809.6	807.9	797.1	797.1	796.2	797.9	802.1	812.1
45°	769.5	760.3	746.0	740.2	741.0	729.3	731.8	729.3	732.7	736.8	740.2
47.5°	698.4	692.5	686.7	678.3	675.8	674.9	670.8	667.4	673.3	673.3	678.3
50°	632.3	628.9	625.6	620.6	621.4	618.1	613.1	613.1	617.2	618.1	621.4
52.5°	574.6	570.4	566.2	567.1	567.9	566.2	563.7	561.2	563.7	565.4	569.6
55°	516.9	513.5	517.7	516.0	517.7	516.0	514.4	512.7	516.9	514.4	518.5
57.5°	465.0	468.4	470.0	466.7	469.2	467.5	468.4	465.9	469.2	470.9	470.0
60°	417.3	422.4	419.9	420.7	424.0	422.4	419.0	421.5	424.9	425.7	424.9
62.5°	373.9	379.7	382.2	380.5	381.4	379.7	382.2	378.9	383.1	384.7	382.2
65°	334.5	341.2	342.9	342.9	342.9	341.2	343.7	344.6	346.3	346.3	344.6
67.5°	301.1	306.9	308.6	310.3	308.6	306.9	306.9	307.8	311.1	312.8	311.1
70°	271.0	276.8	277.7	277.7	278.5	280.2	276.8	278.5	281.0	281.9	281.0
72.5°	245.1	250.9	252.6	251.7	252.6	253.4	253.4	251.7	254.3	255.9	255.9
75°	224.1	227.5	229.2	229.2	230.0	230.8	230.8	230.0	231.7	232.5	233.3
77.5°	204.9	207.4	209.9	209.9	210.8	209.9	211.6	211.6	212.4	213.3	214.1
80°	185.7	189.0	190.7	191.5	193.2	194.0	194.0	194.0	194.9	195.7	195.7
82.5°	170.6	173.1	175.6	178.1	178.1	179.0	179.0	179.0	179.8	179.8	180.7
85°	155.6	158.9	161.4	163.1	163.9	164.8	164.8	165.6	165.6	165.6	166.4
87.5°	142.2	146.4	148.0	149.7	150.5	152.2	152.2	152.2	153.1	153.1	153.1
90°	133.0	137.2	138.8	140.5	141.3	142.2	142.2	143.0	143.0	143.9	143.9
92.5°	122.1	126.3	129.6	129.6	130.5	132.1	131.3	131.3	132.1	133.0	133.0
95°	113.7	117.1	119.6	120.4	121.3	121.3	121.3	122.1	121.3	122.1	122.1
97.5°	103.7	107.1	109.6	111.2	112.1	112.1	112.1	112.9	112.1	112.9	112.9
100°	95.3	98.7	101.2	102.0	103.7	103.7	103.7	103.7	103.7	103.7	104.5
102.5°	88.7	92.0	93.7	94.5	95.3	96.2	96.2	96.2	96.2	97.0	97.0
105°	82.0	85.3	87.0	87.8	88.7	89.5	89.5	89.5	90.3	90.3	89.5
107.5°	76.1	78.6	80.3	82.0	82.8	82.8	83.6	83.6	83.6	83.6	83.6
110°	70.3	72.8	75.3	76.9	76.9	77.8	77.8	78.6	78.6	77.8	78.6

TEST NUMBER: P1213432

CATALOG NUMBER: 4SNLED-LD5-46SL-LN-UNV-L935-CD1-U

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
112.5°	64.4	67.7	69.4	71.1	71.9	72.8	72.8	72.8	72.8	72.8	72.8
115°	59.4	62.7	64.4	66.1	66.9	67.7	67.7	67.7	67.7	67.7	67.7
117.5°	55.2	58.5	60.2	61.1	61.9	62.7	63.6	63.6	63.6	63.6	62.7
120°	51.0	53.5	55.2	56.9	57.7	58.5	58.5	58.5	58.5	58.5	58.5
122.5°	46.8	49.3	51.0	52.7	53.5	54.4	54.4	54.4	54.4	54.4	54.4
125°	42.7	45.2	46.8	48.5	49.3	50.2	50.2	50.2	50.2	50.2	50.2
127.5°	38.5	41.0	43.5	44.3	45.2	46.0	46.0	46.0	46.8	46.0	46.0
130°	34.3	36.8	39.3	40.1	41.0	41.8	42.7	42.7	42.7	42.7	41.8
132.5°	30.9	33.5	35.1	36.0	37.6	37.6	38.5	38.5	38.5	38.5	37.6
135°	28.4	30.1	31.8	32.6	34.3	34.3	34.3	35.1	35.1	34.3	33.5
137.5°	25.1	26.8	28.4	29.3	30.1	30.9	30.9	31.8	30.9	30.9	30.9
140°	23.4	24.3	25.9	26.8	27.6	27.6	27.6	28.4	28.4	27.6	27.6
142.5°	20.1	21.7	23.4	24.3	25.1	25.1	25.1	25.1	25.1	25.1	25.1
145°	16.7	19.2	20.1	21.7	21.7	22.6	22.6	22.6	22.6	22.6	21.7
147.5°	14.2	15.9	18.4	19.2	19.2	20.1	20.1	20.1	20.1	20.1	19.2
150°	10.9	12.5	15.1	16.7	16.7	17.6	17.6	17.6	17.6	16.7	16.7
152.5°	9.2	10.9	11.7	13.4	14.2	14.2	14.2	15.1	14.2	14.2	14.2
155°	8.4	9.2	10.0	10.9	11.7	12.5	12.5	12.5	12.5	11.7	11.7
157.5°	6.7	7.5	8.4	9.2	10.0	10.9	10.9	10.9	10.9	10.9	10.0
160°	5.0	5.9	6.7	6.7	7.5	8.4	9.2	8.4	8.4	8.4	8.4
162.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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: P1213432

CATALOG NUMBER: 4SNLED-LD5-46SL-LN-UNV-L935-CD1-U

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	1520.5	1520.5	1520.5	1520.5	1520.5	1520.5	1520.5	1520.5	1520.5	1520.5	1520.5
2.5°	1517.2	1516.3	1518.8	1514.7	1502.1	1505.5	1503.8	1511.3	1513.0	1514.7	1522.2
5°	1517.2	1516.3	1518.0	1514.7	1501.3	1503.8	1502.1	1509.6	1511.3	1512.1	1519.7
7.5°	1513.8	1513.0	1515.5	1511.3	1497.1	1500.4	1497.9	1505.5	1506.3	1507.1	1513.8
10°	1507.1	1506.3	1508.0	1504.6	1490.4	1493.7	1490.4	1497.9	1497.9	1499.6	1504.6
12.5°	1497.1	1495.4	1498.8	1494.6	1478.7	1482.9	1481.2	1486.2	1487.1	1487.9	1492.9
15°	1482.9	1481.2	1483.7	1481.2	1467.0	1467.8	1465.3	1472.8	1473.7	1472.0	1477.0
17.5°	1462.0	1460.3	1465.3	1463.6	1449.4	1452.8	1451.9	1453.6	1456.1	1451.9	1458.6
20°	1436.0	1437.7	1439.4	1440.2	1429.3	1429.3	1428.5	1431.9	1434.4	1431.0	1436.0
22.5°	1397.6	1401.7	1406.8	1408.4	1400.9	1400.1	1405.1	1403.4	1405.9	1404.3	1407.6
25°	1349.1	1357.4	1362.4	1367.5	1363.3	1364.9	1372.5	1374.1	1374.1	1373.3	1376.7
27.5°	1288.8	1299.7	1308.9	1319.8	1315.6	1318.9	1331.5	1333.2	1336.5	1333.2	1339.9
30°	1216.9	1226.9	1244.5	1260.4	1262.1	1267.1	1284.7	1286.3	1295.5	1292.2	1294.7
32.5°	1145.0	1150.0	1170.1	1186.0	1196.0	1208.5	1227.8	1231.1	1243.7	1246.2	1246.2
35°	1054.7	1068.9	1087.3	1109.9	1122.4	1135.8	1161.7	1166.7	1185.1	1191.0	1197.7
37.5°	978.5	991.9	1003.6	1027.1	1049.6	1064.7	1085.6	1098.1	1117.4	1128.3	1136.6
40°	897.4	908.3	920.8	944.3	963.5	986.1	1007.0	1022.0	1046.3	1058.8	1069.7
42.5°	820.5	828.8	842.2	858.9	879.0	904.1	924.2	941.7	967.7	985.2	997.8
45°	751.9	756.9	768.6	781.2	798.7	824.7	843.9	866.5	887.4	905.8	920.8
47.5°	687.5	694.2	700.0	708.4	724.3	740.2	762.8	784.5	805.4	825.5	840.5
50°	628.1	628.1	637.3	643.2	654.0	668.3	685.8	700.9	726.8	741.0	760.3
52.5°	570.4	573.7	578.8	582.1	590.5	599.7	613.9	626.4	648.2	661.6	680.0
55°	519.4	522.7	525.2	526.9	531.9	542.8	547.8	557.9	572.9	583.8	599.7
57.5°	470.9	472.5	475.1	475.9	476.7	483.4	487.6	490.1	505.2	516.0	529.4
60°	426.5	426.5	429.1	428.2	427.4	430.7	429.9	432.4	441.6	448.3	454.1
62.5°	384.7	384.7	385.6	383.9	383.1	383.1	379.7	382.2	384.7	385.6	389.7
65°	346.3	350.4	347.1	347.9	342.9	341.2	339.6	334.5	333.7	330.4	332.0
67.5°	312.0	315.3	312.0	312.0	307.8	304.4	300.3	291.9	289.4	282.7	281.0
70°	284.4	281.9	283.5	281.0	276.0	271.8	266.0	259.3	250.9	242.5	236.7
72.5°	257.6	257.6	255.9	253.4	250.9	242.5	235.9	228.3	218.3	207.4	199.1
75°	231.7	232.5	232.5	230.0	225.8	218.3	210.8	199.9	189.0	176.5	165.6
77.5°	213.3	213.3	213.3	209.1	204.9	198.2	189.0	177.3	165.6	150.5	138.0
80°	195.7	194.9	194.9	189.9	185.7	178.1	168.9	157.2	144.7	128.8	114.6
82.5°	181.5	180.7	179.0	174.8	168.9	161.4	152.2	139.7	126.3	112.1	94.5
85°	166.4	165.6	163.9	159.7	153.9	147.2	137.2	124.6	111.2	95.3	78.6
87.5°	153.1	152.2	149.7	147.2	140.5	133.0	122.9	111.2	97.0	82.0	65.2
90°	143.9	142.2	140.5	137.2	131.3	122.9	112.9	100.4	86.1	71.1	54.4
92.5°	133.0	132.1	129.6	126.3	121.3	112.9	102.9	91.2	76.9	62.7	46.8
95°	122.1	121.3	119.6	116.3	111.2	103.7	94.5	82.8	69.4	55.2	41.0
97.5°	112.1	112.1	109.6	107.1	101.2	95.3	86.1	75.3	62.7	50.2	36.8
100°	103.7	103.7	101.2	97.9	93.7	87.8	78.6	68.6	56.9	45.2	31.8
102.5°	96.2	95.3	93.7	90.3	86.1	80.3	71.9	62.7	51.9	40.1	28.4
105°	89.5	88.7	87.0	83.6	80.3	73.6	66.9	57.7	46.8	36.0	25.1
107.5°	82.8	82.0	81.1	77.8	73.6	67.7	61.1	51.9	42.7	32.6	22.6
110°	76.9	76.1	74.4	71.1	66.9	61.9	55.2	47.7	38.5	29.3	20.1

TEST NUMBER: P1213432

CATALOG NUMBER: 4SNLED-LD5-46SL-LN-UNV-L935-CD1-U

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
112.5°	71.9	71.1	69.4	66.1	62.7	56.9	51.0	42.7	35.1	26.8	17.6
115°	66.9	66.1	64.4	61.1	56.9	51.9	46.0	39.3	30.9	23.4	15.9
117.5°	61.9	61.1	59.4	56.9	52.7	47.7	41.8	35.1	27.6	21.7	14.2
120°	57.7	56.0	54.4	51.9	47.7	43.5	37.6	31.8	25.1	19.2	12.5
122.5°	53.5	51.9	50.2	47.7	43.5	39.3	33.5	28.4	23.4	17.6	11.7
125°	48.5	47.7	46.0	43.5	39.3	35.1	30.9	25.9	20.9	15.9	10.0
127.5°	44.3	43.5	41.8	38.5	35.1	31.8	27.6	23.4	18.4	13.4	9.2
130°	41.0	39.3	37.6	35.1	32.6	29.3	25.1	20.9	16.7	11.7	8.4
132.5°	36.8	35.1	33.5	31.8	29.3	25.9	22.6	18.4	15.1	10.9	7.5
135°	33.5	31.8	30.1	28.4	25.9	23.4	20.1	16.7	13.4	10.0	6.7
137.5°	29.3	28.4	27.6	25.9	23.4	20.9	18.4	14.2	11.7	9.2	5.9
140°	26.8	25.9	25.1	22.6	20.9	18.4	15.9	12.5	10.0	7.5	5.0
142.5°	24.3	23.4	21.7	20.1	18.4	16.7	13.4	11.7	9.2	6.7	5.0
145°	20.9	20.1	19.2	17.6	15.9	13.4	11.7	10.0	8.4	5.9	4.2
147.5°	19.2	18.4	16.7	15.1	13.4	11.7	10.9	9.2	6.7	5.0	3.3
150°	15.9	15.1	14.2	12.5	11.7	10.9	9.2	7.5	5.9	4.2	3.3
152.5°	13.4	12.5	11.7	11.7	10.0	9.2	7.5	6.7	5.0	4.2	2.5
155°	11.7	11.7	10.9	10.0	8.4	7.5	6.7	5.0	4.2	3.3	2.5
157.5°	10.0	9.2	8.4	8.4	7.5	6.7	5.0	4.2	3.3	3.3	2.5
160°	8.4	7.5	7.5	6.7	5.9	5.0	4.2	4.2	3.3	2.5	2.5
162.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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: P1213432

CATALOG NUMBER: 4SNLED-LD5-46SL-LN-UNV-L935-CD1-U

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
0°	1520.5	1520.5	1520.5	1520.5	1520.5	1520.5	1520.5	1520.5	1520.5	1520.5	1520.5
2.5°	1523.0	1513.8	1522.2	1533.1	1533.1	1531.4	1529.7	1533.1	1541.4	1538.1	1528.0
5°	1520.5	1511.3	1518.8	1529.7	1529.7	1527.2	1525.5	1528.0	1537.2	1533.1	1523.9
7.5°	1515.5	1507.1	1512.1	1522.2	1522.2	1519.7	1518.0	1521.3	1528.9	1524.7	1514.7
10°	1506.3	1497.1	1502.9	1512.1	1511.3	1509.6	1507.1	1511.3	1518.0	1512.1	1500.4
12.5°	1494.6	1485.4	1490.4	1498.8	1497.9	1494.6	1492.9	1495.4	1501.3	1497.9	1485.4
15°	1478.7	1469.5	1473.7	1482.0	1479.5	1477.0	1473.7	1474.5	1482.0	1476.2	1462.8
17.5°	1459.5	1449.4	1452.8	1460.3	1457.8	1455.3	1451.1	1451.9	1460.3	1451.9	1437.7
20°	1436.0	1425.2	1427.7	1436.9	1432.7	1428.5	1424.3	1424.3	1432.7	1423.5	1407.6
22.5°	1410.9	1400.1	1401.7	1408.4	1405.1	1397.6	1393.4	1395.9	1400.1	1388.4	1371.6
25°	1380.0	1365.8	1368.3	1375.0	1372.5	1362.4	1358.3	1359.9	1358.3	1349.1	1331.5
27.5°	1344.0	1329.0	1330.7	1334.8	1331.5	1322.3	1317.3	1318.1	1314.8	1303.1	1283.0
30°	1298.9	1291.3	1290.5	1293.0	1288.0	1278.8	1272.9	1271.3	1270.4	1253.7	1229.5
32.5°	1252.9	1246.2	1242.0	1245.3	1239.5	1230.3	1220.3	1220.3	1211.9	1196.0	1175.1
35°	1206.0	1195.2	1191.0	1193.5	1186.8	1175.1	1166.7	1162.5	1150.0	1129.9	1107.3
37.5°	1145.8	1138.3	1133.3	1135.8	1128.3	1119.9	1104.0	1099.8	1086.4	1058.8	1030.4
40°	1080.6	1074.7	1069.7	1072.2	1063.9	1051.3	1037.1	1030.4	1015.3	984.4	961.8
42.5°	1010.3	1007.8	1002.0	1011.2	994.4	981.9	967.7	956.8	941.7	908.3	882.4
45°	935.9	941.7	928.4	930.9	920.0	909.1	894.1	878.2	863.1	831.3	802.1
47.5°	857.3	861.5	852.3	853.9	842.2	832.2	818.8	798.7	782.0	754.4	728.5
50°	776.1	774.5	774.5	772.8	763.6	751.1	737.7	719.3	702.5	677.5	655.7
52.5°	690.0	693.3	695.0	699.2	687.5	680.0	659.1	643.2	630.6	604.7	586.3
55°	607.2	618.9	615.6	617.2	603.9	598.0	581.3	568.7	550.3	535.3	523.6
57.5°	531.9	534.4	536.1	538.6	532.8	521.1	507.7	497.6	483.4	470.9	462.5
60°	459.2	459.2	460.0	464.2	458.3	448.3	438.3	430.7	420.7	413.2	408.1
62.5°	390.6	396.4	397.3	393.9	386.4	381.4	374.7	370.5	363.8	361.3	359.6
65°	327.0	327.0	327.0	328.7	324.5	321.2	317.0	316.1	318.7	315.3	317.0
67.5°	273.5	271.0	269.3	270.1	268.5	266.8	266.0	268.5	273.5	273.5	277.7
70°	227.5	222.5	219.1	219.1	219.1	220.0	222.5	227.5	235.9	239.2	245.1
72.5°	189.9	179.0	174.0	174.0	174.8	178.1	185.7	194.9	202.4	209.1	216.6
75°	153.9	143.0	135.5	134.7	136.3	141.3	152.2	160.6	173.1	182.3	191.5
77.5°	124.6	111.2	102.0	101.2	103.7	111.2	124.6	135.5	149.7	159.7	169.8
80°	99.5	84.5	76.9	71.9	76.1	85.3	100.4	113.7	127.1	140.5	153.1
82.5°	79.5	65.2	53.5	48.5	53.5	66.1	80.3	96.2	109.6	123.8	136.3
85°	62.7	47.7	34.3	29.3	35.1	48.5	64.4	80.3	95.3	109.6	122.1
87.5°	49.3	34.3	20.9	14.2	21.7	36.0	51.0	66.9	82.8	97.0	109.6
90°	38.5	24.3	11.7	1.7	12.5	25.9	41.0	56.0	71.9	86.1	98.7
92.5°	32.6	18.4	6.7	0.0	7.5	19.2	33.5	48.5	62.7	76.9	89.5
95°	27.6	15.1	5.0	0.0	5.0	15.1	27.6	41.0	55.2	69.4	82.0
97.5°	23.4	11.7	3.3	0.0	3.3	11.7	22.6	36.0	48.5	61.9	73.6
100°	20.1	10.0	2.5	0.0	2.5	9.2	19.2	30.9	43.5	56.0	66.9
102.5°	17.6	8.4	1.7	0.0	1.7	7.5	15.9	26.8	37.6	49.3	60.2
105°	15.1	6.7	1.7	0.0	0.8	5.9	13.4	23.4	33.5	44.3	54.4
107.5°	13.4	5.9	1.7	0.0	0.8	5.0	11.7	20.1	30.1	39.3	48.5
110°	11.7	5.0	1.7	0.0	0.8	3.3	10.0	17.6	25.9	35.1	44.3

TEST NUMBER: P1213432

CATALOG NUMBER: 4SNLED-LD5-46SL-LN-UNV-L935-CD1-U

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
112.5°	10.0	4.2	0.8	0.0	0.0	2.5	8.4	15.1	22.6	31.8	39.3
115°	9.2	4.2	0.8	0.0	0.0	1.7	6.7	13.4	20.1	28.4	35.1
117.5°	8.4	3.3	0.8	0.0	0.8	1.7	5.9	11.7	17.6	24.3	31.8
120°	7.5	3.3	0.8	0.0	0.8	0.8	4.2	10.0	15.1	21.7	27.6
122.5°	6.7	3.3	0.8	0.0	0.8	0.8	3.3	8.4	13.4	19.2	24.3
125°	5.9	2.5	1.7	0.8	0.8	0.8	2.5	6.7	11.7	15.9	21.7
127.5°	5.9	2.5	1.7	0.8	0.8	0.8	1.7	5.9	9.2	14.2	19.2
130°	5.0	2.5	1.7	0.8	0.8	0.8	0.8	4.2	8.4	11.7	15.9
132.5°	4.2	2.5	1.7	0.8	0.8	0.8	0.8	2.5	5.9	10.0	13.4
135°	4.2	2.5	1.7	0.8	0.8	0.8	0.8	1.7	4.2	7.5	10.9
137.5°	3.3	1.7	1.7	0.8	0.8	0.8	0.8	0.8	3.3	5.9	8.4
140°	3.3	1.7	1.7	0.8	0.8	0.8	0.8	0.8	2.5	4.2	6.7
142.5°	2.5	1.7	1.7	0.8	0.8	0.8	0.8	0.8	1.7	3.3	5.0
145°	2.5	1.7	1.7	0.8	0.8	0.8	0.8	0.8	0.8	1.7	3.3
147.5°	2.5	2.5	1.7	0.8	0.8	0.8	0.8	0.8	0.8	1.7	2.5
150°	2.5	1.7	1.7	0.8	0.8	0.8	0.8	0.8	0.8	0.8	1.7
152.5°	2.5	1.7	1.7	0.8	0.8	0.8	0.8	0.8	0.8	0.8	1.7
155°	2.5	1.7	1.7	0.8	0.8	0.8	0.8	0.8	0.8	1.7	1.7
157.5°	2.5	1.7	1.7	0.8	0.8	0.8	0.8	0.8	0.8	0.8	1.7
160°	2.5	1.7	1.7	0.8	1.7	0.8	1.7	1.7	1.7	1.7	1.7
162.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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: P1213432

CATALOG NUMBER: 4SNLED-LD5-46SL-LN-UNV-L935-CD1-U

CANDELA DISTRIBUTION (continued):

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
0°	1520.5	1520.5	1520.5	1520.5	1520.5	1520.5	1520.5	1520.5	1520.5	1520.5	1520.5
2.5°	1524.7	1508.8	1517.2	1514.7	1518.0	1524.7	1523.9	1522.2	1522.2	1519.7	1516.3
5°	1519.7	1504.6	1512.1	1508.0	1512.1	1518.0	1517.2	1514.7	1516.3	1512.1	1508.0
7.5°	1509.6	1496.3	1502.9	1499.6	1502.9	1508.8	1506.3	1505.5	1507.1	1500.4	1497.9
10°	1497.9	1482.9	1490.4	1486.2	1490.4	1494.6	1492.9	1489.6	1492.9	1486.2	1483.7
12.5°	1479.5	1467.0	1472.0	1470.3	1472.8	1477.0	1473.7	1471.2	1472.8	1467.0	1462.0
15°	1459.5	1446.9	1451.1	1448.6	1450.3	1455.3	1449.4	1448.6	1446.9	1441.1	1439.4
17.5°	1433.5	1421.8	1426.0	1421.8	1424.3	1422.7	1421.8	1417.6	1417.6	1410.9	1405.9
20°	1401.7	1391.7	1389.2	1385.9	1389.2	1385.9	1380.8	1377.5	1376.7	1370.0	1365.8
22.5°	1364.9	1353.2	1354.9	1345.7	1346.5	1341.5	1333.2	1329.8	1326.5	1318.9	1313.1
25°	1320.6	1308.9	1300.5	1294.7	1287.2	1286.3	1275.5	1267.1	1266.3	1257.1	1256.2
27.5°	1270.4	1257.1	1250.4	1236.1	1226.9	1219.4	1210.2	1201.9	1197.7	1187.6	1180.9
30°	1212.7	1197.7	1180.9	1170.9	1156.7	1150.8	1134.9	1124.9	1121.6	1110.7	1105.7
32.5°	1147.5	1131.6	1118.2	1099.0	1083.1	1074.7	1058.8	1048.8	1044.6	1032.9	1026.2
35°	1076.4	1058.8	1042.9	1024.5	1012.0	997.8	978.5	968.5	959.3	955.1	950.1
37.5°	1002.0	982.7	964.3	945.9	935.1	918.3	901.6	894.9	884.0	879.9	874.8
40°	925.0	905.8	888.2	870.7	858.1	843.1	828.0	825.5	813.8	809.6	806.3
42.5°	848.9	828.8	808.8	796.2	787.0	772.0	761.9	759.4	749.4	746.9	746.9
45°	780.3	755.2	738.5	727.6	720.1	707.6	699.2	697.5	689.2	687.5	687.5
47.5°	706.7	683.3	670.8	664.1	657.4	648.2	643.2	643.2	634.8	633.1	632.3
50°	638.1	616.4	607.2	600.5	599.7	593.0	588.8	587.1	587.1	581.3	582.1
52.5°	572.9	562.0	554.5	550.3	545.3	541.1	537.8	537.8	535.3	531.1	532.8
55°	512.7	500.1	501.0	497.6	495.1	492.6	493.5	488.4	487.6	484.3	486.8
57.5°	452.5	452.5	450.8	448.3	444.1	445.8	445.8	445.8	441.6	439.1	441.6
60°	401.5	404.0	399.8	402.3	400.6	401.5	399.8	399.8	397.3	396.4	397.3
62.5°	356.3	360.5	358.8	362.1	360.5	361.3	363.0	359.6	358.0	356.3	358.0
65°	316.1	321.2	320.3	322.8	323.7	324.5	325.3	323.7	322.0	320.3	319.5
67.5°	281.0	286.0	289.4	290.2	291.1	293.6	292.7	291.1	289.4	286.9	286.0
70°	249.2	255.9	260.1	261.8	265.1	263.5	263.5	262.6	260.9	258.4	257.6
72.5°	222.5	230.0	234.2	235.9	239.2	239.2	238.4	237.5	235.9	233.3	232.5
75°	199.1	205.7	211.6	214.9	217.5	217.5	216.6	215.8	214.1	212.4	211.6
77.5°	180.7	186.5	191.5	195.7	197.4	198.2	197.4	195.7	195.7	194.9	194.0
80°	162.3	168.9	174.0	178.1	180.7	180.7	179.8	180.7	179.0	178.1	177.3
82.5°	146.4	153.9	159.7	163.9	165.6	166.4	165.6	166.4	164.8	164.8	164.8
85°	132.1	139.7	146.4	149.7	152.2	153.1	153.1	153.1	152.2	152.2	152.2
87.5°	120.4	128.0	134.7	138.0	140.5	141.3	141.3	142.2	140.5	140.5	140.5
90°	109.6	117.1	123.8	127.1	129.6	131.3	131.3	132.1	131.3	130.5	130.5
92.5°	99.5	107.9	114.6	117.9	120.4	122.9	122.9	123.8	122.1	122.1	122.1
95°	91.2	99.5	105.4	109.6	112.1	113.7	114.6	114.6	113.7	113.7	113.7
97.5°	83.6	91.2	97.0	101.2	103.7	104.5	105.4	106.2	105.4	105.4	105.4
100°	76.1	83.6	89.5	92.8	96.2	97.0	97.9	98.7	98.7	97.9	97.9
102.5°	69.4	76.9	82.0	86.1	88.7	90.3	91.2	91.2	91.2	91.2	91.2
105°	62.7	70.3	75.3	79.5	82.0	83.6	84.5	85.3	85.3	84.5	84.5
107.5°	56.9	63.6	69.4	72.8	76.1	77.8	78.6	78.6	79.5	78.6	78.6
110°	51.0	58.5	63.6	66.9	70.3	71.9	72.8	73.6	73.6	73.6	73.6

TEST NUMBER: P1213432

CATALOG NUMBER: 4SNLED-LD5-46SL-LN-UNV-L935-CD1-U

CANDELA DISTRIBUTION (continued):

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
112.5°	46.8	52.7	57.7	61.1	64.4	66.1	66.9	67.7	68.6	67.7	67.7
115°	41.8	47.7	52.7	56.0	58.5	60.2	61.9	62.7	62.7	63.6	62.7
117.5°	37.6	42.7	47.7	51.0	53.5	56.0	56.9	57.7	58.5	57.7	57.7
120°	33.5	38.5	42.7	46.0	48.5	51.0	51.9	52.7	53.5	52.7	52.7
122.5°	30.1	34.3	38.5	41.8	44.3	46.0	47.7	47.7	48.5	48.5	48.5
125°	26.8	30.9	34.3	37.6	40.1	41.8	42.7	43.5	43.5	44.3	44.3
127.5°	23.4	26.8	30.9	33.5	36.0	37.6	38.5	39.3	39.3	40.1	40.1
130°	20.1	23.4	26.8	29.3	31.8	33.5	34.3	35.1	36.0	36.0	36.0
132.5°	17.6	20.9	23.4	25.9	27.6	29.3	30.9	31.8	31.8	31.8	31.8
135°	14.2	17.6	20.1	22.6	24.3	25.9	26.8	28.4	28.4	28.4	28.4
137.5°	11.7	15.1	17.6	19.2	20.9	22.6	23.4	24.3	25.1	25.1	25.1
140°	9.2	11.7	14.2	16.7	18.4	19.2	20.9	20.9	21.7	21.7	21.7
142.5°	6.7	9.2	10.9	13.4	15.1	16.7	17.6	18.4	18.4	18.4	18.4
145°	5.0	6.7	8.4	10.0	12.5	13.4	14.2	15.1	15.9	15.9	15.9
147.5°	3.3	5.0	5.9	7.5	9.2	10.9	11.7	12.5	13.4	13.4	13.4
150°	2.5	3.3	5.0	5.9	6.7	8.4	10.0	10.0	10.9	10.9	10.0
152.5°	1.7	2.5	3.3	4.2	5.0	5.9	7.5	7.5	8.4	8.4	8.4
155°	1.7	1.7	1.7	2.5	3.3	4.2	5.0	5.9	5.9	5.9	5.9
157.5°	1.7	1.7	1.7	1.7	1.7	2.5	3.3	4.2	4.2	4.2	4.2
160°	1.7	1.7	0.8	0.8	1.7	1.7	1.7	1.7	2.5	2.5	2.5
162.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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: P1213432

CATALOG NUMBER: 4SNLED-LD5-46SL-LN-UNV-L935-CD1-U

CANDELA DISTRIBUTION (continued):

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°
0°	1520.5	1520.5	1520.5	1520.5	1520.5	1520.5	1520.5	1520.5	1520.5	1520.5	1520.5
2.5°	1518.8	1520.5	1520.5	1518.8	1518.0	1521.3	1517.2	1501.3	1506.3	1508.0	1513.0
5°	1511.3	1513.0	1513.0	1513.0	1511.3	1514.7	1510.5	1494.6	1500.4	1502.9	1506.3
7.5°	1500.4	1501.3	1502.9	1502.1	1500.4	1505.5	1501.3	1485.4	1489.6	1493.7	1497.9
10°	1486.2	1486.2	1487.1	1488.7	1487.1	1491.2	1487.1	1472.8	1477.0	1479.5	1484.5
12.5°	1467.0	1468.7	1469.5	1468.7	1467.8	1471.2	1469.5	1456.1	1457.8	1462.8	1467.8
15°	1441.1	1441.1	1445.2	1443.6	1443.6	1446.9	1448.6	1433.5	1436.0	1443.6	1448.6
17.5°	1409.3	1410.1	1413.5	1415.1	1414.3	1420.1	1421.0	1409.3	1408.4	1417.6	1422.7
20°	1368.3	1370.0	1374.1	1377.5	1377.5	1384.2	1386.7	1379.2	1380.0	1390.0	1391.7
22.5°	1318.1	1318.1	1325.6	1330.7	1334.8	1339.0	1346.5	1339.9	1339.9	1353.2	1360.8
25°	1256.2	1262.1	1264.6	1274.6	1280.5	1292.2	1298.9	1299.7	1300.5	1313.1	1318.1
27.5°	1187.6	1189.3	1196.8	1208.5	1215.2	1226.1	1238.7	1241.2	1245.3	1262.1	1269.6
30°	1109.9	1114.9	1118.2	1134.9	1144.1	1158.4	1174.3	1180.1	1183.5	1206.0	1215.2
32.5°	1030.4	1032.1	1046.3	1055.5	1066.4	1081.4	1099.8	1110.7	1117.4	1140.8	1154.2
35°	950.9	954.3	966.0	977.7	988.6	1003.6	1022.9	1037.9	1049.6	1070.5	1088.1
37.5°	878.2	886.5	889.1	900.8	909.1	924.2	937.6	959.3	971.0	992.8	1015.3
40°	812.9	815.5	817.1	828.8	834.7	848.9	868.1	882.4	898.3	914.1	940.9
42.5°	748.5	750.2	752.7	759.4	766.1	776.1	790.4	804.6	821.3	844.7	862.3
45°	689.2	690.8	692.5	696.7	702.5	711.7	720.9	731.0	747.7	767.8	786.2
47.5°	634.0	637.3	637.3	638.1	642.3	649.9	656.5	669.1	678.3	689.2	710.1
50°	581.3	583.8	584.6	584.6	587.1	592.1	593.8	602.2	610.5	620.6	635.6
52.5°	531.9	531.9	531.1	534.4	534.4	537.8	538.6	543.6	549.5	560.4	567.1
55°	485.1	485.1	487.6	485.9	485.9	487.6	486.8	487.6	492.6	499.3	505.2
57.5°	439.9	439.1	441.6	439.9	439.1	440.8	442.4	439.1	439.9	446.6	446.6
60°	394.8	395.6	398.1	396.4	396.4	396.4	394.8	393.1	391.4	395.6	397.3
62.5°	358.8	356.3	358.8	356.3	358.0	357.1	355.5	352.1	352.9	351.3	349.6
65°	321.2	321.2	322.0	319.5	321.2	321.2	318.7	317.8	312.8	311.1	306.9
67.5°	288.5	288.5	289.4	287.7	287.7	288.5	286.0	283.5	278.5	276.0	270.1
70°	260.1	260.1	260.1	259.3	259.3	259.3	257.6	254.3	249.2	245.1	237.5
72.5°	234.2	235.0	234.2	234.2	236.7	234.2	231.7	228.3	224.1	215.8	209.1
75°	213.3	214.1	213.3	213.3	213.3	212.4	211.6	206.6	201.6	194.9	184.8
77.5°	194.9	194.9	195.7	194.9	194.9	194.0	191.5	187.3	181.5	175.6	163.9
80°	177.3	178.1	179.0	179.8	178.1	177.3	174.8	171.5	163.9	157.2	145.5
82.5°	164.8	163.9	164.8	165.6	163.9	163.1	160.6	156.4	150.5	141.3	129.6
85°	152.2	151.4	151.4	152.2	151.4	149.7	147.2	143.0	137.2	128.0	116.3
87.5°	139.7	140.5	141.3	140.5	139.7	138.0	135.5	131.3	124.6	117.1	104.5
90°	130.5	130.5	130.5	130.5	129.6	128.0	125.5	120.4	114.6	105.4	94.5
92.5°	122.1	122.1	122.1	122.1	121.3	118.8	116.3	112.1	105.4	96.2	86.1
95°	113.7	114.6	113.7	113.7	112.1	111.2	107.1	102.9	97.0	87.8	76.9
97.5°	104.5	105.4	104.5	104.5	103.7	102.0	99.5	94.5	88.7	80.3	70.3
100°	97.9	97.9	97.0	97.0	96.2	94.5	91.2	87.0	81.1	72.8	62.7
102.5°	90.3	91.2	90.3	90.3	88.7	87.0	84.5	80.3	74.4	66.1	56.9
105°	84.5	84.5	83.6	83.6	82.0	80.3	77.8	72.8	67.7	60.2	51.0
107.5°	78.6	78.6	77.8	77.8	76.1	74.4	71.1	66.9	61.9	54.4	46.0
110°	72.8	72.8	72.8	71.9	70.3	67.7	65.2	61.1	56.0	49.3	41.0

TEST NUMBER: P1213432

CATALOG NUMBER: 4SNLED-LD5-46SL-LN-UNV-L935-CD1-U

CANDELA DISTRIBUTION (continued):

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°
112.5°	68.6	67.7	66.9	66.1	64.4	62.7	59.4	55.2	50.2	44.3	36.8
115°	62.7	62.7	61.9	61.1	59.4	56.9	54.4	51.0	46.0	39.3	32.6
117.5°	57.7	57.7	56.9	56.0	54.4	51.9	49.3	46.0	41.0	35.1	29.3
120°	52.7	52.7	51.9	51.0	49.3	46.8	45.2	41.0	36.8	30.9	25.9
122.5°	48.5	47.7	47.7	46.0	45.2	42.7	40.1	36.8	32.6	27.6	22.6
125°	43.5	43.5	42.7	41.8	41.0	38.5	36.0	32.6	28.4	24.3	20.1
127.5°	39.3	39.3	38.5	37.6	36.8	34.3	31.8	29.3	25.1	20.9	16.7
130°	35.1	35.1	34.3	33.5	32.6	30.1	28.4	25.1	21.7	18.4	14.2
132.5°	31.8	31.8	30.9	30.1	28.4	26.8	25.1	21.7	19.2	15.9	12.5
135°	28.4	27.6	27.6	26.8	25.1	23.4	21.7	19.2	15.9	13.4	10.0
137.5°	25.1	24.3	23.4	22.6	21.7	20.1	18.4	16.7	14.2	10.9	8.4
140°	21.7	20.9	20.9	20.1	18.4	17.6	15.9	13.4	11.7	9.2	6.7
142.5°	18.4	18.4	17.6	16.7	15.9	15.1	13.4	11.7	9.2	7.5	5.0
145°	15.9	15.1	15.1	14.2	13.4	11.7	10.9	9.2	7.5	5.9	4.2
147.5°	12.5	12.5	12.5	11.7	10.9	10.0	9.2	7.5	5.9	4.2	2.5
150°	10.0	10.0	10.0	9.2	8.4	7.5	6.7	5.9	4.2	2.5	1.7
152.5°	8.4	8.4	7.5	7.5	6.7	5.9	5.0	4.2	2.5	1.7	1.7
155°	5.9	5.9	5.9	5.0	5.0	4.2	3.3	2.5	1.7	1.7	1.7
157.5°	4.2	4.2	4.2	3.3	3.3	2.5	2.5	1.7	1.7	1.7	1.7
160°	2.5	2.5	2.5	2.5	1.7	1.7	1.7	1.7	1.7	1.7	1.7
162.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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: P1213432

CATALOG NUMBER: 4SNLED-LD5-46SL-LN-UNV-L935-CD1-U

CANDELA DISTRIBUTION (continued):

	330°	335°	340°	345°	350°	355°	360°
0°	1520.5	1520.5	1520.5	1520.5	1520.5	1520.5	1520.5
2.5°	1510.5	1509.6	1516.3	1516.3	1508.8	1520.5	1533.1
5°	1505.5	1504.6	1511.3	1511.3	1504.6	1516.3	1529.7
7.5°	1495.4	1496.3	1502.9	1504.6	1496.3	1507.1	1521.3
10°	1484.5	1483.7	1491.2	1492.9	1486.2	1496.3	1509.6
12.5°	1467.0	1467.0	1474.5	1477.0	1470.3	1482.0	1494.6
15°	1448.6	1448.6	1453.6	1457.8	1451.9	1462.8	1475.3
17.5°	1425.2	1424.3	1429.3	1434.4	1428.5	1440.2	1453.6
20°	1395.1	1395.1	1400.9	1406.8	1402.6	1413.5	1428.5
22.5°	1363.3	1359.9	1370.0	1374.1	1371.6	1382.5	1397.6
25°	1323.1	1322.3	1332.3	1338.2	1334.8	1346.5	1359.9
27.5°	1279.6	1278.8	1288.8	1296.4	1294.7	1305.6	1320.6
30°	1226.9	1231.1	1240.3	1252.9	1248.7	1260.4	1276.3
32.5°	1171.7	1175.9	1186.8	1200.2	1201.0	1210.2	1226.1
35°	1105.7	1116.5	1124.1	1141.6	1145.0	1154.2	1170.9
37.5°	1036.3	1048.8	1064.7	1078.1	1084.8	1092.3	1111.5
40°	958.5	976.9	994.4	1010.3	1018.7	1026.2	1044.6
42.5°	888.2	902.4	919.2	935.1	950.1	956.8	976.0
45°	808.8	825.5	840.5	859.8	874.8	882.4	901.6
47.5°	731.0	747.7	767.8	781.2	797.1	804.6	823.0
50°	656.5	671.6	688.3	704.2	717.6	724.3	740.2
52.5°	582.9	598.8	614.7	624.8	639.0	644.0	657.4
55°	517.7	528.6	542.8	548.7	562.9	566.2	575.4
57.5°	455.0	462.5	467.5	477.6	487.6	495.1	506.0
60°	398.1	401.5	404.8	410.7	419.0	421.5	425.7
62.5°	347.1	346.3	352.9	354.6	355.5	363.8	359.6
65°	301.9	302.8	296.9	294.4	297.7	300.3	298.6
67.5°	264.3	259.3	254.3	248.4	243.4	245.9	243.4
70°	227.5	223.3	214.9	206.6	203.2	198.2	195.7
72.5°	198.2	188.2	179.8	168.9	163.1	157.2	153.1
75°	175.6	161.4	149.7	138.0	129.6	121.3	119.6
77.5°	152.2	138.8	125.5	112.9	100.4	91.2	87.8
80°	133.8	121.3	105.4	90.3	76.9	65.2	61.1
82.5°	117.1	103.7	87.8	71.9	56.9	44.3	39.3
85°	102.9	88.7	72.8	56.9	41.8	28.4	21.7
87.5°	92.0	76.1	60.2	45.2	29.3	15.9	8.4
90°	82.0	66.9	51.9	36.0	20.9	8.4	0.0
92.5°	72.8	58.5	43.5	29.3	15.9	5.0	0.8
95°	64.4	51.9	36.8	23.4	11.7	3.3	0.8
97.5°	57.7	45.2	31.8	19.2	9.2	2.5	0.8
100°	51.9	39.3	27.6	15.9	7.5	1.7	0.8
102.5°	46.0	35.1	23.4	13.4	5.9	0.8	0.8
105°	41.0	30.9	20.1	11.7	5.0	0.8	0.8
107.5°	36.8	27.6	17.6	10.0	3.3	0.8	0.8
110°	32.6	23.4	15.1	8.4	2.5	0.8	0.8



TEST NUMBER: P1213432

CATALOG NUMBER: 4SNLED-LD5-46SL-LN-UNV-L935-CD1-U

CANDELA DISTRIBUTION (continued):

	330°	335°	340°	345°	350°	355°	360°
112.5°	29.3	20.9	13.4	6.7	1.7	0.8	0.8
115°	25.9	18.4	11.7	5.9	1.7	0.8	0.8
117.5°	22.6	15.9	10.0	4.2	0.8	0.8	0.8
120°	20.1	14.2	8.4	3.3	0.8	0.8	0.8
122.5°	17.6	11.7	6.7	2.5	0.8	0.8	0.8
125°	15.1	10.0	5.9	1.7	0.8	0.8	0.8
127.5°	12.5	8.4	4.2	1.7	0.8	0.8	0.8
130°	10.9	6.7	3.3	0.8	0.8	0.8	0.8
132.5°	9.2	5.0	2.5	0.8	0.8	0.8	0.8
135°	7.5	4.2	1.7	0.8	0.8	0.8	0.8
137.5°	5.9	3.3	1.7	0.8	0.8	0.8	0.8
140°	4.2	2.5	0.8	0.8	0.8	0.8	0.8
142.5°	3.3	1.7	0.8	0.8	0.8	0.8	0.8
145°	2.5	1.7	0.8	0.8	0.8	0.8	0.8
147.5°	1.7	1.7	1.7	1.7	0.8	0.8	0.8
150°	1.7	1.7	0.8	0.8	1.7	0.8	0.8
152.5°	1.7	0.8	0.8	0.8	1.7	0.8	0.8
155°	1.7	1.7	1.7	1.7	1.7	1.7	0.8
157.5°	1.7	1.7	1.7	1.7	1.7	1.7	1.7
160°	1.7	1.7	1.7	1.7	1.7	1.7	1.7
162.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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)