

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State
Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: METALUX

Report Number: P#

Luminaire Tested: **4SNLED-LD5-46SL-LN-UNV-L950-CD1-U**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P#
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P33519)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 4SNLED-LD5-46SL-LN-UNV-L950-CD1-U
Description: 4FT LINEAR SNLED LED FIXTURE
NARROW LENS
Light Source: -
Ballast/Driver: -

Summary

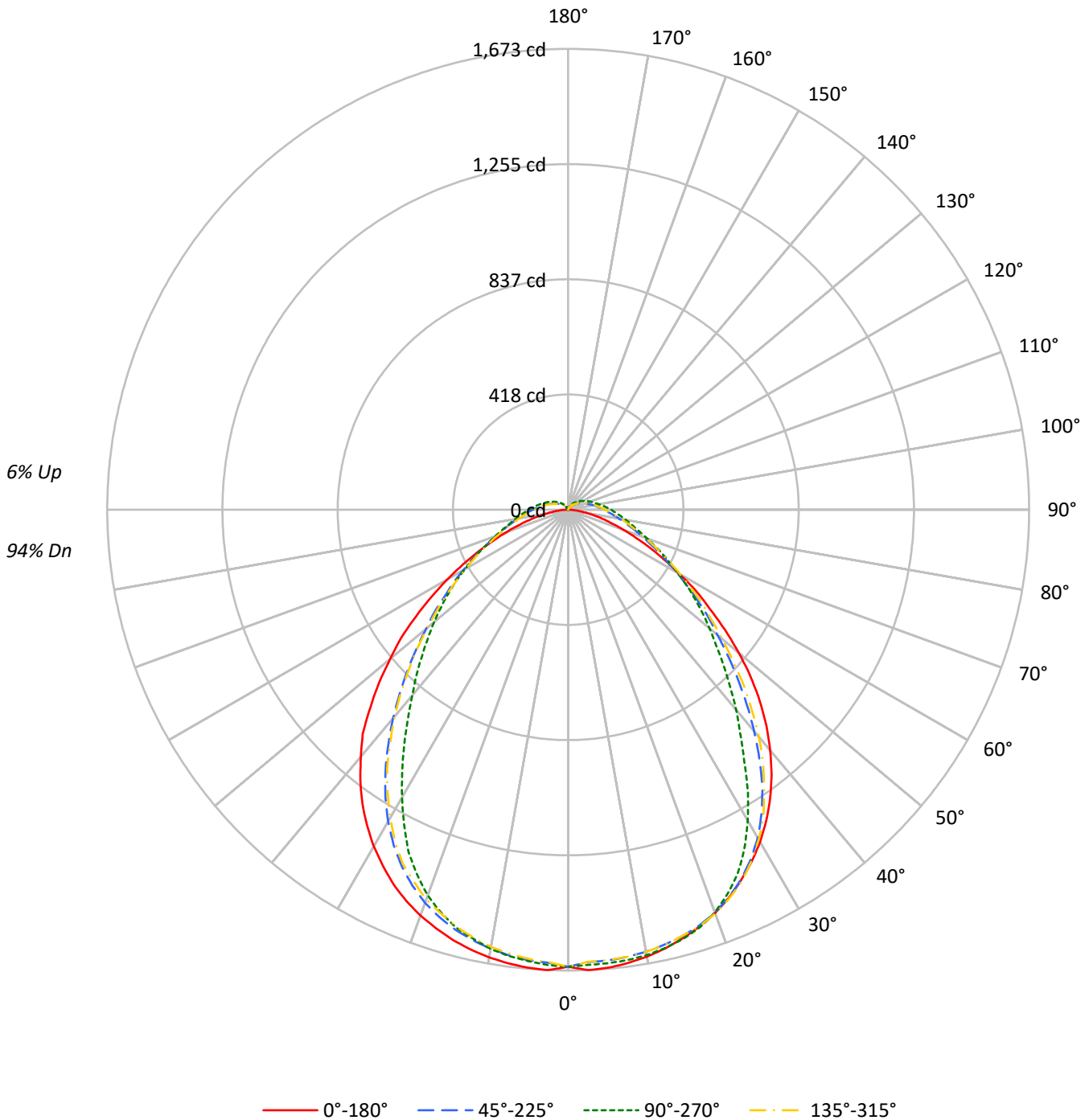
Lumens per Lamp: N/A
Luminaire Lumens: 4199.0 lumens
Efficiency: N/A
Efficacy: 120.0 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.14 / 1.24
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.12')
CIE Type: Direct

Input Watts (W): 35
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: 25 FT



TEST NUMBER: P#
CATALOG NUMBER: 4SNLED-LD5-46SL-LN-UNV-L950-CD1-U

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	0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0	
RCR																						
0	118	118	118	118	114	114	114	114	108	108	108	102	102	102	96	96	96	94				
1	107	103	98	95	104	100	96	92	94	91	88	89	87	85	85	83	81	79				
2	98	90	84	78	95	88	82	77	83	78	74	79	75	72	75	72	69	67				
3	90	80	72	66	87	78	71	65	74	68	63	71	66	61	67	63	60	57				
4	83	72	63	57	80	70	62	56	67	60	55	64	58	53	61	56	52	50				
5	77	64	56	50	74	63	55	49	60	53	48	58	52	47	55	50	46	44				
6	71	58	50	44	69	57	49	43	55	48	42	52	46	42	50	45	41	39				
7	66	53	45	39	64	52	44	39	50	43	38	48	42	37	46	41	37	35				
8	62	49	41	35	60	48	40	35	46	39	34	44	38	34	43	37	33	31				
9	58	45	37	32	56	44	37	31	42	36	31	41	35	30	40	34	30	28				
10	54	42	34	29	53	41	34	29	39	33	28	38	32	28	37	31	27	26				

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	13408	13408	13408	13408
5°	13503	12981	13503	12924
10°	13443	12637	13466	12460
15°	13357	12259	13417	11940
20°	13254	11773	13332	11276
25°	13042	11053	13186	10402
30°	12765	9995	12933	9253
35°	12335	8698	12573	8099
40°	11718	7607	12027	7058
45°	10902	6612	11257	6234
50°	9790	5811	10221	5517
55°	8468	5132	9083	4872
60°	7122	4505	7766	4246
65°	5838	3983	6428	3693
70°	4648	3535	5203	3270
75°	3649	3264	4108	3003
80°	2633	3149	3103	2878
85°	1619	3167	2179	2911



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	157.3	3.7
10°-20°	451.0	10.7
20°-30°	668.5	15.9
30°-40°	742.7	17.7
40°-50°	673.2	16.0
50°-60°	521.7	12.4
60°-70°	354.2	8.4
70°-80°	225.4	5.4
80°-90°	144.1	3.4
90°-100°	97.1	2.3
100°-110°	66.5	1.6
110°-120°	44.4	1.1
120°-130°	27.6	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°	1276.8	30.4
0°-40°	2019.5	48.1
0°-60°	3214.4	76.6
0°-90°	3938.1	93.8
90°-120°	208.1	5.0
90°-150°	258.1	6.1
90°-180°	261.0	6.2
0°-180°	4199.0	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	1659	1659	1659	1659	1659	
5°	1669	1653	1669	1646	1669	159
15°	1610	1613	1617	1571	1610	454
25°	1484	1457	1500	1371	1484	683
35°	1278	1113	1302	1037	1278	797
45°	984	796	1016	750	984	756
55°	628	560	674	531	628	565
65°	326	376	359	349	326	327
75°	130	251	147	231	130	141
85°	24	181	32	166	24	28
90°	0	156	2	142	0	1
95°	1	133	0	124	1	1
105°	1	98	0	92	1	1
115°	1	74	0	68	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	



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-46SL-LN-UNV-L950-CD1-U

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1659.2	1659.2	1659.2	1659.2	1659.2	1659.2	1659.2	1659.2	1659.2	1659.2	1659.2
2.5°	1672.9	1671.1	1669.2	1666.5	1669.2	1676.5	1672.0	1661.9	1660.1	1643.7	1651.0
5°	1669.2	1666.5	1664.7	1661.9	1665.6	1674.7	1670.2	1661.0	1658.3	1642.8	1651.0
7.5°	1660.1	1658.3	1655.5	1655.5	1659.2	1668.3	1664.7	1654.6	1652.8	1637.3	1646.4
10°	1647.3	1646.4	1644.6	1644.6	1648.2	1659.2	1654.6	1645.5	1643.7	1629.1	1639.1
12.5°	1630.9	1631.8	1629.1	1629.1	1634.6	1645.5	1641.9	1631.8	1630.0	1617.2	1627.3
15°	1609.9	1610.8	1609.0	1609.9	1615.4	1628.2	1623.6	1614.5	1612.7	1602.6	1610.8
17.5°	1586.2	1587.1	1587.1	1586.2	1592.6	1605.4	1601.7	1593.5	1590.8	1582.5	1592.6
20°	1558.8	1558.8	1558.8	1558.8	1566.1	1578.9	1574.3	1567.9	1562.5	1556.1	1564.3
22.5°	1525.0	1524.1	1525.0	1527.8	1535.1	1545.1	1542.4	1535.1	1526.9	1523.2	1529.6
25°	1484.0	1486.7	1487.6	1490.4	1499.5	1507.7	1505.0	1497.7	1484.9	1482.1	1484.0
27.5°	1441.1	1442.9	1445.6	1444.7	1457.5	1465.7	1460.2	1453.9	1435.6	1432.9	1431.0
30°	1392.7	1395.4	1397.3	1396.4	1406.4	1415.5	1410.0	1401.8	1377.2	1375.4	1360.8
32.5°	1337.9	1340.7	1342.5	1342.5	1357.1	1360.8	1350.7	1338.9	1312.4	1306.0	1293.2
35°	1277.7	1280.5	1281.4	1281.4	1296.0	1295.1	1282.3	1265.8	1236.6	1228.4	1206.5
37.5°	1212.9	1214.7	1215.7	1221.1	1227.5	1222.0	1205.6	1184.6	1162.7	1139.9	1116.2
40°	1139.9	1142.6	1144.5	1148.1	1154.5	1148.1	1124.4	1098.8	1075.1	1049.5	1025.8
42.5°	1065.1	1073.3	1071.5	1070.5	1074.2	1056.9	1038.6	1009.4	985.7	959.2	935.5
45°	983.8	982.9	987.5	989.3	988.4	973.8	948.2	921.8	898.0	870.7	850.6
47.5°	898.0	897.1	900.8	902.6	897.1	881.6	861.5	831.4	811.3	787.6	772.1
50°	807.7	807.7	813.2	807.7	805.0	789.4	773.0	742.9	727.4	706.4	697.3
52.5°	717.3	725.6	720.1	718.3	715.5	700.0	687.2	662.6	649.8	640.7	629.7
55°	627.9	637.0	633.4	630.6	629.7	617.0	605.1	586.8	578.6	572.2	565.8
57.5°	552.2	551.2	549.4	546.7	547.6	537.6	525.7	515.6	512.0	509.3	511.1
60°	464.5	471.8	469.1	470.0	470.9	469.1	459.1	452.7	453.6	454.5	457.2
62.5°	392.4	398.8	403.4	399.7	401.6	404.3	398.8	397.0	400.7	404.3	408.0
65°	325.8	332.2	336.8	335.9	341.3	346.8	345.9	347.7	355.9	360.5	365.1
67.5°	265.6	272.0	278.4	279.3	287.5	295.7	299.3	305.7	314.9	321.3	326.7
70°	213.6	219.0	226.3	230.9	241.9	252.8	259.2	272.0	277.4	286.6	290.2
72.5°	167.0	171.6	181.6	192.6	201.7	215.4	228.2	239.1	247.3	257.4	261.9
75°	130.5	132.3	143.3	156.1	168.8	184.4	198.0	209.9	220.9	230.9	238.2
77.5°	95.8	98.6	108.6	125.9	140.5	157.0	172.5	185.3	197.1	207.2	217.2
80°	66.6	72.1	83.1	100.4	116.8	135.1	149.7	164.3	177.1	187.1	197.1
82.5°	42.9	47.5	63.0	80.3	97.7	115.9	131.4	146.0	159.7	170.7	179.8
85°	23.7	30.1	45.6	63.9	81.2	99.5	115.9	130.5	144.2	154.2	163.4
87.5°	9.1	18.3	32.9	50.2	67.5	84.9	102.2	115.9	129.6	140.5	148.8
90°	0.0	11.0	24.6	42.0	59.3	76.7	93.1	107.7	120.5	130.5	139.6
92.5°	0.9	7.3	19.2	33.8	50.2	66.6	82.1	96.7	109.5	119.6	127.8
95°	0.9	5.5	15.5	29.2	43.8	59.3	73.9	87.6	99.5	109.5	117.7
97.5°	0.9	3.7	12.8	25.6	38.3	53.8	67.5	80.3	91.3	101.3	107.7
100°	0.9	3.7	11.0	21.9	34.7	48.4	61.1	73.9	84.0	92.2	99.5
102.5°	0.9	2.7	9.1	19.2	31.0	42.9	55.7	67.5	76.7	84.9	92.2
105°	0.9	2.7	8.2	16.4	27.4	39.2	50.2	61.1	71.2	78.5	84.9
107.5°	0.9	1.8	7.3	13.7	23.7	35.6	46.5	55.7	64.8	72.1	78.5
110°	0.9	1.8	6.4	12.8	21.0	31.9	42.0	51.1	59.3	66.6	72.1



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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	28.3	38.3	46.5	54.8	61.1	66.6
115°	0.9	1.8	5.5	11.0	17.3	24.6	33.8	42.9	49.3	56.6	61.1
117.5°	0.9	1.8	4.6	9.1	16.4	22.8	31.0	38.3	45.6	52.0	56.6
120°	0.9	1.8	4.6	8.2	14.6	21.0	27.4	34.7	42.0	46.5	51.1
122.5°	0.9	1.8	3.7	8.2	12.8	19.2	24.6	31.0	37.4	42.9	47.5
125°	0.9	1.8	3.7	7.3	11.9	17.3	22.8	27.4	33.8	38.3	42.9
127.5°	0.9	1.8	3.7	6.4	11.0	15.5	21.0	25.6	30.1	34.7	38.3
130°	0.9	1.8	2.7	5.5	10.0	13.7	18.3	23.7	27.4	31.0	34.7
132.5°	0.9	1.8	2.7	5.5	8.2	11.9	16.4	21.0	24.6	28.3	31.0
135°	0.9	1.8	2.7	4.6	7.3	11.0	13.7	18.3	21.9	25.6	28.3
137.5°	0.9	1.8	2.7	4.6	6.4	9.1	11.9	15.5	19.2	21.9	25.6
140°	0.9	1.8	2.7	3.7	5.5	8.2	11.0	12.8	16.4	19.2	21.9
142.5°	0.9	1.8	2.7	3.7	5.5	7.3	9.1	11.0	13.7	16.4	19.2
145°	0.9	1.8	2.7	3.7	4.6	6.4	8.2	10.0	11.0	13.7	15.5
147.5°	0.9	1.8	2.7	3.7	3.7	5.5	7.3	8.2	10.0	11.0	12.8
150°	0.9	1.8	2.7	2.7	3.7	4.6	6.4	7.3	8.2	10.0	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°	1659.2	1659.2	1659.2	1659.2	1659.2	1659.2	1659.2	1659.2	1659.2	1659.2	1659.2
2.5°	1649.2	1651.9	1660.1	1660.1	1658.3	1656.5	1656.5	1653.7	1655.5	1659.2	1657.4
5°	1649.2	1651.9	1660.1	1660.1	1658.3	1656.5	1655.5	1652.8	1655.5	1659.2	1657.4
7.5°	1643.7	1647.3	1655.5	1655.5	1653.7	1652.8	1651.0	1649.2	1651.9	1655.5	1653.7
10°	1636.4	1640.0	1648.2	1648.2	1646.4	1646.4	1643.7	1641.9	1645.5	1648.2	1647.3
12.5°	1625.4	1630.0	1637.3	1636.4	1634.6	1635.5	1632.7	1629.1	1632.7	1635.5	1636.4
15°	1609.9	1615.4	1622.7	1620.9	1618.1	1620.0	1615.4	1612.7	1615.4	1620.9	1620.0
17.5°	1589.8	1593.5	1599.0	1599.0	1596.2	1594.4	1592.6	1589.8	1591.7	1595.3	1596.2
20°	1561.5	1566.1	1568.8	1566.1	1565.2	1562.5	1558.8	1556.1	1559.7	1565.2	1566.1
22.5°	1524.1	1525.0	1531.4	1525.0	1520.5	1519.6	1515.9	1510.4	1515.9	1520.5	1521.4
25°	1477.6	1482.1	1479.4	1468.5	1468.5	1461.2	1459.3	1456.6	1457.5	1465.7	1469.4
27.5°	1418.3	1420.1	1412.8	1403.7	1395.4	1390.9	1384.5	1385.4	1385.4	1396.4	1400.0
30°	1353.5	1343.4	1337.0	1322.4	1316.0	1305.1	1303.3	1303.3	1301.4	1306.9	1323.3
32.5°	1275.9	1262.2	1252.2	1238.5	1227.5	1216.6	1211.1	1213.8	1212.9	1226.6	1232.1
35°	1191.0	1182.8	1161.8	1144.5	1138.1	1121.6	1121.6	1113.4	1118.9	1134.4	1140.8
37.5°	1101.6	1088.8	1071.5	1052.3	1047.7	1034.9	1030.4	1025.8	1037.7	1040.4	1046.8
40°	1010.3	998.4	982.0	963.8	963.8	948.2	948.2	948.2	949.2	954.6	966.5
42.5°	923.6	910.8	896.2	883.4	881.6	869.8	869.8	868.8	870.7	875.2	886.2
45°	839.6	829.6	814.1	807.7	808.6	795.8	798.6	795.8	799.5	804.0	807.7
47.5°	762.1	755.7	749.3	740.2	737.4	736.5	731.9	728.3	734.7	734.7	740.2
50°	690.0	686.3	682.7	677.2	678.1	674.4	669.0	669.0	673.5	674.4	678.1
52.5°	627.0	622.4	617.9	618.8	619.7	617.9	615.1	612.4	615.1	617.0	621.5
55°	564.0	560.4	564.9	563.1	564.9	563.1	561.3	559.5	564.0	561.3	565.8
57.5°	507.4	511.1	512.9	509.3	512.0	510.2	511.1	508.3	512.0	513.8	512.9
60°	455.4	460.9	458.2	459.1	462.7	460.9	457.2	460.0	463.6	464.5	463.6
62.5°	408.0	414.3	417.1	415.3	416.2	414.3	417.1	413.4	418.0	419.8	417.1
65°	365.1	372.4	374.2	374.2	374.2	372.4	375.1	376.0	377.8	377.8	376.0
67.5°	328.6	334.9	336.8	338.6	336.8	334.9	334.9	335.9	339.5	341.3	339.5
70°	295.7	302.1	303.0	303.0	303.9	305.7	302.1	303.9	306.7	307.6	306.7
72.5°	267.4	273.8	275.6	274.7	275.6	276.5	276.5	274.7	277.4	279.3	279.3
75°	244.6	248.2	250.1	250.1	251.0	251.9	251.9	251.0	252.8	253.7	254.6
77.5°	223.6	226.3	229.1	229.1	230.0	229.1	230.9	230.9	231.8	232.7	233.6
80°	202.6	206.3	208.1	209.0	210.8	211.7	211.7	211.7	212.6	213.6	213.6
82.5°	186.2	188.9	191.7	194.4	194.4	195.3	195.3	195.3	196.2	196.2	197.1
85°	169.8	173.4	176.1	178.0	178.9	179.8	179.8	180.7	180.7	180.7	181.6
87.5°	155.2	159.7	161.5	163.4	164.3	166.1	166.1	166.1	167.0	167.0	167.0
90°	145.1	149.7	151.5	153.3	154.2	155.2	155.2	156.1	156.1	157.0	157.0
92.5°	133.2	137.8	141.5	141.5	142.4	144.2	143.3	143.3	144.2	145.1	145.1
95°	124.1	127.8	130.5	131.4	132.3	132.3	132.3	133.2	132.3	133.2	133.2
97.5°	113.2	116.8	119.6	121.4	122.3	122.3	122.3	123.2	122.3	123.2	123.2
100°	104.0	107.7	110.4	111.3	113.2	113.2	113.2	113.2	113.2	113.2	114.1
102.5°	96.7	100.4	102.2	103.1	104.0	105.0	105.0	105.0	105.0	105.9	105.9
105°	89.4	93.1	94.9	95.8	96.7	97.7	97.7	97.7	98.6	98.6	97.7
107.5°	83.1	85.8	87.6	89.4	90.4	90.4	91.3	91.3	91.3	91.3	91.3
110°	76.7	79.4	82.1	84.0	84.0	84.9	84.9	85.8	85.8	84.9	85.8



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-46SL-LN-UNV-L950-CD1-U

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
112.5°	70.3	73.9	75.8	77.6	78.5	79.4	79.4	79.4	79.4	79.4	79.4
115°	64.8	68.4	70.3	72.1	73.0	73.9	73.9	73.9	73.9	73.9	73.9
117.5°	60.2	63.9	65.7	66.6	67.5	68.4	69.4	69.4	69.4	69.4	68.4
120°	55.7	58.4	60.2	62.1	63.0	63.9	63.9	63.9	63.9	63.9	63.9
122.5°	51.1	53.8	55.7	57.5	58.4	59.3	59.3	59.3	59.3	59.3	59.3
125°	46.5	49.3	51.1	52.9	53.8	54.8	54.8	54.8	54.8	54.8	54.8
127.5°	42.0	44.7	47.5	48.4	49.3	50.2	50.2	50.2	51.1	50.2	50.2
130°	37.4	40.2	42.9	43.8	44.7	45.6	46.5	46.5	46.5	46.5	45.6
132.5°	33.8	36.5	38.3	39.2	41.1	41.1	42.0	42.0	42.0	42.0	41.1
135°	31.0	32.9	34.7	35.6	37.4	37.4	37.4	38.3	38.3	37.4	36.5
137.5°	27.4	29.2	31.0	31.9	32.9	33.8	33.8	34.7	33.8	33.8	33.8
140°	25.6	26.5	28.3	29.2	30.1	30.1	30.1	31.0	31.0	30.1	30.1
142.5°	21.9	23.7	25.6	26.5	27.4	27.4	27.4	27.4	27.4	27.4	27.4
145°	18.3	21.0	21.9	23.7	23.7	24.6	24.6	24.6	24.6	24.6	23.7
147.5°	15.5	17.3	20.1	21.0	21.0	21.9	21.9	21.9	21.9	21.9	21.0
150°	11.9	13.7	16.4	18.3	18.3	19.2	19.2	19.2	19.2	18.3	18.3
152.5°	10.0	11.9	12.8	14.6	15.5	15.5	15.5	16.4	15.5	15.5	15.5
155°	9.1	10.0	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	10.0	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	10.0	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: P#

CATALOG NUMBER: 4SNLED-LD5-46SL-LN-UNV-L950-CD1-U

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	1659.2	1659.2	1659.2	1659.2	1659.2	1659.2	1659.2	1659.2	1659.2	1659.2	1659.2
2.5°	1655.5	1654.6	1657.4	1652.8	1639.1	1642.8	1640.9	1649.2	1651.0	1652.8	1661.0
5°	1655.5	1654.6	1656.5	1652.8	1638.2	1640.9	1639.1	1647.3	1649.2	1650.1	1658.3
7.5°	1651.9	1651.0	1653.7	1649.2	1633.6	1637.3	1634.6	1642.8	1643.7	1644.6	1651.9
10°	1644.6	1643.7	1645.5	1641.9	1626.3	1630.0	1626.3	1634.6	1634.6	1636.4	1641.9
12.5°	1633.6	1631.8	1635.5	1630.9	1613.6	1618.1	1616.3	1621.8	1622.7	1623.6	1629.1
15°	1618.1	1616.3	1619.0	1616.3	1600.8	1601.7	1599.0	1607.2	1608.1	1606.3	1611.7
17.5°	1595.3	1593.5	1599.0	1597.1	1581.6	1585.3	1584.4	1586.2	1588.9	1584.4	1591.7
20°	1567.0	1568.8	1570.7	1571.6	1559.7	1559.7	1558.8	1562.5	1565.2	1561.5	1567.0
22.5°	1525.0	1529.6	1535.1	1536.9	1528.7	1527.8	1533.3	1531.4	1534.2	1532.3	1536.0
25°	1472.1	1481.2	1486.7	1492.2	1487.6	1489.4	1497.7	1499.5	1499.5	1498.6	1502.2
27.5°	1406.4	1418.3	1428.3	1440.2	1435.6	1439.3	1452.9	1454.8	1458.4	1454.8	1462.1
30°	1327.9	1338.9	1358.0	1375.4	1377.2	1382.7	1401.8	1403.7	1413.7	1410.0	1412.8
32.5°	1249.4	1254.9	1276.8	1294.1	1305.1	1318.8	1339.8	1343.4	1357.1	1359.9	1359.9
35°	1150.9	1166.4	1186.4	1211.1	1224.8	1239.4	1267.7	1273.1	1293.2	1299.6	1306.9
37.5°	1067.8	1082.4	1095.2	1120.7	1145.4	1161.8	1184.6	1198.3	1219.3	1231.2	1240.3
40°	979.3	991.1	1004.8	1030.4	1051.4	1076.0	1098.8	1115.3	1141.7	1155.4	1167.3
42.5°	895.3	904.4	919.0	937.3	959.2	986.6	1008.5	1027.6	1055.9	1075.1	1088.8
45°	820.5	825.9	838.7	852.4	871.6	899.9	920.9	945.5	968.3	988.4	1004.8
47.5°	750.2	757.5	763.9	773.0	790.4	807.7	832.3	856.1	878.9	900.8	917.2
50°	685.4	685.4	695.4	701.8	713.7	729.2	748.4	764.8	793.1	808.6	829.6
52.5°	622.4	626.1	631.6	635.2	644.3	654.4	669.9	683.6	707.3	721.9	742.0
55°	566.8	570.4	573.1	575.0	580.4	592.3	597.8	608.7	625.2	637.0	654.4
57.5°	513.8	515.6	518.4	519.3	520.2	527.5	532.1	534.8	551.2	563.1	577.7
60°	465.5	465.5	468.2	467.3	466.4	470.0	469.1	471.8	481.9	489.2	495.6
62.5°	419.8	419.8	420.7	418.9	418.0	418.0	414.3	417.1	419.8	420.7	425.3
65°	377.8	382.4	378.8	379.7	374.2	372.4	370.5	365.1	364.1	360.5	362.3
67.5°	340.4	344.1	340.4	340.4	335.9	332.2	327.6	318.5	315.8	308.5	306.7
70°	310.3	307.6	309.4	306.7	301.2	296.6	290.2	282.9	273.8	264.7	258.3
72.5°	281.1	281.1	279.3	276.5	273.8	264.7	257.4	249.2	238.2	226.3	217.2
75°	252.8	253.7	253.7	251.0	246.4	238.2	230.0	218.1	206.3	192.6	180.7
77.5°	232.7	232.7	232.7	228.2	223.6	216.3	206.3	193.5	180.7	164.3	150.6
80°	213.6	212.6	212.6	207.2	202.6	194.4	184.4	171.6	157.9	140.5	125.0
82.5°	198.0	197.1	195.3	190.7	184.4	176.1	166.1	152.4	137.8	122.3	103.1
85°	181.6	180.7	178.9	174.3	167.9	160.6	149.7	136.0	121.4	104.0	85.8
87.5°	167.0	166.1	163.4	160.6	153.3	145.1	134.2	121.4	105.9	89.4	71.2
90°	157.0	155.2	153.3	149.7	143.3	134.2	123.2	109.5	94.0	77.6	59.3
92.5°	145.1	144.2	141.5	137.8	132.3	123.2	112.3	99.5	84.0	68.4	51.1
95°	133.2	132.3	130.5	126.9	121.4	113.2	103.1	90.4	75.8	60.2	44.7
97.5°	122.3	122.3	119.6	116.8	110.4	104.0	94.0	82.1	68.4	54.8	40.2
100°	113.2	113.2	110.4	106.8	102.2	95.8	85.8	74.8	62.1	49.3	34.7
102.5°	105.0	104.0	102.2	98.6	94.0	87.6	78.5	68.4	56.6	43.8	31.0
105°	97.7	96.7	94.9	91.3	87.6	80.3	73.0	63.0	51.1	39.2	27.4
107.5°	90.4	89.4	88.5	84.9	80.3	73.9	66.6	56.6	46.5	35.6	24.6
110°	84.0	83.1	81.2	77.6	73.0	67.5	60.2	52.0	42.0	31.9	21.9



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-46SL-LN-UNV-L950-CD1-U

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
112.5°	78.5	77.6	75.8	72.1	68.4	62.1	55.7	46.5	38.3	29.2	19.2
115°	73.0	72.1	70.3	66.6	62.1	56.6	50.2	42.9	33.8	25.6	17.3
117.5°	67.5	66.6	64.8	62.1	57.5	52.0	45.6	38.3	30.1	23.7	15.5
120°	63.0	61.1	59.3	56.6	52.0	47.5	41.1	34.7	27.4	21.0	13.7
122.5°	58.4	56.6	54.8	52.0	47.5	42.9	36.5	31.0	25.6	19.2	12.8
125°	52.9	52.0	50.2	47.5	42.9	38.3	33.8	28.3	22.8	17.3	11.0
127.5°	48.4	47.5	45.6	42.0	38.3	34.7	30.1	25.6	20.1	14.6	10.0
130°	44.7	42.9	41.1	38.3	35.6	31.9	27.4	22.8	18.3	12.8	9.1
132.5°	40.2	38.3	36.5	34.7	31.9	28.3	24.6	20.1	16.4	11.9	8.2
135°	36.5	34.7	32.9	31.0	28.3	25.6	21.9	18.3	14.6	11.0	7.3
137.5°	31.9	31.0	30.1	28.3	25.6	22.8	20.1	15.5	12.8	10.0	6.4
140°	29.2	28.3	27.4	24.6	22.8	20.1	17.3	13.7	11.0	8.2	5.5
142.5°	26.5	25.6	23.7	21.9	20.1	18.3	14.6	12.8	10.0	7.3	5.5
145°	22.8	21.9	21.0	19.2	17.3	14.6	12.8	11.0	9.1	6.4	4.6
147.5°	21.0	20.1	18.3	16.4	14.6	12.8	11.9	10.0	7.3	5.5	3.7
150°	17.3	16.4	15.5	13.7	12.8	11.9	10.0	8.2	6.4	4.6	3.7
152.5°	14.6	13.7	12.8	12.8	11.0	10.0	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	10.0	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: P#

CATALOG NUMBER: 4SNLED-LD5-46SL-LN-UNV-L950-CD1-U

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
0°	1659.2	1659.2	1659.2	1659.2	1659.2	1659.2	1659.2	1659.2	1659.2	1659.2	1659.2
2.5°	1661.9	1651.9	1661.0	1672.9	1672.9	1671.1	1669.2	1672.9	1682.0	1678.4	1667.4
5°	1659.2	1649.2	1657.4	1669.2	1669.2	1666.5	1664.7	1667.4	1677.5	1672.9	1662.9
7.5°	1653.7	1644.6	1650.1	1661.0	1661.0	1658.3	1656.5	1660.1	1668.3	1663.8	1652.8
10°	1643.7	1633.6	1640.0	1650.1	1649.2	1647.3	1644.6	1649.2	1656.5	1650.1	1637.3
12.5°	1630.9	1620.9	1626.3	1635.5	1634.6	1630.9	1629.1	1631.8	1638.2	1634.6	1620.9
15°	1613.6	1603.5	1608.1	1617.2	1614.5	1611.7	1608.1	1609.0	1617.2	1610.8	1596.2
17.5°	1592.6	1581.6	1585.3	1593.5	1590.8	1588.0	1583.5	1584.4	1593.5	1584.4	1568.8
20°	1567.0	1555.2	1557.9	1567.9	1563.4	1558.8	1554.2	1554.2	1563.4	1553.3	1536.0
22.5°	1539.6	1527.8	1529.6	1536.9	1533.3	1525.0	1520.5	1523.2	1527.8	1515.0	1496.7
25°	1505.9	1490.4	1493.1	1500.4	1497.7	1486.7	1482.1	1484.0	1482.1	1472.1	1452.9
27.5°	1466.6	1450.2	1452.0	1456.6	1452.9	1442.9	1437.4	1438.3	1434.7	1421.9	1400.0
30°	1417.3	1409.1	1408.2	1411.0	1405.5	1395.4	1389.1	1387.2	1386.3	1368.1	1341.6
32.5°	1367.2	1359.9	1355.3	1358.9	1352.5	1342.5	1331.6	1331.6	1322.4	1305.1	1282.3
35°	1316.0	1304.2	1299.6	1302.4	1295.1	1282.3	1273.1	1268.6	1254.9	1233.0	1208.4
37.5°	1250.3	1242.1	1236.6	1239.4	1231.2	1222.0	1204.7	1200.1	1185.5	1155.4	1124.4
40°	1179.1	1172.8	1167.3	1170.0	1160.9	1147.2	1131.7	1124.4	1108.0	1074.2	1049.5
42.5°	1102.5	1099.7	1093.4	1103.4	1085.1	1071.5	1055.9	1044.1	1027.6	991.1	962.8
45°	1021.3	1027.6	1013.0	1015.8	1003.9	992.1	975.6	958.3	941.9	907.2	875.2
47.5°	935.5	940.0	930.0	931.8	919.0	908.1	893.5	871.6	853.3	823.2	794.9
50°	846.9	845.1	845.1	843.3	833.3	819.6	805.0	784.9	766.6	739.2	715.5
52.5°	752.9	756.6	758.4	763.0	750.2	742.0	719.2	701.8	688.1	659.8	639.8
55°	662.6	675.4	671.7	673.5	658.9	652.5	634.3	620.6	600.5	584.1	571.3
57.5°	580.4	583.2	585.0	587.7	581.4	568.6	554.0	543.0	527.5	513.8	504.7
60°	501.0	501.0	502.0	506.5	500.1	489.2	478.2	470.0	459.1	450.8	445.4
62.5°	426.2	432.6	433.5	429.9	421.6	416.2	408.9	404.3	397.0	394.3	392.4
65°	356.8	356.8	356.8	358.7	354.1	350.5	345.9	345.0	347.7	344.1	345.9
67.5°	298.4	295.7	293.9	294.8	293.0	291.1	290.2	293.0	298.4	298.4	303.0
70°	248.2	242.8	239.1	239.1	239.1	240.0	242.8	248.2	257.4	261.0	267.4
72.5°	207.2	195.3	189.8	189.8	190.7	194.4	202.6	212.6	220.9	228.2	236.4
75°	167.9	156.1	147.8	146.9	148.8	154.2	166.1	175.2	188.9	199.0	209.0
77.5°	136.0	121.4	111.3	110.4	113.2	121.4	136.0	147.8	163.4	174.3	185.3
80°	108.6	92.2	84.0	78.5	83.1	93.1	109.5	124.1	138.7	153.3	167.0
82.5°	86.7	71.2	58.4	52.9	58.4	72.1	87.6	105.0	119.6	135.1	148.8
85°	68.4	52.0	37.4	31.9	38.3	52.9	70.3	87.6	104.0	119.6	133.2
87.5°	53.8	37.4	22.8	15.5	23.7	39.2	55.7	73.0	90.4	105.9	119.6
90°	42.0	26.5	12.8	1.8	13.7	28.3	44.7	61.1	78.5	94.0	107.7
92.5°	35.6	20.1	7.3	0.0	8.2	21.0	36.5	52.9	68.4	84.0	97.7
95°	30.1	16.4	5.5	0.0	5.5	16.4	30.1	44.7	60.2	75.8	89.4
97.5°	25.6	12.8	3.7	0.0	3.7	12.8	24.6	39.2	52.9	67.5	80.3
100°	21.9	11.0	2.7	0.0	2.7	10.0	21.0	33.8	47.5	61.1	73.0
102.5°	19.2	9.1	1.8	0.0	1.8	8.2	17.3	29.2	41.1	53.8	65.7
105°	16.4	7.3	1.8	0.0	0.9	6.4	14.6	25.6	36.5	48.4	59.3
107.5°	14.6	6.4	1.8	0.0	0.9	5.5	12.8	21.9	32.9	42.9	52.9
110°	12.8	5.5	1.8	0.0	0.9	3.7	11.0	19.2	28.3	38.3	48.4



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-46SL-LN-UNV-L950-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	16.4	24.6	34.7	42.9
115°	10.0	4.6	0.9	0.0	0.0	1.8	7.3	14.6	21.9	31.0	38.3
117.5°	9.1	3.7	0.9	0.0	0.9	1.8	6.4	12.8	19.2	26.5	34.7
120°	8.2	3.7	0.9	0.0	0.9	0.9	4.6	11.0	16.4	23.7	30.1
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	17.3	23.7
127.5°	6.4	2.7	1.8	0.9	0.9	0.9	1.8	6.4	10.0	15.5	21.0
130°	5.5	2.7	1.8	0.9	0.9	0.9	0.9	4.6	9.1	12.8	17.3
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



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-46SL-LN-UNV-L950-CD1-U

CANDELA DISTRIBUTION (continued):

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
0°	1659.2	1659.2	1659.2	1659.2	1659.2	1659.2	1659.2	1659.2	1659.2	1659.2	1659.2
2.5°	1663.8	1646.4	1655.5	1652.8	1656.5	1663.8	1662.9	1661.0	1661.0	1658.3	1654.6
5°	1658.3	1641.9	1650.1	1645.5	1650.1	1656.5	1655.5	1652.8	1654.6	1650.1	1645.5
7.5°	1647.3	1632.7	1640.0	1636.4	1640.0	1646.4	1643.7	1642.8	1644.6	1637.3	1634.6
10°	1634.6	1618.1	1626.3	1621.8	1626.3	1630.9	1629.1	1625.4	1629.1	1621.8	1619.0
12.5°	1614.5	1600.8	1606.3	1604.4	1607.2	1611.7	1608.1	1605.4	1607.2	1600.8	1595.3
15°	1592.6	1578.9	1583.5	1580.7	1582.5	1588.0	1581.6	1580.7	1578.9	1572.5	1570.7
17.5°	1564.3	1551.5	1556.1	1551.5	1554.2	1552.4	1551.5	1546.9	1546.9	1539.6	1534.2
20°	1529.6	1518.7	1515.9	1512.3	1515.9	1512.3	1506.8	1503.1	1502.2	1494.9	1490.4
22.5°	1489.4	1476.7	1478.5	1468.5	1469.4	1463.9	1454.8	1451.1	1447.5	1439.3	1432.9
25°	1441.1	1428.3	1419.2	1412.8	1404.6	1403.7	1391.8	1382.7	1381.8	1371.7	1370.8
27.5°	1386.3	1371.7	1364.4	1348.9	1338.9	1330.6	1320.6	1311.5	1306.9	1296.0	1288.7
30°	1323.3	1306.9	1288.7	1277.7	1262.2	1255.8	1238.5	1227.5	1223.9	1212.0	1206.5
32.5°	1252.2	1234.8	1220.2	1199.2	1181.9	1172.8	1155.4	1144.5	1139.9	1127.1	1119.8
35°	1174.6	1155.4	1138.1	1118.0	1104.3	1088.8	1067.8	1056.9	1046.8	1042.2	1036.8
37.5°	1093.4	1072.4	1052.3	1032.2	1020.3	1002.1	983.8	976.5	964.7	960.1	954.6
40°	1009.4	988.4	969.2	950.1	936.4	920.0	903.5	900.8	888.0	883.4	879.8
42.5°	926.3	904.4	882.5	868.8	858.8	842.4	831.4	828.7	817.7	815.0	815.0
45°	851.5	824.1	805.9	794.0	785.8	772.1	763.0	761.2	752.0	750.2	750.2
47.5°	771.2	745.6	731.9	724.6	717.3	707.3	701.8	701.8	692.7	690.9	690.0
50°	696.4	672.6	662.6	655.3	654.4	647.1	642.5	640.7	640.7	634.3	635.2
52.5°	625.2	613.3	605.1	600.5	595.0	590.5	586.8	586.8	584.1	579.5	581.4
55°	559.5	545.8	546.7	543.0	540.3	537.6	538.5	533.0	532.1	528.4	531.2
57.5°	493.7	493.7	491.9	489.2	484.6	486.4	486.4	486.4	481.9	479.1	481.9
60°	438.1	440.8	436.2	439.0	437.2	438.1	436.2	436.2	433.5	432.6	433.5
62.5°	388.8	393.4	391.5	395.2	393.4	394.3	396.1	392.4	390.6	388.8	390.6
65°	345.0	350.5	349.5	352.3	353.2	354.1	355.0	353.2	351.4	349.5	348.6
67.5°	306.7	312.1	315.8	316.7	317.6	320.3	319.4	317.6	315.8	313.0	312.1
70°	272.0	279.3	283.8	285.7	289.3	287.5	287.5	286.6	284.7	282.0	281.1
72.5°	242.8	251.0	255.5	257.4	261.0	261.0	260.1	259.2	257.4	254.6	253.7
75°	217.2	224.5	230.9	234.6	237.3	237.3	236.4	235.5	233.6	231.8	230.9
77.5°	197.1	203.5	209.0	213.6	215.4	216.3	215.4	213.6	213.6	212.6	211.7
80°	177.1	184.4	189.8	194.4	197.1	197.1	196.2	197.1	195.3	194.4	193.5
82.5°	159.7	167.9	174.3	178.9	180.7	181.6	180.7	181.6	179.8	179.8	179.8
85°	144.2	152.4	159.7	163.4	166.1	167.0	167.0	167.0	166.1	166.1	166.1
87.5°	131.4	139.6	146.9	150.6	153.3	154.2	154.2	155.2	153.3	153.3	153.3
90°	119.6	127.8	135.1	138.7	141.5	143.3	143.3	144.2	143.3	142.4	142.4
92.5°	108.6	117.7	125.0	128.7	131.4	134.2	134.2	135.1	133.2	133.2	133.2
95°	99.5	108.6	115.0	119.6	122.3	124.1	125.0	125.0	124.1	124.1	124.1
97.5°	91.3	99.5	105.9	110.4	113.2	114.1	115.0	115.9	115.0	115.0	115.0
100°	83.1	91.3	97.7	101.3	105.0	105.9	106.8	107.7	107.7	106.8	106.8
102.5°	75.8	84.0	89.4	94.0	96.7	98.6	99.5	99.5	99.5	99.5	99.5
105°	68.4	76.7	82.1	86.7	89.4	91.3	92.2	93.1	93.1	92.2	92.2
107.5°	62.1	69.4	75.8	79.4	83.1	84.9	85.8	85.8	86.7	85.8	85.8
110°	55.7	63.9	69.4	73.0	76.7	78.5	79.4	80.3	80.3	80.3	80.3



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-46SL-LN-UNV-L950-CD1-U

CANDELA DISTRIBUTION (continued):

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
112.5°	51.1	57.5	63.0	66.6	70.3	72.1	73.0	73.9	74.8	73.9	73.9
115°	45.6	52.0	57.5	61.1	63.9	65.7	67.5	68.4	68.4	69.4	68.4
117.5°	41.1	46.5	52.0	55.7	58.4	61.1	62.1	63.0	63.9	63.0	63.0
120°	36.5	42.0	46.5	50.2	52.9	55.7	56.6	57.5	58.4	57.5	57.5
122.5°	32.9	37.4	42.0	45.6	48.4	50.2	52.0	52.0	52.9	52.9	52.9
125°	29.2	33.8	37.4	41.1	43.8	45.6	46.5	47.5	47.5	48.4	48.4
127.5°	25.6	29.2	33.8	36.5	39.2	41.1	42.0	42.9	42.9	43.8	43.8
130°	21.9	25.6	29.2	31.9	34.7	36.5	37.4	38.3	39.2	39.2	39.2
132.5°	19.2	22.8	25.6	28.3	30.1	31.9	33.8	34.7	34.7	34.7	34.7
135°	15.5	19.2	21.9	24.6	26.5	28.3	29.2	31.0	31.0	31.0	31.0
137.5°	12.8	16.4	19.2	21.0	22.8	24.6	25.6	26.5	27.4	27.4	27.4
140°	10.0	12.8	15.5	18.3	20.1	21.0	22.8	22.8	23.7	23.7	23.7
142.5°	7.3	10.0	11.9	14.6	16.4	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	15.5	16.4	17.3	17.3	17.3
147.5°	3.7	5.5	6.4	8.2	10.0	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



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-46SL-LN-UNV-L950-CD1-U

CANDELA DISTRIBUTION (continued):

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°
0°	1659.2	1659.2	1659.2	1659.2	1659.2	1659.2	1659.2	1659.2	1659.2	1659.2	1659.2
2.5°	1657.4	1659.2	1659.2	1657.4	1656.5	1660.1	1655.5	1638.2	1643.7	1645.5	1651.0
5°	1649.2	1651.0	1651.0	1651.0	1649.2	1652.8	1648.2	1630.9	1637.3	1640.0	1643.7
7.5°	1637.3	1638.2	1640.0	1639.1	1637.3	1642.8	1638.2	1620.9	1625.4	1630.0	1634.6
10°	1621.8	1621.8	1622.7	1624.5	1622.7	1627.3	1622.7	1607.2	1611.7	1614.5	1620.0
12.5°	1600.8	1602.6	1603.5	1602.6	1601.7	1605.4	1603.5	1588.9	1590.8	1596.2	1601.7
15°	1572.5	1572.5	1577.1	1575.2	1575.2	1578.9	1580.7	1564.3	1567.0	1575.2	1580.7
17.5°	1537.8	1538.7	1542.4	1544.2	1543.3	1549.7	1550.6	1537.8	1536.9	1546.9	1552.4
20°	1493.1	1494.9	1499.5	1503.1	1503.1	1510.4	1513.2	1505.0	1505.9	1516.8	1518.7
22.5°	1438.3	1438.3	1446.6	1452.0	1456.6	1461.2	1469.4	1462.1	1462.1	1476.7	1484.9
25°	1370.8	1377.2	1379.9	1390.9	1397.3	1410.0	1417.3	1418.3	1419.2	1432.9	1438.3
27.5°	1296.0	1297.8	1306.0	1318.8	1326.1	1337.9	1351.6	1354.4	1358.9	1377.2	1385.4
30°	1211.1	1216.6	1220.2	1238.5	1248.5	1264.0	1281.4	1287.8	1291.4	1316.0	1326.1
32.5°	1124.4	1126.2	1141.7	1151.8	1163.6	1180.1	1200.1	1212.0	1219.3	1244.9	1259.5
35°	1037.7	1041.3	1054.1	1066.9	1078.8	1095.2	1116.2	1132.6	1145.4	1168.2	1187.4
37.5°	958.3	967.4	970.1	982.9	992.1	1008.5	1023.1	1046.8	1059.6	1083.3	1108.0
40°	887.1	889.8	891.7	904.4	910.8	926.3	947.3	962.8	980.2	997.5	1026.7
42.5°	816.8	818.6	821.4	828.7	836.0	846.9	862.5	878.0	896.2	921.8	940.9
45°	752.0	753.9	755.7	760.2	766.6	776.7	786.7	797.7	815.9	837.8	857.9
47.5°	691.8	695.4	695.4	696.4	700.9	709.1	716.4	730.1	740.2	752.0	774.8
50°	634.3	637.0	637.9	637.9	640.7	646.2	648.0	657.1	666.2	677.2	693.6
52.5°	580.4	580.4	579.5	583.2	583.2	586.8	587.7	593.2	599.6	611.5	618.8
55°	529.3	529.3	532.1	530.3	530.3	532.1	531.2	532.1	537.6	544.9	551.2
57.5°	480.1	479.1	481.9	480.1	479.1	481.0	482.8	479.1	480.1	487.4	487.4
60°	430.8	431.7	434.4	432.6	432.6	432.6	430.8	428.9	427.1	431.7	433.5
62.5°	391.5	388.8	391.5	388.8	390.6	389.7	387.9	384.2	385.1	383.3	381.5
65°	350.5	350.5	351.4	348.6	350.5	350.5	347.7	346.8	341.3	339.5	334.9
67.5°	314.9	314.9	315.8	314.0	314.0	314.9	312.1	309.4	303.9	301.2	294.8
70°	283.8	283.8	283.8	282.9	282.9	282.9	281.1	277.4	272.0	267.4	259.2
72.5°	255.5	256.5	255.5	255.5	258.3	255.5	252.8	249.2	244.6	235.5	228.2
75°	232.7	233.6	232.7	232.7	232.7	231.8	230.9	225.4	219.9	212.6	201.7
77.5°	212.6	212.6	213.6	212.6	212.6	211.7	209.0	204.4	198.0	191.7	178.9
80°	193.5	194.4	195.3	196.2	194.4	193.5	190.7	187.1	178.9	171.6	158.8
82.5°	179.8	178.9	179.8	180.7	178.9	178.0	175.2	170.7	164.3	154.2	141.5
85°	166.1	165.2	165.2	166.1	165.2	163.4	160.6	156.1	149.7	139.6	126.9
87.5°	152.4	153.3	154.2	153.3	152.4	150.6	147.8	143.3	136.0	127.8	114.1
90°	142.4	142.4	142.4	142.4	141.5	139.6	136.9	131.4	125.0	115.0	103.1
92.5°	133.2	133.2	133.2	133.2	132.3	129.6	126.9	122.3	115.0	105.0	94.0
95°	124.1	125.0	124.1	124.1	122.3	121.4	116.8	112.3	105.9	95.8	84.0
97.5°	114.1	115.0	114.1	114.1	113.2	111.3	108.6	103.1	96.7	87.6	76.7
100°	106.8	106.8	105.9	105.9	105.0	103.1	99.5	94.9	88.5	79.4	68.4
102.5°	98.6	99.5	98.6	98.6	96.7	94.9	92.2	87.6	81.2	72.1	62.1
105°	92.2	92.2	91.3	91.3	89.4	87.6	84.9	79.4	73.9	65.7	55.7
107.5°	85.8	85.8	84.9	84.9	83.1	81.2	77.6	73.0	67.5	59.3	50.2
110°	79.4	79.4	79.4	78.5	76.7	73.9	71.2	66.6	61.1	53.8	44.7



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-46SL-LN-UNV-L950-CD1-U

CANDELA DISTRIBUTION (continued):

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°
112.5°	74.8	73.9	73.0	72.1	70.3	68.4	64.8	60.2	54.8	48.4	40.2
115°	68.4	68.4	67.5	66.6	64.8	62.1	59.3	55.7	50.2	42.9	35.6
117.5°	63.0	63.0	62.1	61.1	59.3	56.6	53.8	50.2	44.7	38.3	31.9
120°	57.5	57.5	56.6	55.7	53.8	51.1	49.3	44.7	40.2	33.8	28.3
122.5°	52.9	52.0	52.0	50.2	49.3	46.5	43.8	40.2	35.6	30.1	24.6
125°	47.5	47.5	46.5	45.6	44.7	42.0	39.2	35.6	31.0	26.5	21.9
127.5°	42.9	42.9	42.0	41.1	40.2	37.4	34.7	31.9	27.4	22.8	18.3
130°	38.3	38.3	37.4	36.5	35.6	32.9	31.0	27.4	23.7	20.1	15.5
132.5°	34.7	34.7	33.8	32.9	31.0	29.2	27.4	23.7	21.0	17.3	13.7
135°	31.0	30.1	30.1	29.2	27.4	25.6	23.7	21.0	17.3	14.6	11.0
137.5°	27.4	26.5	25.6	24.6	23.7	21.9	20.1	18.3	15.5	11.9	9.1
140°	23.7	22.8	22.8	21.9	20.1	19.2	17.3	14.6	12.8	10.0	7.3
142.5°	20.1	20.1	19.2	18.3	17.3	16.4	14.6	12.8	10.0	8.2	5.5
145°	17.3	16.4	16.4	15.5	14.6	12.8	11.9	10.0	8.2	6.4	4.6
147.5°	13.7	13.7	13.7	12.8	11.9	11.0	10.0	8.2	6.4	4.6	2.7
150°	11.0	11.0	11.0	10.0	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: P#

CATALOG NUMBER: 4SNLED-LD5-46SL-LN-UNV-L950-CD1-U

CANDELA DISTRIBUTION (continued):

	330°	335°	340°	345°	350°	355°	360°
0°	1659.2	1659.2	1659.2	1659.2	1659.2	1659.2	1659.2
2.5°	1648.2	1647.3	1654.6	1654.6	1646.4	1659.2	1672.9
5°	1642.8	1641.9	1649.2	1649.2	1641.9	1654.6	1669.2
7.5°	1631.8	1632.7	1640.0	1641.9	1632.7	1644.6	1660.1
10°	1620.0	1619.0	1627.3	1629.1	1621.8	1632.7	1647.3
12.5°	1600.8	1600.8	1609.0	1611.7	1604.4	1617.2	1630.9
15°	1580.7	1580.7	1586.2	1590.8	1584.4	1596.2	1609.9
17.5°	1555.2	1554.2	1559.7	1565.2	1558.8	1571.6	1586.2
20°	1522.3	1522.3	1528.7	1535.1	1530.5	1542.4	1558.8
22.5°	1487.6	1484.0	1494.9	1499.5	1496.7	1508.6	1525.0
25°	1443.8	1442.9	1453.9	1460.2	1456.6	1469.4	1484.0
27.5°	1396.4	1395.4	1406.4	1414.6	1412.8	1424.6	1441.1
30°	1338.9	1343.4	1353.5	1367.2	1362.6	1375.4	1392.7
32.5°	1278.6	1283.2	1295.1	1309.7	1310.6	1320.6	1337.9
35°	1206.5	1218.4	1226.6	1245.8	1249.4	1259.5	1277.7
37.5°	1130.8	1144.5	1161.8	1176.4	1183.7	1191.9	1212.9
40°	1045.9	1066.0	1085.1	1102.5	1111.6	1119.8	1139.9
42.5°	969.2	984.8	1003.0	1020.3	1036.8	1044.1	1065.1
45°	882.5	900.8	917.2	938.2	954.6	962.8	983.8
47.5°	797.7	815.9	837.8	852.4	869.8	878.0	898.0
50°	716.4	732.9	751.1	768.5	783.1	790.4	807.7
52.5°	636.1	653.5	670.8	681.8	697.3	702.7	717.3
55°	564.9	576.8	592.3	598.7	614.2	617.9	627.9
57.5°	496.5	504.7	510.2	521.1	532.1	540.3	552.2
60°	434.4	438.1	441.7	448.1	457.2	460.0	464.5
62.5°	378.8	377.8	385.1	387.0	387.9	397.0	392.4
65°	329.5	330.4	324.0	321.3	324.9	327.6	325.8
67.5°	288.4	282.9	277.4	271.1	265.6	268.3	265.6
70°	248.2	243.7	234.6	225.4	221.8	216.3	213.6
72.5°	216.3	205.3	196.2	184.4	178.0	171.6	167.0
75°	191.7	176.1	163.4	150.6	141.5	132.3	130.5
77.5°	166.1	151.5	136.9	123.2	109.5	99.5	95.8
80°	146.0	132.3	115.0	98.6	84.0	71.2	66.6
82.5°	127.8	113.2	95.8	78.5	62.1	48.4	42.9
85°	112.3	96.7	79.4	62.1	45.6	31.0	23.7
87.5°	100.4	83.1	65.7	49.3	31.9	17.3	9.1
90°	89.4	73.0	56.6	39.2	22.8	9.1	0.0
92.5°	79.4	63.9	47.5	31.9	17.3	5.5	0.9
95°	70.3	56.6	40.2	25.6	12.8	3.7	0.9
97.5°	63.0	49.3	34.7	21.0	10.0	2.7	0.9
100°	56.6	42.9	30.1	17.3	8.2	1.8	0.9
102.5°	50.2	38.3	25.6	14.6	6.4	0.9	0.9
105°	44.7	33.8	21.9	12.8	5.5	0.9	0.9
107.5°	40.2	30.1	19.2	11.0	3.7	0.9	0.9
110°	35.6	25.6	16.4	9.1	2.7	0.9	0.9



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-46SL-LN-UNV-L950-CD1-U

CANDELA DISTRIBUTION (continued):

	330°	335°	340°	345°	350°	355°	360°
112.5°	31.9	22.8	14.6	7.3	1.8	0.9	0.9
115°	28.3	20.1	12.8	6.4	1.8	0.9	0.9
117.5°	24.6	17.3	11.0	4.6	0.9	0.9	0.9
120°	21.9	15.5	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°	16.4	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°	10.0	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)