

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: P1213093

Luminaire Tested: 4SNLED-LD5-49SL-LC-UNV-L930-CD1-U

Issue Date: 3/29/2018

Test Information

Test Method: LM-79-2019
Report Number: P1213093
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-L930-CD1-U
Description: 4FT LINEAR SNLED LED FIXTURE
CLEAR LENSED
Light Source: -
Ballast/Driver: -

Summary

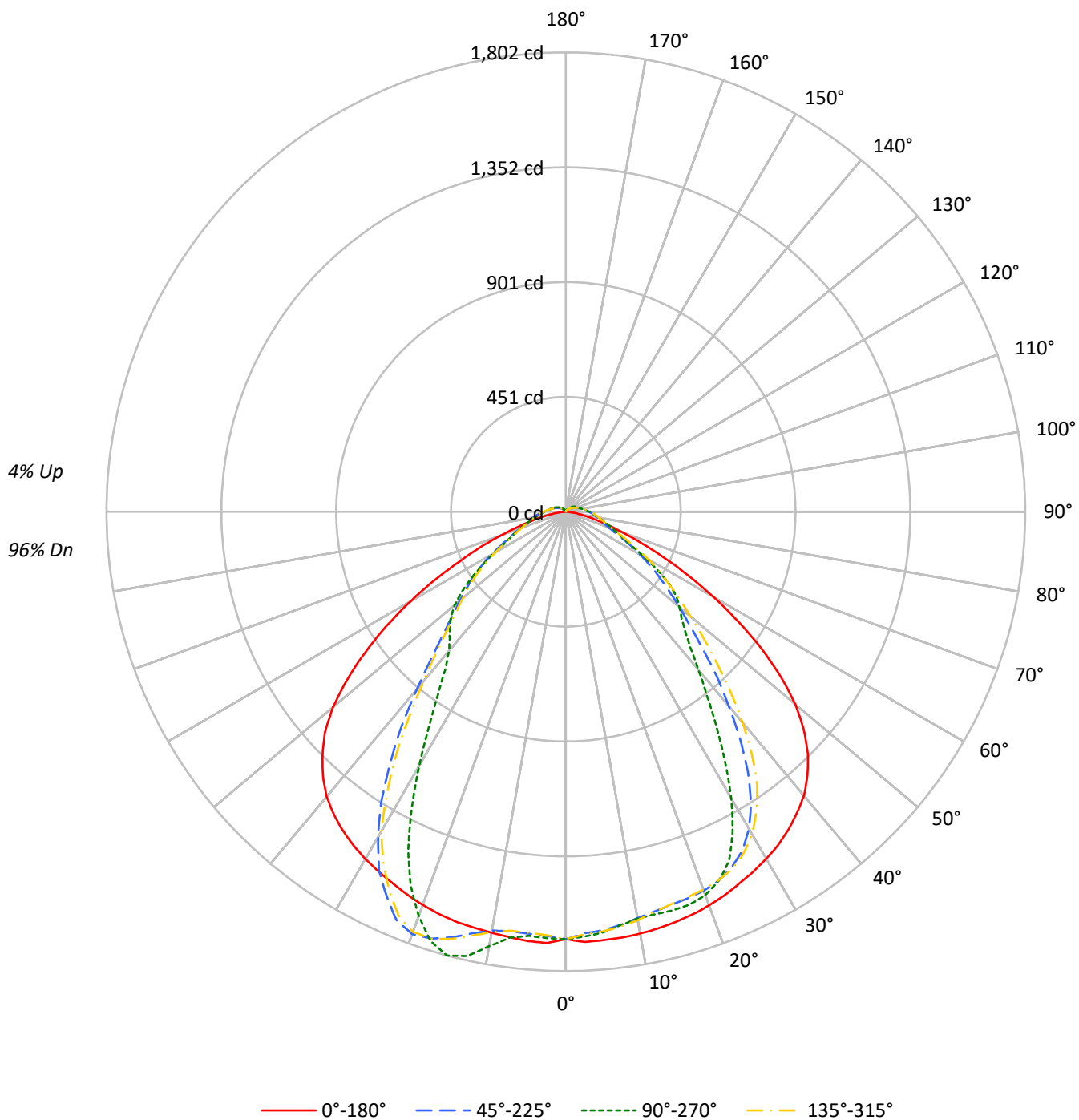
Lumens per Lamp: N/A
Luminaire Lumens: 3997.0 lumens
Efficiency: N/A
Efficacy: 105.2 lumens/watt
Spacing Criteria (0/90/45): 1.4 / 1.12 / 1.19
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.12')
CIE Type: Direct

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

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Luminous Intensity Polar Plot



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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20			
RC	80				70				50				30				10			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°	13549	13549	13549	13549
5°	13647	13012	13676	13114
10°	13711	12470	13682	13317
15°	13817	12304	13810	13699
20°	13969	12109	13954	12764
25°	14141	11487	14133	11099
30°	14408	9956	14415	8820
35°	14689	8051	14732	6813
40°	14938	6482	15001	5711
45°	14885	5491	14962	5347
50°	14244	5055	14444	4942
55°	12637	4544	12953	4130
60°	10251	3478	10795	3189
65°	7620	2660	8209	2523
70°	5183	2297	5842	2196
75°	3389	2073	3948	1960
80°	2190	1932	2570	1777
85°	1127	1928	1482	1761

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 180°

Vertical Angle: 45°

Luminance: 14962 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	159.3	4.0
10°-20°	473.9	11.9
20°-30°	720.4	18.0
30°-40°	772.8	19.3
40°-50°	670.7	16.8
50°-60°	497.1	12.4
60°-70°	284.8	7.1
70°-80°	157.7	3.9
80°-90°	96.0	2.4
90°-100°	62.5	1.6
100°-110°	41.8	1.0
110°-120°	28.2	0.7
120°-130°	17.3	0.4
130°-140°	9.1	0.2
140°-150°	4.2	0.1
150°-160°	1.2	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	1353.5	33.9
0°-40°	2126.3	53.2
0°-60°	3294.1	82.4
0°-90°	3832.7	95.9
90°-120°	132.5	3.3
90°-150°	163.1	4.1
90°-180°	164.0	4.1
0°-180°	3997.0	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	1677	1677	1677	1677	1677	
5°	1687	1657	1690	1670	1687	161
15°	1665	1619	1664	1802	1665	471
25°	1609	1514	1608	1463	1609	744
35°	1522	1031	1526	872	1522	952
45°	1343	661	1350	644	1343	1028
55°	937	495	960	450	937	831
65°	425	251	458	238	425	429
75°	121	159	141	151	121	138
85°	16	110	22	100	16	22
90°	0	92	2	85	0	1
95°	1	75	0	72	1	1
105°	1	56	1	54	1	1
115°	1	46	1	42	1	1
125°	1	35	1	29	1	1
135°	1	22	1	18	1	1
145°	1	13	2	10	1	1
155°	2	6	2	5	2	1
165°	0	0	0	0	0	0
175°	0	0	0	0	0	0
180°	0	0	0	0	0	0

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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1676.6	1676.6	1676.6	1676.6	1676.6	1676.6	1676.6	1676.6	1676.6	1676.6	1676.6
2.5°	1688.8	1684.4	1682.7	1679.2	1681.8	1692.2	1685.3	1674.0	1674.9	1655.0	1665.4
5°	1687.0	1681.8	1679.2	1675.8	1677.5	1687.0	1680.1	1668.8	1668.0	1648.1	1657.6
7.5°	1684.4	1679.2	1674.9	1672.3	1673.2	1681.0	1672.3	1659.3	1656.7	1635.1	1643.7
10°	1680.1	1676.6	1670.6	1666.2	1665.4	1674.0	1660.2	1647.2	1641.1	1618.6	1627.3
12.5°	1674.0	1668.8	1662.8	1655.0	1654.1	1659.3	1648.1	1629.9	1623.8	1605.6	1615.2
15°	1665.4	1659.3	1652.4	1643.7	1639.4	1642.9	1629.0	1612.6	1611.7	1596.1	1609.1
17.5°	1655.9	1647.2	1639.4	1627.3	1621.2	1623.8	1612.6	1597.8	1599.6	1590.0	1604.8
20°	1642.9	1633.3	1621.2	1609.1	1600.4	1604.8	1597.0	1585.7	1588.3	1581.4	1594.4
22.5°	1628.1	1615.2	1600.4	1586.6	1579.6	1585.7	1579.6	1570.1	1571.0	1566.7	1574.4
25°	1609.1	1594.4	1577.0	1559.7	1556.3	1560.6	1557.1	1549.3	1545.9	1538.9	1542.4
27.5°	1591.8	1575.3	1553.7	1535.5	1529.4	1538.1	1530.3	1517.3	1507.8	1498.2	1491.3
30°	1571.9	1551.9	1527.7	1506.9	1501.7	1505.2	1493.9	1474.0	1448.9	1436.7	1417.7
32.5°	1550.2	1524.2	1493.9	1470.5	1467.1	1464.5	1443.7	1415.1	1376.1	1351.9	1322.4
35°	1521.6	1493.0	1456.7	1428.1	1422.9	1408.2	1374.4	1336.3	1286.1	1244.5	1194.3
37.5°	1489.6	1455.8	1417.7	1379.6	1364.9	1335.4	1287.8	1248.0	1171.7	1121.5	1060.9
40°	1453.2	1412.5	1365.7	1319.8	1295.6	1248.0	1193.4	1134.5	1060.9	993.3	942.2
42.5°	1403.0	1359.7	1304.2	1253.1	1211.6	1148.4	1084.3	1001.1	933.6	876.4	824.5
45°	1343.2	1291.3	1227.2	1165.7	1112.9	1037.5	962.2	879.0	822.7	756.0	720.5
47.5°	1266.1	1209.8	1141.4	1073.0	1003.7	920.6	841.8	762.1	705.8	658.2	632.2
50°	1175.2	1123.2	1047.9	966.5	890.3	803.7	724.9	665.1	610.6	581.1	561.2
52.5°	1062.6	1014.1	937.0	848.7	775.1	690.2	618.3	569.8	530.9	509.2	502.3
55°	937.0	894.6	818.4	736.1	660.8	582.8	528.3	485.8	460.7	447.7	448.6
57.5°	802.8	769.9	698.0	624.4	553.4	494.5	445.1	411.4	392.3	391.4	394.0
60°	668.6	644.3	582.0	518.8	456.4	408.8	372.4	349.0	336.9	337.8	336.9
62.5°	540.4	517.9	472.9	420.9	371.5	339.5	306.6	297.0	286.7	285.8	285.8
65°	425.2	407.9	371.5	334.3	297.0	276.3	259.8	248.6	240.8	239.0	239.9
67.5°	319.6	312.6	287.5	262.4	239.0	226.0	212.2	209.6	203.5	203.5	205.2
70°	238.2	233.0	219.1	204.4	194.9	186.2	179.3	179.3	178.4	177.5	181.9
72.5°	172.3	173.2	168.9	157.6	156.8	155.0	153.3	155.9	156.8	159.4	164.5
75°	121.2	123.8	123.8	122.1	125.6	129.9	132.5	136.8	142.0	145.5	151.6
77.5°	85.7	85.7	90.1	95.3	102.2	110.0	116.9	123.0	129.9	134.2	139.4
80°	55.4	58.0	65.0	74.5	84.0	94.4	103.9	111.7	118.6	125.6	129.0
82.5°	32.9	37.2	45.9	58.0	70.1	83.1	92.7	102.2	110.0	116.9	119.5
85°	16.5	22.5	32.9	45.9	58.9	72.7	84.9	93.5	102.2	108.3	111.7
87.5°	5.2	12.1	23.4	35.5	49.4	63.2	76.2	85.7	93.5	98.7	102.2
90°	0.0	6.1	16.5	29.4	42.4	56.3	68.4	78.8	86.6	90.9	93.5
92.5°	0.0	3.5	13.0	24.2	36.4	50.2	62.4	71.9	78.8	83.1	84.9
95°	0.9	2.6	9.5	19.9	32.0	45.0	56.3	65.0	71.9	76.2	77.1
97.5°	0.9	1.7	7.8	16.5	27.7	39.8	51.1	59.8	65.0	69.3	70.1
100°	0.9	1.7	6.1	14.7	24.2	35.5	45.9	53.7	59.8	63.2	64.1
102.5°	0.9	0.9	5.2	12.1	21.7	31.2	40.7	48.5	53.7	57.2	58.9
105°	0.9	0.9	4.3	10.4	19.1	27.7	36.4	44.2	48.5	52.0	53.7
107.5°	0.9	0.9	3.5	8.7	16.5	24.2	32.9	39.0	44.2	47.6	49.4
110°	0.9	0.9	2.6	7.8	13.9	21.7	28.6	34.6	39.8	43.3	45.0

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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	0.9	0.9	2.6	6.9	12.1	19.1	25.1	31.2	35.5	39.0	41.6
115°	0.9	0.9	2.6	6.1	11.3	16.5	22.5	27.7	32.0	35.5	38.1
117.5°	0.9	0.9	2.6	5.2	9.5	14.7	19.9	25.1	28.6	32.0	34.6
120°	0.9	0.9	1.7	4.3	8.7	13.0	17.3	21.7	26.0	29.4	32.0
122.5°	0.9	0.9	1.7	4.3	6.9	11.3	15.6	19.1	23.4	26.0	28.6
125°	0.9	0.9	1.7	3.5	6.1	10.4	13.9	17.3	19.9	23.4	26.0
127.5°	0.9	0.9	1.7	3.5	5.2	8.7	12.1	15.6	18.2	20.8	22.5
130°	0.9	0.9	1.7	2.6	4.3	6.9	10.4	13.0	16.5	18.2	19.9
132.5°	0.9	0.9	0.9	2.6	3.5	5.2	7.8	11.3	13.9	16.5	17.3
135°	0.9	0.9	0.9	1.7	3.5	4.3	6.1	8.7	11.3	13.9	15.6
137.5°	0.9	0.9	0.9	1.7	2.6	4.3	5.2	6.9	9.5	11.3	13.9
140°	0.9	0.9	0.9	1.7	2.6	3.5	4.3	6.1	7.8	9.5	11.3
142.5°	0.9	0.9	0.9	1.7	1.7	2.6	3.5	5.2	6.1	7.8	9.5
145°	0.9	0.9	0.9	1.7	1.7	2.6	3.5	4.3	5.2	6.1	7.8
147.5°	0.9	0.9	0.9	1.7	1.7	1.7	2.6	3.5	4.3	5.2	6.1
150°	1.7	1.7	1.7	1.7	1.7	1.7	2.6	2.6	3.5	4.3	5.2
152.5°	1.7	1.7	1.7	1.7	1.7	1.7	2.6	2.6	2.6	3.5	4.3
155°	1.7	1.7	1.7	1.7	1.7	1.7	1.7	2.6	2.6	3.5	3.5
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

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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	1676.6	1676.6	1676.6	1676.6	1676.6	1676.6	1676.6	1676.6	1676.6	1676.6	1676.6
2.5°	1661.9	1663.6	1674.0	1673.2	1671.4	1669.7	1669.7	1668.0	1669.7	1674.0	1672.3
5°	1653.3	1655.9	1663.6	1662.8	1661.1	1660.2	1659.3	1656.7	1658.5	1664.5	1662.8
7.5°	1637.7	1640.3	1647.2	1643.7	1641.1	1642.9	1638.5	1635.9	1639.4	1645.5	1644.6
10°	1621.2	1622.9	1631.6	1629.9	1625.5	1626.4	1622.1	1620.3	1624.7	1628.1	1629.0
12.5°	1610.0	1616.0	1623.8	1622.9	1622.1	1622.9	1618.6	1616.9	1619.5	1622.9	1622.1
15°	1607.4	1615.2	1623.8	1623.8	1624.7	1625.5	1621.2	1618.6	1621.2	1623.8	1622.9
17.5°	1604.8	1614.3	1622.1	1621.2	1622.1	1623.8	1616.9	1615.2	1618.6	1622.1	1620.3
20°	1596.1	1604.8	1610.0	1608.2	1608.2	1609.1	1600.4	1600.4	1605.6	1608.2	1609.1
22.5°	1571.9	1582.2	1582.2	1577.9	1577.9	1574.4	1571.9	1566.7	1572.7	1577.0	1580.5
25°	1535.5	1539.8	1534.6	1525.1	1519.9	1515.6	1503.4	1513.8	1513.8	1526.8	1531.1
27.5°	1484.4	1474.9	1460.1	1440.2	1435.9	1422.0	1414.2	1416.8	1421.2	1439.3	1453.2
30°	1400.4	1371.8	1346.7	1338.0	1319.0	1305.1	1291.3	1298.2	1306.0	1316.4	1344.9
32.5°	1289.5	1261.8	1221.1	1206.4	1186.5	1169.1	1152.7	1163.1	1176.9	1183.9	1215.0
35°	1162.2	1129.3	1092.1	1067.0	1046.2	1036.6	1015.9	1030.6	1045.3	1050.5	1077.3
37.5°	1027.1	993.3	960.4	938.8	918.9	912.8	898.9	909.3	920.6	928.4	950.9
40°	898.9	867.8	842.7	827.9	814.1	808.9	803.7	808.0	816.7	822.7	840.1
42.5°	789.0	763.8	746.5	737.9	728.3	721.4	722.3	724.0	728.3	741.3	749.1
45°	692.8	678.1	666.8	665.1	659.1	658.2	657.3	660.8	663.4	671.2	677.2
47.5°	615.7	609.7	607.1	610.6	613.2	609.7	611.4	615.7	620.9	620.9	620.1
50°	555.1	556.9	560.3	568.1	573.3	575.0	576.8	582.0	582.8	584.6	582.0
52.5°	505.8	507.5	517.0	529.1	535.2	537.8	541.3	546.5	546.5	548.2	544.7
55°	455.5	458.1	467.7	479.8	485.0	488.4	491.9	495.4	498.0	501.4	498.8
57.5°	400.1	407.9	414.0	417.4	420.9	423.5	426.1	427.0	432.2	433.0	437.3
60°	341.2	342.9	349.0	348.1	345.5	352.5	349.0	355.1	361.1	368.9	369.8
62.5°	284.9	285.8	290.1	288.4	291.9	291.0	293.6	293.6	297.9	301.4	305.7
65°	240.8	241.6	245.1	245.1	244.2	246.8	249.4	251.1	251.1	253.7	257.2
67.5°	207.8	210.4	213.9	215.6	217.4	217.4	220.0	220.8	222.6	223.4	225.2
70°	185.3	188.8	192.3	194.0	194.9	196.6	197.5	197.5	199.2	200.1	201.8
72.5°	168.9	172.3	174.9	174.9	176.7	177.5	177.5	178.4	179.3	181.0	182.7
75°	155.0	157.6	159.4	158.5	158.5	158.5	159.4	159.4	161.1	162.8	164.5
77.5°	142.0	144.6	144.6	142.9	142.9	142.9	142.9	143.8	144.6	146.4	148.1
80°	132.5	132.5	131.6	131.6	129.9	129.0	129.0	129.9	129.9	131.6	134.2
82.5°	122.1	122.1	121.2	120.4	119.5	118.6	118.6	119.5	120.4	121.2	123.0
85°	112.6	112.6	110.9	110.9	110.0	110.0	110.0	110.0	110.9	111.7	113.5
87.5°	103.1	102.2	101.3	100.5	100.5	100.5	100.5	100.5	101.3	103.1	103.9
90°	93.5	92.7	91.8	91.8	90.9	90.9	91.8	91.8	92.7	93.5	94.4
92.5°	84.9	84.0	83.1	83.1	82.3	82.3	83.1	82.3	84.0	84.0	84.9
95°	77.1	76.2	75.3	75.3	75.3	75.3	75.3	75.3	76.2	76.2	77.1
97.5°	70.1	69.3	68.4	68.4	69.3	68.4	69.3	69.3	69.3	70.1	71.0
100°	64.1	63.2	63.2	64.1	63.2	63.2	64.1	64.1	64.1	64.1	65.0
102.5°	58.9	58.9	58.9	58.9	58.9	58.9	59.8	59.8	59.8	59.8	60.6
105°	53.7	54.6	54.6	54.6	55.4	55.4	55.4	56.3	56.3	56.3	56.3
107.5°	50.2	51.1	51.1	52.0	52.0	52.8	52.8	52.8	52.8	53.7	53.7
110°	46.8	47.6	48.5	49.4	49.4	50.2	50.2	50.2	50.2	50.2	50.2

TEST NUMBER: P1213093

CATALOG NUMBER: 4SNLED-LD5-49SL-LC-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
112.5°	43.3	44.2	45.0	46.8	47.6	47.6	47.6	47.6	48.5	48.5	47.6
115°	39.8	41.6	42.4	44.2	45.0	45.0	45.9	45.9	45.9	45.9	45.0
117.5°	36.4	39.0	39.8	41.6	42.4	42.4	43.3	43.3	43.3	43.3	42.4
120°	33.8	35.5	37.2	38.1	39.0	39.8	39.8	40.7	40.7	40.7	39.8
122.5°	31.2	32.9	34.6	35.5	36.4	37.2	37.2	37.2	37.2	37.2	37.2
125°	27.7	29.4	31.2	32.0	32.9	33.8	33.8	34.6	34.6	34.6	33.8
127.5°	25.1	26.8	27.7	29.4	30.3	30.3	31.2	31.2	31.2	31.2	30.3
130°	21.7	23.4	25.1	26.0	26.8	26.8	27.7	27.7	27.7	27.7	27.7
132.5°	19.1	20.8	21.7	23.4	23.4	24.2	24.2	25.1	25.1	25.1	24.2
135°	17.3	18.2	19.1	20.8	20.8	21.7	21.7	21.7	21.7	21.7	21.7
137.5°	15.6	16.5	17.3	18.2	18.2	19.1	19.1	19.1	19.1	19.9	19.1
140°	13.0	14.7	15.6	15.6	16.5	16.5	16.5	17.3	17.3	17.3	16.5
142.5°	11.3	12.1	13.0	13.9	14.7	14.7	14.7	14.7	15.6	14.7	14.7
145°	8.7	10.4	11.3	12.1	13.0	13.0	13.0	13.0	13.0	13.0	13.0
147.5°	6.9	7.8	9.5	10.4	10.4	11.3	11.3	11.3	11.3	11.3	11.3
150°	6.1	6.1	7.8	8.7	9.5	9.5	9.5	9.5	9.5	9.5	9.5
152.5°	4.3	5.2	6.1	6.9	7.8	7.8	7.8	7.8	7.8	7.8	7.8
155°	4.3	4.3	5.2	5.2	6.1	6.1	6.1	6.1	6.9	6.1	6.1
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: P1213093

CATALOG NUMBER: 4SNLED-LD5-49SL-LC-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	1676.6	1676.6	1676.6	1676.6	1676.6	1676.6	1676.6	1676.6	1676.6	1676.6	1676.6
2.5°	1669.7	1668.8	1672.3	1668.8	1651.5	1658.5	1655.9	1665.4	1666.2	1668.8	1677.5
5°	1661.1	1661.1	1665.4	1661.9	1645.5	1652.4	1651.5	1661.1	1662.8	1664.5	1674.0
7.5°	1643.7	1644.6	1650.7	1648.1	1630.7	1641.1	1640.3	1651.5	1655.0	1658.5	1667.1
10°	1627.3	1626.4	1633.3	1630.7	1614.3	1626.4	1625.5	1636.8	1642.0	1648.1	1658.5
12.5°	1618.6	1616.0	1618.6	1616.0	1597.8	1607.4	1608.2	1621.2	1627.3	1635.1	1647.2
15°	1618.6	1614.3	1614.3	1609.1	1588.3	1594.4	1595.2	1603.9	1611.7	1619.5	1634.2
17.5°	1616.9	1612.6	1611.7	1607.4	1584.8	1584.8	1584.0	1590.0	1594.4	1602.2	1617.7
20°	1607.4	1605.6	1604.8	1602.2	1581.4	1577.9	1576.2	1576.2	1578.8	1581.4	1597.0
22.5°	1582.2	1584.0	1585.7	1587.4	1571.0	1564.9	1565.8	1564.1	1561.5	1561.5	1574.4
25°	1535.5	1544.1	1551.1	1558.9	1549.3	1545.0	1550.2	1547.6	1543.3	1539.8	1551.1
27.5°	1461.0	1479.2	1493.9	1513.0	1513.8	1510.4	1524.2	1522.5	1521.6	1516.4	1525.1
30°	1357.9	1386.5	1406.4	1434.2	1457.5	1461.0	1484.4	1487.8	1491.3	1488.7	1497.4
32.5°	1233.2	1272.2	1306.0	1349.3	1371.8	1391.7	1424.6	1438.5	1452.3	1456.7	1466.2
35°	1097.3	1141.4	1181.3	1228.9	1264.4	1307.7	1347.5	1368.3	1399.5	1411.6	1425.5
37.5°	968.2	1009.8	1048.8	1096.4	1153.6	1198.6	1248.0	1294.7	1337.2	1354.5	1375.3
40°	853.9	887.7	924.9	966.5	1018.5	1077.3	1131.0	1196.0	1246.2	1280.9	1311.2
42.5°	767.3	783.8	815.8	853.0	894.6	954.4	1008.9	1081.7	1142.3	1191.7	1241.9
45°	690.2	698.0	721.4	741.3	783.8	836.6	894.6	965.6	1028.8	1092.1	1152.7
47.5°	624.4	633.9	645.2	657.3	687.6	731.8	782.0	846.1	909.3	982.9	1052.2
50°	580.2	582.8	584.6	589.8	608.0	638.3	679.0	733.5	794.2	873.0	946.6
52.5°	541.3	541.3	536.1	533.5	540.4	559.5	582.8	621.8	684.2	756.9	834.9
55°	499.7	491.9	490.2	481.5	483.2	491.9	503.2	533.5	584.6	646.9	722.3
57.5°	441.7	438.2	438.2	434.7	427.8	432.2	434.7	456.4	492.8	546.5	612.3
60°	375.0	373.3	377.6	378.5	372.4	375.0	374.1	387.1	413.1	456.4	511.0
62.5°	308.3	316.1	317.0	320.4	317.0	316.1	320.4	331.7	344.7	377.6	420.0
65°	258.9	263.3	264.1	268.5	266.7	266.7	270.2	278.9	286.7	309.2	342.1
67.5°	226.9	225.2	226.0	228.6	226.0	225.2	227.8	233.0	239.0	252.9	276.3
70°	201.8	200.1	200.1	200.1	196.6	194.0	194.9	196.6	199.2	207.0	221.7
72.5°	182.7	182.7	180.1	177.5	174.9	173.2	171.5	169.7	168.9	171.5	179.3
75°	165.4	166.3	165.4	162.8	159.4	155.9	152.4	149.0	144.6	142.9	143.8
77.5°	149.8	150.7	151.6	150.7	147.2	142.9	137.7	132.5	126.4	120.4	116.9
80°	136.0	137.7	138.6	137.7	135.1	131.6	125.6	119.5	110.9	103.1	94.4
82.5°	123.8	126.4	127.3	127.3	125.6	122.1	115.2	108.3	98.7	88.3	77.1
85°	114.3	116.0	117.8	117.8	116.9	113.5	106.5	98.7	89.2	77.1	65.0
87.5°	104.8	105.7	107.4	109.1	107.4	103.9	97.9	89.2	79.7	67.6	53.7
90°	95.3	96.1	97.9	99.6	98.7	95.3	90.1	82.3	71.9	58.9	45.0
92.5°	85.7	87.5	88.3	89.2	90.1	87.5	83.1	75.3	65.0	52.0	39.0
95°	78.8	78.8	80.5	81.4	82.3	79.7	76.2	68.4	58.9	46.8	33.8
97.5°	71.9	71.9	73.6	73.6	74.5	72.7	69.3	62.4	52.8	41.6	28.6
100°	65.0	65.8	66.7	67.6	67.6	66.7	63.2	56.3	47.6	37.2	25.1
102.5°	60.6	60.6	61.5	61.5	62.4	60.6	57.2	51.1	42.4	32.9	21.7
105°	56.3	56.3	57.2	57.2	56.3	54.6	51.1	45.9	38.1	28.6	19.1
107.5°	52.8	52.8	52.8	52.8	52.0	50.2	46.8	40.7	33.8	26.0	17.3
110°	50.2	49.4	49.4	48.5	47.6	45.0	41.6	36.4	30.3	22.5	14.7

TEST NUMBER: P1213093

CATALOG NUMBER: 4SNLED-LD5-49SL-LC-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
112.5°	47.6	46.8	45.9	45.0	43.3	40.7	37.2	32.9	26.8	19.9	13.0
115°	45.0	44.2	43.3	41.6	39.8	37.2	33.8	29.4	23.4	17.3	11.3
117.5°	42.4	41.6	39.8	38.1	36.4	33.8	30.3	26.0	20.8	15.6	10.4
120°	39.0	38.1	37.2	35.5	33.8	30.3	26.8	23.4	18.2	13.9	8.7
122.5°	36.4	35.5	33.8	32.9	30.3	27.7	24.2	20.8	16.5	12.1	7.8
125°	32.9	32.0	31.2	29.4	27.7	24.2	21.7	18.2	14.7	10.4	6.1
127.5°	30.3	29.4	27.7	26.0	24.2	21.7	19.1	16.5	13.0	8.7	6.1
130°	26.8	26.0	25.1	23.4	21.7	19.1	17.3	13.9	11.3	7.8	5.2
132.5°	23.4	23.4	22.5	20.8	19.1	17.3	14.7	12.1	9.5	6.9	4.3
135°	21.7	20.8	19.9	18.2	17.3	14.7	13.0	10.4	7.8	6.1	3.5
137.5°	19.1	18.2	17.3	16.5	14.7	13.0	11.3	8.7	6.9	5.2	3.5
140°	16.5	15.6	15.6	13.9	13.0	11.3	9.5	7.8	6.1	4.3	2.6
142.5°	14.7	13.9	13.0	12.1	11.3	9.5	7.8	6.1	5.2	3.5	2.6
145°	13.0	12.1	11.3	10.4	9.5	7.8	6.9	5.2	4.3	3.5	2.6
147.5°	10.4	10.4	9.5	8.7	7.8	6.9	6.1	5.2	3.5	2.6	1.7
150°	8.7	8.7	7.8	6.9	6.9	6.1	5.2	4.3	3.5	2.6	1.7
152.5°	7.8	6.9	6.9	6.1	6.1	5.2	4.3	3.5	2.6	2.6	1.7
155°	6.1	6.1	6.1	5.2	5.2	4.3	3.5	3.5	2.6	1.7	1.7
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: P1213093

CATALOG NUMBER: 4SNLED-LD5-49SL-LC-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
0°	1676.6	1676.6	1676.6	1676.6	1676.6	1676.6	1676.6	1676.6	1676.6	1676.6	1676.6
2.5°	1679.2	1668.8	1677.5	1693.1	1691.4	1689.6	1687.9	1691.4	1702.6	1696.6	1687.0
5°	1676.6	1666.2	1675.8	1690.5	1689.6	1687.0	1685.3	1688.8	1700.0	1694.0	1683.6
7.5°	1671.4	1661.9	1668.8	1683.6	1683.6	1681.8	1680.1	1683.6	1694.0	1688.8	1678.4
10°	1662.8	1655.9	1662.8	1676.6	1677.5	1674.0	1672.3	1676.6	1687.0	1684.4	1675.8
12.5°	1655.9	1648.9	1656.7	1670.6	1671.4	1668.0	1665.4	1670.6	1684.4	1686.2	1683.6
15°	1646.3	1640.3	1649.8	1664.5	1664.5	1661.9	1661.9	1668.8	1687.9	1695.7	1700.0
17.5°	1632.5	1628.1	1639.4	1654.1	1655.0	1653.3	1654.1	1668.0	1693.1	1712.1	1724.3
20°	1615.2	1613.4	1625.5	1641.1	1643.7	1644.6	1648.9	1669.7	1704.4	1730.3	1742.5
22.5°	1594.4	1595.2	1609.1	1625.5	1629.0	1631.6	1640.3	1669.7	1713.0	1740.7	1745.9
25°	1571.0	1573.6	1588.3	1608.2	1612.6	1617.7	1632.5	1670.6	1715.6	1733.8	1725.1
27.5°	1545.9	1551.1	1570.1	1590.9	1596.1	1604.8	1623.8	1665.4	1703.5	1704.4	1672.3
30°	1519.9	1526.0	1548.5	1572.7	1581.4	1590.0	1613.4	1653.3	1674.0	1646.3	1590.0
32.5°	1490.4	1499.1	1521.6	1551.1	1561.5	1572.7	1596.1	1629.9	1622.1	1562.3	1481.8
35°	1453.2	1465.3	1491.3	1526.0	1535.5	1550.2	1566.7	1574.4	1539.8	1454.9	1364.0
37.5°	1407.3	1425.5	1455.8	1495.6	1506.0	1515.6	1519.9	1498.2	1429.0	1337.2	1242.8
40°	1354.5	1382.2	1415.1	1459.3	1469.7	1469.7	1454.1	1408.2	1320.7	1200.3	1095.5
42.5°	1290.4	1324.2	1365.7	1409.9	1420.3	1408.2	1370.9	1290.4	1190.8	1056.6	945.7
45°	1212.4	1257.5	1304.2	1350.1	1355.3	1328.5	1261.8	1159.6	1036.6	911.9	806.3
47.5°	1119.8	1178.7	1229.8	1281.7	1274.8	1229.8	1140.6	1024.5	894.6	776.8	692.0
50°	1015.9	1085.1	1142.3	1191.7	1176.9	1114.6	1009.8	888.5	759.5	659.1	588.9
52.5°	905.0	984.7	1041.8	1081.7	1061.8	987.3	872.1	756.0	650.4	558.6	511.8
55°	789.8	870.4	929.3	960.4	934.4	853.9	740.5	634.8	535.2	475.5	447.7
57.5°	678.1	753.4	808.9	834.0	801.1	720.5	615.7	526.5	454.7	404.4	390.6
60°	570.7	632.2	685.0	704.1	668.6	594.1	504.0	433.0	380.2	345.5	338.6
62.5°	471.1	521.4	562.9	577.6	543.0	485.0	407.0	354.2	317.0	299.6	291.0
65°	388.8	418.3	460.7	458.1	437.3	383.7	326.5	289.3	265.0	253.7	248.6
67.5°	305.7	332.6	359.4	362.9	336.9	299.6	262.4	235.6	222.6	216.5	213.9
70°	236.4	256.3	272.8	268.5	254.6	231.2	207.8	193.1	187.9	185.3	185.3
72.5°	183.6	194.0	201.8	196.6	187.9	175.8	164.5	158.5	159.4	161.1	162.8
75°	142.0	144.6	146.4	141.2	139.4	131.6	130.8	131.6	136.8	142.0	144.6
77.5°	109.1	105.7	103.1	97.9	98.7	97.9	102.2	109.1	116.9	124.7	131.6
80°	84.0	76.2	70.1	65.0	67.6	71.9	80.5	90.9	101.3	110.0	118.6
82.5°	65.0	53.7	45.0	39.8	45.0	52.0	63.2	76.2	88.3	97.9	107.4
85°	50.2	37.2	26.8	21.7	26.8	37.2	49.4	64.1	77.1	87.5	97.0
87.5°	39.0	26.8	14.7	8.7	14.7	26.0	39.8	53.7	66.7	78.8	88.3
90°	31.2	18.2	6.9	1.7	7.8	18.2	31.2	45.0	58.0	71.0	80.5
92.5°	25.1	13.0	3.5	0.0	4.3	13.9	26.0	39.0	52.0	64.1	73.6
95°	20.8	10.4	2.6	0.0	3.5	10.4	20.8	33.8	45.9	58.0	65.8
97.5°	17.3	7.8	1.7	0.0	1.7	8.7	17.3	28.6	40.7	52.0	59.8
100°	14.7	6.9	1.7	0.0	1.7	6.9	14.7	25.1	35.5	45.9	53.7
102.5°	12.1	5.2	0.9	0.9	0.9	5.2	13.0	21.7	31.2	40.7	48.5
105°	11.3	4.3	0.9	0.9	0.9	4.3	11.3	19.1	27.7	36.4	43.3
107.5°	9.5	3.5	0.9	0.9	0.9	3.5	9.5	16.5	25.1	32.9	39.0
110°	7.8	3.5	0.9	0.9	0.9	3.5	7.8	14.7	21.7	28.6	34.6



TEST NUMBER: P1213093

CATALOG NUMBER: 4SNLED-LD5-49SL-LC-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
112.5°	6.9	2.6	0.9	0.9	0.9	2.6	6.9	13.0	19.1	26.0	31.2
115°	6.1	2.6	0.9	0.9	0.9	2.6	6.1	11.3	16.5	22.5	27.7
117.5°	5.2	2.6	0.9	0.9	0.9	1.7	5.2	9.5	14.7	19.9	25.1
120°	4.3	1.7	0.9	0.9	0.9	1.7	4.3	8.7	13.0	17.3	21.7
122.5°	4.3	1.7	0.9	0.9	0.9	1.7	3.5	6.9	11.3	14.7	19.1
125°	3.5	1.7	0.9	0.9	0.9	0.9	3.5	6.1	9.5	13.0	16.5
127.5°	3.5	1.7	0.9	0.9	0.9	0.9	2.6	5.2	7.8	11.3	14.7
130°	2.6	1.7	0.9	0.9	0.9	0.9	1.7	4.3	6.9	9.5	12.1
132.5°	2.6	1.7	0.9	0.9	0.9	0.9	1.7	3.5	5.2	7.8	10.4
135°	2.6	0.9	0.9	0.9	0.9	0.9	0.9	2.6	4.3	6.1	7.8
137.5°	1.7	0.9	0.9	0.9	0.9	0.9	0.9	1.7	3.5	4.3	6.9
140°	1.7	0.9	0.9	0.9	0.9	0.9	0.9	1.7	2.6	3.5	5.2
142.5°	1.7	0.9	0.9	0.9	0.9	0.9	0.9	0.9	1.7	2.6	4.3
145°	1.7	0.9	0.9	1.7	1.7	0.9	0.9	1.7	1.7	2.6	3.5
147.5°	1.7	0.9	0.9	0.9	0.9	0.9	0.9	0.9	1.7	1.7	2.6
150°	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	2.6
152.5°	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
155°	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
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

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CATALOG NUMBER: 4SNLED-LD5-49SL-LC-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
0°	1676.6	1676.6	1676.6	1676.6	1676.6	1676.6	1676.6	1676.6	1676.6	1676.6	1676.6
2.5°	1685.3	1665.4	1675.8	1672.3	1675.8	1684.4	1683.6	1681.0	1682.7	1678.4	1674.0
5°	1681.8	1661.9	1672.3	1668.0	1672.3	1681.0	1679.2	1676.6	1679.2	1674.0	1669.7
7.5°	1677.5	1659.3	1671.4	1670.6	1678.4	1689.6	1690.5	1690.5	1696.6	1688.8	1685.3
10°	1677.5	1668.0	1684.4	1690.5	1710.4	1725.1	1726.9	1730.3	1740.7	1739.0	1730.3
12.5°	1695.7	1694.0	1718.2	1732.9	1751.1	1771.9	1783.2	1786.6	1793.6	1788.4	1784.9
15°	1719.1	1727.7	1754.6	1771.0	1791.0	1806.5	1809.1	1810.9	1816.1	1808.3	1802.2
17.5°	1750.3	1755.4	1777.1	1784.0	1797.0	1799.6	1796.2	1787.5	1787.5	1770.2	1765.0
20°	1765.0	1762.4	1771.0	1759.8	1754.6	1739.0	1724.3	1707.8	1707.0	1688.8	1687.0
22.5°	1752.0	1734.7	1716.5	1688.8	1676.6	1654.1	1634.2	1624.7	1618.6	1595.2	1589.2
25°	1706.1	1663.6	1636.8	1603.9	1574.4	1548.5	1529.4	1509.5	1490.4	1471.4	1462.7
27.5°	1626.4	1586.6	1543.3	1497.4	1456.7	1416.8	1384.8	1364.9	1346.7	1321.6	1308.6
30°	1528.5	1473.1	1425.5	1381.3	1314.6	1266.1	1239.3	1199.5	1185.6	1174.3	1150.1
32.5°	1413.4	1346.7	1281.7	1222.0	1153.6	1108.5	1073.0	1043.6	1034.9	1005.5	998.5
35°	1286.1	1198.6	1125.0	1066.1	1016.7	962.2	932.7	912.8	895.5	875.6	872.1
37.5°	1136.2	1057.4	974.3	922.3	883.4	836.6	814.1	800.2	792.4	777.7	775.1
40°	985.5	906.7	849.6	797.6	773.4	748.3	731.8	725.7	722.3	717.1	711.9
42.5°	848.7	779.4	738.7	704.1	693.7	681.6	677.2	680.7	677.2	675.5	674.6
45°	732.7	679.8	651.3	640.9	638.3	634.8	638.3	644.3	645.2	643.5	643.5
47.5°	627.0	601.9	589.8	591.5	595.8	598.4	604.5	612.3	614.0	609.7	611.4
50°	557.7	543.0	540.4	547.3	556.9	560.3	567.3	573.3	572.4	570.7	569.0
52.5°	492.8	488.4	495.4	502.3	512.7	514.4	517.0	519.6	518.8	515.3	513.6
55°	438.2	441.7	447.7	450.3	458.1	457.3	458.1	458.1	454.7	452.9	450.3
57.5°	388.8	389.7	393.2	394.0	398.4	396.6	395.8	394.0	388.8	388.0	385.4
60°	338.6	336.9	344.7	338.6	342.1	338.6	337.8	333.4	328.2	327.4	325.6
62.5°	291.0	287.5	292.7	290.1	291.9	288.4	286.7	281.5	277.1	276.3	275.4
65°	248.6	246.8	252.0	251.1	252.9	248.6	246.8	243.4	239.9	239.0	238.2
67.5°	213.0	217.4	220.0	220.0	221.7	220.8	216.5	215.6	214.8	211.3	211.3
70°	187.1	189.7	194.9	195.7	194.9	196.6	193.1	192.3	191.4	189.7	188.8
72.5°	166.3	169.7	174.9	175.8	174.9	174.9	173.2	172.3	172.3	169.7	169.7
75°	149.8	154.2	158.5	158.5	158.5	156.8	155.0	155.0	153.3	152.4	150.7
77.5°	136.0	141.2	144.6	143.8	142.9	141.2	141.2	138.6	136.0	136.0	134.2
80°	125.6	129.0	131.6	130.8	129.9	127.3	126.4	123.8	122.1	119.5	119.5
82.5°	114.3	118.6	120.4	119.5	117.8	115.2	114.3	112.6	110.9	110.0	108.3
85°	104.8	109.1	110.0	108.3	106.5	104.8	103.9	103.1	102.2	100.5	100.5
87.5°	95.3	99.6	99.6	98.7	97.0	96.1	95.3	94.4	93.5	92.7	91.8
90°	87.5	90.9	90.9	90.1	89.2	88.3	87.5	86.6	85.7	84.9	84.9
92.5°	79.7	83.1	83.1	82.3	81.4	80.5	80.5	79.7	78.8	77.9	77.1
95°	72.7	76.2	76.2	76.2	75.3	74.5	74.5	73.6	72.7	72.7	71.9
97.5°	65.8	69.3	69.3	69.3	68.4	67.6	67.6	66.7	66.7	66.7	65.8
100°	59.8	62.4	63.2	63.2	62.4	62.4	62.4	61.5	61.5	61.5	60.6
102.5°	53.7	56.3	58.0	58.0	58.0	57.2	57.2	57.2	57.2	57.2	56.3
105°	48.5	51.1	52.8	53.7	53.7	53.7	53.7	53.7	53.7	53.7	53.7
107.5°	44.2	46.8	48.5	49.4	50.2	50.2	51.1	51.1	51.1	51.1	51.1
110°	39.8	42.4	45.0	45.9	46.8	47.6	47.6	48.5	47.6	47.6	47.6

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CATALOG NUMBER: 4SNLED-LD5-49SL-LC-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
112.5°	35.5	39.0	40.7	42.4	43.3	44.2	45.0	45.0	45.0	45.0	45.0
115°	32.0	35.5	37.2	39.0	40.7	41.6	41.6	42.4	42.4	42.4	41.6
117.5°	28.6	32.0	33.8	35.5	36.4	38.1	39.0	39.0	39.0	39.0	38.1
120°	26.0	28.6	30.3	32.0	33.8	34.6	35.5	35.5	35.5	35.5	35.5
122.5°	22.5	25.1	27.7	29.4	30.3	31.2	32.0	32.0	32.0	32.0	32.0
125°	19.9	22.5	24.2	26.0	26.8	28.6	28.6	28.6	28.6	28.6	28.6
127.5°	17.3	19.9	21.7	23.4	24.2	25.1	26.0	26.0	26.0	26.0	26.0
130°	14.7	17.3	19.1	20.8	21.7	22.5	22.5	23.4	23.4	23.4	23.4
132.5°	13.0	14.7	16.5	18.2	19.1	19.9	19.9	20.8	20.8	20.8	20.8
135°	10.4	13.0	13.9	15.6	16.5	17.3	17.3	18.2	18.2	18.2	18.2
137.5°	8.7	10.4	12.1	13.9	14.7	14.7	15.6	15.6	16.5	16.5	16.5
140°	6.9	7.8	10.4	11.3	12.1	13.0	13.9	13.9	13.9	13.9	13.9
142.5°	5.2	6.9	7.8	9.5	10.4	11.3	12.1	12.1	12.1	12.1	12.1
145°	4.3	5.2	6.1	7.8	8.7	9.5	10.4	10.4	10.4	10.4	10.4
147.5°	3.5	4.3	5.2	6.1	6.9	7.8	8.7	8.7	8.7	8.7	8.7
150°	2.6	3.5	4.3	4.3	5.2	6.1	6.9	7.8	7.8	7.8	7.8
152.5°	2.6	2.6	3.5	3.5	4.3	5.2	6.1	6.1	6.1	6.1	6.1
155°	1.7	2.6	2.6	2.6	3.5	3.5	4.3	5.2	5.2	5.2	5.2
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: P1213093

CATALOG NUMBER: 4SNLED-LD5-49SL-LC-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°
0°	1676.6	1676.6	1676.6	1676.6	1676.6	1676.6	1676.6	1676.6	1676.6	1676.6	1676.6
2.5°	1676.6	1680.1	1678.4	1675.8	1674.9	1679.2	1674.9	1655.0	1662.8	1663.6	1669.7
5°	1674.0	1676.6	1674.9	1673.2	1670.6	1675.8	1670.6	1649.8	1657.6	1658.5	1664.5
7.5°	1691.4	1692.2	1692.2	1687.9	1681.0	1683.6	1676.6	1653.3	1657.6	1657.6	1661.9
10°	1734.7	1736.4	1739.0	1727.7	1719.1	1712.1	1702.6	1674.0	1673.2	1666.2	1666.2
12.5°	1791.0	1786.6	1782.3	1777.1	1770.2	1761.5	1747.7	1713.9	1702.6	1691.4	1680.1
15°	1807.4	1805.7	1804.8	1802.2	1797.9	1795.3	1784.9	1751.1	1734.7	1720.8	1700.9
17.5°	1764.1	1767.6	1778.8	1779.7	1784.9	1795.3	1793.6	1770.2	1755.4	1749.4	1725.1
20°	1686.2	1687.0	1700.9	1707.0	1729.5	1746.8	1759.8	1757.2	1753.7	1760.6	1742.5
22.5°	1592.6	1598.7	1613.4	1622.9	1644.6	1664.5	1685.3	1696.6	1714.7	1743.3	1739.9
25°	1465.3	1473.1	1493.9	1509.5	1539.8	1570.1	1597.8	1617.7	1639.4	1694.0	1712.1
27.5°	1312.9	1325.0	1351.9	1367.5	1409.9	1441.1	1480.9	1519.9	1550.2	1612.6	1649.8
30°	1152.7	1163.1	1191.7	1213.3	1249.7	1292.1	1342.4	1397.8	1448.0	1511.2	1558.0
32.5°	1002.9	1014.1	1037.5	1056.6	1097.3	1132.8	1188.2	1256.6	1303.4	1390.8	1453.2
35°	872.1	882.5	898.9	915.4	949.2	985.5	1033.2	1099.9	1159.6	1250.6	1329.4
37.5°	780.3	782.0	791.6	801.1	826.2	853.9	891.1	950.0	1005.5	1103.3	1189.9
40°	714.5	714.5	719.7	722.3	733.5	750.0	773.4	819.3	865.2	939.6	1045.3
42.5°	673.8	672.0	672.0	672.9	672.0	679.8	693.7	715.3	756.0	817.5	899.8
45°	643.5	640.0	637.4	631.3	627.9	627.9	628.7	636.5	659.9	699.8	766.4
47.5°	609.7	608.8	604.5	597.6	591.5	587.2	580.2	577.6	584.6	607.1	652.1
50°	570.7	566.4	562.1	556.9	549.9	545.6	532.6	533.5	527.4	537.8	561.2
52.5°	513.6	510.1	508.4	504.0	501.4	499.7	489.3	478.9	476.3	478.1	486.7
55°	450.3	452.1	445.1	448.6	447.7	439.9	435.6	427.8	425.2	424.4	428.7
57.5°	384.5	386.3	381.9	385.4	385.4	381.1	378.5	378.5	372.4	367.2	373.3
60°	324.8	321.3	323.9	328.2	328.2	325.6	323.9	323.9	319.6	317.8	322.2
62.5°	276.3	272.8	275.4	279.7	280.6	278.9	277.1	277.1	271.9	271.9	275.4
65°	239.0	239.9	239.0	242.5	242.5	243.4	241.6	239.9	233.8	236.4	235.6
67.5°	212.2	211.3	211.3	214.8	213.9	215.6	213.9	211.3	207.0	203.5	202.7
70°	189.7	188.8	188.8	190.5	191.4	191.4	190.5	188.8	182.7	179.3	176.7
72.5°	169.7	168.9	169.7	170.6	171.5	172.3	171.5	169.7	164.5	160.2	155.9
75°	151.6	150.7	153.3	153.3	154.2	154.2	155.0	154.2	149.8	144.6	139.4
77.5°	133.4	134.2	136.8	137.7	139.4	140.3	141.2	141.2	136.8	132.5	125.6
80°	118.6	120.4	122.1	123.0	124.7	127.3	128.2	129.0	125.6	121.2	113.5
82.5°	108.3	109.1	110.9	111.7	114.3	115.2	116.0	117.8	116.0	111.7	103.1
85°	99.6	100.5	102.2	102.2	103.9	105.7	106.5	107.4	106.5	102.2	93.5
87.5°	91.8	92.7	93.5	94.4	95.3	96.1	97.0	97.9	97.0	92.7	84.9
90°	84.9	84.9	85.7	85.7	86.6	87.5	89.2	89.2	88.3	84.9	77.1
92.5°	77.1	77.9	77.9	78.8	79.7	80.5	81.4	81.4	80.5	77.1	70.1
95°	71.9	71.9	72.7	72.7	73.6	73.6	74.5	74.5	73.6	70.1	63.2
97.5°	65.8	65.8	65.8	65.8	66.7	66.7	67.6	67.6	66.7	63.2	57.2
100°	60.6	60.6	60.6	60.6	60.6	61.5	61.5	61.5	60.6	57.2	51.1
102.5°	56.3	56.3	56.3	56.3	56.3	56.3	56.3	56.3	54.6	52.0	45.9
105°	53.7	53.7	53.7	52.8	52.8	52.8	52.0	52.0	49.4	46.8	41.6
107.5°	50.2	50.2	50.2	49.4	49.4	48.5	47.6	47.6	45.0	42.4	37.2
110°	47.6	47.6	47.6	46.8	45.9	45.0	44.2	43.3	40.7	37.2	32.9

TEST NUMBER: P1213093

CATALOG NUMBER: 4SNLED-LD5-49SL-LC-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°
112.5°	45.0	45.0	44.2	44.2	43.3	42.4	40.7	39.8	37.2	33.8	29.4
115°	41.6	41.6	41.6	40.7	39.8	39.0	38.1	36.4	33.8	30.3	26.0
117.5°	38.1	38.1	38.1	37.2	36.4	35.5	34.6	32.9	30.3	26.8	23.4
120°	34.6	34.6	34.6	33.8	32.9	32.0	31.2	29.4	26.8	24.2	19.9
122.5°	32.0	32.0	31.2	30.3	29.4	28.6	27.7	26.0	24.2	20.8	17.3
125°	28.6	28.6	27.7	27.7	26.8	26.0	25.1	23.4	20.8	18.2	15.6
127.5°	26.0	25.1	25.1	25.1	24.2	23.4	21.7	20.8	18.2	15.6	13.0
130°	22.5	22.5	22.5	21.7	21.7	20.8	19.1	17.3	15.6	13.9	11.3
132.5°	19.9	19.9	19.9	19.9	19.1	18.2	16.5	15.6	13.9	11.3	9.5
135°	18.2	18.2	17.3	17.3	16.5	15.6	14.7	13.0	11.3	9.5	7.8
137.5°	15.6	15.6	15.6	14.7	14.7	13.9	12.1	11.3	10.4	8.7	6.9
140°	13.9	13.9	13.0	13.0	12.1	12.1	11.3	9.5	8.7	6.9	6.1
142.5°	12.1	12.1	11.3	11.3	10.4	10.4	9.5	8.7	6.9	6.1	4.3
145°	10.4	10.4	9.5	9.5	9.5	8.7	7.8	6.9	6.1	5.2	4.3
147.5°	8.7	8.7	8.7	7.8	7.8	6.9	6.9	6.1	5.2	4.3	3.5
150°	7.8	7.8	6.9	6.9	6.9	6.1	5.2	5.2	4.3	3.5	2.6
152.5°	6.1	6.1	6.1	6.1	5.2	5.2	4.3	4.3	3.5	2.6	2.6
155°	5.2	5.2	5.2	4.3	4.3	4.3	3.5	3.5	2.6	2.6	1.7
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: P1213093

CATALOG NUMBER: 4SNLED-LD5-49SL-LC-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	330°	335°	340°	345°	350°	355°	360°
0°	1676.6	1676.6	1676.6	1676.6	1676.6	1676.6	1676.6
2.5°	1667.1	1666.2	1674.0	1673.2	1662.8	1678.4	1688.8
5°	1662.8	1661.9	1668.8	1670.6	1659.3	1675.8	1687.0
7.5°	1659.3	1658.5	1666.2	1668.8	1657.6	1672.3	1684.4
10°	1660.2	1655.9	1662.8	1664.5	1654.1	1669.7	1680.1
12.5°	1666.2	1655.9	1658.5	1658.5	1648.9	1662.8	1674.0
15°	1681.0	1659.3	1655.9	1653.3	1641.1	1654.1	1665.4
17.5°	1697.4	1668.0	1655.9	1647.2	1632.5	1643.7	1655.9
20°	1713.9	1677.5	1657.6	1643.7	1623.8	1634.2	1642.9
22.5°	1721.7	1686.2	1659.3	1638.5	1613.4	1618.6	1628.1
25°	1711.3	1682.7	1655.9	1630.7	1600.4	1601.3	1609.1
27.5°	1673.2	1665.4	1648.1	1622.9	1590.0	1585.7	1591.8
30°	1608.2	1629.9	1630.7	1612.6	1577.9	1569.3	1571.9
32.5°	1517.3	1565.8	1594.4	1590.9	1560.6	1548.5	1550.2
35°	1412.5	1473.1	1535.5	1556.3	1534.6	1525.1	1521.6
37.5°	1286.9	1368.3	1451.5	1502.6	1499.1	1493.0	1489.6
40°	1148.4	1246.2	1344.9	1426.4	1451.5	1451.5	1453.2
42.5°	1000.3	1114.6	1222.8	1325.9	1384.8	1397.8	1403.0
45°	857.4	972.6	1090.3	1209.0	1287.8	1328.5	1343.2
47.5°	727.5	843.5	955.2	1085.1	1189.9	1242.8	1266.1
50°	616.6	703.2	821.0	950.0	1064.4	1129.3	1175.2
52.5°	524.8	592.4	695.4	815.8	931.0	1020.2	1062.6
55°	447.7	493.6	581.1	685.0	795.0	887.7	937.0
57.5°	382.8	419.2	478.9	565.5	658.2	750.0	802.8
60°	325.6	350.7	391.4	459.9	538.7	617.5	668.6
62.5°	276.3	292.7	319.6	369.8	431.3	492.8	540.4
65°	238.2	245.1	259.8	291.0	337.8	384.5	425.2
67.5°	200.9	205.2	216.5	235.6	258.9	292.7	319.6
70°	173.2	173.2	174.1	185.3	197.5	219.1	238.2
72.5°	150.7	148.1	142.9	145.5	148.1	160.2	172.3
75°	132.5	126.4	117.8	114.3	112.6	114.3	121.2
77.5°	116.9	108.3	97.9	89.2	82.3	79.7	85.7
80°	103.9	93.5	81.4	70.1	58.9	52.8	55.4
82.5°	93.5	80.5	67.6	54.6	41.6	32.9	32.9
85°	82.3	70.1	56.3	42.4	29.4	18.2	16.5
87.5°	74.5	61.5	46.8	33.8	20.8	9.5	5.2
90°	66.7	53.7	39.8	26.8	14.7	4.3	0.0
92.5°	59.8	47.6	34.6	21.7	10.4	2.6	0.0
95°	53.7	42.4	29.4	18.2	8.7	1.7	0.9
97.5°	47.6	37.2	26.0	14.7	6.1	1.7	0.9
100°	43.3	32.9	22.5	12.1	5.2	0.9	0.9
102.5°	38.1	29.4	19.1	10.4	4.3	0.9	0.9
105°	33.8	26.0	16.5	8.7	3.5	0.9	0.9
107.5°	30.3	22.5	14.7	7.8	3.5	0.9	0.9
110°	26.8	19.9	13.0	6.9	2.6	0.9	0.9

TEST NUMBER: P1213093

CATALOG NUMBER: 4SNLED-LD5-49SL-LC-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	330°	335°	340°	345°	350°	355°	360°
112.5°	24.2	17.3	11.3	6.1	1.7	0.9	0.9
115°	20.8	15.6	9.5	5.2	1.7	0.9	0.9
117.5°	18.2	13.0	8.7	4.3	1.7	0.9	0.9
120°	15.6	11.3	6.9	3.5	0.9	0.9	0.9
122.5°	13.9	9.5	6.1	3.5	0.9	0.9	0.9
125°	12.1	8.7	5.2	2.6	0.9	0.9	0.9
127.5°	10.4	6.9	4.3	1.7	0.9	0.9	0.9
130°	8.7	6.1	3.5	1.7	0.9	0.9	0.9
132.5°	6.9	5.2	3.5	1.7	0.9	0.9	0.9
135°	6.1	4.3	2.6	1.7	0.9	0.9	0.9
137.5°	5.2	3.5	1.7	1.7	1.7	0.9	0.9
140°	4.3	2.6	1.7	1.7	1.7	1.7	0.9
142.5°	3.5	2.6	1.7	1.7	1.7	1.7	0.9
145°	2.6	1.7	1.7	1.7	1.7	1.7	0.9
147.5°	2.6	1.7	1.7	1.7	1.7	1.7	0.9
150°	1.7	1.7	1.7	1.7	1.7	1.7	1.7
152.5°	1.7	1.7	1.7	1.7	1.7	1.7	1.7
155°	1.7	1.7	1.7	1.7	1.7	1.7	1.7
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)