

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: P1213796

Luminaire Tested: 4SNLED-LD5-49SL-LN-UNV-L940-CD1-U

Issue Date: 3/29/2018

Test Information

Test Method: LM-79-2019
Report Number: P1213796
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-LD5-49SL-LN-UNV-L940-CD1-U
Description: 4FT LINEAR SNLED LED FIXTURE
NARROW LENS
Light Source: -
Ballast/Driver: -

Summary

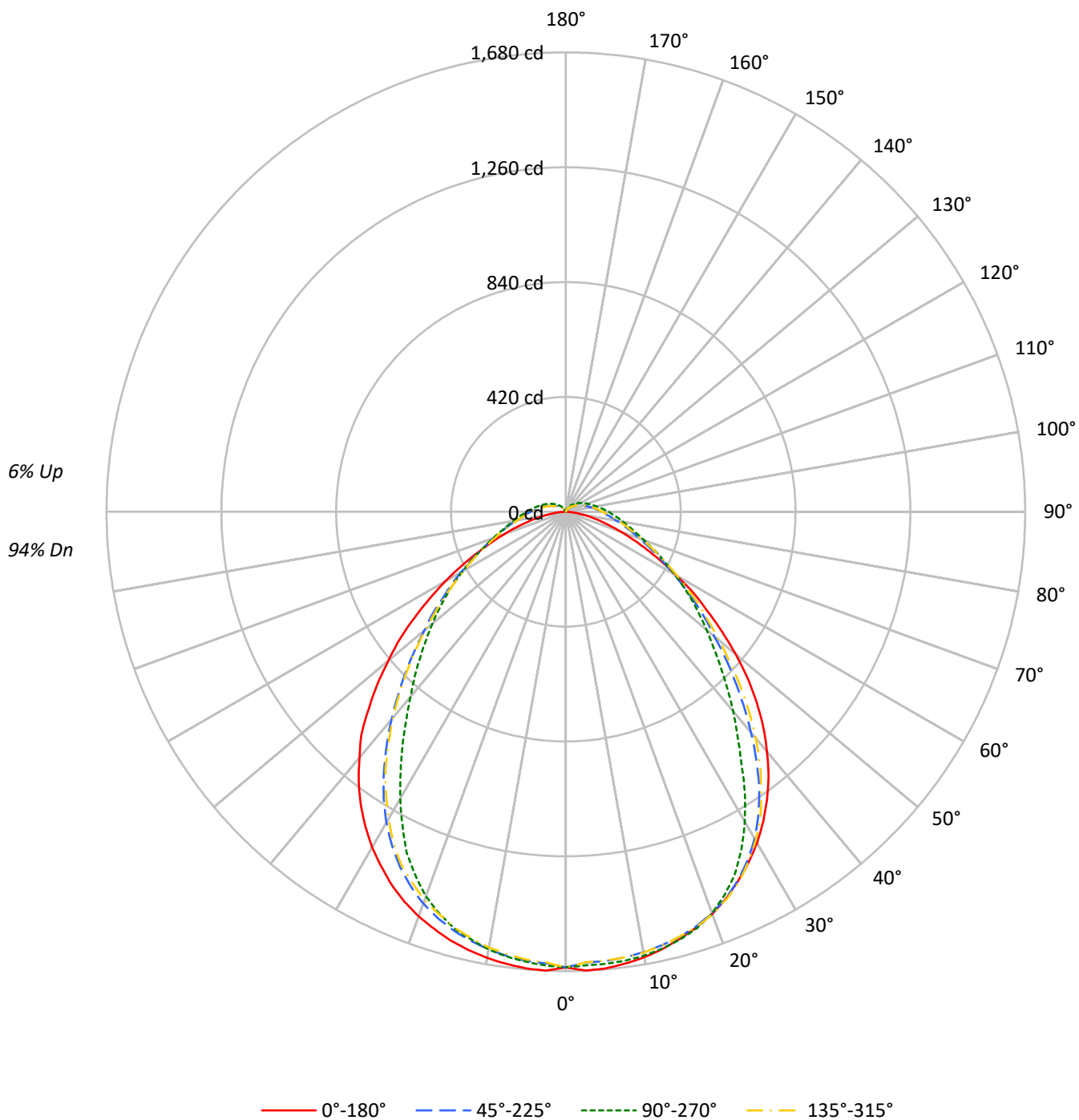
Lumens per Lamp: N/A
Luminaire Lumens: 4216.0 lumens
Efficiency: N/A
Efficacy: 110.9 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.14 / 1.24
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.12')
CIE Type: Direct

Input Watts (W): 38
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°	13462	13462	13462	13462
5°	13558	13034	13558	12976
10°	13498	12687	13521	12511
15°	13411	12308	13472	11988
20°	13308	11821	13386	11322
25°	13095	11098	13240	10444
30°	12817	10035	12985	9290
35°	12385	8733	12623	8132
40°	11765	7638	12076	7087
45°	10947	6640	11303	6258
50°	9830	5834	10262	5540
55°	8502	5152	9121	4891
60°	7151	4523	7798	4263
65°	5862	3999	6453	3708
70°	4665	3549	5224	3282
75°	3663	3277	4124	3014
80°	2645	3162	3115	2890
85°	1626	3179	2193	2923

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 180°

Vertical Angle: 45°

Luminance: 11303 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	157.9	3.7
10°-20°	452.9	10.7
20°-30°	671.2	15.9
30°-40°	745.7	17.7
40°-50°	675.9	16.0
50°-60°	523.8	12.4
60°-70°	355.7	8.4
70°-80°	226.3	5.4
80°-90°	144.7	3.4
90°-100°	97.5	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°	1282.0	30.4
0°-40°	2027.7	48.1
0°-60°	3227.4	76.6
0°-90°	3954.0	93.8
90°-120°	208.9	5.0
90°-150°	259.1	6.1
90°-180°	262.0	6.2
0°-180°	4216.0	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	1666	1666	1666	1666	1666	
5°	1676	1660	1676	1652	1676	159
15°	1616	1619	1624	1577	1616	456
25°	1490	1462	1506	1376	1490	686
35°	1283	1118	1308	1041	1283	800
45°	988	799	1020	753	988	759
55°	630	562	676	533	630	568
65°	327	378	360	350	327	328
75°	131	252	148	232	131	141
85°	24	181	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°	1665.9	1665.9	1665.9	1665.9	1665.9	1665.9	1665.9	1665.9	1665.9	1665.9	1665.9
2.5°	1679.7	1677.8	1676.0	1673.2	1676.0	1683.3	1678.7	1668.7	1666.8	1650.3	1657.7
5°	1676.0	1673.2	1671.4	1668.7	1672.3	1681.5	1676.9	1667.8	1665.0	1649.4	1657.7
7.5°	1666.8	1665.0	1662.3	1662.3	1665.9	1675.1	1671.4	1661.3	1659.5	1643.9	1653.1
10°	1654.0	1653.1	1651.3	1651.3	1654.9	1665.9	1661.3	1652.2	1650.3	1635.7	1645.8
12.5°	1637.5	1638.4	1635.7	1635.7	1641.2	1652.2	1648.5	1638.4	1636.6	1623.8	1633.8
15°	1616.4	1617.4	1615.5	1616.4	1621.9	1634.8	1630.2	1621.0	1619.2	1609.1	1617.4
17.5°	1592.6	1593.5	1593.5	1592.6	1599.0	1611.9	1608.2	1599.9	1597.2	1588.9	1599.0
20°	1565.1	1565.1	1565.1	1565.1	1572.5	1585.3	1580.7	1574.3	1568.8	1562.4	1570.6
22.5°	1531.2	1530.3	1531.2	1534.0	1541.3	1551.4	1548.6	1541.3	1533.0	1529.4	1535.8
25°	1490.0	1492.7	1493.6	1496.4	1505.6	1513.8	1511.1	1503.7	1490.9	1488.1	1490.0
27.5°	1446.9	1448.7	1451.5	1450.6	1463.4	1471.7	1466.2	1459.7	1441.4	1438.7	1436.8
30°	1398.3	1401.1	1402.9	1402.0	1412.1	1421.3	1415.8	1407.5	1382.8	1380.9	1366.3
32.5°	1343.4	1346.1	1347.9	1347.9	1362.6	1366.3	1356.2	1344.3	1317.7	1311.3	1298.5
35°	1282.9	1285.6	1286.6	1286.6	1301.2	1300.3	1287.5	1271.0	1241.6	1233.4	1211.4
37.5°	1217.8	1219.7	1220.6	1226.1	1232.5	1227.0	1210.5	1189.4	1167.4	1144.5	1120.7
40°	1144.5	1147.3	1149.1	1152.8	1159.2	1152.8	1128.9	1103.3	1079.5	1053.8	1030.0
42.5°	1069.4	1077.6	1075.8	1074.9	1078.5	1061.1	1042.8	1013.5	989.7	963.1	939.3
45°	987.8	986.9	991.5	993.3	992.4	977.7	952.1	925.5	901.7	874.2	854.0
47.5°	901.7	900.8	904.4	906.3	900.8	885.2	865.0	834.8	814.6	790.8	775.2
50°	811.0	811.0	816.5	811.0	808.2	792.6	776.1	745.9	730.3	709.3	700.1
52.5°	720.2	728.5	723.0	721.2	718.4	702.8	690.0	665.3	652.4	643.3	632.3
55°	630.4	639.6	635.9	633.2	632.3	619.5	607.5	589.2	581.0	574.5	568.1
57.5°	554.4	553.5	551.6	548.9	549.8	539.7	527.8	517.7	514.1	511.3	513.2
60°	466.4	473.8	471.0	471.9	472.8	471.0	460.9	454.5	455.4	456.3	459.1
62.5°	394.0	400.4	405.0	401.4	403.2	405.9	400.4	398.6	402.3	405.9	409.6
65°	327.1	333.6	338.1	337.2	342.7	348.2	347.3	349.1	357.4	362.0	366.5
67.5°	266.7	273.1	279.5	280.4	288.6	296.9	300.6	307.0	316.1	322.6	328.1
70°	214.4	219.9	227.3	231.8	242.8	253.8	260.2	273.1	278.6	287.7	291.4
72.5°	167.7	172.3	182.4	193.3	202.5	216.3	229.1	240.1	248.3	258.4	263.0
75°	131.0	132.9	143.9	156.7	169.5	185.1	198.8	210.8	221.8	231.8	239.2
77.5°	96.2	99.0	109.0	126.5	141.1	157.6	173.2	186.0	197.9	208.0	218.1
80°	66.9	72.4	83.4	100.8	117.3	135.6	150.3	164.9	177.8	187.9	197.9
82.5°	43.1	47.7	63.2	80.6	98.0	116.4	132.0	146.6	160.4	171.4	180.5
85°	23.8	30.2	45.8	64.1	81.6	99.9	116.4	131.0	144.8	154.9	164.0
87.5°	9.2	18.3	33.0	50.4	67.8	85.2	102.6	116.4	130.1	141.1	149.4
90°	0.0	11.0	24.7	42.2	59.6	77.0	93.5	108.1	121.0	131.0	140.2
92.5°	0.9	7.3	19.2	33.9	50.4	66.9	82.5	97.1	110.0	120.0	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	80.6	91.6	101.7	108.1
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°	1665.9	1665.9	1665.9	1665.9	1665.9	1665.9	1665.9	1665.9	1665.9	1665.9	1665.9
2.5°	1655.8	1658.6	1666.8	1666.8	1665.0	1663.2	1663.2	1660.4	1662.3	1665.9	1664.1
5°	1655.8	1658.6	1666.8	1666.8	1665.0	1663.2	1662.3	1659.5	1662.3	1665.9	1664.1
7.5°	1650.3	1654.0	1662.3	1662.3	1660.4	1659.5	1657.7	1655.8	1658.6	1662.3	1660.4
10°	1643.0	1646.7	1654.9	1654.9	1653.1	1653.1	1650.3	1648.5	1652.2	1654.9	1654.0
12.5°	1632.0	1636.6	1643.9	1643.0	1641.2	1642.1	1639.3	1635.7	1639.3	1642.1	1643.0
15°	1616.4	1621.9	1629.3	1627.4	1624.7	1626.5	1621.9	1619.2	1621.9	1627.4	1626.5
17.5°	1596.3	1599.9	1605.4	1605.4	1602.7	1600.9	1599.0	1596.3	1598.1	1601.8	1602.7
20°	1567.9	1572.5	1575.2	1572.5	1571.5	1568.8	1565.1	1562.4	1566.0	1571.5	1572.5
22.5°	1530.3	1531.2	1537.6	1531.2	1526.6	1525.7	1522.1	1516.6	1522.1	1526.6	1527.5
25°	1483.6	1488.1	1485.4	1474.4	1474.4	1467.1	1465.2	1462.5	1463.4	1471.7	1475.3
27.5°	1424.0	1425.8	1418.5	1409.3	1401.1	1396.5	1390.1	1391.0	1391.0	1402.0	1405.7
30°	1358.9	1348.9	1342.4	1327.8	1321.4	1310.4	1308.5	1308.5	1306.7	1312.2	1328.7
32.5°	1281.1	1267.3	1257.2	1243.5	1232.5	1221.5	1216.0	1218.7	1217.8	1231.6	1237.1
35°	1195.8	1187.6	1166.5	1149.1	1142.7	1126.2	1126.2	1117.9	1123.4	1139.0	1145.4
37.5°	1106.0	1093.2	1075.8	1056.5	1052.0	1039.1	1034.6	1030.0	1041.9	1044.6	1051.0
40°	1014.4	1002.5	986.0	967.7	967.7	952.1	952.1	952.1	953.0	958.5	970.4
42.5°	927.3	914.5	899.9	887.0	885.2	873.3	873.3	872.4	874.2	878.8	889.8
45°	843.0	833.0	817.4	811.0	811.9	799.1	801.8	799.1	802.7	807.3	811.0
47.5°	765.1	758.7	752.3	743.2	740.4	739.5	734.9	731.2	737.7	737.7	743.2
50°	692.8	689.1	685.4	679.9	680.8	677.2	671.7	671.7	676.3	677.2	680.8
52.5°	629.5	624.9	620.4	621.3	622.2	620.4	617.6	614.9	617.6	619.5	624.0
55°	566.3	562.6	567.2	565.4	567.2	565.4	563.6	561.7	566.3	563.6	568.1
57.5°	509.5	513.2	515.0	511.3	514.1	512.2	513.2	510.4	514.1	515.9	515.0
60°	457.3	462.8	460.0	460.9	464.6	462.8	459.1	461.8	465.5	466.4	465.5
62.5°	409.6	416.0	418.8	416.9	417.9	416.0	418.8	415.1	419.7	421.5	418.8
65°	366.5	373.9	375.7	375.7	375.7	373.9	376.6	377.5	379.4	379.4	377.5
67.5°	329.9	336.3	338.1	340.0	338.1	336.3	336.3	337.2	340.9	342.7	340.9
70°	296.9	303.3	304.2	304.2	305.1	307.0	303.3	305.1	307.9	308.8	307.9
72.5°	268.5	274.9	276.7	275.8	276.7	277.7	277.7	275.8	278.6	280.4	280.4
75°	245.6	249.2	251.1	251.1	252.0	252.9	252.9	252.0	253.8	254.7	255.7
77.5°	224.5	227.3	230.0	230.0	230.9	230.0	231.8	231.8	232.8	233.7	234.6
80°	203.4	207.1	208.9	209.8	211.7	212.6	212.6	212.6	213.5	214.4	214.4
82.5°	186.9	189.7	192.4	195.2	195.2	196.1	196.1	196.1	197.0	197.0	197.9
85°	170.4	174.1	176.9	178.7	179.6	180.5	180.5	181.4	181.4	181.4	182.4
87.5°	155.8	160.4	162.2	164.0	164.9	166.8	166.8	166.8	167.7	167.7	167.7
90°	145.7	150.3	152.1	153.9	154.9	155.8	155.8	156.7	156.7	157.6	157.6
92.5°	133.8	138.4	142.0	142.0	143.0	144.8	143.9	143.9	144.8	145.7	145.7
95°	124.6	128.3	131.0	132.0	132.9	132.9	132.9	133.8	132.9	133.8	133.8
97.5°	113.6	117.3	120.0	121.9	122.8	122.8	122.8	123.7	122.8	123.7	123.7
100°	104.5	108.1	110.9	111.8	113.6	113.6	113.6	113.6	113.6	113.6	114.5
102.5°	97.1	100.8	102.6	103.5	104.5	105.4	105.4	105.4	105.4	106.3	106.3
105°	89.8	93.5	95.3	96.2	97.1	98.0	98.0	98.0	99.0	99.0	98.0
107.5°	83.4	86.1	88.0	89.8	90.7	90.7	91.6	91.6	91.6	91.6	91.6
110°	77.0	79.7	82.5	84.3	84.3	85.2	85.2	86.1	86.1	85.2	86.1

TEST NUMBER: P1213796

CATALOG NUMBER: 4SNLED-LD5-49SL-LN-UNV-L940-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	64.1	66.0	66.9	67.8	68.7	69.6	69.6	69.6	69.6	68.7
120°	55.9	58.6	60.5	62.3	63.2	64.1	64.1	64.1	64.1	64.1	64.1
122.5°	51.3	54.1	55.9	57.7	58.6	59.6	59.6	59.6	59.6	59.6	59.6
125°	46.7	49.5	51.3	53.1	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: P1213796

CATALOG NUMBER: 4SNLED-LD5-49SL-LN-UNV-L940-CD1-U

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	1665.9	1665.9	1665.9	1665.9	1665.9	1665.9	1665.9	1665.9	1665.9	1665.9	1665.9
2.5°	1662.3	1661.3	1664.1	1659.5	1645.8	1649.4	1647.6	1655.8	1657.7	1659.5	1667.8
5°	1662.3	1661.3	1663.2	1659.5	1644.8	1647.6	1645.8	1654.0	1655.8	1656.8	1665.0
7.5°	1658.6	1657.7	1660.4	1655.8	1640.3	1643.9	1641.2	1649.4	1650.3	1651.3	1658.6
10°	1651.3	1650.3	1652.2	1648.5	1632.9	1636.6	1632.9	1641.2	1641.2	1643.0	1648.5
12.5°	1640.3	1638.4	1642.1	1637.5	1620.1	1624.7	1622.8	1628.3	1629.3	1630.2	1635.7
15°	1624.7	1622.8	1625.6	1622.8	1607.3	1608.2	1605.4	1613.7	1614.6	1612.8	1618.3
17.5°	1601.8	1599.9	1605.4	1603.6	1588.0	1591.7	1590.8	1592.6	1595.4	1590.8	1598.1
20°	1573.4	1575.2	1577.0	1577.9	1566.0	1566.0	1565.1	1568.8	1571.5	1567.9	1573.4
22.5°	1531.2	1535.8	1541.3	1543.1	1534.9	1534.0	1539.5	1537.6	1540.4	1538.5	1542.2
25°	1478.1	1487.2	1492.7	1498.2	1493.6	1495.5	1503.7	1505.6	1505.6	1504.6	1508.3
27.5°	1412.1	1424.0	1434.1	1446.0	1441.4	1445.1	1458.8	1460.7	1464.3	1460.7	1468.0
30°	1333.3	1344.3	1363.5	1380.9	1382.8	1388.3	1407.5	1409.3	1419.4	1415.8	1418.5
32.5°	1254.5	1260.0	1282.0	1299.4	1310.4	1324.1	1345.2	1348.9	1362.6	1365.4	1365.4
35°	1155.5	1171.1	1191.3	1216.0	1229.7	1244.4	1272.8	1278.3	1298.5	1304.9	1312.2
37.5°	1072.1	1086.8	1099.6	1125.3	1150.0	1166.5	1189.4	1203.2	1224.2	1236.2	1245.3
40°	983.2	995.2	1008.9	1034.6	1055.6	1080.4	1103.3	1119.8	1146.3	1160.1	1172.0
42.5°	898.9	908.1	922.8	941.1	963.1	990.6	1012.6	1031.8	1060.2	1079.5	1093.2
45°	823.8	829.3	842.1	855.9	875.1	903.5	924.6	949.3	972.2	992.4	1008.9
47.5°	753.2	760.6	767.0	776.1	793.6	811.0	835.7	859.5	882.4	904.4	920.9
50°	688.2	688.2	698.3	704.7	716.6	732.2	751.4	767.9	796.3	811.9	833.0
52.5°	624.9	628.6	634.1	637.8	646.9	657.0	672.6	686.3	710.2	724.8	745.0
55°	569.1	572.7	575.5	577.3	582.8	594.7	600.2	611.2	627.7	639.6	657.0
57.5°	515.9	517.7	520.5	521.4	522.3	529.6	534.2	537.0	553.5	565.4	580.0
60°	467.3	467.3	470.1	469.2	468.3	471.9	471.0	473.8	483.8	491.2	497.6
62.5°	421.5	421.5	422.4	420.6	419.7	419.7	416.0	418.8	421.5	422.4	427.0
65°	379.4	383.9	380.3	381.2	375.7	373.9	372.0	366.5	365.6	362.0	363.8
67.5°	341.8	345.5	341.8	341.8	337.2	333.6	329.0	319.8	317.1	309.7	307.9
70°	311.6	308.8	310.6	307.9	302.4	297.8	291.4	284.1	274.9	265.7	259.3
72.5°	282.2	282.2	280.4	277.7	274.9	265.7	258.4	250.2	239.2	227.3	218.1
75°	253.8	254.7	254.7	252.0	247.4	239.2	230.9	219.0	207.1	193.3	181.4
77.5°	233.7	233.7	233.7	229.1	224.5	217.2	207.1	194.3	181.4	164.9	151.2
80°	214.4	213.5	213.5	208.0	203.4	195.2	185.1	172.3	158.5	141.1	125.5
82.5°	198.8	197.9	196.1	191.5	185.1	176.9	166.8	153.0	138.4	122.8	103.5
85°	182.4	181.4	179.6	175.0	168.6	161.3	150.3	136.5	121.9	104.5	86.1
87.5°	167.7	166.8	164.0	161.3	153.9	145.7	134.7	121.9	106.3	89.8	71.5
90°	157.6	155.8	153.9	150.3	143.9	134.7	123.7	110.0	94.4	77.9	59.6
92.5°	145.7	144.8	142.0	138.4	132.9	123.7	112.7	99.9	84.3	68.7	51.3
95°	133.8	132.9	131.0	127.4	121.9	113.6	103.5	90.7	76.1	60.5	44.9
97.5°	122.8	122.8	120.0	117.3	110.9	104.5	94.4	82.5	68.7	55.0	40.3
100°	113.6	113.6	110.9	107.2	102.6	96.2	86.1	75.1	62.3	49.5	34.8
102.5°	105.4	104.5	102.6	99.0	94.4	88.0	78.8	68.7	56.8	44.0	31.2
105°	98.0	97.1	95.3	91.6	88.0	80.6	73.3	63.2	51.3	39.4	27.5
107.5°	90.7	89.8	88.9	85.2	80.6	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



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CATALOG NUMBER: 4SNLED-LD5-49SL-LN-UNV-L940-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°	58.6	56.8	55.0	52.2	47.7	43.1	36.7	31.2	25.7	19.2	12.8
125°	53.1	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: P1213796

CATALOG NUMBER: 4SNLED-LD5-49SL-LN-UNV-L940-CD1-U

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
0°	1665.9	1665.9	1665.9	1665.9	1665.9	1665.9	1665.9	1665.9	1665.9	1665.9	1665.9
2.5°	1668.7	1658.6	1667.8	1679.7	1679.7	1677.8	1676.0	1679.7	1688.8	1685.2	1674.2
5°	1665.9	1655.8	1664.1	1676.0	1676.0	1673.2	1671.4	1674.2	1684.2	1679.7	1669.6
7.5°	1660.4	1651.3	1656.8	1667.8	1667.8	1665.0	1663.2	1666.8	1675.1	1670.5	1659.5
10°	1650.3	1640.3	1646.7	1656.8	1655.8	1654.0	1651.3	1655.8	1663.2	1656.8	1643.9
12.5°	1637.5	1627.4	1632.9	1642.1	1641.2	1637.5	1635.7	1638.4	1644.8	1641.2	1627.4
15°	1620.1	1610.0	1614.6	1623.8	1621.0	1618.3	1614.6	1615.5	1623.8	1617.4	1602.7
17.5°	1599.0	1588.0	1591.7	1599.9	1597.2	1594.4	1589.9	1590.8	1599.9	1590.8	1575.2
20°	1573.4	1561.5	1564.2	1574.3	1569.7	1565.1	1560.5	1560.5	1569.7	1559.6	1542.2
22.5°	1545.9	1534.0	1535.8	1543.1	1539.5	1531.2	1526.6	1529.4	1534.0	1521.1	1502.8
25°	1512.0	1496.4	1499.1	1506.5	1503.7	1492.7	1488.1	1490.0	1488.1	1478.1	1458.8
27.5°	1472.6	1456.1	1457.9	1462.5	1458.8	1448.7	1443.2	1444.2	1440.5	1427.7	1405.7
30°	1423.1	1414.8	1413.9	1416.7	1411.2	1401.1	1394.7	1392.8	1391.9	1373.6	1347.0
32.5°	1372.7	1365.4	1360.8	1364.4	1358.0	1347.9	1336.9	1336.9	1327.8	1310.4	1287.5
35°	1321.4	1309.5	1304.9	1307.6	1300.3	1287.5	1278.3	1273.7	1260.0	1238.0	1213.2
37.5°	1255.4	1247.1	1241.6	1244.4	1236.2	1227.0	1209.6	1205.0	1190.3	1160.1	1128.9
40°	1183.9	1177.5	1172.0	1174.8	1165.6	1151.8	1136.3	1128.9	1112.4	1078.5	1053.8
42.5°	1106.9	1104.2	1097.8	1107.9	1089.5	1075.8	1060.2	1048.3	1031.8	995.2	966.7
45°	1025.4	1031.8	1017.1	1019.9	1008.0	996.1	979.6	962.2	945.7	910.8	878.8
47.5°	939.3	943.8	933.8	935.6	922.8	911.8	897.1	875.1	856.8	826.5	798.1
50°	850.4	848.5	848.5	846.7	836.6	822.9	808.2	788.1	769.7	742.2	718.4
52.5°	756.0	759.7	761.5	766.1	753.2	745.0	722.1	704.7	690.9	662.5	642.4
55°	665.3	678.1	674.4	676.3	661.6	655.2	636.9	623.1	603.0	586.5	573.6
57.5°	582.8	585.5	587.4	590.1	583.7	570.9	556.2	545.2	529.6	515.9	506.7
60°	503.1	503.1	504.0	508.6	502.2	491.2	480.2	471.9	460.9	452.7	447.2
62.5°	427.9	434.3	435.3	431.6	423.4	417.9	410.5	405.9	398.6	395.9	394.0
65°	358.3	358.3	358.3	360.1	355.5	351.9	347.3	346.4	349.1	345.5	347.3
67.5°	299.6	296.9	295.1	296.0	294.1	292.3	291.4	294.1	299.6	299.6	304.2
70°	249.2	243.7	240.1	240.1	240.1	241.0	243.7	249.2	258.4	262.1	268.5
72.5°	208.0	196.1	190.6	190.6	191.5	195.2	203.4	213.5	221.8	229.1	237.3
75°	168.6	156.7	148.4	147.5	149.4	154.9	166.8	175.9	189.7	199.8	209.8
77.5°	136.5	121.9	111.8	110.9	113.6	121.9	136.5	148.4	164.0	175.0	186.0
80°	109.0	92.6	84.3	78.8	83.4	93.5	110.0	124.6	139.3	153.9	167.7
82.5°	87.1	71.5	58.6	53.1	58.6	72.4	88.0	105.4	120.0	135.6	149.4
85°	68.7	52.2	37.6	32.1	38.5	53.1	70.6	88.0	104.5	120.0	133.8
87.5°	54.1	37.6	22.9	15.6	23.8	39.4	55.9	73.3	90.7	106.3	120.0
90°	42.2	26.6	12.8	1.8	13.7	28.4	44.9	61.4	78.8	94.4	108.1
92.5°	35.7	20.2	7.3	0.0	8.2	21.1	36.7	53.1	68.7	84.3	98.0
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	53.1	67.8	80.6
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	53.1
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: P1213796

CATALOG NUMBER: 4SNLED-LD5-49SL-LN-UNV-L940-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: P1213796

CATALOG NUMBER: 4SNLED-LD5-49SL-LN-UNV-L940-CD1-U

CANDELA DISTRIBUTION (continued):

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
0°	1665.9	1665.9	1665.9	1665.9	1665.9	1665.9	1665.9	1665.9	1665.9	1665.9	1665.9
2.5°	1670.5	1653.1	1662.3	1659.5	1663.2	1670.5	1669.6	1667.8	1667.8	1665.0	1661.3
5°	1665.0	1648.5	1656.8	1652.2	1656.8	1663.2	1662.3	1659.5	1661.3	1656.8	1652.2
7.5°	1654.0	1639.3	1646.7	1643.0	1646.7	1653.1	1650.3	1649.4	1651.3	1643.9	1641.2
10°	1641.2	1624.7	1632.9	1628.3	1632.9	1637.5	1635.7	1632.0	1635.7	1628.3	1625.6
12.5°	1621.0	1607.3	1612.8	1610.9	1613.7	1618.3	1614.6	1611.9	1613.7	1607.3	1601.8
15°	1599.0	1585.3	1589.9	1587.1	1588.9	1594.4	1588.0	1587.1	1585.3	1578.9	1577.0
17.5°	1570.6	1557.8	1562.4	1557.8	1560.5	1558.7	1557.8	1553.2	1553.2	1545.9	1540.4
20°	1535.8	1524.8	1522.1	1518.4	1522.1	1518.4	1512.9	1509.2	1508.3	1501.0	1496.4
22.5°	1495.5	1482.6	1484.5	1474.4	1475.3	1469.8	1460.7	1457.0	1453.3	1445.1	1438.7
25°	1446.9	1434.1	1424.9	1418.5	1410.3	1409.3	1397.4	1388.3	1387.3	1377.3	1376.4
27.5°	1391.9	1377.3	1369.9	1354.4	1344.3	1336.0	1326.0	1316.8	1312.2	1301.2	1293.9
30°	1328.7	1312.2	1293.9	1282.9	1267.3	1260.9	1243.5	1232.5	1228.8	1216.9	1211.4
32.5°	1257.2	1239.8	1225.2	1204.1	1186.7	1177.5	1160.1	1149.1	1144.5	1131.7	1124.4
35°	1179.3	1160.1	1142.7	1122.5	1108.8	1093.2	1072.1	1061.1	1051.0	1046.5	1041.0
37.5°	1097.8	1076.7	1056.5	1036.4	1024.5	1006.1	987.8	980.5	968.6	964.0	958.5
40°	1013.5	992.4	973.2	953.9	940.2	923.7	907.2	904.4	891.6	887.0	883.4
42.5°	930.1	908.1	886.1	872.4	862.3	845.8	834.8	832.0	821.0	818.3	818.3
45°	855.0	827.5	809.1	797.2	789.0	775.2	766.1	764.2	755.1	753.2	753.2
47.5°	774.3	748.7	734.9	727.6	720.2	710.2	704.7	704.7	695.5	693.7	692.8
50°	699.2	675.3	665.3	657.9	657.0	649.7	645.1	643.3	643.3	636.9	637.8
52.5°	627.7	615.8	607.5	603.0	597.5	592.9	589.2	589.2	586.5	581.9	583.7
55°	561.7	548.0	548.9	545.2	542.5	539.7	540.6	535.1	534.2	530.6	533.3
57.5°	495.7	495.7	493.9	491.2	486.6	488.4	488.4	488.4	483.8	481.1	483.8
60°	439.8	442.6	438.0	440.8	438.9	439.8	438.0	438.0	435.3	434.3	435.3
62.5°	390.4	394.9	393.1	396.8	394.9	395.9	397.7	394.0	392.2	390.4	392.2
65°	346.4	351.9	351.0	353.7	354.6	355.5	356.5	354.6	352.8	351.0	350.0
67.5°	307.9	313.4	317.1	318.0	318.9	321.6	320.7	318.9	317.1	314.3	313.4
70°	273.1	280.4	285.0	286.8	290.5	288.6	288.6	287.7	285.9	283.2	282.2
72.5°	243.7	252.0	256.6	258.4	262.1	262.1	261.2	260.2	258.4	255.7	254.7
75°	218.1	225.4	231.8	235.5	238.3	238.3	237.3	236.4	234.6	232.8	231.8
77.5°	197.9	204.3	209.8	214.4	216.3	217.2	216.3	214.4	214.4	213.5	212.6
80°	177.8	185.1	190.6	195.2	197.9	197.9	197.0	197.9	196.1	195.2	194.3
82.5°	160.4	168.6	175.0	179.6	181.4	182.4	181.4	182.4	180.5	180.5	180.5
85°	144.8	153.0	160.4	164.0	166.8	167.7	167.7	167.7	166.8	166.8	166.8
87.5°	132.0	140.2	147.5	151.2	153.9	154.9	154.9	155.8	153.9	153.9	153.9
90°	120.0	128.3	135.6	139.3	142.0	143.9	143.9	144.8	143.9	143.0	143.0
92.5°	109.0	118.2	125.5	129.2	132.0	134.7	134.7	135.6	133.8	133.8	133.8
95°	99.9	109.0	115.5	120.0	122.8	124.6	125.5	125.5	124.6	124.6	124.6
97.5°	91.6	99.9	106.3	110.9	113.6	114.5	115.5	116.4	115.5	115.5	115.5
100°	83.4	91.6	98.0	101.7	105.4	106.3	107.2	108.1	108.1	107.2	107.2
102.5°	76.1	84.3	89.8	94.4	97.1	99.0	99.9	99.9	99.9	99.9	99.9
105°	68.7	77.0	82.5	87.1	89.8	91.6	92.6	93.5	93.5	92.6	92.6
107.5°	62.3	69.6	76.1	79.7	83.4	85.2	86.1	86.1	87.1	86.1	86.1
110°	55.9	64.1	69.6	73.3	77.0	78.8	79.7	80.6	80.6	80.6	80.6

TEST NUMBER: P1213796

CATALOG NUMBER: 4SNLED-LD5-49SL-LN-UNV-L940-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	75.1	74.2	74.2
115°	45.8	52.2	57.7	61.4	64.1	66.0	67.8	68.7	68.7	69.6	68.7
117.5°	41.2	46.7	52.2	55.9	58.6	61.4	62.3	63.2	64.1	63.2	63.2
120°	36.7	42.2	46.7	50.4	53.1	55.9	56.8	57.7	58.6	57.7	57.7
122.5°	33.0	37.6	42.2	45.8	48.6	50.4	52.2	52.2	53.1	53.1	53.1
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: P1213796

CATALOG NUMBER: 4SNLED-LD5-49SL-LN-UNV-L940-CD1-U

CANDELA DISTRIBUTION (continued):

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°
0°	1665.9	1665.9	1665.9	1665.9	1665.9	1665.9	1665.9	1665.9	1665.9	1665.9	1665.9
2.5°	1664.1	1665.9	1665.9	1664.1	1663.2	1666.8	1662.3	1644.8	1650.3	1652.2	1657.7
5°	1655.8	1657.7	1657.7	1657.7	1655.8	1659.5	1654.9	1637.5	1643.9	1646.7	1650.3
7.5°	1643.9	1644.8	1646.7	1645.8	1643.9	1649.4	1644.8	1627.4	1632.0	1636.6	1641.2
10°	1628.3	1628.3	1629.3	1631.1	1629.3	1633.8	1629.3	1613.7	1618.3	1621.0	1626.5
12.5°	1607.3	1609.1	1610.0	1609.1	1608.2	1611.9	1610.0	1595.4	1597.2	1602.7	1608.2
15°	1578.9	1578.9	1583.4	1581.6	1581.6	1585.3	1587.1	1570.6	1573.4	1581.6	1587.1
17.5°	1544.0	1545.0	1548.6	1550.5	1549.5	1556.0	1556.9	1544.0	1543.1	1553.2	1558.7
20°	1499.1	1501.0	1505.6	1509.2	1509.2	1516.6	1519.3	1511.1	1512.0	1523.0	1524.8
22.5°	1444.2	1444.2	1452.4	1457.9	1462.5	1467.1	1475.3	1468.0	1468.0	1482.6	1490.9
25°	1376.4	1382.8	1385.5	1396.5	1402.9	1415.8	1423.1	1424.0	1424.9	1438.7	1444.2
27.5°	1301.2	1303.0	1311.3	1324.1	1331.5	1343.4	1357.1	1359.9	1364.4	1382.8	1391.0
30°	1216.0	1221.5	1225.2	1243.5	1253.6	1269.1	1286.6	1293.0	1296.6	1321.4	1331.5
32.5°	1128.9	1130.8	1146.3	1156.4	1168.3	1184.8	1205.0	1216.9	1224.2	1249.9	1264.6
35°	1041.9	1045.6	1058.4	1071.2	1083.1	1099.6	1120.7	1137.2	1150.0	1172.9	1192.2
37.5°	962.2	971.3	974.1	986.9	996.1	1012.6	1027.2	1051.0	1063.9	1087.7	1112.4
40°	890.7	893.4	895.3	908.1	914.5	930.1	951.2	966.7	984.2	1001.6	1030.9
42.5°	820.1	822.0	824.7	832.0	839.4	850.4	865.9	881.5	899.9	925.5	944.8
45°	755.1	756.9	758.7	763.3	769.7	779.8	789.9	800.9	819.2	841.2	861.4
47.5°	694.6	698.3	698.3	699.2	703.8	712.0	719.3	733.1	743.2	755.1	778.0
50°	636.9	639.6	640.5	640.5	643.3	648.8	650.6	659.8	668.9	679.9	696.4
52.5°	582.8	582.8	581.9	585.5	585.5	589.2	590.1	595.6	602.0	614.0	621.3
55°	531.5	531.5	534.2	532.4	532.4	534.2	533.3	534.2	539.7	547.1	553.5
57.5°	482.0	481.1	483.8	482.0	481.1	482.9	484.7	481.1	482.0	489.3	489.3
60°	432.5	433.4	436.2	434.3	434.3	434.3	432.5	430.7	428.9	433.4	435.3
62.5°	393.1	390.4	393.1	390.4	392.2	391.3	389.4	385.8	386.7	384.9	383.0
65°	351.9	351.9	352.8	350.0	351.9	351.9	349.1	348.2	342.7	340.9	336.3
67.5°	316.1	316.1	317.1	315.2	315.2	316.1	313.4	310.6	305.1	302.4	296.0
70°	285.0	285.0	285.0	284.1	284.1	284.1	282.2	278.6	273.1	268.5	260.2
72.5°	256.6	257.5	256.6	256.6	259.3	256.6	253.8	250.2	245.6	236.4	229.1
75°	233.7	234.6	233.7	233.7	233.7	232.8	231.8	226.3	220.8	213.5	202.5
77.5°	213.5	213.5	214.4	213.5	213.5	212.6	209.8	205.3	198.8	192.4	179.6
80°	194.3	195.2	196.1	197.0	195.2	194.3	191.5	187.9	179.6	172.3	159.4
82.5°	180.5	179.6	180.5	181.4	179.6	178.7	175.9	171.4	164.9	154.9	142.0
85°	166.8	165.9	165.9	166.8	165.9	164.0	161.3	156.7	150.3	140.2	127.4
87.5°	153.0	153.9	154.9	153.9	153.0	151.2	148.4	143.9	136.5	128.3	114.5
90°	143.0	143.0	143.0	143.0	142.0	140.2	137.5	132.0	125.5	115.5	103.5
92.5°	133.8	133.8	133.8	133.8	132.9	130.1	127.4	122.8	115.5	105.4	94.4
95°	124.6	125.5	124.6	124.6	122.8	121.9	117.3	112.7	106.3	96.2	84.3
97.5°	114.5	115.5	114.5	114.5	113.6	111.8	109.0	103.5	97.1	88.0	77.0
100°	107.2	107.2	106.3	106.3	105.4	103.5	99.9	95.3	88.9	79.7	68.7
102.5°	99.0	99.9	99.0	99.0	97.1	95.3	92.6	88.0	81.6	72.4	62.3
105°	92.6	92.6	91.6	91.6	89.8	88.0	85.2	79.7	74.2	66.0	55.9
107.5°	86.1	86.1	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: P1213796

CATALOG NUMBER: 4SNLED-LD5-49SL-LN-UNV-L940-CD1-U

CANDELA DISTRIBUTION (continued):

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°
112.5°	75.1	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°	53.1	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-LD5-49SL-LN-UNV-L940-CD1-U

CANDELA DISTRIBUTION (continued):

	330°	335°	340°	345°	350°	355°	360°
0°	1665.9	1665.9	1665.9	1665.9	1665.9	1665.9	1665.9
2.5°	1654.9	1654.0	1661.3	1661.3	1653.1	1665.9	1679.7
5°	1649.4	1648.5	1655.8	1655.8	1648.5	1661.3	1676.0
7.5°	1638.4	1639.3	1646.7	1648.5	1639.3	1651.3	1666.8
10°	1626.5	1625.6	1633.8	1635.7	1628.3	1639.3	1654.0
12.5°	1607.3	1607.3	1615.5	1618.3	1610.9	1623.8	1637.5
15°	1587.1	1587.1	1592.6	1597.2	1590.8	1602.7	1616.4
17.5°	1561.5	1560.5	1566.0	1571.5	1565.1	1577.9	1592.6
20°	1528.5	1528.5	1534.9	1541.3	1536.7	1548.6	1565.1
22.5°	1493.6	1490.0	1501.0	1505.6	1502.8	1514.7	1531.2
25°	1449.7	1448.7	1459.7	1466.2	1462.5	1475.3	1490.0
27.5°	1402.0	1401.1	1412.1	1420.3	1418.5	1430.4	1446.9
30°	1344.3	1348.9	1358.9	1372.7	1368.1	1380.9	1398.3
32.5°	1283.8	1288.4	1300.3	1315.0	1315.9	1326.0	1343.4
35°	1211.4	1223.3	1231.6	1250.8	1254.5	1264.6	1282.9
37.5°	1135.4	1149.1	1166.5	1181.2	1188.5	1196.7	1217.8
40°	1050.1	1070.3	1089.5	1106.9	1116.1	1124.4	1144.5
42.5°	973.2	988.7	1007.1	1024.5	1041.0	1048.3	1069.4
45°	886.1	904.4	920.9	942.0	958.5	966.7	987.8
47.5°	800.9	819.2	841.2	855.9	873.3	881.5	901.7
50°	719.3	735.8	754.2	771.6	786.2	793.6	811.0
52.5°	638.7	656.1	673.5	684.5	700.1	705.6	720.2
55°	567.2	579.1	594.7	601.1	616.7	620.4	630.4
57.5°	498.5	506.7	512.2	523.2	534.2	542.5	554.4
60°	436.2	439.8	443.5	449.9	459.1	461.8	466.4
62.5°	380.3	379.4	386.7	388.5	389.4	398.6	394.0
65°	330.8	331.7	325.3	322.6	326.2	329.0	327.1
67.5°	289.6	284.1	278.6	272.2	266.7	269.4	266.7
70°	249.2	244.7	235.5	226.3	222.7	217.2	214.4
72.5°	217.2	206.2	197.0	185.1	178.7	172.3	167.7
75°	192.4	176.9	164.0	151.2	142.0	132.9	131.0
77.5°	166.8	152.1	137.5	123.7	110.0	99.9	96.2
80°	146.6	132.9	115.5	99.0	84.3	71.5	66.9
82.5°	128.3	113.6	96.2	78.8	62.3	48.6	43.1
85°	112.7	97.1	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	64.1	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: P1213796

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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)