

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: P1213454

Luminaire Tested: 4SNLED-LD5-52HL-LC-UNV-L935-CD1-U

Issue Date: 3/29/2018

Test Information

Test Method: LM-79-2019
Report Number: P1213454
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-LD5-52HL-LC-UNV-L935-CD1-U
Description: 4FT LINEAR SNLED LED FIXTURE
CLEAR LENSED
Light Source: -
Ballast/Driver: -

Summary

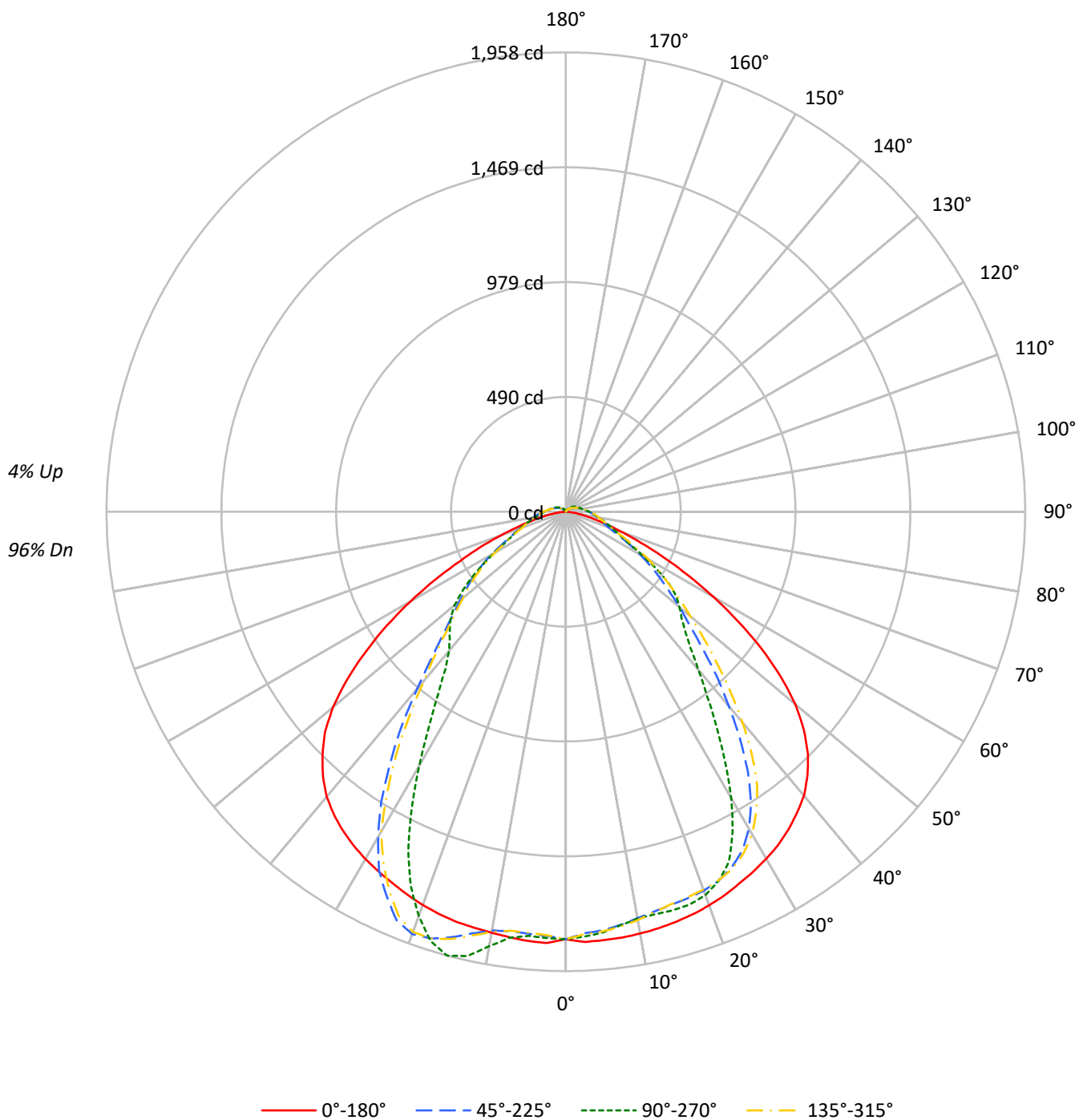
Lumens per Lamp: N/A
Luminaire Lumens: 4343.0 lumens
Efficiency: N/A
Efficacy: 117.4 lumens/watt
Spacing Criteria (0/90/45): 1.4 / 1.12 / 1.19
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.12')
CIE Type: Direct

Input Watts (W): 37
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°	14722	14722	14722	14722
5°	14829	14138	14859	14249
10°	14897	13550	14867	14470
15°	15013	13369	15005	14885
20°	15179	13157	15162	13869
25°	15366	12482	15357	12061
30°	15654	10818	15663	9583
35°	15961	8748	16006	7402
40°	16231	7043	16299	6205
45°	16174	5966	16257	5810
50°	15477	5493	15694	5370
55°	13732	4937	14075	4488
60°	11139	3779	11729	3465
65°	8279	2891	8921	2742
70°	5631	2495	6347	2386
75°	3683	2251	4289	2129
80°	2380	2100	2791	1932
85°	1223	2094	1605	1914

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 180°

Vertical Angle: 45°

Luminance: 16257 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	173.0	4.0
10°-20°	514.9	11.9
20°-30°	782.8	18.0
30°-40°	839.7	19.3
40°-50°	728.8	16.8
50°-60°	540.1	12.4
60°-70°	309.5	7.1
70°-80°	171.4	3.9
80°-90°	104.3	2.4
90°-100°	67.9	1.6
100°-110°	45.4	1.0
110°-120°	30.7	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°	1470.7	33.9
0°-40°	2310.4	53.2
0°-60°	3579.3	82.4
0°-90°	4164.4	95.9
90°-120°	144.0	3.3
90°-150°	177.2	4.1
90°-180°	179.0	4.1
0°-180°	4343.0	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	1822	1822	1822	1822	1822	
5°	1833	1800	1837	1814	1833	175
15°	1810	1759	1809	1958	1810	512
25°	1748	1645	1747	1589	1748	808
35°	1653	1120	1658	948	1653	1035
45°	1460	718	1467	699	1460	1117
55°	1018	538	1044	489	1018	903
65°	462	273	498	259	462	466
75°	132	173	153	164	132	150
85°	18	120	24	109	18	24
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°	1821.8	1821.8	1821.8	1821.8	1821.8	1821.8	1821.8	1821.8	1821.8	1821.8	1821.8
2.5°	1835.0	1830.2	1828.4	1824.6	1827.4	1838.7	1831.2	1819.0	1819.9	1798.3	1809.5
5°	1833.1	1827.4	1824.6	1820.8	1822.7	1833.1	1825.5	1813.3	1812.4	1790.7	1801.1
7.5°	1830.2	1824.6	1819.9	1817.1	1818.0	1826.5	1817.1	1803.0	1800.1	1776.6	1786.0
10°	1825.5	1821.8	1815.2	1810.5	1809.5	1819.0	1803.9	1789.8	1783.2	1758.7	1768.1
12.5°	1819.0	1813.3	1806.7	1798.3	1797.3	1803.0	1790.7	1771.0	1764.4	1744.6	1755.0
15°	1809.5	1803.0	1795.4	1786.0	1781.3	1785.1	1770.0	1752.1	1751.2	1734.3	1748.4
17.5°	1799.2	1789.8	1781.3	1768.1	1761.6	1764.4	1752.1	1736.1	1738.0	1727.7	1743.7
20°	1785.1	1774.7	1761.6	1748.4	1739.0	1743.7	1735.2	1723.0	1725.8	1718.3	1732.4
22.5°	1769.1	1755.0	1739.0	1723.9	1716.4	1723.0	1716.4	1706.0	1707.0	1702.3	1710.7
25°	1748.4	1732.4	1713.6	1694.7	1691.0	1695.7	1691.9	1683.5	1679.7	1672.2	1675.9
27.5°	1729.6	1711.7	1688.2	1668.4	1661.8	1671.2	1662.7	1648.6	1638.3	1627.9	1620.4
30°	1707.9	1686.3	1659.9	1637.3	1631.7	1635.5	1623.2	1601.6	1574.3	1561.1	1540.4
32.5°	1684.4	1656.2	1623.2	1597.8	1594.1	1591.2	1568.6	1537.6	1495.3	1468.9	1436.9
35°	1653.3	1622.3	1582.8	1551.7	1546.1	1530.1	1493.4	1452.0	1397.4	1352.2	1297.6
37.5°	1618.5	1581.8	1540.4	1499.0	1483.0	1451.0	1399.3	1356.0	1273.2	1218.6	1152.7
40°	1579.0	1534.8	1484.0	1434.1	1407.7	1356.0	1296.7	1232.7	1152.7	1079.3	1023.8
42.5°	1524.4	1477.4	1417.1	1361.6	1316.5	1247.8	1178.1	1087.8	1014.4	952.3	895.8
45°	1459.5	1403.0	1333.4	1266.6	1209.2	1127.3	1045.5	955.1	894.0	821.5	782.9
47.5°	1375.7	1314.6	1240.2	1165.9	1090.6	1000.3	914.7	828.1	766.9	715.2	686.9
50°	1276.9	1220.5	1138.6	1050.2	967.3	873.2	787.6	722.7	663.4	631.4	609.8
52.5°	1154.6	1101.9	1018.2	922.2	842.2	750.0	671.9	619.2	576.8	553.3	545.8
55°	1018.2	972.1	889.2	799.9	718.0	633.3	574.0	527.9	500.6	486.5	487.4
57.5°	872.3	836.6	758.4	678.5	601.3	537.3	483.7	447.0	426.3	425.3	428.2
60°	726.5	700.1	632.4	563.7	495.9	444.2	404.6	379.2	366.0	367.0	366.0
62.5°	587.2	562.7	513.8	457.3	403.7	368.9	333.1	322.8	311.5	310.5	310.5
65°	462.0	443.2	403.7	363.2	322.8	300.2	282.3	270.1	261.6	259.7	260.7
67.5°	347.2	339.7	312.4	285.1	259.7	245.6	230.5	227.7	221.1	221.1	223.0
70°	258.8	253.1	238.1	222.1	211.7	202.3	194.8	194.8	193.8	192.9	197.6
72.5°	187.3	188.2	183.5	171.3	170.3	168.4	166.6	169.4	170.3	173.1	178.8
75°	131.7	134.6	134.6	132.7	136.4	141.2	144.0	148.7	154.3	158.1	164.7
77.5°	93.2	93.2	97.9	103.5	111.0	119.5	127.0	133.6	141.2	145.9	151.5
80°	60.2	63.0	70.6	80.9	91.3	102.6	112.9	121.4	128.9	136.4	140.2
82.5°	35.8	40.5	49.9	63.0	76.2	90.3	100.7	111.0	119.5	127.0	129.9
85°	17.9	24.5	35.8	49.9	64.0	79.0	92.2	101.6	111.0	117.6	121.4
87.5°	5.6	13.2	25.4	38.6	53.6	68.7	82.8	93.2	101.6	107.3	111.0
90°	0.0	6.6	17.9	32.0	46.1	61.2	74.3	85.6	94.1	98.8	101.6
92.5°	0.0	3.8	14.1	26.3	39.5	54.6	67.8	78.1	85.6	90.3	92.2
95°	0.9	2.8	10.4	21.6	34.8	48.9	61.2	70.6	78.1	82.8	83.7
97.5°	0.9	1.9	8.5	17.9	30.1	43.3	55.5	64.9	70.6	75.3	76.2
100°	0.9	1.9	6.6	16.0	26.3	38.6	49.9	58.3	64.9	68.7	69.6
102.5°	0.9	0.9	5.6	13.2	23.5	33.9	44.2	52.7	58.3	62.1	64.0
105°	0.9	0.9	4.7	11.3	20.7	30.1	39.5	48.0	52.7	56.5	58.3
107.5°	0.9	0.9	3.8	9.4	17.9	26.3	35.8	42.3	48.0	51.8	53.6
110°	0.9	0.9	2.8	8.5	15.1	23.5	31.1	37.6	43.3	47.1	48.9

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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	13.2	20.7	27.3	33.9	38.6	42.3	45.2
115°	0.9	0.9	2.8	6.6	12.2	17.9	24.5	30.1	34.8	38.6	41.4
117.5°	0.9	0.9	2.8	5.6	10.4	16.0	21.6	27.3	31.1	34.8	37.6
120°	0.9	0.9	1.9	4.7	9.4	14.1	18.8	23.5	28.2	32.0	34.8
122.5°	0.9	0.9	1.9	4.7	7.5	12.2	16.9	20.7	25.4	28.2	31.1
125°	0.9	0.9	1.9	3.8	6.6	11.3	15.1	18.8	21.6	25.4	28.2
127.5°	0.9	0.9	1.9	3.8	5.6	9.4	13.2	16.9	19.8	22.6	24.5
130°	0.9	0.9	1.9	2.8	4.7	7.5	11.3	14.1	17.9	19.8	21.6
132.5°	0.9	0.9	0.9	2.8	3.8	5.6	8.5	12.2	15.1	17.9	18.8
135°	0.9	0.9	0.9	1.9	3.8	4.7	6.6	9.4	12.2	15.1	16.9
137.5°	0.9	0.9	0.9	1.9	2.8	4.7	5.6	7.5	10.4	12.2	15.1
140°	0.9	0.9	0.9	1.9	2.8	3.8	4.7	6.6	8.5	10.4	12.2
142.5°	0.9	0.9	0.9	1.9	1.9	2.8	3.8	5.6	6.6	8.5	10.4
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°	1821.8	1821.8	1821.8	1821.8	1821.8	1821.8	1821.8	1821.8	1821.8	1821.8	1821.8
2.5°	1805.8	1807.7	1819.0	1818.0	1816.1	1814.3	1814.3	1812.4	1814.3	1819.0	1817.1
5°	1796.4	1799.2	1807.7	1806.7	1804.8	1803.9	1803.0	1800.1	1802.0	1808.6	1806.7
7.5°	1779.4	1782.3	1789.8	1786.0	1783.2	1785.1	1780.4	1777.6	1781.3	1787.9	1787.0
10°	1761.6	1763.4	1772.8	1771.0	1766.3	1767.2	1762.5	1760.6	1765.3	1769.1	1770.0
12.5°	1749.3	1755.9	1764.4	1763.4	1762.5	1763.4	1758.7	1756.8	1759.7	1763.4	1762.5
15°	1746.5	1755.0	1764.4	1764.4	1765.3	1766.3	1761.6	1758.7	1761.6	1764.4	1763.4
17.5°	1743.7	1754.0	1762.5	1761.6	1762.5	1764.4	1756.8	1755.0	1758.7	1762.5	1760.6
20°	1734.3	1743.7	1749.3	1747.4	1747.4	1748.4	1739.0	1739.0	1744.6	1747.4	1748.4
22.5°	1707.9	1719.2	1719.2	1714.5	1714.5	1710.7	1707.9	1702.3	1708.9	1713.6	1717.3
25°	1668.4	1673.1	1667.5	1657.1	1651.5	1646.8	1633.6	1644.9	1644.9	1659.0	1663.7
27.5°	1612.9	1602.5	1586.5	1564.9	1560.2	1545.1	1536.7	1539.5	1544.2	1563.9	1579.0
30°	1521.6	1490.5	1463.3	1453.8	1433.1	1418.1	1403.0	1410.6	1419.0	1430.3	1461.4
32.5°	1401.2	1371.0	1326.8	1310.8	1289.2	1270.4	1252.5	1263.8	1278.8	1286.3	1320.2
35°	1262.8	1227.1	1186.6	1159.3	1136.7	1126.4	1103.8	1119.8	1135.8	1141.4	1170.6
37.5°	1116.0	1079.3	1043.6	1020.0	998.4	991.8	976.8	988.1	1000.3	1008.8	1033.2
40°	976.8	942.9	915.6	899.6	884.5	878.9	873.2	878.0	887.4	894.0	912.8
42.5°	857.3	830.0	811.1	801.7	791.4	783.9	784.8	786.7	791.4	805.5	814.0
45°	752.8	736.8	724.6	722.7	716.1	715.2	714.2	718.0	720.8	729.3	735.9
47.5°	669.1	662.5	659.6	663.4	666.2	662.5	664.3	669.1	674.7	674.7	673.8
50°	603.2	605.1	608.8	617.3	622.9	624.8	626.7	632.4	633.3	635.2	632.4
52.5°	549.5	551.4	561.8	575.0	581.5	584.4	588.1	593.8	593.8	595.7	591.9
55°	495.0	497.8	508.1	521.3	527.0	530.7	534.5	538.3	541.1	544.8	542.0
57.5°	434.7	443.2	449.8	453.6	457.3	460.1	463.0	463.9	469.6	470.5	475.2
60°	370.8	372.6	379.2	378.3	375.5	383.0	379.2	385.8	392.4	400.9	401.8
62.5°	309.6	310.5	315.2	313.4	317.1	316.2	319.0	319.0	323.7	327.5	332.2
65°	261.6	262.5	266.3	266.3	265.4	268.2	271.0	272.9	272.9	275.7	279.5
67.5°	225.8	228.7	232.4	234.3	236.2	236.2	239.0	240.0	241.8	242.8	244.7
70°	201.4	205.1	208.9	210.8	211.7	213.6	214.5	214.5	216.4	217.4	219.3
72.5°	183.5	187.3	190.1	190.1	192.0	192.9	192.9	193.8	194.8	196.7	198.6
75°	168.4	171.3	173.1	172.2	172.2	172.2	173.1	173.1	175.0	176.9	178.8
77.5°	154.3	157.1	157.1	155.3	155.3	155.3	155.3	156.2	157.1	159.0	160.9
80°	144.0	144.0	143.0	143.0	141.2	140.2	140.2	141.2	141.2	143.0	145.9
82.5°	132.7	132.7	131.7	130.8	129.9	128.9	128.9	129.9	130.8	131.7	133.6
85°	122.3	122.3	120.4	120.4	119.5	119.5	119.5	119.5	120.4	121.4	123.3
87.5°	112.0	111.0	110.1	109.2	109.2	109.2	109.2	109.2	110.1	112.0	112.9
90°	101.6	100.7	99.7	99.7	98.8	98.8	99.7	99.7	100.7	101.6	102.6
92.5°	92.2	91.3	90.3	90.3	89.4	89.4	90.3	89.4	91.3	91.3	92.2
95°	83.7	82.8	81.9	81.9	81.9	81.9	81.9	81.9	82.8	82.8	83.7
97.5°	76.2	75.3	74.3	74.3	75.3	74.3	75.3	75.3	75.3	76.2	77.2
100°	69.6	68.7	68.7	69.6	68.7	68.7	69.6	69.6	69.6	69.6	70.6
102.5°	64.0	64.0	64.0	64.0	64.0	64.0	64.9	64.9	64.9	64.9	65.9
105°	58.3	59.3	59.3	59.3	60.2	60.2	60.2	61.2	61.2	61.2	61.2
107.5°	54.6	55.5	55.5	56.5	56.5	57.4	57.4	57.4	57.4	58.3	58.3
110°	50.8	51.8	52.7	53.6	53.6	54.6	54.6	54.6	54.6	54.6	54.6

TEST NUMBER: P1213454

CATALOG NUMBER: 4SNLED-LD5-52HL-LC-UNV-L935-CD1-U

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
112.5°	47.1	48.0	48.9	50.8	51.8	51.8	51.8	51.8	52.7	52.7	51.8
115°	43.3	45.2	46.1	48.0	48.9	48.9	49.9	49.9	49.9	49.9	48.9
117.5°	39.5	42.3	43.3	45.2	46.1	46.1	47.1	47.1	47.1	47.1	46.1
120°	36.7	38.6	40.5	41.4	42.3	43.3	43.3	44.2	44.2	44.2	43.3
122.5°	33.9	35.8	37.6	38.6	39.5	40.5	40.5	40.5	40.5	40.5	40.5
125°	30.1	32.0	33.9	34.8	35.8	36.7	36.7	37.6	37.6	37.6	36.7
127.5°	27.3	29.2	30.1	32.0	32.9	32.9	33.9	33.9	33.9	33.9	32.9
130°	23.5	25.4	27.3	28.2	29.2	29.2	30.1	30.1	30.1	30.1	30.1
132.5°	20.7	22.6	23.5	25.4	25.4	26.3	26.3	27.3	27.3	27.3	26.3
135°	18.8	19.8	20.7	22.6	22.6	23.5	23.5	23.5	23.5	23.5	23.5
137.5°	16.9	17.9	18.8	19.8	19.8	20.7	20.7	20.7	20.7	21.6	20.7
140°	14.1	16.0	16.9	16.9	17.9	17.9	17.9	18.8	18.8	18.8	17.9
142.5°	12.2	13.2	14.1	15.1	16.0	16.0	16.0	16.0	16.9	16.0	16.0
145°	9.4	11.3	12.2	13.2	14.1	14.1	14.1	14.1	14.1	14.1	14.1
147.5°	7.5	8.5	10.4	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	10.4	10.4	10.4	10.4	10.4	10.4	10.4
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: P1213454

CATALOG NUMBER: 4SNLED-LD5-52HL-LC-UNV-L935-CD1-U

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	1821.8	1821.8	1821.8	1821.8	1821.8	1821.8	1821.8	1821.8	1821.8	1821.8	1821.8
2.5°	1814.3	1813.3	1817.1	1813.3	1794.5	1802.0	1799.2	1809.5	1810.5	1813.3	1822.7
5°	1804.8	1804.8	1809.5	1805.8	1787.9	1795.4	1794.5	1804.8	1806.7	1808.6	1819.0
7.5°	1786.0	1787.0	1793.5	1790.7	1771.9	1783.2	1782.3	1794.5	1798.3	1802.0	1811.4
10°	1768.1	1767.2	1774.7	1771.9	1754.0	1767.2	1766.3	1778.5	1784.1	1790.7	1802.0
12.5°	1758.7	1755.9	1758.7	1755.9	1736.1	1746.5	1747.4	1761.6	1768.1	1776.6	1789.8
15°	1758.7	1754.0	1754.0	1748.4	1725.8	1732.4	1733.3	1742.7	1751.2	1759.7	1775.7
17.5°	1756.8	1752.1	1751.2	1746.5	1722.0	1722.0	1721.1	1727.7	1732.4	1740.9	1757.8
20°	1746.5	1744.6	1743.7	1740.9	1718.3	1714.5	1712.6	1712.6	1715.4	1718.3	1735.2
22.5°	1719.2	1721.1	1723.0	1724.9	1707.0	1700.4	1701.3	1699.4	1696.6	1696.6	1710.7
25°	1668.4	1677.8	1685.3	1693.8	1683.5	1678.7	1684.4	1681.6	1676.9	1673.1	1685.3
27.5°	1587.5	1607.2	1623.2	1643.9	1644.9	1641.1	1656.2	1654.3	1653.3	1647.7	1657.1
30°	1475.5	1506.5	1528.2	1558.3	1583.7	1587.5	1612.9	1616.6	1620.4	1617.6	1627.0
32.5°	1340.0	1382.3	1419.0	1466.1	1490.5	1512.2	1547.9	1563.0	1578.1	1582.8	1593.1
35°	1192.2	1240.2	1283.5	1335.3	1373.9	1420.9	1464.2	1486.8	1520.7	1533.8	1548.9
37.5°	1052.0	1097.2	1139.6	1191.3	1253.4	1302.3	1356.0	1406.8	1452.9	1471.7	1494.3
40°	927.8	964.5	1005.0	1050.2	1106.6	1170.6	1228.9	1299.5	1354.1	1391.7	1424.7
42.5°	833.7	851.6	886.4	926.9	972.1	1037.0	1096.3	1175.3	1241.2	1294.8	1349.4
45°	750.0	758.4	783.9	805.5	851.6	909.0	972.1	1049.2	1117.9	1186.6	1252.5
47.5°	678.5	688.8	701.0	714.2	747.2	795.1	849.7	919.4	988.1	1068.0	1143.3
50°	630.5	633.3	635.2	640.8	660.6	693.5	737.7	797.0	862.9	948.5	1028.5
52.5°	588.1	588.1	582.5	579.7	587.2	607.9	633.3	675.6	743.4	822.4	907.1
55°	543.0	534.5	532.6	523.2	525.1	534.5	546.7	579.7	635.2	702.9	784.8
57.5°	479.9	476.1	476.1	472.4	464.9	469.6	472.4	495.9	535.4	593.8	665.3
60°	407.5	405.6	410.3	411.2	404.6	407.5	406.5	420.6	448.9	495.9	555.2
62.5°	335.0	343.5	344.4	348.2	344.4	343.5	348.2	360.4	374.5	410.3	456.4
65°	281.4	286.1	287.0	291.7	289.8	289.8	293.6	303.0	311.5	335.9	371.7
67.5°	246.5	244.7	245.6	248.4	245.6	244.7	247.5	253.1	259.7	274.8	300.2
70°	219.3	217.4	217.4	217.4	213.6	210.8	211.7	213.6	216.4	224.9	240.9
72.5°	198.6	198.6	195.7	192.9	190.1	188.2	186.3	184.4	183.5	186.3	194.8
75°	179.7	180.7	179.7	176.9	173.1	169.4	165.6	161.9	157.1	155.3	156.2
77.5°	162.8	163.7	164.7	163.7	160.0	155.3	149.6	144.0	137.4	130.8	127.0
80°	147.7	149.6	150.6	149.6	146.8	143.0	136.4	129.9	120.4	112.0	102.6
82.5°	134.6	137.4	138.3	138.3	136.4	132.7	125.2	117.6	107.3	96.0	83.7
85°	124.2	126.1	128.0	128.0	127.0	123.3	115.7	107.3	96.9	83.7	70.6
87.5°	113.9	114.8	116.7	118.6	116.7	112.9	106.3	96.9	86.6	73.4	58.3
90°	103.5	104.5	106.3	108.2	107.3	103.5	97.9	89.4	78.1	64.0	48.9
92.5°	93.2	95.0	96.0	96.9	97.9	95.0	90.3	81.9	70.6	56.5	42.3
95°	85.6	85.6	87.5	88.5	89.4	86.6	82.8	74.3	64.0	50.8	36.7
97.5°	78.1	78.1	80.0	80.0	80.9	79.0	75.3	67.8	57.4	45.2	31.1
100°	70.6	71.5	72.5	73.4	73.4	72.5	68.7	61.2	51.8	40.5	27.3
102.5°	65.9	65.9	66.8	66.8	67.8	65.9	62.1	55.5	46.1	35.8	23.5
105°	61.2	61.2	62.1	62.1	61.2	59.3	55.5	49.9	41.4	31.1	20.7
107.5°	57.4	57.4	57.4	57.4	56.5	54.6	50.8	44.2	36.7	28.2	18.8
110°	54.6	53.6	53.6	52.7	51.8	48.9	45.2	39.5	32.9	24.5	16.0

TEST NUMBER: P1213454

CATALOG NUMBER: 4SNLED-LD5-52HL-LC-UNV-L935-CD1-U

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
112.5°	51.8	50.8	49.9	48.9	47.1	44.2	40.5	35.8	29.2	21.6	14.1
115°	48.9	48.0	47.1	45.2	43.3	40.5	36.7	32.0	25.4	18.8	12.2
117.5°	46.1	45.2	43.3	41.4	39.5	36.7	32.9	28.2	22.6	16.9	11.3
120°	42.3	41.4	40.5	38.6	36.7	32.9	29.2	25.4	19.8	15.1	9.4
122.5°	39.5	38.6	36.7	35.8	32.9	30.1	26.3	22.6	17.9	13.2	8.5
125°	35.8	34.8	33.9	32.0	30.1	26.3	23.5	19.8	16.0	11.3	6.6
127.5°	32.9	32.0	30.1	28.2	26.3	23.5	20.7	17.9	14.1	9.4	6.6
130°	29.2	28.2	27.3	25.4	23.5	20.7	18.8	15.1	12.2	8.5	5.6
132.5°	25.4	25.4	24.5	22.6	20.7	18.8	16.0	13.2	10.4	7.5	4.7
135°	23.5	22.6	21.6	19.8	18.8	16.0	14.1	11.3	8.5	6.6	3.8
137.5°	20.7	19.8	18.8	17.9	16.0	14.1	12.2	9.4	7.5	5.6	3.8
140°	17.9	16.9	16.9	15.1	14.1	12.2	10.4	8.5	6.6	4.7	2.8
142.5°	16.0	15.1	14.1	13.2	12.2	10.4	8.5	6.6	5.6	3.8	2.8
145°	14.1	13.2	12.2	11.3	10.4	8.5	7.5	5.6	4.7	3.8	2.8
147.5°	11.3	11.3	10.4	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: P1213454

CATALOG NUMBER: 4SNLED-LD5-52HL-LC-UNV-L935-CD1-U

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
0°	1821.8	1821.8	1821.8	1821.8	1821.8	1821.8	1821.8	1821.8	1821.8	1821.8	1821.8
2.5°	1824.6	1813.3	1822.7	1839.7	1837.8	1835.9	1834.0	1837.8	1850.0	1843.4	1833.1
5°	1821.8	1810.5	1820.8	1836.8	1835.9	1833.1	1831.2	1835.0	1847.2	1840.6	1829.3
7.5°	1816.1	1805.8	1813.3	1829.3	1829.3	1827.4	1825.5	1829.3	1840.6	1835.0	1823.7
10°	1806.7	1799.2	1806.7	1821.8	1822.7	1819.0	1817.1	1821.8	1833.1	1830.2	1820.8
12.5°	1799.2	1791.7	1800.1	1815.2	1816.1	1812.4	1809.5	1815.2	1830.2	1832.1	1829.3
15°	1788.8	1782.3	1792.6	1808.6	1808.6	1805.8	1805.8	1813.3	1834.0	1842.5	1847.2
17.5°	1773.8	1769.1	1781.3	1797.3	1798.3	1796.4	1797.3	1812.4	1839.7	1860.4	1873.5
20°	1755.0	1753.1	1766.3	1783.2	1786.0	1787.0	1791.7	1814.3	1851.9	1880.1	1893.3
22.5°	1732.4	1733.3	1748.4	1766.3	1770.0	1772.8	1782.3	1814.3	1861.3	1891.4	1897.1
25°	1707.0	1709.8	1725.8	1747.4	1752.1	1757.8	1773.8	1815.2	1864.1	1883.9	1874.5
27.5°	1679.7	1685.3	1706.0	1728.6	1734.3	1743.7	1764.4	1809.5	1850.9	1851.9	1817.1
30°	1651.5	1658.0	1682.5	1708.9	1718.3	1727.7	1753.1	1796.4	1819.0	1788.8	1727.7
32.5°	1619.5	1628.9	1653.3	1685.3	1696.6	1708.9	1734.3	1771.0	1762.5	1697.6	1610.1
35°	1579.0	1592.2	1620.4	1658.0	1668.4	1684.4	1702.3	1710.7	1673.1	1580.9	1482.1
37.5°	1529.1	1548.9	1581.8	1625.1	1636.4	1646.8	1651.5	1627.9	1552.7	1452.9	1350.3
40°	1471.7	1501.8	1537.6	1585.6	1596.9	1596.9	1579.9	1530.1	1435.0	1304.2	1190.4
42.5°	1402.1	1438.8	1484.0	1531.9	1543.2	1530.1	1489.6	1402.1	1293.9	1148.0	1027.6
45°	1317.4	1366.3	1417.1	1467.0	1472.7	1443.5	1371.0	1260.0	1126.4	990.9	876.1
47.5°	1216.7	1280.7	1336.2	1392.7	1385.2	1336.2	1239.3	1113.2	972.1	844.1	751.9
50°	1103.8	1179.1	1241.2	1294.8	1278.8	1211.1	1097.2	965.5	825.3	716.1	639.9
52.5°	983.3	1069.9	1132.0	1175.3	1153.7	1072.7	947.6	821.5	706.7	606.9	556.1
55°	858.2	945.7	1009.7	1043.6	1015.3	927.8	804.6	689.8	581.5	516.6	486.5
57.5°	736.8	818.7	878.9	906.2	870.4	782.9	669.1	572.1	494.0	439.4	424.4
60°	620.1	686.9	744.3	765.0	726.5	645.5	547.7	470.5	413.1	375.5	367.9
62.5°	511.9	566.5	611.7	627.6	590.0	527.0	442.3	384.9	344.4	325.6	316.2
65°	422.5	454.5	500.6	497.8	475.2	416.9	354.8	314.3	287.9	275.7	270.1
67.5°	332.2	361.3	390.5	394.3	366.0	325.6	285.1	256.0	241.8	235.3	232.4
70°	256.9	278.5	296.4	291.7	276.7	251.2	225.8	209.8	204.2	201.4	201.4
72.5°	199.5	210.8	219.3	213.6	204.2	191.0	178.8	172.2	173.1	175.0	176.9
75°	154.3	157.1	159.0	153.4	151.5	143.0	142.1	143.0	148.7	154.3	157.1
77.5°	118.6	114.8	112.0	106.3	107.3	106.3	111.0	118.6	127.0	135.5	143.0
80°	91.3	82.8	76.2	70.6	73.4	78.1	87.5	98.8	110.1	119.5	128.9
82.5°	70.6	58.3	48.9	43.3	48.9	56.5	68.7	82.8	96.0	106.3	116.7
85°	54.6	40.5	29.2	23.5	29.2	40.5	53.6	69.6	83.7	95.0	105.4
87.5°	42.3	29.2	16.0	9.4	16.0	28.2	43.3	58.3	72.5	85.6	96.0
90°	33.9	19.8	7.5	1.9	8.5	19.8	33.9	48.9	63.0	77.2	87.5
92.5°	27.3	14.1	3.8	0.0	4.7	15.1	28.2	42.3	56.5	69.6	80.0
95°	22.6	11.3	2.8	0.0	3.8	11.3	22.6	36.7	49.9	63.0	71.5
97.5°	18.8	8.5	1.9	0.0	1.9	9.4	18.8	31.1	44.2	56.5	64.9
100°	16.0	7.5	1.9	0.0	1.9	7.5	16.0	27.3	38.6	49.9	58.3
102.5°	13.2	5.6	0.9	0.9	0.9	5.6	14.1	23.5	33.9	44.2	52.7
105°	12.2	4.7	0.9	0.9	0.9	4.7	12.2	20.7	30.1	39.5	47.1
107.5°	10.4	3.8	0.9	0.9	0.9	3.8	10.4	17.9	27.3	35.8	42.3
110°	8.5	3.8	0.9	0.9	0.9	3.8	8.5	16.0	23.5	31.1	37.6



TEST NUMBER: P1213454

CATALOG NUMBER: 4SNLED-LD5-52HL-LC-UNV-L935-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	33.9
115°	6.6	2.8	0.9	0.9	0.9	2.8	6.6	12.2	17.9	24.5	30.1
117.5°	5.6	2.8	0.9	0.9	0.9	1.9	5.6	10.4	16.0	21.6	27.3
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	10.4	14.1	17.9
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	10.4	13.2
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: P1213454

CATALOG NUMBER: 4SNLED-LD5-52HL-LC-UNV-L935-CD1-U

CANDELA DISTRIBUTION (continued):

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
0°	1821.8	1821.8	1821.8	1821.8	1821.8	1821.8	1821.8	1821.8	1821.8	1821.8	1821.8
2.5°	1831.2	1809.5	1820.8	1817.1	1820.8	1830.2	1829.3	1826.5	1828.4	1823.7	1819.0
5°	1827.4	1805.8	1817.1	1812.4	1817.1	1826.5	1824.6	1821.8	1824.6	1819.0	1814.3
7.5°	1822.7	1803.0	1816.1	1815.2	1823.7	1835.9	1836.8	1836.8	1843.4	1835.0	1831.2
10°	1822.7	1812.4	1830.2	1836.8	1858.5	1874.5	1876.4	1880.1	1891.4	1889.5	1880.1
12.5°	1842.5	1840.6	1866.9	1882.9	1902.7	1925.3	1937.5	1941.3	1948.8	1943.2	1939.4
15°	1867.9	1877.3	1906.5	1924.3	1946.0	1962.9	1965.8	1967.6	1973.3	1964.8	1958.2
17.5°	1901.8	1907.4	1930.9	1938.5	1952.6	1955.4	1951.6	1942.2	1942.2	1923.4	1917.8
20°	1917.8	1914.9	1924.3	1912.1	1906.5	1889.5	1873.5	1855.7	1854.7	1835.0	1833.1
22.5°	1903.6	1884.8	1865.1	1835.0	1821.8	1797.3	1775.7	1765.3	1758.7	1733.3	1726.7
25°	1853.8	1807.7	1778.5	1742.7	1710.7	1682.5	1661.8	1640.2	1619.5	1598.8	1589.4
27.5°	1767.2	1723.9	1676.9	1627.0	1582.8	1539.5	1504.7	1483.0	1463.3	1436.0	1421.9
30°	1660.9	1600.6	1548.9	1500.9	1428.4	1375.7	1346.6	1303.3	1288.2	1276.0	1249.6
32.5°	1535.7	1463.3	1392.7	1327.8	1253.4	1204.5	1165.9	1133.9	1124.5	1092.5	1085.0
35°	1397.4	1302.3	1222.4	1158.4	1104.7	1045.5	1013.5	991.8	973.0	951.4	947.6
37.5°	1234.6	1149.0	1058.6	1002.2	959.8	909.0	884.5	869.5	861.0	845.0	842.2
40°	1070.9	985.2	923.1	866.7	840.3	813.0	795.1	788.6	784.8	779.1	773.5
42.5°	922.2	846.9	802.7	765.0	753.7	740.6	735.9	739.6	735.9	734.0	733.0
45°	796.1	738.7	707.6	696.3	693.5	689.8	693.5	700.1	701.0	699.2	699.2
47.5°	681.3	654.0	640.8	642.7	647.4	650.2	656.8	665.3	667.2	662.5	664.3
50°	606.0	590.0	587.2	594.7	605.1	608.8	616.4	622.9	622.0	620.1	618.2
52.5°	535.4	530.7	538.3	545.8	557.1	559.0	561.8	564.6	563.7	559.9	558.0
55°	476.1	479.9	486.5	489.3	497.8	496.8	497.8	497.8	494.0	492.1	489.3
57.5°	422.5	423.5	427.2	428.2	432.9	431.0	430.0	428.2	422.5	421.6	418.7
60°	367.9	366.0	374.5	367.9	371.7	367.9	367.0	362.3	356.6	355.7	353.8
62.5°	316.2	312.4	318.1	315.2	317.1	313.4	311.5	305.8	301.1	300.2	299.2
65°	270.1	268.2	273.8	272.9	274.8	270.1	268.2	264.4	260.7	259.7	258.8
67.5°	231.5	236.2	239.0	239.0	240.9	240.0	235.3	234.3	233.4	229.6	229.6
70°	203.3	206.1	211.7	212.7	211.7	213.6	209.8	208.9	208.0	206.1	205.1
72.5°	180.7	184.4	190.1	191.0	190.1	190.1	188.2	187.3	187.3	184.4	184.4
75°	162.8	167.5	172.2	172.2	172.2	170.3	168.4	168.4	166.6	165.6	163.7
77.5°	147.7	153.4	157.1	156.2	155.3	153.4	153.4	150.6	147.7	147.7	145.9
80°	136.4	140.2	143.0	142.1	141.2	138.3	137.4	134.6	132.7	129.9	129.9
82.5°	124.2	128.9	130.8	129.9	128.0	125.2	124.2	122.3	120.4	119.5	117.6
85°	113.9	118.6	119.5	117.6	115.7	113.9	112.9	112.0	111.0	109.2	109.2
87.5°	103.5	108.2	108.2	107.3	105.4	104.5	103.5	102.6	101.6	100.7	99.7
90°	95.0	98.8	98.8	97.9	96.9	96.0	95.0	94.1	93.2	92.2	92.2
92.5°	86.6	90.3	90.3	89.4	88.5	87.5	87.5	86.6	85.6	84.7	83.7
95°	79.0	82.8	82.8	82.8	81.9	80.9	80.9	80.0	79.0	79.0	78.1
97.5°	71.5	75.3	75.3	75.3	74.3	73.4	73.4	72.5	72.5	72.5	71.5
100°	64.9	67.8	68.7	68.7	67.8	67.8	67.8	66.8	66.8	66.8	65.9
102.5°	58.3	61.2	63.0	63.0	63.0	62.1	62.1	62.1	62.1	62.1	61.2
105°	52.7	55.5	57.4	58.3	58.3	58.3	58.3	58.3	58.3	58.3	58.3
107.5°	48.0	50.8	52.7	53.6	54.6	54.6	55.5	55.5	55.5	55.5	55.5
110°	43.3	46.1	48.9	49.9	50.8	51.8	51.8	52.7	51.8	51.8	51.8

TEST NUMBER: P1213454

CATALOG NUMBER: 4SNLED-LD5-52HL-LC-UNV-L935-CD1-U

CANDELA DISTRIBUTION (continued):

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
112.5°	38.6	42.3	44.2	46.1	47.1	48.0	48.9	48.9	48.9	48.9	48.9
115°	34.8	38.6	40.5	42.3	44.2	45.2	45.2	46.1	46.1	46.1	45.2
117.5°	31.1	34.8	36.7	38.6	39.5	41.4	42.3	42.3	42.3	42.3	41.4
120°	28.2	31.1	32.9	34.8	36.7	37.6	38.6	38.6	38.6	38.6	38.6
122.5°	24.5	27.3	30.1	32.0	32.9	33.9	34.8	34.8	34.8	34.8	34.8
125°	21.6	24.5	26.3	28.2	29.2	31.1	31.1	31.1	31.1	31.1	31.1
127.5°	18.8	21.6	23.5	25.4	26.3	27.3	28.2	28.2	28.2	28.2	28.2
130°	16.0	18.8	20.7	22.6	23.5	24.5	24.5	25.4	25.4	25.4	25.4
132.5°	14.1	16.0	17.9	19.8	20.7	21.6	21.6	22.6	22.6	22.6	22.6
135°	11.3	14.1	15.1	16.9	17.9	18.8	18.8	19.8	19.8	19.8	19.8
137.5°	9.4	11.3	13.2	15.1	16.0	16.0	16.9	16.9	17.9	17.9	17.9
140°	7.5	8.5	11.3	12.2	13.2	14.1	15.1	15.1	15.1	15.1	15.1
142.5°	5.6	7.5	8.5	10.4	11.3	12.2	13.2	13.2	13.2	13.2	13.2
145°	4.7	5.6	6.6	8.5	9.4	10.4	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: P1213454

CATALOG NUMBER: 4SNLED-LD5-52HL-LC-UNV-L935-CD1-U

CANDELA DISTRIBUTION (continued):

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°
0°	1821.8	1821.8	1821.8	1821.8	1821.8	1821.8	1821.8	1821.8	1821.8	1821.8	1821.8
2.5°	1821.8	1825.5	1823.7	1820.8	1819.9	1824.6	1819.9	1798.3	1806.7	1807.7	1814.3
5°	1819.0	1821.8	1819.9	1818.0	1815.2	1820.8	1815.2	1792.6	1801.1	1802.0	1808.6
7.5°	1837.8	1838.7	1838.7	1834.0	1826.5	1829.3	1821.8	1796.4	1801.1	1801.1	1805.8
10°	1884.8	1886.7	1889.5	1877.3	1867.9	1860.4	1850.0	1819.0	1818.0	1810.5	1810.5
12.5°	1946.0	1941.3	1936.6	1930.9	1923.4	1914.0	1898.9	1862.2	1850.0	1837.8	1825.5
15°	1963.9	1962.0	1961.0	1958.2	1953.5	1950.7	1939.4	1902.7	1884.8	1869.8	1848.1
17.5°	1916.8	1920.6	1932.8	1933.8	1939.4	1950.7	1948.8	1923.4	1907.4	1900.8	1874.5
20°	1832.1	1833.1	1848.1	1854.7	1879.2	1898.0	1912.1	1909.3	1905.5	1913.1	1893.3
22.5°	1730.5	1737.1	1753.1	1763.4	1787.0	1808.6	1831.2	1843.4	1863.2	1894.2	1890.5
25°	1592.2	1600.6	1623.2	1640.2	1673.1	1706.0	1736.1	1757.8	1781.3	1840.6	1860.4
27.5°	1426.6	1439.7	1468.9	1485.8	1531.9	1565.8	1609.1	1651.5	1684.4	1752.1	1792.6
30°	1252.5	1263.8	1294.8	1318.3	1357.9	1404.0	1458.6	1518.8	1573.4	1642.0	1692.9
32.5°	1089.7	1101.9	1127.3	1148.0	1192.2	1230.8	1291.1	1365.4	1416.2	1511.2	1579.0
35°	947.6	958.9	976.8	994.6	1031.3	1070.9	1122.6	1195.1	1260.0	1358.8	1444.4
37.5°	847.8	849.7	860.1	870.4	897.7	927.8	968.3	1032.3	1092.5	1198.8	1292.9
40°	776.3	776.3	782.0	784.8	797.0	814.9	840.3	890.2	940.1	1021.0	1135.8
42.5°	732.1	730.2	730.2	731.2	730.2	738.7	753.7	777.3	821.5	888.3	977.7
45°	699.2	695.4	692.6	686.0	682.2	682.2	683.2	691.6	717.0	760.3	832.8
47.5°	662.5	661.5	656.8	649.3	642.7	638.0	630.5	627.6	635.2	659.6	708.6
50°	620.1	615.4	610.7	605.1	597.5	592.8	578.7	579.7	573.1	584.4	609.8
52.5°	558.0	554.2	552.4	547.7	544.8	543.0	531.7	520.4	517.6	519.4	528.8
55°	489.3	491.2	483.7	487.4	486.5	478.0	473.3	464.9	462.0	461.1	465.8
57.5°	417.8	419.7	415.0	418.7	418.7	414.0	411.2	411.2	404.6	399.0	405.6
60°	352.9	349.1	351.9	356.6	356.6	353.8	351.9	351.9	347.2	345.3	350.1
62.5°	300.2	296.4	299.2	303.9	304.9	303.0	301.1	301.1	295.5	295.5	299.2
65°	259.7	260.7	259.7	263.5	263.5	264.4	262.5	260.7	254.1	256.9	256.0
67.5°	230.5	229.6	229.6	233.4	232.4	234.3	232.4	229.6	224.9	221.1	220.2
70°	206.1	205.1	205.1	207.0	208.0	208.0	207.0	205.1	198.6	194.8	192.0
72.5°	184.4	183.5	184.4	185.4	186.3	187.3	186.3	184.4	178.8	174.1	169.4
75°	164.7	163.7	166.6	166.6	167.5	167.5	168.4	167.5	162.8	157.1	151.5
77.5°	144.9	145.9	148.7	149.6	151.5	152.4	153.4	153.4	148.7	144.0	136.4
80°	128.9	130.8	132.7	133.6	135.5	138.3	139.3	140.2	136.4	131.7	123.3
82.5°	117.6	118.6	120.4	121.4	124.2	125.2	126.1	128.0	126.1	121.4	112.0
85°	108.2	109.2	111.0	111.0	112.9	114.8	115.7	116.7	115.7	111.0	101.6
87.5°	99.7	100.7	101.6	102.6	103.5	104.5	105.4	106.3	105.4	100.7	92.2
90°	92.2	92.2	93.2	93.2	94.1	95.0	96.9	96.9	96.0	92.2	83.7
92.5°	83.7	84.7	84.7	85.6	86.6	87.5	88.5	88.5	87.5	83.7	76.2
95°	78.1	78.1	79.0	79.0	80.0	80.0	80.9	80.9	80.0	76.2	68.7
97.5°	71.5	71.5	71.5	71.5	72.5	72.5	73.4	73.4	72.5	68.7	62.1
100°	65.9	65.9	65.9	65.9	65.9	66.8	66.8	66.8	65.9	62.1	55.5
102.5°	61.2	61.2	61.2	61.2	61.2	61.2	61.2	61.2	59.3	56.5	49.9
105°	58.3	58.3	58.3	57.4	57.4	57.4	56.5	56.5	53.6	50.8	45.2
107.5°	54.6	54.6	54.6	53.6	53.6	52.7	51.8	51.8	48.9	46.1	40.5
110°	51.8	51.8	51.8	50.8	49.9	48.9	48.0	47.1	44.2	40.5	35.8



TEST NUMBER: P1213454

CATALOG NUMBER: 4SNLED-LD5-52HL-LC-UNV-L935-CD1-U

CANDELA DISTRIBUTION (continued):

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°
112.5°	48.9	48.9	48.0	48.0	47.1	46.1	44.2	43.3	40.5	36.7	32.0
115°	45.2	45.2	45.2	44.2	43.3	42.3	41.4	39.5	36.7	32.9	28.2
117.5°	41.4	41.4	41.4	40.5	39.5	38.6	37.6	35.8	32.9	29.2	25.4
120°	37.6	37.6	37.6	36.7	35.8	34.8	33.9	32.0	29.2	26.3	21.6
122.5°	34.8	34.8	33.9	32.9	32.0	31.1	30.1	28.2	26.3	22.6	18.8
125°	31.1	31.1	30.1	30.1	29.2	28.2	27.3	25.4	22.6	19.8	16.9
127.5°	28.2	27.3	27.3	27.3	26.3	25.4	23.5	22.6	19.8	16.9	14.1
130°	24.5	24.5	24.5	23.5	23.5	22.6	20.7	18.8	16.9	15.1	12.2
132.5°	21.6	21.6	21.6	21.6	20.7	19.8	17.9	16.9	15.1	12.2	10.4
135°	19.8	19.8	18.8	18.8	17.9	16.9	16.0	14.1	12.2	10.4	8.5
137.5°	16.9	16.9	16.9	16.0	16.0	15.1	13.2	12.2	11.3	9.4	7.5
140°	15.1	15.1	14.1	14.1	13.2	13.2	12.2	10.4	9.4	7.5	6.6
142.5°	13.2	13.2	12.2	12.2	11.3	11.3	10.4	9.4	7.5	6.6	4.7
145°	11.3	11.3	10.4	10.4	10.4	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: P1213454

CATALOG NUMBER: 4SNLED-LD5-52HL-LC-UNV-L935-CD1-U

CANDELA DISTRIBUTION (continued):

	330°	335°	340°	345°	350°	355°	360°
0°	1821.8	1821.8	1821.8	1821.8	1821.8	1821.8	1821.8
2.5°	1811.4	1810.5	1819.0	1818.0	1806.7	1823.7	1835.0
5°	1806.7	1805.8	1813.3	1815.2	1803.0	1820.8	1833.1
7.5°	1803.0	1802.0	1810.5	1813.3	1801.1	1817.1	1830.2
10°	1803.9	1799.2	1806.7	1808.6	1797.3	1814.3	1825.5
12.5°	1810.5	1799.2	1802.0	1802.0	1791.7	1806.7	1819.0
15°	1826.5	1803.0	1799.2	1796.4	1783.2	1797.3	1809.5
17.5°	1844.4	1812.4	1799.2	1789.8	1773.8	1786.0	1799.2
20°	1862.2	1822.7	1801.1	1786.0	1764.4	1775.7	1785.1
22.5°	1870.7	1832.1	1803.0	1780.4	1753.1	1758.7	1769.1
25°	1859.4	1828.4	1799.2	1771.9	1739.0	1739.9	1748.4
27.5°	1818.0	1809.5	1790.7	1763.4	1727.7	1723.0	1729.6
30°	1747.4	1771.0	1771.9	1752.1	1714.5	1705.1	1707.9
32.5°	1648.6	1701.3	1732.4	1728.6	1695.7	1682.5	1684.4
35°	1534.8	1600.6	1668.4	1691.0	1667.5	1657.1	1653.3
37.5°	1398.3	1486.8	1577.1	1632.6	1628.9	1622.3	1618.5
40°	1247.8	1354.1	1461.4	1549.8	1577.1	1577.1	1579.0
42.5°	1086.9	1211.1	1328.7	1440.7	1504.7	1518.8	1524.4
45°	931.6	1056.7	1184.7	1313.6	1399.3	1443.5	1459.5
47.5°	790.4	916.5	1037.9	1179.1	1292.9	1350.3	1375.7
50°	670.0	764.1	892.1	1032.3	1156.5	1227.1	1276.9
52.5°	570.2	643.6	755.6	886.4	1011.6	1108.5	1154.6
55°	486.5	536.4	631.4	744.3	863.8	964.5	1018.2
57.5°	415.9	455.4	520.4	614.5	715.2	814.9	872.3
60°	353.8	381.1	425.3	499.7	585.3	670.9	726.5
62.5°	300.2	318.1	347.2	401.8	468.6	535.4	587.2
65°	258.8	266.3	282.3	316.2	367.0	417.8	462.0
67.5°	218.3	223.0	235.3	256.0	281.4	318.1	347.2
70°	188.2	188.2	189.1	201.4	214.5	238.1	258.8
72.5°	163.7	160.9	155.3	158.1	160.9	174.1	187.3
75°	144.0	137.4	128.0	124.2	122.3	124.2	131.7
77.5°	127.0	117.6	106.3	96.9	89.4	86.6	93.2
80°	112.9	101.6	88.5	76.2	64.0	57.4	60.2
82.5°	101.6	87.5	73.4	59.3	45.2	35.8	35.8
85°	89.4	76.2	61.2	46.1	32.0	19.8	17.9
87.5°	80.9	66.8	50.8	36.7	22.6	10.4	5.6
90°	72.5	58.3	43.3	29.2	16.0	4.7	0.0
92.5°	64.9	51.8	37.6	23.5	11.3	2.8	0.0
95°	58.3	46.1	32.0	19.8	9.4	1.9	0.9
97.5°	51.8	40.5	28.2	16.0	6.6	1.9	0.9
100°	47.1	35.8	24.5	13.2	5.6	0.9	0.9
102.5°	41.4	32.0	20.7	11.3	4.7	0.9	0.9
105°	36.7	28.2	17.9	9.4	3.8	0.9	0.9
107.5°	32.9	24.5	16.0	8.5	3.8	0.9	0.9
110°	29.2	21.6	14.1	7.5	2.8	0.9	0.9

TEST NUMBER: P1213454

CATALOG NUMBER: 4SNLED-LD5-52HL-LC-UNV-L935-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°	22.6	16.9	10.4	5.6	1.9	0.9	0.9
117.5°	19.8	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°	15.1	10.4	6.6	3.8	0.9	0.9	0.9
125°	13.2	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)