

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: P1213444

Luminaire Tested: 4SNLED-LD5-49SL-LC-UNV-L935-CD1-U

Issue Date: 3/29/2018

Test Information

Test Method: LM-79-2019
Report Number: P1213444
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P33518)
Test Lab: INNOVATIONS CENTER-P3
Issue Date: 3/29/2018
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: METALUX
Catalog Number: 4SNLED-LD5-49SL-LC-UNV-L935-CD1-U
Description: 4FT LINEAR SNLED LED FIXTURE
CLEAR LENSED
Light Source: -
Ballast/Driver: -

Summary

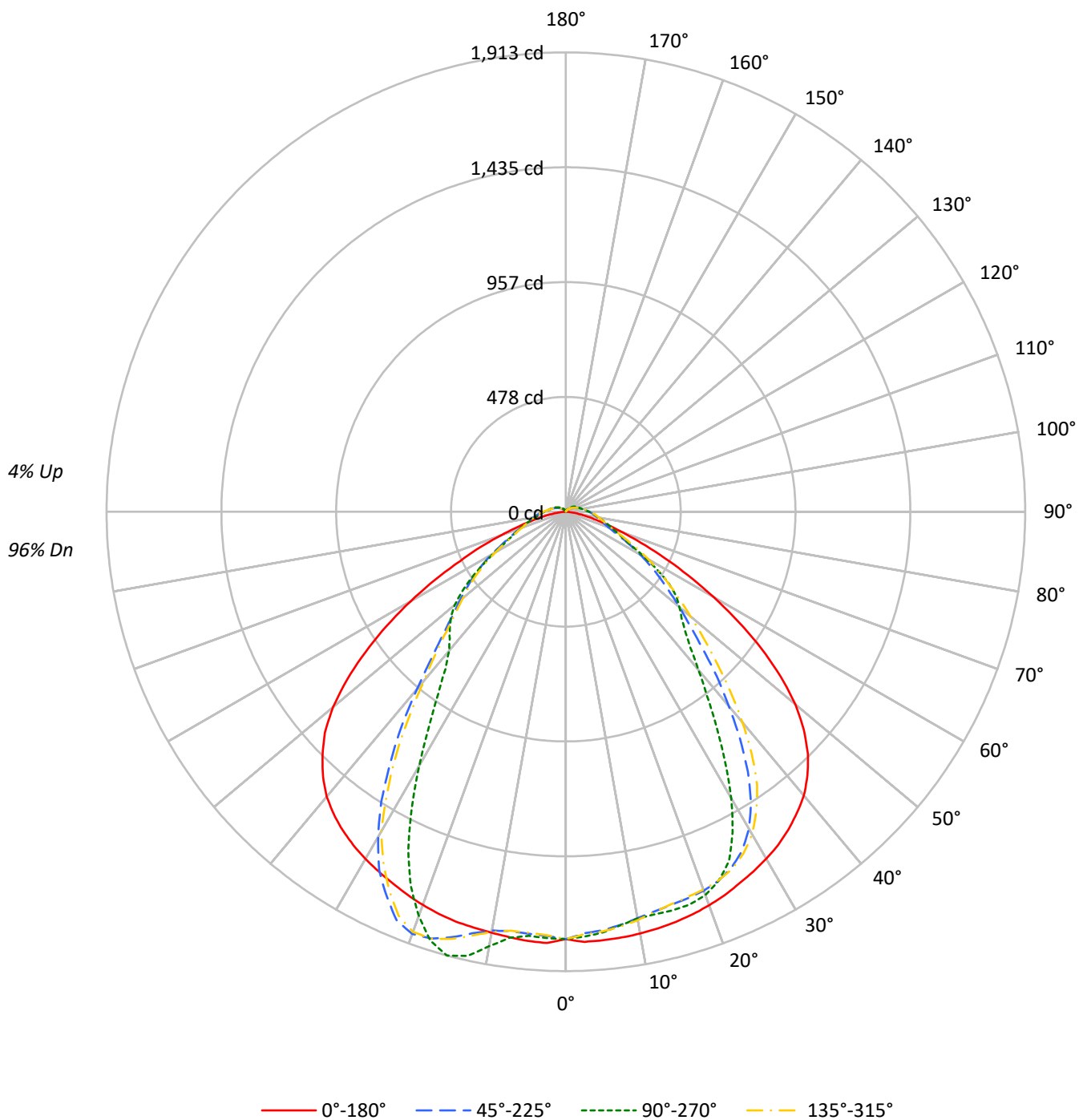
Lumens per Lamp: N/A
Luminaire Lumens: 4243.0 lumens
Efficiency: N/A
Efficacy: 111.7 lumens/watt
Spacing Criteria (0/90/45): 1.4 / 1.12 / 1.19
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.12')
CIE Type: Direct

Input Watts (W): 38
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT

TEST NUMBER: P1213444

CATALOG NUMBER: 4SNLED-LD5-49SL-LC-UNV-L935-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
RCR																				
0	118	118	118	118	115	115	115	115	109	109	109	103	103	103	98	98	98	98	98	96
1	109	104	100	97	106	102	98	95	97	94	91	92	90	88	88	86	84	84	84	82
2	100	93	86	81	97	90	85	80	86	82	77	82	79	75	79	76	73	73	73	71
3	92	83	75	69	89	81	74	68	77	71	67	74	69	65	71	67	63	63	63	61
4	85	74	66	60	83	73	65	59	70	63	58	67	61	57	64	60	56	56	56	54
5	79	67	59	52	76	66	58	52	63	56	51	61	55	50	59	53	49	49	49	47
6	73	61	52	46	71	60	52	46	57	51	45	55	49	45	54	48	44	44	44	42
7	68	55	47	42	66	54	47	41	53	46	41	51	45	40	49	44	40	40	40	38
8	64	51	43	37	62	50	42	37	48	42	37	47	41	36	45	40	36	36	36	34
9	60	47	39	34	58	46	39	34	45	38	33	43	37	33	42	37	33	33	33	31
10	56	43	36	31	54	43	36	31	42	35	30	40	34	30	39	34	30	30	30	28

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	14383	14383	14383	14383
5°	14488	13813	14517	13921
10°	14555	13238	14524	14137
15°	14668	13061	14660	14542
20°	14829	12854	14813	13550
25°	15011	12194	15003	11783
30°	15294	10569	15302	9363
35°	15594	8546	15638	7232
40°	15857	6881	15924	6062
45°	15802	5829	15883	5676
50°	15120	5366	15332	5246
55°	13415	4823	13750	4385
60°	10881	3691	11459	3386
65°	8089	2824	8715	2678
70°	5501	2438	6201	2331
75°	3599	2200	4191	2081
80°	2324	2051	2728	1887
85°	1196	2047	1571	1868

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 180°

Vertical Angle: 45°

Luminance: 15883 cd/sqm

TEST NUMBER: P1213444

CATALOG NUMBER: 4SNLED-LD5-49SL-LC-UNV-L935-CD1-U

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	169.1	4.0
10°-20°	503.0	11.9
20°-30°	764.7	18.0
30°-40°	820.4	19.3
40°-50°	712.0	16.8
50°-60°	527.7	12.4
60°-70°	302.3	7.1
70°-80°	167.4	3.9
80°-90°	101.9	2.4
90°-100°	66.3	1.6
100°-110°	44.4	1.0
110°-120°	30.0	0.7
120°-130°	18.4	0.4
130°-140°	9.7	0.2
140°-150°	4.4	0.1
150°-160°	1.3	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	1436.8	33.9
0°-40°	2257.2	53.2
0°-60°	3496.8	82.4
0°-90°	4068.5	95.9
90°-120°	140.7	3.3
90°-150°	173.2	4.1
90°-180°	174.0	4.1
0°-180°	4243.0	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	1780	1780	1780	1780	1780	
5°	1791	1759	1794	1772	1791	171
15°	1768	1718	1767	1913	1768	500
25°	1708	1607	1707	1553	1708	790
35°	1615	1094	1620	926	1615	1011
45°	1426	702	1433	683	1426	1092
55°	995	526	1020	478	995	882
65°	451	267	486	253	451	455
75°	129	169	150	160	129	147
85°	18	117	23	107	18	23
90°	0	97	2	90	0	1
95°	1	80	0	76	1	1
105°	1	60	1	57	1	1
115°	1	49	1	44	1	1
125°	1	37	1	30	1	1
135°	1	23	1	19	1	1
145°	1	14	2	11	1	1
155°	2	6	2	6	2	1
165°	0	0	0	0	0	0
175°	0	0	0	0	0	0
180°	0	0	0	0	0	

TEST NUMBER: P1213444

CATALOG NUMBER: 4SNLED-LD5-49SL-LC-UNV-L935-CD1-U

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1779.8	1779.8	1779.8	1779.8	1779.8	1779.8	1779.8	1779.8	1779.8	1779.8	1779.8
2.5°	1792.7	1788.1	1786.3	1782.6	1785.3	1796.4	1789.0	1777.1	1778.0	1756.8	1767.9
5°	1790.9	1785.3	1782.6	1778.9	1780.8	1790.9	1783.5	1771.6	1770.6	1749.5	1759.6
7.5°	1788.1	1782.6	1778.0	1775.2	1776.2	1784.4	1775.2	1761.4	1758.7	1735.7	1744.9
10°	1783.5	1779.8	1773.4	1768.8	1767.9	1777.1	1762.4	1748.6	1742.1	1718.2	1727.4
12.5°	1777.1	1771.6	1765.1	1756.8	1755.9	1761.4	1749.5	1730.2	1723.8	1704.4	1714.6
15°	1767.9	1761.4	1754.1	1744.9	1740.3	1744.0	1729.3	1711.8	1710.9	1694.3	1708.1
17.5°	1757.8	1748.6	1740.3	1727.4	1721.0	1723.8	1711.8	1696.2	1698.0	1687.9	1703.5
20°	1744.0	1733.9	1721.0	1708.1	1698.9	1703.5	1695.3	1683.3	1686.1	1678.7	1692.5
22.5°	1728.3	1714.6	1698.9	1684.2	1676.9	1683.3	1676.9	1666.8	1667.7	1663.1	1671.3
25°	1708.1	1692.5	1674.1	1655.7	1652.0	1656.6	1653.0	1644.7	1641.0	1633.7	1637.3
27.5°	1689.7	1672.3	1649.3	1630.0	1623.5	1632.7	1624.5	1610.7	1600.6	1590.4	1583.1
30°	1668.6	1647.4	1621.7	1599.6	1594.1	1597.8	1585.9	1564.7	1538.0	1525.2	1504.9
32.5°	1645.6	1618.0	1585.9	1561.0	1557.4	1554.6	1532.5	1502.2	1460.8	1435.1	1403.8
35°	1615.3	1584.9	1546.3	1516.0	1510.5	1494.8	1459.0	1418.5	1365.2	1321.1	1267.8
37.5°	1581.3	1545.4	1504.9	1464.5	1448.9	1417.6	1367.0	1324.8	1243.9	1190.5	1126.2
40°	1542.6	1499.4	1449.8	1401.1	1375.3	1324.8	1266.8	1204.3	1126.2	1054.5	1000.2
42.5°	1489.3	1443.4	1384.5	1330.3	1286.1	1219.0	1151.0	1062.8	991.0	930.4	875.2
45°	1425.9	1370.7	1302.7	1237.4	1181.3	1101.4	1021.4	933.1	873.4	802.6	764.9
47.5°	1344.1	1284.3	1211.7	1139.1	1065.5	977.3	893.6	809.0	749.3	698.7	671.1
50°	1247.5	1192.4	1112.4	1026.0	945.1	853.1	769.5	706.0	648.1	616.9	595.7
52.5°	1128.0	1076.5	994.7	900.9	822.8	732.7	656.4	604.9	563.6	540.6	533.2
55°	994.7	949.7	868.8	781.4	701.5	618.7	560.8	515.7	489.1	475.3	476.2
57.5°	852.2	817.3	741.0	662.8	587.5	524.9	472.5	436.7	416.5	415.5	418.3
60°	709.7	684.0	617.8	550.7	484.5	433.9	395.3	370.5	357.6	358.5	357.6
62.5°	573.7	549.8	502.0	446.8	394.4	360.4	325.4	315.3	304.3	303.4	303.4
65°	451.4	433.0	394.4	354.9	315.3	293.3	275.8	263.8	255.6	253.7	254.7
67.5°	339.2	331.9	305.2	278.6	253.7	239.9	225.2	222.5	216.0	216.0	217.9
70°	252.8	247.3	232.6	217.0	206.9	197.7	190.3	190.3	189.4	188.5	193.1
72.5°	182.9	183.9	179.3	167.3	166.4	164.6	162.7	165.5	166.4	169.2	174.7
75°	128.7	131.5	131.5	129.6	133.3	137.9	140.7	145.3	150.8	154.4	160.9
77.5°	91.0	91.0	95.6	101.1	108.5	116.8	124.1	130.5	137.9	142.5	148.0
80°	58.8	61.6	69.0	79.1	89.2	100.2	110.3	118.6	125.9	133.3	137.0
82.5°	34.9	39.5	48.7	61.6	74.5	88.3	98.4	108.5	116.8	124.1	126.9
85°	17.5	23.9	34.9	48.7	62.5	77.2	90.1	99.3	108.5	114.9	118.6
87.5°	5.5	12.9	24.8	37.7	52.4	67.1	80.9	91.0	99.3	104.8	108.5
90°	0.0	6.4	17.5	31.3	45.0	59.8	72.6	83.7	91.9	96.5	99.3
92.5°	0.0	3.7	13.8	25.7	38.6	53.3	66.2	76.3	83.7	88.3	90.1
95°	0.9	2.8	10.1	21.1	34.0	47.8	59.8	69.0	76.3	80.9	81.8
97.5°	0.9	1.8	8.3	17.5	29.4	42.3	54.2	63.4	69.0	73.5	74.5
100°	0.9	1.8	6.4	15.6	25.7	37.7	48.7	57.0	63.4	67.1	68.0
102.5°	0.9	0.9	5.5	12.9	23.0	33.1	43.2	51.5	57.0	60.7	62.5
105°	0.9	0.9	4.6	11.0	20.2	29.4	38.6	46.9	51.5	55.2	57.0
107.5°	0.9	0.9	3.7	9.2	17.5	25.7	34.9	41.4	46.9	50.6	52.4
110°	0.9	0.9	2.8	8.3	14.7	23.0	30.3	36.8	42.3	46.0	47.8

TEST NUMBER: P1213444

CATALOG NUMBER: 4SNLED-LD5-49SL-LC-UNV-L935-CD1-U

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	0.9	0.9	2.8	7.4	12.9	20.2	26.7	33.1	37.7	41.4	44.1
115°	0.9	0.9	2.8	6.4	12.0	17.5	23.9	29.4	34.0	37.7	40.5
117.5°	0.9	0.9	2.8	5.5	10.1	15.6	21.1	26.7	30.3	34.0	36.8
120°	0.9	0.9	1.8	4.6	9.2	13.8	18.4	23.0	27.6	31.3	34.0
122.5°	0.9	0.9	1.8	4.6	7.4	12.0	16.5	20.2	24.8	27.6	30.3
125°	0.9	0.9	1.8	3.7	6.4	11.0	14.7	18.4	21.1	24.8	27.6
127.5°	0.9	0.9	1.8	3.7	5.5	9.2	12.9	16.5	19.3	22.1	23.9
130°	0.9	0.9	1.8	2.8	4.6	7.4	11.0	13.8	17.5	19.3	21.1
132.5°	0.9	0.9	0.9	2.8	3.7	5.5	8.3	12.0	14.7	17.5	18.4
135°	0.9	0.9	0.9	1.8	3.7	4.6	6.4	9.2	12.0	14.7	16.5
137.5°	0.9	0.9	0.9	1.8	2.8	4.6	5.5	7.4	10.1	12.0	14.7
140°	0.9	0.9	0.9	1.8	2.8	3.7	4.6	6.4	8.3	10.1	12.0
142.5°	0.9	0.9	0.9	1.8	1.8	2.8	3.7	5.5	6.4	8.3	10.1
145°	0.9	0.9	0.9	1.8	1.8	2.8	3.7	4.6	5.5	6.4	8.3
147.5°	0.9	0.9	0.9	1.8	1.8	1.8	2.8	3.7	4.6	5.5	6.4
150°	1.8	1.8	1.8	1.8	1.8	1.8	2.8	2.8	3.7	4.6	5.5
152.5°	1.8	1.8	1.8	1.8	1.8	1.8	2.8	2.8	2.8	3.7	4.6
155°	1.8	1.8	1.8	1.8	1.8	1.8	1.8	2.8	2.8	3.7	3.7
157.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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: P1213444

CATALOG NUMBER: 4SNLED-LD5-49SL-LC-UNV-L935-CD1-U

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	1779.8	1779.8	1779.8	1779.8	1779.8	1779.8	1779.8	1779.8	1779.8	1779.8	1779.8
2.5°	1764.2	1766.0	1777.1	1776.2	1774.3	1772.5	1772.5	1770.6	1772.5	1777.1	1775.2
5°	1755.0	1757.8	1766.0	1765.1	1763.3	1762.4	1761.4	1758.7	1760.5	1767.0	1765.1
7.5°	1738.5	1741.2	1748.6	1744.9	1742.1	1744.0	1739.4	1736.6	1740.3	1746.7	1745.8
10°	1721.0	1722.8	1732.0	1730.2	1725.6	1726.5	1721.9	1720.1	1724.7	1728.3	1729.3
12.5°	1709.0	1715.5	1723.8	1722.8	1721.9	1722.8	1718.2	1716.4	1719.2	1722.8	1721.9
15°	1706.3	1714.6	1723.8	1723.8	1724.7	1725.6	1721.0	1718.2	1721.0	1723.8	1722.8
17.5°	1703.5	1713.6	1721.9	1721.0	1721.9	1723.8	1716.4	1714.6	1718.2	1721.9	1720.1
20°	1694.3	1703.5	1709.0	1707.2	1707.2	1708.1	1698.9	1698.9	1704.4	1707.2	1708.1
22.5°	1668.6	1679.6	1679.6	1675.0	1675.0	1671.3	1668.6	1663.1	1669.5	1674.1	1677.8
25°	1630.0	1634.6	1629.1	1618.9	1613.4	1608.8	1596.0	1607.0	1607.0	1620.8	1625.4
27.5°	1575.7	1565.6	1550.0	1528.9	1524.3	1509.5	1501.3	1504.0	1508.6	1527.9	1542.6
30°	1486.6	1456.2	1429.6	1420.4	1400.1	1385.4	1370.7	1378.1	1386.4	1397.4	1427.7
32.5°	1368.9	1339.5	1296.3	1280.6	1259.5	1241.1	1223.6	1234.7	1249.4	1256.7	1289.8
35°	1233.7	1198.8	1159.3	1132.6	1110.6	1100.4	1078.4	1094.0	1109.6	1115.2	1143.7
37.5°	1090.3	1054.5	1019.5	996.6	975.4	969.0	954.3	965.3	977.3	985.5	1009.4
40°	954.3	921.2	894.5	878.9	864.2	858.7	853.1	857.7	866.9	873.4	891.8
42.5°	837.5	810.9	792.5	783.3	773.2	765.8	766.7	768.6	773.2	787.0	795.2
45°	735.5	719.8	707.9	706.0	699.6	698.7	697.8	701.5	704.2	712.5	718.9
47.5°	653.6	647.2	644.5	648.1	650.9	647.2	649.0	653.6	659.2	659.2	658.2
50°	589.3	591.1	594.8	603.1	608.6	610.4	612.3	617.8	618.7	620.6	617.8
52.5°	536.9	538.7	548.8	561.7	568.1	570.9	574.6	580.1	580.1	581.9	578.3
55°	483.6	486.3	496.4	509.3	514.8	518.5	522.2	525.9	528.6	532.3	529.5
57.5°	424.7	433.0	439.4	443.1	446.8	449.6	452.3	453.2	458.7	459.7	464.3
60°	362.2	364.1	370.5	369.6	366.8	374.2	370.5	376.9	383.4	391.6	392.6
62.5°	302.5	303.4	308.0	306.1	309.8	308.9	311.7	311.7	316.3	319.9	324.5
65°	255.6	256.5	260.2	260.2	259.3	262.0	264.8	266.6	266.6	269.4	273.0
67.5°	220.6	223.4	227.1	228.9	230.8	230.8	233.5	234.4	236.3	237.2	239.0
70°	196.7	200.4	204.1	205.9	206.9	208.7	209.6	209.6	211.4	212.4	214.2
72.5°	179.3	182.9	185.7	185.7	187.5	188.5	188.5	189.4	190.3	192.1	194.0
75°	164.6	167.3	169.2	168.2	168.2	168.2	169.2	169.2	171.0	172.8	174.7
77.5°	150.8	153.5	153.5	151.7	151.7	151.7	151.7	152.6	153.5	155.4	157.2
80°	140.7	140.7	139.7	139.7	137.9	137.0	137.0	137.9	137.9	139.7	142.5
82.5°	129.6	129.6	128.7	127.8	126.9	125.9	125.9	126.9	127.8	128.7	130.5
85°	119.5	119.5	117.7	117.7	116.8	116.8	116.8	116.8	117.7	118.6	120.4
87.5°	109.4	108.5	107.6	106.6	106.6	106.6	106.6	106.6	107.6	109.4	110.3
90°	99.3	98.4	97.4	97.4	96.5	96.5	97.4	97.4	98.4	99.3	100.2
92.5°	90.1	89.2	88.3	88.3	87.3	87.3	88.3	87.3	89.2	89.2	90.1
95°	81.8	80.9	80.0	80.0	80.0	80.0	80.0	80.0	80.9	80.9	81.8
97.5°	74.5	73.5	72.6	72.6	73.5	72.6	73.5	73.5	73.5	74.5	75.4
100°	68.0	67.1	67.1	68.0	67.1	67.1	68.0	68.0	68.0	68.0	69.0
102.5°	62.5	62.5	62.5	62.5	62.5	62.5	63.4	63.4	63.4	63.4	64.4
105°	57.0	57.9	57.9	57.9	58.8	58.8	58.8	59.8	59.8	59.8	59.8
107.5°	53.3	54.2	54.2	55.2	55.2	56.1	56.1	56.1	56.1	57.0	57.0
110°	49.6	50.6	51.5	52.4	52.4	53.3	53.3	53.3	53.3	53.3	53.3

TEST NUMBER: P1213444

CATALOG NUMBER: 4SNLED-LD5-49SL-LC-UNV-L935-CD1-U

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
112.5°	46.0	46.9	47.8	49.6	50.6	50.6	50.6	50.6	51.5	51.5	50.6
115°	42.3	44.1	45.0	46.9	47.8	47.8	48.7	48.7	48.7	48.7	47.8
117.5°	38.6	41.4	42.3	44.1	45.0	45.0	46.0	46.0	46.0	46.0	45.0
120°	35.9	37.7	39.5	40.5	41.4	42.3	42.3	43.2	43.2	43.2	42.3
122.5°	33.1	34.9	36.8	37.7	38.6	39.5	39.5	39.5	39.5	39.5	39.5
125°	29.4	31.3	33.1	34.0	34.9	35.9	35.9	36.8	36.8	36.8	35.9
127.5°	26.7	28.5	29.4	31.3	32.2	32.2	33.1	33.1	33.1	33.1	32.2
130°	23.0	24.8	26.7	27.6	28.5	28.5	29.4	29.4	29.4	29.4	29.4
132.5°	20.2	22.1	23.0	24.8	24.8	25.7	25.7	26.7	26.7	26.7	25.7
135°	18.4	19.3	20.2	22.1	22.1	23.0	23.0	23.0	23.0	23.0	23.0
137.5°	16.5	17.5	18.4	19.3	19.3	20.2	20.2	20.2	20.2	21.1	20.2
140°	13.8	15.6	16.5	16.5	17.5	17.5	17.5	18.4	18.4	18.4	17.5
142.5°	12.0	12.9	13.8	14.7	15.6	15.6	15.6	15.6	16.5	15.6	15.6
145°	9.2	11.0	12.0	12.9	13.8	13.8	13.8	13.8	13.8	13.8	13.8
147.5°	7.4	8.3	10.1	11.0	11.0	12.0	12.0	12.0	12.0	12.0	12.0
150°	6.4	6.4	8.3	9.2	10.1	10.1	10.1	10.1	10.1	10.1	10.1
152.5°	4.6	5.5	6.4	7.4	8.3	8.3	8.3	8.3	8.3	8.3	8.3
155°	4.6	4.6	5.5	5.5	6.4	6.4	6.4	6.4	7.4	6.4	6.4
157.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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: P1213444

CATALOG NUMBER: 4SNLED-LD5-49SL-LC-UNV-L935-CD1-U

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	1779.8	1779.8	1779.8	1779.8	1779.8	1779.8	1779.8	1779.8	1779.8	1779.8	1779.8
2.5°	1772.5	1771.6	1775.2	1771.6	1753.2	1760.5	1757.8	1767.9	1768.8	1771.6	1780.8
5°	1763.3	1763.3	1767.9	1764.2	1746.7	1754.1	1753.2	1763.3	1765.1	1767.0	1777.1
7.5°	1744.9	1745.8	1752.3	1749.5	1731.1	1742.1	1741.2	1753.2	1756.8	1760.5	1769.7
10°	1727.4	1726.5	1733.9	1731.1	1713.6	1726.5	1725.6	1737.5	1743.1	1749.5	1760.5
12.5°	1718.2	1715.5	1718.2	1715.5	1696.2	1706.3	1707.2	1721.0	1727.4	1735.7	1748.6
15°	1718.2	1713.6	1713.6	1708.1	1686.1	1692.5	1693.4	1702.6	1710.9	1719.2	1734.8
17.5°	1716.4	1711.8	1710.9	1706.3	1682.4	1682.4	1681.5	1687.9	1692.5	1700.8	1717.3
20°	1706.3	1704.4	1703.5	1700.8	1678.7	1675.0	1673.2	1673.2	1675.9	1678.7	1695.3
22.5°	1679.6	1681.5	1683.3	1685.1	1667.7	1661.2	1662.2	1660.3	1657.6	1657.6	1671.3
25°	1630.0	1639.2	1646.5	1654.8	1644.7	1640.1	1645.6	1642.9	1638.3	1634.6	1646.5
27.5°	1550.9	1570.2	1585.9	1606.1	1607.0	1603.3	1618.0	1616.2	1615.3	1609.8	1618.9
30°	1441.5	1471.9	1493.0	1522.4	1547.2	1550.9	1575.7	1579.4	1583.1	1580.3	1589.5
32.5°	1309.1	1350.5	1386.4	1432.3	1456.2	1477.4	1512.3	1527.0	1541.7	1546.3	1556.4
35°	1164.8	1211.7	1254.0	1304.5	1342.2	1388.2	1430.5	1452.5	1485.6	1498.5	1513.2
37.5°	1027.8	1071.9	1113.3	1163.9	1224.6	1272.4	1324.8	1374.4	1419.5	1437.8	1459.9
40°	906.5	942.3	981.8	1026.0	1081.1	1143.7	1200.7	1269.6	1322.9	1359.7	1391.9
42.5°	814.5	832.0	866.0	905.5	949.7	1013.1	1071.0	1148.2	1212.6	1265.0	1318.3
45°	732.7	741.0	765.8	787.0	832.0	888.1	949.7	1025.1	1092.2	1159.3	1223.6
47.5°	662.8	673.0	684.9	697.8	730.0	776.8	830.2	898.2	965.3	1043.4	1117.0
50°	616.0	618.7	620.6	626.1	645.4	677.5	720.8	778.7	843.0	926.7	1004.8
52.5°	574.6	574.6	569.1	566.3	573.7	593.9	618.7	660.1	726.3	803.5	886.2
55°	530.5	522.2	520.3	511.1	513.0	522.2	534.1	566.3	620.6	686.7	766.7
57.5°	468.9	465.2	465.2	461.5	454.2	458.7	461.5	484.5	523.1	580.1	650.0
60°	398.1	396.2	400.8	401.7	395.3	398.1	397.2	410.9	438.5	484.5	542.4
62.5°	327.3	335.6	336.5	340.2	336.5	335.6	340.2	352.1	365.9	400.8	445.9
65°	274.9	279.5	280.4	285.0	283.2	283.2	286.8	296.0	304.3	328.2	363.1
67.5°	240.9	239.0	239.9	242.7	239.9	239.0	241.8	247.3	253.7	268.4	293.3
70°	214.2	212.4	212.4	212.4	208.7	205.9	206.9	208.7	211.4	219.7	235.3
72.5°	194.0	194.0	191.2	188.5	185.7	183.9	182.0	180.2	179.3	182.0	190.3
75°	175.6	176.5	175.6	172.8	169.2	165.5	161.8	158.1	153.5	151.7	152.6
77.5°	159.0	160.0	160.9	160.0	156.3	151.7	146.2	140.7	134.2	127.8	124.1
80°	144.3	146.2	147.1	146.2	143.4	139.7	133.3	126.9	117.7	109.4	100.2
82.5°	131.5	134.2	135.1	135.1	133.3	129.6	122.3	114.9	104.8	93.8	81.8
85°	121.4	123.2	125.0	125.0	124.1	120.4	113.1	104.8	94.7	81.8	69.0
87.5°	111.2	112.2	114.0	115.8	114.0	110.3	103.9	94.7	84.6	71.7	57.0
90°	101.1	102.0	103.9	105.7	104.8	101.1	95.6	87.3	76.3	62.5	47.8
92.5°	91.0	92.9	93.8	94.7	95.6	92.9	88.3	80.0	69.0	55.2	41.4
95°	83.7	83.7	85.5	86.4	87.3	84.6	80.9	72.6	62.5	49.6	35.9
97.5°	76.3	76.3	78.1	78.1	79.1	77.2	73.5	66.2	56.1	44.1	30.3
100°	69.0	69.9	70.8	71.7	71.7	70.8	67.1	59.8	50.6	39.5	26.7
102.5°	64.4	64.4	65.3	65.3	66.2	64.4	60.7	54.2	45.0	34.9	23.0
105°	59.8	59.8	60.7	60.7	59.8	57.9	54.2	48.7	40.5	30.3	20.2
107.5°	56.1	56.1	56.1	56.1	55.2	53.3	49.6	43.2	35.9	27.6	18.4
110°	53.3	52.4	52.4	51.5	50.6	47.8	44.1	38.6	32.2	23.9	15.6

TEST NUMBER: P1213444

CATALOG NUMBER: 4SNLED-LD5-49SL-LC-UNV-L935-CD1-U

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
112.5°	50.6	49.6	48.7	47.8	46.0	43.2	39.5	34.9	28.5	21.1	13.8
115°	47.8	46.9	46.0	44.1	42.3	39.5	35.9	31.3	24.8	18.4	12.0
117.5°	45.0	44.1	42.3	40.5	38.6	35.9	32.2	27.6	22.1	16.5	11.0
120°	41.4	40.5	39.5	37.7	35.9	32.2	28.5	24.8	19.3	14.7	9.2
122.5°	38.6	37.7	35.9	34.9	32.2	29.4	25.7	22.1	17.5	12.9	8.3
125°	34.9	34.0	33.1	31.3	29.4	25.7	23.0	19.3	15.6	11.0	6.4
127.5°	32.2	31.3	29.4	27.6	25.7	23.0	20.2	17.5	13.8	9.2	6.4
130°	28.5	27.6	26.7	24.8	23.0	20.2	18.4	14.7	12.0	8.3	5.5
132.5°	24.8	24.8	23.9	22.1	20.2	18.4	15.6	12.9	10.1	7.4	4.6
135°	23.0	22.1	21.1	19.3	18.4	15.6	13.8	11.0	8.3	6.4	3.7
137.5°	20.2	19.3	18.4	17.5	15.6	13.8	12.0	9.2	7.4	5.5	3.7
140°	17.5	16.5	16.5	14.7	13.8	12.0	10.1	8.3	6.4	4.6	2.8
142.5°	15.6	14.7	13.8	12.9	12.0	10.1	8.3	6.4	5.5	3.7	2.8
145°	13.8	12.9	12.0	11.0	10.1	8.3	7.4	5.5	4.6	3.7	2.8
147.5°	11.0	11.0	10.1	9.2	8.3	7.4	6.4	5.5	3.7	2.8	1.8
150°	9.2	9.2	8.3	7.4	7.4	6.4	5.5	4.6	3.7	2.8	1.8
152.5°	8.3	7.4	7.4	6.4	6.4	5.5	4.6	3.7	2.8	2.8	1.8
155°	6.4	6.4	6.4	5.5	5.5	4.6	3.7	3.7	2.8	1.8	1.8
157.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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: P1213444

CATALOG NUMBER: 4SNLED-LD5-49SL-LC-UNV-L935-CD1-U

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
0°	1779.8	1779.8	1779.8	1779.8	1779.8	1779.8	1779.8	1779.8	1779.8	1779.8	1779.8
2.5°	1782.6	1771.6	1780.8	1797.3	1795.5	1793.6	1791.8	1795.5	1807.4	1801.0	1790.9
5°	1779.8	1768.8	1778.9	1794.5	1793.6	1790.9	1789.0	1792.7	1804.7	1798.2	1787.2
7.5°	1774.3	1764.2	1771.6	1787.2	1787.2	1785.3	1783.5	1787.2	1798.2	1792.7	1781.7
10°	1765.1	1757.8	1765.1	1779.8	1780.8	1777.1	1775.2	1779.8	1790.9	1788.1	1778.9
12.5°	1757.8	1750.4	1758.7	1773.4	1774.3	1770.6	1767.9	1773.4	1788.1	1789.9	1787.2
15°	1747.7	1741.2	1751.3	1767.0	1767.0	1764.2	1764.2	1771.6	1791.8	1800.1	1804.7
17.5°	1732.9	1728.3	1740.3	1755.9	1756.8	1755.0	1755.9	1770.6	1797.3	1817.5	1830.4
20°	1714.6	1712.7	1725.6	1742.1	1744.9	1745.8	1750.4	1772.5	1809.2	1836.8	1849.7
22.5°	1692.5	1693.4	1708.1	1725.6	1729.3	1732.0	1741.2	1772.5	1818.4	1847.9	1853.4
25°	1667.7	1670.4	1686.1	1707.2	1711.8	1717.3	1732.9	1773.4	1821.2	1840.5	1831.3
27.5°	1641.0	1646.5	1666.8	1688.8	1694.3	1703.5	1723.8	1767.9	1808.3	1809.2	1775.2
30°	1613.4	1619.9	1643.8	1669.5	1678.7	1687.9	1712.7	1755.0	1777.1	1747.7	1687.9
32.5°	1582.2	1591.4	1615.3	1646.5	1657.6	1669.5	1694.3	1730.2	1721.9	1658.5	1573.0
35°	1542.6	1555.5	1583.1	1619.9	1630.0	1645.6	1663.1	1671.3	1634.6	1544.5	1448.0
37.5°	1493.9	1513.2	1545.4	1587.7	1598.7	1608.8	1613.4	1590.4	1516.9	1419.5	1319.2
40°	1437.8	1467.3	1502.2	1549.1	1560.1	1560.1	1543.6	1494.8	1402.0	1274.2	1163.0
42.5°	1369.8	1405.7	1449.8	1496.7	1507.7	1494.8	1455.3	1369.8	1264.1	1121.6	1003.9
45°	1287.1	1334.9	1384.5	1433.2	1438.8	1410.3	1339.5	1231.0	1100.4	968.1	855.9
47.5°	1188.7	1251.2	1305.5	1360.6	1353.3	1305.5	1210.8	1087.6	949.7	824.6	734.5
50°	1078.4	1151.9	1212.6	1265.0	1249.4	1183.2	1071.9	943.2	806.3	699.6	625.1
52.5°	960.7	1045.3	1106.0	1148.2	1127.1	1048.0	925.8	802.6	690.4	593.0	543.3
55°	838.4	923.9	986.4	1019.5	992.0	906.5	786.0	673.9	568.1	504.7	475.3
57.5°	719.8	799.8	858.7	885.3	850.4	764.9	653.6	559.0	482.7	429.3	414.6
60°	605.8	671.1	727.2	747.4	709.7	630.7	535.1	459.7	403.6	366.8	359.5
62.5°	500.1	553.4	597.6	613.2	576.4	514.8	432.1	376.0	336.5	318.1	308.9
65°	412.8	444.0	489.1	486.3	464.3	407.3	346.6	307.1	281.3	269.4	263.8
67.5°	324.5	353.0	381.5	385.2	357.6	318.1	278.6	250.1	236.3	229.8	227.1
70°	251.0	272.1	289.6	285.0	270.3	245.5	220.6	205.0	199.5	196.7	196.7
72.5°	194.9	205.9	214.2	208.7	199.5	186.6	174.7	168.2	169.2	171.0	172.8
75°	150.8	153.5	155.4	149.9	148.0	139.7	138.8	139.7	145.3	150.8	153.5
77.5°	115.8	112.2	109.4	103.9	104.8	103.9	108.5	115.8	124.1	132.4	139.7
80°	89.2	80.9	74.5	69.0	71.7	76.3	85.5	96.5	107.6	116.8	125.9
82.5°	69.0	57.0	47.8	42.3	47.8	55.2	67.1	80.9	93.8	103.9	114.0
85°	53.3	39.5	28.5	23.0	28.5	39.5	52.4	68.0	81.8	92.9	103.0
87.5°	41.4	28.5	15.6	9.2	15.6	27.6	42.3	57.0	70.8	83.7	93.8
90°	33.1	19.3	7.4	1.8	8.3	19.3	33.1	47.8	61.6	75.4	85.5
92.5°	26.7	13.8	3.7	0.0	4.6	14.7	27.6	41.4	55.2	68.0	78.1
95°	22.1	11.0	2.8	0.0	3.7	11.0	22.1	35.9	48.7	61.6	69.9
97.5°	18.4	8.3	1.8	0.0	1.8	9.2	18.4	30.3	43.2	55.2	63.4
100°	15.6	7.4	1.8	0.0	1.8	7.4	15.6	26.7	37.7	48.7	57.0
102.5°	12.9	5.5	0.9	0.9	0.9	5.5	13.8	23.0	33.1	43.2	51.5
105°	12.0	4.6	0.9	0.9	0.9	4.6	12.0	20.2	29.4	38.6	46.0
107.5°	10.1	3.7	0.9	0.9	0.9	3.7	10.1	17.5	26.7	34.9	41.4
110°	8.3	3.7	0.9	0.9	0.9	3.7	8.3	15.6	23.0	30.3	36.8

TEST NUMBER: P1213444

CATALOG NUMBER: 4SNLED-LD5-49SL-LC-UNV-L935-CD1-U

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
112.5°	7.4	2.8	0.9	0.9	0.9	2.8	7.4	13.8	20.2	27.6	33.1
115°	6.4	2.8	0.9	0.9	0.9	2.8	6.4	12.0	17.5	23.9	29.4
117.5°	5.5	2.8	0.9	0.9	0.9	1.8	5.5	10.1	15.6	21.1	26.7
120°	4.6	1.8	0.9	0.9	0.9	1.8	4.6	9.2	13.8	18.4	23.0
122.5°	4.6	1.8	0.9	0.9	0.9	1.8	3.7	7.4	12.0	15.6	20.2
125°	3.7	1.8	0.9	0.9	0.9	0.9	3.7	6.4	10.1	13.8	17.5
127.5°	3.7	1.8	0.9	0.9	0.9	0.9	2.8	5.5	8.3	12.0	15.6
130°	2.8	1.8	0.9	0.9	0.9	0.9	1.8	4.6	7.4	10.1	12.9
132.5°	2.8	1.8	0.9	0.9	0.9	0.9	1.8	3.7	5.5	8.3	11.0
135°	2.8	0.9	0.9	0.9	0.9	0.9	0.9	2.8	4.6	6.4	8.3
137.5°	1.8	0.9	0.9	0.9	0.9	0.9	0.9	1.8	3.7	4.6	7.4
140°	1.8	0.9	0.9	0.9	0.9	0.9	0.9	1.8	2.8	3.7	5.5
142.5°	1.8	0.9	0.9	0.9	0.9	0.9	0.9	0.9	1.8	2.8	4.6
145°	1.8	0.9	0.9	1.8	1.8	0.9	0.9	1.8	1.8	2.8	3.7
147.5°	1.8	0.9	0.9	0.9	0.9	0.9	0.9	0.9	1.8	1.8	2.8
150°	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	2.8
152.5°	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8
155°	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8
157.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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: P1213444

CATALOG NUMBER: 4SNLED-LD5-49SL-LC-UNV-L935-CD1-U

CANDELA DISTRIBUTION (continued):

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
0°	1779.8	1779.8	1779.8	1779.8	1779.8	1779.8	1779.8	1779.8	1779.8	1779.8	1779.8
2.5°	1789.0	1767.9	1778.9	1775.2	1778.9	1788.1	1787.2	1784.4	1786.3	1781.7	1777.1
5°	1785.3	1764.2	1775.2	1770.6	1775.2	1784.4	1782.6	1779.8	1782.6	1777.1	1772.5
7.5°	1780.8	1761.4	1774.3	1773.4	1781.7	1793.6	1794.5	1794.5	1801.0	1792.7	1789.0
10°	1780.8	1770.6	1788.1	1794.5	1815.7	1831.3	1833.2	1836.8	1847.9	1846.0	1836.8
12.5°	1800.1	1798.2	1824.0	1839.6	1858.9	1881.0	1892.9	1896.6	1903.9	1898.4	1894.7
15°	1824.9	1834.1	1862.6	1880.0	1901.2	1917.7	1920.5	1922.3	1927.8	1919.6	1913.1
17.5°	1858.0	1863.5	1886.5	1893.8	1907.6	1910.4	1906.7	1897.5	1897.5	1879.1	1873.6
20°	1873.6	1870.8	1880.0	1868.1	1862.6	1846.0	1830.4	1812.9	1812.0	1792.7	1790.9
22.5°	1859.8	1841.4	1822.1	1792.7	1779.8	1755.9	1734.8	1724.7	1718.2	1693.4	1687.0
25°	1811.1	1766.0	1737.5	1702.6	1671.3	1643.8	1623.5	1602.4	1582.2	1561.9	1552.8
27.5°	1726.5	1684.2	1638.3	1589.5	1546.3	1504.0	1470.0	1448.9	1429.6	1402.9	1389.1
30°	1622.6	1563.8	1513.2	1466.3	1395.5	1344.1	1315.6	1273.3	1258.6	1246.6	1220.9
32.5°	1500.4	1429.6	1360.6	1297.2	1224.6	1176.7	1139.1	1107.8	1098.6	1067.3	1060.0
35°	1365.2	1272.4	1194.2	1131.7	1079.3	1021.4	990.1	969.0	950.6	929.4	925.8
37.5°	1206.2	1122.5	1034.3	979.1	937.7	888.1	864.2	849.5	841.2	825.6	822.8
40°	1046.2	962.5	901.9	846.7	821.0	794.3	776.8	770.4	766.7	761.2	755.7
42.5°	900.9	827.4	784.2	747.4	736.4	723.5	718.9	722.6	718.9	717.1	716.2
45°	777.8	721.7	691.3	680.3	677.5	673.9	677.5	684.0	684.9	683.1	683.1
47.5°	665.6	638.9	626.1	627.9	632.5	635.3	641.7	650.0	651.8	647.2	649.0
50°	592.1	576.4	573.7	581.0	591.1	594.8	602.2	608.6	607.7	605.8	604.0
52.5°	523.1	518.5	525.9	533.2	544.2	546.1	548.8	551.6	550.7	547.0	545.2
55°	465.2	468.9	475.3	478.1	486.3	485.4	486.3	486.3	482.7	480.8	478.1
57.5°	412.8	413.7	417.4	418.3	422.9	421.1	420.1	418.3	412.8	411.9	409.1
60°	359.5	357.6	365.9	359.5	363.1	359.5	358.5	353.9	348.4	347.5	345.7
62.5°	308.9	305.2	310.7	308.0	309.8	306.1	304.3	298.8	294.2	293.3	292.3
65°	263.8	262.0	267.5	266.6	268.4	263.8	262.0	258.3	254.7	253.7	252.8
67.5°	226.2	230.8	233.5	233.5	235.3	234.4	229.8	228.9	228.0	224.3	224.3
70°	198.6	201.3	206.9	207.8	206.9	208.7	205.0	204.1	203.2	201.3	200.4
72.5°	176.5	180.2	185.7	186.6	185.7	185.7	183.9	182.9	182.9	180.2	180.2
75°	159.0	163.6	168.2	168.2	168.2	166.4	164.6	164.6	162.7	161.8	160.0
77.5°	144.3	149.9	153.5	152.6	151.7	149.9	149.9	147.1	144.3	144.3	142.5
80°	133.3	137.0	139.7	138.8	137.9	135.1	134.2	131.5	129.6	126.9	126.9
82.5°	121.4	125.9	127.8	126.9	125.0	122.3	121.4	119.5	117.7	116.8	114.9
85°	111.2	115.8	116.8	114.9	113.1	111.2	110.3	109.4	108.5	106.6	106.6
87.5°	101.1	105.7	105.7	104.8	103.0	102.0	101.1	100.2	99.3	98.4	97.4
90°	92.9	96.5	96.5	95.6	94.7	93.8	92.9	91.9	91.0	90.1	90.1
92.5°	84.6	88.3	88.3	87.3	86.4	85.5	85.5	84.6	83.7	82.7	81.8
95°	77.2	80.9	80.9	80.9	80.0	79.1	79.1	78.1	77.2	77.2	76.3
97.5°	69.9	73.5	73.5	73.5	72.6	71.7	71.7	70.8	70.8	70.8	69.9
100°	63.4	66.2	67.1	67.1	66.2	66.2	66.2	65.3	65.3	65.3	64.4
102.5°	57.0	59.8	61.6	61.6	61.6	60.7	60.7	60.7	60.7	60.7	59.8
105°	51.5	54.2	56.1	57.0	57.0	57.0	57.0	57.0	57.0	57.0	57.0
107.5°	46.9	49.6	51.5	52.4	53.3	53.3	54.2	54.2	54.2	54.2	54.2
110°	42.3	45.0	47.8	48.7	49.6	50.6	50.6	51.5	50.6	50.6	50.6

TEST NUMBER: P1213444

CATALOG NUMBER: 4SNLED-LD5-49SL-LC-UNV-L935-CD1-U

CANDELA DISTRIBUTION (continued):

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
112.5°	37.7	41.4	43.2	45.0	46.0	46.9	47.8	47.8	47.8	47.8	47.8
115°	34.0	37.7	39.5	41.4	43.2	44.1	44.1	45.0	45.0	45.0	44.1
117.5°	30.3	34.0	35.9	37.7	38.6	40.5	41.4	41.4	41.4	41.4	40.5
120°	27.6	30.3	32.2	34.0	35.9	36.8	37.7	37.7	37.7	37.7	37.7
122.5°	23.9	26.7	29.4	31.3	32.2	33.1	34.0	34.0	34.0	34.0	34.0
125°	21.1	23.9	25.7	27.6	28.5	30.3	30.3	30.3	30.3	30.3	30.3
127.5°	18.4	21.1	23.0	24.8	25.7	26.7	27.6	27.6	27.6	27.6	27.6
130°	15.6	18.4	20.2	22.1	23.0	23.9	23.9	24.8	24.8	24.8	24.8
132.5°	13.8	15.6	17.5	19.3	20.2	21.1	21.1	22.1	22.1	22.1	22.1
135°	11.0	13.8	14.7	16.5	17.5	18.4	18.4	19.3	19.3	19.3	19.3
137.5°	9.2	11.0	12.9	14.7	15.6	15.6	16.5	16.5	17.5	17.5	17.5
140°	7.4	8.3	11.0	12.0	12.9	13.8	14.7	14.7	14.7	14.7	14.7
142.5°	5.5	7.4	8.3	10.1	11.0	12.0	12.9	12.9	12.9	12.9	12.9
145°	4.6	5.5	6.4	8.3	9.2	10.1	11.0	11.0	11.0	11.0	11.0
147.5°	3.7	4.6	5.5	6.4	7.4	8.3	9.2	9.2	9.2	9.2	9.2
150°	2.8	3.7	4.6	4.6	5.5	6.4	7.4	8.3	8.3	8.3	8.3
152.5°	2.8	2.8	3.7	3.7	4.6	5.5	6.4	6.4	6.4	6.4	6.4
155°	1.8	2.8	2.8	2.8	3.7	3.7	4.6	5.5	5.5	5.5	5.5
157.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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: P1213444

CATALOG NUMBER: 4SNLED-LD5-49SL-LC-UNV-L935-CD1-U

CANDELA DISTRIBUTION (continued):

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°
0°	1779.8	1779.8	1779.8	1779.8	1779.8	1779.8	1779.8	1779.8	1779.8	1779.8	1779.8
2.5°	1779.8	1783.5	1781.7	1778.9	1778.0	1782.6	1778.0	1756.8	1765.1	1766.0	1772.5
5°	1777.1	1779.8	1778.0	1776.2	1773.4	1778.9	1773.4	1751.3	1759.6	1760.5	1767.0
7.5°	1795.5	1796.4	1796.4	1791.8	1784.4	1787.2	1779.8	1755.0	1759.6	1759.6	1764.2
10°	1841.4	1843.3	1846.0	1834.1	1824.9	1817.5	1807.4	1777.1	1776.2	1768.8	1768.8
12.5°	1901.2	1896.6	1892.0	1886.5	1879.1	1869.9	1855.2	1819.4	1807.4	1795.5	1783.5
15°	1918.7	1916.8	1915.9	1913.1	1908.5	1905.8	1894.7	1858.9	1841.4	1826.7	1805.6
17.5°	1872.7	1876.4	1888.3	1889.2	1894.7	1905.8	1903.9	1879.1	1863.5	1857.1	1831.3
20°	1789.9	1790.9	1805.6	1812.0	1835.9	1854.3	1868.1	1865.3	1861.7	1869.0	1849.7
22.5°	1690.7	1697.1	1712.7	1722.8	1745.8	1767.0	1789.0	1801.0	1820.3	1850.6	1846.9
25°	1555.5	1563.8	1585.9	1602.4	1634.6	1666.8	1696.2	1717.3	1740.3	1798.2	1817.5
27.5°	1393.7	1406.6	1435.1	1451.6	1496.7	1529.8	1572.1	1613.4	1645.6	1711.8	1751.3
30°	1223.6	1234.7	1265.0	1288.0	1326.6	1371.6	1425.0	1483.8	1537.1	1604.2	1653.9
32.5°	1064.6	1076.5	1101.4	1121.6	1164.8	1202.5	1261.3	1334.0	1383.6	1476.5	1542.6
35°	925.8	936.8	954.3	971.7	1007.6	1046.2	1096.8	1167.6	1231.0	1327.5	1411.2
37.5°	828.3	830.2	840.3	850.4	877.0	906.5	946.0	1008.5	1067.3	1171.2	1263.2
40°	758.5	758.5	764.0	766.7	778.7	796.1	821.0	869.7	918.4	997.5	1109.6
42.5°	715.2	713.4	713.4	714.3	713.4	721.7	736.4	759.4	802.6	867.9	955.2
45°	683.1	679.4	676.6	670.2	666.5	666.5	667.4	675.7	700.5	742.8	813.6
47.5°	647.2	646.3	641.7	634.3	627.9	623.3	616.0	613.2	620.6	644.5	692.3
50°	605.8	601.2	596.6	591.1	583.8	579.2	565.4	566.3	559.9	570.9	595.7
52.5°	545.2	541.5	539.6	535.1	532.3	530.5	519.4	508.4	505.6	507.5	516.7
55°	478.1	479.9	472.5	476.2	475.3	467.0	462.4	454.2	451.4	450.5	455.1
57.5°	408.2	410.0	405.4	409.1	409.1	404.5	401.7	401.7	395.3	389.8	396.2
60°	344.8	341.1	343.8	348.4	348.4	345.7	343.8	343.8	339.2	337.4	342.0
62.5°	293.3	289.6	292.3	296.9	297.9	296.0	294.2	294.2	288.7	288.7	292.3
65°	253.7	254.7	253.7	257.4	257.4	258.3	256.5	254.7	248.2	251.0	250.1
67.5°	225.2	224.3	224.3	228.0	227.1	228.9	227.1	224.3	219.7	216.0	215.1
70°	201.3	200.4	200.4	202.3	203.2	203.2	202.3	200.4	194.0	190.3	187.5
72.5°	180.2	179.3	180.2	181.1	182.0	182.9	182.0	180.2	174.7	170.1	165.5
75°	160.9	160.0	162.7	162.7	163.6	163.6	164.6	163.6	159.0	153.5	148.0
77.5°	141.6	142.5	145.3	146.2	148.0	148.9	149.9	149.9	145.3	140.7	133.3
80°	125.9	127.8	129.6	130.5	132.4	135.1	136.1	137.0	133.3	128.7	120.4
82.5°	114.9	115.8	117.7	118.6	121.4	122.3	123.2	125.0	123.2	118.6	109.4
85°	105.7	106.6	108.5	108.5	110.3	112.2	113.1	114.0	113.1	108.5	99.3
87.5°	97.4	98.4	99.3	100.2	101.1	102.0	103.0	103.9	103.0	98.4	90.1
90°	90.1	90.1	91.0	91.0	91.9	92.9	94.7	94.7	93.8	90.1	81.8
92.5°	81.8	82.7	82.7	83.7	84.6	85.5	86.4	86.4	85.5	81.8	74.5
95°	76.3	76.3	77.2	77.2	78.1	78.1	79.1	79.1	78.1	74.5	67.1
97.5°	69.9	69.9	69.9	69.9	70.8	70.8	71.7	71.7	70.8	67.1	60.7
100°	64.4	64.4	64.4	64.4	64.4	65.3	65.3	65.3	64.4	60.7	54.2
102.5°	59.8	59.8	59.8	59.8	59.8	59.8	59.8	59.8	57.9	55.2	48.7
105°	57.0	57.0	57.0	56.1	56.1	56.1	55.2	55.2	52.4	49.6	44.1
107.5°	53.3	53.3	53.3	52.4	52.4	51.5	50.6	50.6	47.8	45.0	39.5
110°	50.6	50.6	50.6	49.6	48.7	47.8	46.9	46.0	43.2	39.5	34.9

TEST NUMBER: P1213444

CATALOG NUMBER: 4SNLED-LD5-49SL-LC-UNV-L935-CD1-U

CANDELA DISTRIBUTION (continued):

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°
112.5°	47.8	47.8	46.9	46.9	46.0	45.0	43.2	42.3	39.5	35.9	31.3
115°	44.1	44.1	44.1	43.2	42.3	41.4	40.5	38.6	35.9	32.2	27.6
117.5°	40.5	40.5	40.5	39.5	38.6	37.7	36.8	34.9	32.2	28.5	24.8
120°	36.8	36.8	36.8	35.9	34.9	34.0	33.1	31.3	28.5	25.7	21.1
122.5°	34.0	34.0	33.1	32.2	31.3	30.3	29.4	27.6	25.7	22.1	18.4
125°	30.3	30.3	29.4	29.4	28.5	27.6	26.7	24.8	22.1	19.3	16.5
127.5°	27.6	26.7	26.7	26.7	25.7	24.8	23.0	22.1	19.3	16.5	13.8
130°	23.9	23.9	23.9	23.0	23.0	22.1	20.2	18.4	16.5	14.7	12.0
132.5°	21.1	21.1	21.1	21.1	20.2	19.3	17.5	16.5	14.7	12.0	10.1
135°	19.3	19.3	18.4	18.4	17.5	16.5	15.6	13.8	12.0	10.1	8.3
137.5°	16.5	16.5	16.5	15.6	15.6	14.7	12.9	12.0	11.0	9.2	7.4
140°	14.7	14.7	13.8	13.8	12.9	12.9	12.0	10.1	9.2	7.4	6.4
142.5°	12.9	12.9	12.0	12.0	11.0	11.0	10.1	9.2	7.4	6.4	4.6
145°	11.0	11.0	10.1	10.1	10.1	9.2	8.3	7.4	6.4	5.5	4.6
147.5°	9.2	9.2	9.2	8.3	8.3	7.4	7.4	6.4	5.5	4.6	3.7
150°	8.3	8.3	7.4	7.4	7.4	6.4	5.5	5.5	4.6	3.7	2.8
152.5°	6.4	6.4	6.4	6.4	5.5	5.5	4.6	4.6	3.7	2.8	2.8
155°	5.5	5.5	5.5	4.6	4.6	4.6	3.7	3.7	2.8	2.8	1.8
157.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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: P1213444

CATALOG NUMBER: 4SNLED-LD5-49SL-LC-UNV-L935-CD1-U

CANDELA DISTRIBUTION (continued):

	330°	335°	340°	345°	350°	355°	360°
0°	1779.8	1779.8	1779.8	1779.8	1779.8	1779.8	1779.8
2.5°	1769.7	1768.8	1777.1	1776.2	1765.1	1781.7	1792.7
5°	1765.1	1764.2	1771.6	1773.4	1761.4	1778.9	1790.9
7.5°	1761.4	1760.5	1768.8	1771.6	1759.6	1775.2	1788.1
10°	1762.4	1757.8	1765.1	1767.0	1755.9	1772.5	1783.5
12.5°	1768.8	1757.8	1760.5	1760.5	1750.4	1765.1	1777.1
15°	1784.4	1761.4	1757.8	1755.0	1742.1	1755.9	1767.9
17.5°	1801.9	1770.6	1757.8	1748.6	1732.9	1744.9	1757.8
20°	1819.4	1780.8	1759.6	1744.9	1723.8	1734.8	1744.0
22.5°	1827.6	1789.9	1761.4	1739.4	1712.7	1718.2	1728.3
25°	1816.6	1786.3	1757.8	1731.1	1698.9	1699.8	1708.1
27.5°	1776.2	1767.9	1749.5	1722.8	1687.9	1683.3	1689.7
30°	1707.2	1730.2	1731.1	1711.8	1675.0	1665.8	1668.6
32.5°	1610.7	1662.2	1692.5	1688.8	1656.6	1643.8	1645.6
35°	1499.4	1563.8	1630.0	1652.0	1629.1	1618.9	1615.3
37.5°	1366.1	1452.5	1540.8	1595.0	1591.4	1584.9	1581.3
40°	1219.0	1322.9	1427.7	1514.1	1540.8	1540.8	1542.6
42.5°	1061.8	1183.2	1298.1	1407.5	1470.0	1483.8	1489.3
45°	910.1	1032.4	1157.4	1283.4	1367.0	1410.3	1425.9
47.5°	772.2	895.4	1014.0	1151.9	1263.2	1319.2	1344.1
50°	654.6	746.5	871.5	1008.5	1129.9	1198.8	1247.5
52.5°	557.1	628.8	738.2	866.0	988.3	1083.0	1128.0
55°	475.3	524.0	616.9	727.2	843.9	942.3	994.7
57.5°	406.3	445.0	508.4	600.3	698.7	796.1	852.2
60°	345.7	372.3	415.5	488.2	571.8	655.5	709.7
62.5°	293.3	310.7	339.2	392.6	457.8	523.1	573.7
65°	252.8	260.2	275.8	308.9	358.5	408.2	451.4
67.5°	213.3	217.9	229.8	250.1	274.9	310.7	339.2
70°	183.9	183.9	184.8	196.7	209.6	232.6	252.8
72.5°	160.0	157.2	151.7	154.4	157.2	170.1	182.9
75°	140.7	134.2	125.0	121.4	119.5	121.4	128.7
77.5°	124.1	114.9	103.9	94.7	87.3	84.6	91.0
80°	110.3	99.3	86.4	74.5	62.5	56.1	58.8
82.5°	99.3	85.5	71.7	57.9	44.1	34.9	34.9
85°	87.3	74.5	59.8	45.0	31.3	19.3	17.5
87.5°	79.1	65.3	49.6	35.9	22.1	10.1	5.5
90°	70.8	57.0	42.3	28.5	15.6	4.6	0.0
92.5°	63.4	50.6	36.8	23.0	11.0	2.8	0.0
95°	57.0	45.0	31.3	19.3	9.2	1.8	0.9
97.5°	50.6	39.5	27.6	15.6	6.4	1.8	0.9
100°	46.0	34.9	23.9	12.9	5.5	0.9	0.9
102.5°	40.5	31.3	20.2	11.0	4.6	0.9	0.9
105°	35.9	27.6	17.5	9.2	3.7	0.9	0.9
107.5°	32.2	23.9	15.6	8.3	3.7	0.9	0.9
110°	28.5	21.1	13.8	7.4	2.8	0.9	0.9

TEST NUMBER: P1213444

CATALOG NUMBER: 4SNLED-LD5-49SL-LC-UNV-L935-CD1-U

CANDELA DISTRIBUTION (continued):

	330°	335°	340°	345°	350°	355°	360°
112.5°	25.7	18.4	12.0	6.4	1.8	0.9	0.9
115°	22.1	16.5	10.1	5.5	1.8	0.9	0.9
117.5°	19.3	13.8	9.2	4.6	1.8	0.9	0.9
120°	16.5	12.0	7.4	3.7	0.9	0.9	0.9
122.5°	14.7	10.1	6.4	3.7	0.9	0.9	0.9
125°	12.9	9.2	5.5	2.8	0.9	0.9	0.9
127.5°	11.0	7.4	4.6	1.8	0.9	0.9	0.9
130°	9.2	6.4	3.7	1.8	0.9	0.9	0.9
132.5°	7.4	5.5	3.7	1.8	0.9	0.9	0.9
135°	6.4	4.6	2.8	1.8	0.9	0.9	0.9
137.5°	5.5	3.7	1.8	1.8	1.8	0.9	0.9
140°	4.6	2.8	1.8	1.8	1.8	1.8	0.9
142.5°	3.7	2.8	1.8	1.8	1.8	1.8	0.9
145°	2.8	1.8	1.8	1.8	1.8	1.8	0.9
147.5°	2.8	1.8	1.8	1.8	1.8	1.8	0.9
150°	1.8	1.8	1.8	1.8	1.8	1.8	1.8
152.5°	1.8	1.8	1.8	1.8	1.8	1.8	1.8
155°	1.8	1.8	1.8	1.8	1.8	1.8	1.8
157.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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)