

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: P1213109

Luminaire Tested: 4SNLED-LD5-53SL-LN-UNV-L930-CD1-U

Issue Date: 3/29/2018

Test Information

Test Method: LM-79-2019
Report Number: P1213109
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-LD5-53SL-LN-UNV-L930-CD1-U
Description: 4FT LINEAR SNLED LED FIXTURE
NARROW LENS
Light Source: -
Ballast/Driver: -

Summary

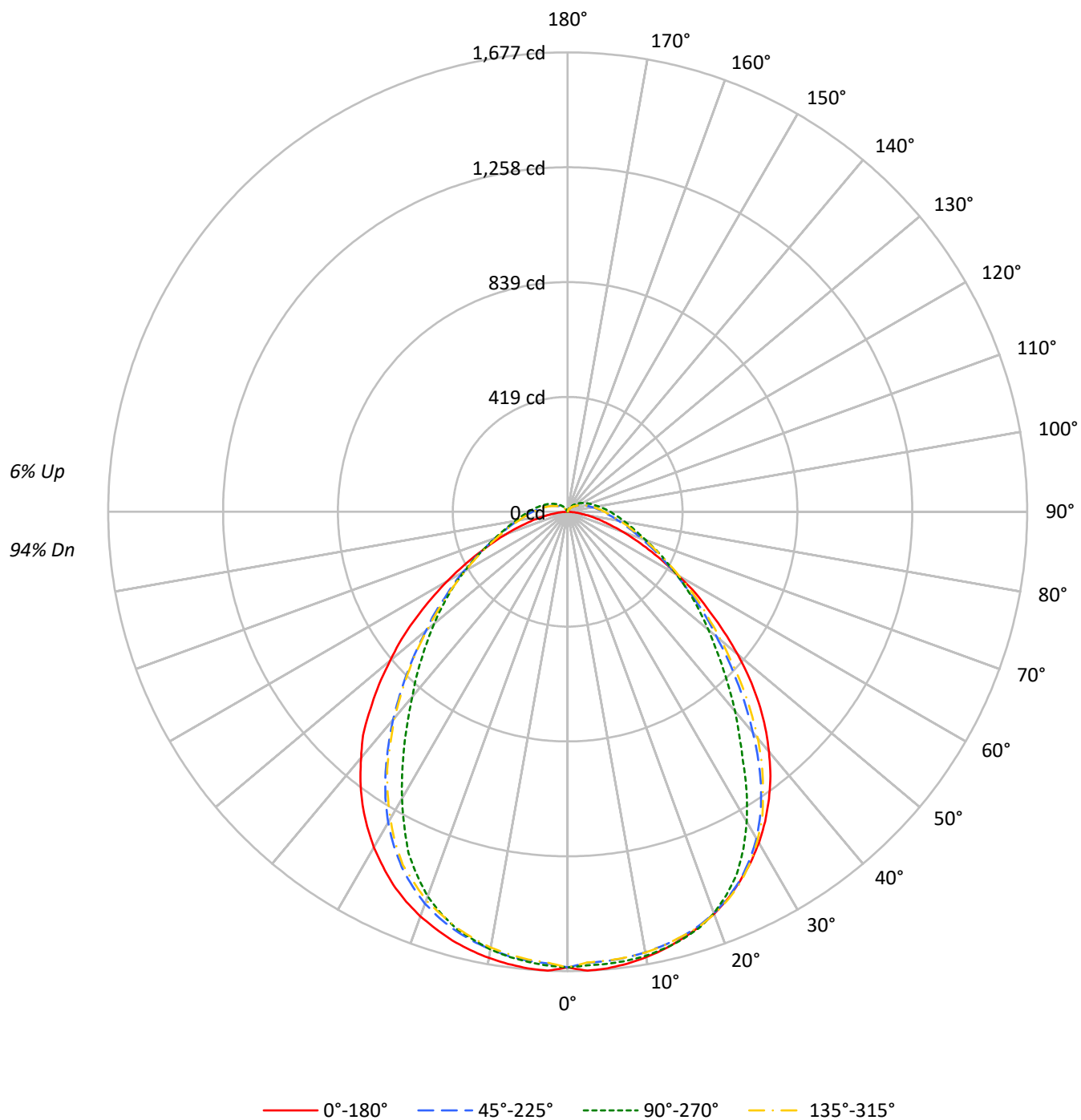
Lumens per Lamp: N/A
Luminaire Lumens: 4209.0 lumens
Efficiency: N/A
Efficacy: 102.7 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.14 / 1.24
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.12')
CIE Type: Direct

Input Watts (W): 41
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°	13440	13440	13440	13440
5°	13536	13012	13536	12954
10°	13476	12667	13498	12490
15°	13389	12288	13450	11968
20°	13286	11801	13364	11303
25°	13073	11079	13218	10427
30°	12795	10019	12963	9275
35°	12365	8719	12603	8118
40°	11745	7625	12056	7075
45°	10929	6628	11284	6249
50°	9813	5825	10245	5530
55°	8489	5144	9105	4883
60°	7139	4516	7784	4256
65°	5853	3993	6442	3702
70°	4659	3543	5216	3278
75°	3657	3272	4119	3011
80°	2641	3156	3111	2884
85°	1626	3174	2186	2918

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 180°

Vertical Angle: 45°

Luminance: 11284 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	157.7	3.7
10°-20°	452.1	10.7
20°-30°	670.1	15.9
30°-40°	744.4	17.7
40°-50°	674.8	16.0
50°-60°	522.9	12.4
60°-70°	355.1	8.4
70°-80°	225.9	5.4
80°-90°	144.4	3.4
90°-100°	97.4	2.3
100°-110°	66.7	1.6
110°-120°	44.5	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°	1279.9	30.4
0°-40°	2024.3	48.1
0°-60°	3222.0	76.6
0°-90°	3947.5	93.8
90°-120°	208.6	5.0
90°-150°	258.7	6.1
90°-180°	262.0	6.2
0°-180°	4209.0	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	1663	1663	1663	1663	1663	
5°	1673	1657	1673	1649	1673	159
15°	1614	1616	1621	1574	1614	455
25°	1488	1460	1504	1374	1488	685
35°	1281	1116	1306	1039	1281	799
45°	986	798	1018	752	986	757
55°	629	561	675	532	629	567
65°	327	377	360	350	327	327
75°	131	252	147	232	131	141
85°	24	181	32	166	24	28
90°	0	156	2	143	0	1
95°	1	134	0	124	1	1
105°	1	98	0	92	1	1
115°	1	74	0	69	1	1
125°	1	55	1	48	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°	1663.2	1663.2	1663.2	1663.2	1663.2	1663.2	1663.2	1663.2	1663.2	1663.2	1663.2
2.5°	1676.9	1675.0	1673.2	1670.5	1673.2	1680.5	1676.0	1665.9	1664.1	1647.6	1654.9
5°	1673.2	1670.5	1668.6	1665.9	1669.6	1678.7	1674.1	1665.0	1662.2	1646.7	1654.9
7.5°	1664.1	1662.2	1659.5	1659.5	1663.2	1672.3	1668.6	1658.6	1656.7	1641.2	1650.3
10°	1651.3	1650.3	1648.5	1648.5	1652.2	1663.2	1658.6	1649.4	1647.6	1633.0	1643.0
12.5°	1634.8	1635.7	1633.0	1633.0	1638.5	1649.4	1645.8	1635.7	1633.9	1621.1	1631.1
15°	1613.8	1614.7	1612.8	1613.8	1619.2	1632.0	1627.5	1618.3	1616.5	1606.4	1614.7
17.5°	1590.0	1590.9	1590.9	1590.0	1596.4	1609.2	1605.5	1597.3	1594.5	1586.3	1596.4
20°	1562.5	1562.5	1562.5	1562.5	1569.8	1582.6	1578.1	1571.7	1566.2	1559.8	1568.0
22.5°	1528.7	1527.8	1528.7	1531.4	1538.7	1548.8	1546.1	1538.7	1530.5	1526.8	1533.2
25°	1487.5	1490.2	1491.2	1493.9	1503.1	1511.3	1508.5	1501.2	1488.4	1485.7	1487.5
27.5°	1444.5	1446.3	1449.1	1448.2	1461.0	1469.2	1463.7	1457.3	1439.0	1436.3	1434.4
30°	1396.0	1398.8	1400.6	1399.7	1409.7	1418.9	1413.4	1405.2	1380.5	1378.6	1364.0
32.5°	1341.1	1343.9	1345.7	1345.7	1360.3	1364.0	1353.9	1342.0	1315.5	1309.1	1296.3
35°	1280.8	1283.5	1284.4	1284.4	1299.1	1298.1	1285.3	1268.9	1239.6	1231.4	1209.4
37.5°	1215.8	1217.6	1218.5	1224.0	1230.4	1225.0	1208.5	1187.4	1165.5	1142.6	1118.8
40°	1142.6	1145.4	1147.2	1150.8	1157.3	1150.8	1127.1	1101.4	1077.7	1052.0	1028.3
42.5°	1067.6	1075.8	1074.0	1073.1	1076.7	1059.4	1041.1	1011.8	988.0	961.5	937.7
45°	986.2	985.3	989.8	991.7	990.8	976.1	950.5	924.0	900.2	872.7	852.6
47.5°	900.2	899.3	902.9	904.8	899.3	883.7	863.6	833.4	813.3	789.5	773.9
50°	809.6	809.6	815.1	809.6	806.9	791.3	774.9	744.7	729.1	708.1	698.9
52.5°	719.1	727.3	721.8	720.0	717.2	701.7	688.9	664.2	651.4	642.2	631.2
55°	629.4	638.5	634.9	632.1	631.2	618.4	606.5	588.2	580.0	573.6	567.2
57.5°	553.5	552.6	550.7	548.0	548.9	538.8	526.9	516.9	513.2	510.5	512.3
60°	465.6	473.0	470.2	471.1	472.0	470.2	460.2	453.8	454.7	455.6	458.3
62.5°	393.4	399.8	404.4	400.7	402.5	405.3	399.8	397.9	401.6	405.3	408.9
65°	326.6	333.0	337.6	336.7	342.1	347.6	346.7	348.5	356.8	361.4	365.9
67.5°	266.2	272.6	279.0	279.9	288.2	296.4	300.1	306.5	315.6	322.0	327.5
70°	214.1	219.6	226.9	231.5	242.4	253.4	259.8	272.6	278.1	287.3	290.9
72.5°	167.4	172.0	182.1	193.0	202.2	215.9	228.7	239.7	247.9	258.0	262.6
75°	130.8	132.6	143.6	156.4	169.2	184.8	198.5	210.4	221.4	231.5	238.8
77.5°	96.1	98.8	108.9	126.2	140.9	157.3	172.9	185.7	197.6	207.7	217.7
80°	66.8	72.3	83.2	100.6	117.1	135.4	150.0	164.7	177.5	187.5	197.6
82.5°	43.0	47.6	63.1	80.5	97.9	116.2	131.7	146.4	160.1	171.1	180.2
85°	23.8	30.2	45.7	64.0	81.4	99.7	116.2	130.8	144.5	154.6	163.8
87.5°	9.1	18.3	32.9	50.3	67.7	85.1	102.5	116.2	129.9	140.9	149.1
90°	0.0	11.0	24.7	42.1	59.5	76.8	93.3	107.9	120.8	130.8	140.0
92.5°	0.9	7.3	19.2	33.8	50.3	66.8	82.3	97.0	109.8	119.8	128.1
95°	0.9	5.5	15.6	29.3	43.9	59.5	74.1	87.8	99.7	109.8	118.0
97.5°	0.9	3.7	12.8	25.6	38.4	54.0	67.7	80.5	91.5	101.5	107.9
100°	0.9	3.7	11.0	22.0	34.8	48.5	61.3	74.1	84.2	92.4	99.7
102.5°	0.9	2.7	9.1	19.2	31.1	43.0	55.8	67.7	76.8	85.1	92.4
105°	0.9	2.7	8.2	16.5	27.4	39.3	50.3	61.3	71.4	78.7	85.1
107.5°	0.9	1.8	7.3	13.7	23.8	35.7	46.7	55.8	65.0	72.3	78.7
110°	0.9	1.8	6.4	12.8	21.0	32.0	42.1	51.2	59.5	66.8	72.3

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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	38.4	46.7	54.9	61.3	66.8
115°	0.9	1.8	5.5	11.0	17.4	24.7	33.8	43.0	49.4	56.7	61.3
117.5°	0.9	1.8	4.6	9.1	16.5	22.9	31.1	38.4	45.7	52.1	56.7
120°	0.9	1.8	4.6	8.2	14.6	21.0	27.4	34.8	42.1	46.7	51.2
122.5°	0.9	1.8	3.7	8.2	12.8	19.2	24.7	31.1	37.5	43.0	47.6
125°	0.9	1.8	3.7	7.3	11.9	17.4	22.9	27.4	33.8	38.4	43.0
127.5°	0.9	1.8	3.7	6.4	11.0	15.6	21.0	25.6	30.2	34.8	38.4
130°	0.9	1.8	2.7	5.5	10.1	13.7	18.3	23.8	27.4	31.1	34.8
132.5°	0.9	1.8	2.7	5.5	8.2	11.9	16.5	21.0	24.7	28.4	31.1
135°	0.9	1.8	2.7	4.6	7.3	11.0	13.7	18.3	22.0	25.6	28.4
137.5°	0.9	1.8	2.7	4.6	6.4	9.1	11.9	15.6	19.2	22.0	25.6
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	9.1	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	9.1
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°	1663.2	1663.2	1663.2	1663.2	1663.2	1663.2	1663.2	1663.2	1663.2	1663.2	1663.2
2.5°	1653.1	1655.8	1664.1	1664.1	1662.2	1660.4	1660.4	1657.7	1659.5	1663.2	1661.3
5°	1653.1	1655.8	1664.1	1664.1	1662.2	1660.4	1659.5	1656.7	1659.5	1663.2	1661.3
7.5°	1647.6	1651.3	1659.5	1659.5	1657.7	1656.7	1654.9	1653.1	1655.8	1659.5	1657.7
10°	1640.3	1643.9	1652.2	1652.2	1650.3	1650.3	1647.6	1645.8	1649.4	1652.2	1651.3
12.5°	1629.3	1633.9	1641.2	1640.3	1638.5	1639.4	1636.6	1633.0	1636.6	1639.4	1640.3
15°	1613.8	1619.2	1626.6	1624.7	1622.0	1623.8	1619.2	1616.5	1619.2	1624.7	1623.8
17.5°	1593.6	1597.3	1602.8	1602.8	1600.0	1598.2	1596.4	1593.6	1595.5	1599.1	1600.0
20°	1565.3	1569.8	1572.6	1569.8	1568.9	1566.2	1562.5	1559.8	1563.4	1568.9	1569.8
22.5°	1527.8	1528.7	1535.1	1528.7	1524.1	1523.2	1519.5	1514.0	1519.5	1524.1	1525.0
25°	1481.1	1485.7	1482.9	1472.0	1472.0	1464.6	1462.8	1460.1	1461.0	1469.2	1472.9
27.5°	1421.6	1423.5	1416.1	1407.0	1398.8	1394.2	1387.8	1388.7	1388.7	1399.7	1403.3
30°	1356.7	1346.6	1340.2	1325.6	1319.2	1308.2	1306.4	1306.4	1304.5	1310.0	1326.5
32.5°	1278.9	1265.2	1255.1	1241.4	1230.4	1219.5	1214.0	1216.7	1215.8	1229.5	1235.0
35°	1193.8	1185.6	1164.6	1147.2	1140.8	1124.3	1124.3	1116.1	1121.6	1137.1	1143.5
37.5°	1104.2	1091.4	1074.0	1054.8	1050.2	1037.4	1032.8	1028.3	1040.2	1042.9	1049.3
40°	1012.7	1000.8	984.4	966.1	966.1	950.5	950.5	950.5	951.4	956.9	968.8
42.5°	925.8	913.0	898.4	885.6	883.7	871.8	871.8	870.9	872.7	877.3	888.3
45°	841.6	831.6	816.0	809.6	810.5	797.7	800.5	797.7	801.4	806.0	809.6
47.5°	763.9	757.5	751.1	741.9	739.2	738.3	733.7	730.0	736.4	736.4	741.9
50°	691.6	687.9	684.3	678.8	679.7	676.1	670.6	670.6	675.1	676.1	679.7
52.5°	628.5	623.9	619.3	620.3	621.2	619.3	616.6	613.8	616.6	618.4	623.0
55°	565.4	561.7	566.3	564.4	566.3	564.4	562.6	560.8	565.4	562.6	567.2
57.5°	508.6	512.3	514.1	510.5	513.2	511.4	512.3	509.6	513.2	515.0	514.1
60°	456.5	462.0	459.2	460.2	463.8	462.0	458.3	461.1	464.7	465.6	464.7
62.5°	408.9	415.3	418.1	416.2	417.2	415.3	418.1	414.4	419.0	420.8	418.1
65°	365.9	373.2	375.1	375.1	375.1	373.2	376.0	376.9	378.7	378.7	376.9
67.5°	329.3	335.7	337.6	339.4	337.6	335.7	335.7	336.7	340.3	342.1	340.3
70°	296.4	302.8	303.7	303.7	304.6	306.5	302.8	304.6	307.4	308.3	307.4
72.5°	268.0	274.4	276.3	275.4	276.3	277.2	277.2	275.4	278.1	279.9	279.9
75°	245.2	248.8	250.7	250.7	251.6	252.5	252.5	251.6	253.4	254.3	255.2
77.5°	224.1	226.9	229.6	229.6	230.5	229.6	231.5	231.5	232.4	233.3	234.2
80°	203.1	206.8	208.6	209.5	211.3	212.2	212.2	212.2	213.2	214.1	214.1
82.5°	186.6	189.4	192.1	194.9	194.9	195.8	195.8	195.8	196.7	196.7	197.6
85°	170.2	173.8	176.6	178.4	179.3	180.2	180.2	181.1	181.1	181.1	182.1
87.5°	155.5	160.1	161.9	163.8	164.7	166.5	166.5	166.5	167.4	167.4	167.4
90°	145.5	150.0	151.9	153.7	154.6	155.5	155.5	156.4	156.4	157.3	157.3
92.5°	133.6	138.1	141.8	141.8	142.7	144.5	143.6	143.6	144.5	145.5	145.5
95°	124.4	128.1	130.8	131.7	132.6	132.6	132.6	133.6	132.6	133.6	133.6
97.5°	113.4	117.1	119.8	121.7	122.6	122.6	122.6	123.5	122.6	123.5	123.5
100°	104.3	107.9	110.7	111.6	113.4	113.4	113.4	113.4	113.4	113.4	114.4
102.5°	97.0	100.6	102.5	103.4	104.3	105.2	105.2	105.2	105.2	106.1	106.1
105°	89.7	93.3	95.1	96.1	97.0	97.9	97.9	97.9	98.8	98.8	97.9
107.5°	83.2	86.0	87.8	89.7	90.6	90.6	91.5	91.5	91.5	91.5	91.5
110°	76.8	79.6	82.3	84.2	84.2	85.1	85.1	86.0	86.0	85.1	86.0

TEST NUMBER: P1213109

CATALOG NUMBER: 4SNLED-LD5-53SL-LN-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
112.5°	70.4	74.1	75.9	77.8	78.7	79.6	79.6	79.6	79.6	79.6	79.6
115°	65.0	68.6	70.4	72.3	73.2	74.1	74.1	74.1	74.1	74.1	74.1
117.5°	60.4	64.0	65.9	66.8	67.7	68.6	69.5	69.5	69.5	69.5	68.6
120°	55.8	58.5	60.4	62.2	63.1	64.0	64.0	64.0	64.0	64.0	64.0
122.5°	51.2	54.0	55.8	57.6	58.5	59.5	59.5	59.5	59.5	59.5	59.5
125°	46.7	49.4	51.2	53.1	54.0	54.9	54.9	54.9	54.9	54.9	54.9
127.5°	42.1	44.8	47.6	48.5	49.4	50.3	50.3	50.3	51.2	50.3	50.3
130°	37.5	40.3	43.0	43.9	44.8	45.7	46.7	46.7	46.7	46.7	45.7
132.5°	33.8	36.6	38.4	39.3	41.2	41.2	42.1	42.1	42.1	42.1	41.2
135°	31.1	32.9	34.8	35.7	37.5	37.5	37.5	38.4	38.4	37.5	36.6
137.5°	27.4	29.3	31.1	32.0	32.9	33.8	33.8	34.8	33.8	33.8	33.8
140°	25.6	26.5	28.4	29.3	30.2	30.2	30.2	31.1	31.1	30.2	30.2
142.5°	22.0	23.8	25.6	26.5	27.4	27.4	27.4	27.4	27.4	27.4	27.4
145°	18.3	21.0	22.0	23.8	23.8	24.7	24.7	24.7	24.7	24.7	23.8
147.5°	15.6	17.4	20.1	21.0	21.0	22.0	22.0	22.0	22.0	22.0	21.0
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	14.6	15.6	15.6	15.6	16.5	15.6	15.6	15.6
155°	9.1	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	9.1	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	9.1	10.1	9.1	9.1	9.1	9.1
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: P1213109

CATALOG NUMBER: 4SNLED-LD5-53SL-LN-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	1663.2	1663.2	1663.2	1663.2	1663.2	1663.2	1663.2	1663.2	1663.2	1663.2	1663.2
2.5°	1659.5	1658.6	1661.3	1656.7	1643.0	1646.7	1644.9	1653.1	1654.9	1656.7	1665.0
5°	1659.5	1658.6	1660.4	1656.7	1642.1	1644.9	1643.0	1651.3	1653.1	1654.0	1662.2
7.5°	1655.8	1654.9	1657.7	1653.1	1637.5	1641.2	1638.5	1646.7	1647.6	1648.5	1655.8
10°	1648.5	1647.6	1649.4	1645.8	1630.2	1633.9	1630.2	1638.5	1638.5	1640.3	1645.8
12.5°	1637.5	1635.7	1639.4	1634.8	1617.4	1622.0	1620.2	1625.6	1626.6	1627.5	1633.0
15°	1622.0	1620.2	1622.9	1620.2	1604.6	1605.5	1602.8	1611.0	1611.9	1610.1	1615.6
17.5°	1599.1	1597.3	1602.8	1600.9	1585.4	1589.1	1588.1	1590.0	1592.7	1588.1	1595.5
20°	1570.8	1572.6	1574.4	1575.3	1563.4	1563.4	1562.5	1566.2	1568.9	1565.3	1570.8
22.5°	1528.7	1533.2	1538.7	1540.6	1532.3	1531.4	1536.9	1535.1	1537.8	1536.0	1539.7
25°	1475.6	1484.8	1490.2	1495.7	1491.2	1493.0	1501.2	1503.1	1503.1	1502.1	1505.8
27.5°	1409.7	1421.6	1431.7	1443.6	1439.0	1442.7	1456.4	1458.2	1461.9	1458.2	1465.5
30°	1331.1	1342.0	1361.3	1378.6	1380.5	1386.0	1405.2	1407.0	1417.1	1413.4	1416.1
32.5°	1252.4	1257.9	1279.8	1297.2	1308.2	1321.9	1343.0	1346.6	1360.3	1363.1	1363.1
35°	1153.6	1169.1	1189.3	1214.0	1227.7	1242.3	1270.7	1276.2	1296.3	1302.7	1310.0
37.5°	1070.3	1085.0	1097.8	1123.4	1148.1	1164.6	1187.4	1201.2	1222.2	1234.1	1243.2
40°	981.6	993.5	1007.2	1032.8	1053.9	1078.6	1101.4	1117.9	1144.4	1158.2	1170.1
42.5°	897.4	906.6	921.2	939.5	961.5	988.9	1010.9	1030.1	1058.5	1077.7	1091.4
45°	822.4	827.9	840.7	854.4	873.7	902.0	923.1	947.8	970.6	990.8	1007.2
47.5°	752.0	759.3	765.7	774.9	792.2	809.6	834.3	858.1	881.0	902.9	919.4
50°	687.0	687.0	697.1	703.5	715.4	730.9	750.2	766.6	795.0	810.5	831.6
52.5°	623.9	627.6	633.1	636.7	645.9	655.9	671.5	685.2	709.0	723.6	743.8
55°	568.1	571.8	574.5	576.3	581.8	593.7	599.2	610.2	626.7	638.5	655.9
57.5°	515.0	516.9	519.6	520.5	521.5	528.8	533.3	536.1	552.6	564.4	579.1
60°	466.6	466.6	469.3	468.4	467.5	471.1	470.2	473.0	483.0	490.3	496.7
62.5°	420.8	420.8	421.7	419.9	419.0	419.0	415.3	418.1	420.8	421.7	426.3
65°	378.7	383.3	379.7	380.6	375.1	373.2	371.4	365.9	365.0	361.4	363.2
67.5°	341.2	344.9	341.2	341.2	336.7	333.0	328.4	319.3	316.5	309.2	307.4
70°	311.0	308.3	310.1	307.4	301.9	297.3	290.9	283.6	274.4	265.3	258.9
72.5°	281.8	281.8	279.9	277.2	274.4	265.3	258.0	249.7	238.8	226.9	217.7
75°	253.4	254.3	254.3	251.6	247.0	238.8	230.5	218.6	206.8	193.0	181.1
77.5°	233.3	233.3	233.3	228.7	224.1	216.8	206.8	193.9	181.1	164.7	150.9
80°	214.1	213.2	213.2	207.7	203.1	194.9	184.8	172.0	158.3	140.9	125.3
82.5°	198.5	197.6	195.8	191.2	184.8	176.6	166.5	152.8	138.1	122.6	103.4
85°	182.1	181.1	179.3	174.7	168.3	161.0	150.0	136.3	121.7	104.3	86.0
87.5°	167.4	166.5	163.8	161.0	153.7	145.5	134.5	121.7	106.1	89.7	71.4
90°	157.3	155.5	153.7	150.0	143.6	134.5	123.5	109.8	94.2	77.8	59.5
92.5°	145.5	144.5	141.8	138.1	132.6	123.5	112.5	99.7	84.2	68.6	51.2
95°	133.6	132.6	130.8	127.2	121.7	113.4	103.4	90.6	75.9	60.4	44.8
97.5°	122.6	122.6	119.8	117.1	110.7	104.3	94.2	82.3	68.6	54.9	40.3
100°	113.4	113.4	110.7	107.0	102.5	96.1	86.0	75.0	62.2	49.4	34.8
102.5°	105.2	104.3	102.5	98.8	94.2	87.8	78.7	68.6	56.7	43.9	31.1
105°	97.9	97.0	95.1	91.5	87.8	80.5	73.2	63.1	51.2	39.3	27.4
107.5°	90.6	89.7	88.7	85.1	80.5	74.1	66.8	56.7	46.7	35.7	24.7
110°	84.2	83.2	81.4	77.8	73.2	67.7	60.4	52.1	42.1	32.0	22.0

TEST NUMBER: P1213109

CATALOG NUMBER: 4SNLED-LD5-53SL-LN-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
112.5°	78.7	77.8	75.9	72.3	68.6	62.2	55.8	46.7	38.4	29.3	19.2
115°	73.2	72.3	70.4	66.8	62.2	56.7	50.3	43.0	33.8	25.6	17.4
117.5°	67.7	66.8	65.0	62.2	57.6	52.1	45.7	38.4	30.2	23.8	15.6
120°	63.1	61.3	59.5	56.7	52.1	47.6	41.2	34.8	27.4	21.0	13.7
122.5°	58.5	56.7	54.9	52.1	47.6	43.0	36.6	31.1	25.6	19.2	12.8
125°	53.1	52.1	50.3	47.6	43.0	38.4	33.8	28.4	22.9	17.4	11.0
127.5°	48.5	47.6	45.7	42.1	38.4	34.8	30.2	25.6	20.1	14.6	10.1
130°	44.8	43.0	41.2	38.4	35.7	32.0	27.4	22.9	18.3	12.8	9.1
132.5°	40.3	38.4	36.6	34.8	32.0	28.4	24.7	20.1	16.5	11.9	8.2
135°	36.6	34.8	32.9	31.1	28.4	25.6	22.0	18.3	14.6	11.0	7.3
137.5°	32.0	31.1	30.2	28.4	25.6	22.9	20.1	15.6	12.8	10.1	6.4
140°	29.3	28.4	27.4	24.7	22.9	20.1	17.4	13.7	11.0	8.2	5.5
142.5°	26.5	25.6	23.8	22.0	20.1	18.3	14.6	12.8	10.1	7.3	5.5
145°	22.9	22.0	21.0	19.2	17.4	14.6	12.8	11.0	9.1	6.4	4.6
147.5°	21.0	20.1	18.3	16.5	14.6	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°	14.6	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	9.1	8.2	7.3	5.5	4.6	3.7	2.7
157.5°	11.0	10.1	9.1	9.1	8.2	7.3	5.5	4.6	3.7	3.7	2.7
160°	9.1	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: P1213109

CATALOG NUMBER: 4SNLED-LD5-53SL-LN-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
0°	1663.2	1663.2	1663.2	1663.2	1663.2	1663.2	1663.2	1663.2	1663.2	1663.2	1663.2
2.5°	1665.9	1655.8	1665.0	1676.9	1676.9	1675.0	1673.2	1676.9	1686.0	1682.4	1671.4
5°	1663.2	1653.1	1661.3	1673.2	1673.2	1670.5	1668.6	1671.4	1681.4	1676.9	1666.8
7.5°	1657.7	1648.5	1654.0	1665.0	1665.0	1662.2	1660.4	1664.1	1672.3	1667.7	1656.7
10°	1647.6	1637.5	1643.9	1654.0	1653.1	1651.3	1648.5	1653.1	1660.4	1654.0	1641.2
12.5°	1634.8	1624.7	1630.2	1639.4	1638.5	1634.8	1633.0	1635.7	1642.1	1638.5	1624.7
15°	1617.4	1607.3	1611.9	1621.1	1618.3	1615.6	1611.9	1612.8	1621.1	1614.7	1600.0
17.5°	1596.4	1585.4	1589.1	1597.3	1594.5	1591.8	1587.2	1588.1	1597.3	1588.1	1572.6
20°	1570.8	1558.9	1561.6	1571.7	1567.1	1562.5	1557.9	1557.9	1567.1	1557.0	1539.7
22.5°	1543.3	1531.4	1533.2	1540.6	1536.9	1528.7	1524.1	1526.8	1531.4	1518.6	1500.3
25°	1509.5	1493.9	1496.7	1504.0	1501.2	1490.2	1485.7	1487.5	1485.7	1475.6	1456.4
27.5°	1470.1	1453.7	1455.5	1460.1	1456.4	1446.3	1440.8	1441.8	1438.1	1425.3	1403.3
30°	1420.7	1412.5	1411.6	1414.3	1408.8	1398.8	1392.4	1390.5	1389.6	1371.3	1344.8
32.5°	1370.4	1363.1	1358.5	1362.2	1355.8	1345.7	1334.7	1334.7	1325.6	1308.2	1285.3
35°	1319.2	1307.3	1302.7	1305.5	1298.1	1285.3	1276.2	1271.6	1257.9	1235.9	1211.2
37.5°	1253.3	1245.1	1239.6	1242.3	1234.1	1225.0	1207.6	1203.0	1188.4	1158.2	1127.1
40°	1182.0	1175.6	1170.1	1172.8	1163.7	1149.9	1134.4	1127.1	1110.6	1076.7	1052.0
42.5°	1105.1	1102.4	1096.0	1106.0	1087.7	1074.0	1058.5	1046.6	1030.1	993.5	965.1
45°	1023.7	1030.1	1015.5	1018.2	1006.3	994.4	977.9	960.6	944.1	909.3	877.3
47.5°	937.7	942.3	932.2	934.0	921.2	910.3	895.6	873.7	855.4	825.2	796.8
50°	849.0	847.1	847.1	845.3	835.2	821.5	806.9	786.7	768.5	741.0	717.2
52.5°	754.7	758.4	760.2	764.8	752.0	743.8	720.9	703.5	689.8	661.4	641.3
55°	664.2	677.0	673.3	675.1	660.5	654.1	635.8	622.1	602.0	585.5	572.7
57.5°	581.8	584.6	586.4	589.1	582.7	569.9	555.3	544.3	528.8	515.0	505.9
60°	502.2	502.2	503.2	507.7	501.3	490.3	479.4	471.1	460.2	451.9	446.4
62.5°	427.2	433.6	434.5	430.9	422.6	417.2	409.8	405.3	397.9	395.2	393.4
65°	357.7	357.7	357.7	359.5	355.0	351.3	346.7	345.8	348.5	344.9	346.7
67.5°	299.1	296.4	294.6	295.5	293.7	291.8	290.9	293.7	299.1	299.1	303.7
70°	248.8	243.3	239.7	239.7	239.7	240.6	243.3	248.8	258.0	261.6	268.0
72.5°	207.7	195.8	190.3	190.3	191.2	194.9	203.1	213.2	221.4	228.7	236.9
75°	168.3	156.4	148.2	147.3	149.1	154.6	166.5	175.6	189.4	199.4	209.5
77.5°	136.3	121.7	111.6	110.7	113.4	121.7	136.3	148.2	163.8	174.7	185.7
80°	108.9	92.4	84.2	78.7	83.2	93.3	109.8	124.4	139.1	153.7	167.4
82.5°	86.9	71.4	58.5	53.1	58.5	72.3	87.8	105.2	119.8	135.4	149.1
85°	68.6	52.1	37.5	32.0	38.4	53.1	70.4	87.8	104.3	119.8	133.6
87.5°	54.0	37.5	22.9	15.6	23.8	39.3	55.8	73.2	90.6	106.1	119.8
90°	42.1	26.5	12.8	1.8	13.7	28.4	44.8	61.3	78.7	94.2	107.9
92.5°	35.7	20.1	7.3	0.0	8.2	21.0	36.6	53.1	68.6	84.2	97.9
95°	30.2	16.5	5.5	0.0	5.5	16.5	30.2	44.8	60.4	75.9	89.7
97.5°	25.6	12.8	3.7	0.0	3.7	12.8	24.7	39.3	53.1	67.7	80.5
100°	22.0	11.0	2.7	0.0	2.7	10.1	21.0	33.8	47.6	61.3	73.2
102.5°	19.2	9.1	1.8	0.0	1.8	8.2	17.4	29.3	41.2	54.0	65.9
105°	16.5	7.3	1.8	0.0	0.9	6.4	14.6	25.6	36.6	48.5	59.5
107.5°	14.6	6.4	1.8	0.0	0.9	5.5	12.8	22.0	32.9	43.0	53.1
110°	12.8	5.5	1.8	0.0	0.9	3.7	11.0	19.2	28.4	38.4	48.5

TEST NUMBER: P1213109

CATALOG NUMBER: 4SNLED-LD5-53SL-LN-UNV-L930-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	9.1	16.5	24.7	34.8	43.0
115°	10.1	4.6	0.9	0.0	0.0	1.8	7.3	14.6	22.0	31.1	38.4
117.5°	9.1	3.7	0.9	0.0	0.9	1.8	6.4	12.8	19.2	26.5	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	9.1	14.6	21.0	26.5
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	21.0
130°	5.5	2.7	1.8	0.9	0.9	0.9	0.9	4.6	9.1	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	14.6
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	9.1
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

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CATALOG NUMBER: 4SNLED-LD5-53SL-LN-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
0°	1663.2	1663.2	1663.2	1663.2	1663.2	1663.2	1663.2	1663.2	1663.2	1663.2	1663.2
2.5°	1667.7	1650.3	1659.5	1656.7	1660.4	1667.7	1666.8	1665.0	1665.0	1662.2	1658.6
5°	1662.2	1645.8	1654.0	1649.4	1654.0	1660.4	1659.5	1656.7	1658.6	1654.0	1649.4
7.5°	1651.3	1636.6	1643.9	1640.3	1643.9	1650.3	1647.6	1646.7	1648.5	1641.2	1638.5
10°	1638.5	1622.0	1630.2	1625.6	1630.2	1634.8	1633.0	1629.3	1633.0	1625.6	1622.9
12.5°	1618.3	1604.6	1610.1	1608.3	1611.0	1615.6	1611.9	1609.2	1611.0	1604.6	1599.1
15°	1596.4	1582.6	1587.2	1584.5	1586.3	1591.8	1585.4	1584.5	1582.6	1576.2	1574.4
17.5°	1568.0	1555.2	1559.8	1555.2	1557.9	1556.1	1555.2	1550.6	1550.6	1543.3	1537.8
20°	1533.2	1522.3	1519.5	1515.9	1519.5	1515.9	1510.4	1506.7	1505.8	1498.5	1493.9
22.5°	1493.0	1480.2	1482.0	1472.0	1472.9	1467.4	1458.2	1454.6	1450.9	1442.7	1436.3
25°	1444.5	1431.7	1422.6	1416.1	1407.9	1407.0	1395.1	1386.0	1385.0	1375.0	1374.1
27.5°	1389.6	1375.0	1367.7	1352.1	1342.0	1333.8	1323.8	1314.6	1310.0	1299.1	1291.7
30°	1326.5	1310.0	1291.7	1280.8	1265.2	1258.8	1241.4	1230.4	1226.8	1214.9	1209.4
32.5°	1255.1	1237.8	1223.1	1202.1	1184.7	1175.6	1158.2	1147.2	1142.6	1129.8	1122.5
35°	1177.4	1158.2	1140.8	1120.7	1106.9	1091.4	1070.3	1059.4	1049.3	1044.7	1039.2
37.5°	1096.0	1074.9	1054.8	1034.7	1022.8	1004.5	986.2	978.9	967.0	962.4	956.9
40°	1011.8	990.8	971.5	952.3	938.6	922.1	905.7	902.9	890.1	885.6	881.9
42.5°	928.5	906.6	884.6	870.9	860.9	844.4	833.4	830.7	819.7	816.9	816.9
45°	853.5	826.1	807.8	795.9	787.7	773.9	764.8	763.0	753.8	752.0	752.0
47.5°	773.0	747.4	733.7	726.4	719.1	709.0	703.5	703.5	694.4	692.5	691.6
50°	698.0	674.2	664.2	656.8	655.9	648.6	644.0	642.2	642.2	635.8	636.7
52.5°	626.7	614.8	606.5	602.0	596.5	591.9	588.2	588.2	585.5	580.9	582.7
55°	560.8	547.1	548.0	544.3	541.6	538.8	539.7	534.3	533.3	529.7	532.4
57.5°	494.9	494.9	493.1	490.3	485.8	487.6	487.6	487.6	483.0	480.3	483.0
60°	439.1	441.9	437.3	440.0	438.2	439.1	437.3	437.3	434.5	433.6	434.5
62.5°	389.7	394.3	392.5	396.1	394.3	395.2	397.0	393.4	391.5	389.7	391.5
65°	345.8	351.3	350.4	353.1	354.0	355.0	355.9	354.0	352.2	350.4	349.5
67.5°	307.4	312.9	316.5	317.4	318.4	321.1	320.2	318.4	316.5	313.8	312.9
70°	272.6	279.9	284.5	286.3	290.0	288.2	288.2	287.3	285.4	282.7	281.8
72.5°	243.3	251.6	256.2	258.0	261.6	261.6	260.7	259.8	258.0	255.2	254.3
75°	217.7	225.0	231.5	235.1	237.9	237.9	236.9	236.0	234.2	232.4	231.5
77.5°	197.6	204.0	209.5	214.1	215.9	216.8	215.9	214.1	214.1	213.2	212.2
80°	177.5	184.8	190.3	194.9	197.6	197.6	196.7	197.6	195.8	194.9	193.9
82.5°	160.1	168.3	174.7	179.3	181.1	182.1	181.1	182.1	180.2	180.2	180.2
85°	144.5	152.8	160.1	163.8	166.5	167.4	167.4	167.4	166.5	166.5	166.5
87.5°	131.7	140.0	147.3	150.9	153.7	154.6	154.6	155.5	153.7	153.7	153.7
90°	119.8	128.1	135.4	139.1	141.8	143.6	143.6	144.5	143.6	142.7	142.7
92.5°	108.9	118.0	125.3	129.0	131.7	134.5	134.5	135.4	133.6	133.6	133.6
95°	99.7	108.9	115.3	119.8	122.6	124.4	125.3	125.3	124.4	124.4	124.4
97.5°	91.5	99.7	106.1	110.7	113.4	114.4	115.3	116.2	115.3	115.3	115.3
100°	83.2	91.5	97.9	101.5	105.2	106.1	107.0	107.9	107.9	107.0	107.0
102.5°	75.9	84.2	89.7	94.2	97.0	98.8	99.7	99.7	99.7	99.7	99.7
105°	68.6	76.8	82.3	86.9	89.7	91.5	92.4	93.3	93.3	92.4	92.4
107.5°	62.2	69.5	75.9	79.6	83.2	85.1	86.0	86.0	86.9	86.0	86.0
110°	55.8	64.0	69.5	73.2	76.8	78.7	79.6	80.5	80.5	80.5	80.5

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CATALOG NUMBER: 4SNLED-LD5-53SL-LN-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
112.5°	51.2	57.6	63.1	66.8	70.4	72.3	73.2	74.1	75.0	74.1	74.1
115°	45.7	52.1	57.6	61.3	64.0	65.9	67.7	68.6	68.6	69.5	68.6
117.5°	41.2	46.7	52.1	55.8	58.5	61.3	62.2	63.1	64.0	63.1	63.1
120°	36.6	42.1	46.7	50.3	53.1	55.8	56.7	57.6	58.5	57.6	57.6
122.5°	32.9	37.5	42.1	45.7	48.5	50.3	52.1	52.1	53.1	53.1	53.1
125°	29.3	33.8	37.5	41.2	43.9	45.7	46.7	47.6	47.6	48.5	48.5
127.5°	25.6	29.3	33.8	36.6	39.3	41.2	42.1	43.0	43.0	43.9	43.9
130°	22.0	25.6	29.3	32.0	34.8	36.6	37.5	38.4	39.3	39.3	39.3
132.5°	19.2	22.9	25.6	28.4	30.2	32.0	33.8	34.8	34.8	34.8	34.8
135°	15.6	19.2	22.0	24.7	26.5	28.4	29.3	31.1	31.1	31.1	31.1
137.5°	12.8	16.5	19.2	21.0	22.9	24.7	25.6	26.5	27.4	27.4	27.4
140°	10.1	12.8	15.6	18.3	20.1	21.0	22.9	22.9	23.8	23.8	23.8
142.5°	7.3	10.1	11.9	14.6	16.5	18.3	19.2	20.1	20.1	20.1	20.1
145°	5.5	7.3	9.1	11.0	13.7	14.6	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	14.6	14.6	14.6
150°	2.7	3.7	5.5	6.4	7.3	9.1	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	9.1	9.1	9.1
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

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CATALOG NUMBER: 4SNLED-LD5-53SL-LN-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°
0°	1663.2	1663.2	1663.2	1663.2	1663.2	1663.2	1663.2	1663.2	1663.2	1663.2	1663.2
2.5°	1661.3	1663.2	1663.2	1661.3	1660.4	1664.1	1659.5	1642.1	1647.6	1649.4	1654.9
5°	1653.1	1654.9	1654.9	1654.9	1653.1	1656.7	1652.2	1634.8	1641.2	1643.9	1647.6
7.5°	1641.2	1642.1	1643.9	1643.0	1641.2	1646.7	1642.1	1624.7	1629.3	1633.9	1638.5
10°	1625.6	1625.6	1626.6	1628.4	1626.6	1631.1	1626.6	1611.0	1615.6	1618.3	1623.8
12.5°	1604.6	1606.4	1607.3	1606.4	1605.5	1609.2	1607.3	1592.7	1594.5	1600.0	1605.5
15°	1576.2	1576.2	1580.8	1579.0	1579.0	1582.6	1584.5	1568.0	1570.8	1579.0	1584.5
17.5°	1541.5	1542.4	1546.1	1547.9	1547.0	1553.4	1554.3	1541.5	1540.6	1550.6	1556.1
20°	1496.7	1498.5	1503.1	1506.7	1506.7	1514.0	1516.8	1508.5	1509.5	1520.4	1522.3
22.5°	1441.8	1441.8	1450.0	1455.5	1460.1	1464.6	1472.9	1465.5	1465.5	1480.2	1488.4
25°	1374.1	1380.5	1383.2	1394.2	1400.6	1413.4	1420.7	1421.6	1422.6	1436.3	1441.8
27.5°	1299.1	1300.9	1309.1	1321.9	1329.2	1341.1	1354.9	1357.6	1362.2	1380.5	1388.7
30°	1214.0	1219.5	1223.1	1241.4	1251.5	1267.0	1284.4	1290.8	1294.5	1319.2	1329.2
32.5°	1127.1	1128.9	1144.4	1154.5	1166.4	1182.9	1203.0	1214.9	1222.2	1247.8	1262.5
35°	1040.2	1043.8	1056.6	1069.4	1081.3	1097.8	1118.8	1135.3	1148.1	1171.0	1190.2
37.5°	960.6	969.7	972.5	985.3	994.4	1010.9	1025.5	1049.3	1062.1	1085.9	1110.6
40°	889.2	892.0	893.8	906.6	913.0	928.5	949.6	965.1	982.5	999.9	1029.2
42.5°	818.8	820.6	823.3	830.7	838.0	849.0	864.5	880.1	898.4	924.0	943.2
45°	753.8	755.6	757.5	762.0	768.5	778.5	788.6	799.6	817.9	839.8	859.9
47.5°	693.4	697.1	697.1	698.0	702.6	710.8	718.1	731.9	741.9	753.8	776.7
50°	635.8	638.5	639.5	639.5	642.2	647.7	649.5	658.7	667.8	678.8	695.3
52.5°	581.8	581.8	580.9	584.6	584.6	588.2	589.1	594.6	601.0	612.9	620.3
55°	530.6	530.6	533.3	531.5	531.5	533.3	532.4	533.3	538.8	546.2	552.6
57.5°	481.2	480.3	483.0	481.2	480.3	482.1	483.9	480.3	481.2	488.5	488.5
60°	431.8	432.7	435.5	433.6	433.6	433.6	431.8	430.0	428.1	432.7	434.5
62.5°	392.5	389.7	392.5	389.7	391.5	390.6	388.8	385.1	386.1	384.2	382.4
65°	351.3	351.3	352.2	349.5	351.3	351.3	348.5	347.6	342.1	340.3	335.7
67.5°	315.6	315.6	316.5	314.7	314.7	315.6	312.9	310.1	304.6	301.9	295.5
70°	284.5	284.5	284.5	283.6	283.6	283.6	281.8	278.1	272.6	268.0	259.8
72.5°	256.2	257.1	256.2	256.2	258.9	256.2	253.4	249.7	245.2	236.0	228.7
75°	233.3	234.2	233.3	233.3	233.3	232.4	231.5	226.0	220.5	213.2	202.2
77.5°	213.2	213.2	214.1	213.2	213.2	212.2	209.5	204.9	198.5	192.1	179.3
80°	193.9	194.9	195.8	196.7	194.9	193.9	191.2	187.5	179.3	172.0	159.2
82.5°	180.2	179.3	180.2	181.1	179.3	178.4	175.6	171.1	164.7	154.6	141.8
85°	166.5	165.6	165.6	166.5	165.6	163.8	161.0	156.4	150.0	140.0	127.2
87.5°	152.8	153.7	154.6	153.7	152.8	150.9	148.2	143.6	136.3	128.1	114.4
90°	142.7	142.7	142.7	142.7	141.8	140.0	137.2	131.7	125.3	115.3	103.4
92.5°	133.6	133.6	133.6	133.6	132.6	129.9	127.2	122.6	115.3	105.2	94.2
95°	124.4	125.3	124.4	124.4	122.6	121.7	117.1	112.5	106.1	96.1	84.2
97.5°	114.4	115.3	114.4	114.4	113.4	111.6	108.9	103.4	97.0	87.8	76.8
100°	107.0	107.0	106.1	106.1	105.2	103.4	99.7	95.1	88.7	79.6	68.6
102.5°	98.8	99.7	98.8	98.8	97.0	95.1	92.4	87.8	81.4	72.3	62.2
105°	92.4	92.4	91.5	91.5	89.7	87.8	85.1	79.6	74.1	65.9	55.8
107.5°	86.0	86.0	85.1	85.1	83.2	81.4	77.8	73.2	67.7	59.5	50.3
110°	79.6	79.6	79.6	78.7	76.8	74.1	71.4	66.8	61.3	54.0	44.8

TEST NUMBER: P1213109

CATALOG NUMBER: 4SNLED-LD5-53SL-LN-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°
112.5°	75.0	74.1	73.2	72.3	70.4	68.6	65.0	60.4	54.9	48.5	40.3
115°	68.6	68.6	67.7	66.8	65.0	62.2	59.5	55.8	50.3	43.0	35.7
117.5°	63.1	63.1	62.2	61.3	59.5	56.7	54.0	50.3	44.8	38.4	32.0
120°	57.6	57.6	56.7	55.8	54.0	51.2	49.4	44.8	40.3	33.8	28.4
122.5°	53.1	52.1	52.1	50.3	49.4	46.7	43.9	40.3	35.7	30.2	24.7
125°	47.6	47.6	46.7	45.7	44.8	42.1	39.3	35.7	31.1	26.5	22.0
127.5°	43.0	43.0	42.1	41.2	40.3	37.5	34.8	32.0	27.4	22.9	18.3
130°	38.4	38.4	37.5	36.6	35.7	32.9	31.1	27.4	23.8	20.1	15.6
132.5°	34.8	34.8	33.8	32.9	31.1	29.3	27.4	23.8	21.0	17.4	13.7
135°	31.1	30.2	30.2	29.3	27.4	25.6	23.8	21.0	17.4	14.6	11.0
137.5°	27.4	26.5	25.6	24.7	23.8	22.0	20.1	18.3	15.6	11.9	9.1
140°	23.8	22.9	22.9	22.0	20.1	19.2	17.4	14.6	12.8	10.1	7.3
142.5°	20.1	20.1	19.2	18.3	17.4	16.5	14.6	12.8	10.1	8.2	5.5
145°	17.4	16.5	16.5	15.6	14.6	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	9.1	8.2	7.3	6.4	4.6	2.7	1.8
152.5°	9.1	9.1	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

TEST NUMBER: P1213109

CATALOG NUMBER: 4SNLED-LD5-53SL-LN-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	330°	335°	340°	345°	350°	355°	360°
0°	1663.2	1663.2	1663.2	1663.2	1663.2	1663.2	1663.2
2.5°	1652.2	1651.3	1658.6	1658.6	1650.3	1663.2	1676.9
5°	1646.7	1645.8	1653.1	1653.1	1645.8	1658.6	1673.2
7.5°	1635.7	1636.6	1643.9	1645.8	1636.6	1648.5	1664.1
10°	1623.8	1622.9	1631.1	1633.0	1625.6	1636.6	1651.3
12.5°	1604.6	1604.6	1612.8	1615.6	1608.3	1621.1	1634.8
15°	1584.5	1584.5	1590.0	1594.5	1588.1	1600.0	1613.8
17.5°	1558.9	1557.9	1563.4	1568.9	1562.5	1575.3	1590.0
20°	1525.9	1525.9	1532.3	1538.7	1534.2	1546.1	1562.5
22.5°	1491.2	1487.5	1498.5	1503.1	1500.3	1512.2	1528.7
25°	1447.3	1446.3	1457.3	1463.7	1460.1	1472.9	1487.5
27.5°	1399.7	1398.8	1409.7	1418.0	1416.1	1428.0	1444.5
30°	1342.0	1346.6	1356.7	1370.4	1365.8	1378.6	1396.0
32.5°	1281.7	1286.2	1298.1	1312.8	1313.7	1323.8	1341.1
35°	1209.4	1221.3	1229.5	1248.7	1252.4	1262.5	1280.8
37.5°	1133.5	1147.2	1164.6	1179.2	1186.5	1194.8	1215.8
40°	1048.4	1068.5	1087.7	1105.1	1114.3	1122.5	1142.6
42.5°	971.5	987.1	1005.4	1022.8	1039.2	1046.6	1067.6
45°	884.6	902.9	919.4	940.4	956.9	965.1	986.2
47.5°	799.6	817.9	839.8	854.4	871.8	880.1	900.2
50°	718.1	734.6	752.9	770.3	784.9	792.2	809.6
52.5°	637.6	655.0	672.4	683.4	698.9	704.4	719.1
55°	566.3	578.2	593.7	600.1	615.7	619.3	629.4
57.5°	497.7	505.9	511.4	522.4	533.3	541.6	553.5
60°	435.5	439.1	442.8	449.2	458.3	461.1	465.6
62.5°	379.7	378.7	386.1	387.9	388.8	397.9	393.4
65°	330.3	331.2	324.8	322.0	325.7	328.4	326.6
67.5°	289.1	283.6	278.1	271.7	266.2	269.0	266.2
70°	248.8	244.3	235.1	226.0	222.3	216.8	214.1
72.5°	216.8	205.8	196.7	184.8	178.4	172.0	167.4
75°	192.1	176.6	163.8	150.9	141.8	132.6	130.8
77.5°	166.5	151.9	137.2	123.5	109.8	99.7	96.1
80°	146.4	132.6	115.3	98.8	84.2	71.4	66.8
82.5°	128.1	113.4	96.1	78.7	62.2	48.5	43.0
85°	112.5	97.0	79.6	62.2	45.7	31.1	23.8
87.5°	100.6	83.2	65.9	49.4	32.0	17.4	9.1
90°	89.7	73.2	56.7	39.3	22.9	9.1	0.0
92.5°	79.6	64.0	47.6	32.0	17.4	5.5	0.9
95°	70.4	56.7	40.3	25.6	12.8	3.7	0.9
97.5°	63.1	49.4	34.8	21.0	10.1	2.7	0.9
100°	56.7	43.0	30.2	17.4	8.2	1.8	0.9
102.5°	50.3	38.4	25.6	14.6	6.4	0.9	0.9
105°	44.8	33.8	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	25.6	16.5	9.1	2.7	0.9	0.9

TEST NUMBER: P1213109

CATALOG NUMBER: 4SNLED-LD5-53SL-LN-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	330°	335°	340°	345°	350°	355°	360°
112.5°	32.0	22.9	14.6	7.3	1.8	0.9	0.9
115°	28.4	20.1	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	9.1	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	9.1	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)