

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: P1213448

Luminaire Tested: 4SNLED-LD5-50HL-LN-UNV-L935-CD1-U

Issue Date: 3/29/2018

Test Information

Test Method: LM-79-2019
Report Number: P1213448
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-LD5-50HL-LN-UNV-L935-CD1-U
Description: 4FT LINEAR SNLED LED FIXTURE
NARROW LENS
Light Source: -
Ballast/Driver: -

Summary

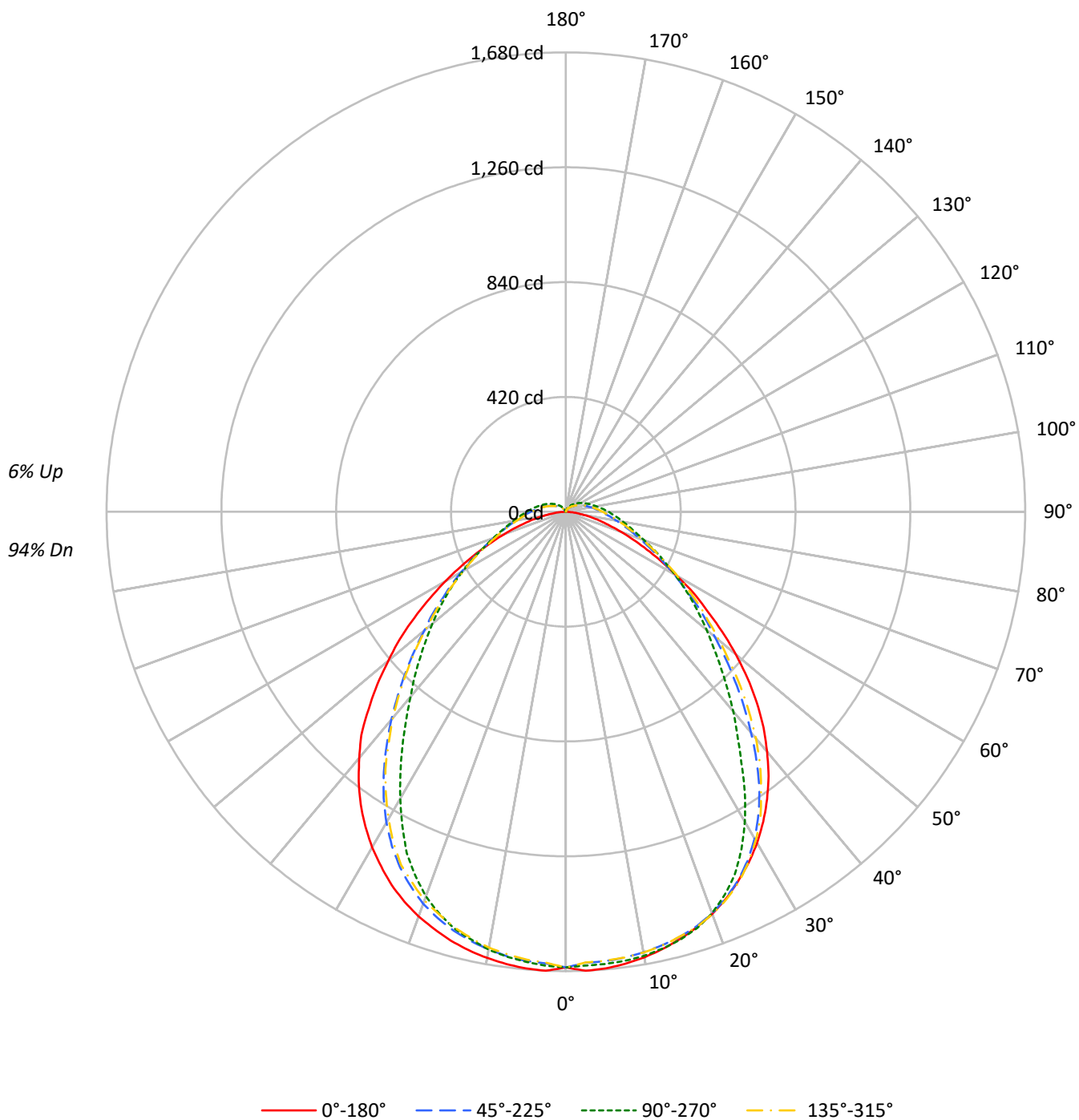
Lumens per Lamp: N/A
Luminaire Lumens: 4217.0 lumens
Efficiency: N/A
Efficacy: 114.0 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.14 / 1.24
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.12')
CIE Type: Direct

Input Watts (W): 37
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°	13465	13465	13465	13465
5°	13562	13037	13562	12979
10°	13501	12690	13523	12514
15°	13414	12311	13475	11991
20°	13311	11823	13390	11324
25°	13097	11100	13242	10447
30°	12820	10038	12988	9293
35°	12388	8735	12626	8134
40°	11768	7640	12078	7088
45°	10950	6641	11305	6260
50°	9832	5835	10265	5541
55°	8505	5154	9123	4892
60°	7152	4524	7799	4264
65°	5864	4000	6455	3709
70°	4667	3550	5224	3284
75°	3666	3278	4127	3016
80°	2645	3162	3115	2890
85°	1626	3181	2193	2923

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 180°

Vertical Angle: 45°

Luminance: 11305 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	158.0	3.7
10°-20°	453.0	10.7
20°-30°	671.3	15.9
30°-40°	745.8	17.7
40°-50°	676.1	16.0
50°-60°	523.9	12.4
60°-70°	355.8	8.4
70°-80°	226.3	5.4
80°-90°	144.7	3.4
90°-100°	97.6	2.3
100°-110°	66.8	1.6
110°-120°	44.6	1.1
120°-130°	27.7	0.7
130°-140°	15.3	0.4
140°-150°	7.2	0.2
150°-160°	2.6	0.1
160°-170°	0.2	0.0
170°-180°	0.0	0.0
0°-30°	1282.3	30.4
0°-40°	2028.2	48.1
0°-60°	3228.2	76.6
0°-90°	3955.0	93.8
90°-120°	209.0	5.0
90°-150°	259.2	6.1
90°-180°	262.0	6.2
0°-180°	4217.0	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	1666	1666	1666	1666	1666	
5°	1676	1660	1676	1653	1676	159
15°	1617	1620	1624	1577	1617	456
25°	1490	1463	1507	1377	1490	686
35°	1283	1118	1308	1041	1283	800
45°	988	799	1020	753	988	759
55°	631	562	676	533	631	568
65°	327	378	360	350	327	328
75°	131	252	148	232	131	141
85°	24	182	32	167	24	29
90°	0	157	2	143	0	1
95°	1	134	0	125	1	1
105°	1	98	0	93	1	1
115°	1	74	0	69	1	1
125°	1	55	1	49	1	1
135°	1	38	1	31	1	1
145°	1	25	1	17	1	1
155°	1	14	1	6	1	1
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°	1666.3	1666.3	1666.3	1666.3	1666.3	1666.3	1666.3	1666.3	1666.3	1666.3	1666.3
2.5°	1680.1	1678.2	1676.4	1673.6	1676.4	1683.7	1679.1	1669.1	1667.2	1650.7	1658.1
5°	1676.4	1673.6	1671.8	1669.1	1672.7	1681.9	1677.3	1668.1	1665.4	1649.8	1658.1
7.5°	1667.2	1665.4	1662.6	1662.6	1666.3	1675.5	1671.8	1661.7	1659.9	1644.3	1653.5
10°	1654.4	1653.5	1651.6	1651.6	1655.3	1666.3	1661.7	1652.6	1650.7	1636.1	1646.1
12.5°	1637.9	1638.8	1636.1	1636.1	1641.6	1652.6	1648.9	1638.8	1637.0	1624.2	1634.2
15°	1616.8	1617.7	1615.9	1616.8	1622.3	1635.1	1630.6	1621.4	1619.6	1609.5	1617.7
17.5°	1593.0	1593.9	1593.9	1593.0	1599.4	1612.2	1608.6	1600.3	1597.6	1589.3	1599.4
20°	1565.5	1565.5	1565.5	1565.5	1572.8	1585.7	1581.1	1574.7	1569.2	1562.7	1571.0
22.5°	1531.6	1530.7	1531.6	1534.3	1541.7	1551.7	1549.0	1541.7	1533.4	1529.7	1536.2
25°	1490.3	1493.1	1494.0	1496.7	1505.9	1514.2	1511.4	1504.1	1491.2	1488.5	1490.3
27.5°	1447.3	1449.1	1451.8	1450.9	1463.8	1472.0	1466.5	1460.1	1441.8	1439.0	1437.2
30°	1398.7	1401.4	1403.3	1402.3	1412.4	1421.6	1416.1	1407.8	1383.1	1381.3	1366.6
32.5°	1343.7	1346.4	1348.3	1348.3	1362.9	1366.6	1356.5	1344.6	1318.0	1311.6	1298.8
35°	1283.2	1285.9	1286.9	1286.9	1301.5	1300.6	1287.8	1271.3	1241.9	1233.7	1211.7
37.5°	1218.1	1219.9	1220.9	1226.4	1232.8	1227.3	1210.8	1189.7	1167.7	1144.8	1121.0
40°	1144.8	1147.5	1149.4	1153.0	1159.5	1153.0	1129.2	1103.5	1079.7	1054.0	1030.2
42.5°	1069.6	1077.9	1076.0	1075.1	1078.8	1061.4	1043.0	1013.7	989.9	963.3	939.5
45°	988.1	987.1	991.7	993.6	992.6	978.0	952.3	925.7	901.9	874.4	854.2
47.5°	901.9	901.0	904.6	906.5	901.0	885.4	865.2	835.0	814.8	791.0	775.4
50°	811.2	811.2	816.7	811.2	808.4	792.8	776.3	746.1	730.5	709.4	700.3
52.5°	720.4	728.7	723.2	721.3	718.6	703.0	690.2	665.4	652.6	643.4	632.4
55°	630.6	639.8	636.1	633.3	632.4	619.6	607.7	589.4	581.1	574.7	568.3
57.5°	554.5	553.6	551.8	549.0	549.9	539.9	527.9	517.9	514.2	511.4	513.3
60°	466.5	473.9	471.1	472.0	472.9	471.1	461.0	454.6	455.5	456.4	459.2
62.5°	394.1	400.5	405.1	401.5	403.3	406.0	400.5	398.7	402.4	406.0	409.7
65°	327.2	333.6	338.2	337.3	342.8	348.3	347.4	349.2	357.5	362.0	366.6
67.5°	266.7	273.1	279.6	280.5	288.7	297.0	300.6	307.0	316.2	322.6	328.1
70°	214.5	220.0	227.3	231.9	242.9	253.9	260.3	273.1	278.6	287.8	291.5
72.5°	167.7	172.3	182.4	193.4	202.6	216.3	229.1	240.1	248.4	258.5	263.1
75°	131.1	132.9	143.9	156.7	169.6	185.1	198.9	210.8	221.8	231.9	239.2
77.5°	96.2	99.0	109.1	126.5	141.2	157.6	173.2	186.1	198.0	208.1	218.1
80°	66.9	72.4	83.4	100.8	117.3	135.7	150.3	165.0	177.8	187.9	198.0
82.5°	43.1	47.7	63.2	80.7	98.1	116.4	132.0	146.7	160.4	171.4	180.6
85°	23.8	30.2	45.8	64.2	81.6	99.9	116.4	131.1	144.8	154.9	164.1
87.5°	9.2	18.3	33.0	50.4	67.8	85.2	102.7	116.4	130.2	141.2	149.4
90°	0.0	11.0	24.7	42.2	59.6	77.0	93.5	108.2	121.0	131.1	140.2
92.5°	0.9	7.3	19.2	33.9	50.4	66.9	82.5	97.2	110.0	120.1	128.3
95°	0.9	5.5	15.6	29.3	44.0	59.6	74.2	88.0	99.9	110.0	118.2
97.5°	0.9	3.7	12.8	25.7	38.5	54.1	67.8	80.7	91.7	101.7	108.2
100°	0.9	3.7	11.0	22.0	34.8	48.6	61.4	74.2	84.3	92.6	99.9
102.5°	0.9	2.7	9.2	19.2	31.2	43.1	55.9	67.8	77.0	85.2	92.6
105°	0.9	2.7	8.2	16.5	27.5	39.4	50.4	61.4	71.5	78.8	85.2
107.5°	0.9	1.8	7.3	13.7	23.8	35.7	46.7	55.9	65.1	72.4	78.8
110°	0.9	1.8	6.4	12.8	21.1	32.1	42.2	51.3	59.6	66.9	72.4



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	0.9	1.8	5.5	11.9	19.2	28.4	38.5	46.7	55.0	61.4	66.9
115°	0.9	1.8	5.5	11.0	17.4	24.7	33.9	43.1	49.5	56.8	61.4
117.5°	0.9	1.8	4.6	9.2	16.5	22.9	31.2	38.5	45.8	52.2	56.8
120°	0.9	1.8	4.6	8.2	14.7	21.1	27.5	34.8	42.2	46.7	51.3
122.5°	0.9	1.8	3.7	8.2	12.8	19.2	24.7	31.2	37.6	43.1	47.7
125°	0.9	1.8	3.7	7.3	11.9	17.4	22.9	27.5	33.9	38.5	43.1
127.5°	0.9	1.8	3.7	6.4	11.0	15.6	21.1	25.7	30.2	34.8	38.5
130°	0.9	1.8	2.7	5.5	10.1	13.7	18.3	23.8	27.5	31.2	34.8
132.5°	0.9	1.8	2.7	5.5	8.2	11.9	16.5	21.1	24.7	28.4	31.2
135°	0.9	1.8	2.7	4.6	7.3	11.0	13.7	18.3	22.0	25.7	28.4
137.5°	0.9	1.8	2.7	4.6	6.4	9.2	11.9	15.6	19.2	22.0	25.7
140°	0.9	1.8	2.7	3.7	5.5	8.2	11.0	12.8	16.5	19.2	22.0
142.5°	0.9	1.8	2.7	3.7	5.5	7.3	9.2	11.0	13.7	16.5	19.2
145°	0.9	1.8	2.7	3.7	4.6	6.4	8.2	10.1	11.0	13.7	15.6
147.5°	0.9	1.8	2.7	3.7	3.7	5.5	7.3	8.2	10.1	11.0	12.8
150°	0.9	1.8	2.7	2.7	3.7	4.6	6.4	7.3	8.2	10.1	11.0
152.5°	0.9	1.8	2.7	2.7	3.7	4.6	5.5	6.4	7.3	8.2	9.2
155°	0.9	1.8	2.7	2.7	2.7	3.7	4.6	5.5	6.4	7.3	8.2
157.5°	1.8	1.8	1.8	2.7	2.7	3.7	3.7	4.6	5.5	5.5	6.4
160°	1.8	1.8	1.8	2.7	2.7	2.7	3.7	3.7	4.6	4.6	5.5
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

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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	1666.3	1666.3	1666.3	1666.3	1666.3	1666.3	1666.3	1666.3	1666.3	1666.3	1666.3
2.5°	1656.2	1659.0	1667.2	1667.2	1665.4	1663.6	1663.6	1660.8	1662.6	1666.3	1664.5
5°	1656.2	1659.0	1667.2	1667.2	1665.4	1663.6	1662.6	1659.9	1662.6	1666.3	1664.5
7.5°	1650.7	1654.4	1662.6	1662.6	1660.8	1659.9	1658.1	1656.2	1659.0	1662.6	1660.8
10°	1643.4	1647.1	1655.3	1655.3	1653.5	1653.5	1650.7	1648.9	1652.6	1655.3	1654.4
12.5°	1632.4	1637.0	1644.3	1643.4	1641.6	1642.5	1639.7	1636.1	1639.7	1642.5	1643.4
15°	1616.8	1622.3	1629.7	1627.8	1625.1	1626.9	1622.3	1619.6	1622.3	1627.8	1626.9
17.5°	1596.7	1600.3	1605.8	1605.8	1603.1	1601.2	1599.4	1596.7	1598.5	1602.2	1603.1
20°	1568.2	1572.8	1575.6	1572.8	1571.9	1569.2	1565.5	1562.7	1566.4	1571.9	1572.8
22.5°	1530.7	1531.6	1538.0	1531.6	1527.0	1526.1	1522.4	1516.9	1522.4	1527.0	1527.9
25°	1483.9	1488.5	1485.7	1474.8	1474.8	1467.4	1465.6	1462.8	1463.8	1472.0	1475.7
27.5°	1424.3	1426.2	1418.8	1409.7	1401.4	1396.8	1390.4	1391.3	1391.3	1402.3	1406.0
30°	1359.3	1349.2	1342.8	1328.1	1321.7	1310.7	1308.9	1308.9	1307.0	1312.5	1329.0
32.5°	1281.4	1267.6	1257.5	1243.8	1232.8	1221.8	1216.3	1219.0	1218.1	1231.9	1237.4
35°	1196.1	1187.9	1166.8	1149.4	1143.0	1126.5	1126.5	1118.2	1123.7	1139.3	1145.7
37.5°	1106.3	1093.5	1076.0	1056.8	1052.2	1039.4	1034.8	1030.2	1042.1	1044.9	1051.3
40°	1014.6	1002.7	986.2	967.9	967.9	952.3	952.3	952.3	953.2	958.7	970.6
42.5°	927.6	914.7	900.1	887.2	885.4	873.5	873.5	872.6	874.4	879.0	890.0
45°	843.2	833.2	817.6	811.2	812.1	799.2	802.0	799.2	802.9	807.5	811.2
47.5°	765.3	758.9	752.5	743.3	740.6	739.7	735.1	731.4	737.8	737.8	743.3
50°	692.9	689.3	685.6	680.1	681.0	677.3	671.8	671.8	676.4	677.3	681.0
52.5°	629.7	625.1	620.5	621.4	622.3	620.5	617.8	615.0	617.8	619.6	624.2
55°	566.4	562.8	567.4	565.5	567.4	565.5	563.7	561.9	566.4	563.7	568.3
57.5°	509.6	513.3	515.1	511.4	514.2	512.4	513.3	510.5	514.2	516.0	515.1
60°	457.4	462.9	460.1	461.0	464.7	462.9	459.2	461.9	465.6	466.5	465.6
62.5°	409.7	416.1	418.9	417.0	418.0	416.1	418.9	415.2	419.8	421.6	418.9
65°	366.6	374.0	375.8	375.8	375.8	374.0	376.7	377.6	379.5	379.5	377.6
67.5°	330.0	336.4	338.2	340.0	338.2	336.4	336.4	337.3	341.0	342.8	341.0
70°	297.0	303.4	304.3	304.3	305.2	307.0	303.4	305.2	308.0	308.9	308.0
72.5°	268.6	275.0	276.8	275.9	276.8	277.7	277.7	275.9	278.6	280.5	280.5
75°	245.6	249.3	251.1	251.1	252.1	253.0	253.0	252.1	253.9	254.8	255.7
77.5°	224.6	227.3	230.1	230.1	231.0	230.1	231.9	231.9	232.8	233.7	234.6
80°	203.5	207.1	209.0	209.9	211.7	212.6	212.6	212.6	213.6	214.5	214.5
82.5°	187.0	189.7	192.5	195.2	195.2	196.1	196.1	196.1	197.1	197.1	198.0
85°	170.5	174.1	176.9	178.7	179.6	180.6	180.6	181.5	181.5	181.5	182.4
87.5°	155.8	160.4	162.2	164.1	165.0	166.8	166.8	166.8	167.7	167.7	167.7
90°	145.7	150.3	152.1	154.0	154.9	155.8	155.8	156.7	156.7	157.6	157.6
92.5°	133.8	138.4	142.1	142.1	143.0	144.8	143.9	143.9	144.8	145.7	145.7
95°	124.7	128.3	131.1	132.0	132.9	132.9	132.9	133.8	132.9	133.8	133.8
97.5°	113.7	117.3	120.1	121.9	122.8	122.8	122.8	123.7	122.8	123.7	123.7
100°	104.5	108.2	110.9	111.8	113.7	113.7	113.7	113.7	113.7	113.7	114.6
102.5°	97.2	100.8	102.7	103.6	104.5	105.4	105.4	105.4	105.4	106.3	106.3
105°	89.8	93.5	95.3	96.2	97.2	98.1	98.1	98.1	99.0	99.0	98.1
107.5°	83.4	86.2	88.0	89.8	90.7	90.7	91.7	91.7	91.7	91.7	91.7
110°	77.0	79.7	82.5	84.3	84.3	85.2	85.2	86.2	86.2	85.2	86.2



TEST NUMBER: P1213448

CATALOG NUMBER: 4SNLED-LD5-50HL-LN-UNV-L935-CD1-U

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
112.5°	70.6	74.2	76.1	77.9	78.8	79.7	79.7	79.7	79.7	79.7	79.7
115°	65.1	68.7	70.6	72.4	73.3	74.2	74.2	74.2	74.2	74.2	74.2
117.5°	60.5	64.2	66.0	66.9	67.8	68.7	69.7	69.7	69.7	69.7	68.7
120°	55.9	58.7	60.5	62.3	63.2	64.2	64.2	64.2	64.2	64.2	64.2
122.5°	51.3	54.1	55.9	57.7	58.7	59.6	59.6	59.6	59.6	59.6	59.6
125°	46.7	49.5	51.3	53.2	54.1	55.0	55.0	55.0	55.0	55.0	55.0
127.5°	42.2	44.9	47.7	48.6	49.5	50.4	50.4	50.4	51.3	50.4	50.4
130°	37.6	40.3	43.1	44.0	44.9	45.8	46.7	46.7	46.7	46.7	45.8
132.5°	33.9	36.7	38.5	39.4	41.2	41.2	42.2	42.2	42.2	42.2	41.2
135°	31.2	33.0	34.8	35.7	37.6	37.6	37.6	38.5	38.5	37.6	36.7
137.5°	27.5	29.3	31.2	32.1	33.0	33.9	33.9	34.8	33.9	33.9	33.9
140°	25.7	26.6	28.4	29.3	30.2	30.2	30.2	31.2	31.2	30.2	30.2
142.5°	22.0	23.8	25.7	26.6	27.5	27.5	27.5	27.5	27.5	27.5	27.5
145°	18.3	21.1	22.0	23.8	23.8	24.7	24.7	24.7	24.7	24.7	23.8
147.5°	15.6	17.4	20.2	21.1	21.1	22.0	22.0	22.0	22.0	22.0	21.1
150°	11.9	13.7	16.5	18.3	18.3	19.2	19.2	19.2	19.2	18.3	18.3
152.5°	10.1	11.9	12.8	14.7	15.6	15.6	15.6	16.5	15.6	15.6	15.6
155°	9.2	10.1	11.0	11.9	12.8	13.7	13.7	13.7	13.7	12.8	12.8
157.5°	7.3	8.2	9.2	10.1	11.0	11.9	11.9	11.9	11.9	11.9	11.0
160°	5.5	6.4	7.3	7.3	8.2	9.2	10.1	9.2	9.2	9.2	9.2
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: P1213448

CATALOG NUMBER: 4SNLED-LD5-50HL-LN-UNV-L935-CD1-U

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	1666.3	1666.3	1666.3	1666.3	1666.3	1666.3	1666.3	1666.3	1666.3	1666.3	1666.3
2.5°	1662.6	1661.7	1664.5	1659.9	1646.1	1649.8	1648.0	1656.2	1658.1	1659.9	1668.1
5°	1662.6	1661.7	1663.6	1659.9	1645.2	1648.0	1646.1	1654.4	1656.2	1657.1	1665.4
7.5°	1659.0	1658.1	1660.8	1656.2	1640.6	1644.3	1641.6	1649.8	1650.7	1651.6	1659.0
10°	1651.6	1650.7	1652.6	1648.9	1633.3	1637.0	1633.3	1641.6	1641.6	1643.4	1648.9
12.5°	1640.6	1638.8	1642.5	1637.9	1620.5	1625.1	1623.2	1628.7	1629.7	1630.6	1636.1
15°	1625.1	1623.2	1626.0	1623.2	1607.7	1608.6	1605.8	1614.1	1615.0	1613.2	1618.7
17.5°	1602.2	1600.3	1605.8	1604.0	1588.4	1592.1	1591.2	1593.0	1595.7	1591.2	1598.5
20°	1573.7	1575.6	1577.4	1578.3	1566.4	1566.4	1565.5	1569.2	1571.9	1568.2	1573.7
22.5°	1531.6	1536.2	1541.7	1543.5	1535.2	1534.3	1539.8	1538.0	1540.7	1538.9	1542.6
25°	1478.4	1487.6	1493.1	1498.6	1494.0	1495.8	1504.1	1505.9	1505.9	1505.0	1508.7
27.5°	1412.4	1424.3	1434.4	1446.3	1441.8	1445.4	1459.2	1461.0	1464.7	1461.0	1468.3
30°	1333.6	1344.6	1363.8	1381.3	1383.1	1388.6	1407.8	1409.7	1419.8	1416.1	1418.8
32.5°	1254.8	1260.3	1282.3	1299.7	1310.7	1324.4	1345.5	1349.2	1362.9	1365.7	1365.7
35°	1155.8	1171.4	1191.5	1216.3	1230.0	1244.7	1273.1	1278.6	1298.8	1305.2	1312.5
37.5°	1072.4	1087.0	1099.9	1125.5	1150.3	1166.8	1189.7	1203.4	1224.5	1236.4	1245.6
40°	983.5	995.4	1009.1	1034.8	1055.9	1080.6	1103.5	1120.0	1146.6	1160.4	1172.3
42.5°	899.1	908.3	923.0	941.3	963.3	990.8	1012.8	1032.1	1060.5	1079.7	1093.5
45°	824.0	829.5	842.3	856.1	875.3	903.7	924.8	949.6	972.5	992.6	1009.1
47.5°	753.4	760.7	767.2	776.3	793.7	811.2	835.9	859.7	882.7	904.6	921.1
50°	688.3	688.3	698.4	704.8	716.8	732.3	751.6	768.1	796.5	812.1	833.2
52.5°	625.1	628.8	634.3	637.9	647.1	657.2	672.8	686.5	710.3	725.0	745.2
55°	569.2	572.9	575.6	577.4	582.9	594.8	600.3	611.3	627.8	639.8	657.2
57.5°	516.0	517.9	520.6	521.5	522.4	529.8	534.4	537.1	553.6	565.5	580.2
60°	467.4	467.4	470.2	469.3	468.4	472.0	471.1	473.9	483.9	491.3	497.7
62.5°	421.6	421.6	422.5	420.7	419.8	419.8	416.1	418.9	421.6	422.5	427.1
65°	379.5	384.0	380.4	381.3	375.8	374.0	372.1	366.6	365.7	362.0	363.9
67.5°	341.9	345.5	341.9	341.9	337.3	333.6	329.0	319.9	317.1	309.8	308.0
70°	311.6	308.9	310.7	308.0	302.5	297.9	291.5	284.1	275.0	265.8	259.4
72.5°	282.3	282.3	280.5	277.7	275.0	265.8	258.5	250.2	239.2	227.3	218.1
75°	253.9	254.8	254.8	252.1	247.5	239.2	231.0	219.1	207.1	193.4	181.5
77.5°	233.7	233.7	233.7	229.1	224.6	217.2	207.1	194.3	181.5	165.0	151.2
80°	214.5	213.6	213.6	208.1	203.5	195.2	185.1	172.3	158.6	141.2	125.6
82.5°	198.9	198.0	196.1	191.6	185.1	176.9	166.8	153.1	138.4	122.8	103.6
85°	182.4	181.5	179.6	175.1	168.6	161.3	150.3	136.6	121.9	104.5	86.2
87.5°	167.7	166.8	164.1	161.3	154.0	145.7	134.7	121.9	106.3	89.8	71.5
90°	157.6	155.8	154.0	150.3	143.9	134.7	123.7	110.0	94.4	77.9	59.6
92.5°	145.7	144.8	142.1	138.4	132.9	123.7	112.7	99.9	84.3	68.7	51.3
95°	133.8	132.9	131.1	127.4	121.9	113.7	103.6	90.7	76.1	60.5	44.9
97.5°	122.8	122.8	120.1	117.3	110.9	104.5	94.4	82.5	68.7	55.0	40.3
100°	113.7	113.7	110.9	107.2	102.7	96.2	86.2	75.2	62.3	49.5	34.8
102.5°	105.4	104.5	102.7	99.0	94.4	88.0	78.8	68.7	56.8	44.0	31.2
105°	98.1	97.2	95.3	91.7	88.0	80.7	73.3	63.2	51.3	39.4	27.5
107.5°	90.7	89.8	88.9	85.2	80.7	74.2	66.9	56.8	46.7	35.7	24.7
110°	84.3	83.4	81.6	77.9	73.3	67.8	60.5	52.2	42.2	32.1	22.0

TEST NUMBER: P1213448

CATALOG NUMBER: 4SNLED-LD5-50HL-LN-UNV-L935-CD1-U

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
112.5°	78.8	77.9	76.1	72.4	68.7	62.3	55.9	46.7	38.5	29.3	19.2
115°	73.3	72.4	70.6	66.9	62.3	56.8	50.4	43.1	33.9	25.7	17.4
117.5°	67.8	66.9	65.1	62.3	57.7	52.2	45.8	38.5	30.2	23.8	15.6
120°	63.2	61.4	59.6	56.8	52.2	47.7	41.2	34.8	27.5	21.1	13.7
122.5°	58.7	56.8	55.0	52.2	47.7	43.1	36.7	31.2	25.7	19.2	12.8
125°	53.2	52.2	50.4	47.7	43.1	38.5	33.9	28.4	22.9	17.4	11.0
127.5°	48.6	47.7	45.8	42.2	38.5	34.8	30.2	25.7	20.2	14.7	10.1
130°	44.9	43.1	41.2	38.5	35.7	32.1	27.5	22.9	18.3	12.8	9.2
132.5°	40.3	38.5	36.7	34.8	32.1	28.4	24.7	20.2	16.5	11.9	8.2
135°	36.7	34.8	33.0	31.2	28.4	25.7	22.0	18.3	14.7	11.0	7.3
137.5°	32.1	31.2	30.2	28.4	25.7	22.9	20.2	15.6	12.8	10.1	6.4
140°	29.3	28.4	27.5	24.7	22.9	20.2	17.4	13.7	11.0	8.2	5.5
142.5°	26.6	25.7	23.8	22.0	20.2	18.3	14.7	12.8	10.1	7.3	5.5
145°	22.9	22.0	21.1	19.2	17.4	14.7	12.8	11.0	9.2	6.4	4.6
147.5°	21.1	20.2	18.3	16.5	14.7	12.8	11.9	10.1	7.3	5.5	3.7
150°	17.4	16.5	15.6	13.7	12.8	11.9	10.1	8.2	6.4	4.6	3.7
152.5°	14.7	13.7	12.8	12.8	11.0	10.1	8.2	7.3	5.5	4.6	2.7
155°	12.8	12.8	11.9	11.0	9.2	8.2	7.3	5.5	4.6	3.7	2.7
157.5°	11.0	10.1	9.2	9.2	8.2	7.3	5.5	4.6	3.7	3.7	2.7
160°	9.2	8.2	8.2	7.3	6.4	5.5	4.6	4.6	3.7	2.7	2.7
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: P1213448

CATALOG NUMBER: 4SNLED-LD5-50HL-LN-UNV-L935-CD1-U

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
0°	1666.3	1666.3	1666.3	1666.3	1666.3	1666.3	1666.3	1666.3	1666.3	1666.3	1666.3
2.5°	1669.1	1659.0	1668.1	1680.1	1680.1	1678.2	1676.4	1680.1	1689.2	1685.6	1674.6
5°	1666.3	1656.2	1664.5	1676.4	1676.4	1673.6	1671.8	1674.6	1684.6	1680.1	1670.0
7.5°	1660.8	1651.6	1657.1	1668.1	1668.1	1665.4	1663.6	1667.2	1675.5	1670.9	1659.9
10°	1650.7	1640.6	1647.1	1657.1	1656.2	1654.4	1651.6	1656.2	1663.6	1657.1	1644.3
12.5°	1637.9	1627.8	1633.3	1642.5	1641.6	1637.9	1636.1	1638.8	1645.2	1641.6	1627.8
15°	1620.5	1610.4	1615.0	1624.2	1621.4	1618.7	1615.0	1615.9	1624.2	1617.7	1603.1
17.5°	1599.4	1588.4	1592.1	1600.3	1597.6	1594.8	1590.2	1591.2	1600.3	1591.2	1575.6
20°	1573.7	1561.8	1564.6	1574.7	1570.1	1565.5	1560.9	1560.9	1570.1	1560.0	1542.6
22.5°	1546.2	1534.3	1536.2	1543.5	1539.8	1531.6	1527.0	1529.7	1534.3	1521.5	1503.2
25°	1512.3	1496.7	1499.5	1506.8	1504.1	1493.1	1488.5	1490.3	1488.5	1478.4	1459.2
27.5°	1472.9	1456.4	1458.3	1462.8	1459.2	1449.1	1443.6	1444.5	1440.8	1428.0	1406.0
30°	1423.4	1415.2	1414.3	1417.0	1411.5	1401.4	1395.0	1393.2	1392.3	1373.9	1347.3
32.5°	1373.0	1365.7	1361.1	1364.8	1358.3	1348.3	1337.3	1337.3	1328.1	1310.7	1287.8
35°	1321.7	1309.8	1305.2	1307.9	1300.6	1287.8	1278.6	1274.0	1260.3	1238.3	1213.5
37.5°	1255.7	1247.4	1241.9	1244.7	1236.4	1227.3	1209.9	1205.3	1190.6	1160.4	1129.2
40°	1184.2	1177.8	1172.3	1175.0	1165.9	1152.1	1136.5	1129.2	1112.7	1078.8	1054.0
42.5°	1107.2	1104.5	1098.0	1108.1	1089.8	1076.0	1060.5	1048.5	1032.1	995.4	967.0
45°	1025.6	1032.1	1017.4	1020.1	1008.2	996.3	979.8	962.4	945.9	911.1	879.0
47.5°	939.5	944.1	934.0	935.8	923.0	912.0	897.3	875.3	857.0	826.7	798.3
50°	850.6	848.7	848.7	846.9	836.8	823.1	808.4	788.2	769.9	742.4	718.6
52.5°	756.2	759.8	761.7	766.2	753.4	745.2	722.3	704.8	691.1	662.7	642.5
55°	665.4	678.3	674.6	676.4	661.8	655.3	637.0	623.3	603.1	586.6	573.8
57.5°	582.9	585.7	587.5	590.3	583.9	571.0	556.4	545.4	529.8	516.0	506.9
60°	503.2	503.2	504.1	508.7	502.3	491.3	480.3	472.0	461.0	452.8	447.3
62.5°	428.0	434.5	435.4	431.7	423.5	418.0	410.6	406.0	398.7	396.0	394.1
65°	358.4	358.4	358.4	360.2	355.6	352.0	347.4	346.5	349.2	345.5	347.4
67.5°	299.7	297.0	295.1	296.1	294.2	292.4	291.5	294.2	299.7	299.7	304.3
70°	249.3	243.8	240.1	240.1	240.1	241.1	243.8	249.3	258.5	262.1	268.6
72.5°	208.1	196.1	190.6	190.6	191.6	195.2	203.5	213.6	221.8	229.1	237.4
75°	168.6	156.7	148.5	147.6	149.4	154.9	166.8	176.0	189.7	199.8	209.9
77.5°	136.6	121.9	111.8	110.9	113.7	121.9	136.6	148.5	164.1	175.1	186.1
80°	109.1	92.6	84.3	78.8	83.4	93.5	110.0	124.7	139.3	154.0	167.7
82.5°	87.1	71.5	58.7	53.2	58.7	72.4	88.0	105.4	120.1	135.7	149.4
85°	68.7	52.2	37.6	32.1	38.5	53.2	70.6	88.0	104.5	120.1	133.8
87.5°	54.1	37.6	22.9	15.6	23.8	39.4	55.9	73.3	90.7	106.3	120.1
90°	42.2	26.6	12.8	1.8	13.7	28.4	44.9	61.4	78.8	94.4	108.2
92.5°	35.7	20.2	7.3	0.0	8.2	21.1	36.7	53.2	68.7	84.3	98.1
95°	30.2	16.5	5.5	0.0	5.5	16.5	30.2	44.9	60.5	76.1	89.8
97.5°	25.7	12.8	3.7	0.0	3.7	12.8	24.7	39.4	53.2	67.8	80.7
100°	22.0	11.0	2.7	0.0	2.7	10.1	21.1	33.9	47.7	61.4	73.3
102.5°	19.2	9.2	1.8	0.0	1.8	8.2	17.4	29.3	41.2	54.1	66.0
105°	16.5	7.3	1.8	0.0	0.9	6.4	14.7	25.7	36.7	48.6	59.6
107.5°	14.7	6.4	1.8	0.0	0.9	5.5	12.8	22.0	33.0	43.1	53.2
110°	12.8	5.5	1.8	0.0	0.9	3.7	11.0	19.2	28.4	38.5	48.6

TEST NUMBER: P1213448

CATALOG NUMBER: 4SNLED-LD5-50HL-LN-UNV-L935-CD1-U

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
112.5°	11.0	4.6	0.9	0.0	0.0	2.7	9.2	16.5	24.7	34.8	43.1
115°	10.1	4.6	0.9	0.0	0.0	1.8	7.3	14.7	22.0	31.2	38.5
117.5°	9.2	3.7	0.9	0.0	0.9	1.8	6.4	12.8	19.2	26.6	34.8
120°	8.2	3.7	0.9	0.0	0.9	0.9	4.6	11.0	16.5	23.8	30.2
122.5°	7.3	3.7	0.9	0.0	0.9	0.9	3.7	9.2	14.7	21.1	26.6
125°	6.4	2.7	1.8	0.9	0.9	0.9	2.7	7.3	12.8	17.4	23.8
127.5°	6.4	2.7	1.8	0.9	0.9	0.9	1.8	6.4	10.1	15.6	21.1
130°	5.5	2.7	1.8	0.9	0.9	0.9	0.9	4.6	9.2	12.8	17.4
132.5°	4.6	2.7	1.8	0.9	0.9	0.9	0.9	2.7	6.4	11.0	14.7
135°	4.6	2.7	1.8	0.9	0.9	0.9	0.9	1.8	4.6	8.2	11.9
137.5°	3.7	1.8	1.8	0.9	0.9	0.9	0.9	0.9	3.7	6.4	9.2
140°	3.7	1.8	1.8	0.9	0.9	0.9	0.9	0.9	2.7	4.6	7.3
142.5°	2.7	1.8	1.8	0.9	0.9	0.9	0.9	0.9	1.8	3.7	5.5
145°	2.7	1.8	1.8	0.9	0.9	0.9	0.9	0.9	0.9	1.8	3.7
147.5°	2.7	2.7	1.8	0.9	0.9	0.9	0.9	0.9	0.9	1.8	2.7
150°	2.7	1.8	1.8	0.9	0.9	0.9	0.9	0.9	0.9	0.9	1.8
152.5°	2.7	1.8	1.8	0.9	0.9	0.9	0.9	0.9	0.9	0.9	1.8
155°	2.7	1.8	1.8	0.9	0.9	0.9	0.9	0.9	0.9	1.8	1.8
157.5°	2.7	1.8	1.8	0.9	0.9	0.9	0.9	0.9	0.9	0.9	1.8
160°	2.7	1.8	1.8	0.9	1.8	0.9	1.8	1.8	1.8	1.8	1.8
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: P1213448

CATALOG NUMBER: 4SNLED-LD5-50HL-LN-UNV-L935-CD1-U

CANDELA DISTRIBUTION (continued):

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
0°	1666.3	1666.3	1666.3	1666.3	1666.3	1666.3	1666.3	1666.3	1666.3	1666.3	1666.3
2.5°	1670.9	1653.5	1662.6	1659.9	1663.6	1670.9	1670.0	1668.1	1668.1	1665.4	1661.7
5°	1665.4	1648.9	1657.1	1652.6	1657.1	1663.6	1662.6	1659.9	1661.7	1657.1	1652.6
7.5°	1654.4	1639.7	1647.1	1643.4	1647.1	1653.5	1650.7	1649.8	1651.6	1644.3	1641.6
10°	1641.6	1625.1	1633.3	1628.7	1633.3	1637.9	1636.1	1632.4	1636.1	1628.7	1626.0
12.5°	1621.4	1607.7	1613.2	1611.3	1614.1	1618.7	1615.0	1612.2	1614.1	1607.7	1602.2
15°	1599.4	1585.7	1590.2	1587.5	1589.3	1594.8	1588.4	1587.5	1585.7	1579.2	1577.4
17.5°	1571.0	1558.2	1562.7	1558.2	1560.9	1559.1	1558.2	1553.6	1553.6	1546.2	1540.7
20°	1536.2	1525.2	1522.4	1518.7	1522.4	1518.7	1513.2	1509.6	1508.7	1501.3	1496.7
22.5°	1495.8	1483.0	1484.8	1474.8	1475.7	1470.2	1461.0	1457.3	1453.7	1445.4	1439.0
25°	1447.3	1434.4	1425.3	1418.8	1410.6	1409.7	1397.8	1388.6	1387.7	1377.6	1376.7
27.5°	1392.3	1377.6	1370.3	1354.7	1344.6	1336.4	1326.3	1317.1	1312.5	1301.5	1294.2
30°	1329.0	1312.5	1294.2	1283.2	1267.6	1261.2	1243.8	1232.8	1229.1	1217.2	1211.7
32.5°	1257.5	1240.1	1225.4	1204.4	1187.0	1177.8	1160.4	1149.4	1144.8	1132.0	1124.6
35°	1179.6	1160.4	1143.0	1122.8	1109.0	1093.5	1072.4	1061.4	1051.3	1046.7	1041.2
37.5°	1098.0	1077.0	1056.8	1036.6	1024.7	1006.4	988.1	980.7	968.8	964.2	958.7
40°	1013.7	992.6	973.4	954.1	940.4	923.9	907.4	904.6	891.8	887.2	883.6
42.5°	930.3	908.3	886.3	872.6	862.5	846.0	835.0	832.2	821.2	818.5	818.5
45°	855.2	827.7	809.3	797.4	789.2	775.4	766.2	764.4	755.2	753.4	753.4
47.5°	774.5	748.8	735.1	727.8	720.4	710.3	704.8	704.8	695.7	693.8	692.9
50°	699.3	675.5	665.4	658.1	657.2	649.8	645.3	643.4	643.4	637.0	637.9
52.5°	627.8	615.9	607.7	603.1	597.6	593.0	589.4	589.4	586.6	582.0	583.9
55°	561.9	548.1	549.0	545.4	542.6	539.9	540.8	535.3	534.4	530.7	533.4
57.5°	495.9	495.9	494.0	491.3	486.7	488.5	488.5	488.5	483.9	481.2	483.9
60°	440.0	442.7	438.1	440.9	439.0	440.0	438.1	438.1	435.4	434.5	435.4
62.5°	390.5	395.0	393.2	396.9	395.0	396.0	397.8	394.1	392.3	390.5	392.3
65°	346.5	352.0	351.0	353.8	354.7	355.6	356.5	354.7	352.9	351.0	350.1
67.5°	308.0	313.5	317.1	318.0	319.0	321.7	320.8	319.0	317.1	314.4	313.5
70°	273.1	280.5	285.1	286.9	290.6	288.7	288.7	287.8	286.0	283.2	282.3
72.5°	243.8	252.1	256.6	258.5	262.1	262.1	261.2	260.3	258.5	255.7	254.8
75°	218.1	225.5	231.9	235.6	238.3	238.3	237.4	236.5	234.6	232.8	231.9
77.5°	198.0	204.4	209.9	214.5	216.3	217.2	216.3	214.5	214.5	213.6	212.6
80°	177.8	185.1	190.6	195.2	198.0	198.0	197.1	198.0	196.1	195.2	194.3
82.5°	160.4	168.6	175.1	179.6	181.5	182.4	181.5	182.4	180.6	180.6	180.6
85°	144.8	153.1	160.4	164.1	166.8	167.7	167.7	167.7	166.8	166.8	166.8
87.5°	132.0	140.2	147.6	151.2	154.0	154.9	154.9	155.8	154.0	154.0	154.0
90°	120.1	128.3	135.7	139.3	142.1	143.9	143.9	144.8	143.9	143.0	143.0
92.5°	109.1	118.2	125.6	129.2	132.0	134.7	134.7	135.7	133.8	133.8	133.8
95°	99.9	109.1	115.5	120.1	122.8	124.7	125.6	125.6	124.7	124.7	124.7
97.5°	91.7	99.9	106.3	110.9	113.7	114.6	115.5	116.4	115.5	115.5	115.5
100°	83.4	91.7	98.1	101.7	105.4	106.3	107.2	108.2	108.2	107.2	107.2
102.5°	76.1	84.3	89.8	94.4	97.2	99.0	99.9	99.9	99.9	99.9	99.9
105°	68.7	77.0	82.5	87.1	89.8	91.7	92.6	93.5	93.5	92.6	92.6
107.5°	62.3	69.7	76.1	79.7	83.4	85.2	86.2	86.2	87.1	86.2	86.2
110°	55.9	64.2	69.7	73.3	77.0	78.8	79.7	80.7	80.7	80.7	80.7

TEST NUMBER: P1213448

CATALOG NUMBER: 4SNLED-LD5-50HL-LN-UNV-L935-CD1-U

CANDELA DISTRIBUTION (continued):

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
112.5°	51.3	57.7	63.2	66.9	70.6	72.4	73.3	74.2	75.2	74.2	74.2
115°	45.8	52.2	57.7	61.4	64.2	66.0	67.8	68.7	68.7	69.7	68.7
117.5°	41.2	46.7	52.2	55.9	58.7	61.4	62.3	63.2	64.2	63.2	63.2
120°	36.7	42.2	46.7	50.4	53.2	55.9	56.8	57.7	58.7	57.7	57.7
122.5°	33.0	37.6	42.2	45.8	48.6	50.4	52.2	52.2	53.2	53.2	53.2
125°	29.3	33.9	37.6	41.2	44.0	45.8	46.7	47.7	47.7	48.6	48.6
127.5°	25.7	29.3	33.9	36.7	39.4	41.2	42.2	43.1	43.1	44.0	44.0
130°	22.0	25.7	29.3	32.1	34.8	36.7	37.6	38.5	39.4	39.4	39.4
132.5°	19.2	22.9	25.7	28.4	30.2	32.1	33.9	34.8	34.8	34.8	34.8
135°	15.6	19.2	22.0	24.7	26.6	28.4	29.3	31.2	31.2	31.2	31.2
137.5°	12.8	16.5	19.2	21.1	22.9	24.7	25.7	26.6	27.5	27.5	27.5
140°	10.1	12.8	15.6	18.3	20.2	21.1	22.9	22.9	23.8	23.8	23.8
142.5°	7.3	10.1	11.9	14.7	16.5	18.3	19.2	20.2	20.2	20.2	20.2
145°	5.5	7.3	9.2	11.0	13.7	14.7	15.6	16.5	17.4	17.4	17.4
147.5°	3.7	5.5	6.4	8.2	10.1	11.9	12.8	13.7	14.7	14.7	14.7
150°	2.7	3.7	5.5	6.4	7.3	9.2	11.0	11.0	11.9	11.9	11.0
152.5°	1.8	2.7	3.7	4.6	5.5	6.4	8.2	8.2	9.2	9.2	9.2
155°	1.8	1.8	1.8	2.7	3.7	4.6	5.5	6.4	6.4	6.4	6.4
157.5°	1.8	1.8	1.8	1.8	1.8	2.7	3.7	4.6	4.6	4.6	4.6
160°	1.8	1.8	0.9	0.9	1.8	1.8	1.8	1.8	2.7	2.7	2.7
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: P1213448

CATALOG NUMBER: 4SNLED-LD5-50HL-LN-UNV-L935-CD1-U

CANDELA DISTRIBUTION (continued):

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°
0°	1666.3	1666.3	1666.3	1666.3	1666.3	1666.3	1666.3	1666.3	1666.3	1666.3	1666.3
2.5°	1664.5	1666.3	1666.3	1664.5	1663.6	1667.2	1662.6	1645.2	1650.7	1652.6	1658.1
5°	1656.2	1658.1	1658.1	1658.1	1656.2	1659.9	1655.3	1637.9	1644.3	1647.1	1650.7
7.5°	1644.3	1645.2	1647.1	1646.1	1644.3	1649.8	1645.2	1627.8	1632.4	1637.0	1641.6
10°	1628.7	1628.7	1629.7	1631.5	1629.7	1634.2	1629.7	1614.1	1618.7	1621.4	1626.9
12.5°	1607.7	1609.5	1610.4	1609.5	1608.6	1612.2	1610.4	1595.7	1597.6	1603.1	1608.6
15°	1579.2	1579.2	1583.8	1582.0	1582.0	1585.7	1587.5	1571.0	1573.7	1582.0	1587.5
17.5°	1544.4	1545.3	1549.0	1550.8	1549.9	1556.3	1557.2	1544.4	1543.5	1553.6	1559.1
20°	1499.5	1501.3	1505.9	1509.6	1509.6	1516.9	1519.7	1511.4	1512.3	1523.3	1525.2
22.5°	1444.5	1444.5	1452.8	1458.3	1462.8	1467.4	1475.7	1468.3	1468.3	1483.0	1491.2
25°	1376.7	1383.1	1385.8	1396.8	1403.3	1416.1	1423.4	1424.3	1425.3	1439.0	1444.5
27.5°	1301.5	1303.4	1311.6	1324.4	1331.8	1343.7	1357.4	1360.2	1364.8	1383.1	1391.3
30°	1216.3	1221.8	1225.4	1243.8	1253.9	1269.4	1286.9	1293.3	1296.9	1321.7	1331.8
32.5°	1129.2	1131.0	1146.6	1156.7	1168.6	1185.1	1205.3	1217.2	1224.5	1250.2	1264.9
35°	1042.1	1045.8	1058.6	1071.5	1083.4	1099.9	1121.0	1137.5	1150.3	1173.2	1192.4
37.5°	962.4	971.6	974.3	987.1	996.3	1012.8	1027.5	1051.3	1064.1	1088.0	1112.7
40°	890.9	893.6	895.5	908.3	914.7	930.3	951.4	967.0	984.4	1001.8	1031.1
42.5°	820.3	822.2	824.9	832.2	839.6	850.6	866.2	881.7	900.1	925.7	945.0
45°	755.2	757.1	758.9	763.5	769.9	780.0	790.1	801.1	819.4	841.4	861.6
47.5°	694.8	698.4	698.4	699.3	703.9	712.2	719.5	733.3	743.3	755.2	778.2
50°	637.0	639.8	640.7	640.7	643.4	648.9	650.8	659.9	669.1	680.1	696.6
52.5°	582.9	582.9	582.0	585.7	585.7	589.4	590.3	595.8	602.2	614.1	621.4
55°	531.6	531.6	534.4	532.5	532.5	534.4	533.4	534.4	539.9	547.2	553.6
57.5°	482.1	481.2	483.9	482.1	481.2	483.0	484.9	481.2	482.1	489.4	489.4
60°	432.6	433.5	436.3	434.5	434.5	434.5	432.6	430.8	429.0	433.5	435.4
62.5°	393.2	390.5	393.2	390.5	392.3	391.4	389.5	385.9	386.8	385.0	383.1
65°	352.0	352.0	352.9	350.1	352.0	352.0	349.2	348.3	342.8	341.0	336.4
67.5°	316.2	316.2	317.1	315.3	315.3	316.2	313.5	310.7	305.2	302.5	296.1
70°	285.1	285.1	285.1	284.1	284.1	284.1	282.3	278.6	273.1	268.6	260.3
72.5°	256.6	257.6	256.6	256.6	259.4	256.6	253.9	250.2	245.6	236.5	229.1
75°	233.7	234.6	233.7	233.7	233.7	232.8	231.9	226.4	220.9	213.6	202.6
77.5°	213.6	213.6	214.5	213.6	213.6	212.6	209.9	205.3	198.9	192.5	179.6
80°	194.3	195.2	196.1	197.1	195.2	194.3	191.6	187.9	179.6	172.3	159.5
82.5°	180.6	179.6	180.6	181.5	179.6	178.7	176.0	171.4	165.0	154.9	142.1
85°	166.8	165.9	165.9	166.8	165.9	164.1	161.3	156.7	150.3	140.2	127.4
87.5°	153.1	154.0	154.9	154.0	153.1	151.2	148.5	143.9	136.6	128.3	114.6
90°	143.0	143.0	143.0	143.0	142.1	140.2	137.5	132.0	125.6	115.5	103.6
92.5°	133.8	133.8	133.8	133.8	132.9	130.2	127.4	122.8	115.5	105.4	94.4
95°	124.7	125.6	124.7	124.7	122.8	121.9	117.3	112.7	106.3	96.2	84.3
97.5°	114.6	115.5	114.6	114.6	113.7	111.8	109.1	103.6	97.2	88.0	77.0
100°	107.2	107.2	106.3	106.3	105.4	103.6	99.9	95.3	88.9	79.7	68.7
102.5°	99.0	99.9	99.0	99.0	97.2	95.3	92.6	88.0	81.6	72.4	62.3
105°	92.6	92.6	91.7	91.7	89.8	88.0	85.2	79.7	74.2	66.0	55.9
107.5°	86.2	86.2	85.2	85.2	83.4	81.6	77.9	73.3	67.8	59.6	50.4
110°	79.7	79.7	79.7	78.8	77.0	74.2	71.5	66.9	61.4	54.1	44.9



TEST NUMBER: P1213448

CATALOG NUMBER: 4SNLED-LD5-50HL-LN-UNV-L935-CD1-U

CANDELA DISTRIBUTION (continued):

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°
112.5°	75.2	74.2	73.3	72.4	70.6	68.7	65.1	60.5	55.0	48.6	40.3
115°	68.7	68.7	67.8	66.9	65.1	62.3	59.6	55.9	50.4	43.1	35.7
117.5°	63.2	63.2	62.3	61.4	59.6	56.8	54.1	50.4	44.9	38.5	32.1
120°	57.7	57.7	56.8	55.9	54.1	51.3	49.5	44.9	40.3	33.9	28.4
122.5°	53.2	52.2	52.2	50.4	49.5	46.7	44.0	40.3	35.7	30.2	24.7
125°	47.7	47.7	46.7	45.8	44.9	42.2	39.4	35.7	31.2	26.6	22.0
127.5°	43.1	43.1	42.2	41.2	40.3	37.6	34.8	32.1	27.5	22.9	18.3
130°	38.5	38.5	37.6	36.7	35.7	33.0	31.2	27.5	23.8	20.2	15.6
132.5°	34.8	34.8	33.9	33.0	31.2	29.3	27.5	23.8	21.1	17.4	13.7
135°	31.2	30.2	30.2	29.3	27.5	25.7	23.8	21.1	17.4	14.7	11.0
137.5°	27.5	26.6	25.7	24.7	23.8	22.0	20.2	18.3	15.6	11.9	9.2
140°	23.8	22.9	22.9	22.0	20.2	19.2	17.4	14.7	12.8	10.1	7.3
142.5°	20.2	20.2	19.2	18.3	17.4	16.5	14.7	12.8	10.1	8.2	5.5
145°	17.4	16.5	16.5	15.6	14.7	12.8	11.9	10.1	8.2	6.4	4.6
147.5°	13.7	13.7	13.7	12.8	11.9	11.0	10.1	8.2	6.4	4.6	2.7
150°	11.0	11.0	11.0	10.1	9.2	8.2	7.3	6.4	4.6	2.7	1.8
152.5°	9.2	9.2	8.2	8.2	7.3	6.4	5.5	4.6	2.7	1.8	1.8
155°	6.4	6.4	6.4	5.5	5.5	4.6	3.7	2.7	1.8	1.8	1.8
157.5°	4.6	4.6	4.6	3.7	3.7	2.7	2.7	1.8	1.8	1.8	1.8
160°	2.7	2.7	2.7	2.7	1.8	1.8	1.8	1.8	1.8	1.8	1.8
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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CATALOG NUMBER: 4SNLED-LD5-50HL-LN-UNV-L935-CD1-U

CANDELA DISTRIBUTION (continued):

	330°	335°	340°	345°	350°	355°	360°
0°	1666.3	1666.3	1666.3	1666.3	1666.3	1666.3	1666.3
2.5°	1655.3	1654.4	1661.7	1661.7	1653.5	1666.3	1680.1
5°	1649.8	1648.9	1656.2	1656.2	1648.9	1661.7	1676.4
7.5°	1638.8	1639.7	1647.1	1648.9	1639.7	1651.6	1667.2
10°	1626.9	1626.0	1634.2	1636.1	1628.7	1639.7	1654.4
12.5°	1607.7	1607.7	1615.9	1618.7	1611.3	1624.2	1637.9
15°	1587.5	1587.5	1593.0	1597.6	1591.2	1603.1	1616.8
17.5°	1561.8	1560.9	1566.4	1571.9	1565.5	1578.3	1593.0
20°	1528.8	1528.8	1535.2	1541.7	1537.1	1549.0	1565.5
22.5°	1494.0	1490.3	1501.3	1505.9	1503.2	1515.1	1531.6
25°	1450.0	1449.1	1460.1	1466.5	1462.8	1475.7	1490.3
27.5°	1402.3	1401.4	1412.4	1420.7	1418.8	1430.8	1447.3
30°	1344.6	1349.2	1359.3	1373.0	1368.4	1381.3	1398.7
32.5°	1284.1	1288.7	1300.6	1315.3	1316.2	1326.3	1343.7
35°	1211.7	1223.6	1231.9	1251.1	1254.8	1264.9	1283.2
37.5°	1135.6	1149.4	1166.8	1181.5	1188.8	1197.0	1218.1
40°	1050.4	1070.5	1089.8	1107.2	1116.4	1124.6	1144.8
42.5°	973.4	989.0	1007.3	1024.7	1041.2	1048.5	1069.6
45°	886.3	904.6	921.1	942.2	958.7	967.0	988.1
47.5°	801.1	819.4	841.4	856.1	873.5	881.7	901.9
50°	719.5	736.0	754.3	771.7	786.4	793.7	811.2
52.5°	638.8	656.3	673.7	684.7	700.3	705.8	720.4
55°	567.4	579.3	594.8	601.3	616.8	620.5	630.6
57.5°	498.6	506.9	512.4	523.4	534.4	542.6	554.5
60°	436.3	440.0	443.6	450.0	459.2	461.9	466.5
62.5°	380.4	379.5	386.8	388.6	389.5	398.7	394.1
65°	330.9	331.8	325.4	322.6	326.3	329.0	327.2
67.5°	289.6	284.1	278.6	272.2	266.7	269.5	266.7
70°	249.3	244.7	235.6	226.4	222.7	217.2	214.5
72.5°	217.2	206.2	197.1	185.1	178.7	172.3	167.7
75°	192.5	176.9	164.1	151.2	142.1	132.9	131.1
77.5°	166.8	152.1	137.5	123.7	110.0	99.9	96.2
80°	146.7	132.9	115.5	99.0	84.3	71.5	66.9
82.5°	128.3	113.7	96.2	78.8	62.3	48.6	43.1
85°	112.7	97.2	79.7	62.3	45.8	31.2	23.8
87.5°	100.8	83.4	66.0	49.5	32.1	17.4	9.2
90°	89.8	73.3	56.8	39.4	22.9	9.2	0.0
92.5°	79.7	64.2	47.7	32.1	17.4	5.5	0.9
95°	70.6	56.8	40.3	25.7	12.8	3.7	0.9
97.5°	63.2	49.5	34.8	21.1	10.1	2.7	0.9
100°	56.8	43.1	30.2	17.4	8.2	1.8	0.9
102.5°	50.4	38.5	25.7	14.7	6.4	0.9	0.9
105°	44.9	33.9	22.0	12.8	5.5	0.9	0.9
107.5°	40.3	30.2	19.2	11.0	3.7	0.9	0.9
110°	35.7	25.7	16.5	9.2	2.7	0.9	0.9



TEST NUMBER: P1213448

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CANDELA DISTRIBUTION (continued):

	330°	335°	340°	345°	350°	355°	360°
112.5°	32.1	22.9	14.7	7.3	1.8	0.9	0.9
115°	28.4	20.2	12.8	6.4	1.8	0.9	0.9
117.5°	24.7	17.4	11.0	4.6	0.9	0.9	0.9
120°	22.0	15.6	9.2	3.7	0.9	0.9	0.9
122.5°	19.2	12.8	7.3	2.7	0.9	0.9	0.9
125°	16.5	11.0	6.4	1.8	0.9	0.9	0.9
127.5°	13.7	9.2	4.6	1.8	0.9	0.9	0.9
130°	11.9	7.3	3.7	0.9	0.9	0.9	0.9
132.5°	10.1	5.5	2.7	0.9	0.9	0.9	0.9
135°	8.2	4.6	1.8	0.9	0.9	0.9	0.9
137.5°	6.4	3.7	1.8	0.9	0.9	0.9	0.9
140°	4.6	2.7	0.9	0.9	0.9	0.9	0.9
142.5°	3.7	1.8	0.9	0.9	0.9	0.9	0.9
145°	2.7	1.8	0.9	0.9	0.9	0.9	0.9
147.5°	1.8	1.8	1.8	1.8	0.9	0.9	0.9
150°	1.8	1.8	0.9	0.9	1.8	0.9	0.9
152.5°	1.8	0.9	0.9	0.9	1.8	0.9	0.9
155°	1.8	1.8	1.8	1.8	1.8	1.8	0.9
157.5°	1.8	1.8	1.8	1.8	1.8	1.8	1.8
160°	1.8	1.8	1.8	1.8	1.8	1.8	1.8
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)