

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: P1213799

Luminaire Tested: 4SNLED-LD5-50HL-LN-UNV-L940-CD1-U

Issue Date: 3/29/2018

Test Information

Test Method: LM-79-2019
Report Number: P1213799
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-L940-CD1-U
Description: 4FT LINEAR SNLED LED FIXTURE
NARROW LENS
Light Source: -
Ballast/Driver: -

Summary

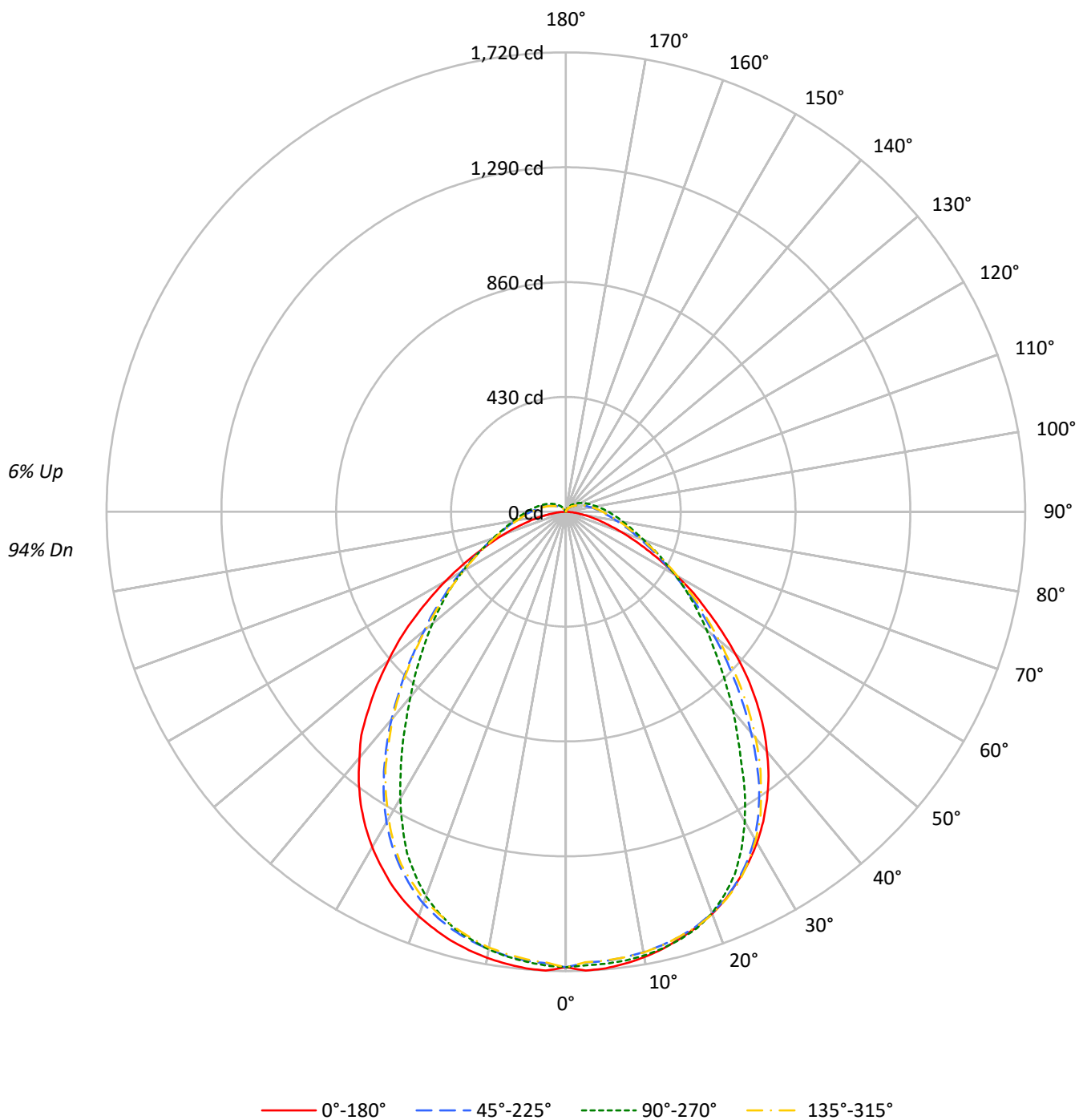
Lumens per Lamp: N/A
Luminaire Lumens: 4316.0 lumens
Efficiency: N/A
Efficacy: 116.6 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.14 / 1.24
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.12')
CIE Type: Direct

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°	13781	13781	13781	13781
5°	13880	13343	13880	13284
10°	13818	12988	13841	12808
15°	13729	12600	13791	12272
20°	13623	12101	13703	11590
25°	13405	11361	13553	10692
30°	13121	10274	13293	9510
35°	12678	8941	12923	8325
40°	12044	7819	12362	7254
45°	11207	6797	11571	6407
50°	10062	5973	10506	5671
55°	8704	5274	9337	5008
60°	7321	4631	7982	4364
65°	6002	4094	6607	3796
70°	4776	3634	5348	3360
75°	3750	3355	4222	3086
80°	2708	3236	3190	2958
85°	1667	3254	2241	2992

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 180°

Vertical Angle: 45°

Luminance: 11571 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	161.7	3.7
10°-20°	463.6	10.7
20°-30°	687.1	15.9
30°-40°	763.4	17.7
40°-50°	692.0	16.0
50°-60°	536.2	12.4
60°-70°	364.1	8.4
70°-80°	231.7	5.4
80°-90°	148.1	3.4
90°-100°	99.9	2.3
100°-110°	68.4	1.6
110°-120°	45.6	1.1
120°-130°	28.4	0.7
130°-140°	15.7	0.4
140°-150°	7.4	0.2
150°-160°	2.7	0.1
160°-170°	0.2	0.0
170°-180°	0.0	0.0
0°-30°	1312.4	30.4
0°-40°	2075.8	48.1
0°-60°	3303.9	76.6
0°-90°	4047.8	93.8
90°-120°	213.9	5.0
90°-150°	265.3	6.1
90°-180°	268.0	6.2
0°-180°	4316.0	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	1705	1705	1705	1705	1705	
5°	1716	1699	1716	1691	1716	163
15°	1655	1658	1662	1614	1655	467
25°	1525	1497	1542	1409	1525	702
35°	1313	1144	1339	1066	1313	819
45°	1011	818	1044	771	1011	777
55°	645	575	692	546	645	581
65°	335	386	369	358	335	336
75°	134	258	151	237	134	144
85°	24	186	33	171	24	29
90°	0	160	2	146	0	1
95°	1	137	0	128	1	1
105°	1	100	0	95	1	1
115°	1	76	0	70	1	1
125°	1	56	1	50	1	1
135°	1	39	1	32	1	1
145°	1	25	1	18	1	1
155°	1	14	1	7	1	1
165°	0	0	0	0	0	0
175°	0	0	0	0	0	0
180°	0	0	0	0	0	0

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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1705.4	1705.4	1705.4	1705.4	1705.4	1705.4	1705.4	1705.4	1705.4	1705.4	1705.4
2.5°	1719.5	1717.6	1715.8	1712.9	1715.8	1723.3	1718.6	1708.2	1706.4	1689.5	1697.0
5°	1715.8	1712.9	1711.1	1708.2	1712.0	1721.4	1716.7	1707.3	1704.5	1688.5	1697.0
7.5°	1706.4	1704.5	1701.7	1701.7	1705.4	1714.8	1711.1	1700.7	1698.9	1682.9	1692.3
10°	1693.2	1692.3	1690.4	1690.4	1694.2	1705.4	1700.7	1691.4	1689.5	1674.5	1684.8
12.5°	1676.4	1677.3	1674.5	1674.5	1680.1	1691.4	1687.6	1677.3	1675.4	1662.3	1672.6
15°	1654.8	1655.7	1653.8	1654.8	1660.4	1673.5	1668.8	1659.5	1657.6	1647.3	1655.7
17.5°	1630.4	1631.3	1631.3	1630.4	1637.0	1650.1	1646.3	1637.9	1635.1	1626.6	1637.0
20°	1602.2	1602.2	1602.2	1602.2	1609.7	1622.9	1618.2	1611.6	1606.0	1599.4	1607.9
22.5°	1567.5	1566.6	1567.5	1570.3	1577.9	1588.2	1585.4	1577.9	1569.4	1565.7	1572.2
25°	1525.3	1528.1	1529.1	1531.9	1541.3	1549.7	1546.9	1539.4	1526.3	1523.4	1525.3
27.5°	1481.2	1483.1	1485.9	1485.0	1498.1	1506.6	1500.9	1494.4	1475.6	1472.8	1470.9
30°	1431.5	1434.3	1436.2	1435.3	1445.6	1455.0	1449.3	1440.9	1415.6	1413.7	1398.7
32.5°	1375.2	1378.0	1379.9	1379.9	1394.9	1398.7	1388.4	1376.2	1349.0	1342.4	1329.3
35°	1313.3	1316.1	1317.1	1317.1	1332.1	1331.1	1318.0	1301.1	1271.1	1262.7	1240.1
37.5°	1246.7	1248.6	1249.5	1255.2	1261.7	1256.1	1239.2	1217.6	1195.1	1171.7	1147.3
40°	1171.7	1174.5	1176.4	1180.1	1186.7	1180.1	1155.7	1129.5	1105.1	1078.8	1054.4
42.5°	1094.7	1103.2	1101.3	1100.4	1104.1	1086.3	1067.5	1037.5	1013.1	985.9	961.5
45°	1011.3	1010.3	1015.0	1016.9	1015.9	1000.9	974.7	947.5	923.1	894.9	874.3
47.5°	923.1	922.1	925.9	927.8	922.1	906.2	885.5	854.6	834.0	809.6	793.6
50°	830.2	830.2	835.8	830.2	827.4	811.4	794.6	763.6	747.7	726.1	716.7
52.5°	737.3	745.8	740.1	738.3	735.5	719.5	706.4	681.0	667.9	658.5	647.3
55°	645.4	654.8	651.0	648.2	647.3	634.1	621.9	603.2	594.7	588.2	581.6
57.5°	567.5	566.6	564.7	561.9	562.8	552.5	540.3	530.0	526.3	523.4	525.3
60°	477.5	485.0	482.2	483.1	484.1	482.2	471.9	465.3	466.2	467.2	470.0
62.5°	403.4	409.9	414.6	410.9	412.8	415.6	409.9	408.1	411.8	415.6	419.3
65°	334.9	341.5	346.2	345.2	350.8	356.5	355.5	357.4	365.9	370.5	375.2
67.5°	273.0	279.5	286.1	287.1	295.5	303.9	307.7	314.3	323.6	330.2	335.8
70°	219.5	225.1	232.6	237.3	248.6	259.8	266.4	279.5	285.2	294.6	298.3
72.5°	171.7	176.4	186.7	197.9	207.3	221.4	234.5	245.8	254.2	264.5	269.2
75°	134.1	136.0	147.3	160.4	173.5	189.5	203.6	215.8	227.0	237.3	244.8
77.5°	98.5	101.3	111.6	129.5	144.5	161.4	177.3	190.4	202.6	212.9	223.3
80°	68.5	74.1	85.4	103.2	120.1	138.8	153.8	168.9	182.0	192.3	202.6
82.5°	44.1	48.8	64.7	82.6	100.4	119.1	135.1	150.1	164.2	175.4	184.8
85°	24.4	31.0	46.9	65.7	83.5	102.3	119.1	134.1	148.2	158.5	167.9
87.5°	9.4	18.8	33.8	51.6	69.4	87.2	105.1	119.1	133.2	144.5	152.9
90°	0.0	11.3	25.3	43.2	61.0	78.8	95.7	110.7	123.8	134.1	143.5
92.5°	0.9	7.5	19.7	34.7	51.6	68.5	84.4	99.4	112.6	122.9	131.3
95°	0.9	5.6	15.9	30.0	45.0	61.0	76.0	90.1	102.3	112.6	121.0
97.5°	0.9	3.8	13.1	26.3	39.4	55.3	69.4	82.6	93.8	104.1	110.7
100°	0.9	3.8	11.3	22.5	35.6	49.7	62.9	76.0	86.3	94.7	102.3
102.5°	0.9	2.8	9.4	19.7	31.9	44.1	57.2	69.4	78.8	87.2	94.7
105°	0.9	2.8	8.4	16.9	28.1	40.3	51.6	62.9	73.2	80.7	87.2
107.5°	0.9	1.9	7.5	14.1	24.4	36.6	47.8	57.2	66.6	74.1	80.7
110°	0.9	1.9	6.6	13.1	21.6	32.8	43.2	52.5	61.0	68.5	74.1

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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	0.9	1.9	5.6	12.2	19.7	29.1	39.4	47.8	56.3	62.9	68.5
115°	0.9	1.9	5.6	11.3	17.8	25.3	34.7	44.1	50.7	58.2	62.9
117.5°	0.9	1.9	4.7	9.4	16.9	23.5	31.9	39.4	46.9	53.5	58.2
120°	0.9	1.9	4.7	8.4	15.0	21.6	28.1	35.6	43.2	47.8	52.5
122.5°	0.9	1.9	3.8	8.4	13.1	19.7	25.3	31.9	38.5	44.1	48.8
125°	0.9	1.9	3.8	7.5	12.2	17.8	23.5	28.1	34.7	39.4	44.1
127.5°	0.9	1.9	3.8	6.6	11.3	15.9	21.6	26.3	31.0	35.6	39.4
130°	0.9	1.9	2.8	5.6	10.3	14.1	18.8	24.4	28.1	31.9	35.6
132.5°	0.9	1.9	2.8	5.6	8.4	12.2	16.9	21.6	25.3	29.1	31.9
135°	0.9	1.9	2.8	4.7	7.5	11.3	14.1	18.8	22.5	26.3	29.1
137.5°	0.9	1.9	2.8	4.7	6.6	9.4	12.2	15.9	19.7	22.5	26.3
140°	0.9	1.9	2.8	3.8	5.6	8.4	11.3	13.1	16.9	19.7	22.5
142.5°	0.9	1.9	2.8	3.8	5.6	7.5	9.4	11.3	14.1	16.9	19.7
145°	0.9	1.9	2.8	3.8	4.7	6.6	8.4	10.3	11.3	14.1	15.9
147.5°	0.9	1.9	2.8	3.8	3.8	5.6	7.5	8.4	10.3	11.3	13.1
150°	0.9	1.9	2.8	2.8	3.8	4.7	6.6	7.5	8.4	10.3	11.3
152.5°	0.9	1.9	2.8	2.8	3.8	4.7	5.6	6.6	7.5	8.4	9.4
155°	0.9	1.9	2.8	2.8	2.8	3.8	4.7	5.6	6.6	7.5	8.4
157.5°	1.9	1.9	1.9	2.8	2.8	3.8	3.8	4.7	5.6	5.6	6.6
160°	1.9	1.9	1.9	2.8	2.8	2.8	3.8	3.8	4.7	4.7	5.6
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°	1705.4	1705.4	1705.4	1705.4	1705.4	1705.4	1705.4	1705.4	1705.4	1705.4	1705.4
2.5°	1695.1	1697.9	1706.4	1706.4	1704.5	1702.6	1702.6	1699.8	1701.7	1705.4	1703.6
5°	1695.1	1697.9	1706.4	1706.4	1704.5	1702.6	1701.7	1698.9	1701.7	1705.4	1703.6
7.5°	1689.5	1693.2	1701.7	1701.7	1699.8	1698.9	1697.0	1695.1	1697.9	1701.7	1699.8
10°	1682.0	1685.7	1694.2	1694.2	1692.3	1692.3	1689.5	1687.6	1691.4	1694.2	1693.2
12.5°	1670.7	1675.4	1682.9	1682.0	1680.1	1681.0	1678.2	1674.5	1678.2	1681.0	1682.0
15°	1654.8	1660.4	1667.9	1666.0	1663.2	1665.1	1660.4	1657.6	1660.4	1666.0	1665.1
17.5°	1634.1	1637.9	1643.5	1643.5	1640.7	1638.8	1637.0	1634.1	1636.0	1639.8	1640.7
20°	1605.1	1609.7	1612.6	1609.7	1608.8	1606.0	1602.2	1599.4	1603.2	1608.8	1609.7
22.5°	1566.6	1567.5	1574.1	1567.5	1562.8	1561.9	1558.2	1552.5	1558.2	1562.8	1563.8
25°	1518.8	1523.4	1520.6	1509.4	1509.4	1501.9	1500.0	1497.2	1498.1	1506.6	1510.3
27.5°	1457.8	1459.7	1452.2	1442.8	1434.3	1429.6	1423.1	1424.0	1424.0	1435.3	1439.0
30°	1391.2	1380.9	1374.3	1359.3	1352.7	1341.5	1339.6	1339.6	1337.7	1343.3	1360.2
32.5°	1311.4	1297.4	1287.0	1273.0	1261.7	1250.5	1244.8	1247.6	1246.7	1260.8	1266.4
35°	1224.2	1215.8	1194.2	1176.4	1169.8	1152.9	1152.9	1144.5	1150.1	1166.0	1172.6
37.5°	1132.3	1119.1	1101.3	1081.6	1076.9	1063.8	1059.1	1054.4	1066.6	1069.4	1076.0
40°	1038.5	1026.3	1009.4	990.6	990.6	974.7	974.7	974.7	975.6	981.2	993.4
42.5°	949.3	936.2	921.2	908.1	906.2	894.0	894.0	893.1	894.9	899.6	910.9
45°	863.0	852.7	836.8	830.2	831.1	818.0	820.8	818.0	821.8	826.4	830.2
47.5°	783.3	776.7	770.2	760.8	758.0	757.0	752.3	748.6	755.2	755.2	760.8
50°	709.2	705.4	701.7	696.1	697.0	693.2	687.6	687.6	692.3	693.2	697.0
52.5°	644.5	639.8	635.1	636.0	637.0	635.1	632.3	629.5	632.3	634.1	638.8
55°	579.7	576.0	580.7	578.8	580.7	578.8	576.9	575.0	579.7	576.9	581.6
57.5°	521.6	525.3	527.2	523.4	526.3	524.4	525.3	522.5	526.3	528.1	527.2
60°	468.1	473.7	470.9	471.9	475.6	473.7	470.0	472.8	476.5	477.5	476.5
62.5°	419.3	425.9	428.7	426.8	427.8	425.9	428.7	425.0	429.6	431.5	428.7
65°	375.2	382.7	384.6	384.6	384.6	382.7	385.6	386.5	388.4	388.4	386.5
67.5°	337.7	344.3	346.2	348.0	346.2	344.3	344.3	345.2	349.0	350.8	349.0
70°	303.9	310.5	311.4	311.4	312.4	314.3	310.5	312.4	315.2	316.1	315.2
72.5°	274.9	281.4	283.3	282.4	283.3	284.2	284.2	282.4	285.2	287.1	287.1
75°	251.4	255.2	257.0	257.0	258.0	258.9	258.9	258.0	259.8	260.8	261.7
77.5°	229.8	232.6	235.5	235.5	236.4	235.5	237.3	237.3	238.3	239.2	240.1
80°	208.3	212.0	213.9	214.8	216.7	217.6	217.6	217.6	218.6	219.5	219.5
82.5°	191.4	194.2	197.0	199.8	199.8	200.7	200.7	200.7	201.7	201.7	202.6
85°	174.5	178.2	181.0	182.9	183.9	184.8	184.8	185.7	185.7	185.7	186.7
87.5°	159.5	164.2	166.0	167.9	168.9	170.7	170.7	170.7	171.7	171.7	171.7
90°	149.2	153.8	155.7	157.6	158.5	159.5	159.5	160.4	160.4	161.4	161.4
92.5°	137.0	141.7	145.4	145.4	146.3	148.2	147.3	147.3	148.2	149.2	149.2
95°	127.6	131.3	134.1	135.1	136.0	136.0	136.0	137.0	136.0	137.0	137.0
97.5°	116.3	120.1	122.9	124.8	125.7	125.7	125.7	126.6	125.7	126.6	126.6
100°	106.9	110.7	113.5	114.4	116.3	116.3	116.3	116.3	116.3	116.3	117.3
102.5°	99.4	103.2	105.1	106.0	106.9	107.9	107.9	107.9	107.9	108.8	108.8
105°	91.9	95.7	97.6	98.5	99.4	100.4	100.4	100.4	101.3	101.3	100.4
107.5°	85.4	88.2	90.1	91.9	92.9	92.9	93.8	93.8	93.8	93.8	93.8
110°	78.8	81.6	84.4	86.3	86.3	87.2	87.2	88.2	88.2	87.2	88.2

TEST NUMBER: P1213799

CATALOG NUMBER: 4SNLED-LD5-50HL-LN-UNV-L940-CD1-U

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
112.5°	72.2	76.0	77.9	79.7	80.7	81.6	81.6	81.6	81.6	81.6	81.6
115°	66.6	70.4	72.2	74.1	75.0	76.0	76.0	76.0	76.0	76.0	76.0
117.5°	61.9	65.7	67.5	68.5	69.4	70.4	71.3	71.3	71.3	71.3	70.4
120°	57.2	60.0	61.9	63.8	64.7	65.7	65.7	65.7	65.7	65.7	65.7
122.5°	52.5	55.3	57.2	59.1	60.0	61.0	61.0	61.0	61.0	61.0	61.0
125°	47.8	50.7	52.5	54.4	55.3	56.3	56.3	56.3	56.3	56.3	56.3
127.5°	43.2	46.0	48.8	49.7	50.7	51.6	51.6	51.6	52.5	51.6	51.6
130°	38.5	41.3	44.1	45.0	46.0	46.9	47.8	47.8	47.8	47.8	46.9
132.5°	34.7	37.5	39.4	40.3	42.2	42.2	43.2	43.2	43.2	43.2	42.2
135°	31.9	33.8	35.6	36.6	38.5	38.5	38.5	39.4	39.4	38.5	37.5
137.5°	28.1	30.0	31.9	32.8	33.8	34.7	34.7	35.6	34.7	34.7	34.7
140°	26.3	27.2	29.1	30.0	31.0	31.0	31.0	31.9	31.9	31.0	31.0
142.5°	22.5	24.4	26.3	27.2	28.1	28.1	28.1	28.1	28.1	28.1	28.1
145°	18.8	21.6	22.5	24.4	24.4	25.3	25.3	25.3	25.3	25.3	24.4
147.5°	15.9	17.8	20.6	21.6	21.6	22.5	22.5	22.5	22.5	22.5	21.6
150°	12.2	14.1	16.9	18.8	18.8	19.7	19.7	19.7	19.7	18.8	18.8
152.5°	10.3	12.2	13.1	15.0	15.9	15.9	15.9	16.9	15.9	15.9	15.9
155°	9.4	10.3	11.3	12.2	13.1	14.1	14.1	14.1	14.1	13.1	13.1
157.5°	7.5	8.4	9.4	10.3	11.3	12.2	12.2	12.2	12.2	12.2	11.3
160°	5.6	6.6	7.5	7.5	8.4	9.4	10.3	9.4	9.4	9.4	9.4
162.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
167.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

TEST NUMBER: P1213799

CATALOG NUMBER: 4SNLED-LD5-50HL-LN-UNV-L940-CD1-U

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	1705.4	1705.4	1705.4	1705.4	1705.4	1705.4	1705.4	1705.4	1705.4	1705.4	1705.4
2.5°	1701.7	1700.7	1703.6	1698.9	1684.8	1688.5	1686.7	1695.1	1697.0	1698.9	1707.3
5°	1701.7	1700.7	1702.6	1698.9	1683.9	1686.7	1684.8	1693.2	1695.1	1696.1	1704.5
7.5°	1697.9	1697.0	1699.8	1695.1	1679.2	1682.9	1680.1	1688.5	1689.5	1690.4	1697.9
10°	1690.4	1689.5	1691.4	1687.6	1671.7	1675.4	1671.7	1680.1	1680.1	1682.0	1687.6
12.5°	1679.2	1677.3	1681.0	1676.4	1658.5	1663.2	1661.3	1667.0	1667.9	1668.8	1674.5
15°	1663.2	1661.3	1664.2	1661.3	1645.4	1646.3	1643.5	1652.0	1652.9	1651.0	1656.7
17.5°	1639.8	1637.9	1643.5	1641.6	1625.7	1629.4	1628.5	1630.4	1633.2	1628.5	1636.0
20°	1610.7	1612.6	1614.4	1615.4	1603.2	1603.2	1602.2	1606.0	1608.8	1605.1	1610.7
22.5°	1567.5	1572.2	1577.9	1579.7	1571.3	1570.3	1576.0	1574.1	1576.9	1575.0	1578.8
25°	1513.1	1522.5	1528.1	1533.8	1529.1	1530.9	1539.4	1541.3	1541.3	1540.3	1544.1
27.5°	1445.6	1457.8	1468.1	1480.3	1475.6	1479.4	1493.4	1495.3	1499.1	1495.3	1502.8
30°	1364.9	1376.2	1395.9	1413.7	1415.6	1421.2	1440.9	1442.8	1453.1	1449.3	1452.2
32.5°	1284.2	1289.9	1312.4	1330.2	1341.5	1355.5	1377.1	1380.9	1394.9	1397.7	1397.7
35°	1182.9	1198.9	1219.5	1244.8	1258.9	1273.9	1303.0	1308.6	1329.3	1335.8	1343.3
37.5°	1097.6	1112.6	1125.7	1152.0	1177.3	1194.2	1217.6	1231.7	1253.3	1265.5	1274.9
40°	1006.6	1018.8	1032.8	1059.1	1080.7	1106.0	1129.5	1146.3	1173.5	1187.6	1199.8
42.5°	920.3	929.6	944.6	963.4	985.9	1014.1	1036.6	1056.3	1085.4	1105.1	1119.1
45°	843.3	849.0	862.1	876.2	895.9	924.9	946.5	971.9	995.3	1015.9	1032.8
47.5°	771.1	778.6	785.2	794.6	812.4	830.2	855.5	879.9	903.4	925.9	942.8
50°	704.5	704.5	714.8	721.4	733.6	749.5	769.2	786.1	815.2	831.1	852.7
52.5°	639.8	643.5	649.2	652.9	662.3	672.6	688.6	702.6	727.0	742.0	762.7
55°	582.5	586.3	589.1	591.0	596.6	608.8	614.4	625.7	642.6	654.8	672.6
57.5°	528.1	530.0	532.8	533.8	534.7	542.2	546.9	549.7	566.6	578.8	593.8
60°	478.4	478.4	481.2	480.3	479.4	483.1	482.2	485.0	495.3	502.8	509.4
62.5°	431.5	431.5	432.5	430.6	429.6	429.6	425.9	428.7	431.5	432.5	437.1
65°	388.4	393.1	389.3	390.2	384.6	382.7	380.9	375.2	374.3	370.5	372.4
67.5°	349.9	353.7	349.9	349.9	345.2	341.5	336.8	327.4	324.6	317.1	315.2
70°	318.9	316.1	318.0	315.2	309.6	304.9	298.3	290.8	281.4	272.0	265.5
72.5°	288.9	288.9	287.1	284.2	281.4	272.0	264.5	256.1	244.8	232.6	223.3
75°	259.8	260.8	260.8	258.0	253.3	244.8	236.4	224.2	212.0	197.9	185.7
77.5°	239.2	239.2	239.2	234.5	229.8	222.3	212.0	198.9	185.7	168.9	154.8
80°	219.5	218.6	218.6	212.9	208.3	199.8	189.5	176.4	162.3	144.5	128.5
82.5°	203.6	202.6	200.7	196.1	189.5	181.0	170.7	156.7	141.7	125.7	106.0
85°	186.7	185.7	183.9	179.2	172.6	165.1	153.8	139.8	124.8	106.9	88.2
87.5°	171.7	170.7	167.9	165.1	157.6	149.2	137.9	124.8	108.8	91.9	73.2
90°	161.4	159.5	157.6	153.8	147.3	137.9	126.6	112.6	96.6	79.7	61.0
92.5°	149.2	148.2	145.4	141.7	136.0	126.6	115.4	102.3	86.3	70.4	52.5
95°	137.0	136.0	134.1	130.4	124.8	116.3	106.0	92.9	77.9	61.9	46.0
97.5°	125.7	125.7	122.9	120.1	113.5	106.9	96.6	84.4	70.4	56.3	41.3
100°	116.3	116.3	113.5	109.8	105.1	98.5	88.2	76.9	63.8	50.7	35.6
102.5°	107.9	106.9	105.1	101.3	96.6	90.1	80.7	70.4	58.2	45.0	31.9
105°	100.4	99.4	97.6	93.8	90.1	82.6	75.0	64.7	52.5	40.3	28.1
107.5°	92.9	91.9	91.0	87.2	82.6	76.0	68.5	58.2	47.8	36.6	25.3
110°	86.3	85.4	83.5	79.7	75.0	69.4	61.9	53.5	43.2	32.8	22.5

TEST NUMBER: P1213799

CATALOG NUMBER: 4SNLED-LD5-50HL-LN-UNV-L940-CD1-U

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
112.5°	80.7	79.7	77.9	74.1	70.4	63.8	57.2	47.8	39.4	30.0	19.7
115°	75.0	74.1	72.2	68.5	63.8	58.2	51.6	44.1	34.7	26.3	17.8
117.5°	69.4	68.5	66.6	63.8	59.1	53.5	46.9	39.4	31.0	24.4	15.9
120°	64.7	62.9	61.0	58.2	53.5	48.8	42.2	35.6	28.1	21.6	14.1
122.5°	60.0	58.2	56.3	53.5	48.8	44.1	37.5	31.9	26.3	19.7	13.1
125°	54.4	53.5	51.6	48.8	44.1	39.4	34.7	29.1	23.5	17.8	11.3
127.5°	49.7	48.8	46.9	43.2	39.4	35.6	31.0	26.3	20.6	15.0	10.3
130°	46.0	44.1	42.2	39.4	36.6	32.8	28.1	23.5	18.8	13.1	9.4
132.5°	41.3	39.4	37.5	35.6	32.8	29.1	25.3	20.6	16.9	12.2	8.4
135°	37.5	35.6	33.8	31.9	29.1	26.3	22.5	18.8	15.0	11.3	7.5
137.5°	32.8	31.9	31.0	29.1	26.3	23.5	20.6	15.9	13.1	10.3	6.6
140°	30.0	29.1	28.1	25.3	23.5	20.6	17.8	14.1	11.3	8.4	5.6
142.5°	27.2	26.3	24.4	22.5	20.6	18.8	15.0	13.1	10.3	7.5	5.6
145°	23.5	22.5	21.6	19.7	17.8	15.0	13.1	11.3	9.4	6.6	4.7
147.5°	21.6	20.6	18.8	16.9	15.0	13.1	12.2	10.3	7.5	5.6	3.8
150°	17.8	16.9	15.9	14.1	13.1	12.2	10.3	8.4	6.6	4.7	3.8
152.5°	15.0	14.1	13.1	13.1	11.3	10.3	8.4	7.5	5.6	4.7	2.8
155°	13.1	13.1	12.2	11.3	9.4	8.4	7.5	5.6	4.7	3.8	2.8
157.5°	11.3	10.3	9.4	9.4	8.4	7.5	5.6	4.7	3.8	3.8	2.8
160°	9.4	8.4	8.4	7.5	6.6	5.6	4.7	4.7	3.8	2.8	2.8
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: P1213799

CATALOG NUMBER: 4SNLED-LD5-50HL-LN-UNV-L940-CD1-U

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
0°	1705.4	1705.4	1705.4	1705.4	1705.4	1705.4	1705.4	1705.4	1705.4	1705.4	1705.4
2.5°	1708.2	1697.9	1707.3	1719.5	1719.5	1717.6	1715.8	1719.5	1728.9	1725.1	1713.9
5°	1705.4	1695.1	1703.6	1715.8	1715.8	1712.9	1711.1	1713.9	1724.2	1719.5	1709.2
7.5°	1699.8	1690.4	1696.1	1707.3	1707.3	1704.5	1702.6	1706.4	1714.8	1710.1	1698.9
10°	1689.5	1679.2	1685.7	1696.1	1695.1	1693.2	1690.4	1695.1	1702.6	1696.1	1682.9
12.5°	1676.4	1666.0	1671.7	1681.0	1680.1	1676.4	1674.5	1677.3	1683.9	1680.1	1666.0
15°	1658.5	1648.2	1652.9	1662.3	1659.5	1656.7	1652.9	1653.8	1662.3	1655.7	1640.7
17.5°	1637.0	1625.7	1629.4	1637.9	1635.1	1632.3	1627.6	1628.5	1637.9	1628.5	1612.6
20°	1610.7	1598.5	1601.3	1611.6	1606.9	1602.2	1597.6	1597.6	1606.9	1596.6	1578.8
22.5°	1582.5	1570.3	1572.2	1579.7	1576.0	1567.5	1562.8	1565.7	1570.3	1557.2	1538.5
25°	1547.8	1531.9	1534.7	1542.2	1539.4	1528.1	1523.4	1525.3	1523.4	1513.1	1493.4
27.5°	1507.5	1490.6	1492.5	1497.2	1493.4	1483.1	1477.5	1478.4	1474.7	1461.5	1439.0
30°	1456.8	1448.4	1447.5	1450.3	1444.6	1434.3	1427.8	1425.9	1424.9	1406.2	1379.0
32.5°	1405.2	1397.7	1393.1	1396.8	1390.2	1379.9	1368.7	1368.7	1359.3	1341.5	1318.0
35°	1352.7	1340.5	1335.8	1338.6	1331.1	1318.0	1308.6	1303.9	1289.9	1267.3	1242.0
37.5°	1285.2	1276.7	1271.1	1273.9	1265.5	1256.1	1238.3	1233.6	1218.6	1187.6	1155.7
40°	1212.0	1205.4	1199.8	1202.6	1193.2	1179.2	1163.2	1155.7	1138.8	1104.1	1078.8
42.5°	1133.2	1130.4	1123.8	1134.1	1115.4	1101.3	1085.4	1073.2	1056.3	1018.8	989.7
45°	1049.7	1056.3	1041.3	1044.1	1031.9	1019.7	1002.8	985.0	968.1	932.5	899.6
47.5°	961.5	966.2	955.9	957.8	944.6	933.4	918.4	895.9	877.1	846.1	817.1
50°	870.5	868.7	868.7	866.8	856.5	842.4	827.4	806.8	788.0	759.8	735.5
52.5°	773.9	777.7	779.5	784.2	771.1	762.7	739.2	721.4	707.3	678.2	657.6
55°	681.0	694.2	690.4	692.3	677.3	670.7	652.0	637.9	617.3	600.4	587.2
57.5°	596.6	599.4	601.3	604.1	597.6	584.4	569.4	558.2	542.2	528.1	518.8
60°	515.0	515.0	515.9	520.6	514.1	502.8	491.6	483.1	471.9	463.4	457.8
62.5°	438.1	444.7	445.6	441.8	433.4	427.8	420.3	415.6	408.1	405.3	403.4
65°	366.8	366.8	366.8	368.7	364.0	360.2	355.5	354.6	357.4	353.7	355.5
67.5°	306.8	303.9	302.1	303.0	301.1	299.2	298.3	301.1	306.8	306.8	311.4
70°	255.2	249.5	245.8	245.8	245.8	246.7	249.5	255.2	264.5	268.3	274.9
72.5°	212.9	200.7	195.1	195.1	196.1	199.8	208.3	218.6	227.0	234.5	243.0
75°	172.6	160.4	152.0	151.0	152.9	158.5	170.7	180.1	194.2	204.5	214.8
77.5°	139.8	124.8	114.4	113.5	116.3	124.8	139.8	152.0	167.9	179.2	190.4
80°	111.6	94.7	86.3	80.7	85.4	95.7	112.6	127.6	142.6	157.6	171.7
82.5°	89.1	73.2	60.0	54.4	60.0	74.1	90.1	107.9	122.9	138.8	152.9
85°	70.4	53.5	38.5	32.8	39.4	54.4	72.2	90.1	106.9	122.9	137.0
87.5°	55.3	38.5	23.5	15.9	24.4	40.3	57.2	75.0	92.9	108.8	122.9
90°	43.2	27.2	13.1	1.9	14.1	29.1	46.0	62.9	80.7	96.6	110.7
92.5°	36.6	20.6	7.5	0.0	8.4	21.6	37.5	54.4	70.4	86.3	100.4
95°	31.0	16.9	5.6	0.0	5.6	16.9	31.0	46.0	61.9	77.9	91.9
97.5°	26.3	13.1	3.8	0.0	3.8	13.1	25.3	40.3	54.4	69.4	82.6
100°	22.5	11.3	2.8	0.0	2.8	10.3	21.6	34.7	48.8	62.9	75.0
102.5°	19.7	9.4	1.9	0.0	1.9	8.4	17.8	30.0	42.2	55.3	67.5
105°	16.9	7.5	1.9	0.0	0.9	6.6	15.0	26.3	37.5	49.7	61.0
107.5°	15.0	6.6	1.9	0.0	0.9	5.6	13.1	22.5	33.8	44.1	54.4
110°	13.1	5.6	1.9	0.0	0.9	3.8	11.3	19.7	29.1	39.4	49.7



TEST NUMBER: P1213799

CATALOG NUMBER: 4SNLED-LD5-50HL-LN-UNV-L940-CD1-U

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
112.5°	11.3	4.7	0.9	0.0	0.0	2.8	9.4	16.9	25.3	35.6	44.1
115°	10.3	4.7	0.9	0.0	0.0	1.9	7.5	15.0	22.5	31.9	39.4
117.5°	9.4	3.8	0.9	0.0	0.9	1.9	6.6	13.1	19.7	27.2	35.6
120°	8.4	3.8	0.9	0.0	0.9	0.9	4.7	11.3	16.9	24.4	31.0
122.5°	7.5	3.8	0.9	0.0	0.9	0.9	3.8	9.4	15.0	21.6	27.2
125°	6.6	2.8	1.9	0.9	0.9	0.9	2.8	7.5	13.1	17.8	24.4
127.5°	6.6	2.8	1.9	0.9	0.9	0.9	1.9	6.6	10.3	15.9	21.6
130°	5.6	2.8	1.9	0.9	0.9	0.9	0.9	4.7	9.4	13.1	17.8
132.5°	4.7	2.8	1.9	0.9	0.9	0.9	0.9	2.8	6.6	11.3	15.0
135°	4.7	2.8	1.9	0.9	0.9	0.9	0.9	1.9	4.7	8.4	12.2
137.5°	3.8	1.9	1.9	0.9	0.9	0.9	0.9	0.9	3.8	6.6	9.4
140°	3.8	1.9	1.9	0.9	0.9	0.9	0.9	0.9	2.8	4.7	7.5
142.5°	2.8	1.9	1.9	0.9	0.9	0.9	0.9	0.9	1.9	3.8	5.6
145°	2.8	1.9	1.9	0.9	0.9	0.9	0.9	0.9	0.9	1.9	3.8
147.5°	2.8	2.8	1.9	0.9	0.9	0.9	0.9	0.9	0.9	1.9	2.8
150°	2.8	1.9	1.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	1.9
152.5°	2.8	1.9	1.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	1.9
155°	2.8	1.9	1.9	0.9	0.9	0.9	0.9	0.9	0.9	1.9	1.9
157.5°	2.8	1.9	1.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	1.9
160°	2.8	1.9	1.9	0.9	1.9	0.9	1.9	1.9	1.9	1.9	1.9
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: P1213799

CATALOG NUMBER: 4SNLED-LD5-50HL-LN-UNV-L940-CD1-U

CANDELA DISTRIBUTION (continued):

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
0°	1705.4	1705.4	1705.4	1705.4	1705.4	1705.4	1705.4	1705.4	1705.4	1705.4	1705.4
2.5°	1710.1	1692.3	1701.7	1698.9	1702.6	1710.1	1709.2	1707.3	1707.3	1704.5	1700.7
5°	1704.5	1687.6	1696.1	1691.4	1696.1	1702.6	1701.7	1698.9	1700.7	1696.1	1691.4
7.5°	1693.2	1678.2	1685.7	1682.0	1685.7	1692.3	1689.5	1688.5	1690.4	1682.9	1680.1
10°	1680.1	1663.2	1671.7	1667.0	1671.7	1676.4	1674.5	1670.7	1674.5	1667.0	1664.2
12.5°	1659.5	1645.4	1651.0	1649.1	1652.0	1656.7	1652.9	1650.1	1652.0	1645.4	1639.8
15°	1637.0	1622.9	1627.6	1624.8	1626.6	1632.3	1625.7	1624.8	1622.9	1616.3	1614.4
17.5°	1607.9	1594.7	1599.4	1594.7	1597.6	1595.7	1594.7	1590.0	1590.0	1582.5	1576.9
20°	1572.2	1561.0	1558.2	1554.4	1558.2	1554.4	1548.8	1545.0	1544.1	1536.6	1531.9
22.5°	1530.9	1517.8	1519.7	1509.4	1510.3	1504.7	1495.3	1491.5	1487.8	1479.4	1472.8
25°	1481.2	1468.1	1458.7	1452.2	1443.7	1442.8	1430.6	1421.2	1420.3	1409.9	1409.0
27.5°	1424.9	1409.9	1402.4	1386.5	1376.2	1367.7	1357.4	1348.0	1343.3	1332.1	1324.6
30°	1360.2	1343.3	1324.6	1313.3	1297.4	1290.8	1273.0	1261.7	1258.0	1245.8	1240.1
32.5°	1287.0	1269.2	1254.2	1232.6	1214.8	1205.4	1187.6	1176.4	1171.7	1158.5	1151.0
35°	1207.3	1187.6	1169.8	1149.1	1135.1	1119.1	1097.6	1086.3	1076.0	1071.3	1065.7
37.5°	1123.8	1102.2	1081.6	1061.0	1048.8	1030.0	1011.3	1003.7	991.6	986.9	981.2
40°	1037.5	1015.9	996.2	976.5	962.5	945.6	928.7	925.9	912.8	908.1	904.3
42.5°	952.2	929.6	907.1	893.1	882.7	865.8	854.6	851.8	840.5	837.7	837.7
45°	875.2	847.1	828.3	816.1	807.7	793.6	784.2	782.4	773.0	771.1	771.1
47.5°	792.7	766.4	752.3	744.8	737.3	727.0	721.4	721.4	712.0	710.1	709.2
50°	715.8	691.4	681.0	673.5	672.6	665.1	660.4	658.5	658.5	652.0	652.9
52.5°	642.6	630.4	621.9	617.3	611.6	606.9	603.2	603.2	600.4	595.7	597.6
55°	575.0	561.0	561.9	558.2	555.3	552.5	553.5	547.8	546.9	543.1	546.0
57.5°	507.5	507.5	505.6	502.8	498.1	500.0	500.0	500.0	495.3	492.5	495.3
60°	450.3	453.1	448.4	451.2	449.3	450.3	448.4	448.4	445.6	444.7	445.6
62.5°	399.6	404.3	402.4	406.2	404.3	405.3	407.1	403.4	401.5	399.6	401.5
65°	354.6	360.2	359.3	362.1	363.0	364.0	364.9	363.0	361.2	359.3	358.3
67.5°	315.2	320.8	324.6	325.5	326.5	329.3	328.3	326.5	324.6	321.8	320.8
70°	279.5	287.1	291.7	293.6	297.4	295.5	295.5	294.6	292.7	289.9	288.9
72.5°	249.5	258.0	262.7	264.5	268.3	268.3	267.4	266.4	264.5	261.7	260.8
75°	223.3	230.8	237.3	241.1	243.9	243.9	243.0	242.0	240.1	238.3	237.3
77.5°	202.6	209.2	214.8	219.5	221.4	222.3	221.4	219.5	219.5	218.6	217.6
80°	182.0	189.5	195.1	199.8	202.6	202.6	201.7	202.6	200.7	199.8	198.9
82.5°	164.2	172.6	179.2	183.9	185.7	186.7	185.7	186.7	184.8	184.8	184.8
85°	148.2	156.7	164.2	167.9	170.7	171.7	171.7	171.7	170.7	170.7	170.7
87.5°	135.1	143.5	151.0	154.8	157.6	158.5	158.5	159.5	157.6	157.6	157.6
90°	122.9	131.3	138.8	142.6	145.4	147.3	147.3	148.2	147.3	146.3	146.3
92.5°	111.6	121.0	128.5	132.3	135.1	137.9	137.9	138.8	137.0	137.0	137.0
95°	102.3	111.6	118.2	122.9	125.7	127.6	128.5	128.5	127.6	127.6	127.6
97.5°	93.8	102.3	108.8	113.5	116.3	117.3	118.2	119.1	118.2	118.2	118.2
100°	85.4	93.8	100.4	104.1	107.9	108.8	109.8	110.7	110.7	109.8	109.8
102.5°	77.9	86.3	91.9	96.6	99.4	101.3	102.3	102.3	102.3	102.3	102.3
105°	70.4	78.8	84.4	89.1	91.9	93.8	94.7	95.7	95.7	94.7	94.7
107.5°	63.8	71.3	77.9	81.6	85.4	87.2	88.2	88.2	89.1	88.2	88.2
110°	57.2	65.7	71.3	75.0	78.8	80.7	81.6	82.6	82.6	82.6	82.6

TEST NUMBER: P1213799

CATALOG NUMBER: 4SNLED-LD5-50HL-LN-UNV-L940-CD1-U

CANDELA DISTRIBUTION (continued):

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
112.5°	52.5	59.1	64.7	68.5	72.2	74.1	75.0	76.0	76.9	76.0	76.0
115°	46.9	53.5	59.1	62.9	65.7	67.5	69.4	70.4	70.4	71.3	70.4
117.5°	42.2	47.8	53.5	57.2	60.0	62.9	63.8	64.7	65.7	64.7	64.7
120°	37.5	43.2	47.8	51.6	54.4	57.2	58.2	59.1	60.0	59.1	59.1
122.5°	33.8	38.5	43.2	46.9	49.7	51.6	53.5	53.5	54.4	54.4	54.4
125°	30.0	34.7	38.5	42.2	45.0	46.9	47.8	48.8	48.8	49.7	49.7
127.5°	26.3	30.0	34.7	37.5	40.3	42.2	43.2	44.1	44.1	45.0	45.0
130°	22.5	26.3	30.0	32.8	35.6	37.5	38.5	39.4	40.3	40.3	40.3
132.5°	19.7	23.5	26.3	29.1	31.0	32.8	34.7	35.6	35.6	35.6	35.6
135°	15.9	19.7	22.5	25.3	27.2	29.1	30.0	31.9	31.9	31.9	31.9
137.5°	13.1	16.9	19.7	21.6	23.5	25.3	26.3	27.2	28.1	28.1	28.1
140°	10.3	13.1	15.9	18.8	20.6	21.6	23.5	23.5	24.4	24.4	24.4
142.5°	7.5	10.3	12.2	15.0	16.9	18.8	19.7	20.6	20.6	20.6	20.6
145°	5.6	7.5	9.4	11.3	14.1	15.0	15.9	16.9	17.8	17.8	17.8
147.5°	3.8	5.6	6.6	8.4	10.3	12.2	13.1	14.1	15.0	15.0	15.0
150°	2.8	3.8	5.6	6.6	7.5	9.4	11.3	11.3	12.2	12.2	11.3
152.5°	1.9	2.8	3.8	4.7	5.6	6.6	8.4	8.4	9.4	9.4	9.4
155°	1.9	1.9	1.9	2.8	3.8	4.7	5.6	6.6	6.6	6.6	6.6
157.5°	1.9	1.9	1.9	1.9	1.9	2.8	3.8	4.7	4.7	4.7	4.7
160°	1.9	1.9	0.9	0.9	1.9	1.9	1.9	1.9	2.8	2.8	2.8
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: P1213799

CATALOG NUMBER: 4SNLED-LD5-50HL-LN-UNV-L940-CD1-U

CANDELA DISTRIBUTION (continued):

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°
0°	1705.4	1705.4	1705.4	1705.4	1705.4	1705.4	1705.4	1705.4	1705.4	1705.4	1705.4
2.5°	1703.6	1705.4	1705.4	1703.6	1702.6	1706.4	1701.7	1683.9	1689.5	1691.4	1697.0
5°	1695.1	1697.0	1697.0	1697.0	1695.1	1698.9	1694.2	1676.4	1682.9	1685.7	1689.5
7.5°	1682.9	1683.9	1685.7	1684.8	1682.9	1688.5	1683.9	1666.0	1670.7	1675.4	1680.1
10°	1667.0	1667.0	1667.9	1669.8	1667.9	1672.6	1667.9	1652.0	1656.7	1659.5	1665.1
12.5°	1645.4	1647.3	1648.2	1647.3	1646.3	1650.1	1648.2	1633.2	1635.1	1640.7	1646.3
15°	1616.3	1616.3	1621.0	1619.1	1619.1	1622.9	1624.8	1607.9	1610.7	1619.1	1624.8
17.5°	1580.7	1581.6	1585.4	1587.2	1586.3	1592.9	1593.8	1580.7	1579.7	1590.0	1595.7
20°	1534.7	1536.6	1541.3	1545.0	1545.0	1552.5	1555.3	1546.9	1547.8	1559.1	1561.0
22.5°	1478.4	1478.4	1486.9	1492.5	1497.2	1501.9	1510.3	1502.8	1502.8	1517.8	1526.3
25°	1409.0	1415.6	1418.4	1429.6	1436.2	1449.3	1456.8	1457.8	1458.7	1472.8	1478.4
27.5°	1332.1	1334.0	1342.4	1355.5	1363.0	1375.2	1389.3	1392.1	1396.8	1415.6	1424.0
30°	1244.8	1250.5	1254.2	1273.0	1283.3	1299.2	1317.1	1323.6	1327.4	1352.7	1363.0
32.5°	1155.7	1157.6	1173.5	1183.9	1196.1	1212.9	1233.6	1245.8	1253.3	1279.5	1294.6
35°	1066.6	1070.4	1083.5	1096.6	1108.8	1125.7	1147.3	1164.2	1177.3	1200.7	1220.4
37.5°	985.0	994.4	997.2	1010.3	1019.7	1036.6	1051.6	1076.0	1089.1	1113.5	1138.8
40°	911.8	914.6	916.5	929.6	936.2	952.2	973.7	989.7	1007.5	1025.3	1055.3
42.5°	839.6	841.5	844.3	851.8	859.3	870.5	886.5	902.4	921.2	947.5	967.2
45°	773.0	774.9	776.7	781.4	788.0	798.3	808.6	819.9	838.6	861.2	881.8
47.5°	711.1	714.8	714.8	715.8	720.4	728.9	736.4	750.5	760.8	773.0	796.4
50°	652.0	654.8	655.7	655.7	658.5	664.2	666.0	675.4	684.8	696.1	712.9
52.5°	596.6	596.6	595.7	599.4	599.4	603.2	604.1	609.8	616.3	628.5	636.0
55°	544.1	544.1	546.9	545.0	545.0	546.9	546.0	546.9	552.5	560.0	566.6
57.5°	493.4	492.5	495.3	493.4	492.5	494.4	496.2	492.5	493.4	500.9	500.9
60°	442.8	443.7	446.5	444.7	444.7	444.7	442.8	440.9	439.0	443.7	445.6
62.5°	402.4	399.6	402.4	399.6	401.5	400.6	398.7	394.9	395.9	394.0	392.1
65°	360.2	360.2	361.2	358.3	360.2	360.2	357.4	356.5	350.8	349.0	344.3
67.5°	323.6	323.6	324.6	322.7	322.7	323.6	320.8	318.0	312.4	309.6	303.0
70°	291.7	291.7	291.7	290.8	290.8	290.8	288.9	285.2	279.5	274.9	266.4
72.5°	262.7	263.6	262.7	262.7	265.5	262.7	259.8	256.1	251.4	242.0	234.5
75°	239.2	240.1	239.2	239.2	239.2	238.3	237.3	231.7	226.1	218.6	207.3
77.5°	218.6	218.6	219.5	218.6	218.6	217.6	214.8	210.1	203.6	197.0	183.9
80°	198.9	199.8	200.7	201.7	199.8	198.9	196.1	192.3	183.9	176.4	163.2
82.5°	184.8	183.9	184.8	185.7	183.9	182.9	180.1	175.4	168.9	158.5	145.4
85°	170.7	169.8	169.8	170.7	169.8	167.9	165.1	160.4	153.8	143.5	130.4
87.5°	156.7	157.6	158.5	157.6	156.7	154.8	152.0	147.3	139.8	131.3	117.3
90°	146.3	146.3	146.3	146.3	145.4	143.5	140.7	135.1	128.5	118.2	106.0
92.5°	137.0	137.0	137.0	137.0	136.0	133.2	130.4	125.7	118.2	107.9	96.6
95°	127.6	128.5	127.6	127.6	125.7	124.8	120.1	115.4	108.8	98.5	86.3
97.5°	117.3	118.2	117.3	117.3	116.3	114.4	111.6	106.0	99.4	90.1	78.8
100°	109.8	109.8	108.8	108.8	107.9	106.0	102.3	97.6	91.0	81.6	70.4
102.5°	101.3	102.3	101.3	101.3	99.4	97.6	94.7	90.1	83.5	74.1	63.8
105°	94.7	94.7	93.8	93.8	91.9	90.1	87.2	81.6	76.0	67.5	57.2
107.5°	88.2	88.2	87.2	87.2	85.4	83.5	79.7	75.0	69.4	61.0	51.6
110°	81.6	81.6	81.6	80.7	78.8	76.0	73.2	68.5	62.9	55.3	46.0

TEST NUMBER: P1213799

CATALOG NUMBER: 4SNLED-LD5-50HL-LN-UNV-L940-CD1-U

CANDELA DISTRIBUTION (continued):

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°
112.5°	76.9	76.0	75.0	74.1	72.2	70.4	66.6	61.9	56.3	49.7	41.3
115°	70.4	70.4	69.4	68.5	66.6	63.8	61.0	57.2	51.6	44.1	36.6
117.5°	64.7	64.7	63.8	62.9	61.0	58.2	55.3	51.6	46.0	39.4	32.8
120°	59.1	59.1	58.2	57.2	55.3	52.5	50.7	46.0	41.3	34.7	29.1
122.5°	54.4	53.5	53.5	51.6	50.7	47.8	45.0	41.3	36.6	31.0	25.3
125°	48.8	48.8	47.8	46.9	46.0	43.2	40.3	36.6	31.9	27.2	22.5
127.5°	44.1	44.1	43.2	42.2	41.3	38.5	35.6	32.8	28.1	23.5	18.8
130°	39.4	39.4	38.5	37.5	36.6	33.8	31.9	28.1	24.4	20.6	15.9
132.5°	35.6	35.6	34.7	33.8	31.9	30.0	28.1	24.4	21.6	17.8	14.1
135°	31.9	31.0	31.0	30.0	28.1	26.3	24.4	21.6	17.8	15.0	11.3
137.5°	28.1	27.2	26.3	25.3	24.4	22.5	20.6	18.8	15.9	12.2	9.4
140°	24.4	23.5	23.5	22.5	20.6	19.7	17.8	15.0	13.1	10.3	7.5
142.5°	20.6	20.6	19.7	18.8	17.8	16.9	15.0	13.1	10.3	8.4	5.6
145°	17.8	16.9	16.9	15.9	15.0	13.1	12.2	10.3	8.4	6.6	4.7
147.5°	14.1	14.1	14.1	13.1	12.2	11.3	10.3	8.4	6.6	4.7	2.8
150°	11.3	11.3	11.3	10.3	9.4	8.4	7.5	6.6	4.7	2.8	1.9
152.5°	9.4	9.4	8.4	8.4	7.5	6.6	5.6	4.7	2.8	1.9	1.9
155°	6.6	6.6	6.6	5.6	5.6	4.7	3.8	2.8	1.9	1.9	1.9
157.5°	4.7	4.7	4.7	3.8	3.8	2.8	2.8	1.9	1.9	1.9	1.9
160°	2.8	2.8	2.8	2.8	1.9	1.9	1.9	1.9	1.9	1.9	1.9
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: P1213799

CATALOG NUMBER: 4SNLED-LD5-50HL-LN-UNV-L940-CD1-U

CANDELA DISTRIBUTION (continued):

	330°	335°	340°	345°	350°	355°	360°
0°	1705.4	1705.4	1705.4	1705.4	1705.4	1705.4	1705.4
2.5°	1694.2	1693.2	1700.7	1700.7	1692.3	1705.4	1719.5
5°	1688.5	1687.6	1695.1	1695.1	1687.6	1700.7	1715.8
7.5°	1677.3	1678.2	1685.7	1687.6	1678.2	1690.4	1706.4
10°	1665.1	1664.2	1672.6	1674.5	1667.0	1678.2	1693.2
12.5°	1645.4	1645.4	1653.8	1656.7	1649.1	1662.3	1676.4
15°	1624.8	1624.8	1630.4	1635.1	1628.5	1640.7	1654.8
17.5°	1598.5	1597.6	1603.2	1608.8	1602.2	1615.4	1630.4
20°	1564.7	1564.7	1571.3	1577.9	1573.2	1585.4	1602.2
22.5°	1529.1	1525.3	1536.6	1541.3	1538.5	1550.6	1567.5
25°	1484.0	1483.1	1494.4	1500.9	1497.2	1510.3	1525.3
27.5°	1435.3	1434.3	1445.6	1454.0	1452.2	1464.3	1481.2
30°	1376.2	1380.9	1391.2	1405.2	1400.6	1413.7	1431.5
32.5°	1314.3	1318.9	1331.1	1346.1	1347.1	1357.4	1375.2
35°	1240.1	1252.3	1260.8	1280.5	1284.2	1294.6	1313.3
37.5°	1162.3	1176.4	1194.2	1209.2	1216.7	1225.1	1246.7
40°	1075.0	1095.7	1115.4	1133.2	1142.6	1151.0	1171.7
42.5°	996.2	1012.2	1031.0	1048.8	1065.7	1073.2	1094.7
45°	907.1	925.9	942.8	964.3	981.2	989.7	1011.3
47.5°	819.9	838.6	861.2	876.2	894.0	902.4	923.1
50°	736.4	753.3	772.0	789.9	804.9	812.4	830.2
52.5°	653.8	671.7	689.5	700.7	716.7	722.3	737.3
55°	580.7	592.9	608.8	615.4	631.3	635.1	645.4
57.5°	510.3	518.8	524.4	535.6	546.9	555.3	567.5
60°	446.5	450.3	454.0	460.6	470.0	472.8	477.5
62.5°	389.3	388.4	395.9	397.7	398.7	408.1	403.4
65°	338.6	339.6	333.0	330.2	334.0	336.8	334.9
67.5°	296.4	290.8	285.2	278.6	273.0	275.8	273.0
70°	255.2	250.5	241.1	231.7	228.0	222.3	219.5
72.5°	222.3	211.1	201.7	189.5	182.9	176.4	171.7
75°	197.0	181.0	167.9	154.8	145.4	136.0	134.1
77.5°	170.7	155.7	140.7	126.6	112.6	102.3	98.5
80°	150.1	136.0	118.2	101.3	86.3	73.2	68.5
82.5°	131.3	116.3	98.5	80.7	63.8	49.7	44.1
85°	115.4	99.4	81.6	63.8	46.9	31.9	24.4
87.5°	103.2	85.4	67.5	50.7	32.8	17.8	9.4
90°	91.9	75.0	58.2	40.3	23.5	9.4	0.0
92.5°	81.6	65.7	48.8	32.8	17.8	5.6	0.9
95°	72.2	58.2	41.3	26.3	13.1	3.8	0.9
97.5°	64.7	50.7	35.6	21.6	10.3	2.8	0.9
100°	58.2	44.1	31.0	17.8	8.4	1.9	0.9
102.5°	51.6	39.4	26.3	15.0	6.6	0.9	0.9
105°	46.0	34.7	22.5	13.1	5.6	0.9	0.9
107.5°	41.3	31.0	19.7	11.3	3.8	0.9	0.9
110°	36.6	26.3	16.9	9.4	2.8	0.9	0.9



TEST NUMBER: P1213799

CATALOG NUMBER: 4SNLED-LD5-50HL-LN-UNV-L940-CD1-U

CANDELA DISTRIBUTION (continued):

	330°	335°	340°	345°	350°	355°	360°
112.5°	32.8	23.5	15.0	7.5	1.9	0.9	0.9
115°	29.1	20.6	13.1	6.6	1.9	0.9	0.9
117.5°	25.3	17.8	11.3	4.7	0.9	0.9	0.9
120°	22.5	15.9	9.4	3.8	0.9	0.9	0.9
122.5°	19.7	13.1	7.5	2.8	0.9	0.9	0.9
125°	16.9	11.3	6.6	1.9	0.9	0.9	0.9
127.5°	14.1	9.4	4.7	1.9	0.9	0.9	0.9
130°	12.2	7.5	3.8	0.9	0.9	0.9	0.9
132.5°	10.3	5.6	2.8	0.9	0.9	0.9	0.9
135°	8.4	4.7	1.9	0.9	0.9	0.9	0.9
137.5°	6.6	3.8	1.9	0.9	0.9	0.9	0.9
140°	4.7	2.8	0.9	0.9	0.9	0.9	0.9
142.5°	3.8	1.9	0.9	0.9	0.9	0.9	0.9
145°	2.8	1.9	0.9	0.9	0.9	0.9	0.9
147.5°	1.9	1.9	1.9	1.9	0.9	0.9	0.9
150°	1.9	1.9	0.9	0.9	1.9	0.9	0.9
152.5°	1.9	0.9	0.9	0.9	1.9	0.9	0.9
155°	1.9	1.9	1.9	1.9	1.9	1.9	0.9
157.5°	1.9	1.9	1.9	1.9	1.9	1.9	1.9
160°	1.9	1.9	1.9	1.9	1.9	1.9	1.9
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)