

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-LD5-49SL-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-LD5-49SL-LN-UNV-L950-CD1-U
Description: 4FT LINEAR SNLED LED FIXTURE
NARROW LENS
Light Source: -
Ballast/Driver: -

Summary

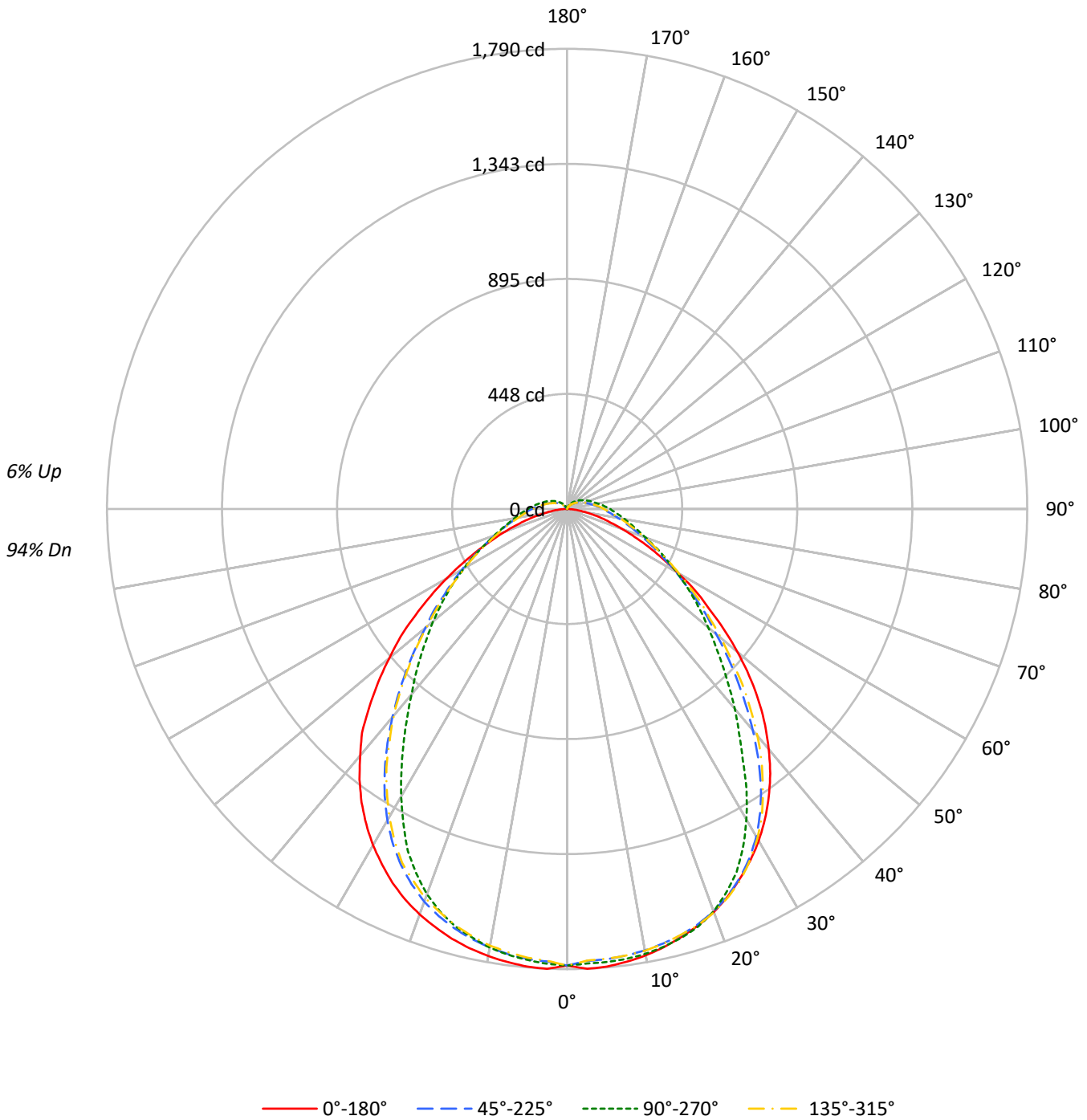
Lumens per Lamp: N/A
Luminaire Lumens: 4494.0 lumens
Efficiency: N/A
Efficacy: 118.3 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.14 / 1.24
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.12')
CIE Type: Direct

Input Watts (W): 38
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P#
CATALOG NUMBER: 4SNLED-LD5-49SL-LN-UNV-L950-CD1-U

Luminous Intensity Polar Plot





TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-49SL-LN-UNV-L950-CD1-U

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°	14350	14350	14350	14350
5°	14452	13893	14452	13832
10°	14388	13524	14412	13336
15°	14295	13120	14360	12778
20°	14185	12600	14269	12068
25°	13958	11829	14112	11133
30°	13663	10697	13841	9903
35°	13202	9309	13457	8668
40°	12541	8142	12872	7554
45°	11669	7077	12047	6671
50°	10477	6219	10939	5905
55°	9063	5492	9723	5214
60°	7623	4822	8312	4544
65°	6249	4263	6880	3952
70°	4974	3784	5568	3499
75°	3906	3493	4398	3213
80°	2819	3370	3321	3080
85°	1735	3389	2336	3116



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-49SL-LN-UNV-L950-CD1-U

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	168.4	3.7
10°-20°	482.7	10.7
20°-30°	715.4	15.9
30°-40°	794.8	17.7
40°-50°	720.5	16.0
50°-60°	558.3	12.4
60°-70°	379.1	8.4
70°-80°	241.2	5.4
80°-90°	154.2	3.4
90°-100°	104.0	2.3
100°-110°	71.2	1.6
110°-120°	47.5	1.1
120°-130°	29.6	0.7
130°-140°	16.3	0.4
140°-150°	7.7	0.2
150°-160°	2.8	0.1
160°-170°	0.2	0.0
170°-180°	0.0	0.0
0°-30°	1366.5	30.4
0°-40°	2161.4	48.1
0°-60°	3440.2	76.6
0°-90°	4214.8	93.8
90°-120°	222.7	5.0
90°-150°	276.3	6.1
90°-180°	279.0	6.2
0°-180°	4494.0	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	1776	1776	1776	1776	1776	
5°	1786	1769	1786	1761	1786	170
15°	1723	1726	1731	1681	1723	486
25°	1588	1559	1606	1467	1588	731
35°	1368	1192	1394	1110	1368	853
45°	1053	852	1087	803	1053	809
55°	672	599	721	568	672	605
65°	349	402	384	373	349	350
75°	140	269	157	247	140	150
85°	25	193	34	178	25	30
90°	0	167	2	152	0	1
95°	1	143	0	133	1	1
105°	1	104	0	99	1	1
115°	1	79	0	73	1	1
125°	1	59	1	52	1	1
135°	1	41	1	33	1	1
145°	1	26	1	19	1	1
155°	1	15	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



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-49SL-LN-UNV-L950-CD1-U

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1775.8	1775.8	1775.8	1775.8	1775.8	1775.8	1775.8	1775.8	1775.8	1775.8	1775.8
2.5°	1790.4	1788.5	1786.5	1783.6	1786.5	1794.3	1789.4	1778.7	1776.7	1759.2	1767.0
5°	1786.5	1783.6	1781.6	1778.7	1782.6	1792.4	1787.5	1777.7	1774.8	1758.2	1767.0
7.5°	1776.7	1774.8	1771.9	1771.9	1775.8	1785.5	1781.6	1770.9	1768.9	1752.3	1762.1
10°	1763.1	1762.1	1760.1	1760.1	1764.0	1775.8	1770.9	1761.1	1759.2	1743.5	1754.3
12.5°	1745.5	1746.5	1743.5	1743.5	1749.4	1761.1	1757.2	1746.5	1744.5	1730.8	1741.6
15°	1723.0	1724.0	1722.0	1723.0	1728.9	1742.6	1737.7	1727.9	1726.0	1715.2	1724.0
17.5°	1697.6	1698.6	1698.6	1697.6	1704.5	1718.1	1714.2	1705.4	1702.5	1693.7	1704.5
20°	1668.3	1668.3	1668.3	1668.3	1676.1	1689.8	1684.9	1678.1	1672.2	1665.4	1674.2
22.5°	1632.2	1631.2	1632.2	1635.1	1642.9	1653.7	1650.7	1642.9	1634.1	1630.2	1637.1
25°	1588.2	1591.2	1592.1	1595.1	1604.8	1613.6	1610.7	1602.9	1589.2	1586.3	1588.2
27.5°	1542.3	1544.3	1547.2	1546.2	1559.9	1568.7	1562.8	1556.0	1536.5	1533.5	1531.6
30°	1490.6	1493.5	1495.4	1494.5	1505.2	1515.0	1509.1	1500.3	1473.9	1472.0	1456.4
32.5°	1431.9	1434.9	1436.8	1436.8	1452.5	1456.4	1445.6	1432.9	1404.6	1397.8	1384.1
35°	1367.5	1370.4	1371.4	1371.4	1387.0	1386.0	1372.4	1354.8	1323.5	1314.7	1291.3
37.5°	1298.1	1300.1	1301.1	1306.9	1313.8	1307.9	1290.3	1267.8	1244.4	1220.0	1194.6
40°	1220.0	1222.9	1224.9	1228.8	1235.6	1228.8	1203.4	1176.0	1150.6	1123.3	1097.9
42.5°	1139.9	1148.7	1146.7	1145.8	1149.7	1131.1	1111.6	1080.3	1054.9	1026.6	1001.2
45°	1053.0	1052.0	1056.9	1058.8	1057.8	1042.2	1014.9	986.5	961.1	931.8	910.3
47.5°	961.1	960.2	964.1	966.0	960.2	943.6	922.1	889.8	868.3	843.0	826.3
50°	864.4	864.4	870.3	864.4	861.5	844.9	827.3	795.1	778.5	756.0	746.3
52.5°	767.7	776.5	770.7	768.7	765.8	749.2	735.5	709.1	695.5	685.7	674.0
55°	672.0	681.8	677.9	674.9	674.0	660.3	647.6	628.1	619.3	612.4	605.6
57.5°	590.9	590.0	588.0	585.1	586.1	575.3	562.6	551.9	548.0	545.0	547.0
60°	497.2	505.0	502.1	503.0	504.0	502.1	491.3	484.5	485.5	486.4	489.4
62.5°	420.0	426.8	431.7	427.8	429.8	432.7	426.8	424.9	428.8	432.7	436.6
65°	348.7	355.5	360.4	359.5	365.3	371.2	370.2	372.1	380.9	385.8	390.7
67.5°	284.2	291.1	297.9	298.9	307.7	316.5	320.4	327.2	337.0	343.8	349.7
70°	228.6	234.4	242.2	247.1	258.8	270.6	277.4	291.1	296.9	306.7	310.6
72.5°	178.7	183.6	194.4	206.1	215.9	230.5	244.2	255.9	264.7	275.4	280.3
75°	139.7	141.6	153.4	167.0	180.7	197.3	212.0	224.7	236.4	247.1	254.9
77.5°	102.6	105.5	116.2	134.8	150.4	168.0	184.6	198.3	211.0	221.7	232.5
80°	71.3	77.2	88.9	107.4	125.0	144.6	160.2	175.8	189.5	200.2	211.0
82.5°	45.9	50.8	67.4	86.0	104.5	124.0	140.7	156.3	170.9	182.7	192.4
85°	25.4	32.2	48.8	68.4	86.9	106.5	124.0	139.7	154.3	165.1	174.8
87.5°	9.8	19.5	35.2	53.7	72.3	90.8	109.4	124.0	138.7	150.4	159.2
90°	0.0	11.7	26.4	44.9	63.5	82.0	99.6	115.3	128.9	139.7	149.4
92.5°	1.0	7.8	20.5	36.1	53.7	71.3	87.9	103.5	117.2	128.0	136.7
95°	1.0	5.9	16.6	31.3	46.9	63.5	79.1	93.8	106.5	117.2	126.0
97.5°	1.0	3.9	13.7	27.3	41.0	57.6	72.3	86.0	97.7	108.4	115.3
100°	1.0	3.9	11.7	23.4	37.1	51.8	65.4	79.1	89.9	98.7	106.5
102.5°	1.0	2.9	9.8	20.5	33.2	45.9	59.6	72.3	82.0	90.8	98.7
105°	1.0	2.9	8.8	17.6	29.3	42.0	53.7	65.4	76.2	84.0	90.8
107.5°	1.0	2.0	7.8	14.7	25.4	38.1	49.8	59.6	69.4	77.2	84.0
110°	1.0	2.0	6.8	13.7	22.5	34.2	44.9	54.7	63.5	71.3	77.2



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-49SL-LN-UNV-L950-CD1-U

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	1.0	2.0	5.9	12.7	20.5	30.3	41.0	49.8	58.6	65.4	71.3
115°	1.0	2.0	5.9	11.7	18.6	26.4	36.1	45.9	52.7	60.6	65.4
117.5°	1.0	2.0	4.9	9.8	17.6	24.4	33.2	41.0	48.8	55.7	60.6
120°	1.0	2.0	4.9	8.8	15.6	22.5	29.3	37.1	44.9	49.8	54.7
122.5°	1.0	2.0	3.9	8.8	13.7	20.5	26.4	33.2	40.0	45.9	50.8
125°	1.0	2.0	3.9	7.8	12.7	18.6	24.4	29.3	36.1	41.0	45.9
127.5°	1.0	2.0	3.9	6.8	11.7	16.6	22.5	27.3	32.2	37.1	41.0
130°	1.0	2.0	2.9	5.9	10.7	14.7	19.5	25.4	29.3	33.2	37.1
132.5°	1.0	2.0	2.9	5.9	8.8	12.7	17.6	22.5	26.4	30.3	33.2
135°	1.0	2.0	2.9	4.9	7.8	11.7	14.7	19.5	23.4	27.3	30.3
137.5°	1.0	2.0	2.9	4.9	6.8	9.8	12.7	16.6	20.5	23.4	27.3
140°	1.0	2.0	2.9	3.9	5.9	8.8	11.7	13.7	17.6	20.5	23.4
142.5°	1.0	2.0	2.9	3.9	5.9	7.8	9.8	11.7	14.7	17.6	20.5
145°	1.0	2.0	2.9	3.9	4.9	6.8	8.8	10.7	11.7	14.7	16.6
147.5°	1.0	2.0	2.9	3.9	3.9	5.9	7.8	8.8	10.7	11.7	13.7
150°	1.0	2.0	2.9	2.9	3.9	4.9	6.8	7.8	8.8	10.7	11.7
152.5°	1.0	2.0	2.9	2.9	3.9	4.9	5.9	6.8	7.8	8.8	9.8
155°	1.0	2.0	2.9	2.9	2.9	3.9	4.9	5.9	6.8	7.8	8.8
157.5°	2.0	2.0	2.0	2.9	2.9	3.9	3.9	4.9	5.9	5.9	6.8
160°	2.0	2.0	2.0	2.9	2.9	2.9	3.9	3.9	4.9	4.9	5.9
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: P#

CATALOG NUMBER: 4SNLED-LD5-49SL-LN-UNV-L950-CD1-U

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	1775.8	1775.8	1775.8	1775.8	1775.8	1775.8	1775.8	1775.8	1775.8	1775.8	1775.8
2.5°	1765.0	1768.0	1776.7	1776.7	1774.8	1772.8	1772.8	1769.9	1771.9	1775.8	1773.8
5°	1765.0	1768.0	1776.7	1776.7	1774.8	1772.8	1771.9	1768.9	1771.9	1775.8	1773.8
7.5°	1759.2	1763.1	1771.9	1771.9	1769.9	1768.9	1767.0	1765.0	1768.0	1771.9	1769.9
10°	1751.3	1755.3	1764.0	1764.0	1762.1	1762.1	1759.2	1757.2	1761.1	1764.0	1763.1
12.5°	1739.6	1744.5	1752.3	1751.3	1749.4	1750.4	1747.4	1743.5	1747.4	1750.4	1751.3
15°	1723.0	1728.9	1736.7	1734.7	1731.8	1733.8	1728.9	1726.0	1728.9	1734.7	1733.8
17.5°	1701.5	1705.4	1711.3	1711.3	1708.4	1706.4	1704.5	1701.5	1703.5	1707.4	1708.4
20°	1671.3	1676.1	1679.1	1676.1	1675.2	1672.2	1668.3	1665.4	1669.3	1675.2	1676.1
22.5°	1631.2	1632.2	1639.0	1632.2	1627.3	1626.3	1622.4	1616.6	1622.4	1627.3	1628.3
25°	1581.4	1586.3	1583.3	1571.6	1571.6	1563.8	1561.9	1558.9	1559.9	1568.7	1572.6
27.5°	1517.9	1519.9	1512.0	1502.3	1493.5	1488.6	1481.8	1482.7	1482.7	1494.5	1498.4
30°	1448.5	1437.8	1431.0	1415.3	1408.5	1396.8	1394.8	1394.8	1392.9	1398.7	1416.3
32.5°	1365.5	1350.9	1340.1	1325.5	1313.8	1302.0	1296.2	1299.1	1298.1	1312.8	1318.6
35°	1274.7	1265.9	1243.4	1224.9	1218.0	1200.4	1200.4	1191.7	1197.5	1214.1	1221.0
37.5°	1179.0	1165.3	1146.7	1126.2	1121.3	1107.7	1102.8	1097.9	1110.6	1113.5	1120.4
40°	1081.3	1068.6	1051.0	1031.5	1031.5	1014.9	1014.9	1014.9	1015.8	1021.7	1034.4
42.5°	988.5	974.8	959.2	945.5	943.6	930.9	930.9	929.9	931.8	936.7	948.4
45°	898.6	887.9	871.3	864.4	865.4	851.7	854.7	851.7	855.7	860.5	864.4
47.5°	815.6	808.8	801.9	792.2	789.2	788.3	783.4	779.5	786.3	786.3	792.2
50°	738.4	734.5	730.6	724.8	725.7	721.8	716.0	716.0	720.9	721.8	725.7
52.5°	671.0	666.2	661.3	662.2	663.2	661.3	658.3	655.4	658.3	660.3	665.2
55°	603.6	599.7	604.6	602.7	604.6	602.7	600.7	598.8	603.6	600.7	605.6
57.5°	543.1	547.0	548.9	545.0	548.0	546.0	547.0	544.1	548.0	549.9	548.9
60°	487.4	493.3	490.3	491.3	495.2	493.3	489.4	492.3	496.2	497.2	496.2
62.5°	436.6	443.5	446.4	444.4	445.4	443.5	446.4	442.5	447.4	449.3	446.4
65°	390.7	398.5	400.5	400.5	400.5	398.5	401.5	402.4	404.4	404.4	402.4
67.5°	351.6	358.5	360.4	362.4	360.4	358.5	358.5	359.5	363.4	365.3	363.4
70°	316.5	323.3	324.3	324.3	325.3	327.2	323.3	325.3	328.2	329.2	328.2
72.5°	286.2	293.0	295.0	294.0	295.0	296.0	296.0	294.0	296.9	298.9	298.9
75°	261.8	265.7	267.6	267.6	268.6	269.6	269.6	268.6	270.6	271.5	272.5
77.5°	239.3	242.2	245.2	245.2	246.1	245.2	247.1	247.1	248.1	249.1	250.1
80°	216.8	220.7	222.7	223.7	225.6	226.6	226.6	226.6	227.6	228.6	228.6
82.5°	199.3	202.2	205.1	208.1	208.1	209.0	209.0	209.0	210.0	210.0	211.0
85°	181.7	185.6	188.5	190.5	191.4	192.4	192.4	193.4	193.4	193.4	194.4
87.5°	166.1	170.9	172.9	174.8	175.8	177.8	177.8	177.8	178.7	178.7	178.7
90°	155.3	160.2	162.1	164.1	165.1	166.1	166.1	167.0	167.0	168.0	168.0
92.5°	142.6	147.5	151.4	151.4	152.4	154.3	153.4	153.4	154.3	155.3	155.3
95°	132.8	136.7	139.7	140.7	141.6	141.6	141.6	142.6	141.6	142.6	142.6
97.5°	121.1	125.0	128.0	129.9	130.9	130.9	130.9	131.9	130.9	131.9	131.9
100°	111.4	115.3	118.2	119.2	121.1	121.1	121.1	121.1	121.1	121.1	122.1
102.5°	103.5	107.4	109.4	110.4	111.4	112.3	112.3	112.3	112.3	113.3	113.3
105°	95.7	99.6	101.6	102.6	103.5	104.5	104.5	104.5	105.5	105.5	104.5
107.5°	88.9	91.8	93.8	95.7	96.7	96.7	97.7	97.7	97.7	97.7	97.7
110°	82.0	85.0	87.9	89.9	89.9	90.8	90.8	91.8	91.8	90.8	91.8



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-49SL-LN-UNV-L950-CD1-U

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
112.5°	75.2	79.1	81.1	83.0	84.0	85.0	85.0	85.0	85.0	85.0	85.0
115°	69.4	73.3	75.2	77.2	78.1	79.1	79.1	79.1	79.1	79.1	79.1
117.5°	64.5	68.4	70.3	71.3	72.3	73.3	74.2	74.2	74.2	74.2	73.3
120°	59.6	62.5	64.5	66.4	67.4	68.4	68.4	68.4	68.4	68.4	68.4
122.5°	54.7	57.6	59.6	61.5	62.5	63.5	63.5	63.5	63.5	63.5	63.5
125°	49.8	52.7	54.7	56.7	57.6	58.6	58.6	58.6	58.6	58.6	58.6
127.5°	44.9	47.9	50.8	51.8	52.7	53.7	53.7	53.7	54.7	53.7	53.7
130°	40.0	43.0	45.9	46.9	47.9	48.8	49.8	49.8	49.8	49.8	48.8
132.5°	36.1	39.1	41.0	42.0	44.0	44.0	44.9	44.9	44.9	44.9	44.0
135°	33.2	35.2	37.1	38.1	40.0	40.0	40.0	41.0	41.0	40.0	39.1
137.5°	29.3	31.3	33.2	34.2	35.2	36.1	36.1	37.1	36.1	36.1	36.1
140°	27.3	28.3	30.3	31.3	32.2	32.2	32.2	33.2	33.2	32.2	32.2
142.5°	23.4	25.4	27.3	28.3	29.3	29.3	29.3	29.3	29.3	29.3	29.3
145°	19.5	22.5	23.4	25.4	25.4	26.4	26.4	26.4	26.4	26.4	25.4
147.5°	16.6	18.6	21.5	22.5	22.5	23.4	23.4	23.4	23.4	23.4	22.5
150°	12.7	14.7	17.6	19.5	19.5	20.5	20.5	20.5	20.5	19.5	19.5
152.5°	10.7	12.7	13.7	15.6	16.6	16.6	16.6	17.6	16.6	16.6	16.6
155°	9.8	10.7	11.7	12.7	13.7	14.7	14.7	14.7	14.7	13.7	13.7
157.5°	7.8	8.8	9.8	10.7	11.7	12.7	12.7	12.7	12.7	12.7	11.7
160°	5.9	6.8	7.8	7.8	8.8	9.8	10.7	9.8	9.8	9.8	9.8
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-LD5-49SL-LN-UNV-L950-CD1-U

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	1775.8	1775.8	1775.8	1775.8	1775.8	1775.8	1775.8	1775.8	1775.8	1775.8	1775.8
2.5°	1771.9	1770.9	1773.8	1768.9	1754.3	1758.2	1756.2	1765.0	1767.0	1768.9	1777.7
5°	1771.9	1770.9	1772.8	1768.9	1753.3	1756.2	1754.3	1763.1	1765.0	1766.0	1774.8
7.5°	1768.0	1767.0	1769.9	1765.0	1748.4	1752.3	1749.4	1758.2	1759.2	1760.1	1768.0
10°	1760.1	1759.2	1761.1	1757.2	1740.6	1744.5	1740.6	1749.4	1749.4	1751.3	1757.2
12.5°	1748.4	1746.5	1750.4	1745.5	1726.9	1731.8	1729.9	1735.7	1736.7	1737.7	1743.5
15°	1731.8	1729.9	1732.8	1729.9	1713.3	1714.2	1711.3	1720.1	1721.1	1719.1	1725.0
17.5°	1707.4	1705.4	1711.3	1709.3	1692.7	1696.6	1695.7	1697.6	1700.6	1695.7	1703.5
20°	1677.1	1679.1	1681.0	1682.0	1669.3	1669.3	1668.3	1672.2	1675.2	1671.3	1677.1
22.5°	1632.2	1637.1	1642.9	1644.9	1636.1	1635.1	1641.0	1639.0	1641.9	1640.0	1643.9
25°	1575.5	1585.3	1591.2	1597.0	1592.1	1594.1	1602.9	1604.8	1604.8	1603.9	1607.8
27.5°	1505.2	1517.9	1528.6	1541.3	1536.5	1540.4	1555.0	1557.0	1560.9	1557.0	1564.8
30°	1421.2	1432.9	1453.4	1472.0	1473.9	1479.8	1500.3	1502.3	1513.0	1509.1	1512.0
32.5°	1337.2	1343.1	1366.5	1385.1	1396.8	1411.4	1433.9	1437.8	1452.5	1455.4	1455.4
35°	1231.7	1248.3	1269.8	1296.2	1310.8	1326.5	1356.7	1362.6	1384.1	1390.9	1398.7
37.5°	1142.8	1158.4	1172.1	1199.5	1225.8	1243.4	1267.8	1282.5	1305.0	1317.7	1327.4
40°	1048.1	1060.8	1075.4	1102.8	1125.2	1151.6	1176.0	1193.6	1221.9	1236.6	1249.3
42.5°	958.2	968.0	983.6	1003.1	1026.6	1055.9	1079.3	1099.8	1130.1	1150.6	1165.3
45°	878.1	884.0	897.7	912.3	932.8	963.1	985.6	1011.9	1036.4	1057.8	1075.4
47.5°	802.9	810.7	817.6	827.3	845.9	864.4	890.8	916.2	940.6	964.1	981.7
50°	733.6	733.6	744.3	751.1	763.8	780.4	801.0	818.5	848.8	865.4	887.9
52.5°	666.2	670.1	675.9	679.8	689.6	700.3	716.9	731.6	757.0	772.6	794.1
55°	606.6	610.5	613.4	615.4	621.2	633.9	639.8	651.5	669.1	681.8	700.3
57.5°	549.9	551.9	554.8	555.8	556.8	564.6	569.5	572.4	590.0	602.7	618.3
60°	498.2	498.2	501.1	500.1	499.1	503.0	502.1	505.0	515.7	523.5	530.4
62.5°	449.3	449.3	450.3	448.3	447.4	447.4	443.5	446.4	449.3	450.3	455.2
65°	404.4	409.3	405.4	406.3	400.5	398.5	396.6	390.7	389.7	385.8	387.8
67.5°	364.3	368.2	364.3	364.3	359.5	355.5	350.7	340.9	338.0	330.1	328.2
70°	332.1	329.2	331.1	328.2	322.3	317.5	310.6	302.8	293.0	283.3	276.4
72.5°	300.8	300.8	298.9	296.0	293.0	283.3	275.4	266.7	254.9	242.2	232.5
75°	270.6	271.5	271.5	268.6	263.7	254.9	246.1	233.4	220.7	206.1	193.4
77.5°	249.1	249.1	249.1	244.2	239.3	231.5	220.7	207.1	193.4	175.8	161.2
80°	228.6	227.6	227.6	221.7	216.8	208.1	197.3	183.6	169.0	150.4	133.8
82.5°	212.0	211.0	209.0	204.1	197.3	188.5	177.8	163.1	147.5	130.9	110.4
85°	194.4	193.4	191.4	186.6	179.7	171.9	160.2	145.5	129.9	111.4	91.8
87.5°	178.7	177.8	174.8	171.9	164.1	155.3	143.6	129.9	113.3	95.7	76.2
90°	168.0	166.1	164.1	160.2	153.4	143.6	131.9	117.2	100.6	83.0	63.5
92.5°	155.3	154.3	151.4	147.5	141.6	131.9	120.1	106.5	89.9	73.3	54.7
95°	142.6	141.6	139.7	135.8	129.9	121.1	110.4	96.7	81.1	64.5	47.9
97.5°	130.9	130.9	128.0	125.0	118.2	111.4	100.6	87.9	73.3	58.6	43.0
100°	121.1	121.1	118.2	114.3	109.4	102.6	91.8	80.1	66.4	52.7	37.1
102.5°	112.3	111.4	109.4	105.5	100.6	93.8	84.0	73.3	60.6	46.9	33.2
105°	104.5	103.5	101.6	97.7	93.8	86.0	78.1	67.4	54.7	42.0	29.3
107.5°	96.7	95.7	94.7	90.8	86.0	79.1	71.3	60.6	49.8	38.1	26.4
110°	89.9	88.9	86.9	83.0	78.1	72.3	64.5	55.7	44.9	34.2	23.4



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-49SL-LN-UNV-L950-CD1-U

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
112.5°	84.0	83.0	81.1	77.2	73.3	66.4	59.6	49.8	41.0	31.3	20.5
115°	78.1	77.2	75.2	71.3	66.4	60.6	53.7	45.9	36.1	27.3	18.6
117.5°	72.3	71.3	69.4	66.4	61.5	55.7	48.8	41.0	32.2	25.4	16.6
120°	67.4	65.4	63.5	60.6	55.7	50.8	44.0	37.1	29.3	22.5	14.7
122.5°	62.5	60.6	58.6	55.7	50.8	45.9	39.1	33.2	27.3	20.5	13.7
125°	56.7	55.7	53.7	50.8	45.9	41.0	36.1	30.3	24.4	18.6	11.7
127.5°	51.8	50.8	48.8	44.9	41.0	37.1	32.2	27.3	21.5	15.6	10.7
130°	47.9	45.9	44.0	41.0	38.1	34.2	29.3	24.4	19.5	13.7	9.8
132.5°	43.0	41.0	39.1	37.1	34.2	30.3	26.4	21.5	17.6	12.7	8.8
135°	39.1	37.1	35.2	33.2	30.3	27.3	23.4	19.5	15.6	11.7	7.8
137.5°	34.2	33.2	32.2	30.3	27.3	24.4	21.5	16.6	13.7	10.7	6.8
140°	31.3	30.3	29.3	26.4	24.4	21.5	18.6	14.7	11.7	8.8	5.9
142.5°	28.3	27.3	25.4	23.4	21.5	19.5	15.6	13.7	10.7	7.8	5.9
145°	24.4	23.4	22.5	20.5	18.6	15.6	13.7	11.7	9.8	6.8	4.9
147.5°	22.5	21.5	19.5	17.6	15.6	13.7	12.7	10.7	7.8	5.9	3.9
150°	18.6	17.6	16.6	14.7	13.7	12.7	10.7	8.8	6.8	4.9	3.9
152.5°	15.6	14.7	13.7	13.7	11.7	10.7	8.8	7.8	5.9	4.9	2.9
155°	13.7	13.7	12.7	11.7	9.8	8.8	7.8	5.9	4.9	3.9	2.9
157.5°	11.7	10.7	9.8	9.8	8.8	7.8	5.9	4.9	3.9	3.9	2.9
160°	9.8	8.8	8.8	7.8	6.8	5.9	4.9	4.9	3.9	2.9	2.9
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: P#

CATALOG NUMBER: 4SNLED-LD5-49SL-LN-UNV-L950-CD1-U

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
0°	1775.8	1775.8	1775.8	1775.8	1775.8	1775.8	1775.8	1775.8	1775.8	1775.8	1775.8
2.5°	1778.7	1768.0	1777.7	1790.4	1790.4	1788.5	1786.5	1790.4	1800.2	1796.3	1784.6
5°	1775.8	1765.0	1773.8	1786.5	1786.5	1783.6	1781.6	1784.6	1795.3	1790.4	1779.7
7.5°	1769.9	1760.1	1766.0	1777.7	1777.7	1774.8	1772.8	1776.7	1785.5	1780.7	1768.9
10°	1759.2	1748.4	1755.3	1766.0	1765.0	1763.1	1760.1	1765.0	1772.8	1766.0	1752.3
12.5°	1745.5	1734.7	1740.6	1750.4	1749.4	1745.5	1743.5	1746.5	1753.3	1749.4	1734.7
15°	1726.9	1716.2	1721.1	1730.8	1727.9	1725.0	1721.1	1722.0	1730.8	1724.0	1708.4
17.5°	1704.5	1692.7	1696.6	1705.4	1702.5	1699.6	1694.7	1695.7	1705.4	1695.7	1679.1
20°	1677.1	1664.4	1667.3	1678.1	1673.2	1668.3	1663.4	1663.4	1673.2	1662.5	1643.9
22.5°	1647.8	1635.1	1637.1	1644.9	1641.0	1632.2	1627.3	1630.2	1635.1	1621.4	1601.9
25°	1611.7	1595.1	1598.0	1605.8	1602.9	1591.2	1586.3	1588.2	1586.3	1575.5	1555.0
27.5°	1569.7	1552.1	1554.0	1558.9	1555.0	1544.3	1538.4	1539.4	1535.5	1521.8	1498.4
30°	1516.9	1508.1	1507.2	1510.1	1504.2	1493.5	1486.6	1484.7	1483.7	1464.2	1435.9
32.5°	1463.2	1455.4	1450.5	1454.4	1447.6	1436.8	1425.1	1425.1	1415.3	1396.8	1372.4
35°	1408.5	1395.8	1390.9	1393.9	1386.0	1372.4	1362.6	1357.7	1343.1	1319.6	1293.2
37.5°	1338.2	1329.4	1323.5	1326.5	1317.7	1307.9	1289.3	1284.5	1268.8	1236.6	1203.4
40°	1262.0	1255.1	1249.3	1252.2	1242.5	1227.8	1211.2	1203.4	1185.8	1149.7	1123.3
42.5°	1179.9	1177.0	1170.2	1180.9	1161.4	1146.7	1130.1	1117.4	1099.8	1060.8	1030.5
45°	1093.0	1099.8	1084.2	1087.1	1074.4	1061.7	1044.2	1025.6	1008.0	970.9	936.7
47.5°	1001.2	1006.1	995.3	997.3	983.6	971.9	956.3	932.8	913.3	881.0	850.8
50°	906.4	904.5	904.5	902.5	891.8	877.1	861.5	840.0	820.5	791.2	765.8
52.5°	805.8	809.7	811.7	816.6	802.9	794.1	769.7	751.1	736.5	706.2	684.7
55°	709.1	722.8	718.9	720.9	705.2	698.4	678.9	664.2	642.7	625.1	611.5
57.5°	621.2	624.2	626.1	629.0	622.2	608.5	592.9	581.2	564.6	549.9	540.2
60°	536.2	536.2	537.2	542.1	535.3	523.5	511.8	503.0	491.3	482.5	476.7
62.5°	456.2	463.0	464.0	460.1	451.3	445.4	437.6	432.7	424.9	422.0	420.0
65°	381.9	381.9	381.9	383.9	379.0	375.1	370.2	369.2	372.1	368.2	370.2
67.5°	319.4	316.5	314.5	315.5	313.5	311.6	310.6	313.5	319.4	319.4	324.3
70°	265.7	259.8	255.9	255.9	255.9	256.9	259.8	265.7	275.4	279.4	286.2
72.5°	221.7	209.0	203.2	203.2	204.1	208.1	216.8	227.6	236.4	244.2	253.0
75°	179.7	167.0	158.2	157.3	159.2	165.1	177.8	187.5	202.2	212.9	223.7
77.5°	145.5	129.9	119.2	118.2	121.1	129.9	145.5	158.2	174.8	186.6	198.3
80°	116.2	98.7	89.9	84.0	88.9	99.6	117.2	132.8	148.5	164.1	178.7
82.5°	92.8	76.2	62.5	56.7	62.5	77.2	93.8	112.3	128.0	144.6	159.2
85°	73.3	55.7	40.0	34.2	41.0	56.7	75.2	93.8	111.4	128.0	142.6
87.5°	57.6	40.0	24.4	16.6	25.4	42.0	59.6	78.1	96.7	113.3	128.0
90°	44.9	28.3	13.7	2.0	14.7	30.3	47.9	65.4	84.0	100.6	115.3
92.5°	38.1	21.5	7.8	0.0	8.8	22.5	39.1	56.7	73.3	89.9	104.5
95°	32.2	17.6	5.9	0.0	5.9	17.6	32.2	47.9	64.5	81.1	95.7
97.5°	27.3	13.7	3.9	0.0	3.9	13.7	26.4	42.0	56.7	72.3	86.0
100°	23.4	11.7	2.9	0.0	2.9	10.7	22.5	36.1	50.8	65.4	78.1
102.5°	20.5	9.8	2.0	0.0	2.0	8.8	18.6	31.3	44.0	57.6	70.3
105°	17.6	7.8	2.0	0.0	1.0	6.8	15.6	27.3	39.1	51.8	63.5
107.5°	15.6	6.8	2.0	0.0	1.0	5.9	13.7	23.4	35.2	45.9	56.7
110°	13.7	5.9	2.0	0.0	1.0	3.9	11.7	20.5	30.3	41.0	51.8



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-49SL-LN-UNV-L950-CD1-U

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
112.5°	11.7	4.9	1.0	0.0	0.0	2.9	9.8	17.6	26.4	37.1	45.9
115°	10.7	4.9	1.0	0.0	0.0	2.0	7.8	15.6	23.4	33.2	41.0
117.5°	9.8	3.9	1.0	0.0	1.0	2.0	6.8	13.7	20.5	28.3	37.1
120°	8.8	3.9	1.0	0.0	1.0	1.0	4.9	11.7	17.6	25.4	32.2
122.5°	7.8	3.9	1.0	0.0	1.0	1.0	3.9	9.8	15.6	22.5	28.3
125°	6.8	2.9	2.0	1.0	1.0	1.0	2.9	7.8	13.7	18.6	25.4
127.5°	6.8	2.9	2.0	1.0	1.0	1.0	2.0	6.8	10.7	16.6	22.5
130°	5.9	2.9	2.0	1.0	1.0	1.0	1.0	4.9	9.8	13.7	18.6
132.5°	4.9	2.9	2.0	1.0	1.0	1.0	1.0	2.9	6.8	11.7	15.6
135°	4.9	2.9	2.0	1.0	1.0	1.0	1.0	2.0	4.9	8.8	12.7
137.5°	3.9	2.0	2.0	1.0	1.0	1.0	1.0	1.0	3.9	6.8	9.8
140°	3.9	2.0	2.0	1.0	1.0	1.0	1.0	1.0	2.9	4.9	7.8
142.5°	2.9	2.0	2.0	1.0	1.0	1.0	1.0	1.0	2.0	3.9	5.9
145°	2.9	2.0	2.0	1.0	1.0	1.0	1.0	1.0	1.0	2.0	3.9
147.5°	2.9	2.9	2.0	1.0	1.0	1.0	1.0	1.0	1.0	2.0	2.9
150°	2.9	2.0	2.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	2.0
152.5°	2.9	2.0	2.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	2.0
155°	2.9	2.0	2.0	1.0	1.0	1.0	1.0	1.0	1.0	2.0	2.0
157.5°	2.9	2.0	2.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	2.0
160°	2.9	2.0	2.0	1.0	2.0	1.0	2.0	2.0	2.0	2.0	2.0
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-LD5-49SL-LN-UNV-L950-CD1-U

CANDELA DISTRIBUTION (continued):

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
0°	1775.8	1775.8	1775.8	1775.8	1775.8	1775.8	1775.8	1775.8	1775.8	1775.8	1775.8
2.5°	1780.7	1762.1	1771.9	1768.9	1772.8	1780.7	1779.7	1777.7	1777.7	1774.8	1770.9
5°	1774.8	1757.2	1766.0	1761.1	1766.0	1772.8	1771.9	1768.9	1770.9	1766.0	1761.1
7.5°	1763.1	1747.4	1755.3	1751.3	1755.3	1762.1	1759.2	1758.2	1760.1	1752.3	1749.4
10°	1749.4	1731.8	1740.6	1735.7	1740.6	1745.5	1743.5	1739.6	1743.5	1735.7	1732.8
12.5°	1727.9	1713.3	1719.1	1717.2	1720.1	1725.0	1721.1	1718.1	1720.1	1713.3	1707.4
15°	1704.5	1689.8	1694.7	1691.8	1693.7	1699.6	1692.7	1691.8	1689.8	1683.0	1681.0
17.5°	1674.2	1660.5	1665.4	1660.5	1663.4	1661.5	1660.5	1655.6	1655.6	1647.8	1641.9
20°	1637.1	1625.3	1622.4	1618.5	1622.4	1618.5	1612.6	1608.7	1607.8	1599.9	1595.1
22.5°	1594.1	1580.4	1582.4	1571.6	1572.6	1566.7	1557.0	1553.1	1549.2	1540.4	1533.5
25°	1542.3	1528.6	1518.9	1512.0	1503.2	1502.3	1489.6	1479.8	1478.8	1468.1	1467.1
27.5°	1483.7	1468.1	1460.3	1443.7	1432.9	1424.1	1413.4	1403.6	1398.7	1387.0	1379.2
30°	1416.3	1398.7	1379.2	1367.5	1350.9	1344.0	1325.5	1313.8	1309.8	1297.2	1291.3
32.5°	1340.1	1321.6	1305.9	1283.5	1264.9	1255.1	1236.6	1224.9	1220.0	1206.3	1198.5
35°	1257.1	1236.6	1218.0	1196.5	1181.9	1165.3	1142.8	1131.1	1120.4	1115.5	1109.6
37.5°	1170.2	1147.7	1126.2	1104.7	1092.0	1072.5	1053.0	1045.1	1032.4	1027.6	1021.7
40°	1080.3	1057.8	1037.3	1016.8	1002.2	984.6	967.0	964.1	950.4	945.5	941.6
42.5°	991.4	968.0	944.5	929.9	919.1	901.6	889.8	886.9	875.2	872.3	872.3
45°	911.3	882.0	862.5	849.8	841.0	826.3	816.6	814.6	804.9	802.9	802.9
47.5°	825.4	798.0	783.4	775.6	767.7	757.0	751.1	751.1	741.4	739.4	738.4
50°	745.3	719.9	709.1	701.3	700.3	692.5	687.6	685.7	685.7	678.9	679.8
52.5°	669.1	656.4	647.6	642.7	636.9	632.0	628.1	628.1	625.1	620.2	622.2
55°	598.8	584.1	585.1	581.2	578.2	575.3	576.3	570.4	569.5	565.5	568.5
57.5°	528.4	528.4	526.5	523.5	518.7	520.6	520.6	520.6	515.7	512.8	515.7
60°	468.8	471.8	466.9	469.8	467.9	468.8	466.9	466.9	464.0	463.0	464.0
62.5°	416.1	421.0	419.0	422.9	421.0	422.0	423.9	420.0	418.1	416.1	418.1
65°	369.2	375.1	374.1	377.0	378.0	379.0	380.0	378.0	376.1	374.1	373.1
67.5°	328.2	334.1	338.0	338.9	339.9	342.8	341.9	339.9	338.0	335.0	334.1
70°	291.1	298.9	303.8	305.7	309.6	307.7	307.7	306.7	304.8	301.8	300.8
72.5°	259.8	268.6	273.5	275.4	279.4	279.4	278.4	277.4	275.4	272.5	271.5
75°	232.5	240.3	247.1	251.0	254.0	254.0	253.0	252.0	250.1	248.1	247.1
77.5°	211.0	217.8	223.7	228.6	230.5	231.5	230.5	228.6	228.6	227.6	226.6
80°	189.5	197.3	203.2	208.1	211.0	211.0	210.0	211.0	209.0	208.1	207.1
82.5°	170.9	179.7	186.6	191.4	193.4	194.4	193.4	194.4	192.4	192.4	192.4
85°	154.3	163.1	170.9	174.8	177.8	178.7	178.7	178.7	177.8	177.8	177.8
87.5°	140.7	149.4	157.3	161.2	164.1	165.1	165.1	166.1	164.1	164.1	164.1
90°	128.0	136.7	144.6	148.5	151.4	153.4	153.4	154.3	153.4	152.4	152.4
92.5°	116.2	126.0	133.8	137.7	140.7	143.6	143.6	144.6	142.6	142.6	142.6
95°	106.5	116.2	123.1	128.0	130.9	132.8	133.8	133.8	132.8	132.8	132.8
97.5°	97.7	106.5	113.3	118.2	121.1	122.1	123.1	124.0	123.1	123.1	123.1
100°	88.9	97.7	104.5	108.4	112.3	113.3	114.3	115.3	115.3	114.3	114.3
102.5°	81.1	89.9	95.7	100.6	103.5	105.5	106.5	106.5	106.5	106.5	106.5
105°	73.3	82.0	87.9	92.8	95.7	97.7	98.7	99.6	99.6	98.7	98.7
107.5°	66.4	74.2	81.1	85.0	88.9	90.8	91.8	91.8	92.8	91.8	91.8
110°	59.6	68.4	74.2	78.1	82.0	84.0	85.0	86.0	86.0	86.0	86.0



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-49SL-LN-UNV-L950-CD1-U

CANDELA DISTRIBUTION (continued):

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
112.5°	54.7	61.5	67.4	71.3	75.2	77.2	78.1	79.1	80.1	79.1	79.1
115°	48.8	55.7	61.5	65.4	68.4	70.3	72.3	73.3	73.3	74.2	73.3
117.5°	44.0	49.8	55.7	59.6	62.5	65.4	66.4	67.4	68.4	67.4	67.4
120°	39.1	44.9	49.8	53.7	56.7	59.6	60.6	61.5	62.5	61.5	61.5
122.5°	35.2	40.0	44.9	48.8	51.8	53.7	55.7	55.7	56.7	56.7	56.7
125°	31.3	36.1	40.0	44.0	46.9	48.8	49.8	50.8	50.8	51.8	51.8
127.5°	27.3	31.3	36.1	39.1	42.0	44.0	44.9	45.9	45.9	46.9	46.9
130°	23.4	27.3	31.3	34.2	37.1	39.1	40.0	41.0	42.0	42.0	42.0
132.5°	20.5	24.4	27.3	30.3	32.2	34.2	36.1	37.1	37.1	37.1	37.1
135°	16.6	20.5	23.4	26.4	28.3	30.3	31.3	33.2	33.2	33.2	33.2
137.5°	13.7	17.6	20.5	22.5	24.4	26.4	27.3	28.3	29.3	29.3	29.3
140°	10.7	13.7	16.6	19.5	21.5	22.5	24.4	24.4	25.4	25.4	25.4
142.5°	7.8	10.7	12.7	15.6	17.6	19.5	20.5	21.5	21.5	21.5	21.5
145°	5.9	7.8	9.8	11.7	14.7	15.6	16.6	17.6	18.6	18.6	18.6
147.5°	3.9	5.9	6.8	8.8	10.7	12.7	13.7	14.7	15.6	15.6	15.6
150°	2.9	3.9	5.9	6.8	7.8	9.8	11.7	11.7	12.7	12.7	11.7
152.5°	2.0	2.9	3.9	4.9	5.9	6.8	8.8	8.8	9.8	9.8	9.8
155°	2.0	2.0	2.0	2.9	3.9	4.9	5.9	6.8	6.8	6.8	6.8
157.5°	2.0	2.0	2.0	2.0	2.0	2.9	3.9	4.9	4.9	4.9	4.9
160°	2.0	2.0	1.0	1.0	2.0	2.0	2.0	2.0	2.9	2.9	2.9
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: P#

CATALOG NUMBER: 4SNLED-LD5-49SL-LN-UNV-L950-CD1-U

CANDELA DISTRIBUTION (continued):

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°
0°	1775.8	1775.8	1775.8	1775.8	1775.8	1775.8	1775.8	1775.8	1775.8	1775.8	1775.8
2.5°	1773.8	1775.8	1775.8	1773.8	1772.8	1776.7	1771.9	1753.3	1759.2	1761.1	1767.0
5°	1765.0	1767.0	1767.0	1767.0	1765.0	1768.9	1764.0	1745.5	1752.3	1755.3	1759.2
7.5°	1752.3	1753.3	1755.3	1754.3	1752.3	1758.2	1753.3	1734.7	1739.6	1744.5	1749.4
10°	1735.7	1735.7	1736.7	1738.7	1736.7	1741.6	1736.7	1720.1	1725.0	1727.9	1733.8
12.5°	1713.3	1715.2	1716.2	1715.2	1714.2	1718.1	1716.2	1700.6	1702.5	1708.4	1714.2
15°	1683.0	1683.0	1687.9	1685.9	1685.9	1689.8	1691.8	1674.2	1677.1	1685.9	1691.8
17.5°	1645.9	1646.8	1650.7	1652.7	1651.7	1658.6	1659.5	1645.9	1644.9	1655.6	1661.5
20°	1598.0	1599.9	1604.8	1608.7	1608.7	1616.6	1619.5	1610.7	1611.7	1623.4	1625.3
22.5°	1539.4	1539.4	1548.2	1554.0	1558.9	1563.8	1572.6	1564.8	1564.8	1580.4	1589.2
25°	1467.1	1473.9	1476.9	1488.6	1495.4	1509.1	1516.9	1517.9	1518.9	1533.5	1539.4
27.5°	1387.0	1389.0	1397.8	1411.4	1419.2	1431.9	1446.6	1449.5	1454.4	1473.9	1482.7
30°	1296.2	1302.0	1305.9	1325.5	1336.2	1352.8	1371.4	1378.2	1382.1	1408.5	1419.2
32.5°	1203.4	1205.3	1221.9	1232.7	1245.4	1263.0	1284.5	1297.2	1305.0	1332.3	1347.9
35°	1110.6	1114.5	1128.2	1141.8	1154.5	1172.1	1194.6	1212.2	1225.8	1250.3	1270.8
37.5°	1025.6	1035.4	1038.3	1052.0	1061.7	1079.3	1095.0	1120.4	1134.0	1159.4	1185.8
40°	949.4	952.4	954.3	968.0	974.8	991.4	1013.9	1030.5	1049.1	1067.6	1098.9
42.5°	874.2	876.2	879.1	886.9	894.7	906.4	923.0	939.7	959.2	986.5	1007.0
45°	804.9	806.8	808.8	813.6	820.5	831.2	842.0	853.7	873.2	896.7	918.2
47.5°	740.4	744.3	744.3	745.3	750.2	759.0	766.8	781.4	792.2	804.9	829.3
50°	678.9	681.8	682.8	682.8	685.7	691.6	693.5	703.3	713.0	724.8	742.3
52.5°	621.2	621.2	620.2	624.2	624.2	628.1	629.0	634.9	641.7	654.4	662.2
55°	566.5	566.5	569.5	567.5	567.5	569.5	568.5	569.5	575.3	583.1	590.0
57.5°	513.8	512.8	515.7	513.8	512.8	514.8	516.7	512.8	513.8	521.6	521.6
60°	461.0	462.0	464.9	463.0	463.0	463.0	461.0	459.1	457.1	462.0	464.0
62.5°	419.0	416.1	419.0	416.1	418.1	417.1	415.1	411.2	412.2	410.2	408.3
65°	375.1	375.1	376.1	373.1	375.1	375.1	372.1	371.2	365.3	363.4	358.5
67.5°	337.0	337.0	338.0	336.0	336.0	337.0	334.1	331.1	325.3	322.3	315.5
70°	303.8	303.8	303.8	302.8	302.8	302.8	300.8	296.9	291.1	286.2	277.4
72.5°	273.5	274.5	273.5	273.5	276.4	273.5	270.6	266.7	261.8	252.0	244.2
75°	249.1	250.1	249.1	249.1	249.1	248.1	247.1	241.3	235.4	227.6	215.9
77.5°	227.6	227.6	228.6	227.6	227.6	226.6	223.7	218.8	212.0	205.1	191.4
80°	207.1	208.1	209.0	210.0	208.1	207.1	204.1	200.2	191.4	183.6	170.0
82.5°	192.4	191.4	192.4	193.4	191.4	190.5	187.5	182.7	175.8	165.1	151.4
85°	177.8	176.8	176.8	177.8	176.8	174.8	171.9	167.0	160.2	149.4	135.8
87.5°	163.1	164.1	165.1	164.1	163.1	161.2	158.2	153.4	145.5	136.7	122.1
90°	152.4	152.4	152.4	152.4	151.4	149.4	146.5	140.7	133.8	123.1	110.4
92.5°	142.6	142.6	142.6	142.6	141.6	138.7	135.8	130.9	123.1	112.3	100.6
95°	132.8	133.8	132.8	132.8	130.9	129.9	125.0	120.1	113.3	102.6	89.9
97.5°	122.1	123.1	122.1	122.1	121.1	119.2	116.2	110.4	103.5	93.8	82.0
100°	114.3	114.3	113.3	113.3	112.3	110.4	106.5	101.6	94.7	85.0	73.3
102.5°	105.5	106.5	105.5	105.5	103.5	101.6	98.7	93.8	86.9	77.2	66.4
105°	98.7	98.7	97.7	97.7	95.7	93.8	90.8	85.0	79.1	70.3	59.6
107.5°	91.8	91.8	90.8	90.8	88.9	86.9	83.0	78.1	72.3	63.5	53.7
110°	85.0	85.0	85.0	84.0	82.0	79.1	76.2	71.3	65.4	57.6	47.9



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-49SL-LN-UNV-L950-CD1-U

CANDELA DISTRIBUTION (continued):

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°
112.5°	80.1	79.1	78.1	77.2	75.2	73.3	69.4	64.5	58.6	51.8	43.0
115°	73.3	73.3	72.3	71.3	69.4	66.4	63.5	59.6	53.7	45.9	38.1
117.5°	67.4	67.4	66.4	65.4	63.5	60.6	57.6	53.7	47.9	41.0	34.2
120°	61.5	61.5	60.6	59.6	57.6	54.7	52.7	47.9	43.0	36.1	30.3
122.5°	56.7	55.7	55.7	53.7	52.7	49.8	46.9	43.0	38.1	32.2	26.4
125°	50.8	50.8	49.8	48.8	47.9	44.9	42.0	38.1	33.2	28.3	23.4
127.5°	45.9	45.9	44.9	44.0	43.0	40.0	37.1	34.2	29.3	24.4	19.5
130°	41.0	41.0	40.0	39.1	38.1	35.2	33.2	29.3	25.4	21.5	16.6
132.5°	37.1	37.1	36.1	35.2	33.2	31.3	29.3	25.4	22.5	18.6	14.7
135°	33.2	32.2	32.2	31.3	29.3	27.3	25.4	22.5	18.6	15.6	11.7
137.5°	29.3	28.3	27.3	26.4	25.4	23.4	21.5	19.5	16.6	12.7	9.8
140°	25.4	24.4	24.4	23.4	21.5	20.5	18.6	15.6	13.7	10.7	7.8
142.5°	21.5	21.5	20.5	19.5	18.6	17.6	15.6	13.7	10.7	8.8	5.9
145°	18.6	17.6	17.6	16.6	15.6	13.7	12.7	10.7	8.8	6.8	4.9
147.5°	14.7	14.7	14.7	13.7	12.7	11.7	10.7	8.8	6.8	4.9	2.9
150°	11.7	11.7	11.7	10.7	9.8	8.8	7.8	6.8	4.9	2.9	2.0
152.5°	9.8	9.8	8.8	8.8	7.8	6.8	5.9	4.9	2.9	2.0	2.0
155°	6.8	6.8	6.8	5.9	5.9	4.9	3.9	2.9	2.0	2.0	2.0
157.5°	4.9	4.9	4.9	3.9	3.9	2.9	2.9	2.0	2.0	2.0	2.0
160°	2.9	2.9	2.9	2.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0
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-LD5-49SL-LN-UNV-L950-CD1-U

CANDELA DISTRIBUTION (continued):

	330°	335°	340°	345°	350°	355°	360°
0°	1775.8	1775.8	1775.8	1775.8	1775.8	1775.8	1775.8
2.5°	1764.0	1763.1	1770.9	1770.9	1762.1	1775.8	1790.4
5°	1758.2	1757.2	1765.0	1765.0	1757.2	1770.9	1786.5
7.5°	1746.5	1747.4	1755.3	1757.2	1747.4	1760.1	1776.7
10°	1733.8	1732.8	1741.6	1743.5	1735.7	1747.4	1763.1
12.5°	1713.3	1713.3	1722.0	1725.0	1717.2	1730.8	1745.5
15°	1691.8	1691.8	1697.6	1702.5	1695.7	1708.4	1723.0
17.5°	1664.4	1663.4	1669.3	1675.2	1668.3	1682.0	1697.6
20°	1629.3	1629.3	1636.1	1642.9	1638.0	1650.7	1668.3
22.5°	1592.1	1588.2	1599.9	1604.8	1601.9	1614.6	1632.2
25°	1545.2	1544.3	1556.0	1562.8	1558.9	1572.6	1588.2
27.5°	1494.5	1493.5	1505.2	1514.0	1512.0	1524.7	1542.3
30°	1432.9	1437.8	1448.5	1463.2	1458.3	1472.0	1490.6
32.5°	1368.5	1373.3	1386.0	1401.7	1402.6	1413.4	1431.9
35°	1291.3	1304.0	1312.8	1333.3	1337.2	1347.9	1367.5
37.5°	1210.2	1224.9	1243.4	1259.1	1266.9	1275.7	1298.1
40°	1119.4	1140.9	1161.4	1179.9	1189.7	1198.5	1220.0
42.5°	1037.3	1053.9	1073.5	1092.0	1109.6	1117.4	1139.9
45°	944.5	964.1	981.7	1004.1	1021.7	1030.5	1053.0
47.5°	853.7	873.2	896.7	912.3	930.9	939.7	961.1
50°	766.8	784.3	803.9	822.4	838.1	845.9	864.4
52.5°	680.8	699.4	717.9	729.6	746.3	752.1	767.7
55°	604.6	617.3	633.9	640.8	657.4	661.3	672.0
57.5°	531.4	540.2	546.0	557.7	569.5	578.2	590.9
60°	464.9	468.8	472.8	479.6	489.4	492.3	497.2
62.5°	405.4	404.4	412.2	414.2	415.1	424.9	420.0
65°	352.6	353.6	346.8	343.8	347.7	350.7	348.7
67.5°	308.7	302.8	296.9	290.1	284.2	287.2	284.2
70°	265.7	260.8	251.0	241.3	237.4	231.5	228.6
72.5°	231.5	219.8	210.0	197.3	190.5	183.6	178.7
75°	205.1	188.5	174.8	161.2	151.4	141.6	139.7
77.5°	177.8	162.1	146.5	131.9	117.2	106.5	102.6
80°	156.3	141.6	123.1	105.5	89.9	76.2	71.3
82.5°	136.7	121.1	102.6	84.0	66.4	51.8	45.9
85°	120.1	103.5	85.0	66.4	48.8	33.2	25.4
87.5°	107.4	88.9	70.3	52.7	34.2	18.6	9.8
90°	95.7	78.1	60.6	42.0	24.4	9.8	0.0
92.5°	85.0	68.4	50.8	34.2	18.6	5.9	1.0
95°	75.2	60.6	43.0	27.3	13.7	3.9	1.0
97.5°	67.4	52.7	37.1	22.5	10.7	2.9	1.0
100°	60.6	45.9	32.2	18.6	8.8	2.0	1.0
102.5°	53.7	41.0	27.3	15.6	6.8	1.0	1.0
105°	47.9	36.1	23.4	13.7	5.9	1.0	1.0
107.5°	43.0	32.2	20.5	11.7	3.9	1.0	1.0
110°	38.1	27.3	17.6	9.8	2.9	1.0	1.0



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-49SL-LN-UNV-L950-CD1-U

CANDELA DISTRIBUTION (continued):

	330°	335°	340°	345°	350°	355°	360°
112.5°	34.2	24.4	15.6	7.8	2.0	1.0	1.0
115°	30.3	21.5	13.7	6.8	2.0	1.0	1.0
117.5°	26.4	18.6	11.7	4.9	1.0	1.0	1.0
120°	23.4	16.6	9.8	3.9	1.0	1.0	1.0
122.5°	20.5	13.7	7.8	2.9	1.0	1.0	1.0
125°	17.6	11.7	6.8	2.0	1.0	1.0	1.0
127.5°	14.7	9.8	4.9	2.0	1.0	1.0	1.0
130°	12.7	7.8	3.9	1.0	1.0	1.0	1.0
132.5°	10.7	5.9	2.9	1.0	1.0	1.0	1.0
135°	8.8	4.9	2.0	1.0	1.0	1.0	1.0
137.5°	6.8	3.9	2.0	1.0	1.0	1.0	1.0
140°	4.9	2.9	1.0	1.0	1.0	1.0	1.0
142.5°	3.9	2.0	1.0	1.0	1.0	1.0	1.0
145°	2.9	2.0	1.0	1.0	1.0	1.0	1.0
147.5°	2.0	2.0	2.0	2.0	1.0	1.0	1.0
150°	2.0	2.0	1.0	1.0	2.0	1.0	1.0
152.5°	2.0	1.0	1.0	1.0	2.0	1.0	1.0
155°	2.0	2.0	2.0	2.0	2.0	2.0	1.0
157.5°	2.0	2.0	2.0	2.0	2.0	2.0	2.0
160°	2.0	2.0	2.0	2.0	2.0	2.0	2.0
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)