

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: P1213005

Luminaire Tested: 2SNLED-LD5-46HL-LC-UNV-L930-CD1-U

Issue Date: 3/29/2018

Test Information

Test Method: LM-79-2019
Report Number: P1213005
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P33518)
Test Lab: INNOVATIONS CENTER-P3
Issue Date: 3/29/2018
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: METALUX
Catalog Number: 2SNLED-LD5-46HL-LC-UNV-L930-CD1-U
Description: 2FT LINEAR SNLED LED FIXTURE
CLEAR LENSED
Light Source: -
Ballast/Driver: -

Summary

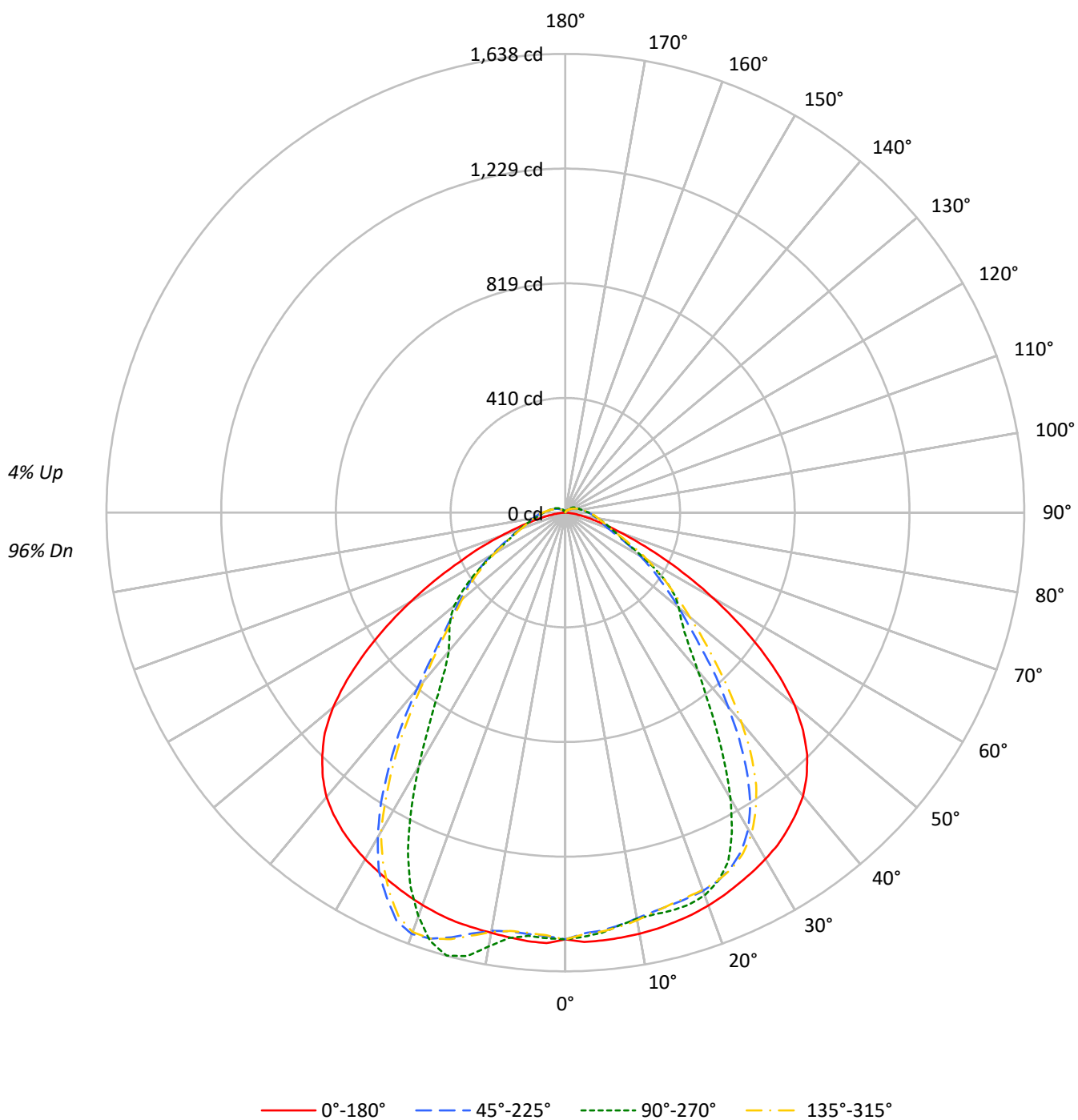
Lumens per Lamp: N/A
Luminaire Lumens: 3632.0 lumens
Efficiency: N/A
Efficacy: 100.9 lumens/watt
Spacing Criteria (0/90/45): 1.4 / 1.12 / 1.19
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 2' x H: 0.12')
CIE Type: Direct

Input Watts (W): 36
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					0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10
RCR																				
0	118	118	118	118	115	115	115	115	109	109	109	103	103	103	98	98	98	98	98	96
1	109	104	100	97	106	102	98	95	97	94	91	92	90	88	88	86	84	84	84	82
2	100	93	86	81	97	90	85	80	86	82	77	82	79	75	79	76	73	73	73	71
3	92	83	75	69	89	81	74	68	77	71	67	74	69	65	71	67	63	63	63	61
4	85	74	66	60	83	73	65	59	70	63	58	67	61	57	64	60	56	56	56	54
5	79	67	59	52	76	66	58	52	63	56	51	61	55	50	59	53	49	49	49	47
6	73	61	52	46	71	60	52	46	57	51	45	55	49	45	54	48	44	44	44	42
7	68	55	47	42	66	54	47	41	53	46	41	51	45	40	49	44	40	40	40	38
8	64	51	43	37	62	50	42	37	48	42	37	47	41	36	45	40	36	36	36	34
9	60	47	39	34	58	46	39	34	45	38	33	43	37	33	42	37	33	33	33	31
10	56	43	36	31	54	43	36	31	42	35	30	40	34	30	39	34	30	30	30	28

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	24623	24623	24623	24623
5°	24736	23647	24786	23832
10°	24782	22664	24730	24202
15°	24904	22361	24891	24896
20°	25104	22006	25079	23197
25°	25335	20877	25323	20172
30°	25727	18093	25741	16030
35°	26137	14632	26211	12382
40°	26472	11780	26582	10379
45°	26258	9978	26393	9717
50°	24990	9186	25338	8981
55°	22027	8257	22576	7506
60°	17719	6319	18661	5796
65°	13030	4835	14039	4585
70°	8727	4173	9840	3992
75°	5580	3766	6496	3561
80°	3463	3510	4054	3230
85°	1622	3502	2131	3200

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 180°

Vertical Angle: 45°

Luminance: 26393 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	144.7	4.0
10°-20°	430.6	11.9
20°-30°	654.6	18.0
30°-40°	702.2	19.3
40°-50°	609.5	16.8
50°-60°	451.7	12.4
60°-70°	258.8	7.1
70°-80°	143.3	3.9
80°-90°	87.3	2.4
90°-100°	56.8	1.6
100°-110°	38.0	1.0
110°-120°	25.7	0.7
120°-130°	15.7	0.4
130°-140°	8.3	0.2
140°-150°	3.8	0.1
150°-160°	1.1	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	1229.9	33.9
0°-40°	1932.2	53.2
0°-60°	2993.3	82.4
0°-90°	3482.7	95.9
90°-120°	120.4	3.3
90°-150°	148.2	4.1
90°-180°	149.0	4.1
0°-180°	3632.0	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	1524	1524	1524	1524	1524	
5°	1533	1505	1536	1517	1533	146
15°	1513	1471	1512	1638	1513	428
25°	1462	1376	1461	1329	1462	676
35°	1383	936	1387	792	1383	865
45°	1221	600	1227	585	1221	934
55°	852	450	873	409	852	755
65°	386	228	416	216	386	390
75°	110	145	128	137	110	126
85°	15	100	20	91	15	20
90°	0	83	2	77	0	1
95°	1	68	0	65	1	1
105°	1	51	1	49	1	1
115°	1	42	1	38	1	1
125°	1	32	1	26	1	1
135°	1	20	1	16	1	1
145°	1	12	2	9	1	1
155°	2	6	2	5	2	0
165°	0	0	0	0	0	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°	1523.5	1523.5	1523.5	1523.5	1523.5	1523.5	1523.5	1523.5	1523.5	1523.5	1523.5
2.5°	1534.5	1530.6	1529.0	1525.9	1528.3	1537.7	1531.4	1521.2	1522.0	1503.9	1513.3
5°	1533.0	1528.3	1525.9	1522.7	1524.3	1533.0	1526.7	1516.4	1515.7	1497.6	1506.2
7.5°	1530.6	1525.9	1522.0	1519.6	1520.4	1527.5	1519.6	1507.8	1505.4	1485.8	1493.6
10°	1526.7	1523.5	1518.0	1514.1	1513.3	1521.2	1508.6	1496.8	1491.3	1470.8	1478.7
12.5°	1521.2	1516.4	1510.9	1503.9	1503.1	1507.8	1497.6	1481.0	1475.5	1459.0	1467.7
15°	1513.3	1507.8	1501.5	1493.6	1489.7	1492.8	1480.2	1465.3	1464.5	1450.3	1462.1
17.5°	1504.6	1496.8	1489.7	1478.7	1473.2	1475.5	1465.3	1451.9	1453.5	1444.8	1458.2
20°	1492.8	1484.2	1473.2	1462.1	1454.3	1458.2	1451.1	1440.9	1443.3	1437.0	1448.8
22.5°	1479.5	1467.7	1454.3	1441.7	1435.4	1440.9	1435.4	1426.7	1427.5	1423.6	1430.7
25°	1462.1	1448.8	1433.0	1417.3	1414.1	1418.1	1414.9	1407.9	1404.7	1398.4	1401.6
27.5°	1446.4	1431.5	1411.8	1395.3	1389.8	1397.6	1390.5	1378.7	1370.1	1361.4	1355.1
30°	1428.3	1410.2	1388.2	1369.3	1364.6	1367.7	1357.5	1339.4	1316.6	1305.5	1288.2
32.5°	1408.6	1385.0	1357.5	1336.2	1333.1	1330.7	1311.8	1285.9	1250.5	1228.4	1201.7
35°	1382.7	1356.7	1323.6	1297.7	1293.0	1279.6	1248.9	1214.3	1168.6	1130.8	1085.2
37.5°	1353.6	1322.9	1288.2	1253.6	1240.2	1213.5	1170.2	1134.0	1064.7	1019.1	964.0
40°	1320.5	1283.5	1241.0	1199.3	1177.3	1134.0	1084.4	1030.9	964.0	902.6	856.2
42.5°	1274.9	1235.5	1185.1	1138.7	1100.9	1043.5	985.3	909.7	848.3	796.4	749.2
45°	1220.6	1173.3	1115.1	1059.2	1011.2	942.8	874.3	798.8	747.6	687.0	654.7
47.5°	1150.5	1099.4	1037.2	975.0	912.1	836.5	764.9	692.5	641.4	598.1	574.5
50°	1067.9	1020.7	952.2	878.2	809.0	730.3	658.7	604.4	554.8	528.0	509.9
52.5°	965.6	921.5	851.5	771.2	704.3	627.2	561.9	517.8	482.4	462.7	456.4
55°	851.5	812.9	743.7	668.9	600.4	529.6	480.0	441.5	418.7	406.9	407.6
57.5°	729.5	699.6	634.3	567.4	502.9	449.3	404.5	373.8	356.5	355.7	358.1
60°	607.5	585.5	528.8	471.4	414.7	371.4	338.4	317.1	306.1	306.9	306.1
62.5°	491.1	470.6	429.7	382.5	337.6	308.5	278.6	269.9	260.5	259.7	259.7
65°	386.4	370.7	337.6	303.8	269.9	251.0	236.1	225.9	218.8	217.2	218.0
67.5°	290.4	284.1	261.3	238.4	217.2	205.4	192.8	190.4	184.9	184.9	186.5
70°	216.4	211.7	199.1	185.7	177.1	169.2	162.9	162.9	162.1	161.3	165.3
72.5°	156.6	157.4	153.5	143.2	142.4	140.9	139.3	141.7	142.4	144.8	149.5
75°	110.2	112.5	112.5	111.0	114.1	118.0	120.4	124.3	129.1	132.2	137.7
77.5°	77.9	77.9	81.8	86.6	92.9	99.9	106.2	111.7	118.0	122.0	126.7
80°	50.4	52.7	59.0	67.7	76.3	85.8	94.4	101.5	107.8	114.1	117.3
82.5°	29.9	33.8	41.7	52.7	63.7	75.5	84.2	92.9	99.9	106.2	108.6
85°	15.0	20.5	29.9	41.7	53.5	66.1	77.1	85.0	92.9	98.4	101.5
87.5°	4.7	11.0	21.2	32.3	44.9	57.4	69.3	77.9	85.0	89.7	92.9
90°	0.0	5.5	15.0	26.8	38.6	51.2	62.2	71.6	78.7	82.6	85.0
92.5°	0.0	3.1	11.8	22.0	33.1	45.6	56.7	65.3	71.6	75.5	77.1
95°	0.8	2.4	8.7	18.1	29.1	40.9	51.2	59.0	65.3	69.3	70.0
97.5°	0.8	1.6	7.1	15.0	25.2	36.2	46.4	54.3	59.0	63.0	63.7
100°	0.8	1.6	5.5	13.4	22.0	32.3	41.7	48.8	54.3	57.4	58.2
102.5°	0.8	0.8	4.7	11.0	19.7	28.3	37.0	44.1	48.8	51.9	53.5
105°	0.8	0.8	3.9	9.4	17.3	25.2	33.1	40.1	44.1	47.2	48.8
107.5°	0.8	0.8	3.1	7.9	15.0	22.0	29.9	35.4	40.1	43.3	44.9
110°	0.8	0.8	2.4	7.1	12.6	19.7	26.0	31.5	36.2	39.3	40.9

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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	0.8	0.8	2.4	6.3	11.0	17.3	22.8	28.3	32.3	35.4	37.8
115°	0.8	0.8	2.4	5.5	10.2	15.0	20.5	25.2	29.1	32.3	34.6
117.5°	0.8	0.8	2.4	4.7	8.7	13.4	18.1	22.8	26.0	29.1	31.5
120°	0.8	0.8	1.6	3.9	7.9	11.8	15.7	19.7	23.6	26.8	29.1
122.5°	0.8	0.8	1.6	3.9	6.3	10.2	14.2	17.3	21.2	23.6	26.0
125°	0.8	0.8	1.6	3.1	5.5	9.4	12.6	15.7	18.1	21.2	23.6
127.5°	0.8	0.8	1.6	3.1	4.7	7.9	11.0	14.2	16.5	18.9	20.5
130°	0.8	0.8	1.6	2.4	3.9	6.3	9.4	11.8	15.0	16.5	18.1
132.5°	0.8	0.8	0.8	2.4	3.1	4.7	7.1	10.2	12.6	15.0	15.7
135°	0.8	0.8	0.8	1.6	3.1	3.9	5.5	7.9	10.2	12.6	14.2
137.5°	0.8	0.8	0.8	1.6	2.4	3.9	4.7	6.3	8.7	10.2	12.6
140°	0.8	0.8	0.8	1.6	2.4	3.1	3.9	5.5	7.1	8.7	10.2
142.5°	0.8	0.8	0.8	1.6	1.6	2.4	3.1	4.7	5.5	7.1	8.7
145°	0.8	0.8	0.8	1.6	1.6	2.4	3.1	3.9	4.7	5.5	7.1
147.5°	0.8	0.8	0.8	1.6	1.6	1.6	2.4	3.1	3.9	4.7	5.5
150°	1.6	1.6	1.6	1.6	1.6	1.6	2.4	2.4	3.1	3.9	4.7
152.5°	1.6	1.6	1.6	1.6	1.6	1.6	2.4	2.4	2.4	3.1	3.9
155°	1.6	1.6	1.6	1.6	1.6	1.6	1.6	2.4	2.4	3.1	3.1
157.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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°	1523.5	1523.5	1523.5	1523.5	1523.5	1523.5	1523.5	1523.5	1523.5	1523.5	1523.5
2.5°	1510.2	1511.7	1521.2	1520.4	1518.8	1517.2	1517.2	1515.7	1517.2	1521.2	1519.6
5°	1502.3	1504.6	1511.7	1510.9	1509.4	1508.6	1507.8	1505.4	1507.0	1512.5	1510.9
7.5°	1488.1	1490.5	1496.8	1493.6	1491.3	1492.8	1488.9	1486.5	1489.7	1495.2	1494.4
10°	1473.2	1474.7	1482.6	1481.0	1477.1	1477.9	1474.0	1472.4	1476.3	1479.5	1480.2
12.5°	1462.9	1468.4	1475.5	1474.7	1474.0	1474.7	1470.8	1469.2	1471.6	1474.7	1474.0
15°	1460.6	1467.7	1475.5	1475.5	1476.3	1477.1	1473.2	1470.8	1473.2	1475.5	1474.7
17.5°	1458.2	1466.9	1474.0	1473.2	1474.0	1475.5	1469.2	1467.7	1470.8	1474.0	1472.4
20°	1450.3	1458.2	1462.9	1461.4	1461.4	1462.1	1454.3	1454.3	1459.0	1461.4	1462.1
22.5°	1428.3	1437.8	1437.8	1433.8	1433.8	1430.7	1428.3	1423.6	1429.1	1433.0	1436.2
25°	1395.3	1399.2	1394.5	1385.8	1381.1	1377.2	1366.1	1375.6	1375.6	1387.4	1391.3
27.5°	1348.8	1340.2	1326.8	1308.7	1304.8	1292.2	1285.1	1287.4	1291.4	1307.9	1320.5
30°	1272.5	1246.5	1223.7	1215.8	1198.5	1185.9	1173.3	1179.6	1186.7	1196.2	1222.1
32.5°	1171.8	1146.6	1109.6	1096.2	1078.1	1062.4	1047.4	1056.9	1069.5	1075.8	1104.1
35°	1056.1	1026.2	992.3	969.5	950.6	942.0	923.1	936.5	949.8	954.6	979.0
37.5°	933.3	902.6	872.7	853.1	835.0	829.4	816.9	826.3	836.5	843.6	864.1
40°	816.9	788.5	765.7	752.3	739.7	735.0	730.3	734.2	742.1	747.6	763.3
42.5°	716.9	694.1	678.3	670.5	661.8	655.5	656.3	657.9	661.8	673.6	680.7
45°	629.6	616.2	606.0	604.4	598.9	598.1	597.3	600.4	602.8	609.9	615.4
47.5°	559.5	554.0	551.7	554.8	557.2	554.0	555.6	559.5	564.2	564.2	563.5
50°	504.4	506.0	509.2	516.2	521.0	522.5	524.1	528.8	529.6	531.2	528.8
52.5°	459.6	461.2	469.8	480.8	486.3	488.7	491.8	496.6	496.6	498.1	495.0
55°	413.9	416.3	425.0	436.0	440.7	443.8	447.0	450.1	452.5	455.6	453.3
57.5°	363.6	370.7	376.2	379.3	382.5	384.8	387.2	388.0	392.7	393.5	397.4
60°	310.1	311.6	317.1	316.4	314.0	320.3	317.1	322.6	328.2	335.2	336.0
62.5°	258.9	259.7	263.6	262.1	265.2	264.4	266.8	266.8	270.7	273.9	277.8
65°	218.8	219.6	222.7	222.7	221.9	224.3	226.6	228.2	228.2	230.6	233.7
67.5°	188.9	191.2	194.4	196.0	197.5	197.5	199.9	200.7	202.2	203.0	204.6
70°	168.4	171.6	174.7	176.3	177.1	178.6	179.4	179.4	181.0	181.8	183.4
72.5°	153.5	156.6	159.0	159.0	160.5	161.3	161.3	162.1	162.9	164.5	166.0
75°	140.9	143.2	144.8	144.0	144.0	144.0	144.8	144.8	146.4	147.9	149.5
77.5°	129.1	131.4	131.4	129.8	129.8	129.8	129.8	130.6	131.4	133.0	134.6
80°	120.4	120.4	119.6	119.6	118.0	117.3	117.3	118.0	118.0	119.6	122.0
82.5°	111.0	111.0	110.2	109.4	108.6	107.8	107.8	108.6	109.4	110.2	111.7
85°	102.3	102.3	100.7	100.7	99.9	99.9	99.9	99.9	100.7	101.5	103.1
87.5°	93.6	92.9	92.1	91.3	91.3	91.3	91.3	91.3	92.1	93.6	94.4
90°	85.0	84.2	83.4	83.4	82.6	82.6	83.4	83.4	84.2	85.0	85.8
92.5°	77.1	76.3	75.5	75.5	74.8	74.8	75.5	74.8	76.3	76.3	77.1
95°	70.0	69.3	68.5	68.5	68.5	68.5	68.5	68.5	69.3	69.3	70.0
97.5°	63.7	63.0	62.2	62.2	63.0	62.2	63.0	63.0	63.0	63.7	64.5
100°	58.2	57.4	57.4	58.2	57.4	57.4	58.2	58.2	58.2	58.2	59.0
102.5°	53.5	53.5	53.5	53.5	53.5	53.5	54.3	54.3	54.3	54.3	55.1
105°	48.8	49.6	49.6	49.6	50.4	50.4	50.4	51.2	51.2	51.2	51.2
107.5°	45.6	46.4	46.4	47.2	47.2	48.0	48.0	48.0	48.0	48.8	48.8
110°	42.5	43.3	44.1	44.9	44.9	45.6	45.6	45.6	45.6	45.6	45.6

TEST NUMBER: P1213005

CATALOG NUMBER: 2SNLED-LD5-46HL-LC-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
112.5°	39.3	40.1	40.9	42.5	43.3	43.3	43.3	43.3	44.1	44.1	43.3
115°	36.2	37.8	38.6	40.1	40.9	40.9	41.7	41.7	41.7	41.7	40.9
117.5°	33.1	35.4	36.2	37.8	38.6	38.6	39.3	39.3	39.3	39.3	38.6
120°	30.7	32.3	33.8	34.6	35.4	36.2	36.2	37.0	37.0	37.0	36.2
122.5°	28.3	29.9	31.5	32.3	33.1	33.8	33.8	33.8	33.8	33.8	33.8
125°	25.2	26.8	28.3	29.1	29.9	30.7	30.7	31.5	31.5	31.5	30.7
127.5°	22.8	24.4	25.2	26.8	27.5	27.5	28.3	28.3	28.3	28.3	27.5
130°	19.7	21.2	22.8	23.6	24.4	24.4	25.2	25.2	25.2	25.2	25.2
132.5°	17.3	18.9	19.7	21.2	21.2	22.0	22.0	22.8	22.8	22.8	22.0
135°	15.7	16.5	17.3	18.9	18.9	19.7	19.7	19.7	19.7	19.7	19.7
137.5°	14.2	15.0	15.7	16.5	16.5	17.3	17.3	17.3	17.3	18.1	17.3
140°	11.8	13.4	14.2	14.2	15.0	15.0	15.0	15.7	15.7	15.7	15.0
142.5°	10.2	11.0	11.8	12.6	13.4	13.4	13.4	13.4	14.2	13.4	13.4
145°	7.9	9.4	10.2	11.0	11.8	11.8	11.8	11.8	11.8	11.8	11.8
147.5°	6.3	7.1	8.7	9.4	9.4	10.2	10.2	10.2	10.2	10.2	10.2
150°	5.5	5.5	7.1	7.9	8.7	8.7	8.7	8.7	8.7	8.7	8.7
152.5°	3.9	4.7	5.5	6.3	7.1	7.1	7.1	7.1	7.1	7.1	7.1
155°	3.9	3.9	4.7	4.7	5.5	5.5	5.5	5.5	6.3	5.5	5.5
157.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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

TEST NUMBER: P1213005

CATALOG NUMBER: 2SNLED-LD5-46HL-LC-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	1523.5	1523.5	1523.5	1523.5	1523.5	1523.5	1523.5	1523.5	1523.5	1523.5	1523.5
2.5°	1517.2	1516.4	1519.6	1516.4	1500.7	1507.0	1504.6	1513.3	1514.1	1516.4	1524.3
5°	1509.4	1509.4	1513.3	1510.2	1495.2	1501.5	1500.7	1509.4	1510.9	1512.5	1521.2
7.5°	1493.6	1494.4	1499.9	1497.6	1481.8	1491.3	1490.5	1500.7	1503.9	1507.0	1514.9
10°	1478.7	1477.9	1484.2	1481.8	1466.9	1477.9	1477.1	1487.3	1492.1	1497.6	1507.0
12.5°	1470.8	1468.4	1470.8	1468.4	1451.9	1460.6	1461.4	1473.2	1478.7	1485.8	1496.8
15°	1470.8	1466.9	1466.9	1462.1	1443.3	1448.8	1449.6	1457.4	1464.5	1471.6	1485.0
17.5°	1469.2	1465.3	1464.5	1460.6	1440.1	1440.1	1439.3	1444.8	1448.8	1455.9	1470.0
20°	1460.6	1459.0	1458.2	1455.9	1437.0	1433.8	1432.2	1432.2	1434.6	1437.0	1451.1
22.5°	1437.8	1439.3	1440.9	1442.5	1427.5	1422.0	1422.8	1421.2	1418.9	1418.9	1430.7
25°	1395.3	1403.1	1409.4	1416.5	1407.9	1403.9	1408.6	1406.3	1402.3	1399.2	1409.4
27.5°	1327.6	1344.1	1357.5	1374.8	1375.6	1372.4	1385.0	1383.5	1382.7	1377.9	1385.8
30°	1233.9	1259.9	1278.0	1303.2	1324.4	1327.6	1348.8	1352.0	1355.1	1352.8	1360.6
32.5°	1120.6	1156.0	1186.7	1226.1	1246.5	1264.6	1294.5	1307.1	1319.7	1323.6	1332.3
35°	997.1	1037.2	1073.4	1116.7	1148.9	1188.3	1224.5	1243.4	1271.7	1282.7	1295.3
37.5°	879.8	917.6	953.0	996.3	1048.2	1089.1	1134.0	1176.5	1215.0	1230.8	1249.7
40°	775.9	806.6	840.5	878.2	925.5	979.0	1027.8	1086.8	1132.4	1163.9	1191.4
42.5°	697.2	712.2	741.3	775.1	812.9	867.2	916.8	982.9	1038.0	1082.8	1128.5
45°	627.2	634.3	655.5	673.6	712.2	760.2	812.9	877.4	934.9	992.3	1047.4
47.5°	567.4	576.0	586.3	597.3	624.8	665.0	710.6	768.8	826.3	893.2	956.1
50°	527.3	529.6	531.2	535.9	552.4	580.0	617.0	666.5	721.6	793.2	860.1
52.5°	491.8	491.8	487.1	484.8	491.1	508.4	529.6	565.0	621.7	687.8	758.6
55°	454.1	447.0	445.4	437.5	439.1	447.0	457.2	484.8	531.2	587.9	656.3
57.5°	401.3	398.2	398.2	395.0	388.8	392.7	395.0	414.7	447.8	496.6	556.4
60°	340.7	339.2	343.1	343.9	338.4	340.7	340.0	351.8	375.4	414.7	464.3
62.5°	280.2	287.2	288.0	291.2	288.0	287.2	291.2	301.4	313.2	343.1	381.7
65°	235.3	239.2	240.0	244.0	242.4	242.4	245.5	253.4	260.5	280.9	310.8
67.5°	206.2	204.6	205.4	207.8	205.4	204.6	207.0	211.7	217.2	229.8	251.0
70°	183.4	181.8	181.8	181.8	178.6	176.3	177.1	178.6	181.0	188.1	201.5
72.5°	166.0	166.0	163.7	161.3	159.0	157.4	155.8	154.2	153.5	155.8	162.9
75°	150.3	151.1	150.3	147.9	144.8	141.7	138.5	135.4	131.4	129.8	130.6
77.5°	136.1	136.9	137.7	136.9	133.8	129.8	125.1	120.4	114.9	109.4	106.2
80°	123.6	125.1	125.9	125.1	122.8	119.6	114.1	108.6	100.7	93.6	85.8
82.5°	112.5	114.9	115.7	115.7	114.1	111.0	104.7	98.4	89.7	80.3	70.0
85°	103.9	105.5	107.0	107.0	106.2	103.1	96.8	89.7	81.1	70.0	59.0
87.5°	95.2	96.0	97.6	99.2	97.6	94.4	88.9	81.1	72.4	61.4	48.8
90°	86.6	87.4	88.9	90.5	89.7	86.6	81.8	74.8	65.3	53.5	40.9
92.5°	77.9	79.5	80.3	81.1	81.8	79.5	75.5	68.5	59.0	47.2	35.4
95°	71.6	71.6	73.2	74.0	74.8	72.4	69.3	62.2	53.5	42.5	30.7
97.5°	65.3	65.3	66.9	66.9	67.7	66.1	63.0	56.7	48.0	37.8	26.0
100°	59.0	59.8	60.6	61.4	61.4	60.6	57.4	51.2	43.3	33.8	22.8
102.5°	55.1	55.1	55.9	55.9	56.7	55.1	51.9	46.4	38.6	29.9	19.7
105°	51.2	51.2	51.9	51.9	51.2	49.6	46.4	41.7	34.6	26.0	17.3
107.5°	48.0	48.0	48.0	48.0	47.2	45.6	42.5	37.0	30.7	23.6	15.7
110°	45.6	44.9	44.9	44.1	43.3	40.9	37.8	33.1	27.5	20.5	13.4

TEST NUMBER: P1213005

CATALOG NUMBER: 2SNLED-LD5-46HL-LC-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
112.5°	43.3	42.5	41.7	40.9	39.3	37.0	33.8	29.9	24.4	18.1	11.8
115°	40.9	40.1	39.3	37.8	36.2	33.8	30.7	26.8	21.2	15.7	10.2
117.5°	38.6	37.8	36.2	34.6	33.1	30.7	27.5	23.6	18.9	14.2	9.4
120°	35.4	34.6	33.8	32.3	30.7	27.5	24.4	21.2	16.5	12.6	7.9
122.5°	33.1	32.3	30.7	29.9	27.5	25.2	22.0	18.9	15.0	11.0	7.1
125°	29.9	29.1	28.3	26.8	25.2	22.0	19.7	16.5	13.4	9.4	5.5
127.5°	27.5	26.8	25.2	23.6	22.0	19.7	17.3	15.0	11.8	7.9	5.5
130°	24.4	23.6	22.8	21.2	19.7	17.3	15.7	12.6	10.2	7.1	4.7
132.5°	21.2	21.2	20.5	18.9	17.3	15.7	13.4	11.0	8.7	6.3	3.9
135°	19.7	18.9	18.1	16.5	15.7	13.4	11.8	9.4	7.1	5.5	3.1
137.5°	17.3	16.5	15.7	15.0	13.4	11.8	10.2	7.9	6.3	4.7	3.1
140°	15.0	14.2	14.2	12.6	11.8	10.2	8.7	7.1	5.5	3.9	2.4
142.5°	13.4	12.6	11.8	11.0	10.2	8.7	7.1	5.5	4.7	3.1	2.4
145°	11.8	11.0	10.2	9.4	8.7	7.1	6.3	4.7	3.9	3.1	2.4
147.5°	9.4	9.4	8.7	7.9	7.1	6.3	5.5	4.7	3.1	2.4	1.6
150°	7.9	7.9	7.1	6.3	6.3	5.5	4.7	3.9	3.1	2.4	1.6
152.5°	7.1	6.3	6.3	5.5	5.5	4.7	3.9	3.1	2.4	2.4	1.6
155°	5.5	5.5	5.5	4.7	4.7	3.9	3.1	3.1	2.4	1.6	1.6
157.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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

TEST NUMBER: P1213005

CATALOG NUMBER: 2SNLED-LD5-46HL-LC-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
0°	1523.5	1523.5	1523.5	1523.5	1523.5	1523.5	1523.5	1523.5	1523.5	1523.5	1523.5
2.5°	1525.9	1516.4	1524.3	1538.5	1536.9	1535.3	1533.8	1536.9	1547.1	1541.6	1533.0
5°	1523.5	1514.1	1522.7	1536.1	1535.3	1533.0	1531.4	1534.5	1544.8	1539.3	1529.8
7.5°	1518.8	1510.2	1516.4	1529.8	1529.8	1528.3	1526.7	1529.8	1539.3	1534.5	1525.1
10°	1510.9	1504.6	1510.9	1523.5	1524.3	1521.2	1519.6	1523.5	1533.0	1530.6	1522.7
12.5°	1504.6	1498.3	1505.4	1518.0	1518.8	1515.7	1513.3	1518.0	1530.6	1532.2	1529.8
15°	1496.0	1490.5	1499.1	1512.5	1512.5	1510.2	1510.2	1516.4	1533.8	1540.8	1544.8
17.5°	1483.4	1479.5	1489.7	1503.1	1503.9	1502.3	1503.1	1515.7	1538.5	1555.8	1566.8
20°	1467.7	1466.1	1477.1	1491.3	1493.6	1494.4	1498.3	1517.2	1548.7	1572.3	1583.3
22.5°	1448.8	1449.6	1462.1	1477.1	1480.2	1482.6	1490.5	1517.2	1556.6	1581.8	1586.5
25°	1427.5	1429.9	1443.3	1461.4	1465.3	1470.0	1483.4	1518.0	1558.9	1575.5	1567.6
27.5°	1404.7	1409.4	1426.7	1445.6	1450.3	1458.2	1475.5	1513.3	1547.9	1548.7	1519.6
30°	1381.1	1386.6	1407.1	1429.1	1437.0	1444.8	1466.1	1502.3	1521.2	1496.0	1444.8
32.5°	1354.3	1362.2	1382.7	1409.4	1418.9	1429.1	1450.3	1481.0	1474.0	1419.7	1346.5
35°	1320.5	1331.5	1355.1	1386.6	1395.3	1408.6	1423.6	1430.7	1399.2	1322.1	1239.4
37.5°	1278.8	1295.3	1322.9	1359.1	1368.5	1377.2	1381.1	1361.4	1298.5	1215.0	1129.3
40°	1230.8	1256.0	1285.9	1326.0	1335.5	1335.5	1321.3	1279.6	1200.1	1090.7	995.5
42.5°	1172.6	1203.2	1241.0	1281.2	1290.6	1279.6	1245.7	1172.6	1082.1	960.1	859.3
45°	1101.7	1142.6	1185.1	1226.9	1231.6	1207.2	1146.6	1053.7	942.0	828.7	732.6
47.5°	1017.5	1071.0	1117.5	1164.7	1158.4	1117.5	1036.4	931.0	812.9	705.9	628.8
50°	923.1	986.0	1038.0	1082.8	1069.5	1012.8	917.6	807.4	690.2	598.9	535.1
52.5°	822.4	894.8	946.7	982.9	964.8	897.1	792.5	687.0	591.0	507.6	465.1
55°	717.7	790.9	844.4	872.7	849.1	775.9	672.8	576.8	486.3	432.0	406.9
57.5°	616.2	684.6	735.0	757.8	727.9	654.7	559.5	478.5	413.1	367.5	354.9
60°	518.6	574.5	622.5	639.8	607.5	539.8	458.0	393.5	345.5	314.0	307.7
62.5°	428.1	473.7	511.5	524.9	493.4	440.7	369.9	321.9	288.0	272.3	264.4
65°	353.3	380.1	418.7	416.3	397.4	348.6	296.7	262.8	240.8	230.6	225.9
67.5°	277.8	302.2	326.6	329.7	306.1	272.3	238.4	214.0	202.2	196.7	194.4
70°	214.8	232.9	247.9	244.0	231.4	210.1	188.9	175.5	170.8	168.4	168.4
72.5°	166.8	176.3	183.4	178.6	170.8	159.8	149.5	144.0	144.8	146.4	147.9
75°	129.1	131.4	133.0	128.3	126.7	119.6	118.8	119.6	124.3	129.1	131.4
77.5°	99.2	96.0	93.6	88.9	89.7	88.9	92.9	99.2	106.2	113.3	119.6
80°	76.3	69.3	63.7	59.0	61.4	65.3	73.2	82.6	92.1	99.9	107.8
82.5°	59.0	48.8	40.9	36.2	40.9	47.2	57.4	69.3	80.3	88.9	97.6
85°	45.6	33.8	24.4	19.7	24.4	33.8	44.9	58.2	70.0	79.5	88.1
87.5°	35.4	24.4	13.4	7.9	13.4	23.6	36.2	48.8	60.6	71.6	80.3
90°	28.3	16.5	6.3	1.6	7.1	16.5	28.3	40.9	52.7	64.5	73.2
92.5°	22.8	11.8	3.1	0.0	3.9	12.6	23.6	35.4	47.2	58.2	66.9
95°	18.9	9.4	2.4	0.0	3.1	9.4	18.9	30.7	41.7	52.7	59.8
97.5°	15.7	7.1	1.6	0.0	1.6	7.9	15.7	26.0	37.0	47.2	54.3
100°	13.4	6.3	1.6	0.0	1.6	6.3	13.4	22.8	32.3	41.7	48.8
102.5°	11.0	4.7	0.8	0.8	0.8	4.7	11.8	19.7	28.3	37.0	44.1
105°	10.2	3.9	0.8	0.8	0.8	3.9	10.2	17.3	25.2	33.1	39.3
107.5°	8.7	3.1	0.8	0.8	0.8	3.1	8.7	15.0	22.8	29.9	35.4
110°	7.1	3.1	0.8	0.8	0.8	3.1	7.1	13.4	19.7	26.0	31.5



TEST NUMBER: P1213005

CATALOG NUMBER: 2SNLED-LD5-46HL-LC-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
112.5°	6.3	2.4	0.8	0.8	0.8	2.4	6.3	11.8	17.3	23.6	28.3
115°	5.5	2.4	0.8	0.8	0.8	2.4	5.5	10.2	15.0	20.5	25.2
117.5°	4.7	2.4	0.8	0.8	0.8	1.6	4.7	8.7	13.4	18.1	22.8
120°	3.9	1.6	0.8	0.8	0.8	1.6	3.9	7.9	11.8	15.7	19.7
122.5°	3.9	1.6	0.8	0.8	0.8	1.6	3.1	6.3	10.2	13.4	17.3
125°	3.1	1.6	0.8	0.8	0.8	0.8	3.1	5.5	8.7	11.8	15.0
127.5°	3.1	1.6	0.8	0.8	0.8	0.8	2.4	4.7	7.1	10.2	13.4
130°	2.4	1.6	0.8	0.8	0.8	0.8	1.6	3.9	6.3	8.7	11.0
132.5°	2.4	1.6	0.8	0.8	0.8	0.8	1.6	3.1	4.7	7.1	9.4
135°	2.4	0.8	0.8	0.8	0.8	0.8	0.8	2.4	3.9	5.5	7.1
137.5°	1.6	0.8	0.8	0.8	0.8	0.8	0.8	1.6	3.1	3.9	6.3
140°	1.6	0.8	0.8	0.8	0.8	0.8	0.8	1.6	2.4	3.1	4.7
142.5°	1.6	0.8	0.8	0.8	0.8	0.8	0.8	0.8	1.6	2.4	3.9
145°	1.6	0.8	0.8	1.6	1.6	0.8	0.8	1.6	1.6	2.4	3.1
147.5°	1.6	0.8	0.8	0.8	0.8	0.8	0.8	0.8	1.6	1.6	2.4
150°	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	2.4
152.5°	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
155°	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
157.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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

TEST NUMBER: P1213005

CATALOG NUMBER: 2SNLED-LD5-46HL-LC-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
0°	1523.5	1523.5	1523.5	1523.5	1523.5	1523.5	1523.5	1523.5	1523.5	1523.5	1523.5
2.5°	1531.4	1513.3	1522.7	1519.6	1522.7	1530.6	1529.8	1527.5	1529.0	1525.1	1521.2
5°	1528.3	1510.2	1519.6	1515.7	1519.6	1527.5	1525.9	1523.5	1525.9	1521.2	1517.2
7.5°	1524.3	1507.8	1518.8	1518.0	1525.1	1535.3	1536.1	1536.1	1541.6	1534.5	1531.4
10°	1524.3	1515.7	1530.6	1536.1	1554.2	1567.6	1569.2	1572.3	1581.8	1580.2	1572.3
12.5°	1540.8	1539.3	1561.3	1574.7	1591.2	1610.1	1620.3	1623.5	1629.8	1625.0	1621.9
15°	1562.1	1570.0	1594.4	1609.3	1627.4	1641.6	1643.9	1645.5	1650.2	1643.1	1637.6
17.5°	1590.4	1595.1	1614.8	1621.1	1632.9	1635.3	1632.1	1624.3	1624.3	1608.5	1603.8
20°	1603.8	1601.4	1609.3	1599.1	1594.4	1580.2	1566.8	1551.9	1551.1	1534.5	1533.0
22.5°	1592.0	1576.3	1559.7	1534.5	1523.5	1503.1	1485.0	1476.3	1470.8	1449.6	1444.1
25°	1550.3	1511.7	1487.3	1457.4	1430.7	1407.1	1389.8	1371.7	1354.3	1337.0	1329.2
27.5°	1477.9	1441.7	1402.3	1360.6	1323.6	1287.4	1258.3	1240.2	1223.7	1200.9	1189.1
30°	1389.0	1338.6	1295.3	1255.2	1194.6	1150.5	1126.1	1089.9	1077.3	1067.1	1045.1
32.5°	1284.3	1223.7	1164.7	1110.4	1048.2	1007.3	975.0	948.3	940.4	913.6	907.4
35°	1168.6	1089.1	1022.2	968.7	923.9	874.3	847.5	829.4	813.7	795.6	792.5
37.5°	1032.5	960.9	885.3	838.1	802.7	760.2	739.7	727.1	720.1	706.7	704.3
40°	895.5	823.9	772.0	724.8	702.7	679.9	665.0	659.5	656.3	651.6	646.9
42.5°	771.2	708.3	671.3	639.8	630.3	619.3	615.4	618.5	615.4	613.8	613.0
45°	665.8	617.8	591.8	582.3	580.0	576.8	580.0	585.5	586.3	584.7	584.7
47.5°	569.8	546.9	535.9	537.5	541.4	543.8	549.3	556.4	557.9	554.0	555.6
50°	506.8	493.4	491.1	497.4	506.0	509.2	515.5	521.0	520.2	518.6	517.0
52.5°	447.8	443.8	450.1	456.4	465.9	467.4	469.8	472.2	471.4	468.2	466.7
55°	398.2	401.3	406.9	409.2	416.3	415.5	416.3	416.3	413.1	411.6	409.2
57.5°	353.3	354.1	357.3	358.1	362.0	360.4	359.6	358.1	353.3	352.6	350.2
60°	307.7	306.1	313.2	307.7	310.8	307.7	306.9	303.0	298.3	297.5	295.9
62.5°	264.4	261.3	266.0	263.6	265.2	262.1	260.5	255.8	251.8	251.0	250.2
65°	225.9	224.3	229.0	228.2	229.8	225.9	224.3	221.1	218.0	217.2	216.4
67.5°	193.6	197.5	199.9	199.9	201.5	200.7	196.7	196.0	195.2	192.0	192.0
70°	170.0	172.3	177.1	177.9	177.1	178.6	175.5	174.7	173.9	172.3	171.6
72.5°	151.1	154.2	159.0	159.8	159.0	159.0	157.4	156.6	156.6	154.2	154.2
75°	136.1	140.1	144.0	144.0	144.0	142.4	140.9	140.9	139.3	138.5	136.9
77.5°	123.6	128.3	131.4	130.6	129.8	128.3	128.3	125.9	123.6	123.6	122.0
80°	114.1	117.3	119.6	118.8	118.0	115.7	114.9	112.5	111.0	108.6	108.6
82.5°	103.9	107.8	109.4	108.6	107.0	104.7	103.9	102.3	100.7	99.9	98.4
85°	95.2	99.2	99.9	98.4	96.8	95.2	94.4	93.6	92.9	91.3	91.3
87.5°	86.6	90.5	90.5	89.7	88.1	87.4	86.6	85.8	85.0	84.2	83.4
90°	79.5	82.6	82.6	81.8	81.1	80.3	79.5	78.7	77.9	77.1	77.1
92.5°	72.4	75.5	75.5	74.8	74.0	73.2	73.2	72.4	71.6	70.8	70.0
95°	66.1	69.3	69.3	69.3	68.5	67.7	67.7	66.9	66.1	66.1	65.3
97.5°	59.8	63.0	63.0	63.0	62.2	61.4	61.4	60.6	60.6	60.6	59.8
100°	54.3	56.7	57.4	57.4	56.7	56.7	56.7	55.9	55.9	55.9	55.1
102.5°	48.8	51.2	52.7	52.7	52.7	51.9	51.9	51.9	51.9	51.9	51.2
105°	44.1	46.4	48.0	48.8	48.8	48.8	48.8	48.8	48.8	48.8	48.8
107.5°	40.1	42.5	44.1	44.9	45.6	45.6	46.4	46.4	46.4	46.4	46.4
110°	36.2	38.6	40.9	41.7	42.5	43.3	43.3	44.1	43.3	43.3	43.3

TEST NUMBER: P1213005

CATALOG NUMBER: 2SNLED-LD5-46HL-LC-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
112.5°	32.3	35.4	37.0	38.6	39.3	40.1	40.9	40.9	40.9	40.9	40.9
115°	29.1	32.3	33.8	35.4	37.0	37.8	37.8	38.6	38.6	38.6	37.8
117.5°	26.0	29.1	30.7	32.3	33.1	34.6	35.4	35.4	35.4	35.4	34.6
120°	23.6	26.0	27.5	29.1	30.7	31.5	32.3	32.3	32.3	32.3	32.3
122.5°	20.5	22.8	25.2	26.8	27.5	28.3	29.1	29.1	29.1	29.1	29.1
125°	18.1	20.5	22.0	23.6	24.4	26.0	26.0	26.0	26.0	26.0	26.0
127.5°	15.7	18.1	19.7	21.2	22.0	22.8	23.6	23.6	23.6	23.6	23.6
130°	13.4	15.7	17.3	18.9	19.7	20.5	20.5	21.2	21.2	21.2	21.2
132.5°	11.8	13.4	15.0	16.5	17.3	18.1	18.1	18.9	18.9	18.9	18.9
135°	9.4	11.8	12.6	14.2	15.0	15.7	15.7	16.5	16.5	16.5	16.5
137.5°	7.9	9.4	11.0	12.6	13.4	13.4	14.2	14.2	15.0	15.0	15.0
140°	6.3	7.1	9.4	10.2	11.0	11.8	12.6	12.6	12.6	12.6	12.6
142.5°	4.7	6.3	7.1	8.7	9.4	10.2	11.0	11.0	11.0	11.0	11.0
145°	3.9	4.7	5.5	7.1	7.9	8.7	9.4	9.4	9.4	9.4	9.4
147.5°	3.1	3.9	4.7	5.5	6.3	7.1	7.9	7.9	7.9	7.9	7.9
150°	2.4	3.1	3.9	3.9	4.7	5.5	6.3	7.1	7.1	7.1	7.1
152.5°	2.4	2.4	3.1	3.1	3.9	4.7	5.5	5.5	5.5	5.5	5.5
155°	1.6	2.4	2.4	2.4	3.1	3.1	3.9	4.7	4.7	4.7	4.7
157.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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

TEST NUMBER: P1213005

CATALOG NUMBER: 2SNLED-LD5-46HL-LC-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°
0°	1523.5	1523.5	1523.5	1523.5	1523.5	1523.5	1523.5	1523.5	1523.5	1523.5	1523.5
2.5°	1523.5	1526.7	1525.1	1522.7	1522.0	1525.9	1522.0	1503.9	1510.9	1511.7	1517.2
5°	1521.2	1523.5	1522.0	1520.4	1518.0	1522.7	1518.0	1499.1	1506.2	1507.0	1512.5
7.5°	1536.9	1537.7	1537.7	1533.8	1527.5	1529.8	1523.5	1502.3	1506.2	1506.2	1510.2
10°	1576.3	1577.8	1580.2	1570.0	1562.1	1555.8	1547.1	1521.2	1520.4	1514.1	1514.1
12.5°	1627.4	1623.5	1619.5	1614.8	1608.5	1600.7	1588.1	1557.4	1547.1	1536.9	1526.7
15°	1642.4	1640.8	1640.0	1637.6	1633.7	1631.3	1621.9	1591.2	1576.3	1563.7	1545.6
17.5°	1603.0	1606.2	1616.4	1617.2	1621.9	1631.3	1629.8	1608.5	1595.1	1589.6	1567.6
20°	1532.2	1533.0	1545.6	1551.1	1571.5	1587.3	1599.1	1596.7	1593.6	1599.9	1583.3
22.5°	1447.2	1452.7	1466.1	1474.7	1494.4	1512.5	1531.4	1541.6	1558.2	1584.1	1581.0
25°	1331.5	1338.6	1357.5	1371.7	1399.2	1426.7	1451.9	1470.0	1489.7	1539.3	1555.8
27.5°	1193.0	1204.0	1228.4	1242.6	1281.2	1309.5	1345.7	1381.1	1408.6	1465.3	1499.1
30°	1047.4	1056.9	1082.8	1102.5	1135.6	1174.1	1219.8	1270.1	1315.8	1373.2	1415.7
32.5°	911.3	921.5	942.8	960.1	997.1	1029.3	1079.7	1141.9	1184.4	1263.8	1320.5
35°	792.5	801.9	816.9	831.8	862.5	895.5	938.8	999.4	1053.7	1136.4	1208.0
37.5°	709.0	710.6	719.3	727.9	750.7	775.9	809.8	863.3	913.6	1002.6	1081.3
40°	649.2	649.2	654.0	656.3	666.5	681.5	702.7	744.5	786.2	853.8	949.8
42.5°	612.2	610.7	610.7	611.5	610.7	617.8	630.3	650.0	687.0	742.9	817.6
45°	584.7	581.6	579.2	573.7	570.5	570.5	571.3	578.4	599.7	635.9	696.4
47.5°	554.0	553.2	549.3	543.0	537.5	533.6	527.3	524.9	531.2	551.7	592.6
50°	518.6	514.7	510.7	506.0	499.7	495.8	484.0	484.8	479.3	488.7	509.9
52.5°	466.7	463.5	461.9	458.0	455.6	454.1	444.6	435.2	432.8	434.4	442.3
55°	409.2	410.8	404.5	407.6	406.9	399.8	395.8	388.8	386.4	385.6	389.5
57.5°	349.4	351.0	347.0	350.2	350.2	346.3	343.9	343.9	338.4	333.7	339.2
60°	295.1	292.0	294.3	298.3	298.3	295.9	294.3	294.3	290.4	288.8	292.7
62.5°	251.0	247.9	250.2	254.2	255.0	253.4	251.8	251.8	247.1	247.1	250.2
65°	217.2	218.0	217.2	220.3	220.3	221.1	219.6	218.0	212.5	214.8	214.0
67.5°	192.8	192.0	192.0	195.2	194.4	196.0	194.4	192.0	188.1	184.9	184.1
70°	172.3	171.6	171.6	173.1	173.9	173.9	173.1	171.6	166.0	162.9	160.5
72.5°	154.2	153.5	154.2	155.0	155.8	156.6	155.8	154.2	149.5	145.6	141.7
75°	137.7	136.9	139.3	139.3	140.1	140.1	140.9	140.1	136.1	131.4	126.7
77.5°	121.2	122.0	124.3	125.1	126.7	127.5	128.3	128.3	124.3	120.4	114.1
80°	107.8	109.4	111.0	111.7	113.3	115.7	116.5	117.3	114.1	110.2	103.1
82.5°	98.4	99.2	100.7	101.5	103.9	104.7	105.5	107.0	105.5	101.5	93.6
85°	90.5	91.3	92.9	92.9	94.4	96.0	96.8	97.6	96.8	92.9	85.0
87.5°	83.4	84.2	85.0	85.8	86.6	87.4	88.1	88.9	88.1	84.2	77.1
90°	77.1	77.1	77.9	77.9	78.7	79.5	81.1	81.1	80.3	77.1	70.0
92.5°	70.0	70.8	70.8	71.6	72.4	73.2	74.0	74.0	73.2	70.0	63.7
95°	65.3	65.3	66.1	66.1	66.9	66.9	67.7	67.7	66.9	63.7	57.4
97.5°	59.8	59.8	59.8	59.8	60.6	60.6	61.4	61.4	60.6	57.4	51.9
100°	55.1	55.1	55.1	55.1	55.1	55.9	55.9	55.9	55.1	51.9	46.4
102.5°	51.2	51.2	51.2	51.2	51.2	51.2	51.2	51.2	49.6	47.2	41.7
105°	48.8	48.8	48.8	48.0	48.0	48.0	47.2	47.2	44.9	42.5	37.8
107.5°	45.6	45.6	45.6	44.9	44.9	44.1	43.3	43.3	40.9	38.6	33.8
110°	43.3	43.3	43.3	42.5	41.7	40.9	40.1	39.3	37.0	33.8	29.9

TEST NUMBER: P1213005

CATALOG NUMBER: 2SNLED-LD5-46HL-LC-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°
112.5°	40.9	40.9	40.1	40.1	39.3	38.6	37.0	36.2	33.8	30.7	26.8
115°	37.8	37.8	37.8	37.0	36.2	35.4	34.6	33.1	30.7	27.5	23.6
117.5°	34.6	34.6	34.6	33.8	33.1	32.3	31.5	29.9	27.5	24.4	21.2
120°	31.5	31.5	31.5	30.7	29.9	29.1	28.3	26.8	24.4	22.0	18.1
122.5°	29.1	29.1	28.3	27.5	26.8	26.0	25.2	23.6	22.0	18.9	15.7
125°	26.0	26.0	25.2	25.2	24.4	23.6	22.8	21.2	18.9	16.5	14.2
127.5°	23.6	22.8	22.8	22.8	22.0	21.2	19.7	18.9	16.5	14.2	11.8
130°	20.5	20.5	20.5	19.7	19.7	18.9	17.3	15.7	14.2	12.6	10.2
132.5°	18.1	18.1	18.1	18.1	17.3	16.5	15.0	14.2	12.6	10.2	8.7
135°	16.5	16.5	15.7	15.7	15.0	14.2	13.4	11.8	10.2	8.7	7.1
137.5°	14.2	14.2	14.2	13.4	13.4	12.6	11.0	10.2	9.4	7.9	6.3
140°	12.6	12.6	11.8	11.8	11.0	11.0	10.2	8.7	7.9	6.3	5.5
142.5°	11.0	11.0	10.2	10.2	9.4	9.4	8.7	7.9	6.3	5.5	3.9
145°	9.4	9.4	8.7	8.7	8.7	7.9	7.1	6.3	5.5	4.7	3.9
147.5°	7.9	7.9	7.9	7.1	7.1	6.3	6.3	5.5	4.7	3.9	3.1
150°	7.1	7.1	6.3	6.3	6.3	5.5	4.7	4.7	3.9	3.1	2.4
152.5°	5.5	5.5	5.5	5.5	4.7	4.7	3.9	3.9	3.1	2.4	2.4
155°	4.7	4.7	4.7	3.9	3.9	3.9	3.1	3.1	2.4	2.4	1.6
157.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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

TEST NUMBER: P1213005

CATALOG NUMBER: 2SNLED-LD5-46HL-LC-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	330°	335°	340°	345°	350°	355°	360°
0°	1523.5	1523.5	1523.5	1523.5	1523.5	1523.5	1523.5
2.5°	1514.9	1514.1	1521.2	1520.4	1510.9	1525.1	1534.5
5°	1510.9	1510.2	1516.4	1518.0	1507.8	1522.7	1533.0
7.5°	1507.8	1507.0	1514.1	1516.4	1506.2	1519.6	1530.6
10°	1508.6	1504.6	1510.9	1512.5	1503.1	1517.2	1526.7
12.5°	1514.1	1504.6	1507.0	1507.0	1498.3	1510.9	1521.2
15°	1527.5	1507.8	1504.6	1502.3	1491.3	1503.1	1513.3
17.5°	1542.4	1515.7	1504.6	1496.8	1483.4	1493.6	1504.6
20°	1557.4	1524.3	1506.2	1493.6	1475.5	1485.0	1492.8
22.5°	1564.5	1532.2	1507.8	1488.9	1466.1	1470.8	1479.5
25°	1555.0	1529.0	1504.6	1481.8	1454.3	1455.1	1462.1
27.5°	1520.4	1513.3	1497.6	1474.7	1444.8	1440.9	1446.4
30°	1461.4	1481.0	1481.8	1465.3	1433.8	1426.0	1428.3
32.5°	1378.7	1422.8	1448.8	1445.6	1418.1	1407.1	1408.6
35°	1283.5	1338.6	1395.3	1414.1	1394.5	1385.8	1382.7
37.5°	1169.4	1243.4	1318.9	1365.4	1362.2	1356.7	1353.6
40°	1043.5	1132.4	1222.1	1296.1	1318.9	1318.9	1320.5
42.5°	908.9	1012.8	1111.2	1204.8	1258.3	1270.1	1274.9
45°	779.1	883.7	990.8	1098.6	1170.2	1207.2	1220.6
47.5°	661.0	766.5	868.0	986.0	1081.3	1129.3	1150.5
50°	560.3	639.0	746.0	863.3	967.2	1026.2	1067.9
52.5°	476.9	538.3	631.9	741.3	846.0	927.0	965.6
55°	406.9	448.6	528.0	622.5	722.4	806.6	851.5
57.5°	347.8	380.9	435.2	513.9	598.1	681.5	729.5
60°	295.9	318.7	355.7	417.9	489.5	561.1	607.5
62.5°	251.0	266.0	290.4	336.0	391.9	447.8	491.1
65°	216.4	222.7	236.1	264.4	306.9	349.4	386.4
67.5°	182.6	186.5	196.7	214.0	235.3	266.0	290.4
70°	157.4	157.4	158.2	168.4	179.4	199.1	216.4
72.5°	136.9	134.6	129.8	132.2	134.6	145.6	156.6
75°	120.4	114.9	107.0	103.9	102.3	103.9	110.2
77.5°	106.2	98.4	88.9	81.1	74.8	72.4	77.9
80°	94.4	85.0	74.0	63.7	53.5	48.0	50.4
82.5°	85.0	73.2	61.4	49.6	37.8	29.9	29.9
85°	74.8	63.7	51.2	38.6	26.8	16.5	15.0
87.5°	67.7	55.9	42.5	30.7	18.9	8.7	4.7
90°	60.6	48.8	36.2	24.4	13.4	3.9	0.0
92.5°	54.3	43.3	31.5	19.7	9.4	2.4	0.0
95°	48.8	38.6	26.8	16.5	7.9	1.6	0.8
97.5°	43.3	33.8	23.6	13.4	5.5	1.6	0.8
100°	39.3	29.9	20.5	11.0	4.7	0.8	0.8
102.5°	34.6	26.8	17.3	9.4	3.9	0.8	0.8
105°	30.7	23.6	15.0	7.9	3.1	0.8	0.8
107.5°	27.5	20.5	13.4	7.1	3.1	0.8	0.8
110°	24.4	18.1	11.8	6.3	2.4	0.8	0.8



TEST NUMBER: P1213005

CATALOG NUMBER: 2SNLED-LD5-46HL-LC-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	330°	335°	340°	345°	350°	355°	360°
112.5°	22.0	15.7	10.2	5.5	1.6	0.8	0.8
115°	18.9	14.2	8.7	4.7	1.6	0.8	0.8
117.5°	16.5	11.8	7.9	3.9	1.6	0.8	0.8
120°	14.2	10.2	6.3	3.1	0.8	0.8	0.8
122.5°	12.6	8.7	5.5	3.1	0.8	0.8	0.8
125°	11.0	7.9	4.7	2.4	0.8	0.8	0.8
127.5°	9.4	6.3	3.9	1.6	0.8	0.8	0.8
130°	7.9	5.5	3.1	1.6	0.8	0.8	0.8
132.5°	6.3	4.7	3.1	1.6	0.8	0.8	0.8
135°	5.5	3.9	2.4	1.6	0.8	0.8	0.8
137.5°	4.7	3.1	1.6	1.6	1.6	0.8	0.8
140°	3.9	2.4	1.6	1.6	1.6	1.6	0.8
142.5°	3.1	2.4	1.6	1.6	1.6	1.6	0.8
145°	2.4	1.6	1.6	1.6	1.6	1.6	0.8
147.5°	2.4	1.6	1.6	1.6	1.6	1.6	0.8
150°	1.6	1.6	1.6	1.6	1.6	1.6	1.6
152.5°	1.6	1.6	1.6	1.6	1.6	1.6	1.6
155°	1.6	1.6	1.6	1.6	1.6	1.6	1.6
157.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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)