

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: P1213106

Luminaire Tested: 4SNLED-LD5-52SL-LC-UNV-L930-CD1-U

Issue Date: 3/29/2018

Test Information

Test Method: LM-79-2019
Report Number: P1213106
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-LD5-52SL-LC-UNV-L930-CD1-U
Description: 4FT LINEAR SNLED LED FIXTURE
CLEAR LENSED
Light Source: -
Ballast/Driver: -

Summary

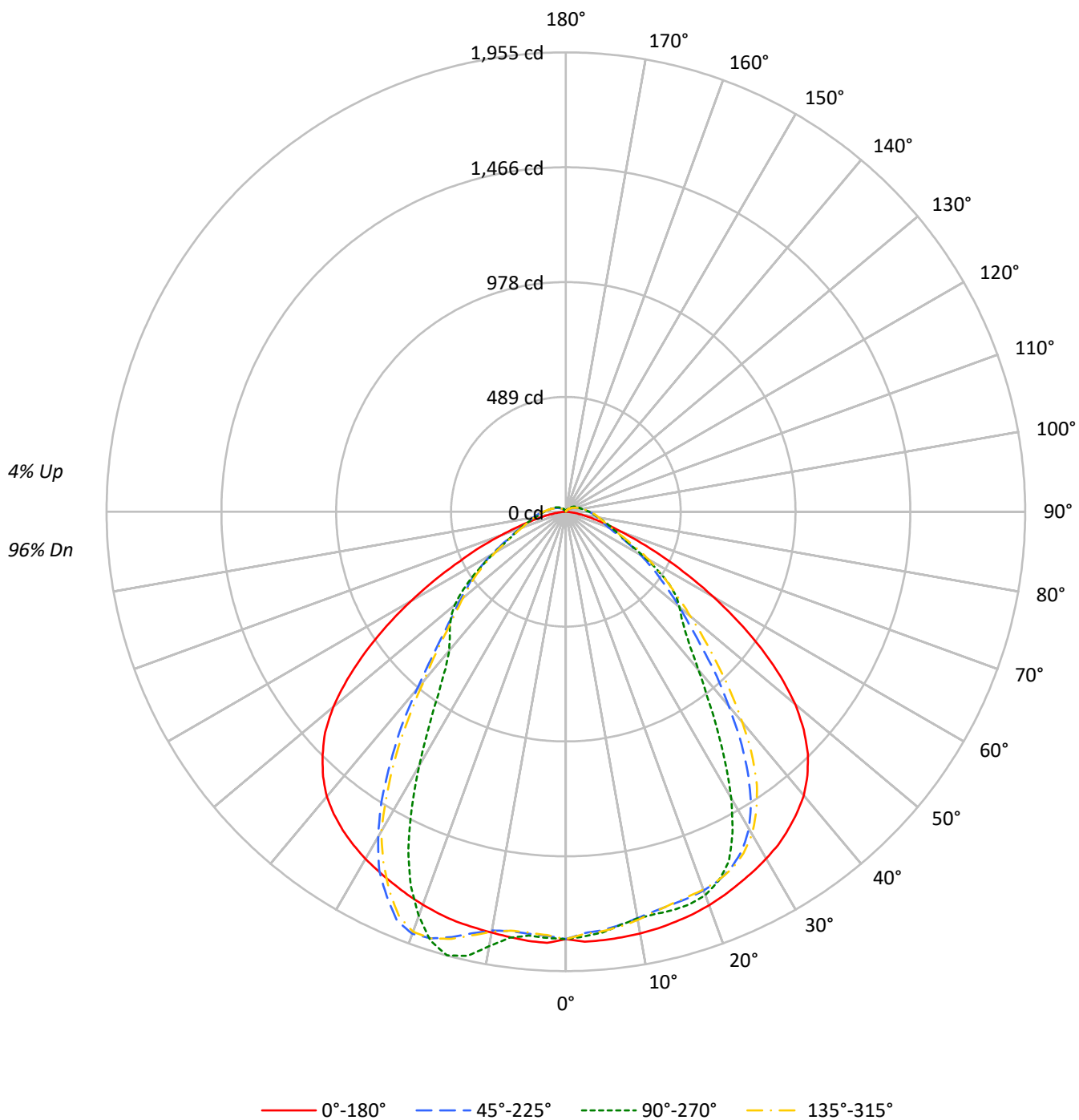
Lumens per Lamp: N/A
Luminaire Lumens: 4335.0 lumens
Efficiency: N/A
Efficacy: 105.7 lumens/watt
Spacing Criteria (0/90/45): 1.4 / 1.12 / 1.19
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.12')
CIE Type: Direct

Input Watts (W): 41
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT

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Luminous Intensity Polar Plot



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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20
RC	80				70				50				30				10
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10
RCR																	
0	118	118	118	118	115	115	115	115	109	109	109	103	103	103	98	98	98
1	109	104	100	97	106	102	98	95	97	94	91	92	90	88	88	86	84
2	100	93	86	81	97	90	85	80	86	82	77	82	79	75	79	76	73
3	92	83	75	69	89	81	74	68	77	71	67	74	69	65	71	67	63
4	85	74	66	60	83	73	65	59	70	63	58	67	61	57	64	60	56
5	79	67	59	52	76	66	58	52	63	56	51	61	55	50	59	53	49
6	73	61	52	46	71	60	52	46	57	51	45	55	49	45	54	48	44
7	68	55	47	42	66	54	47	41	53	46	41	51	45	40	49	44	40
8	64	51	43	37	62	50	42	37	48	42	37	47	41	36	45	40	36
9	60	47	39	34	58	46	39	34	45	38	33	43	37	33	42	37	33
10	56	43	36	31	54	43	36	31	42	35	30	40	34	30	39	34	30

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	14695	14695	14695	14695
5°	14802	14112	14833	14223
10°	14870	13525	14839	14444
15°	14985	13344	14978	14858
20°	15151	13133	15134	13843
25°	15337	12458	15329	12038
30°	15626	10798	15634	9566
35°	15932	8731	15977	7388
40°	16201	7030	16269	6194
45°	16144	5955	16227	5799
50°	15449	5483	15664	5360
55°	13707	4928	14048	4480
60°	11117	3772	11708	3459
65°	8265	2886	8905	2736
70°	5620	2491	6336	2382
75°	3677	2247	4281	2125
80°	2376	2096	2783	1928
85°	1216	2091	1605	1910

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 180°

Vertical Angle: 45°

Luminance: 16227 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	172.7	4.0
10°-20°	513.9	11.9
20°-30°	781.3	18.0
30°-40°	838.2	19.3
40°-50°	727.4	16.8
50°-60°	539.1	12.4
60°-70°	308.9	7.1
70°-80°	171.1	3.9
80°-90°	104.2	2.4
90°-100°	67.7	1.6
100°-110°	45.4	1.0
110°-120°	30.6	0.7
120°-130°	18.8	0.4
130°-140°	9.9	0.2
140°-150°	4.5	0.1
150°-160°	1.3	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	1468.0	33.9
0°-40°	2306.1	53.2
0°-60°	3572.7	82.4
0°-90°	4156.8	95.9
90°-120°	143.7	3.3
90°-150°	176.9	4.1
90°-180°	178.0	4.1
0°-180°	4335.0	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	1818	1818	1818	1818	1818	
5°	1830	1797	1834	1811	1830	174
15°	1806	1756	1805	1955	1806	511
25°	1745	1642	1744	1586	1745	807
35°	1650	1118	1655	946	1650	1033
45°	1457	717	1464	698	1457	1115
55°	1016	537	1042	488	1016	901
65°	461	272	497	258	461	465
75°	132	173	153	163	132	150
85°	18	119	24	109	18	23
90°	0	100	2	92	0	1
95°	1	82	0	78	1	1
105°	1	61	1	58	1	1
115°	1	50	1	45	1	1
125°	1	38	1	31	1	1
135°	1	24	1	20	1	1
145°	1	14	2	11	1	1
155°	2	7	2	6	2	1
165°	0	0	0	0	0	0
175°	0	0	0	0	0	0
180°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1818.4	1818.4	1818.4	1818.4	1818.4	1818.4	1818.4	1818.4	1818.4	1818.4	1818.4
2.5°	1831.6	1826.9	1825.0	1821.2	1824.1	1835.3	1827.8	1815.6	1816.5	1794.9	1806.2
5°	1829.7	1824.1	1821.2	1817.5	1819.4	1829.7	1822.2	1810.0	1809.0	1787.4	1797.8
7.5°	1826.9	1821.2	1816.5	1813.7	1814.7	1823.1	1813.7	1799.6	1796.8	1773.3	1782.7
10°	1822.2	1818.4	1811.8	1807.2	1806.2	1815.6	1800.6	1786.5	1779.9	1755.5	1764.9
12.5°	1815.6	1810.0	1803.4	1794.9	1794.0	1799.6	1787.4	1767.7	1761.1	1741.4	1751.7
15°	1806.2	1799.6	1792.1	1782.7	1778.0	1781.8	1766.8	1748.9	1748.0	1731.1	1745.2
17.5°	1795.9	1786.5	1778.0	1764.9	1758.3	1761.1	1748.9	1732.9	1734.8	1724.5	1740.5
20°	1781.8	1771.5	1758.3	1745.2	1735.8	1740.5	1732.0	1719.8	1722.6	1715.1	1729.2
22.5°	1765.8	1751.7	1735.8	1720.7	1713.2	1719.8	1713.2	1702.9	1703.8	1699.1	1707.6
25°	1745.2	1729.2	1710.4	1691.6	1687.9	1692.6	1688.8	1680.4	1676.6	1669.1	1672.8
27.5°	1726.4	1708.5	1685.0	1665.3	1658.7	1668.1	1659.7	1645.6	1635.3	1624.9	1617.4
30°	1704.8	1683.2	1656.9	1634.3	1628.7	1632.4	1620.2	1598.6	1571.4	1558.2	1537.6
32.5°	1681.3	1653.1	1620.2	1594.9	1591.1	1588.3	1565.8	1534.8	1492.5	1466.2	1434.3
35°	1650.3	1619.3	1579.8	1548.9	1543.2	1527.2	1490.6	1449.3	1394.8	1349.7	1295.3
37.5°	1615.5	1578.9	1537.6	1496.3	1480.3	1448.4	1396.7	1353.5	1270.8	1216.4	1150.6
40°	1576.1	1531.9	1481.2	1431.4	1405.1	1353.5	1294.3	1230.4	1150.6	1077.3	1021.9
42.5°	1521.6	1474.7	1414.5	1359.1	1314.0	1245.5	1176.0	1085.8	1012.5	950.5	894.2
45°	1456.8	1400.4	1330.9	1264.3	1207.0	1125.2	1043.5	953.4	892.3	820.0	781.5
47.5°	1373.2	1312.2	1238.0	1163.8	1088.6	998.4	913.0	826.6	765.5	713.8	685.7
50°	1274.6	1218.2	1136.5	1048.2	965.6	871.6	786.2	721.4	662.2	630.2	608.6
52.5°	1152.5	1099.9	1016.3	920.5	840.6	748.6	670.6	618.0	575.8	552.3	544.8
55°	1016.3	970.3	887.6	798.4	716.7	632.1	573.0	526.9	499.7	485.6	486.5
57.5°	870.7	835.0	757.0	677.2	600.2	536.3	482.8	446.2	425.5	424.5	427.4
60°	725.1	698.8	631.2	562.6	495.0	443.3	403.9	378.5	365.4	366.3	365.4
62.5°	586.1	561.7	512.8	456.5	402.9	368.2	332.5	322.2	310.9	310.0	310.0
65°	461.2	442.4	402.9	362.6	322.2	299.6	281.8	269.6	261.1	259.2	260.2
67.5°	346.6	339.1	311.8	284.6	259.2	245.1	230.1	227.3	220.7	220.7	222.6
70°	258.3	252.7	237.6	221.7	211.3	201.9	194.4	194.4	193.5	192.5	197.2
72.5°	186.9	187.9	183.2	170.9	170.0	168.1	166.3	169.1	170.0	172.8	178.5
75°	131.5	134.3	134.3	132.4	136.2	140.9	143.7	148.4	154.0	157.8	164.4
77.5°	93.0	93.0	97.7	103.3	110.8	119.3	126.8	133.4	140.9	145.6	151.2
80°	60.1	62.9	70.4	80.8	91.1	102.4	112.7	121.2	128.7	136.2	140.0
82.5°	35.7	40.4	49.8	62.9	76.1	90.2	100.5	110.8	119.3	126.8	129.6
85°	17.8	24.4	35.7	49.8	63.9	78.9	92.0	101.4	110.8	117.4	121.2
87.5°	5.6	13.1	25.4	38.5	53.5	68.6	82.7	93.0	101.4	107.1	110.8
90°	0.0	6.6	17.8	31.9	46.0	61.1	74.2	85.5	93.9	98.6	101.4
92.5°	0.0	3.8	14.1	26.3	39.4	54.5	67.6	78.0	85.5	90.2	92.0
95°	0.9	2.8	10.3	21.6	34.8	48.8	61.1	70.4	78.0	82.7	83.6
97.5°	0.9	1.9	8.5	17.8	30.1	43.2	55.4	64.8	70.4	75.1	76.1
100°	0.9	1.9	6.6	16.0	26.3	38.5	49.8	58.2	64.8	68.6	69.5
102.5°	0.9	0.9	5.6	13.1	23.5	33.8	44.1	52.6	58.2	62.0	63.9
105°	0.9	0.9	4.7	11.3	20.7	30.1	39.4	47.9	52.6	56.4	58.2
107.5°	0.9	0.9	3.8	9.4	17.8	26.3	35.7	42.3	47.9	51.7	53.5
110°	0.9	0.9	2.8	8.5	15.0	23.5	31.0	37.6	43.2	47.0	48.8

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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	0.9	0.9	2.8	7.5	13.1	20.7	27.2	33.8	38.5	42.3	45.1
115°	0.9	0.9	2.8	6.6	12.2	17.8	24.4	30.1	34.8	38.5	41.3
117.5°	0.9	0.9	2.8	5.6	10.3	16.0	21.6	27.2	31.0	34.8	37.6
120°	0.9	0.9	1.9	4.7	9.4	14.1	18.8	23.5	28.2	31.9	34.8
122.5°	0.9	0.9	1.9	4.7	7.5	12.2	16.9	20.7	25.4	28.2	31.0
125°	0.9	0.9	1.9	3.8	6.6	11.3	15.0	18.8	21.6	25.4	28.2
127.5°	0.9	0.9	1.9	3.8	5.6	9.4	13.1	16.9	19.7	22.5	24.4
130°	0.9	0.9	1.9	2.8	4.7	7.5	11.3	14.1	17.8	19.7	21.6
132.5°	0.9	0.9	0.9	2.8	3.8	5.6	8.5	12.2	15.0	17.8	18.8
135°	0.9	0.9	0.9	1.9	3.8	4.7	6.6	9.4	12.2	15.0	16.9
137.5°	0.9	0.9	0.9	1.9	2.8	4.7	5.6	7.5	10.3	12.2	15.0
140°	0.9	0.9	0.9	1.9	2.8	3.8	4.7	6.6	8.5	10.3	12.2
142.5°	0.9	0.9	0.9	1.9	1.9	2.8	3.8	5.6	6.6	8.5	10.3
145°	0.9	0.9	0.9	1.9	1.9	2.8	3.8	4.7	5.6	6.6	8.5
147.5°	0.9	0.9	0.9	1.9	1.9	1.9	2.8	3.8	4.7	5.6	6.6
150°	1.9	1.9	1.9	1.9	1.9	1.9	2.8	2.8	3.8	4.7	5.6
152.5°	1.9	1.9	1.9	1.9	1.9	1.9	2.8	2.8	2.8	3.8	4.7
155°	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.8	2.8	3.8	3.8
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

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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	1818.4	1818.4	1818.4	1818.4	1818.4	1818.4	1818.4	1818.4	1818.4	1818.4	1818.4
2.5°	1802.5	1804.3	1815.6	1814.7	1812.8	1810.9	1810.9	1809.0	1810.9	1815.6	1813.7
5°	1793.1	1795.9	1804.3	1803.4	1801.5	1800.6	1799.6	1796.8	1798.7	1805.3	1803.4
7.5°	1776.2	1779.0	1786.5	1782.7	1779.9	1781.8	1777.1	1774.3	1778.0	1784.6	1783.7
10°	1758.3	1760.2	1769.6	1767.7	1763.0	1763.9	1759.2	1757.4	1762.1	1765.8	1766.8
12.5°	1746.1	1752.7	1761.1	1760.2	1759.2	1760.2	1755.5	1753.6	1756.4	1760.2	1759.2
15°	1743.3	1751.7	1761.1	1761.1	1762.1	1763.0	1758.3	1755.5	1758.3	1761.1	1760.2
17.5°	1740.5	1750.8	1759.2	1758.3	1759.2	1761.1	1753.6	1751.7	1755.5	1759.2	1757.4
20°	1731.1	1740.5	1746.1	1744.2	1744.2	1745.2	1735.8	1735.8	1741.4	1744.2	1745.2
22.5°	1704.8	1716.0	1716.0	1711.3	1711.3	1707.6	1704.8	1699.1	1705.7	1710.4	1714.2
25°	1665.3	1670.0	1664.4	1654.1	1648.4	1643.7	1630.6	1641.8	1641.8	1655.9	1660.6
27.5°	1609.9	1599.6	1583.6	1562.0	1557.3	1542.3	1533.8	1536.6	1541.3	1561.1	1576.1
30°	1518.8	1487.8	1460.6	1451.2	1430.5	1415.5	1400.4	1408.0	1416.4	1427.7	1458.7
32.5°	1398.6	1368.5	1324.4	1308.4	1286.8	1268.0	1250.2	1261.4	1276.5	1284.0	1317.8
35°	1260.5	1224.8	1184.4	1157.2	1134.6	1124.3	1101.8	1117.7	1133.7	1139.3	1168.4
37.5°	1114.0	1077.3	1041.6	1018.2	996.6	990.0	975.0	986.2	998.4	1006.9	1031.3
40°	975.0	941.1	913.9	897.9	882.9	877.3	871.6	876.3	885.7	892.3	911.1
42.5°	855.7	828.4	809.6	800.3	789.9	782.4	783.3	785.2	789.9	804.0	812.5
45°	751.4	735.4	723.2	721.4	714.8	713.8	712.9	716.7	719.5	727.9	734.5
47.5°	667.8	661.2	658.4	662.2	665.0	661.2	663.1	667.8	673.5	673.5	672.5
50°	602.1	603.9	607.7	616.2	621.8	623.7	625.6	631.2	632.1	634.0	631.2
52.5°	548.5	550.4	560.7	573.9	580.5	583.3	587.0	592.7	592.7	594.6	590.8
55°	494.1	496.9	507.2	520.4	526.0	529.7	533.5	537.3	540.1	543.8	541.0
57.5°	433.9	442.4	449.0	452.7	456.5	459.3	462.1	463.1	468.7	469.6	474.3
60°	370.1	372.0	378.5	377.6	374.8	382.3	378.5	385.1	391.7	400.1	401.1
62.5°	309.0	310.0	314.7	312.8	316.5	315.6	318.4	318.4	323.1	326.9	331.6
65°	261.1	262.1	265.8	265.8	264.9	267.7	270.5	272.4	272.4	275.2	279.0
67.5°	225.4	228.2	232.0	233.9	235.8	235.8	238.6	239.5	241.4	242.3	244.2
70°	201.0	204.8	208.5	210.4	211.3	213.2	214.2	214.2	216.0	217.0	218.8
72.5°	183.2	186.9	189.7	189.7	191.6	192.5	192.5	193.5	194.4	196.3	198.2
75°	168.1	170.9	172.8	171.9	171.9	171.9	172.8	172.8	174.7	176.6	178.5
77.5°	154.0	156.9	156.9	155.0	155.0	155.0	155.0	155.9	156.9	158.7	160.6
80°	143.7	143.7	142.8	142.8	140.9	140.0	140.0	140.9	140.9	142.8	145.6
82.5°	132.4	132.4	131.5	130.6	129.6	128.7	128.7	129.6	130.6	131.5	133.4
85°	122.1	122.1	120.2	120.2	119.3	119.3	119.3	119.3	120.2	121.2	123.0
87.5°	111.8	110.8	109.9	109.0	109.0	109.0	109.0	109.0	109.9	111.8	112.7
90°	101.4	100.5	99.6	99.6	98.6	98.6	99.6	99.6	100.5	101.4	102.4
92.5°	92.0	91.1	90.2	90.2	89.2	89.2	90.2	89.2	91.1	91.1	92.0
95°	83.6	82.7	81.7	81.7	81.7	81.7	81.7	81.7	82.7	82.7	83.6
97.5°	76.1	75.1	74.2	74.2	75.1	74.2	75.1	75.1	75.1	76.1	77.0
100°	69.5	68.6	68.6	69.5	68.6	68.6	69.5	69.5	69.5	69.5	70.4
102.5°	63.9	63.9	63.9	63.9	63.9	63.9	64.8	64.8	64.8	64.8	65.7
105°	58.2	59.2	59.2	59.2	60.1	60.1	60.1	61.1	61.1	61.1	61.1
107.5°	54.5	55.4	55.4	56.4	56.4	57.3	57.3	57.3	57.3	58.2	58.2
110°	50.7	51.7	52.6	53.5	53.5	54.5	54.5	54.5	54.5	54.5	54.5

TEST NUMBER: P1213106

CATALOG NUMBER: 4SNLED-LD5-52SL-LC-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
112.5°	47.0	47.9	48.8	50.7	51.7	51.7	51.7	51.7	52.6	52.6	51.7
115°	43.2	45.1	46.0	47.9	48.8	48.8	49.8	49.8	49.8	49.8	48.8
117.5°	39.4	42.3	43.2	45.1	46.0	46.0	47.0	47.0	47.0	47.0	46.0
120°	36.6	38.5	40.4	41.3	42.3	43.2	43.2	44.1	44.1	44.1	43.2
122.5°	33.8	35.7	37.6	38.5	39.4	40.4	40.4	40.4	40.4	40.4	40.4
125°	30.1	31.9	33.8	34.8	35.7	36.6	36.6	37.6	37.6	37.6	36.6
127.5°	27.2	29.1	30.1	31.9	32.9	32.9	33.8	33.8	33.8	33.8	32.9
130°	23.5	25.4	27.2	28.2	29.1	29.1	30.1	30.1	30.1	30.1	30.1
132.5°	20.7	22.5	23.5	25.4	25.4	26.3	26.3	27.2	27.2	27.2	26.3
135°	18.8	19.7	20.7	22.5	22.5	23.5	23.5	23.5	23.5	23.5	23.5
137.5°	16.9	17.8	18.8	19.7	19.7	20.7	20.7	20.7	20.7	21.6	20.7
140°	14.1	16.0	16.9	16.9	17.8	17.8	17.8	18.8	18.8	18.8	17.8
142.5°	12.2	13.1	14.1	15.0	16.0	16.0	16.0	16.0	16.9	16.0	16.0
145°	9.4	11.3	12.2	13.1	14.1	14.1	14.1	14.1	14.1	14.1	14.1
147.5°	7.5	8.5	10.3	11.3	11.3	12.2	12.2	12.2	12.2	12.2	12.2
150°	6.6	6.6	8.5	9.4	10.3	10.3	10.3	10.3	10.3	10.3	10.3
152.5°	4.7	5.6	6.6	7.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5
155°	4.7	4.7	5.6	5.6	6.6	6.6	6.6	6.6	7.5	6.6	6.6
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: P1213106

CATALOG NUMBER: 4SNLED-LD5-52SL-LC-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	1818.4	1818.4	1818.4	1818.4	1818.4	1818.4	1818.4	1818.4	1818.4	1818.4	1818.4
2.5°	1810.9	1810.0	1813.7	1810.0	1791.2	1798.7	1795.9	1806.2	1807.2	1810.0	1819.4
5°	1801.5	1801.5	1806.2	1802.5	1784.6	1792.1	1791.2	1801.5	1803.4	1805.3	1815.6
7.5°	1782.7	1783.7	1790.2	1787.4	1768.6	1779.9	1779.0	1791.2	1794.9	1798.7	1808.1
10°	1764.9	1763.9	1771.5	1768.6	1750.8	1763.9	1763.0	1775.2	1780.9	1787.4	1798.7
12.5°	1755.5	1752.7	1755.5	1752.7	1732.9	1743.3	1744.2	1758.3	1764.9	1773.3	1786.5
15°	1755.5	1750.8	1750.8	1745.2	1722.6	1729.2	1730.1	1739.5	1748.0	1756.4	1772.4
17.5°	1753.6	1748.9	1748.0	1743.3	1718.9	1718.9	1717.9	1724.5	1729.2	1737.6	1754.6
20°	1743.3	1741.4	1740.5	1737.6	1715.1	1711.3	1709.5	1709.5	1712.3	1715.1	1732.0
22.5°	1716.0	1717.9	1719.8	1721.7	1703.8	1697.3	1698.2	1696.3	1693.5	1693.5	1707.6
25°	1665.3	1674.7	1682.2	1690.7	1680.4	1675.7	1681.3	1678.5	1673.8	1670.0	1682.2
27.5°	1584.5	1604.3	1620.2	1640.9	1641.8	1638.1	1653.1	1651.2	1650.3	1644.7	1654.1
30°	1472.8	1503.8	1525.4	1555.4	1580.8	1584.5	1609.9	1613.7	1617.4	1614.6	1624.0
32.5°	1337.5	1379.8	1416.4	1463.4	1487.8	1509.4	1545.1	1560.1	1575.2	1579.8	1590.2
35°	1190.1	1238.0	1281.2	1332.8	1371.3	1418.3	1461.5	1484.0	1517.9	1531.0	1546.0
37.5°	1050.1	1095.2	1137.5	1189.1	1251.1	1299.9	1353.5	1404.2	1450.2	1469.0	1491.6
40°	926.1	962.7	1003.1	1048.2	1104.6	1168.4	1226.7	1297.1	1351.6	1389.2	1422.1
42.5°	832.2	850.0	884.8	925.2	970.3	1035.1	1094.2	1173.1	1238.9	1292.4	1346.9
45°	748.6	757.0	782.4	804.0	850.0	907.3	970.3	1047.3	1115.9	1184.4	1250.2
47.5°	677.2	687.5	699.8	712.9	745.8	793.7	848.2	917.7	986.2	1066.1	1141.2
50°	629.3	632.1	634.0	639.6	659.4	692.2	736.4	795.6	861.3	946.8	1026.6
52.5°	587.0	587.0	581.4	578.6	586.1	606.8	632.1	674.4	742.0	820.9	905.5
55°	542.0	533.5	531.6	522.2	524.1	533.5	545.7	578.6	634.0	701.6	783.3
57.5°	479.0	475.3	475.3	471.5	464.0	468.7	471.5	495.0	534.4	592.7	664.1
60°	406.7	404.8	409.5	410.5	403.9	406.7	405.8	419.9	448.0	495.0	554.2
62.5°	334.4	342.8	343.8	347.5	343.8	342.8	347.5	359.7	373.8	409.5	455.5
65°	280.8	285.5	286.5	291.2	289.3	289.3	293.1	302.4	310.9	335.3	371.0
67.5°	246.1	244.2	245.1	248.0	245.1	244.2	247.0	252.7	259.2	274.3	299.6
70°	218.8	217.0	217.0	217.0	213.2	210.4	211.3	213.2	216.0	224.5	240.5
72.5°	198.2	198.2	195.4	192.5	189.7	187.9	186.0	184.1	183.2	186.0	194.4
75°	179.4	180.3	179.4	176.6	172.8	169.1	165.3	161.6	156.9	155.0	155.9
77.5°	162.5	163.4	164.4	163.4	159.7	155.0	149.3	143.7	137.1	130.6	126.8
80°	147.5	149.3	150.3	149.3	146.5	142.8	136.2	129.6	120.2	111.8	102.4
82.5°	134.3	137.1	138.1	138.1	136.2	132.4	124.9	117.4	107.1	95.8	83.6
85°	124.0	125.9	127.7	127.7	126.8	123.0	115.5	107.1	96.7	83.6	70.4
87.5°	113.7	114.6	116.5	118.3	116.5	112.7	106.1	96.7	86.4	73.3	58.2
90°	103.3	104.3	106.1	108.0	107.1	103.3	97.7	89.2	78.0	63.9	48.8
92.5°	93.0	94.9	95.8	96.7	97.7	94.9	90.2	81.7	70.4	56.4	42.3
95°	85.5	85.5	87.4	88.3	89.2	86.4	82.7	74.2	63.9	50.7	36.6
97.5°	78.0	78.0	79.8	79.8	80.8	78.9	75.1	67.6	57.3	45.1	31.0
100°	70.4	71.4	72.3	73.3	73.3	72.3	68.6	61.1	51.7	40.4	27.2
102.5°	65.7	65.7	66.7	66.7	67.6	65.7	62.0	55.4	46.0	35.7	23.5
105°	61.1	61.1	62.0	62.0	61.1	59.2	55.4	49.8	41.3	31.0	20.7
107.5°	57.3	57.3	57.3	57.3	56.4	54.5	50.7	44.1	36.6	28.2	18.8
110°	54.5	53.5	53.5	52.6	51.7	48.8	45.1	39.4	32.9	24.4	16.0

TEST NUMBER: P1213106

CATALOG NUMBER: 4SNLED-LD5-52SL-LC-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
112.5°	51.7	50.7	49.8	48.8	47.0	44.1	40.4	35.7	29.1	21.6	14.1
115°	48.8	47.9	47.0	45.1	43.2	40.4	36.6	31.9	25.4	18.8	12.2
117.5°	46.0	45.1	43.2	41.3	39.4	36.6	32.9	28.2	22.5	16.9	11.3
120°	42.3	41.3	40.4	38.5	36.6	32.9	29.1	25.4	19.7	15.0	9.4
122.5°	39.4	38.5	36.6	35.7	32.9	30.1	26.3	22.5	17.8	13.1	8.5
125°	35.7	34.8	33.8	31.9	30.1	26.3	23.5	19.7	16.0	11.3	6.6
127.5°	32.9	31.9	30.1	28.2	26.3	23.5	20.7	17.8	14.1	9.4	6.6
130°	29.1	28.2	27.2	25.4	23.5	20.7	18.8	15.0	12.2	8.5	5.6
132.5°	25.4	25.4	24.4	22.5	20.7	18.8	16.0	13.1	10.3	7.5	4.7
135°	23.5	22.5	21.6	19.7	18.8	16.0	14.1	11.3	8.5	6.6	3.8
137.5°	20.7	19.7	18.8	17.8	16.0	14.1	12.2	9.4	7.5	5.6	3.8
140°	17.8	16.9	16.9	15.0	14.1	12.2	10.3	8.5	6.6	4.7	2.8
142.5°	16.0	15.0	14.1	13.1	12.2	10.3	8.5	6.6	5.6	3.8	2.8
145°	14.1	13.1	12.2	11.3	10.3	8.5	7.5	5.6	4.7	3.8	2.8
147.5°	11.3	11.3	10.3	9.4	8.5	7.5	6.6	5.6	3.8	2.8	1.9
150°	9.4	9.4	8.5	7.5	7.5	6.6	5.6	4.7	3.8	2.8	1.9
152.5°	8.5	7.5	7.5	6.6	6.6	5.6	4.7	3.8	2.8	2.8	1.9
155°	6.6	6.6	6.6	5.6	5.6	4.7	3.8	3.8	2.8	1.9	1.9
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: P1213106

CATALOG NUMBER: 4SNLED-LD5-52SL-LC-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
0°	1818.4	1818.4	1818.4	1818.4	1818.4	1818.4	1818.4	1818.4	1818.4	1818.4	1818.4
2.5°	1821.2	1810.0	1819.4	1836.3	1834.4	1832.5	1830.6	1834.4	1846.6	1840.0	1829.7
5°	1818.4	1807.2	1817.5	1833.5	1832.5	1829.7	1827.8	1831.6	1843.8	1837.2	1825.9
7.5°	1812.8	1802.5	1810.0	1825.9	1825.9	1824.1	1822.2	1825.9	1837.2	1831.6	1820.3
10°	1803.4	1795.9	1803.4	1818.4	1819.4	1815.6	1813.7	1818.4	1829.7	1826.9	1817.5
12.5°	1795.9	1788.4	1796.8	1811.8	1812.8	1809.0	1806.2	1811.8	1826.9	1828.8	1825.9
15°	1785.5	1779.0	1789.3	1805.3	1805.3	1802.5	1802.5	1810.0	1830.6	1839.1	1843.8
17.5°	1770.5	1765.8	1778.0	1794.0	1794.9	1793.1	1794.0	1809.0	1836.3	1856.9	1870.1
20°	1751.7	1749.9	1763.0	1779.9	1782.7	1783.7	1788.4	1810.9	1848.5	1876.7	1889.8
22.5°	1729.2	1730.1	1745.2	1763.0	1766.8	1769.6	1779.0	1810.9	1857.9	1887.9	1893.6
25°	1703.8	1706.6	1722.6	1744.2	1748.9	1754.6	1770.5	1811.8	1860.7	1880.4	1871.0
27.5°	1676.6	1682.2	1702.9	1725.4	1731.1	1740.5	1761.1	1806.2	1847.5	1848.5	1813.7
30°	1648.4	1655.0	1679.4	1705.7	1715.1	1724.5	1749.9	1793.1	1815.6	1785.5	1724.5
32.5°	1616.5	1625.9	1650.3	1682.2	1693.5	1705.7	1731.1	1767.7	1759.2	1694.4	1607.1
35°	1576.1	1589.2	1617.4	1655.0	1665.3	1681.3	1699.1	1707.6	1670.0	1578.0	1479.3
37.5°	1526.3	1546.0	1578.9	1622.1	1633.4	1643.7	1648.4	1624.9	1549.8	1450.2	1347.8
40°	1469.0	1499.1	1534.8	1582.7	1593.9	1593.9	1577.0	1527.2	1432.4	1301.8	1188.2
42.5°	1399.5	1436.1	1481.2	1529.1	1540.4	1527.2	1486.9	1399.5	1291.5	1145.9	1025.7
45°	1315.0	1363.8	1414.5	1464.3	1470.0	1440.8	1368.5	1257.7	1124.3	989.0	874.5
47.5°	1214.5	1278.3	1333.8	1390.1	1382.6	1333.8	1237.0	1111.2	970.3	842.5	750.5
50°	1101.8	1176.9	1238.9	1292.4	1276.5	1208.8	1095.2	963.7	823.7	714.8	638.7
52.5°	981.5	1067.9	1129.9	1173.1	1151.5	1070.8	945.8	820.0	705.4	605.8	555.1
55°	856.6	944.0	1007.8	1041.6	1013.5	926.1	803.1	688.5	580.5	515.7	485.6
57.5°	735.4	817.2	877.3	904.5	868.8	781.5	667.8	571.1	493.1	438.6	423.6
60°	619.0	685.7	743.0	763.6	725.1	644.3	546.7	469.6	412.3	374.8	367.3
62.5°	511.0	565.4	610.5	626.5	588.9	526.0	441.5	384.2	343.8	325.0	315.6
65°	421.7	453.7	499.7	496.9	474.3	416.1	354.1	313.7	287.4	275.2	269.6
67.5°	331.6	360.7	389.8	393.6	365.4	325.0	284.6	255.5	241.4	234.8	232.0
70°	256.4	278.0	295.9	291.2	276.1	250.8	225.4	209.5	203.8	201.0	201.0
72.5°	199.1	210.4	218.8	213.2	203.8	190.7	178.5	171.9	172.8	174.7	176.6
75°	154.0	156.9	158.7	153.1	151.2	142.8	141.8	142.8	148.4	154.0	156.9
77.5°	118.3	114.6	111.8	106.1	107.1	106.1	110.8	118.3	126.8	135.3	142.8
80°	91.1	82.7	76.1	70.4	73.3	78.0	87.4	98.6	109.9	119.3	128.7
82.5°	70.4	58.2	48.8	43.2	48.8	56.4	68.6	82.7	95.8	106.1	116.5
85°	54.5	40.4	29.1	23.5	29.1	40.4	53.5	69.5	83.6	94.9	105.2
87.5°	42.3	29.1	16.0	9.4	16.0	28.2	43.2	58.2	72.3	85.5	95.8
90°	33.8	19.7	7.5	1.9	8.5	19.7	33.8	48.8	62.9	77.0	87.4
92.5°	27.2	14.1	3.8	0.0	4.7	15.0	28.2	42.3	56.4	69.5	79.8
95°	22.5	11.3	2.8	0.0	3.8	11.3	22.5	36.6	49.8	62.9	71.4
97.5°	18.8	8.5	1.9	0.0	1.9	9.4	18.8	31.0	44.1	56.4	64.8
100°	16.0	7.5	1.9	0.0	1.9	7.5	16.0	27.2	38.5	49.8	58.2
102.5°	13.1	5.6	0.9	0.9	0.9	5.6	14.1	23.5	33.8	44.1	52.6
105°	12.2	4.7	0.9	0.9	0.9	4.7	12.2	20.7	30.1	39.4	47.0
107.5°	10.3	3.8	0.9	0.9	0.9	3.8	10.3	17.8	27.2	35.7	42.3
110°	8.5	3.8	0.9	0.9	0.9	3.8	8.5	16.0	23.5	31.0	37.6



TEST NUMBER: P1213106

CATALOG NUMBER: 4SNLED-LD5-52SL-LC-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
112.5°	7.5	2.8	0.9	0.9	0.9	2.8	7.5	14.1	20.7	28.2	33.8
115°	6.6	2.8	0.9	0.9	0.9	2.8	6.6	12.2	17.8	24.4	30.1
117.5°	5.6	2.8	0.9	0.9	0.9	1.9	5.6	10.3	16.0	21.6	27.2
120°	4.7	1.9	0.9	0.9	0.9	1.9	4.7	9.4	14.1	18.8	23.5
122.5°	4.7	1.9	0.9	0.9	0.9	1.9	3.8	7.5	12.2	16.0	20.7
125°	3.8	1.9	0.9	0.9	0.9	0.9	3.8	6.6	10.3	14.1	17.8
127.5°	3.8	1.9	0.9	0.9	0.9	0.9	2.8	5.6	8.5	12.2	16.0
130°	2.8	1.9	0.9	0.9	0.9	0.9	1.9	4.7	7.5	10.3	13.1
132.5°	2.8	1.9	0.9	0.9	0.9	0.9	1.9	3.8	5.6	8.5	11.3
135°	2.8	0.9	0.9	0.9	0.9	0.9	0.9	2.8	4.7	6.6	8.5
137.5°	1.9	0.9	0.9	0.9	0.9	0.9	0.9	1.9	3.8	4.7	7.5
140°	1.9	0.9	0.9	0.9	0.9	0.9	0.9	1.9	2.8	3.8	5.6
142.5°	1.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	1.9	2.8	4.7
145°	1.9	0.9	0.9	1.9	1.9	0.9	0.9	1.9	1.9	2.8	3.8
147.5°	1.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	1.9	1.9	2.8
150°	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.8
152.5°	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
155°	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
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: P1213106

CATALOG NUMBER: 4SNLED-LD5-52SL-LC-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
0°	1818.4	1818.4	1818.4	1818.4	1818.4	1818.4	1818.4	1818.4	1818.4	1818.4	1818.4
2.5°	1827.8	1806.2	1817.5	1813.7	1817.5	1826.9	1825.9	1823.1	1825.0	1820.3	1815.6
5°	1824.1	1802.5	1813.7	1809.0	1813.7	1823.1	1821.2	1818.4	1821.2	1815.6	1810.9
7.5°	1819.4	1799.6	1812.8	1811.8	1820.3	1832.5	1833.5	1833.5	1840.0	1831.6	1827.8
10°	1819.4	1809.0	1826.9	1833.5	1855.1	1871.0	1872.9	1876.7	1887.9	1886.0	1876.7
12.5°	1839.1	1837.2	1863.5	1879.5	1899.2	1921.7	1934.0	1937.7	1945.2	1939.6	1935.8
15°	1864.4	1873.8	1903.0	1920.8	1942.4	1959.3	1962.1	1964.0	1969.6	1961.2	1954.6
17.5°	1898.3	1903.9	1927.4	1934.9	1949.0	1951.8	1948.0	1938.6	1938.6	1919.9	1914.2
20°	1914.2	1911.4	1920.8	1908.6	1903.0	1886.0	1870.1	1852.2	1851.3	1831.6	1829.7
22.5°	1900.1	1881.4	1861.6	1831.6	1818.4	1794.0	1772.4	1762.1	1755.5	1730.1	1723.6
25°	1850.4	1804.3	1775.2	1739.5	1707.6	1679.4	1658.7	1637.1	1616.5	1595.8	1586.4
27.5°	1763.9	1720.7	1673.8	1624.0	1579.8	1536.6	1501.9	1480.3	1460.6	1433.3	1419.2
30°	1657.8	1597.7	1546.0	1498.1	1425.8	1373.2	1344.1	1300.9	1285.9	1273.6	1247.3
32.5°	1532.9	1460.6	1390.1	1325.3	1251.1	1202.3	1163.8	1131.8	1122.4	1090.5	1083.0
35°	1394.8	1299.9	1220.1	1156.2	1102.7	1043.5	1011.6	990.0	971.2	949.6	945.8
37.5°	1232.3	1146.8	1056.7	1000.3	958.1	907.3	882.9	867.9	859.4	843.5	840.6
40°	1068.9	983.4	921.4	865.1	838.8	811.5	793.7	787.1	783.3	777.7	772.1
42.5°	920.5	845.3	801.2	763.6	752.4	739.2	734.5	738.3	734.5	732.6	731.7
45°	794.6	737.3	706.3	695.1	692.2	688.5	692.2	698.8	699.8	697.9	697.9
47.5°	680.0	652.8	639.6	641.5	646.2	649.0	655.6	664.1	665.9	661.2	663.1
50°	604.9	588.9	586.1	593.6	603.9	607.7	615.2	621.8	620.9	619.0	617.1
52.5°	534.4	529.7	537.3	544.8	556.0	557.9	560.7	563.6	562.6	558.9	557.0
55°	475.3	479.0	485.6	488.4	496.9	495.9	496.9	496.9	493.1	491.2	488.4
57.5°	421.7	422.7	426.4	427.4	432.1	430.2	429.2	427.4	421.7	420.8	418.0
60°	367.3	365.4	373.8	367.3	371.0	367.3	366.3	361.6	356.0	355.0	353.2
62.5°	315.6	311.8	317.5	314.7	316.5	312.8	310.9	305.3	300.6	299.6	298.7
65°	269.6	267.7	273.3	272.4	274.3	269.6	267.7	263.9	260.2	259.2	258.3
67.5°	231.1	235.8	238.6	238.6	240.5	239.5	234.8	233.9	232.9	229.2	229.2
70°	202.9	205.7	211.3	212.3	211.3	213.2	209.5	208.5	207.6	205.7	204.8
72.5°	180.3	184.1	189.7	190.7	189.7	189.7	187.9	186.9	186.9	184.1	184.1
75°	162.5	167.2	171.9	171.9	171.9	170.0	168.1	168.1	166.3	165.3	163.4
77.5°	147.5	153.1	156.9	155.9	155.0	153.1	153.1	150.3	147.5	147.5	145.6
80°	136.2	140.0	142.8	141.8	140.9	138.1	137.1	134.3	132.4	129.6	129.6
82.5°	124.0	128.7	130.6	129.6	127.7	124.9	124.0	122.1	120.2	119.3	117.4
85°	113.7	118.3	119.3	117.4	115.5	113.7	112.7	111.8	110.8	109.0	109.0
87.5°	103.3	108.0	108.0	107.1	105.2	104.3	103.3	102.4	101.4	100.5	99.6
90°	94.9	98.6	98.6	97.7	96.7	95.8	94.9	93.9	93.0	92.0	92.0
92.5°	86.4	90.2	90.2	89.2	88.3	87.4	87.4	86.4	85.5	84.5	83.6
95°	78.9	82.7	82.7	82.7	81.7	80.8	80.8	79.8	78.9	78.9	78.0
97.5°	71.4	75.1	75.1	75.1	74.2	73.3	73.3	72.3	72.3	72.3	71.4
100°	64.8	67.6	68.6	68.6	67.6	67.6	67.6	66.7	66.7	66.7	65.7
102.5°	58.2	61.1	62.9	62.9	62.9	62.0	62.0	62.0	62.0	62.0	61.1
105°	52.6	55.4	57.3	58.2	58.2	58.2	58.2	58.2	58.2	58.2	58.2
107.5°	47.9	50.7	52.6	53.5	54.5	54.5	55.4	55.4	55.4	55.4	55.4
110°	43.2	46.0	48.8	49.8	50.7	51.7	51.7	52.6	51.7	51.7	51.7

TEST NUMBER: P1213106

CATALOG NUMBER: 4SNLED-LD5-52SL-LC-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
112.5°	38.5	42.3	44.1	46.0	47.0	47.9	48.8	48.8	48.8	48.8	48.8
115°	34.8	38.5	40.4	42.3	44.1	45.1	45.1	46.0	46.0	46.0	45.1
117.5°	31.0	34.8	36.6	38.5	39.4	41.3	42.3	42.3	42.3	42.3	41.3
120°	28.2	31.0	32.9	34.8	36.6	37.6	38.5	38.5	38.5	38.5	38.5
122.5°	24.4	27.2	30.1	31.9	32.9	33.8	34.8	34.8	34.8	34.8	34.8
125°	21.6	24.4	26.3	28.2	29.1	31.0	31.0	31.0	31.0	31.0	31.0
127.5°	18.8	21.6	23.5	25.4	26.3	27.2	28.2	28.2	28.2	28.2	28.2
130°	16.0	18.8	20.7	22.5	23.5	24.4	24.4	25.4	25.4	25.4	25.4
132.5°	14.1	16.0	17.8	19.7	20.7	21.6	21.6	22.5	22.5	22.5	22.5
135°	11.3	14.1	15.0	16.9	17.8	18.8	18.8	19.7	19.7	19.7	19.7
137.5°	9.4	11.3	13.1	15.0	16.0	16.0	16.9	16.9	17.8	17.8	17.8
140°	7.5	8.5	11.3	12.2	13.1	14.1	15.0	15.0	15.0	15.0	15.0
142.5°	5.6	7.5	8.5	10.3	11.3	12.2	13.1	13.1	13.1	13.1	13.1
145°	4.7	5.6	6.6	8.5	9.4	10.3	11.3	11.3	11.3	11.3	11.3
147.5°	3.8	4.7	5.6	6.6	7.5	8.5	9.4	9.4	9.4	9.4	9.4
150°	2.8	3.8	4.7	4.7	5.6	6.6	7.5	8.5	8.5	8.5	8.5
152.5°	2.8	2.8	3.8	3.8	4.7	5.6	6.6	6.6	6.6	6.6	6.6
155°	1.9	2.8	2.8	2.8	3.8	3.8	4.7	5.6	5.6	5.6	5.6
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: P1213106

CATALOG NUMBER: 4SNLED-LD5-52SL-LC-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°
0°	1818.4	1818.4	1818.4	1818.4	1818.4	1818.4	1818.4	1818.4	1818.4	1818.4	1818.4
2.5°	1818.4	1822.2	1820.3	1817.5	1816.5	1821.2	1816.5	1794.9	1803.4	1804.3	1810.9
5°	1815.6	1818.4	1816.5	1814.7	1811.8	1817.5	1811.8	1789.3	1797.8	1798.7	1805.3
7.5°	1834.4	1835.3	1835.3	1830.6	1823.1	1825.9	1818.4	1793.1	1797.8	1797.8	1802.5
10°	1881.4	1883.2	1886.0	1873.8	1864.4	1856.9	1846.6	1815.6	1814.7	1807.2	1807.2
12.5°	1942.4	1937.7	1933.0	1927.4	1919.9	1910.5	1895.4	1858.8	1846.6	1834.4	1822.2
15°	1960.3	1958.4	1957.4	1954.6	1949.9	1947.1	1935.8	1899.2	1881.4	1866.3	1844.7
17.5°	1913.3	1917.0	1929.3	1930.2	1935.8	1947.1	1945.2	1919.9	1903.9	1897.3	1871.0
20°	1828.8	1829.7	1844.7	1851.3	1875.7	1894.5	1908.6	1905.8	1902.0	1909.5	1889.8
22.5°	1727.3	1733.9	1749.9	1760.2	1783.7	1805.3	1827.8	1840.0	1859.8	1890.7	1887.0
25°	1589.2	1597.7	1620.2	1637.1	1670.0	1702.9	1732.9	1754.6	1778.0	1837.2	1856.9
27.5°	1423.9	1437.1	1466.2	1483.1	1529.1	1562.9	1606.1	1648.4	1681.3	1748.9	1789.3
30°	1250.2	1261.4	1292.4	1315.9	1355.4	1401.4	1455.9	1516.0	1570.5	1639.0	1689.7
32.5°	1087.7	1099.9	1125.2	1145.9	1190.1	1228.6	1288.7	1362.9	1413.6	1508.5	1576.1
35°	945.8	957.1	975.0	992.8	1029.4	1068.9	1120.5	1192.9	1257.7	1356.3	1441.8
37.5°	846.3	848.2	858.5	868.8	896.1	926.1	966.5	1030.4	1090.5	1196.6	1290.6
40°	774.9	774.9	780.5	783.3	795.6	813.4	838.8	888.5	938.3	1019.1	1133.7
42.5°	730.8	728.9	728.9	729.8	728.9	737.3	752.4	775.8	820.0	886.7	975.9
45°	697.9	694.1	691.3	684.7	681.0	681.0	681.9	690.4	715.7	758.9	831.3
47.5°	661.2	660.3	655.6	648.1	641.5	636.8	629.3	626.5	634.0	658.4	707.3
50°	619.0	614.3	609.6	603.9	596.4	591.7	577.6	578.6	572.0	583.3	608.6
52.5°	557.0	553.2	551.4	546.7	543.8	542.0	530.7	519.4	516.6	518.5	527.9
55°	488.4	490.3	482.8	486.5	485.6	477.1	472.5	464.0	461.2	460.2	464.9
57.5°	417.0	418.9	414.2	418.0	418.0	413.3	410.5	410.5	403.9	398.2	404.8
60°	352.2	348.5	351.3	356.0	356.0	353.2	351.3	351.3	346.6	344.7	349.4
62.5°	299.6	295.9	298.7	303.4	304.3	302.4	300.6	300.6	294.9	294.9	298.7
65°	259.2	260.2	259.2	263.0	263.0	263.9	262.1	260.2	253.6	256.4	255.5
67.5°	230.1	229.2	229.2	232.9	232.0	233.9	232.0	229.2	224.5	220.7	219.8
70°	205.7	204.8	204.8	206.6	207.6	207.6	206.6	204.8	198.2	194.4	191.6
72.5°	184.1	183.2	184.1	185.0	186.0	186.9	186.0	184.1	178.5	173.8	169.1
75°	164.4	163.4	166.3	166.3	167.2	167.2	168.1	167.2	162.5	156.9	151.2
77.5°	144.6	145.6	148.4	149.3	151.2	152.2	153.1	153.1	148.4	143.7	136.2
80°	128.7	130.6	132.4	133.4	135.3	138.1	139.0	140.0	136.2	131.5	123.0
82.5°	117.4	118.3	120.2	121.2	124.0	124.9	125.9	127.7	125.9	121.2	111.8
85°	108.0	109.0	110.8	110.8	112.7	114.6	115.5	116.5	115.5	110.8	101.4
87.5°	99.6	100.5	101.4	102.4	103.3	104.3	105.2	106.1	105.2	100.5	92.0
90°	92.0	92.0	93.0	93.0	93.9	94.9	96.7	96.7	95.8	92.0	83.6
92.5°	83.6	84.5	84.5	85.5	86.4	87.4	88.3	88.3	87.4	83.6	76.1
95°	78.0	78.0	78.9	78.9	79.8	79.8	80.8	80.8	79.8	76.1	68.6
97.5°	71.4	71.4	71.4	71.4	72.3	72.3	73.3	73.3	72.3	68.6	62.0
100°	65.7	65.7	65.7	65.7	65.7	66.7	66.7	66.7	65.7	62.0	55.4
102.5°	61.1	61.1	61.1	61.1	61.1	61.1	61.1	61.1	59.2	56.4	49.8
105°	58.2	58.2	58.2	57.3	57.3	57.3	56.4	56.4	53.5	50.7	45.1
107.5°	54.5	54.5	54.5	53.5	53.5	52.6	51.7	51.7	48.8	46.0	40.4
110°	51.7	51.7	51.7	50.7	49.8	48.8	47.9	47.0	44.1	40.4	35.7

TEST NUMBER: P1213106

CATALOG NUMBER: 4SNLED-LD5-52SL-LC-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°
112.5°	48.8	48.8	47.9	47.9	47.0	46.0	44.1	43.2	40.4	36.6	31.9
115°	45.1	45.1	45.1	44.1	43.2	42.3	41.3	39.4	36.6	32.9	28.2
117.5°	41.3	41.3	41.3	40.4	39.4	38.5	37.6	35.7	32.9	29.1	25.4
120°	37.6	37.6	37.6	36.6	35.7	34.8	33.8	31.9	29.1	26.3	21.6
122.5°	34.8	34.8	33.8	32.9	31.9	31.0	30.1	28.2	26.3	22.5	18.8
125°	31.0	31.0	30.1	30.1	29.1	28.2	27.2	25.4	22.5	19.7	16.9
127.5°	28.2	27.2	27.2	27.2	26.3	25.4	23.5	22.5	19.7	16.9	14.1
130°	24.4	24.4	24.4	23.5	23.5	22.5	20.7	18.8	16.9	15.0	12.2
132.5°	21.6	21.6	21.6	21.6	20.7	19.7	17.8	16.9	15.0	12.2	10.3
135°	19.7	19.7	18.8	18.8	17.8	16.9	16.0	14.1	12.2	10.3	8.5
137.5°	16.9	16.9	16.9	16.0	16.0	15.0	13.1	12.2	11.3	9.4	7.5
140°	15.0	15.0	14.1	14.1	13.1	13.1	12.2	10.3	9.4	7.5	6.6
142.5°	13.1	13.1	12.2	12.2	11.3	11.3	10.3	9.4	7.5	6.6	4.7
145°	11.3	11.3	10.3	10.3	10.3	9.4	8.5	7.5	6.6	5.6	4.7
147.5°	9.4	9.4	9.4	8.5	8.5	7.5	7.5	6.6	5.6	4.7	3.8
150°	8.5	8.5	7.5	7.5	7.5	6.6	5.6	5.6	4.7	3.8	2.8
152.5°	6.6	6.6	6.6	6.6	5.6	5.6	4.7	4.7	3.8	2.8	2.8
155°	5.6	5.6	5.6	4.7	4.7	4.7	3.8	3.8	2.8	2.8	1.9
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: P1213106

CATALOG NUMBER: 4SNLED-LD5-52SL-LC-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	330°	335°	340°	345°	350°	355°	360°
0°	1818.4	1818.4	1818.4	1818.4	1818.4	1818.4	1818.4
2.5°	1808.1	1807.2	1815.6	1814.7	1803.4	1820.3	1831.6
5°	1803.4	1802.5	1810.0	1811.8	1799.6	1817.5	1829.7
7.5°	1799.6	1798.7	1807.2	1810.0	1797.8	1813.7	1826.9
10°	1800.6	1795.9	1803.4	1805.3	1794.0	1810.9	1822.2
12.5°	1807.2	1795.9	1798.7	1798.7	1788.4	1803.4	1815.6
15°	1823.1	1799.6	1795.9	1793.1	1779.9	1794.0	1806.2
17.5°	1841.0	1809.0	1795.9	1786.5	1770.5	1782.7	1795.9
20°	1858.8	1819.4	1797.8	1782.7	1761.1	1772.4	1781.8
22.5°	1867.3	1828.8	1799.6	1777.1	1749.9	1755.5	1765.8
25°	1856.0	1825.0	1795.9	1768.6	1735.8	1736.7	1745.2
27.5°	1814.7	1806.2	1787.4	1760.2	1724.5	1719.8	1726.4
30°	1744.2	1767.7	1768.6	1748.9	1711.3	1702.0	1704.8
32.5°	1645.6	1698.2	1729.2	1725.4	1692.6	1679.4	1681.3
35°	1531.9	1597.7	1665.3	1687.9	1664.4	1654.1	1650.3
37.5°	1395.8	1484.0	1574.2	1629.6	1625.9	1619.3	1615.5
40°	1245.5	1351.6	1458.7	1547.0	1574.2	1574.2	1576.1
42.5°	1084.9	1208.8	1326.2	1438.0	1501.9	1516.0	1521.6
45°	929.9	1054.8	1182.5	1311.2	1396.7	1440.8	1456.8
47.5°	789.0	914.8	1036.0	1176.9	1290.6	1347.8	1373.2
50°	668.8	762.7	890.4	1030.4	1154.4	1224.8	1274.6
52.5°	569.2	642.5	754.2	884.8	1009.7	1106.5	1152.5
55°	485.6	535.4	630.2	743.0	862.2	962.7	1016.3
57.5°	415.2	454.6	519.4	613.3	713.8	813.4	870.7
60°	353.2	380.4	424.5	498.8	584.2	669.7	725.1
62.5°	299.6	317.5	346.6	401.1	467.8	534.4	586.1
65°	258.3	265.8	281.8	315.6	366.3	417.0	461.2
67.5°	217.9	222.6	234.8	255.5	280.8	317.5	346.6
70°	187.9	187.9	188.8	201.0	214.2	237.6	258.3
72.5°	163.4	160.6	155.0	157.8	160.6	173.8	186.9
75°	143.7	137.1	127.7	124.0	122.1	124.0	131.5
77.5°	126.8	117.4	106.1	96.7	89.2	86.4	93.0
80°	112.7	101.4	88.3	76.1	63.9	57.3	60.1
82.5°	101.4	87.4	73.3	59.2	45.1	35.7	35.7
85°	89.2	76.1	61.1	46.0	31.9	19.7	17.8
87.5°	80.8	66.7	50.7	36.6	22.5	10.3	5.6
90°	72.3	58.2	43.2	29.1	16.0	4.7	0.0
92.5°	64.8	51.7	37.6	23.5	11.3	2.8	0.0
95°	58.2	46.0	31.9	19.7	9.4	1.9	0.9
97.5°	51.7	40.4	28.2	16.0	6.6	1.9	0.9
100°	47.0	35.7	24.4	13.1	5.6	0.9	0.9
102.5°	41.3	31.9	20.7	11.3	4.7	0.9	0.9
105°	36.6	28.2	17.8	9.4	3.8	0.9	0.9
107.5°	32.9	24.4	16.0	8.5	3.8	0.9	0.9
110°	29.1	21.6	14.1	7.5	2.8	0.9	0.9



TEST NUMBER: P1213106

CATALOG NUMBER: 4SNLED-LD5-52SL-LC-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	330°	335°	340°	345°	350°	355°	360°
112.5°	26.3	18.8	12.2	6.6	1.9	0.9	0.9
115°	22.5	16.9	10.3	5.6	1.9	0.9	0.9
117.5°	19.7	14.1	9.4	4.7	1.9	0.9	0.9
120°	16.9	12.2	7.5	3.8	0.9	0.9	0.9
122.5°	15.0	10.3	6.6	3.8	0.9	0.9	0.9
125°	13.1	9.4	5.6	2.8	0.9	0.9	0.9
127.5°	11.3	7.5	4.7	1.9	0.9	0.9	0.9
130°	9.4	6.6	3.8	1.9	0.9	0.9	0.9
132.5°	7.5	5.6	3.8	1.9	0.9	0.9	0.9
135°	6.6	4.7	2.8	1.9	0.9	0.9	0.9
137.5°	5.6	3.8	1.9	1.9	1.9	0.9	0.9
140°	4.7	2.8	1.9	1.9	1.9	1.9	0.9
142.5°	3.8	2.8	1.9	1.9	1.9	1.9	0.9
145°	2.8	1.9	1.9	1.9	1.9	1.9	0.9
147.5°	2.8	1.9	1.9	1.9	1.9	1.9	0.9
150°	1.9	1.9	1.9	1.9	1.9	1.9	1.9
152.5°	1.9	1.9	1.9	1.9	1.9	1.9	1.9
155°	1.9	1.9	1.9	1.9	1.9	1.9	1.9
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)