

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: P1213141

Luminaire Tested: 4SNLED-LD5-61SL-LN-UNV-L930-CD1-U

Issue Date: 3/29/2018

Test Information

Test Method: LM-79-2019
Report Number: P1213141
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P33519)
Test Lab: INNOVATIONS CENTER-P3
Issue Date: 3/29/2018
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: METALUX
Catalog Number: 4SNLED-LD5-61SL-LN-UNV-L930-CD1-U
Description: 4FT LINEAR SNLED LED FIXTURE
NARROW LENS
Light Source: -
Ballast/Driver: -

Summary

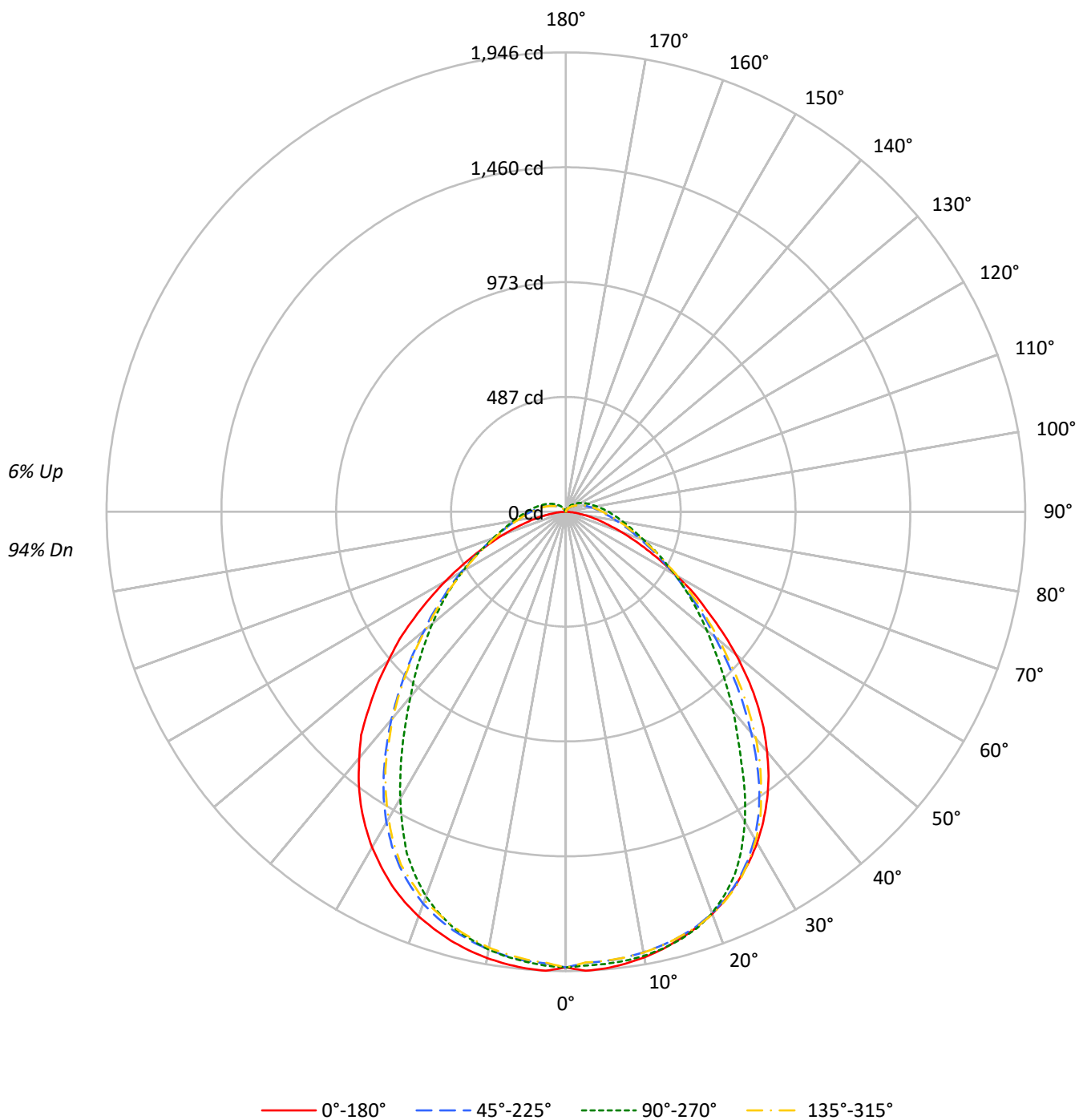
Lumens per Lamp: N/A
Luminaire Lumens: 4885.0 lumens
Efficiency: N/A
Efficacy: 93.9 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.14 / 1.24
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.12')
CIE Type: Direct

Input Watts (W): 52
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	114	114	114	114	108	108	108	102	102	102	96	96	96
1	107	103	98	95	104	100	96	92	94	91	88	89	87	85	85	83	81
2	98	90	84	78	95	88	82	77	83	78	74	79	75	72	75	72	69
3	90	80	72	66	87	78	71	65	74	68	63	71	66	61	67	63	60
4	83	72	63	57	80	70	62	56	67	60	55	64	58	53	61	56	52
5	77	64	56	50	74	63	55	49	60	53	48	58	52	47	55	50	46
6	71	58	50	44	69	57	49	43	55	48	42	52	46	42	50	45	41
7	66	53	45	39	64	52	44	39	50	43	38	48	42	37	46	41	37
8	62	49	41	35	60	48	40	35	46	39	34	44	38	34	43	37	33
9	58	45	37	32	56	44	37	31	42	36	31	41	35	30	40	34	30
10	54	42	34	29	53	41	34	29	39	33	28	38	32	28	37	31	27

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	15599	15599	15599	15599
5°	15710	15102	15710	15035
10°	15640	14701	15666	14497
15°	15539	14261	15609	13890
20°	15420	13697	15510	13118
25°	15172	12859	15340	12102
30°	14850	11628	15046	10764
35°	14350	10119	14627	9423
40°	13632	8850	13992	8211
45°	12684	7693	13096	7252
50°	11390	6760	11891	6419
55°	9852	5970	10568	5667
60°	8285	5241	9035	4939
65°	6792	4634	7478	4297
70°	5407	4113	6053	3803
75°	4245	3797	4779	3493
80°	3064	3663	3609	3348
85°	1886	3684	2541	3386

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 180°

Vertical Angle: 45°

Luminance: 13096 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	183.0	3.7
10°-20°	524.7	10.7
20°-30°	777.7	15.9
30°-40°	864.0	17.7
40°-50°	783.2	16.0
50°-60°	606.9	12.4
60°-70°	412.1	8.4
70°-80°	262.2	5.4
80°-90°	167.6	3.4
90°-100°	113.0	2.3
100°-110°	77.4	1.6
110°-120°	51.6	1.1
120°-130°	32.1	0.7
130°-140°	17.8	0.4
140°-150°	8.3	0.2
150°-160°	3.1	0.1
160°-170°	0.2	0.0
170°-180°	0.0	0.0
0°-30°	1485.4	30.4
0°-40°	2349.4	48.1
0°-60°	3739.5	76.6
0°-90°	4581.5	93.8
90°-120°	242.1	5.0
90°-150°	300.3	6.1
90°-180°	304.0	6.2
0°-180°	4885.0	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	1930	1930	1930	1930	1930	
5°	1942	1923	1942	1914	1942	184
15°	1873	1876	1881	1827	1873	529
25°	1726	1695	1746	1595	1726	795
35°	1486	1295	1515	1206	1486	927
45°	1145	926	1182	873	1145	879
55°	730	651	784	618	730	658
65°	379	437	417	406	379	380
75°	152	292	171	269	152	163
85°	28	210	37	193	28	33
90°	0	182	2	166	0	2
95°	1	155	0	144	1	1
105°	1	114	0	107	1	1
115°	1	86	0	80	1	1
125°	1	64	1	56	1	1
135°	1	45	1	36	1	1
145°	1	29	1	20	1	1
155°	1	16	1	7	1	1
165°	0	0	0	0	0	0
175°	0	0	0	0	0	0
180°	0	0	0	0	0	0

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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1930.3	1930.3	1930.3	1930.3	1930.3	1930.3	1930.3	1930.3	1930.3	1930.3	1930.3
2.5°	1946.2	1944.1	1941.9	1938.8	1941.9	1950.4	1945.1	1933.5	1931.3	1912.2	1920.7
5°	1941.9	1938.8	1936.6	1933.5	1937.7	1948.3	1943.0	1932.4	1929.2	1911.2	1920.7
7.5°	1931.3	1929.2	1926.0	1926.0	1930.3	1940.9	1936.6	1925.0	1922.8	1904.8	1915.4
10°	1916.5	1915.4	1913.3	1913.3	1917.5	1930.3	1925.0	1914.3	1912.2	1895.2	1906.9
12.5°	1897.4	1898.4	1895.2	1895.2	1901.6	1914.3	1910.1	1898.4	1896.3	1881.4	1893.1
15°	1872.9	1874.0	1871.9	1872.9	1879.3	1894.2	1888.9	1878.2	1876.1	1864.4	1874.0
17.5°	1845.3	1846.4	1846.4	1845.3	1852.8	1867.6	1863.4	1853.8	1850.6	1841.1	1852.8
20°	1813.5	1813.5	1813.5	1813.5	1822.0	1836.8	1831.5	1824.1	1817.7	1810.3	1819.8
22.5°	1774.2	1773.1	1774.2	1777.4	1785.9	1797.5	1794.4	1785.9	1776.3	1772.1	1779.5
25°	1726.4	1729.6	1730.7	1733.8	1744.5	1754.0	1750.8	1742.3	1727.5	1724.3	1726.4
27.5°	1676.5	1678.6	1681.8	1680.8	1695.6	1705.2	1698.8	1691.4	1670.1	1667.0	1664.8
30°	1620.2	1623.4	1625.5	1624.5	1636.2	1646.8	1640.4	1630.9	1602.2	1600.1	1583.1
32.5°	1556.5	1559.7	1561.8	1561.8	1578.8	1583.1	1571.4	1557.6	1526.8	1519.4	1504.5
35°	1486.5	1489.6	1490.7	1490.7	1507.7	1506.6	1491.8	1472.7	1438.7	1429.1	1403.6
37.5°	1411.1	1413.2	1414.3	1420.6	1428.1	1421.7	1402.6	1378.2	1352.7	1326.1	1298.5
40°	1326.1	1329.3	1331.4	1335.7	1343.1	1335.7	1308.1	1278.4	1250.7	1221.0	1193.4
42.5°	1239.1	1248.6	1246.5	1245.4	1249.7	1229.5	1208.3	1174.3	1146.7	1115.9	1088.3
45°	1144.6	1143.5	1148.8	1150.9	1149.9	1132.9	1103.2	1072.4	1044.8	1012.9	989.6
47.5°	1044.8	1043.7	1048.0	1050.1	1043.7	1025.7	1002.3	967.3	943.9	916.3	898.2
50°	939.7	939.7	946.0	939.7	936.5	918.4	899.3	864.3	846.2	821.8	811.2
52.5°	834.5	844.1	837.7	835.6	832.4	814.4	799.5	770.8	756.0	745.4	732.6
55°	730.5	741.1	736.9	733.7	732.6	717.7	703.9	682.7	673.2	665.7	658.3
57.5°	642.4	641.3	639.2	636.0	637.1	625.4	611.6	599.9	595.6	592.5	594.6
60°	540.4	548.9	545.7	546.8	547.9	545.7	534.1	526.6	527.7	528.8	531.9
62.5°	456.6	464.0	469.3	465.0	467.2	470.4	464.0	461.9	466.1	470.4	474.6
65°	379.0	386.5	391.8	390.7	397.1	403.5	402.4	404.5	414.1	419.4	424.7
67.5°	309.0	316.4	323.8	324.9	334.5	344.0	348.3	355.7	366.3	373.7	380.1
70°	248.5	254.8	263.3	268.6	281.4	294.1	301.5	316.4	322.8	333.4	337.6
72.5°	194.3	199.6	211.3	224.0	234.6	250.6	265.4	278.2	287.7	299.4	304.7
75°	151.8	154.0	166.7	181.6	196.4	214.5	230.4	244.2	256.9	268.6	277.1
77.5°	111.5	114.7	126.3	146.5	163.5	182.6	200.7	215.5	229.3	241.0	252.7
80°	77.5	83.9	96.6	116.8	135.9	157.1	174.1	191.1	206.0	217.7	229.3
82.5°	49.9	55.2	73.3	93.4	113.6	134.8	152.9	169.9	185.8	198.5	209.2
85°	27.6	35.0	53.1	74.3	94.5	115.7	134.8	151.8	167.8	179.4	190.1
87.5°	10.6	21.2	38.2	58.4	78.6	98.7	118.9	134.8	150.8	163.5	173.1
90°	0.0	12.7	28.7	48.8	69.0	89.2	108.3	125.3	140.2	151.8	162.4
92.5°	1.1	8.5	22.3	39.3	58.4	77.5	95.6	112.5	127.4	139.1	148.6
95°	1.1	6.4	18.0	34.0	51.0	69.0	86.0	101.9	115.7	127.4	137.0
97.5°	1.1	4.2	14.9	29.7	44.6	62.6	78.6	93.4	106.2	117.9	125.3
100°	1.1	4.2	12.7	25.5	40.3	56.3	71.1	86.0	97.7	107.2	115.7
102.5°	1.1	3.2	10.6	22.3	36.1	49.9	64.8	78.6	89.2	98.7	107.2
105°	1.1	3.2	9.6	19.1	31.9	45.7	58.4	71.1	82.8	91.3	98.7
107.5°	1.1	2.1	8.5	15.9	27.6	41.4	54.1	64.8	75.4	83.9	91.3
110°	1.1	2.1	7.4	14.9	24.4	37.2	48.8	59.5	69.0	77.5	83.9

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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	1.1	2.1	6.4	13.8	22.3	32.9	44.6	54.1	63.7	71.1	77.5
115°	1.1	2.1	6.4	12.7	20.2	28.7	39.3	49.9	57.3	65.8	71.1
117.5°	1.1	2.1	5.3	10.6	19.1	26.5	36.1	44.6	53.1	60.5	65.8
120°	1.1	2.1	5.3	9.6	17.0	24.4	31.9	40.3	48.8	54.1	59.5
122.5°	1.1	2.1	4.2	9.6	14.9	22.3	28.7	36.1	43.5	49.9	55.2
125°	1.1	2.1	4.2	8.5	13.8	20.2	26.5	31.9	39.3	44.6	49.9
127.5°	1.1	2.1	4.2	7.4	12.7	18.0	24.4	29.7	35.0	40.3	44.6
130°	1.1	2.1	3.2	6.4	11.7	15.9	21.2	27.6	31.9	36.1	40.3
132.5°	1.1	2.1	3.2	6.4	9.6	13.8	19.1	24.4	28.7	32.9	36.1
135°	1.1	2.1	3.2	5.3	8.5	12.7	15.9	21.2	25.5	29.7	32.9
137.5°	1.1	2.1	3.2	5.3	7.4	10.6	13.8	18.0	22.3	25.5	29.7
140°	1.1	2.1	3.2	4.2	6.4	9.6	12.7	14.9	19.1	22.3	25.5
142.5°	1.1	2.1	3.2	4.2	6.4	8.5	10.6	12.7	15.9	19.1	22.3
145°	1.1	2.1	3.2	4.2	5.3	7.4	9.6	11.7	12.7	15.9	18.0
147.5°	1.1	2.1	3.2	4.2	4.2	6.4	8.5	9.6	11.7	12.7	14.9
150°	1.1	2.1	3.2	3.2	4.2	5.3	7.4	8.5	9.6	11.7	12.7
152.5°	1.1	2.1	3.2	3.2	4.2	5.3	6.4	7.4	8.5	9.6	10.6
155°	1.1	2.1	3.2	3.2	3.2	4.2	5.3	6.4	7.4	8.5	9.6
157.5°	2.1	2.1	2.1	3.2	3.2	4.2	4.2	5.3	6.4	6.4	7.4
160°	2.1	2.1	2.1	3.2	3.2	3.2	4.2	4.2	5.3	5.3	6.4
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°	1930.3	1930.3	1930.3	1930.3	1930.3	1930.3	1930.3	1930.3	1930.3	1930.3	1930.3
2.5°	1918.6	1921.8	1931.3	1931.3	1929.2	1927.1	1927.1	1923.9	1926.0	1930.3	1928.1
5°	1918.6	1921.8	1931.3	1931.3	1929.2	1927.1	1926.0	1922.8	1926.0	1930.3	1928.1
7.5°	1912.2	1916.5	1926.0	1926.0	1923.9	1922.8	1920.7	1918.6	1921.8	1926.0	1923.9
10°	1903.7	1908.0	1917.5	1917.5	1915.4	1915.4	1912.2	1910.1	1914.3	1917.5	1916.5
12.5°	1891.0	1896.3	1904.8	1903.7	1901.6	1902.7	1899.5	1895.2	1899.5	1902.7	1903.7
15°	1872.9	1879.3	1887.8	1885.7	1882.5	1884.6	1879.3	1876.1	1879.3	1885.7	1884.6
17.5°	1849.6	1853.8	1860.2	1860.2	1857.0	1854.9	1852.8	1849.6	1851.7	1855.9	1857.0
20°	1816.7	1822.0	1825.2	1822.0	1820.9	1817.7	1813.5	1810.3	1814.5	1820.9	1822.0
22.5°	1773.1	1774.2	1781.6	1774.2	1768.9	1767.8	1763.6	1757.2	1763.6	1768.9	1769.9
25°	1719.0	1724.3	1721.1	1708.4	1708.4	1699.9	1697.7	1694.6	1695.6	1705.2	1709.4
27.5°	1650.0	1652.1	1643.6	1633.0	1623.4	1618.1	1610.7	1611.7	1611.7	1624.5	1628.7
30°	1574.6	1562.9	1555.5	1538.5	1531.0	1518.3	1516.2	1516.2	1514.1	1520.4	1539.5
32.5°	1484.3	1468.4	1456.7	1440.8	1428.1	1415.3	1408.9	1412.1	1411.1	1427.0	1433.4
35°	1385.6	1376.0	1351.6	1331.4	1324.0	1304.9	1304.9	1295.3	1301.7	1319.8	1327.2
37.5°	1281.5	1266.7	1246.5	1224.2	1218.9	1204.0	1198.7	1193.4	1207.2	1210.4	1217.8
40°	1175.4	1161.6	1142.4	1121.2	1121.2	1103.2	1103.2	1103.2	1104.2	1110.6	1124.4
42.5°	1074.5	1059.6	1042.6	1027.8	1025.7	1011.9	1011.9	1010.8	1012.9	1018.2	1031.0
45°	976.8	965.1	947.1	939.7	940.7	925.8	929.0	925.8	930.1	935.4	939.7
47.5°	886.6	879.1	871.7	861.1	857.9	856.8	851.5	847.3	854.7	854.7	861.1
50°	802.7	798.4	794.2	787.8	788.9	784.6	778.3	778.3	783.6	784.6	788.9
52.5°	729.4	724.1	718.8	719.9	720.9	718.8	715.6	712.4	715.6	717.7	723.1
55°	656.2	651.9	657.2	655.1	657.2	655.1	653.0	650.9	656.2	653.0	658.3
57.5°	590.3	594.6	596.7	592.5	595.6	593.5	594.6	591.4	595.6	597.8	596.7
60°	529.8	536.2	533.0	534.1	538.3	536.2	531.9	535.1	539.4	540.4	539.4
62.5°	474.6	482.0	485.2	483.1	484.2	482.0	485.2	481.0	486.3	488.4	485.2
65°	424.7	433.2	435.3	435.3	435.3	433.2	436.4	437.4	439.6	439.6	437.4
67.5°	382.2	389.7	391.8	393.9	391.8	389.7	389.7	390.7	395.0	397.1	395.0
70°	344.0	351.4	352.5	352.5	353.6	355.7	351.4	353.6	356.7	357.8	356.7
72.5°	311.1	318.5	320.6	319.6	320.6	321.7	321.7	319.6	322.8	324.9	324.9
75°	284.5	288.8	290.9	290.9	292.0	293.0	293.0	292.0	294.1	295.2	296.2
77.5°	260.1	263.3	266.5	266.5	267.6	266.5	268.6	268.6	269.7	270.7	271.8
80°	235.7	240.0	242.1	243.1	245.3	246.3	246.3	246.3	247.4	248.5	248.5
82.5°	216.6	219.8	223.0	226.2	226.2	227.2	227.2	227.2	228.3	228.3	229.3
85°	197.5	201.7	204.9	207.0	208.1	209.2	209.2	210.2	210.2	210.2	211.3
87.5°	180.5	185.8	187.9	190.1	191.1	193.2	193.2	193.2	194.3	194.3	194.3
90°	168.8	174.1	176.3	178.4	179.4	180.5	180.5	181.6	181.6	182.6	182.6
92.5°	155.0	160.3	164.6	164.6	165.6	167.8	166.7	166.7	167.8	168.8	168.8
95°	144.4	148.6	151.8	152.9	154.0	154.0	154.0	155.0	154.0	155.0	155.0
97.5°	131.7	135.9	139.1	141.2	142.3	142.3	142.3	143.3	142.3	143.3	143.3
100°	121.0	125.3	128.5	129.5	131.7	131.7	131.7	131.7	131.7	131.7	132.7
102.5°	112.5	116.8	118.9	120.0	121.0	122.1	122.1	122.1	122.1	123.2	123.2
105°	104.1	108.3	110.4	111.5	112.5	113.6	113.6	113.6	114.7	114.7	113.6
107.5°	96.6	99.8	101.9	104.1	105.1	105.1	106.2	106.2	106.2	106.2	106.2
110°	89.2	92.4	95.6	97.7	97.7	98.7	98.7	99.8	99.8	98.7	99.8

TEST NUMBER: P1213141

CATALOG NUMBER: 4SNLED-LD5-61SL-LN-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
112.5°	81.8	86.0	88.1	90.2	91.3	92.4	92.4	92.4	92.4	92.4	92.4
115°	75.4	79.6	81.8	83.9	84.9	86.0	86.0	86.0	86.0	86.0	86.0
117.5°	70.1	74.3	76.4	77.5	78.6	79.6	80.7	80.7	80.7	80.7	79.6
120°	64.8	68.0	70.1	72.2	73.3	74.3	74.3	74.3	74.3	74.3	74.3
122.5°	59.5	62.6	64.8	66.9	68.0	69.0	69.0	69.0	69.0	69.0	69.0
125°	54.1	57.3	59.5	61.6	62.6	63.7	63.7	63.7	63.7	63.7	63.7
127.5°	48.8	52.0	55.2	56.3	57.3	58.4	58.4	58.4	59.5	58.4	58.4
130°	43.5	46.7	49.9	51.0	52.0	53.1	54.1	54.1	54.1	54.1	53.1
132.5°	39.3	42.5	44.6	45.7	47.8	47.8	48.8	48.8	48.8	48.8	47.8
135°	36.1	38.2	40.3	41.4	43.5	43.5	43.5	44.6	44.6	43.5	42.5
137.5°	31.9	34.0	36.1	37.2	38.2	39.3	39.3	40.3	39.3	39.3	39.3
140°	29.7	30.8	32.9	34.0	35.0	35.0	35.0	36.1	36.1	35.0	35.0
142.5°	25.5	27.6	29.7	30.8	31.9	31.9	31.9	31.9	31.9	31.9	31.9
145°	21.2	24.4	25.5	27.6	27.6	28.7	28.7	28.7	28.7	28.7	27.6
147.5°	18.0	20.2	23.4	24.4	24.4	25.5	25.5	25.5	25.5	25.5	24.4
150°	13.8	15.9	19.1	21.2	21.2	22.3	22.3	22.3	22.3	21.2	21.2
152.5°	11.7	13.8	14.9	17.0	18.0	18.0	18.0	19.1	18.0	18.0	18.0
155°	10.6	11.7	12.7	13.8	14.9	15.9	15.9	15.9	15.9	14.9	14.9
157.5°	8.5	9.6	10.6	11.7	12.7	13.8	13.8	13.8	13.8	13.8	12.7
160°	6.4	7.4	8.5	8.5	9.6	10.6	11.7	10.6	10.6	10.6	10.6
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: P1213141

CATALOG NUMBER: 4SNLED-LD5-61SL-LN-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	1930.3	1930.3	1930.3	1930.3	1930.3	1930.3	1930.3	1930.3	1930.3	1930.3	1930.3
2.5°	1926.0	1925.0	1928.1	1922.8	1906.9	1911.2	1909.0	1918.6	1920.7	1922.8	1932.4
5°	1926.0	1925.0	1927.1	1922.8	1905.8	1909.0	1906.9	1916.5	1918.6	1919.7	1929.2
7.5°	1921.8	1920.7	1923.9	1918.6	1900.5	1904.8	1901.6	1911.2	1912.2	1913.3	1921.8
10°	1913.3	1912.2	1914.3	1910.1	1892.0	1896.3	1892.0	1901.6	1901.6	1903.7	1910.1
12.5°	1900.5	1898.4	1902.7	1897.4	1877.2	1882.5	1880.4	1886.7	1887.8	1888.9	1895.2
15°	1882.5	1880.4	1883.6	1880.4	1862.3	1863.4	1860.2	1869.7	1870.8	1868.7	1875.1
17.5°	1855.9	1853.8	1860.2	1858.1	1840.0	1844.3	1843.2	1845.3	1848.5	1843.2	1851.7
20°	1823.0	1825.2	1827.3	1828.3	1814.5	1814.5	1813.5	1817.7	1820.9	1816.7	1823.0
22.5°	1774.2	1779.5	1785.9	1788.0	1778.4	1777.4	1783.7	1781.6	1784.8	1782.7	1786.9
25°	1712.6	1723.2	1729.6	1736.0	1730.7	1732.8	1742.3	1744.5	1744.5	1743.4	1747.6
27.5°	1636.2	1650.0	1661.6	1675.4	1670.1	1674.4	1690.3	1692.4	1696.7	1692.4	1700.9
30°	1544.9	1557.6	1579.9	1600.1	1602.2	1608.6	1630.9	1633.0	1644.7	1640.4	1643.6
32.5°	1453.5	1459.9	1485.4	1505.6	1518.3	1534.2	1558.7	1562.9	1578.8	1582.0	1582.0
35°	1338.9	1356.9	1380.3	1408.9	1424.9	1441.9	1474.8	1481.1	1504.5	1511.9	1520.4
37.5°	1242.3	1259.2	1274.1	1303.8	1332.5	1351.6	1378.2	1394.1	1418.5	1432.3	1442.9
40°	1139.3	1153.1	1169.0	1198.7	1223.1	1251.8	1278.4	1297.5	1328.3	1344.2	1358.0
42.5°	1041.6	1052.2	1069.2	1090.4	1115.9	1147.8	1173.2	1195.5	1228.4	1250.7	1266.7
45°	954.5	960.9	975.8	991.7	1014.0	1046.9	1071.3	1100.0	1126.5	1149.9	1169.0
47.5°	872.8	881.3	888.7	899.3	919.5	939.7	968.3	995.9	1022.5	1048.0	1067.1
50°	797.4	797.4	809.1	816.5	830.3	848.3	870.6	889.7	922.7	940.7	965.1
52.5°	724.1	728.4	734.7	739.0	749.6	761.3	779.3	795.3	822.9	839.8	863.2
55°	659.3	663.6	666.8	668.9	675.3	689.1	695.4	708.2	727.3	741.1	761.3
57.5°	597.8	599.9	603.1	604.1	605.2	613.7	619.0	622.2	641.3	655.1	672.1
60°	541.5	541.5	544.7	543.6	542.6	546.8	545.7	548.9	560.6	569.1	576.5
62.5°	488.4	488.4	489.5	487.3	486.3	486.3	482.0	485.2	488.4	489.5	494.8
65°	439.6	444.9	440.6	441.7	435.3	433.2	431.1	424.7	423.6	419.4	421.5
67.5°	396.0	400.3	396.0	396.0	390.7	386.5	381.2	370.6	367.4	358.9	356.7
70°	361.0	357.8	359.9	356.7	350.4	345.1	337.6	329.1	318.5	307.9	300.5
72.5°	327.0	327.0	324.9	321.7	318.5	307.9	299.4	289.9	277.1	263.3	252.7
75°	294.1	295.2	295.2	292.0	286.7	277.1	267.6	253.8	240.0	224.0	210.2
77.5°	270.7	270.7	270.7	265.4	260.1	251.6	240.0	225.1	210.2	191.1	175.2
80°	248.5	247.4	247.4	241.0	235.7	226.2	214.5	199.6	183.7	163.5	145.5
82.5°	230.4	229.3	227.2	221.9	214.5	204.9	193.2	177.3	160.3	142.3	120.0
85°	211.3	210.2	208.1	202.8	195.4	186.9	174.1	158.2	141.2	121.0	99.8
87.5°	194.3	193.2	190.1	186.9	178.4	168.8	156.1	141.2	123.2	104.1	82.8
90°	182.6	180.5	178.4	174.1	166.7	156.1	143.3	127.4	109.4	90.2	69.0
92.5°	168.8	167.8	164.6	160.3	154.0	143.3	130.6	115.7	97.7	79.6	59.5
95°	155.0	154.0	151.8	147.6	141.2	131.7	120.0	105.1	88.1	70.1	52.0
97.5°	142.3	142.3	139.1	135.9	128.5	121.0	109.4	95.6	79.6	63.7	46.7
100°	131.7	131.7	128.5	124.2	118.9	111.5	99.8	87.1	72.2	57.3	40.3
102.5°	122.1	121.0	118.9	114.7	109.4	101.9	91.3	79.6	65.8	51.0	36.1
105°	113.6	112.5	110.4	106.2	101.9	93.4	84.9	73.3	59.5	45.7	31.9
107.5°	105.1	104.1	103.0	98.7	93.4	86.0	77.5	65.8	54.1	41.4	28.7
110°	97.7	96.6	94.5	90.2	84.9	78.6	70.1	60.5	48.8	37.2	25.5

TEST NUMBER: P1213141

CATALOG NUMBER: 4SNLED-LD5-61SL-LN-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
112.5°	91.3	90.2	88.1	83.9	79.6	72.2	64.8	54.1	44.6	34.0	22.3
115°	84.9	83.9	81.8	77.5	72.2	65.8	58.4	49.9	39.3	29.7	20.2
117.5°	78.6	77.5	75.4	72.2	66.9	60.5	53.1	44.6	35.0	27.6	18.0
120°	73.3	71.1	69.0	65.8	60.5	55.2	47.8	40.3	31.9	24.4	15.9
122.5°	68.0	65.8	63.7	60.5	55.2	49.9	42.5	36.1	29.7	22.3	14.9
125°	61.6	60.5	58.4	55.2	49.9	44.6	39.3	32.9	26.5	20.2	12.7
127.5°	56.3	55.2	53.1	48.8	44.6	40.3	35.0	29.7	23.4	17.0	11.7
130°	52.0	49.9	47.8	44.6	41.4	37.2	31.9	26.5	21.2	14.9	10.6
132.5°	46.7	44.6	42.5	40.3	37.2	32.9	28.7	23.4	19.1	13.8	9.6
135°	42.5	40.3	38.2	36.1	32.9	29.7	25.5	21.2	17.0	12.7	8.5
137.5°	37.2	36.1	35.0	32.9	29.7	26.5	23.4	18.0	14.9	11.7	7.4
140°	34.0	32.9	31.9	28.7	26.5	23.4	20.2	15.9	12.7	9.6	6.4
142.5°	30.8	29.7	27.6	25.5	23.4	21.2	17.0	14.9	11.7	8.5	6.4
145°	26.5	25.5	24.4	22.3	20.2	17.0	14.9	12.7	10.6	7.4	5.3
147.5°	24.4	23.4	21.2	19.1	17.0	14.9	13.8	11.7	8.5	6.4	4.2
150°	20.2	19.1	18.0	15.9	14.9	13.8	11.7	9.6	7.4	5.3	4.2
152.5°	17.0	15.9	14.9	14.9	12.7	11.7	9.6	8.5	6.4	5.3	3.2
155°	14.9	14.9	13.8	12.7	10.6	9.6	8.5	6.4	5.3	4.2	3.2
157.5°	12.7	11.7	10.6	10.6	9.6	8.5	6.4	5.3	4.2	4.2	3.2
160°	10.6	9.6	9.6	8.5	7.4	6.4	5.3	5.3	4.2	3.2	3.2
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: P1213141

CATALOG NUMBER: 4SNLED-LD5-61SL-LN-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
0°	1930.3	1930.3	1930.3	1930.3	1930.3	1930.3	1930.3	1930.3	1930.3	1930.3	1930.3
2.5°	1933.5	1921.8	1932.4	1946.2	1946.2	1944.1	1941.9	1946.2	1956.8	1952.6	1939.8
5°	1930.3	1918.6	1928.1	1941.9	1941.9	1938.8	1936.6	1939.8	1951.5	1946.2	1934.5
7.5°	1923.9	1913.3	1919.7	1932.4	1932.4	1929.2	1927.1	1931.3	1940.9	1935.6	1922.8
10°	1912.2	1900.5	1908.0	1919.7	1918.6	1916.5	1913.3	1918.6	1927.1	1919.7	1904.8
12.5°	1897.4	1885.7	1892.0	1902.7	1901.6	1897.4	1895.2	1898.4	1905.8	1901.6	1885.7
15°	1877.2	1865.5	1870.8	1881.4	1878.2	1875.1	1870.8	1871.9	1881.4	1874.0	1857.0
17.5°	1852.8	1840.0	1844.3	1853.8	1850.6	1847.5	1842.1	1843.2	1853.8	1843.2	1825.2
20°	1823.0	1809.2	1812.4	1824.1	1818.8	1813.5	1808.2	1808.2	1818.8	1807.1	1786.9
22.5°	1791.2	1777.4	1779.5	1788.0	1783.7	1774.2	1768.9	1772.1	1777.4	1762.5	1741.3
25°	1751.9	1733.8	1737.0	1745.5	1742.3	1729.6	1724.3	1726.4	1724.3	1712.6	1690.3
27.5°	1706.2	1687.1	1689.2	1694.6	1690.3	1678.6	1672.3	1673.3	1669.1	1654.2	1628.7
30°	1648.9	1639.3	1638.3	1641.5	1635.1	1623.4	1616.0	1613.9	1612.8	1591.6	1560.8
32.5°	1590.5	1582.0	1576.7	1581.0	1573.5	1561.8	1549.1	1549.1	1538.5	1518.3	1491.8
35°	1531.0	1517.2	1511.9	1515.1	1506.6	1491.8	1481.1	1475.8	1459.9	1434.4	1405.8
37.5°	1454.6	1445.0	1438.7	1441.9	1432.3	1421.7	1401.5	1396.2	1379.2	1344.2	1308.1
40°	1371.8	1364.4	1358.0	1361.2	1350.6	1334.6	1316.6	1308.1	1289.0	1249.7	1221.0
42.5°	1282.6	1279.4	1272.0	1283.7	1262.4	1246.5	1228.4	1214.6	1195.5	1153.1	1120.1
45°	1188.1	1195.5	1178.5	1181.7	1167.9	1154.1	1135.0	1114.8	1095.7	1055.4	1018.2
47.5°	1088.3	1093.6	1081.9	1084.1	1069.2	1056.4	1039.5	1014.0	992.7	957.7	924.8
50°	985.3	983.2	983.2	981.1	969.4	953.5	936.5	913.1	891.9	860.0	832.4
52.5°	875.9	880.2	882.3	887.6	872.8	863.2	836.7	816.5	800.6	767.6	744.3
55°	770.8	785.7	781.5	783.6	766.6	759.2	737.9	722.0	698.6	679.5	664.7
57.5°	675.3	678.5	680.6	683.8	676.3	661.5	644.5	631.7	613.7	597.8	587.1
60°	582.9	582.9	584.0	589.3	581.8	569.1	556.4	546.8	534.1	524.5	518.1
62.5°	495.8	503.3	504.3	500.1	490.5	484.2	475.7	470.4	461.9	458.7	456.6
65°	415.1	415.1	415.1	417.3	412.0	407.7	402.4	401.3	404.5	400.3	402.4
67.5°	347.2	344.0	341.9	342.9	340.8	338.7	337.6	340.8	347.2	347.2	352.5
70°	288.8	282.4	278.2	278.2	278.2	279.2	282.4	288.8	299.4	303.7	311.1
72.5°	241.0	227.2	220.8	220.8	221.9	226.2	235.7	247.4	256.9	265.4	275.0
75°	195.4	181.6	172.0	170.9	173.1	179.4	193.2	203.9	219.8	231.5	243.1
77.5°	158.2	141.2	129.5	128.5	131.7	141.2	158.2	172.0	190.1	202.8	215.5
80°	126.3	107.2	97.7	91.3	96.6	108.3	127.4	144.4	161.4	178.4	194.3
82.5°	100.9	82.8	68.0	61.6	68.0	83.9	101.9	122.1	139.1	157.1	173.1
85°	79.6	60.5	43.5	37.2	44.6	61.6	81.8	101.9	121.0	139.1	155.0
87.5°	62.6	43.5	26.5	18.0	27.6	45.7	64.8	84.9	105.1	123.2	139.1
90°	48.8	30.8	14.9	2.1	15.9	32.9	52.0	71.1	91.3	109.4	125.3
92.5°	41.4	23.4	8.5	0.0	9.6	24.4	42.5	61.6	79.6	97.7	113.6
95°	35.0	19.1	6.4	0.0	6.4	19.1	35.0	52.0	70.1	88.1	104.1
97.5°	29.7	14.9	4.2	0.0	4.2	14.9	28.7	45.7	61.6	78.6	93.4
100°	25.5	12.7	3.2	0.0	3.2	11.7	24.4	39.3	55.2	71.1	84.9
102.5°	22.3	10.6	2.1	0.0	2.1	9.6	20.2	34.0	47.8	62.6	76.4
105°	19.1	8.5	2.1	0.0	1.1	7.4	17.0	29.7	42.5	56.3	69.0
107.5°	17.0	7.4	2.1	0.0	1.1	6.4	14.9	25.5	38.2	49.9	61.6
110°	14.9	6.4	2.1	0.0	1.1	4.2	12.7	22.3	32.9	44.6	56.3

TEST NUMBER: P1213141

CATALOG NUMBER: 4SNLED-LD5-61SL-LN-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
112.5°	12.7	5.3	1.1	0.0	0.0	3.2	10.6	19.1	28.7	40.3	49.9
115°	11.7	5.3	1.1	0.0	0.0	2.1	8.5	17.0	25.5	36.1	44.6
117.5°	10.6	4.2	1.1	0.0	1.1	2.1	7.4	14.9	22.3	30.8	40.3
120°	9.6	4.2	1.1	0.0	1.1	1.1	5.3	12.7	19.1	27.6	35.0
122.5°	8.5	4.2	1.1	0.0	1.1	1.1	4.2	10.6	17.0	24.4	30.8
125°	7.4	3.2	2.1	1.1	1.1	1.1	3.2	8.5	14.9	20.2	27.6
127.5°	7.4	3.2	2.1	1.1	1.1	1.1	2.1	7.4	11.7	18.0	24.4
130°	6.4	3.2	2.1	1.1	1.1	1.1	1.1	5.3	10.6	14.9	20.2
132.5°	5.3	3.2	2.1	1.1	1.1	1.1	1.1	3.2	7.4	12.7	17.0
135°	5.3	3.2	2.1	1.1	1.1	1.1	1.1	2.1	5.3	9.6	13.8
137.5°	4.2	2.1	2.1	1.1	1.1	1.1	1.1	1.1	4.2	7.4	10.6
140°	4.2	2.1	2.1	1.1	1.1	1.1	1.1	1.1	3.2	5.3	8.5
142.5°	3.2	2.1	2.1	1.1	1.1	1.1	1.1	1.1	2.1	4.2	6.4
145°	3.2	2.1	2.1	1.1	1.1	1.1	1.1	1.1	1.1	2.1	4.2
147.5°	3.2	3.2	2.1	1.1	1.1	1.1	1.1	1.1	1.1	2.1	3.2
150°	3.2	2.1	2.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	2.1
152.5°	3.2	2.1	2.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	2.1
155°	3.2	2.1	2.1	1.1	1.1	1.1	1.1	1.1	1.1	2.1	2.1
157.5°	3.2	2.1	2.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	2.1
160°	3.2	2.1	2.1	1.1	2.1	1.1	2.1	2.1	2.1	2.1	2.1
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: P1213141

CATALOG NUMBER: 4SNLED-LD5-61SL-LN-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
0°	1930.3	1930.3	1930.3	1930.3	1930.3	1930.3	1930.3	1930.3	1930.3	1930.3	1930.3
2.5°	1935.6	1915.4	1926.0	1922.8	1927.1	1935.6	1934.5	1932.4	1932.4	1929.2	1925.0
5°	1929.2	1910.1	1919.7	1914.3	1919.7	1927.1	1926.0	1922.8	1925.0	1919.7	1914.3
7.5°	1916.5	1899.5	1908.0	1903.7	1908.0	1915.4	1912.2	1911.2	1913.3	1904.8	1901.6
10°	1901.6	1882.5	1892.0	1886.7	1892.0	1897.4	1895.2	1891.0	1895.2	1886.7	1883.6
12.5°	1878.2	1862.3	1868.7	1866.6	1869.7	1875.1	1870.8	1867.6	1869.7	1862.3	1855.9
15°	1852.8	1836.8	1842.1	1839.0	1841.1	1847.5	1840.0	1839.0	1836.8	1829.4	1827.3
17.5°	1819.8	1805.0	1810.3	1805.0	1808.2	1806.0	1805.0	1799.7	1799.7	1791.2	1784.8
20°	1779.5	1766.8	1763.6	1759.3	1763.6	1759.3	1753.0	1748.7	1747.6	1739.2	1733.8
22.5°	1732.8	1717.9	1720.0	1708.4	1709.4	1703.1	1692.4	1688.2	1683.9	1674.4	1667.0
25°	1676.5	1661.6	1651.0	1643.6	1634.0	1633.0	1619.2	1608.6	1607.5	1595.8	1594.8
27.5°	1612.8	1595.8	1587.3	1569.3	1557.6	1548.0	1536.4	1525.7	1520.4	1507.7	1499.2
30°	1539.5	1520.4	1499.2	1486.5	1468.4	1461.0	1440.8	1428.1	1423.8	1410.0	1403.6
32.5°	1456.7	1436.6	1419.6	1395.1	1375.0	1364.4	1344.2	1331.4	1326.1	1311.3	1302.8
35°	1366.5	1344.2	1324.0	1300.6	1284.7	1266.7	1242.3	1229.5	1217.8	1212.5	1206.2
37.5°	1272.0	1247.6	1224.2	1200.8	1187.0	1165.8	1144.6	1136.1	1122.3	1117.0	1110.6
40°	1174.3	1149.9	1127.6	1105.3	1089.4	1070.2	1051.1	1048.0	1033.1	1027.8	1023.5
42.5°	1077.7	1052.2	1026.7	1010.8	999.1	980.0	967.3	964.1	951.3	948.1	948.1
45°	990.6	958.8	937.5	923.7	914.2	898.2	887.6	885.5	874.9	872.8	872.8
47.5°	897.2	867.5	851.5	843.0	834.5	822.9	816.5	816.5	805.9	803.7	802.7
50°	810.1	782.5	770.8	762.3	761.3	752.8	747.5	745.4	745.4	737.9	739.0
52.5°	727.3	713.5	703.9	698.6	692.3	687.0	682.7	682.7	679.5	674.2	676.3
55°	650.9	634.9	636.0	631.7	628.6	625.4	626.4	620.1	619.0	614.8	617.9
57.5°	574.4	574.4	572.3	569.1	563.8	565.9	565.9	565.9	560.6	557.4	560.6
60°	509.6	512.8	507.5	510.7	508.6	509.6	507.5	507.5	504.3	503.3	504.3
62.5°	452.3	457.6	455.5	459.7	457.6	458.7	460.8	456.6	454.4	452.3	454.4
65°	401.3	407.7	406.7	409.8	410.9	412.0	413.0	410.9	408.8	406.7	405.6
67.5°	356.7	363.1	367.4	368.4	369.5	372.7	371.6	369.5	367.4	364.2	363.1
70°	316.4	324.9	330.2	332.3	336.6	334.5	334.5	333.4	331.3	328.1	327.0
72.5°	282.4	292.0	297.3	299.4	303.7	303.7	302.6	301.5	299.4	296.2	295.2
75°	252.7	261.2	268.6	272.9	276.1	276.1	275.0	273.9	271.8	269.7	268.6
77.5°	229.3	236.8	243.1	248.5	250.6	251.6	250.6	248.5	248.5	247.4	246.3
80°	206.0	214.5	220.8	226.2	229.3	229.3	228.3	229.3	227.2	226.2	225.1
82.5°	185.8	195.4	202.8	208.1	210.2	211.3	210.2	211.3	209.2	209.2	209.2
85°	167.8	177.3	185.8	190.1	193.2	194.3	194.3	194.3	193.2	193.2	193.2
87.5°	152.9	162.4	170.9	175.2	178.4	179.4	179.4	180.5	178.4	178.4	178.4
90°	139.1	148.6	157.1	161.4	164.6	166.7	166.7	167.8	166.7	165.6	165.6
92.5°	126.3	137.0	145.5	149.7	152.9	156.1	156.1	157.1	155.0	155.0	155.0
95°	115.7	126.3	133.8	139.1	142.3	144.4	145.5	145.5	144.4	144.4	144.4
97.5°	106.2	115.7	123.2	128.5	131.7	132.7	133.8	134.8	133.8	133.8	133.8
100°	96.6	106.2	113.6	117.9	122.1	123.2	124.2	125.3	125.3	124.2	124.2
102.5°	88.1	97.7	104.1	109.4	112.5	114.7	115.7	115.7	115.7	115.7	115.7
105°	79.6	89.2	95.6	100.9	104.1	106.2	107.2	108.3	108.3	107.2	107.2
107.5°	72.2	80.7	88.1	92.4	96.6	98.7	99.8	99.8	100.9	99.8	99.8
110°	64.8	74.3	80.7	84.9	89.2	91.3	92.4	93.4	93.4	93.4	93.4

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CATALOG NUMBER: 4SNLED-LD5-61SL-LN-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
112.5°	59.5	66.9	73.3	77.5	81.8	83.9	84.9	86.0	87.1	86.0	86.0
115°	53.1	60.5	66.9	71.1	74.3	76.4	78.6	79.6	79.6	80.7	79.6
117.5°	47.8	54.1	60.5	64.8	68.0	71.1	72.2	73.3	74.3	73.3	73.3
120°	42.5	48.8	54.1	58.4	61.6	64.8	65.8	66.9	68.0	66.9	66.9
122.5°	38.2	43.5	48.8	53.1	56.3	58.4	60.5	60.5	61.6	61.6	61.6
125°	34.0	39.3	43.5	47.8	51.0	53.1	54.1	55.2	55.2	56.3	56.3
127.5°	29.7	34.0	39.3	42.5	45.7	47.8	48.8	49.9	49.9	51.0	51.0
130°	25.5	29.7	34.0	37.2	40.3	42.5	43.5	44.6	45.7	45.7	45.7
132.5°	22.3	26.5	29.7	32.9	35.0	37.2	39.3	40.3	40.3	40.3	40.3
135°	18.0	22.3	25.5	28.7	30.8	32.9	34.0	36.1	36.1	36.1	36.1
137.5°	14.9	19.1	22.3	24.4	26.5	28.7	29.7	30.8	31.9	31.9	31.9
140°	11.7	14.9	18.0	21.2	23.4	24.4	26.5	26.5	27.6	27.6	27.6
142.5°	8.5	11.7	13.8	17.0	19.1	21.2	22.3	23.4	23.4	23.4	23.4
145°	6.4	8.5	10.6	12.7	15.9	17.0	18.0	19.1	20.2	20.2	20.2
147.5°	4.2	6.4	7.4	9.6	11.7	13.8	14.9	15.9	17.0	17.0	17.0
150°	3.2	4.2	6.4	7.4	8.5	10.6	12.7	12.7	13.8	13.8	12.7
152.5°	2.1	3.2	4.2	5.3	6.4	7.4	9.6	9.6	10.6	10.6	10.6
155°	2.1	2.1	2.1	3.2	4.2	5.3	6.4	7.4	7.4	7.4	7.4
157.5°	2.1	2.1	2.1	2.1	2.1	3.2	4.2	5.3	5.3	5.3	5.3
160°	2.1	2.1	1.1	1.1	2.1	2.1	2.1	2.1	3.2	3.2	3.2
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: P1213141

CATALOG NUMBER: 4SNLED-LD5-61SL-LN-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°
0°	1930.3	1930.3	1930.3	1930.3	1930.3	1930.3	1930.3	1930.3	1930.3	1930.3	1930.3
2.5°	1928.1	1930.3	1930.3	1928.1	1927.1	1931.3	1926.0	1905.8	1912.2	1914.3	1920.7
5°	1918.6	1920.7	1920.7	1920.7	1918.6	1922.8	1917.5	1897.4	1904.8	1908.0	1912.2
7.5°	1904.8	1905.8	1908.0	1906.9	1904.8	1911.2	1905.8	1885.7	1891.0	1896.3	1901.6
10°	1886.7	1886.7	1887.8	1889.9	1887.8	1893.1	1887.8	1869.7	1875.1	1878.2	1884.6
12.5°	1862.3	1864.4	1865.5	1864.4	1863.4	1867.6	1865.5	1848.5	1850.6	1857.0	1863.4
15°	1829.4	1829.4	1834.7	1832.6	1832.6	1836.8	1839.0	1819.8	1823.0	1832.6	1839.0
17.5°	1789.1	1790.1	1794.4	1796.5	1795.4	1802.9	1803.9	1789.1	1788.0	1799.7	1806.0
20°	1737.0	1739.2	1744.5	1748.7	1748.7	1757.2	1760.4	1750.8	1751.9	1764.6	1766.8
22.5°	1673.3	1673.3	1682.9	1689.2	1694.6	1699.9	1709.4	1700.9	1700.9	1717.9	1727.5
25°	1594.8	1602.2	1605.4	1618.1	1625.5	1640.4	1648.9	1650.0	1651.0	1667.0	1673.3
27.5°	1507.7	1509.8	1519.4	1534.2	1542.7	1556.5	1572.5	1575.6	1581.0	1602.2	1611.7
30°	1408.9	1415.3	1419.6	1440.8	1452.5	1470.5	1490.7	1498.1	1502.4	1531.0	1542.7
32.5°	1308.1	1310.2	1328.3	1339.9	1353.7	1372.8	1396.2	1410.0	1418.5	1448.2	1465.2
35°	1207.2	1211.5	1226.3	1241.2	1255.0	1274.1	1298.5	1317.6	1332.5	1359.0	1381.3
37.5°	1114.8	1125.5	1128.6	1143.5	1154.1	1173.2	1190.2	1217.8	1232.7	1260.3	1289.0
40°	1032.0	1035.2	1037.3	1052.2	1059.6	1077.7	1102.1	1120.1	1140.3	1160.5	1194.5
42.5°	950.3	952.4	955.6	964.1	972.6	985.3	1003.4	1021.4	1042.6	1072.4	1094.7
45°	874.9	877.0	879.1	884.4	891.9	903.6	915.2	928.0	949.2	974.7	998.0
47.5°	804.8	809.1	809.1	810.1	815.4	825.0	833.5	849.4	861.1	874.9	901.4
50°	737.9	741.1	742.2	742.2	745.4	751.7	753.8	764.5	775.1	787.8	806.9
52.5°	675.3	675.3	674.2	678.5	678.5	682.7	683.8	690.1	697.6	711.4	719.9
55°	615.8	615.8	619.0	616.9	616.9	619.0	617.9	619.0	625.4	633.9	641.3
57.5°	558.5	557.4	560.6	558.5	557.4	559.5	561.7	557.4	558.5	567.0	567.0
60°	501.1	502.2	505.4	503.3	503.3	503.3	501.1	499.0	496.9	502.2	504.3
62.5°	455.5	452.3	455.5	452.3	454.4	453.4	451.2	447.0	448.1	445.9	443.8
65°	407.7	407.7	408.8	405.6	407.7	407.7	404.5	403.5	397.1	395.0	389.7
67.5°	366.3	366.3	367.4	365.2	365.2	366.3	363.1	359.9	353.6	350.4	342.9
70°	330.2	330.2	330.2	329.1	329.1	329.1	327.0	322.8	316.4	311.1	301.5
72.5°	297.3	298.4	297.3	297.3	300.5	297.3	294.1	289.9	284.5	273.9	265.4
75°	270.7	271.8	270.7	270.7	270.7	269.7	268.6	262.3	255.9	247.4	234.6
77.5°	247.4	247.4	248.5	247.4	247.4	246.3	243.1	237.8	230.4	223.0	208.1
80°	225.1	226.2	227.2	228.3	226.2	225.1	221.9	217.7	208.1	199.6	184.7
82.5°	209.2	208.1	209.2	210.2	208.1	207.0	203.9	198.5	191.1	179.4	164.6
85°	193.2	192.2	192.2	193.2	192.2	190.1	186.9	181.6	174.1	162.4	147.6
87.5°	177.3	178.4	179.4	178.4	177.3	175.2	172.0	166.7	158.2	148.6	132.7
90°	165.6	165.6	165.6	165.6	164.6	162.4	159.3	152.9	145.5	133.8	120.0
92.5°	155.0	155.0	155.0	155.0	154.0	150.8	147.6	142.3	133.8	122.1	109.4
95°	144.4	145.5	144.4	144.4	142.3	141.2	135.9	130.6	123.2	111.5	97.7
97.5°	132.7	133.8	132.7	132.7	131.7	129.5	126.3	120.0	112.5	101.9	89.2
100°	124.2	124.2	123.2	123.2	122.1	120.0	115.7	110.4	103.0	92.4	79.6
102.5°	114.7	115.7	114.7	114.7	112.5	110.4	107.2	101.9	94.5	83.9	72.2
105°	107.2	107.2	106.2	106.2	104.1	101.9	98.7	92.4	86.0	76.4	64.8
107.5°	99.8	99.8	98.7	98.7	96.6	94.5	90.2	84.9	78.6	69.0	58.4
110°	92.4	92.4	92.4	91.3	89.2	86.0	82.8	77.5	71.1	62.6	52.0

TEST NUMBER: P1213141

CATALOG NUMBER: 4SNLED-LD5-61SL-LN-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°
112.5°	87.1	86.0	84.9	83.9	81.8	79.6	75.4	70.1	63.7	56.3	46.7
115°	79.6	79.6	78.6	77.5	75.4	72.2	69.0	64.8	58.4	49.9	41.4
117.5°	73.3	73.3	72.2	71.1	69.0	65.8	62.6	58.4	52.0	44.6	37.2
120°	66.9	66.9	65.8	64.8	62.6	59.5	57.3	52.0	46.7	39.3	32.9
122.5°	61.6	60.5	60.5	58.4	57.3	54.1	51.0	46.7	41.4	35.0	28.7
125°	55.2	55.2	54.1	53.1	52.0	48.8	45.7	41.4	36.1	30.8	25.5
127.5°	49.9	49.9	48.8	47.8	46.7	43.5	40.3	37.2	31.9	26.5	21.2
130°	44.6	44.6	43.5	42.5	41.4	38.2	36.1	31.9	27.6	23.4	18.0
132.5°	40.3	40.3	39.3	38.2	36.1	34.0	31.9	27.6	24.4	20.2	15.9
135°	36.1	35.0	35.0	34.0	31.9	29.7	27.6	24.4	20.2	17.0	12.7
137.5°	31.9	30.8	29.7	28.7	27.6	25.5	23.4	21.2	18.0	13.8	10.6
140°	27.6	26.5	26.5	25.5	23.4	22.3	20.2	17.0	14.9	11.7	8.5
142.5°	23.4	23.4	22.3	21.2	20.2	19.1	17.0	14.9	11.7	9.6	6.4
145°	20.2	19.1	19.1	18.0	17.0	14.9	13.8	11.7	9.6	7.4	5.3
147.5°	15.9	15.9	15.9	14.9	13.8	12.7	11.7	9.6	7.4	5.3	3.2
150°	12.7	12.7	12.7	11.7	10.6	9.6	8.5	7.4	5.3	3.2	2.1
152.5°	10.6	10.6	9.6	9.6	8.5	7.4	6.4	5.3	3.2	2.1	2.1
155°	7.4	7.4	7.4	6.4	6.4	5.3	4.2	3.2	2.1	2.1	2.1
157.5°	5.3	5.3	5.3	4.2	4.2	3.2	3.2	2.1	2.1	2.1	2.1
160°	3.2	3.2	3.2	3.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1
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: P1213141

CATALOG NUMBER: 4SNLED-LD5-61SL-LN-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	330°	335°	340°	345°	350°	355°	360°
0°	1930.3	1930.3	1930.3	1930.3	1930.3	1930.3	1930.3
2.5°	1917.5	1916.5	1925.0	1925.0	1915.4	1930.3	1946.2
5°	1911.2	1910.1	1918.6	1918.6	1910.1	1925.0	1941.9
7.5°	1898.4	1899.5	1908.0	1910.1	1899.5	1913.3	1931.3
10°	1884.6	1883.6	1893.1	1895.2	1886.7	1899.5	1916.5
12.5°	1862.3	1862.3	1871.9	1875.1	1866.6	1881.4	1897.4
15°	1839.0	1839.0	1845.3	1850.6	1843.2	1857.0	1872.9
17.5°	1809.2	1808.2	1814.5	1820.9	1813.5	1828.3	1845.3
20°	1771.0	1771.0	1778.4	1785.9	1780.6	1794.4	1813.5
22.5°	1730.7	1726.4	1739.2	1744.5	1741.3	1755.1	1774.2
25°	1679.7	1678.6	1691.4	1698.8	1694.6	1709.4	1726.4
27.5°	1624.5	1623.4	1636.2	1645.7	1643.6	1657.4	1676.5
30°	1557.6	1562.9	1574.6	1590.5	1585.2	1600.1	1620.2
32.5°	1487.5	1492.8	1506.6	1523.6	1524.7	1536.4	1556.5
35°	1403.6	1417.4	1427.0	1449.3	1453.5	1465.2	1486.5
37.5°	1315.5	1331.4	1351.6	1368.6	1377.1	1386.7	1411.1
40°	1216.8	1240.1	1262.4	1282.6	1293.2	1302.8	1326.1
42.5°	1127.6	1145.6	1166.9	1187.0	1206.2	1214.6	1239.1
45°	1026.7	1048.0	1067.1	1091.5	1110.6	1120.1	1144.6
47.5°	928.0	949.2	974.7	991.7	1011.9	1021.4	1044.8
50°	833.5	852.6	873.8	894.0	911.0	919.5	939.7
52.5°	740.0	760.2	780.4	793.1	811.2	817.6	834.5
55°	657.2	671.0	689.1	696.5	714.6	718.8	730.5
57.5°	577.6	587.1	593.5	606.3	619.0	628.6	642.4
60°	505.4	509.6	513.9	521.3	531.9	535.1	540.4
62.5°	440.6	439.6	448.1	450.2	451.2	461.9	456.6
65°	383.3	384.4	376.9	373.7	378.0	381.2	379.0
67.5°	335.5	329.1	322.8	315.3	309.0	312.2	309.0
70°	288.8	283.5	272.9	262.3	258.0	251.6	248.5
72.5°	251.6	238.9	228.3	214.5	207.0	199.6	194.3
75°	223.0	204.9	190.1	175.2	164.6	154.0	151.8
77.5°	193.2	176.3	159.3	143.3	127.4	115.7	111.5
80°	169.9	154.0	133.8	114.7	97.7	82.8	77.5
82.5°	148.6	131.7	111.5	91.3	72.2	56.3	49.9
85°	130.6	112.5	92.4	72.2	53.1	36.1	27.6
87.5°	116.8	96.6	76.4	57.3	37.2	20.2	10.6
90°	104.1	84.9	65.8	45.7	26.5	10.6	0.0
92.5°	92.4	74.3	55.2	37.2	20.2	6.4	1.1
95°	81.8	65.8	46.7	29.7	14.9	4.2	1.1
97.5°	73.3	57.3	40.3	24.4	11.7	3.2	1.1
100°	65.8	49.9	35.0	20.2	9.6	2.1	1.1
102.5°	58.4	44.6	29.7	17.0	7.4	1.1	1.1
105°	52.0	39.3	25.5	14.9	6.4	1.1	1.1
107.5°	46.7	35.0	22.3	12.7	4.2	1.1	1.1
110°	41.4	29.7	19.1	10.6	3.2	1.1	1.1

TEST NUMBER: P1213141

CATALOG NUMBER: 4SNLED-LD5-61SL-LN-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	330°	335°	340°	345°	350°	355°	360°
112.5°	37.2	26.5	17.0	8.5	2.1	1.1	1.1
115°	32.9	23.4	14.9	7.4	2.1	1.1	1.1
117.5°	28.7	20.2	12.7	5.3	1.1	1.1	1.1
120°	25.5	18.0	10.6	4.2	1.1	1.1	1.1
122.5°	22.3	14.9	8.5	3.2	1.1	1.1	1.1
125°	19.1	12.7	7.4	2.1	1.1	1.1	1.1
127.5°	15.9	10.6	5.3	2.1	1.1	1.1	1.1
130°	13.8	8.5	4.2	1.1	1.1	1.1	1.1
132.5°	11.7	6.4	3.2	1.1	1.1	1.1	1.1
135°	9.6	5.3	2.1	1.1	1.1	1.1	1.1
137.5°	7.4	4.2	2.1	1.1	1.1	1.1	1.1
140°	5.3	3.2	1.1	1.1	1.1	1.1	1.1
142.5°	4.2	2.1	1.1	1.1	1.1	1.1	1.1
145°	3.2	2.1	1.1	1.1	1.1	1.1	1.1
147.5°	2.1	2.1	2.1	2.1	1.1	1.1	1.1
150°	2.1	2.1	1.1	1.1	2.1	1.1	1.1
152.5°	2.1	1.1	1.1	1.1	2.1	1.1	1.1
155°	2.1	2.1	2.1	2.1	2.1	2.1	1.1
157.5°	2.1	2.1	2.1	2.1	2.1	2.1	2.1
160°	2.1	2.1	2.1	2.1	2.1	2.1	2.1
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)