

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: P1214133

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

Issue Date: 3/29/2018

Test Information

Test Method: LM-79-2019
Report Number: P1214133
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-LD5-46SL-LC-UNV-L950-CD1-U
Description: 4FT LINEAR SNLED LED FIXTURE
CLEAR LENSED
Light Source: -
Ballast/Driver: -

Summary

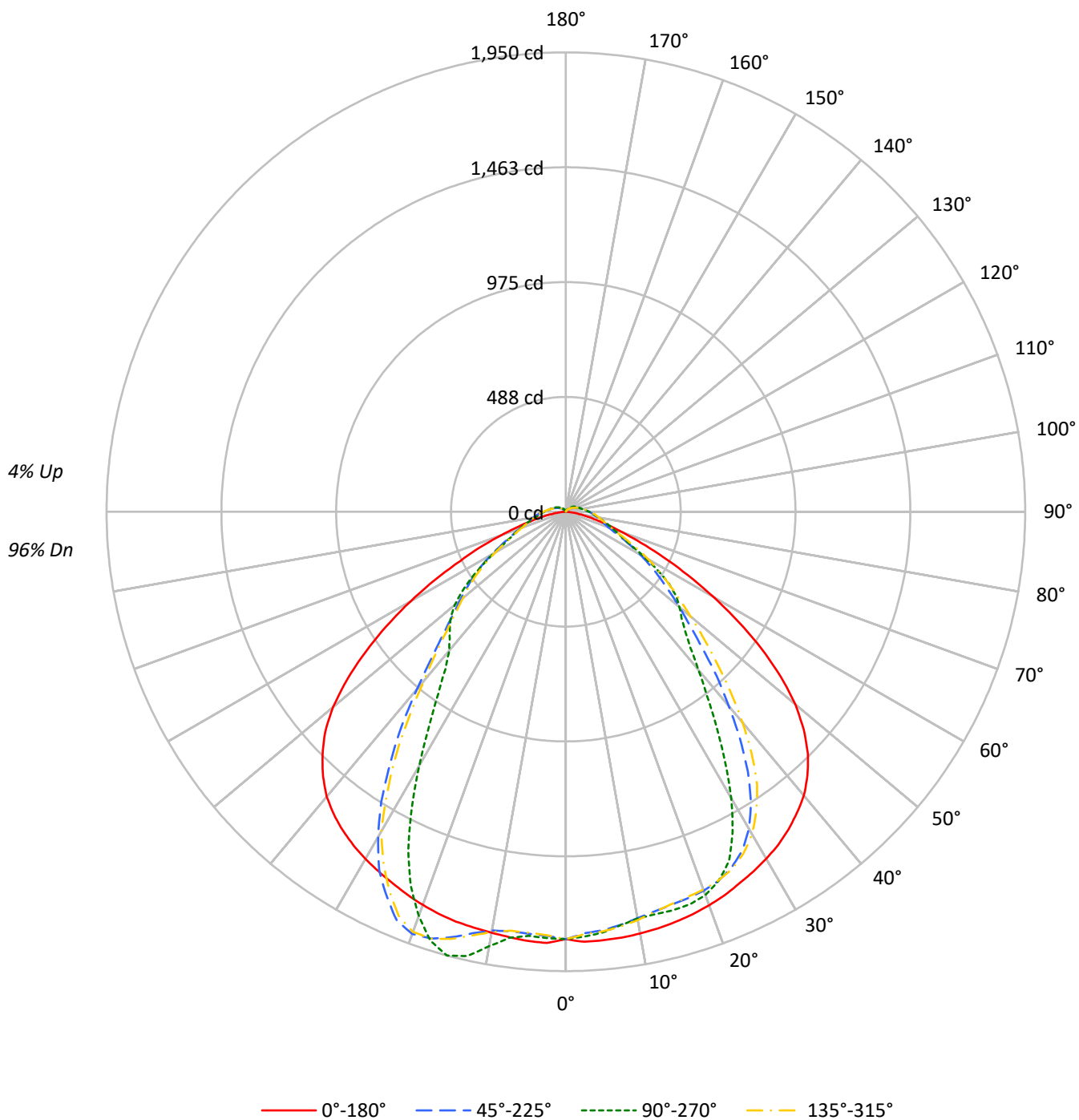
Lumens per Lamp: N/A
Luminaire Lumens: 4325.0 lumens
Efficiency: N/A
Efficacy: 123.6 lumens/watt
Spacing Criteria (0/90/45): 1.4 / 1.12 / 1.19
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.12')
CIE Type: Direct

Input Watts (W): 35
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 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	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°	14661	14661	14661	14661
5°	14768	14080	14798	14190
10°	14836	13494	14805	14410
15°	14950	13313	14943	14824
20°	15116	13103	15099	13812
25°	15301	12430	15293	12011
30°	15589	10773	15598	9544
35°	15895	8712	15940	7372
40°	16164	7014	16231	6180
45°	16107	5941	16190	5786
50°	15412	5470	15629	5348
55°	13674	4916	14016	4469
60°	11091	3763	11682	3451
65°	8245	2879	8883	2730
70°	5607	2486	6321	2376
75°	3669	2242	4270	2121
80°	2372	2091	2779	1923
85°	1216	2086	1599	1905

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 180°

Vertical Angle: 45°

Luminance: 16190 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	172.3	4.0
10°-20°	512.7	11.9
20°-30°	779.5	18.0
30°-40°	836.2	19.3
40°-50°	725.8	16.8
50°-60°	537.9	12.4
60°-70°	308.2	7.1
70°-80°	170.7	3.9
80°-90°	103.9	2.4
90°-100°	67.6	1.6
100°-110°	45.3	1.0
110°-120°	30.6	0.7
120°-130°	18.7	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°	1464.6	33.9
0°-40°	2300.8	53.2
0°-60°	3564.4	82.4
0°-90°	4147.2	95.9
90°-120°	143.4	3.3
90°-150°	176.5	4.1
90°-180°	178.0	4.1
0°-180°	4325.0	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	1814	1814	1814	1814	1814	
5°	1826	1793	1829	1807	1826	174
15°	1802	1751	1801	1950	1802	510
25°	1741	1638	1740	1583	1741	805
35°	1646	1115	1651	944	1646	1031
45°	1453	715	1461	696	1453	1113
55°	1014	536	1039	487	1014	899
65°	460	272	496	258	460	464
75°	131	172	153	163	131	150
85°	18	119	23	109	18	23
90°	0	99	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	23	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°	1814.2	1814.2	1814.2	1814.2	1814.2	1814.2	1814.2	1814.2	1814.2	1814.2	1814.2
2.5°	1827.3	1822.7	1820.8	1817.0	1819.9	1831.1	1823.6	1811.4	1812.4	1790.8	1802.0
5°	1825.5	1819.9	1817.0	1813.3	1815.2	1825.5	1818.0	1805.8	1804.9	1783.3	1793.6
7.5°	1822.7	1817.0	1812.4	1809.5	1810.5	1818.9	1809.5	1795.5	1792.7	1769.2	1778.6
10°	1818.0	1814.2	1807.7	1803.0	1802.0	1811.4	1796.4	1782.4	1775.8	1751.4	1760.8
12.5°	1811.4	1805.8	1799.2	1790.8	1789.9	1795.5	1783.3	1763.6	1757.1	1737.4	1747.7
15°	1802.0	1795.5	1788.0	1778.6	1773.9	1777.7	1762.7	1744.9	1743.9	1727.1	1741.1
17.5°	1791.7	1782.4	1773.9	1760.8	1754.3	1757.1	1744.9	1729.0	1730.8	1720.5	1736.4
20°	1777.7	1767.4	1754.3	1741.1	1731.8	1736.4	1728.0	1715.8	1718.6	1711.1	1725.2
22.5°	1761.8	1747.7	1731.8	1716.8	1709.3	1715.8	1709.3	1699.0	1699.9	1695.2	1703.6
25°	1741.1	1725.2	1706.5	1687.7	1684.0	1688.7	1684.9	1676.5	1672.7	1665.2	1669.0
27.5°	1722.4	1704.6	1681.2	1661.5	1654.9	1664.3	1655.9	1641.8	1631.5	1621.2	1613.7
30°	1700.8	1679.3	1653.0	1630.6	1624.9	1628.7	1616.5	1594.9	1567.8	1554.7	1534.0
32.5°	1677.4	1649.3	1616.5	1591.2	1587.4	1584.6	1562.1	1531.2	1489.1	1462.8	1431.0
35°	1646.5	1615.6	1576.2	1545.3	1539.7	1523.7	1487.2	1445.9	1391.6	1346.6	1292.3
37.5°	1611.8	1575.3	1534.0	1492.8	1476.9	1445.0	1393.5	1350.4	1267.9	1213.5	1147.9
40°	1572.5	1528.4	1477.8	1428.1	1401.9	1350.4	1291.3	1227.6	1147.9	1074.9	1019.6
42.5°	1518.1	1471.2	1411.3	1356.0	1311.0	1242.6	1173.3	1083.3	1010.2	948.3	892.1
45°	1453.4	1397.2	1327.9	1261.3	1204.2	1122.6	1041.1	951.2	890.2	818.1	779.7
47.5°	1370.0	1309.1	1235.1	1161.1	1086.1	996.1	910.9	824.6	763.7	712.2	684.1
50°	1271.6	1215.4	1133.9	1045.8	963.3	869.6	784.4	719.7	660.7	628.8	607.2
52.5°	1149.8	1097.3	1013.9	918.4	838.7	746.9	669.1	616.6	574.4	551.0	543.5
55°	1013.9	968.0	885.6	796.5	715.0	630.7	571.6	525.7	498.5	484.5	485.4
57.5°	868.7	833.1	755.3	675.6	598.8	535.1	481.7	445.1	424.5	423.6	426.4
60°	723.4	697.2	629.7	561.3	493.9	442.3	403.0	377.7	364.5	365.5	364.5
62.5°	584.8	560.4	511.7	455.4	402.0	367.3	331.7	321.4	310.2	309.2	309.2
65°	460.1	441.4	402.0	361.7	321.4	298.9	281.1	268.9	260.5	258.6	259.6
67.5°	345.8	338.3	311.1	283.9	258.6	244.6	229.6	226.8	220.2	220.2	222.1
70°	257.7	252.1	237.1	221.2	210.8	201.5	194.0	194.0	193.0	192.1	196.8
72.5°	186.5	187.4	182.7	170.6	169.6	167.7	165.9	168.7	169.6	172.4	178.0
75°	131.2	134.0	134.0	132.1	135.9	140.6	143.4	148.1	153.7	157.4	164.0
77.5°	92.8	92.8	97.5	103.1	110.6	119.0	126.5	133.1	140.6	145.3	150.9
80°	60.0	62.8	70.3	80.6	90.9	102.1	112.5	120.9	128.4	135.9	139.6
82.5°	35.6	40.3	49.7	62.8	75.9	90.0	100.3	110.6	119.0	126.5	129.3
85°	17.8	24.4	35.6	49.7	63.7	78.7	91.8	101.2	110.6	117.1	120.9
87.5°	5.6	13.1	25.3	38.4	53.4	68.4	82.5	92.8	101.2	106.8	110.6
90°	0.0	6.6	17.8	31.9	45.9	60.9	74.0	85.3	93.7	98.4	101.2
92.5°	0.0	3.7	14.1	26.2	39.4	54.4	67.5	77.8	85.3	90.0	91.8
95°	0.9	2.8	10.3	21.6	34.7	48.7	60.9	70.3	77.8	82.5	83.4
97.5°	0.9	1.9	8.4	17.8	30.0	43.1	55.3	64.7	70.3	75.0	75.9
100°	0.9	1.9	6.6	15.9	26.2	38.4	49.7	58.1	64.7	68.4	69.3
102.5°	0.9	0.9	5.6	13.1	23.4	33.7	44.0	52.5	58.1	61.8	63.7
105°	0.9	0.9	4.7	11.2	20.6	30.0	39.4	47.8	52.5	56.2	58.1
107.5°	0.9	0.9	3.7	9.4	17.8	26.2	35.6	42.2	47.8	51.5	53.4
110°	0.9	0.9	2.8	8.4	15.0	23.4	30.9	37.5	43.1	46.9	48.7

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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	20.6	27.2	33.7	38.4	42.2	45.0
115°	0.9	0.9	2.8	6.6	12.2	17.8	24.4	30.0	34.7	38.4	41.2
117.5°	0.9	0.9	2.8	5.6	10.3	15.9	21.6	27.2	30.9	34.7	37.5
120°	0.9	0.9	1.9	4.7	9.4	14.1	18.7	23.4	28.1	31.9	34.7
122.5°	0.9	0.9	1.9	4.7	7.5	12.2	16.9	20.6	25.3	28.1	30.9
125°	0.9	0.9	1.9	3.7	6.6	11.2	15.0	18.7	21.6	25.3	28.1
127.5°	0.9	0.9	1.9	3.7	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	11.2	14.1	17.8	19.7	21.6
132.5°	0.9	0.9	0.9	2.8	3.7	5.6	8.4	12.2	15.0	17.8	18.7
135°	0.9	0.9	0.9	1.9	3.7	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	3.7	4.7	6.6	8.4	10.3	12.2
142.5°	0.9	0.9	0.9	1.9	1.9	2.8	3.7	5.6	6.6	8.4	10.3
145°	0.9	0.9	0.9	1.9	1.9	2.8	3.7	4.7	5.6	6.6	8.4
147.5°	0.9	0.9	0.9	1.9	1.9	1.9	2.8	3.7	4.7	5.6	6.6
150°	1.9	1.9	1.9	1.9	1.9	1.9	2.8	2.8	3.7	4.7	5.6
152.5°	1.9	1.9	1.9	1.9	1.9	1.9	2.8	2.8	2.8	3.7	4.7
155°	1.9	1.9	1.9	1.9	1.9	1.9	1.9	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

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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	1814.2	1814.2	1814.2	1814.2	1814.2	1814.2	1814.2	1814.2	1814.2	1814.2	1814.2
2.5°	1798.3	1800.2	1811.4	1810.5	1808.6	1806.7	1806.7	1804.9	1806.7	1811.4	1809.5
5°	1788.9	1791.7	1800.2	1799.2	1797.4	1796.4	1795.5	1792.7	1794.5	1801.1	1799.2
7.5°	1772.1	1774.9	1782.4	1778.6	1775.8	1777.7	1773.0	1770.2	1773.9	1780.5	1779.6
10°	1754.3	1756.1	1765.5	1763.6	1758.9	1759.9	1755.2	1753.3	1758.0	1761.8	1762.7
12.5°	1742.1	1748.6	1757.1	1756.1	1755.2	1756.1	1751.4	1749.6	1752.4	1756.1	1755.2
15°	1739.3	1747.7	1757.1	1757.1	1758.0	1758.9	1754.3	1751.4	1754.3	1757.1	1756.1
17.5°	1736.4	1746.8	1755.2	1754.3	1755.2	1757.1	1749.6	1747.7	1751.4	1755.2	1753.3
20°	1727.1	1736.4	1742.1	1740.2	1740.2	1741.1	1731.8	1731.8	1737.4	1740.2	1741.1
22.5°	1700.8	1712.1	1712.1	1707.4	1707.4	1703.6	1700.8	1695.2	1701.8	1706.5	1710.2
25°	1661.5	1666.2	1660.5	1650.2	1644.6	1639.9	1626.8	1638.1	1638.1	1652.1	1656.8
27.5°	1606.2	1595.9	1580.0	1558.4	1553.7	1538.7	1530.3	1533.1	1537.8	1557.5	1572.5
30°	1515.3	1484.4	1457.2	1447.8	1427.2	1412.2	1397.2	1404.7	1413.1	1424.4	1455.3
32.5°	1395.3	1365.4	1321.3	1305.4	1283.8	1265.1	1247.3	1258.5	1273.5	1281.0	1314.8
35°	1257.6	1222.0	1181.7	1154.5	1132.0	1121.7	1099.2	1115.2	1131.1	1136.7	1165.8
37.5°	1111.4	1074.9	1039.2	1015.8	994.3	987.7	972.7	984.0	996.1	1004.6	1028.9
40°	972.7	939.0	911.8	895.9	880.9	875.3	869.6	874.3	883.7	890.2	909.0
42.5°	853.7	826.5	807.8	798.4	788.1	780.6	781.5	783.4	788.1	802.2	810.6
45°	749.7	733.8	721.6	719.7	713.1	712.2	711.3	715.0	717.8	726.3	732.8
47.5°	666.3	659.7	656.9	660.7	663.5	659.7	661.6	666.3	671.9	671.9	671.0
50°	600.7	602.6	606.3	614.7	620.4	622.2	624.1	629.7	630.7	632.5	629.7
52.5°	547.3	549.1	559.4	572.6	579.1	581.9	585.7	591.3	591.3	593.2	589.4
55°	492.9	495.7	506.0	519.2	524.8	528.5	532.3	536.0	538.8	542.6	539.8
57.5°	432.9	441.4	447.9	451.7	455.4	458.2	461.1	462.0	467.6	468.6	473.2
60°	369.2	371.1	377.7	376.7	373.9	381.4	377.7	384.2	390.8	399.2	400.1
62.5°	308.3	309.2	313.9	312.1	315.8	314.9	317.7	317.7	322.4	326.1	330.8
65°	260.5	261.5	265.2	265.2	264.3	267.1	269.9	271.8	271.8	274.6	278.3
67.5°	224.9	227.7	231.5	233.3	235.2	235.2	238.0	239.0	240.8	241.8	243.6
70°	200.5	204.3	208.0	209.9	210.8	212.7	213.7	213.7	215.5	216.5	218.3
72.5°	182.7	186.5	189.3	189.3	191.2	192.1	192.1	193.0	194.0	195.9	197.7
75°	167.7	170.6	172.4	171.5	171.5	171.5	172.4	172.4	174.3	176.2	178.0
77.5°	153.7	156.5	156.5	154.6	154.6	154.6	154.6	155.6	156.5	158.4	160.2
80°	143.4	143.4	142.4	142.4	140.6	139.6	139.6	140.6	140.6	142.4	145.3
82.5°	132.1	132.1	131.2	130.3	129.3	128.4	128.4	129.3	130.3	131.2	133.1
85°	121.8	121.8	119.9	119.9	119.0	119.0	119.0	119.0	119.9	120.9	122.8
87.5°	111.5	110.6	109.6	108.7	108.7	108.7	108.7	108.7	109.6	111.5	112.5
90°	101.2	100.3	99.3	99.3	98.4	98.4	99.3	99.3	100.3	101.2	102.1
92.5°	91.8	90.9	90.0	90.0	89.0	89.0	90.0	89.0	90.9	90.9	91.8
95°	83.4	82.5	81.5	81.5	81.5	81.5	81.5	81.5	82.5	82.5	83.4
97.5°	75.9	75.0	74.0	74.0	75.0	74.0	75.0	75.0	75.0	75.9	76.8
100°	69.3	68.4	68.4	69.3	68.4	68.4	69.3	69.3	69.3	69.3	70.3
102.5°	63.7	63.7	63.7	63.7	63.7	63.7	64.7	64.7	64.7	64.7	65.6
105°	58.1	59.0	59.0	59.0	60.0	60.0	60.0	60.9	60.9	60.9	60.9
107.5°	54.4	55.3	55.3	56.2	56.2	57.2	57.2	57.2	57.2	58.1	58.1
110°	50.6	51.5	52.5	53.4	53.4	54.4	54.4	54.4	54.4	54.4	54.4

TEST NUMBER: P1214133

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

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
112.5°	46.9	47.8	48.7	50.6	51.5	51.5	51.5	51.5	52.5	52.5	51.5
115°	43.1	45.0	45.9	47.8	48.7	48.7	49.7	49.7	49.7	49.7	48.7
117.5°	39.4	42.2	43.1	45.0	45.9	45.9	46.9	46.9	46.9	46.9	45.9
120°	36.5	38.4	40.3	41.2	42.2	43.1	43.1	44.0	44.0	44.0	43.1
122.5°	33.7	35.6	37.5	38.4	39.4	40.3	40.3	40.3	40.3	40.3	40.3
125°	30.0	31.9	33.7	34.7	35.6	36.5	36.5	37.5	37.5	37.5	36.5
127.5°	27.2	29.1	30.0	31.9	32.8	32.8	33.7	33.7	33.7	33.7	32.8
130°	23.4	25.3	27.2	28.1	29.1	29.1	30.0	30.0	30.0	30.0	30.0
132.5°	20.6	22.5	23.4	25.3	25.3	26.2	26.2	27.2	27.2	27.2	26.2
135°	18.7	19.7	20.6	22.5	22.5	23.4	23.4	23.4	23.4	23.4	23.4
137.5°	16.9	17.8	18.7	19.7	19.7	20.6	20.6	20.6	20.6	21.6	20.6
140°	14.1	15.9	16.9	16.9	17.8	17.8	17.8	18.7	18.7	18.7	17.8
142.5°	12.2	13.1	14.1	15.0	15.9	15.9	15.9	15.9	16.9	15.9	15.9
145°	9.4	11.2	12.2	13.1	14.1	14.1	14.1	14.1	14.1	14.1	14.1
147.5°	7.5	8.4	10.3	11.2	11.2	12.2	12.2	12.2	12.2	12.2	12.2
150°	6.6	6.6	8.4	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	8.4	8.4	8.4	8.4	8.4	8.4	8.4
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: P1214133

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

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	1814.2	1814.2	1814.2	1814.2	1814.2	1814.2	1814.2	1814.2	1814.2	1814.2	1814.2
2.5°	1806.7	1805.8	1809.5	1805.8	1787.1	1794.5	1791.7	1802.0	1803.0	1805.8	1815.2
5°	1797.4	1797.4	1802.0	1798.3	1780.5	1788.0	1787.1	1797.4	1799.2	1801.1	1811.4
7.5°	1778.6	1779.6	1786.1	1783.3	1764.6	1775.8	1774.9	1787.1	1790.8	1794.5	1803.9
10°	1760.8	1759.9	1767.4	1764.6	1746.8	1759.9	1758.9	1771.1	1776.7	1783.3	1794.5
12.5°	1751.4	1748.6	1751.4	1748.6	1729.0	1739.3	1740.2	1754.3	1760.8	1769.2	1782.4
15°	1751.4	1746.8	1746.8	1741.1	1718.6	1725.2	1726.1	1735.5	1743.9	1752.4	1768.3
17.5°	1749.6	1744.9	1743.9	1739.3	1714.9	1714.9	1714.0	1720.5	1725.2	1733.6	1750.5
20°	1739.3	1737.4	1736.4	1733.6	1711.1	1707.4	1705.5	1705.5	1708.3	1711.1	1728.0
22.5°	1712.1	1714.0	1715.8	1717.7	1699.9	1693.3	1694.3	1692.4	1689.6	1689.6	1703.6
25°	1661.5	1670.9	1678.3	1686.8	1676.5	1671.8	1677.4	1674.6	1669.9	1666.2	1678.3
27.5°	1580.9	1600.6	1616.5	1637.1	1638.1	1634.3	1649.3	1647.4	1646.5	1640.9	1650.2
30°	1469.4	1500.3	1521.9	1551.8	1577.1	1580.9	1606.2	1609.9	1613.7	1610.9	1620.2
32.5°	1334.4	1376.6	1413.1	1460.0	1484.4	1505.9	1541.5	1556.5	1571.5	1576.2	1586.5
35°	1187.3	1235.1	1278.2	1329.7	1368.2	1415.0	1458.1	1480.6	1514.4	1527.5	1542.5
37.5°	1047.7	1092.7	1134.8	1186.4	1248.2	1296.9	1350.4	1401.0	1446.9	1465.6	1488.1
40°	924.0	960.5	1000.8	1045.8	1102.0	1165.8	1223.9	1294.1	1348.5	1386.0	1418.8
42.5°	830.3	848.1	882.7	923.0	968.0	1032.7	1091.7	1170.4	1236.0	1289.5	1343.8
45°	746.9	755.3	780.6	802.2	848.1	905.2	968.0	1044.9	1113.3	1181.7	1247.3
47.5°	675.6	686.0	698.1	711.3	744.1	791.9	846.2	915.5	984.0	1063.6	1138.6
50°	627.9	630.7	632.5	638.2	657.8	690.6	734.7	793.7	859.3	944.6	1024.3
52.5°	585.7	585.7	580.1	577.3	584.8	605.4	630.7	672.8	740.3	819.0	903.4
55°	540.7	532.3	530.4	521.0	522.9	532.3	544.5	577.3	632.5	700.0	781.5
57.5°	477.9	474.2	474.2	470.4	462.9	467.6	470.4	493.9	533.2	591.3	662.5
60°	405.8	403.9	408.6	409.5	403.0	405.8	404.8	418.9	447.0	493.9	552.9
62.5°	333.6	342.0	343.0	346.7	343.0	342.0	346.7	358.9	373.0	408.6	454.5
65°	280.2	284.9	285.8	290.5	288.6	288.6	292.4	301.7	310.2	334.5	370.2
67.5°	245.5	243.6	244.6	247.4	244.6	243.6	246.5	252.1	258.6	273.6	298.9
70°	218.3	216.5	216.5	216.5	212.7	209.9	210.8	212.7	215.5	224.0	239.9
72.5°	197.7	197.7	194.9	192.1	189.3	187.4	185.5	183.7	182.7	185.5	194.0
75°	179.0	179.9	179.0	176.2	172.4	168.7	164.9	161.2	156.5	154.6	155.6
77.5°	162.1	163.1	164.0	163.1	159.3	154.6	149.0	143.4	136.8	130.3	126.5
80°	147.1	149.0	149.9	149.0	146.2	142.4	135.9	129.3	119.9	111.5	102.1
82.5°	134.0	136.8	137.8	137.8	135.9	132.1	124.6	117.1	106.8	95.6	83.4
85°	123.7	125.6	127.4	127.4	126.5	122.8	115.3	106.8	96.5	83.4	70.3
87.5°	113.4	114.3	116.2	118.1	116.2	112.5	105.9	96.5	86.2	73.1	58.1
90°	103.1	104.0	105.9	107.8	106.8	103.1	97.5	89.0	77.8	63.7	48.7
92.5°	92.8	94.6	95.6	96.5	97.5	94.6	90.0	81.5	70.3	56.2	42.2
95°	85.3	85.3	87.2	88.1	89.0	86.2	82.5	74.0	63.7	50.6	36.5
97.5°	77.8	77.8	79.7	79.7	80.6	78.7	75.0	67.5	57.2	45.0	30.9
100°	70.3	71.2	72.2	73.1	73.1	72.2	68.4	60.9	51.5	40.3	27.2
102.5°	65.6	65.6	66.5	66.5	67.5	65.6	61.8	55.3	45.9	35.6	23.4
105°	60.9	60.9	61.8	61.8	60.9	59.0	55.3	49.7	41.2	30.9	20.6
107.5°	57.2	57.2	57.2	57.2	56.2	54.4	50.6	44.0	36.5	28.1	18.7
110°	54.4	53.4	53.4	52.5	51.5	48.7	45.0	39.4	32.8	24.4	15.9

TEST NUMBER: P1214133

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

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
112.5°	51.5	50.6	49.7	48.7	46.9	44.0	40.3	35.6	29.1	21.6	14.1
115°	48.7	47.8	46.9	45.0	43.1	40.3	36.5	31.9	25.3	18.7	12.2
117.5°	45.9	45.0	43.1	41.2	39.4	36.5	32.8	28.1	22.5	16.9	11.2
120°	42.2	41.2	40.3	38.4	36.5	32.8	29.1	25.3	19.7	15.0	9.4
122.5°	39.4	38.4	36.5	35.6	32.8	30.0	26.2	22.5	17.8	13.1	8.4
125°	35.6	34.7	33.7	31.9	30.0	26.2	23.4	19.7	15.9	11.2	6.6
127.5°	32.8	31.9	30.0	28.1	26.2	23.4	20.6	17.8	14.1	9.4	6.6
130°	29.1	28.1	27.2	25.3	23.4	20.6	18.7	15.0	12.2	8.4	5.6
132.5°	25.3	25.3	24.4	22.5	20.6	18.7	15.9	13.1	10.3	7.5	4.7
135°	23.4	22.5	21.6	19.7	18.7	15.9	14.1	11.2	8.4	6.6	3.7
137.5°	20.6	19.7	18.7	17.8	15.9	14.1	12.2	9.4	7.5	5.6	3.7
140°	17.8	16.9	16.9	15.0	14.1	12.2	10.3	8.4	6.6	4.7	2.8
142.5°	15.9	15.0	14.1	13.1	12.2	10.3	8.4	6.6	5.6	3.7	2.8
145°	14.1	13.1	12.2	11.2	10.3	8.4	7.5	5.6	4.7	3.7	2.8
147.5°	11.2	11.2	10.3	9.4	8.4	7.5	6.6	5.6	3.7	2.8	1.9
150°	9.4	9.4	8.4	7.5	7.5	6.6	5.6	4.7	3.7	2.8	1.9
152.5°	8.4	7.5	7.5	6.6	6.6	5.6	4.7	3.7	2.8	2.8	1.9
155°	6.6	6.6	6.6	5.6	5.6	4.7	3.7	3.7	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: P1214133

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

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
0°	1814.2	1814.2	1814.2	1814.2	1814.2	1814.2	1814.2	1814.2	1814.2	1814.2	1814.2
2.5°	1817.0	1805.8	1815.2	1832.0	1830.2	1828.3	1826.4	1830.2	1842.3	1835.8	1825.5
5°	1814.2	1803.0	1813.3	1829.2	1828.3	1825.5	1823.6	1827.3	1839.5	1833.0	1821.7
7.5°	1808.6	1798.3	1805.8	1821.7	1821.7	1819.9	1818.0	1821.7	1833.0	1827.3	1816.1
10°	1799.2	1791.7	1799.2	1814.2	1815.2	1811.4	1809.5	1814.2	1825.5	1822.7	1813.3
12.5°	1791.7	1784.2	1792.7	1807.7	1808.6	1804.9	1802.0	1807.7	1822.7	1824.5	1821.7
15°	1781.4	1774.9	1785.2	1801.1	1801.1	1798.3	1798.3	1805.8	1826.4	1834.8	1839.5
17.5°	1766.4	1761.8	1773.9	1789.9	1790.8	1788.9	1789.9	1804.9	1832.0	1852.6	1865.8
20°	1747.7	1745.8	1758.9	1775.8	1778.6	1779.6	1784.2	1806.7	1844.2	1872.3	1885.4
22.5°	1725.2	1726.1	1741.1	1758.9	1762.7	1765.5	1774.9	1806.7	1853.6	1883.6	1889.2
25°	1699.9	1702.7	1718.6	1740.2	1744.9	1750.5	1766.4	1807.7	1856.4	1876.1	1866.7
27.5°	1672.7	1678.3	1699.0	1721.5	1727.1	1736.4	1757.1	1802.0	1843.3	1844.2	1809.5
30°	1644.6	1651.2	1675.5	1701.8	1711.1	1720.5	1745.8	1788.9	1811.4	1781.4	1720.5
32.5°	1612.8	1622.1	1646.5	1678.3	1689.6	1701.8	1727.1	1763.6	1755.2	1690.5	1603.4
35°	1572.5	1585.6	1613.7	1651.2	1661.5	1677.4	1695.2	1703.6	1666.2	1574.3	1475.9
37.5°	1522.8	1542.5	1575.3	1618.4	1629.6	1639.9	1644.6	1621.2	1546.2	1446.9	1344.7
40°	1465.6	1495.6	1531.2	1579.0	1590.3	1590.3	1573.4	1523.7	1429.1	1298.8	1185.4
42.5°	1396.3	1432.8	1477.8	1525.6	1536.8	1523.7	1483.4	1396.3	1288.5	1143.3	1023.3
45°	1311.9	1360.7	1411.3	1460.9	1466.6	1437.5	1365.4	1254.8	1121.7	986.8	872.4
47.5°	1211.7	1275.4	1330.7	1386.9	1379.4	1330.7	1234.2	1108.6	968.0	840.6	748.7
50°	1099.2	1174.2	1236.0	1289.5	1273.5	1206.0	1092.7	961.5	821.8	713.1	637.2
52.5°	979.3	1065.5	1127.3	1170.4	1148.9	1068.3	943.7	818.1	703.8	604.4	553.8
55°	854.6	941.8	1005.5	1039.2	1011.1	924.0	801.2	686.9	579.1	514.5	484.5
57.5°	733.8	815.3	875.3	902.4	866.8	779.7	666.3	569.8	492.0	437.6	422.6
60°	617.5	684.1	741.2	761.9	723.4	642.9	545.4	468.6	411.4	373.9	366.4
62.5°	509.8	564.1	609.1	625.0	587.6	524.8	440.4	383.3	343.0	324.2	314.9
65°	420.8	452.6	498.5	495.7	473.2	415.1	353.3	313.0	286.8	274.6	268.9
67.5°	330.8	359.8	388.9	392.6	364.5	324.2	283.9	254.9	240.8	234.3	231.5
70°	255.8	277.4	295.2	290.5	275.5	250.2	224.9	209.0	203.4	200.5	200.5
72.5°	198.7	209.9	218.3	212.7	203.4	190.2	178.0	171.5	172.4	174.3	176.2
75°	153.7	156.5	158.4	152.7	150.9	142.4	141.5	142.4	148.1	153.7	156.5
77.5°	118.1	114.3	111.5	105.9	106.8	105.9	110.6	118.1	126.5	134.9	142.4
80°	90.9	82.5	75.9	70.3	73.1	77.8	87.2	98.4	109.6	119.0	128.4
82.5°	70.3	58.1	48.7	43.1	48.7	56.2	68.4	82.5	95.6	105.9	116.2
85°	54.4	40.3	29.1	23.4	29.1	40.3	53.4	69.3	83.4	94.6	105.0
87.5°	42.2	29.1	15.9	9.4	15.9	28.1	43.1	58.1	72.2	85.3	95.6
90°	33.7	19.7	7.5	1.9	8.4	19.7	33.7	48.7	62.8	76.8	87.2
92.5°	27.2	14.1	3.7	0.0	4.7	15.0	28.1	42.2	56.2	69.3	79.7
95°	22.5	11.2	2.8	0.0	3.7	11.2	22.5	36.5	49.7	62.8	71.2
97.5°	18.7	8.4	1.9	0.0	1.9	9.4	18.7	30.9	44.0	56.2	64.7
100°	15.9	7.5	1.9	0.0	1.9	7.5	15.9	27.2	38.4	49.7	58.1
102.5°	13.1	5.6	0.9	0.9	0.9	5.6	14.1	23.4	33.7	44.0	52.5
105°	12.2	4.7	0.9	0.9	0.9	4.7	12.2	20.6	30.0	39.4	46.9
107.5°	10.3	3.7	0.9	0.9	0.9	3.7	10.3	17.8	27.2	35.6	42.2
110°	8.4	3.7	0.9	0.9	0.9	3.7	8.4	15.9	23.4	30.9	37.5



TEST NUMBER: P1214133

CATALOG NUMBER: 4SNLED-LD5-46SL-LC-UNV-L950-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	20.6	28.1	33.7
115°	6.6	2.8	0.9	0.9	0.9	2.8	6.6	12.2	17.8	24.4	30.0
117.5°	5.6	2.8	0.9	0.9	0.9	1.9	5.6	10.3	15.9	21.6	27.2
120°	4.7	1.9	0.9	0.9	0.9	1.9	4.7	9.4	14.1	18.7	23.4
122.5°	4.7	1.9	0.9	0.9	0.9	1.9	3.7	7.5	12.2	15.9	20.6
125°	3.7	1.9	0.9	0.9	0.9	0.9	3.7	6.6	10.3	14.1	17.8
127.5°	3.7	1.9	0.9	0.9	0.9	0.9	2.8	5.6	8.4	12.2	15.9
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	3.7	5.6	8.4	11.2
135°	2.8	0.9	0.9	0.9	0.9	0.9	0.9	2.8	4.7	6.6	8.4
137.5°	1.9	0.9	0.9	0.9	0.9	0.9	0.9	1.9	3.7	4.7	7.5
140°	1.9	0.9	0.9	0.9	0.9	0.9	0.9	1.9	2.8	3.7	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	3.7
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

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

CANDELA DISTRIBUTION (continued):

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
0°	1814.2	1814.2	1814.2	1814.2	1814.2	1814.2	1814.2	1814.2	1814.2	1814.2	1814.2
2.5°	1823.6	1802.0	1813.3	1809.5	1813.3	1822.7	1821.7	1818.9	1820.8	1816.1	1811.4
5°	1819.9	1798.3	1809.5	1804.9	1809.5	1818.9	1817.0	1814.2	1817.0	1811.4	1806.7
7.5°	1815.2	1795.5	1808.6	1807.7	1816.1	1828.3	1829.2	1829.2	1835.8	1827.3	1823.6
10°	1815.2	1804.9	1822.7	1829.2	1850.8	1866.7	1868.6	1872.3	1883.6	1881.7	1872.3
12.5°	1834.8	1833.0	1859.2	1875.1	1894.8	1917.3	1929.5	1933.2	1940.7	1935.1	1931.4
15°	1860.1	1869.5	1898.6	1916.4	1937.9	1954.8	1957.6	1959.5	1965.1	1956.7	1950.1
17.5°	1893.9	1899.5	1922.9	1930.4	1944.5	1947.3	1943.5	1934.2	1934.2	1915.4	1909.8
20°	1909.8	1907.0	1916.4	1904.2	1898.6	1881.7	1865.8	1848.0	1847.0	1827.3	1825.5
22.5°	1895.8	1877.0	1857.3	1827.3	1814.2	1789.9	1768.3	1758.0	1751.4	1726.1	1719.6
25°	1846.1	1800.2	1771.1	1735.5	1703.6	1675.5	1654.9	1633.4	1612.8	1592.1	1582.8
27.5°	1759.9	1716.8	1669.9	1620.2	1576.2	1533.1	1498.4	1476.9	1457.2	1430.0	1416.0
30°	1654.0	1594.0	1542.5	1494.7	1422.5	1370.0	1341.0	1297.9	1282.9	1270.7	1244.5
32.5°	1529.3	1457.2	1386.9	1322.2	1248.2	1199.5	1161.1	1129.2	1119.8	1088.0	1080.5
35°	1391.6	1296.9	1217.3	1153.6	1100.2	1041.1	1009.3	987.7	969.0	947.4	943.7
37.5°	1229.5	1144.2	1054.2	998.0	955.8	905.2	880.9	865.9	857.4	841.5	838.7
40°	1066.4	981.1	919.3	863.1	836.8	809.7	791.9	785.3	781.5	775.9	770.3
42.5°	918.4	843.4	799.3	761.9	750.6	737.5	732.8	736.6	732.8	730.9	730.0
45°	792.8	735.6	704.7	693.5	690.6	686.9	690.6	697.2	698.1	696.3	696.3
47.5°	678.5	651.3	638.2	640.0	644.7	647.5	654.1	662.5	664.4	659.7	661.6
50°	603.5	587.6	584.8	592.2	602.6	606.3	613.8	620.4	619.4	617.5	615.7
52.5°	533.2	528.5	536.0	543.5	554.8	556.6	559.4	562.3	561.3	557.6	555.7
55°	474.2	477.9	484.5	487.3	495.7	494.8	495.7	495.7	492.0	490.1	487.3
57.5°	420.8	421.7	425.4	426.4	431.1	429.2	428.3	426.4	420.8	419.8	417.0
60°	366.4	364.5	373.0	366.4	370.2	366.4	365.5	360.8	355.2	354.2	352.4
62.5°	314.9	311.1	316.7	313.9	315.8	312.1	310.2	304.6	299.9	298.9	298.0
65°	268.9	267.1	272.7	271.8	273.6	268.9	267.1	263.3	259.6	258.6	257.7
67.5°	230.5	235.2	238.0	238.0	239.9	239.0	234.3	233.3	232.4	228.7	228.7
70°	202.4	205.2	210.8	211.8	210.8	212.7	209.0	208.0	207.1	205.2	204.3
72.5°	179.9	183.7	189.3	190.2	189.3	189.3	187.4	186.5	186.5	183.7	183.7
75°	162.1	166.8	171.5	171.5	171.5	169.6	167.7	167.7	165.9	164.9	163.1
77.5°	147.1	152.7	156.5	155.6	154.6	152.7	152.7	149.9	147.1	147.1	145.3
80°	135.9	139.6	142.4	141.5	140.6	137.8	136.8	134.0	132.1	129.3	129.3
82.5°	123.7	128.4	130.3	129.3	127.4	124.6	123.7	121.8	119.9	119.0	117.1
85°	113.4	118.1	119.0	117.1	115.3	113.4	112.5	111.5	110.6	108.7	108.7
87.5°	103.1	107.8	107.8	106.8	105.0	104.0	103.1	102.1	101.2	100.3	99.3
90°	94.6	98.4	98.4	97.5	96.5	95.6	94.6	93.7	92.8	91.8	91.8
92.5°	86.2	90.0	90.0	89.0	88.1	87.2	87.2	86.2	85.3	84.3	83.4
95°	78.7	82.5	82.5	82.5	81.5	80.6	80.6	79.7	78.7	78.7	77.8
97.5°	71.2	75.0	75.0	75.0	74.0	73.1	73.1	72.2	72.2	72.2	71.2
100°	64.7	67.5	68.4	68.4	67.5	67.5	67.5	66.5	66.5	66.5	65.6
102.5°	58.1	60.9	62.8	62.8	62.8	61.8	61.8	61.8	61.8	61.8	60.9
105°	52.5	55.3	57.2	58.1	58.1	58.1	58.1	58.1	58.1	58.1	58.1
107.5°	47.8	50.6	52.5	53.4	54.4	54.4	55.3	55.3	55.3	55.3	55.3
110°	43.1	45.9	48.7	49.7	50.6	51.5	51.5	52.5	51.5	51.5	51.5

TEST NUMBER: P1214133

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

CANDELA DISTRIBUTION (continued):

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
112.5°	38.4	42.2	44.0	45.9	46.9	47.8	48.7	48.7	48.7	48.7	48.7
115°	34.7	38.4	40.3	42.2	44.0	45.0	45.0	45.9	45.9	45.9	45.0
117.5°	30.9	34.7	36.5	38.4	39.4	41.2	42.2	42.2	42.2	42.2	41.2
120°	28.1	30.9	32.8	34.7	36.5	37.5	38.4	38.4	38.4	38.4	38.4
122.5°	24.4	27.2	30.0	31.9	32.8	33.7	34.7	34.7	34.7	34.7	34.7
125°	21.6	24.4	26.2	28.1	29.1	30.9	30.9	30.9	30.9	30.9	30.9
127.5°	18.7	21.6	23.4	25.3	26.2	27.2	28.1	28.1	28.1	28.1	28.1
130°	15.9	18.7	20.6	22.5	23.4	24.4	24.4	25.3	25.3	25.3	25.3
132.5°	14.1	15.9	17.8	19.7	20.6	21.6	21.6	22.5	22.5	22.5	22.5
135°	11.2	14.1	15.0	16.9	17.8	18.7	18.7	19.7	19.7	19.7	19.7
137.5°	9.4	11.2	13.1	15.0	15.9	15.9	16.9	16.9	17.8	17.8	17.8
140°	7.5	8.4	11.2	12.2	13.1	14.1	15.0	15.0	15.0	15.0	15.0
142.5°	5.6	7.5	8.4	10.3	11.2	12.2	13.1	13.1	13.1	13.1	13.1
145°	4.7	5.6	6.6	8.4	9.4	10.3	11.2	11.2	11.2	11.2	11.2
147.5°	3.7	4.7	5.6	6.6	7.5	8.4	9.4	9.4	9.4	9.4	9.4
150°	2.8	3.7	4.7	4.7	5.6	6.6	7.5	8.4	8.4	8.4	8.4
152.5°	2.8	2.8	3.7	3.7	4.7	5.6	6.6	6.6	6.6	6.6	6.6
155°	1.9	2.8	2.8	2.8	3.7	3.7	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: P1214133

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

CANDELA DISTRIBUTION (continued):

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°
0°	1814.2	1814.2	1814.2	1814.2	1814.2	1814.2	1814.2	1814.2	1814.2	1814.2	1814.2
2.5°	1814.2	1818.0	1816.1	1813.3	1812.4	1817.0	1812.4	1790.8	1799.2	1800.2	1806.7
5°	1811.4	1814.2	1812.4	1810.5	1807.7	1813.3	1807.7	1785.2	1793.6	1794.5	1801.1
7.5°	1830.2	1831.1	1831.1	1826.4	1818.9	1821.7	1814.2	1788.9	1793.6	1793.6	1798.3
10°	1877.0	1878.9	1881.7	1869.5	1860.1	1852.6	1842.3	1811.4	1810.5	1803.0	1803.0
12.5°	1937.9	1933.2	1928.6	1922.9	1915.4	1906.1	1891.1	1854.5	1842.3	1830.2	1818.0
15°	1955.7	1953.9	1952.9	1950.1	1945.4	1942.6	1931.4	1894.8	1877.0	1862.0	1840.5
17.5°	1908.9	1912.6	1924.8	1925.7	1931.4	1942.6	1940.7	1915.4	1899.5	1892.9	1866.7
20°	1824.5	1825.5	1840.5	1847.0	1871.4	1890.1	1904.2	1901.4	1897.6	1905.1	1885.4
22.5°	1723.3	1729.9	1745.8	1756.1	1779.6	1801.1	1823.6	1835.8	1855.5	1886.4	1882.6
25°	1585.6	1594.0	1616.5	1633.4	1666.2	1699.0	1729.0	1750.5	1773.9	1833.0	1852.6
27.5°	1420.6	1433.8	1462.8	1479.7	1525.6	1559.3	1602.4	1644.6	1677.4	1744.9	1785.2
30°	1247.3	1258.5	1289.5	1312.9	1352.2	1398.2	1452.5	1512.5	1566.8	1635.2	1685.8
32.5°	1085.2	1097.3	1122.6	1143.3	1187.3	1225.7	1285.7	1359.7	1410.3	1505.0	1572.5
35°	943.7	954.9	972.7	990.5	1027.1	1066.4	1118.0	1190.1	1254.8	1353.2	1438.5
37.5°	844.3	846.2	856.5	866.8	894.0	924.0	964.3	1028.0	1088.0	1193.9	1287.6
40°	773.1	773.1	778.7	781.5	793.7	811.5	836.8	886.5	936.2	1016.8	1131.1
42.5°	729.1	727.2	727.2	728.1	727.2	735.6	750.6	774.0	818.1	884.6	973.6
45°	696.3	692.5	689.7	683.1	679.4	679.4	680.3	688.8	714.1	757.2	829.3
47.5°	659.7	658.8	654.1	646.6	640.0	635.4	627.9	625.0	632.5	656.9	705.6
50°	617.5	612.9	608.2	602.6	595.1	590.4	576.3	577.3	570.7	581.9	607.2
52.5°	555.7	552.0	550.1	545.4	542.6	540.7	529.5	518.2	515.4	517.3	526.7
55°	487.3	489.2	481.7	485.4	484.5	476.0	471.4	462.9	460.1	459.2	463.9
57.5°	416.1	417.9	413.3	417.0	417.0	412.3	409.5	409.5	403.0	397.3	403.9
60°	351.4	347.7	350.5	355.2	355.2	352.4	350.5	350.5	345.8	343.9	348.6
62.5°	298.9	295.2	298.0	302.7	303.6	301.7	299.9	299.9	294.2	294.2	298.0
65°	258.6	259.6	258.6	262.4	262.4	263.3	261.5	259.6	253.0	255.8	254.9
67.5°	229.6	228.7	228.7	232.4	231.5	233.3	231.5	228.7	224.0	220.2	219.3
70°	205.2	204.3	204.3	206.2	207.1	207.1	206.2	204.3	197.7	194.0	191.2
72.5°	183.7	182.7	183.7	184.6	185.5	186.5	185.5	183.7	178.0	173.4	168.7
75°	164.0	163.1	165.9	165.9	166.8	166.8	167.7	166.8	162.1	156.5	150.9
77.5°	144.3	145.3	148.1	149.0	150.9	151.8	152.7	152.7	148.1	143.4	135.9
80°	128.4	130.3	132.1	133.1	134.9	137.8	138.7	139.6	135.9	131.2	122.8
82.5°	117.1	118.1	119.9	120.9	123.7	124.6	125.6	127.4	125.6	120.9	111.5
85°	107.8	108.7	110.6	110.6	112.5	114.3	115.3	116.2	115.3	110.6	101.2
87.5°	99.3	100.3	101.2	102.1	103.1	104.0	105.0	105.9	105.0	100.3	91.8
90°	91.8	91.8	92.8	92.8	93.7	94.6	96.5	96.5	95.6	91.8	83.4
92.5°	83.4	84.3	84.3	85.3	86.2	87.2	88.1	88.1	87.2	83.4	75.9
95°	77.8	77.8	78.7	78.7	79.7	79.7	80.6	80.6	79.7	75.9	68.4
97.5°	71.2	71.2	71.2	71.2	72.2	72.2	73.1	73.1	72.2	68.4	61.8
100°	65.6	65.6	65.6	65.6	65.6	66.5	66.5	66.5	65.6	61.8	55.3
102.5°	60.9	60.9	60.9	60.9	60.9	60.9	60.9	60.9	59.0	56.2	49.7
105°	58.1	58.1	58.1	57.2	57.2	57.2	56.2	56.2	53.4	50.6	45.0
107.5°	54.4	54.4	54.4	53.4	53.4	52.5	51.5	51.5	48.7	45.9	40.3
110°	51.5	51.5	51.5	50.6	49.7	48.7	47.8	46.9	44.0	40.3	35.6



TEST NUMBER: P1214133

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

CANDELA DISTRIBUTION (continued):

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°
112.5°	48.7	48.7	47.8	47.8	46.9	45.9	44.0	43.1	40.3	36.5	31.9
115°	45.0	45.0	45.0	44.0	43.1	42.2	41.2	39.4	36.5	32.8	28.1
117.5°	41.2	41.2	41.2	40.3	39.4	38.4	37.5	35.6	32.8	29.1	25.3
120°	37.5	37.5	37.5	36.5	35.6	34.7	33.7	31.9	29.1	26.2	21.6
122.5°	34.7	34.7	33.7	32.8	31.9	30.9	30.0	28.1	26.2	22.5	18.7
125°	30.9	30.9	30.0	30.0	29.1	28.1	27.2	25.3	22.5	19.7	16.9
127.5°	28.1	27.2	27.2	27.2	26.2	25.3	23.4	22.5	19.7	16.9	14.1
130°	24.4	24.4	24.4	23.4	23.4	22.5	20.6	18.7	16.9	15.0	12.2
132.5°	21.6	21.6	21.6	21.6	20.6	19.7	17.8	16.9	15.0	12.2	10.3
135°	19.7	19.7	18.7	18.7	17.8	16.9	15.9	14.1	12.2	10.3	8.4
137.5°	16.9	16.9	16.9	15.9	15.9	15.0	13.1	12.2	11.2	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	11.2	11.2	10.3	9.4	7.5	6.6	4.7
145°	11.2	11.2	10.3	10.3	10.3	9.4	8.4	7.5	6.6	5.6	4.7
147.5°	9.4	9.4	9.4	8.4	8.4	7.5	7.5	6.6	5.6	4.7	3.7
150°	8.4	8.4	7.5	7.5	7.5	6.6	5.6	5.6	4.7	3.7	2.8
152.5°	6.6	6.6	6.6	6.6	5.6	5.6	4.7	4.7	3.7	2.8	2.8
155°	5.6	5.6	5.6	4.7	4.7	4.7	3.7	3.7	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: P1214133

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

CANDELA DISTRIBUTION (continued):

	330°	335°	340°	345°	350°	355°	360°
0°	1814.2	1814.2	1814.2	1814.2	1814.2	1814.2	1814.2
2.5°	1803.9	1803.0	1811.4	1810.5	1799.2	1816.1	1827.3
5°	1799.2	1798.3	1805.8	1807.7	1795.5	1813.3	1825.5
7.5°	1795.5	1794.5	1803.0	1805.8	1793.6	1809.5	1822.7
10°	1796.4	1791.7	1799.2	1801.1	1789.9	1806.7	1818.0
12.5°	1803.0	1791.7	1794.5	1794.5	1784.2	1799.2	1811.4
15°	1818.9	1795.5	1791.7	1788.9	1775.8	1789.9	1802.0
17.5°	1836.7	1804.9	1791.7	1782.4	1766.4	1778.6	1791.7
20°	1854.5	1815.2	1793.6	1778.6	1757.1	1768.3	1777.7
22.5°	1863.0	1824.5	1795.5	1773.0	1745.8	1751.4	1761.8
25°	1851.7	1820.8	1791.7	1764.6	1731.8	1732.7	1741.1
27.5°	1810.5	1802.0	1783.3	1756.1	1720.5	1715.8	1722.4
30°	1740.2	1763.6	1764.6	1744.9	1707.4	1698.0	1700.8
32.5°	1641.8	1694.3	1725.2	1721.5	1688.7	1675.5	1677.4
35°	1528.4	1594.0	1661.5	1684.0	1660.5	1650.2	1646.5
37.5°	1392.5	1480.6	1570.6	1625.9	1622.1	1615.6	1611.8
40°	1242.6	1348.5	1455.3	1543.4	1570.6	1570.6	1572.5
42.5°	1082.4	1206.0	1323.2	1434.7	1498.4	1512.5	1518.1
45°	927.7	1052.4	1179.8	1308.2	1393.5	1437.5	1453.4
47.5°	787.2	912.7	1033.6	1174.2	1287.6	1344.7	1370.0
50°	667.2	760.9	888.4	1028.0	1151.7	1222.0	1271.6
52.5°	567.9	641.0	752.5	882.7	1007.4	1103.9	1149.8
55°	484.5	534.1	628.8	741.2	860.3	960.5	1013.9
57.5°	414.2	453.6	518.2	611.9	712.2	811.5	868.7
60°	352.4	379.5	423.6	497.6	582.9	668.2	723.4
62.5°	298.9	316.7	345.8	400.1	466.7	533.2	584.8
65°	257.7	265.2	281.1	314.9	365.5	416.1	460.1
67.5°	217.4	222.1	234.3	254.9	280.2	316.7	345.8
70°	187.4	187.4	188.4	200.5	213.7	237.1	257.7
72.5°	163.1	160.2	154.6	157.4	160.2	173.4	186.5
75°	143.4	136.8	127.4	123.7	121.8	123.7	131.2
77.5°	126.5	117.1	105.9	96.5	89.0	86.2	92.8
80°	112.5	101.2	88.1	75.9	63.7	57.2	60.0
82.5°	101.2	87.2	73.1	59.0	45.0	35.6	35.6
85°	89.0	75.9	60.9	45.9	31.9	19.7	17.8
87.5°	80.6	66.5	50.6	36.5	22.5	10.3	5.6
90°	72.2	58.1	43.1	29.1	15.9	4.7	0.0
92.5°	64.7	51.5	37.5	23.4	11.2	2.8	0.0
95°	58.1	45.9	31.9	19.7	9.4	1.9	0.9
97.5°	51.5	40.3	28.1	15.9	6.6	1.9	0.9
100°	46.9	35.6	24.4	13.1	5.6	0.9	0.9
102.5°	41.2	31.9	20.6	11.2	4.7	0.9	0.9
105°	36.5	28.1	17.8	9.4	3.7	0.9	0.9
107.5°	32.8	24.4	15.9	8.4	3.7	0.9	0.9
110°	29.1	21.6	14.1	7.5	2.8	0.9	0.9

TEST NUMBER: P1214133

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

CANDELA DISTRIBUTION (continued):

	330°	335°	340°	345°	350°	355°	360°
112.5°	26.2	18.7	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	3.7	0.9	0.9	0.9
122.5°	15.0	10.3	6.6	3.7	0.9	0.9	0.9
125°	13.1	9.4	5.6	2.8	0.9	0.9	0.9
127.5°	11.2	7.5	4.7	1.9	0.9	0.9	0.9
130°	9.4	6.6	3.7	1.9	0.9	0.9	0.9
132.5°	7.5	5.6	3.7	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	3.7	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°	3.7	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)