

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: P1213504

Luminaire Tested: 4SNLED-LD5-64SL-LN-UNV-L935-CD1-U

Issue Date: 3/29/2018

Test Information

Test Method: LM-79-2019
Report Number: P1213504
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-LD5-64SL-LN-UNV-L935-CD1-U
Description: 4FT LINEAR SNLED LED FIXTURE
NARROW LENS
Light Source: -
Ballast/Driver: -

Summary

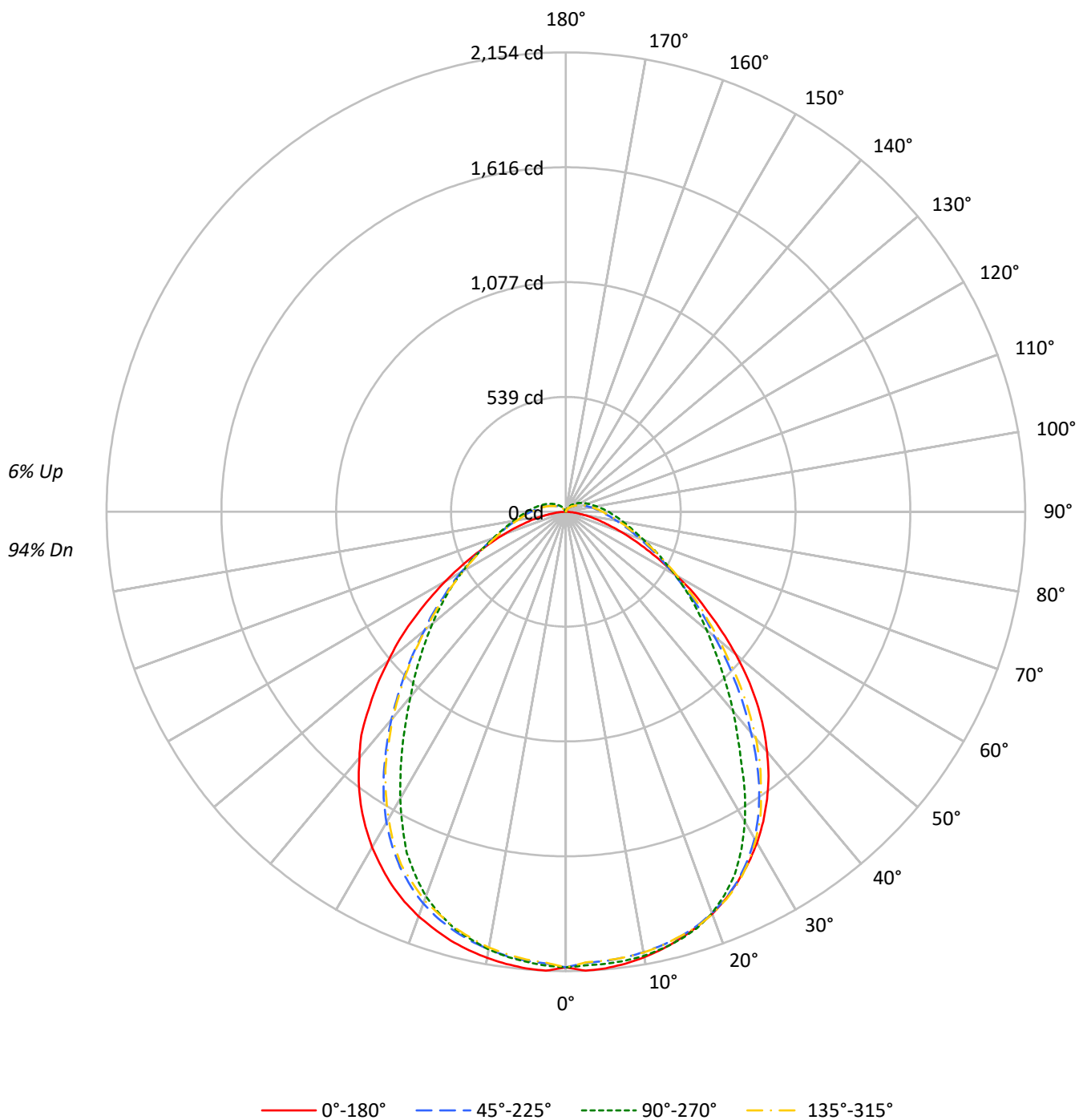
Lumens per Lamp: N/A
Luminaire Lumens: 5405.9 lumens
Efficiency: N/A
Efficacy: 98.3 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.14 / 1.24
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.12')
CIE Type: Direct

Input Watts (W): 55
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°	17262	17262	17262	17262
5°	17386	16712	17386	16639
10°	17308	16268	17337	16042
15°	17196	15782	17274	15372
20°	17065	15158	17164	14518
25°	16790	14230	16976	13392
30°	16434	12868	16650	11912
35°	15881	11198	16187	10427
40°	15086	9794	15484	9087
45°	14036	8514	14493	8025
50°	12604	7481	13159	7103
55°	10903	6606	11694	6272
60°	9170	5800	9998	5466
65°	7518	5128	8276	4754
70°	5982	4551	6697	4209
75°	4698	4202	5290	3866
80°	3392	4054	3993	3705
85°	2084	4076	2808	3747

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 180°

Vertical Angle: 45°

Luminance: 14493 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	202.5	3.7
10°-20°	580.7	10.7
20°-30°	860.6	15.9
30°-40°	956.1	17.7
40°-50°	866.7	16.0
50°-60°	671.6	12.4
60°-70°	456.1	8.4
70°-80°	290.1	5.4
80°-90°	185.5	3.4
90°-100°	125.1	2.3
100°-110°	85.7	1.6
110°-120°	57.1	1.1
120°-130°	35.5	0.7
130°-140°	19.6	0.4
140°-150°	9.2	0.2
150°-160°	3.4	0.1
160°-170°	0.2	0.0
170°-180°	0.0	0.0
0°-30°	1643.9	30.4
0°-40°	2600.0	48.1
0°-60°	4138.3	76.6
0°-90°	5070.0	93.8
90°-120°	267.9	5.0
90°-150°	332.3	6.1
90°-180°	336.0	6.2
0°-180°	5405.9	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	2136	2136	2136	2136	2136	
5°	2149	2128	2149	2118	2149	204
15°	2073	2076	2082	2022	2073	585
25°	1910	1875	1932	1765	1910	880
35°	1645	1434	1677	1335	1645	1026
45°	1267	1025	1308	966	1267	973
55°	808	720	867	684	808	728
65°	420	484	462	449	420	421
75°	168	323	189	297	168	181
85°	30	233	41	214	30	37
90°	0	201	2	183	0	2
95°	1	172	0	160	1	1
105°	1	126	0	119	1	1
115°	1	95	0	88	1	1
125°	1	70	1	62	1	1
135°	1	49	1	40	1	1
145°	1	32	1	22	1	1
155°	1	18	1	8	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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CATALOG NUMBER: 4SNLED-LD5-64SL-LN-UNV-L935-CD1-U

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	2136.1	2136.1	2136.1	2136.1	2136.1	2136.1	2136.1	2136.1	2136.1	2136.1	2136.1
2.5°	2153.8	2151.4	2149.1	2145.5	2149.1	2158.5	2152.6	2139.7	2137.3	2116.2	2125.6
5°	2149.1	2145.5	2143.2	2139.7	2144.4	2156.1	2150.2	2138.5	2135.0	2115.0	2125.6
7.5°	2137.3	2135.0	2131.4	2131.4	2136.1	2147.9	2143.2	2130.3	2127.9	2107.9	2119.7
10°	2120.9	2119.7	2117.3	2117.3	2122.0	2136.1	2130.3	2118.5	2116.2	2097.4	2110.3
12.5°	2099.7	2100.9	2097.4	2097.4	2104.4	2118.5	2113.8	2100.9	2098.5	2082.1	2095.0
15°	2072.7	2073.9	2071.5	2072.7	2079.7	2096.2	2090.3	2078.6	2076.2	2063.3	2073.9
17.5°	2042.1	2043.3	2043.3	2042.1	2050.4	2066.8	2062.1	2051.5	2048.0	2037.4	2050.4
20°	2006.9	2006.9	2006.9	2006.9	2016.3	2032.7	2026.9	2018.6	2011.6	2003.4	2013.9
22.5°	1963.4	1962.2	1963.4	1966.9	1976.3	1989.3	1985.7	1976.3	1965.8	1961.1	1969.3
25°	1910.5	1914.1	1915.2	1918.8	1930.5	1941.1	1937.6	1928.2	1911.7	1908.2	1910.5
27.5°	1855.3	1857.7	1861.2	1860.0	1876.5	1887.0	1880.0	1871.8	1848.3	1844.7	1842.4
30°	1793.0	1796.6	1798.9	1797.7	1810.7	1822.4	1815.4	1804.8	1773.1	1770.7	1751.9
32.5°	1722.5	1726.1	1728.4	1728.4	1747.2	1751.9	1739.0	1723.7	1689.6	1681.4	1665.0
35°	1645.0	1648.5	1649.7	1649.7	1668.5	1667.3	1650.9	1629.7	1592.1	1581.5	1553.3
37.5°	1561.6	1563.9	1565.1	1572.1	1580.4	1573.3	1552.2	1525.1	1496.9	1467.6	1437.0
40°	1467.6	1471.1	1473.4	1478.1	1486.4	1478.1	1447.6	1414.7	1384.1	1351.2	1320.7
42.5°	1371.2	1381.8	1379.4	1378.3	1383.0	1360.6	1337.1	1299.5	1269.0	1234.9	1204.4
45°	1266.6	1265.5	1271.3	1273.7	1272.5	1253.7	1220.8	1186.7	1156.2	1120.9	1095.1
47.5°	1156.2	1155.0	1159.7	1162.1	1155.0	1135.0	1109.2	1070.4	1044.6	1014.0	994.0
50°	1039.9	1039.9	1046.9	1039.9	1036.3	1016.4	995.2	956.4	936.5	909.4	897.7
52.5°	923.5	934.1	927.1	924.7	921.2	901.2	884.8	853.0	836.6	824.8	810.7
55°	808.4	820.1	815.4	811.9	810.7	794.3	779.0	755.5	744.9	736.7	728.5
57.5°	710.9	709.7	707.3	703.8	705.0	692.1	676.8	663.9	659.2	655.6	658.0
60°	598.1	607.5	603.9	605.1	606.3	603.9	591.0	582.8	584.0	585.1	588.7
62.5°	505.2	513.5	519.3	514.6	517.0	520.5	513.5	511.1	515.8	520.5	525.2
65°	419.5	427.7	433.6	432.4	439.4	446.5	445.3	447.7	458.2	464.1	470.0
67.5°	341.9	350.1	358.4	359.5	370.1	380.7	385.4	393.6	405.4	413.6	420.6
70°	274.9	282.0	291.4	297.3	311.4	325.5	333.7	350.1	357.2	368.9	373.6
72.5°	215.0	220.9	233.8	247.9	259.7	277.3	293.7	307.8	318.4	331.3	337.2
75°	168.0	170.4	184.5	200.9	217.4	237.3	255.0	270.2	284.3	297.3	306.7
77.5°	123.4	126.9	139.8	162.1	180.9	202.1	222.1	238.5	253.8	266.7	279.6
80°	85.8	92.8	106.9	129.2	150.4	173.9	192.7	211.5	227.9	240.9	253.8
82.5°	55.2	61.1	81.1	103.4	125.7	149.2	169.2	188.0	205.6	219.7	231.5
85°	30.5	38.8	58.7	82.2	104.6	128.1	149.2	168.0	185.6	198.6	210.3
87.5°	11.7	23.5	42.3	64.6	86.9	109.3	131.6	149.2	166.8	180.9	191.5
90°	0.0	14.1	31.7	54.0	76.4	98.7	119.8	138.6	155.1	168.0	179.8
92.5°	1.2	9.4	24.7	43.5	64.6	85.8	105.7	124.5	141.0	153.9	164.5
95°	1.2	7.0	20.0	37.6	56.4	76.4	95.2	112.8	128.1	141.0	151.6
97.5°	1.2	4.7	16.4	32.9	49.3	69.3	86.9	103.4	117.5	130.4	138.6
100°	1.2	4.7	14.1	28.2	44.6	62.3	78.7	95.2	108.1	118.7	128.1
102.5°	1.2	3.5	11.7	24.7	39.9	55.2	71.7	86.9	98.7	109.3	118.7
105°	1.2	3.5	10.6	21.1	35.2	50.5	64.6	78.7	91.6	101.0	109.3
107.5°	1.2	2.3	9.4	17.6	30.5	45.8	59.9	71.7	83.4	92.8	101.0
110°	1.2	2.3	8.2	16.4	27.0	41.1	54.0	65.8	76.4	85.8	92.8

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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	1.2	2.3	7.0	15.3	24.7	36.4	49.3	59.9	70.5	78.7	85.8
115°	1.2	2.3	7.0	14.1	22.3	31.7	43.5	55.2	63.4	72.8	78.7
117.5°	1.2	2.3	5.9	11.7	21.1	29.4	39.9	49.3	58.7	67.0	72.8
120°	1.2	2.3	5.9	10.6	18.8	27.0	35.2	44.6	54.0	59.9	65.8
122.5°	1.2	2.3	4.7	10.6	16.4	24.7	31.7	39.9	48.2	55.2	61.1
125°	1.2	2.3	4.7	9.4	15.3	22.3	29.4	35.2	43.5	49.3	55.2
127.5°	1.2	2.3	4.7	8.2	14.1	20.0	27.0	32.9	38.8	44.6	49.3
130°	1.2	2.3	3.5	7.0	12.9	17.6	23.5	30.5	35.2	39.9	44.6
132.5°	1.2	2.3	3.5	7.0	10.6	15.3	21.1	27.0	31.7	36.4	39.9
135°	1.2	2.3	3.5	5.9	9.4	14.1	17.6	23.5	28.2	32.9	36.4
137.5°	1.2	2.3	3.5	5.9	8.2	11.7	15.3	20.0	24.7	28.2	32.9
140°	1.2	2.3	3.5	4.7	7.0	10.6	14.1	16.4	21.1	24.7	28.2
142.5°	1.2	2.3	3.5	4.7	7.0	9.4	11.7	14.1	17.6	21.1	24.7
145°	1.2	2.3	3.5	4.7	5.9	8.2	10.6	12.9	14.1	17.6	20.0
147.5°	1.2	2.3	3.5	4.7	4.7	7.0	9.4	10.6	12.9	14.1	16.4
150°	1.2	2.3	3.5	3.5	4.7	5.9	8.2	9.4	10.6	12.9	14.1
152.5°	1.2	2.3	3.5	3.5	4.7	5.9	7.0	8.2	9.4	10.6	11.7
155°	1.2	2.3	3.5	3.5	3.5	4.7	5.9	7.0	8.2	9.4	10.6
157.5°	2.3	2.3	2.3	3.5	3.5	4.7	4.7	5.9	7.0	7.0	8.2
160°	2.3	2.3	2.3	3.5	3.5	3.5	4.7	4.7	5.9	5.9	7.0
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°	2136.1	2136.1	2136.1	2136.1	2136.1	2136.1	2136.1	2136.1	2136.1	2136.1	2136.1
2.5°	2123.2	2126.7	2137.3	2137.3	2135.0	2132.6	2132.6	2129.1	2131.4	2136.1	2133.8
5°	2123.2	2126.7	2137.3	2137.3	2135.0	2132.6	2131.4	2127.9	2131.4	2136.1	2133.8
7.5°	2116.2	2120.9	2131.4	2131.4	2129.1	2127.9	2125.6	2123.2	2126.7	2131.4	2129.1
10°	2106.8	2111.5	2122.0	2122.0	2119.7	2119.7	2116.2	2113.8	2118.5	2122.0	2120.9
12.5°	2092.7	2098.5	2107.9	2106.8	2104.4	2105.6	2102.1	2097.4	2102.1	2105.6	2106.8
15°	2072.7	2079.7	2089.1	2086.8	2083.3	2085.6	2079.7	2076.2	2079.7	2086.8	2085.6
17.5°	2046.8	2051.5	2058.6	2058.6	2055.1	2052.7	2050.4	2046.8	2049.2	2053.9	2055.1
20°	2010.4	2016.3	2019.8	2016.3	2015.1	2011.6	2006.9	2003.4	2008.1	2015.1	2016.3
22.5°	1962.2	1963.4	1971.6	1963.4	1957.5	1956.4	1951.7	1944.6	1951.7	1957.5	1958.7
25°	1902.3	1908.2	1904.7	1890.6	1890.6	1881.2	1878.8	1875.3	1876.5	1887.0	1891.7
27.5°	1825.9	1828.3	1818.9	1807.1	1796.6	1790.7	1782.5	1783.6	1783.6	1797.7	1802.4
30°	1742.5	1729.6	1721.4	1702.6	1694.3	1680.2	1677.9	1677.9	1675.5	1682.6	1703.7
32.5°	1642.6	1625.0	1612.1	1594.5	1580.4	1566.3	1559.2	1562.7	1561.6	1579.2	1586.2
35°	1533.4	1522.8	1495.8	1473.4	1465.2	1444.1	1444.1	1433.5	1440.5	1460.5	1468.7
37.5°	1418.2	1401.8	1379.4	1354.8	1348.9	1332.4	1326.6	1320.7	1336.0	1339.5	1347.7
40°	1300.7	1285.4	1264.3	1240.8	1240.8	1220.8	1220.8	1220.8	1222.0	1229.0	1244.3
42.5°	1189.1	1172.6	1153.8	1137.4	1135.0	1119.8	1119.8	1118.6	1120.9	1126.8	1140.9
45°	1081.0	1068.1	1048.1	1039.9	1041.0	1024.6	1028.1	1024.6	1029.3	1035.2	1039.9
47.5°	981.1	972.9	964.7	952.9	949.4	948.2	942.3	937.6	945.9	945.9	952.9
50°	888.3	883.6	878.9	871.8	873.0	868.3	861.3	861.3	867.1	868.3	873.0
52.5°	807.2	801.3	795.5	796.6	797.8	795.5	791.9	788.4	791.9	794.3	800.2
55°	726.1	721.4	727.3	725.0	727.3	725.0	722.6	720.3	726.1	722.6	728.5
57.5°	653.3	658.0	660.3	655.6	659.2	656.8	658.0	654.5	659.2	661.5	660.3
60°	586.3	593.4	589.8	591.0	595.7	593.4	588.7	592.2	596.9	598.1	596.9
62.5°	525.2	533.4	537.0	534.6	535.8	533.4	537.0	532.3	538.1	540.5	537.0
65°	470.0	479.4	481.7	481.7	481.7	479.4	482.9	484.1	486.4	486.4	484.1
67.5°	423.0	431.2	433.6	435.9	433.6	431.2	431.2	432.4	437.1	439.4	437.1
70°	380.7	388.9	390.1	390.1	391.3	393.6	388.9	391.3	394.8	396.0	394.8
72.5°	344.3	352.5	354.8	353.7	354.8	356.0	356.0	353.7	357.2	359.5	359.5
75°	314.9	319.6	321.9	321.9	323.1	324.3	324.3	323.1	325.5	326.6	327.8
77.5°	287.9	291.4	294.9	294.9	296.1	294.9	297.3	297.3	298.4	299.6	300.8
80°	260.8	265.5	267.9	269.1	271.4	272.6	272.6	272.6	273.8	274.9	274.9
82.5°	239.7	243.2	246.7	250.3	250.3	251.4	251.4	251.4	252.6	252.6	253.8
85°	218.5	223.2	226.8	229.1	230.3	231.5	231.5	232.6	232.6	232.6	233.8
87.5°	199.7	205.6	208.0	210.3	211.5	213.8	213.8	213.8	215.0	215.0	215.0
90°	186.8	192.7	195.0	197.4	198.6	199.7	199.7	200.9	200.9	202.1	202.1
92.5°	171.5	177.4	182.1	182.1	183.3	185.6	184.5	184.5	185.6	186.8	186.8
95°	159.8	164.5	168.0	169.2	170.4	170.4	170.4	171.5	170.4	171.5	171.5
97.5°	145.7	150.4	153.9	156.3	157.4	157.4	157.4	158.6	157.4	158.6	158.6
100°	133.9	138.6	142.2	143.3	145.7	145.7	145.7	145.7	145.7	145.7	146.9
102.5°	124.5	129.2	131.6	132.8	133.9	135.1	135.1	135.1	135.1	136.3	136.3
105°	115.1	119.8	122.2	123.4	124.5	125.7	125.7	125.7	126.9	126.9	125.7
107.5°	106.9	110.4	112.8	115.1	116.3	116.3	117.5	117.5	117.5	117.5	117.5
110°	98.7	102.2	105.7	108.1	108.1	109.3	109.3	110.4	110.4	109.3	110.4

TEST NUMBER: P1213504

CATALOG NUMBER: 4SNLED-LD5-64SL-LN-UNV-L935-CD1-U

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
112.5°	90.5	95.2	97.5	99.9	101.0	102.2	102.2	102.2	102.2	102.2	102.2
115°	83.4	88.1	90.5	92.8	94.0	95.2	95.2	95.2	95.2	95.2	95.2
117.5°	77.5	82.2	84.6	85.8	86.9	88.1	89.3	89.3	89.3	89.3	88.1
120°	71.7	75.2	77.5	79.9	81.1	82.2	82.2	82.2	82.2	82.2	82.2
122.5°	65.8	69.3	71.7	74.0	75.2	76.4	76.4	76.4	76.4	76.4	76.4
125°	59.9	63.4	65.8	68.1	69.3	70.5	70.5	70.5	70.5	70.5	70.5
127.5°	54.0	57.6	61.1	62.3	63.4	64.6	64.6	64.6	65.8	64.6	64.6
130°	48.2	51.7	55.2	56.4	57.6	58.7	59.9	59.9	59.9	59.9	58.7
132.5°	43.5	47.0	49.3	50.5	52.9	52.9	54.0	54.0	54.0	54.0	52.9
135°	39.9	42.3	44.6	45.8	48.2	48.2	48.2	49.3	49.3	48.2	47.0
137.5°	35.2	37.6	39.9	41.1	42.3	43.5	43.5	44.6	43.5	43.5	43.5
140°	32.9	34.1	36.4	37.6	38.8	38.8	38.8	39.9	39.9	38.8	38.8
142.5°	28.2	30.5	32.9	34.1	35.2	35.2	35.2	35.2	35.2	35.2	35.2
145°	23.5	27.0	28.2	30.5	30.5	31.7	31.7	31.7	31.7	31.7	30.5
147.5°	20.0	22.3	25.8	27.0	27.0	28.2	28.2	28.2	28.2	28.2	27.0
150°	15.3	17.6	21.1	23.5	23.5	24.7	24.7	24.7	24.7	23.5	23.5
152.5°	12.9	15.3	16.4	18.8	20.0	20.0	20.0	21.1	20.0	20.0	20.0
155°	11.7	12.9	14.1	15.3	16.4	17.6	17.6	17.6	17.6	16.4	16.4
157.5°	9.4	10.6	11.7	12.9	14.1	15.3	15.3	15.3	15.3	15.3	14.1
160°	7.0	8.2	9.4	9.4	10.6	11.7	12.9	11.7	11.7	11.7	11.7
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: P1213504

CATALOG NUMBER: 4SNLED-LD5-64SL-LN-UNV-L935-CD1-U

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	2136.1	2136.1	2136.1	2136.1	2136.1	2136.1	2136.1	2136.1	2136.1	2136.1	2136.1
2.5°	2131.4	2130.3	2133.8	2127.9	2110.3	2115.0	2112.6	2123.2	2125.6	2127.9	2138.5
5°	2131.4	2130.3	2132.6	2127.9	2109.1	2112.6	2110.3	2120.9	2123.2	2124.4	2135.0
7.5°	2126.7	2125.6	2129.1	2123.2	2103.2	2107.9	2104.4	2115.0	2116.2	2117.3	2126.7
10°	2117.3	2116.2	2118.5	2113.8	2093.8	2098.5	2093.8	2104.4	2104.4	2106.8	2113.8
12.5°	2103.2	2100.9	2105.6	2099.7	2077.4	2083.3	2080.9	2088.0	2089.1	2090.3	2097.4
15°	2083.3	2080.9	2084.4	2080.9	2060.9	2062.1	2058.6	2069.2	2070.3	2068.0	2075.0
17.5°	2053.9	2051.5	2058.6	2056.2	2036.3	2041.0	2039.8	2042.1	2045.7	2039.8	2049.2
20°	2017.5	2019.8	2022.2	2023.3	2008.1	2008.1	2006.9	2011.6	2015.1	2010.4	2017.5
22.5°	1963.4	1969.3	1976.3	1978.7	1968.1	1966.9	1974.0	1971.6	1975.2	1972.8	1977.5
25°	1895.3	1907.0	1914.1	1921.1	1915.2	1917.6	1928.2	1930.5	1930.5	1929.3	1934.0
27.5°	1810.7	1825.9	1838.9	1854.1	1848.3	1853.0	1870.6	1872.9	1877.6	1872.9	1882.3
30°	1709.6	1723.7	1748.4	1770.7	1773.1	1780.1	1804.8	1807.1	1820.1	1815.4	1818.9
32.5°	1608.6	1615.6	1643.8	1666.1	1680.2	1697.9	1724.9	1729.6	1747.2	1750.7	1750.7
35°	1481.7	1501.6	1527.5	1559.2	1576.8	1595.6	1632.1	1639.1	1665.0	1673.2	1682.6
37.5°	1374.7	1393.5	1410.0	1442.9	1474.6	1495.8	1525.1	1542.8	1569.8	1585.1	1596.8
40°	1260.8	1276.0	1293.7	1326.6	1353.6	1385.3	1414.7	1435.8	1469.9	1487.5	1502.8
42.5°	1152.7	1164.4	1183.2	1206.7	1234.9	1270.2	1298.4	1323.0	1359.5	1384.1	1401.8
45°	1056.3	1063.4	1079.8	1097.4	1122.1	1158.5	1185.6	1217.3	1246.7	1272.5	1293.7
47.5°	965.8	975.2	983.5	995.2	1017.5	1039.9	1071.6	1102.1	1131.5	1159.7	1180.9
50°	882.4	882.4	895.3	903.6	918.8	938.8	963.5	984.6	1021.1	1041.0	1068.1
52.5°	801.3	806.0	813.1	817.8	829.5	842.5	862.4	880.1	910.6	929.4	955.3
55°	729.7	734.4	737.9	740.2	747.3	762.6	769.6	783.7	804.9	820.1	842.5
57.5°	661.5	663.9	667.4	668.6	669.7	679.1	685.0	688.5	709.7	725.0	743.8
60°	599.2	599.2	602.8	601.6	600.4	605.1	603.9	607.5	620.4	629.8	638.0
62.5°	540.5	540.5	541.7	539.3	538.1	538.1	533.4	537.0	540.5	541.7	547.5
65°	486.4	492.3	487.6	488.8	481.7	479.4	477.0	470.0	468.8	464.1	466.5
67.5°	438.3	443.0	438.3	438.3	432.4	427.7	421.8	410.1	406.5	397.1	394.8
70°	399.5	396.0	398.3	394.8	387.7	381.9	373.6	364.2	352.5	340.7	332.5
72.5°	361.9	361.9	359.5	356.0	352.5	340.7	331.3	320.8	306.7	291.4	279.6
75°	325.5	326.6	326.6	323.1	317.2	306.7	296.1	280.8	265.5	247.9	232.6
77.5°	299.6	299.6	299.6	293.7	287.9	278.5	265.5	249.1	232.6	211.5	193.9
80°	274.9	273.8	273.8	266.7	260.8	250.3	237.3	220.9	203.3	180.9	161.0
82.5°	255.0	253.8	251.4	245.6	237.3	226.8	213.8	196.2	177.4	157.4	132.8
85°	233.8	232.6	230.3	224.4	216.2	206.8	192.7	175.1	156.3	133.9	110.4
87.5°	215.0	213.8	210.3	206.8	197.4	186.8	172.7	156.3	136.3	115.1	91.6
90°	202.1	199.7	197.4	192.7	184.5	172.7	158.6	141.0	121.0	99.9	76.4
92.5°	186.8	185.6	182.1	177.4	170.4	158.6	144.5	128.1	108.1	88.1	65.8
95°	171.5	170.4	168.0	163.3	156.3	145.7	132.8	116.3	97.5	77.5	57.6
97.5°	157.4	157.4	153.9	150.4	142.2	133.9	121.0	105.7	88.1	70.5	51.7
100°	145.7	145.7	142.2	137.5	131.6	123.4	110.4	96.3	79.9	63.4	44.6
102.5°	135.1	133.9	131.6	126.9	121.0	112.8	101.0	88.1	72.8	56.4	39.9
105°	125.7	124.5	122.2	117.5	112.8	103.4	94.0	81.1	65.8	50.5	35.2
107.5°	116.3	115.1	114.0	109.3	103.4	95.2	85.8	72.8	59.9	45.8	31.7
110°	108.1	106.9	104.6	99.9	94.0	86.9	77.5	67.0	54.0	41.1	28.2

TEST NUMBER: P1213504

CATALOG NUMBER: 4SNLED-LD5-64SL-LN-UNV-L935-CD1-U

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
112.5°	101.0	99.9	97.5	92.8	88.1	79.9	71.7	59.9	49.3	37.6	24.7
115°	94.0	92.8	90.5	85.8	79.9	72.8	64.6	55.2	43.5	32.9	22.3
117.5°	86.9	85.8	83.4	79.9	74.0	67.0	58.7	49.3	38.8	30.5	20.0
120°	81.1	78.7	76.4	72.8	67.0	61.1	52.9	44.6	35.2	27.0	17.6
122.5°	75.2	72.8	70.5	67.0	61.1	55.2	47.0	39.9	32.9	24.7	16.4
125°	68.1	67.0	64.6	61.1	55.2	49.3	43.5	36.4	29.4	22.3	14.1
127.5°	62.3	61.1	58.7	54.0	49.3	44.6	38.8	32.9	25.8	18.8	12.9
130°	57.6	55.2	52.9	49.3	45.8	41.1	35.2	29.4	23.5	16.4	11.7
132.5°	51.7	49.3	47.0	44.6	41.1	36.4	31.7	25.8	21.1	15.3	10.6
135°	47.0	44.6	42.3	39.9	36.4	32.9	28.2	23.5	18.8	14.1	9.4
137.5°	41.1	39.9	38.8	36.4	32.9	29.4	25.8	20.0	16.4	12.9	8.2
140°	37.6	36.4	35.2	31.7	29.4	25.8	22.3	17.6	14.1	10.6	7.0
142.5°	34.1	32.9	30.5	28.2	25.8	23.5	18.8	16.4	12.9	9.4	7.0
145°	29.4	28.2	27.0	24.7	22.3	18.8	16.4	14.1	11.7	8.2	5.9
147.5°	27.0	25.8	23.5	21.1	18.8	16.4	15.3	12.9	9.4	7.0	4.7
150°	22.3	21.1	20.0	17.6	16.4	15.3	12.9	10.6	8.2	5.9	4.7
152.5°	18.8	17.6	16.4	16.4	14.1	12.9	10.6	9.4	7.0	5.9	3.5
155°	16.4	16.4	15.3	14.1	11.7	10.6	9.4	7.0	5.9	4.7	3.5
157.5°	14.1	12.9	11.7	11.7	10.6	9.4	7.0	5.9	4.7	4.7	3.5
160°	11.7	10.6	10.6	9.4	8.2	7.0	5.9	5.9	4.7	3.5	3.5
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: P1213504

CATALOG NUMBER: 4SNLED-LD5-64SL-LN-UNV-L935-CD1-U

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
0°	2136.1	2136.1	2136.1	2136.1	2136.1	2136.1	2136.1	2136.1	2136.1	2136.1	2136.1
2.5°	2139.7	2126.7	2138.5	2153.8	2153.8	2151.4	2149.1	2153.8	2165.5	2160.8	2146.7
5°	2136.1	2123.2	2133.8	2149.1	2149.1	2145.5	2143.2	2146.7	2159.6	2153.8	2140.8
7.5°	2129.1	2117.3	2124.4	2138.5	2138.5	2135.0	2132.6	2137.3	2147.9	2142.0	2127.9
10°	2116.2	2103.2	2111.5	2124.4	2123.2	2120.9	2117.3	2123.2	2132.6	2124.4	2107.9
12.5°	2099.7	2086.8	2093.8	2105.6	2104.4	2099.7	2097.4	2100.9	2109.1	2104.4	2086.8
15°	2077.4	2064.5	2070.3	2082.1	2078.6	2075.0	2070.3	2071.5	2082.1	2073.9	2055.1
17.5°	2050.4	2036.3	2041.0	2051.5	2048.0	2044.5	2038.6	2039.8	2051.5	2039.8	2019.8
20°	2017.5	2002.2	2005.7	2018.6	2012.8	2006.9	2001.0	2001.0	2012.8	1999.8	1977.5
22.5°	1982.2	1966.9	1969.3	1978.7	1974.0	1963.4	1957.5	1961.1	1966.9	1950.5	1927.0
25°	1938.7	1918.8	1922.3	1931.7	1928.2	1914.1	1908.2	1910.5	1908.2	1895.3	1870.6
27.5°	1888.2	1867.1	1869.4	1875.3	1870.6	1857.7	1850.6	1851.8	1847.1	1830.6	1802.4
30°	1824.8	1814.2	1813.0	1816.5	1809.5	1796.6	1788.3	1786.0	1784.8	1761.3	1727.2
32.5°	1760.1	1750.7	1744.9	1749.6	1741.3	1728.4	1714.3	1714.3	1702.6	1680.2	1650.9
35°	1694.3	1679.1	1673.2	1676.7	1667.3	1650.9	1639.1	1633.2	1615.6	1587.4	1555.7
37.5°	1609.7	1599.2	1592.1	1595.6	1585.1	1573.3	1551.0	1545.1	1526.3	1487.5	1447.6
40°	1518.1	1509.9	1502.8	1506.3	1494.6	1477.0	1457.0	1447.6	1426.4	1383.0	1351.2
42.5°	1419.4	1415.9	1407.6	1420.6	1397.1	1379.4	1359.5	1344.2	1323.0	1276.0	1239.6
45°	1314.8	1323.0	1304.2	1307.8	1292.5	1277.2	1256.1	1233.7	1212.6	1167.9	1126.8
47.5°	1204.4	1210.2	1197.3	1199.7	1183.2	1169.1	1150.3	1122.1	1098.6	1059.8	1023.4
50°	1090.4	1088.0	1088.0	1085.7	1072.8	1055.1	1036.3	1010.5	987.0	951.7	921.2
52.5°	969.4	974.1	976.4	982.3	965.8	955.3	925.9	903.6	885.9	849.5	823.7
55°	853.0	869.5	864.8	867.1	848.3	840.1	816.6	799.0	773.1	752.0	735.5
57.5°	747.3	750.8	753.2	756.7	748.5	732.0	713.2	699.1	679.1	661.5	649.8
60°	645.1	645.1	646.2	652.1	643.9	629.8	615.7	605.1	591.0	580.4	573.4
62.5°	548.7	556.9	558.1	553.4	542.8	535.8	526.4	520.5	511.1	507.6	505.2
65°	459.4	459.4	459.4	461.8	455.9	451.2	445.3	444.1	447.7	443.0	445.3
67.5°	384.2	380.7	378.3	379.5	377.2	374.8	373.6	377.2	384.2	384.2	390.1
70°	319.6	312.5	307.8	307.8	307.8	309.0	312.5	319.6	331.3	336.0	344.3
72.5°	266.7	251.4	244.4	244.4	245.6	250.3	260.8	273.8	284.3	293.7	304.3
75°	216.2	200.9	190.3	189.2	191.5	198.6	213.8	225.6	243.2	256.1	269.1
77.5°	175.1	156.3	143.3	142.2	145.7	156.3	175.1	190.3	210.3	224.4	238.5
80°	139.8	118.7	108.1	101.0	106.9	119.8	141.0	159.8	178.6	197.4	215.0
82.5°	111.6	91.6	75.2	68.1	75.2	92.8	112.8	135.1	153.9	173.9	191.5
85°	88.1	67.0	48.2	41.1	49.3	68.1	90.5	112.8	133.9	153.9	171.5
87.5°	69.3	48.2	29.4	20.0	30.5	50.5	71.7	94.0	116.3	136.3	153.9
90°	54.0	34.1	16.4	2.3	17.6	36.4	57.6	78.7	101.0	121.0	138.6
92.5°	45.8	25.8	9.4	0.0	10.6	27.0	47.0	68.1	88.1	108.1	125.7
95°	38.8	21.1	7.0	0.0	7.0	21.1	38.8	57.6	77.5	97.5	115.1
97.5°	32.9	16.4	4.7	0.0	4.7	16.4	31.7	50.5	68.1	86.9	103.4
100°	28.2	14.1	3.5	0.0	3.5	12.9	27.0	43.5	61.1	78.7	94.0
102.5°	24.7	11.7	2.3	0.0	2.3	10.6	22.3	37.6	52.9	69.3	84.6
105°	21.1	9.4	2.3	0.0	1.2	8.2	18.8	32.9	47.0	62.3	76.4
107.5°	18.8	8.2	2.3	0.0	1.2	7.0	16.4	28.2	42.3	55.2	68.1
110°	16.4	7.0	2.3	0.0	1.2	4.7	14.1	24.7	36.4	49.3	62.3

TEST NUMBER: P1213504

CATALOG NUMBER: 4SNLED-LD5-64SL-LN-UNV-L935-CD1-U

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
112.5°	14.1	5.9	1.2	0.0	0.0	3.5	11.7	21.1	31.7	44.6	55.2
115°	12.9	5.9	1.2	0.0	0.0	2.3	9.4	18.8	28.2	39.9	49.3
117.5°	11.7	4.7	1.2	0.0	1.2	2.3	8.2	16.4	24.7	34.1	44.6
120°	10.6	4.7	1.2	0.0	1.2	1.2	5.9	14.1	21.1	30.5	38.8
122.5°	9.4	4.7	1.2	0.0	1.2	1.2	4.7	11.7	18.8	27.0	34.1
125°	8.2	3.5	2.3	1.2	1.2	1.2	3.5	9.4	16.4	22.3	30.5
127.5°	8.2	3.5	2.3	1.2	1.2	1.2	2.3	8.2	12.9	20.0	27.0
130°	7.0	3.5	2.3	1.2	1.2	1.2	1.2	5.9	11.7	16.4	22.3
132.5°	5.9	3.5	2.3	1.2	1.2	1.2	1.2	3.5	8.2	14.1	18.8
135°	5.9	3.5	2.3	1.2	1.2	1.2	1.2	2.3	5.9	10.6	15.3
137.5°	4.7	2.3	2.3	1.2	1.2	1.2	1.2	1.2	4.7	8.2	11.7
140°	4.7	2.3	2.3	1.2	1.2	1.2	1.2	1.2	3.5	5.9	9.4
142.5°	3.5	2.3	2.3	1.2	1.2	1.2	1.2	1.2	2.3	4.7	7.0
145°	3.5	2.3	2.3	1.2	1.2	1.2	1.2	1.2	1.2	2.3	4.7
147.5°	3.5	3.5	2.3	1.2	1.2	1.2	1.2	1.2	1.2	2.3	3.5
150°	3.5	2.3	2.3	1.2	1.2	1.2	1.2	1.2	1.2	1.2	2.3
152.5°	3.5	2.3	2.3	1.2	1.2	1.2	1.2	1.2	1.2	1.2	2.3
155°	3.5	2.3	2.3	1.2	1.2	1.2	1.2	1.2	1.2	2.3	2.3
157.5°	3.5	2.3	2.3	1.2	1.2	1.2	1.2	1.2	1.2	1.2	2.3
160°	3.5	2.3	2.3	1.2	2.3	1.2	2.3	2.3	2.3	2.3	2.3
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: P1213504

CATALOG NUMBER: 4SNLED-LD5-64SL-LN-UNV-L935-CD1-U

CANDELA DISTRIBUTION (continued):

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
0°	2136.1	2136.1	2136.1	2136.1	2136.1	2136.1	2136.1	2136.1	2136.1	2136.1	2136.1
2.5°	2142.0	2119.7	2131.4	2127.9	2132.6	2142.0	2140.8	2138.5	2138.5	2135.0	2130.3
5°	2135.0	2113.8	2124.4	2118.5	2124.4	2132.6	2131.4	2127.9	2130.3	2124.4	2118.5
7.5°	2120.9	2102.1	2111.5	2106.8	2111.5	2119.7	2116.2	2115.0	2117.3	2107.9	2104.4
10°	2104.4	2083.3	2093.8	2088.0	2093.8	2099.7	2097.4	2092.7	2097.4	2088.0	2084.4
12.5°	2078.6	2060.9	2068.0	2065.6	2069.2	2075.0	2070.3	2066.8	2069.2	2060.9	2053.9
15°	2050.4	2032.7	2038.6	2035.1	2037.4	2044.5	2036.3	2035.1	2032.7	2024.5	2022.2
17.5°	2013.9	1997.5	2003.4	1997.5	2001.0	1998.7	1997.5	1991.6	1991.6	1982.2	1975.2
20°	1969.3	1955.2	1951.7	1947.0	1951.7	1947.0	1939.9	1935.2	1934.0	1924.6	1918.8
22.5°	1917.6	1901.1	1903.5	1890.6	1891.7	1884.7	1872.9	1868.2	1863.5	1853.0	1844.7
25°	1855.3	1838.9	1827.1	1818.9	1808.3	1807.1	1791.9	1780.1	1778.9	1766.0	1764.8
27.5°	1784.8	1766.0	1756.6	1736.6	1723.7	1713.1	1700.2	1688.5	1682.6	1668.5	1659.1
30°	1703.7	1682.6	1659.1	1645.0	1625.0	1616.8	1594.5	1580.4	1575.7	1560.4	1553.3
32.5°	1612.1	1589.8	1571.0	1543.9	1521.6	1509.9	1487.5	1473.4	1467.6	1451.1	1441.7
35°	1512.2	1487.5	1465.2	1439.4	1421.7	1401.8	1374.7	1360.6	1347.7	1341.8	1334.8
37.5°	1407.6	1380.6	1354.8	1328.9	1313.6	1290.1	1266.6	1257.2	1242.0	1236.1	1229.0
40°	1299.5	1272.5	1247.8	1223.2	1205.5	1184.4	1163.2	1159.7	1143.3	1137.4	1132.7
42.5°	1192.6	1164.4	1136.2	1118.6	1105.7	1084.5	1070.4	1066.9	1052.8	1049.3	1049.3
45°	1096.3	1061.0	1037.5	1022.2	1011.7	994.0	982.3	979.9	968.2	965.8	965.8
47.5°	992.9	960.0	942.3	932.9	923.5	910.6	903.6	903.6	891.8	889.5	888.3
50°	896.5	866.0	853.0	843.6	842.5	833.1	827.2	824.8	824.8	816.6	817.8
52.5°	804.9	789.6	779.0	773.1	766.1	760.2	755.5	755.5	752.0	746.1	748.5
55°	720.3	702.6	703.8	699.1	695.6	692.1	693.2	686.2	685.0	680.3	683.8
57.5°	635.7	635.7	633.3	629.8	623.9	626.3	626.3	626.3	620.4	616.9	620.4
60°	564.0	567.5	561.6	565.2	562.8	564.0	561.6	561.6	558.1	556.9	558.1
62.5°	500.5	506.4	504.1	508.8	506.4	507.6	509.9	505.2	502.9	500.5	502.9
65°	444.1	451.2	450.0	453.5	454.7	455.9	457.1	454.7	452.4	450.0	448.8
67.5°	394.8	401.8	406.5	407.7	408.9	412.4	411.2	408.9	406.5	403.0	401.8
70°	350.1	359.5	365.4	367.8	372.5	370.1	370.1	368.9	366.6	363.1	361.9
72.5°	312.5	323.1	329.0	331.3	336.0	336.0	334.9	333.7	331.3	327.8	326.6
75°	279.6	289.0	297.3	302.0	305.5	305.5	304.3	303.1	300.8	298.4	297.3
77.5°	253.8	262.0	269.1	274.9	277.3	278.5	277.3	274.9	274.9	273.8	272.6
80°	227.9	237.3	244.4	250.3	253.8	253.8	252.6	253.8	251.4	250.3	249.1
82.5°	205.6	216.2	224.4	230.3	232.6	233.8	232.6	233.8	231.5	231.5	231.5
85°	185.6	196.2	205.6	210.3	213.8	215.0	215.0	215.0	213.8	213.8	213.8
87.5°	169.2	179.8	189.2	193.9	197.4	198.6	198.6	199.7	197.4	197.4	197.4
90°	153.9	164.5	173.9	178.6	182.1	184.5	184.5	185.6	184.5	183.3	183.3
92.5°	139.8	151.6	161.0	165.7	169.2	172.7	172.7	173.9	171.5	171.5	171.5
95°	128.1	139.8	148.0	153.9	157.4	159.8	161.0	161.0	159.8	159.8	159.8
97.5°	117.5	128.1	136.3	142.2	145.7	146.9	148.0	149.2	148.0	148.0	148.0
100°	106.9	117.5	125.7	130.4	135.1	136.3	137.5	138.6	138.6	137.5	137.5
102.5°	97.5	108.1	115.1	121.0	124.5	126.9	128.1	128.1	128.1	128.1	128.1
105°	88.1	98.7	105.7	111.6	115.1	117.5	118.7	119.8	119.8	118.7	118.7
107.5°	79.9	89.3	97.5	102.2	106.9	109.3	110.4	110.4	111.6	110.4	110.4
110°	71.7	82.2	89.3	94.0	98.7	101.0	102.2	103.4	103.4	103.4	103.4



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CATALOG NUMBER: 4SNLED-LD5-64SL-LN-UNV-L935-CD1-U

CANDELA DISTRIBUTION (continued):

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
112.5°	65.8	74.0	81.1	85.8	90.5	92.8	94.0	95.2	96.3	95.2	95.2
115°	58.7	67.0	74.0	78.7	82.2	84.6	86.9	88.1	88.1	89.3	88.1
117.5°	52.9	59.9	67.0	71.7	75.2	78.7	79.9	81.1	82.2	81.1	81.1
120°	47.0	54.0	59.9	64.6	68.1	71.7	72.8	74.0	75.2	74.0	74.0
122.5°	42.3	48.2	54.0	58.7	62.3	64.6	67.0	67.0	68.1	68.1	68.1
125°	37.6	43.5	48.2	52.9	56.4	58.7	59.9	61.1	61.1	62.3	62.3
127.5°	32.9	37.6	43.5	47.0	50.5	52.9	54.0	55.2	55.2	56.4	56.4
130°	28.2	32.9	37.6	41.1	44.6	47.0	48.2	49.3	50.5	50.5	50.5
132.5°	24.7	29.4	32.9	36.4	38.8	41.1	43.5	44.6	44.6	44.6	44.6
135°	20.0	24.7	28.2	31.7	34.1	36.4	37.6	39.9	39.9	39.9	39.9
137.5°	16.4	21.1	24.7	27.0	29.4	31.7	32.9	34.1	35.2	35.2	35.2
140°	12.9	16.4	20.0	23.5	25.8	27.0	29.4	29.4	30.5	30.5	30.5
142.5°	9.4	12.9	15.3	18.8	21.1	23.5	24.7	25.8	25.8	25.8	25.8
145°	7.0	9.4	11.7	14.1	17.6	18.8	20.0	21.1	22.3	22.3	22.3
147.5°	4.7	7.0	8.2	10.6	12.9	15.3	16.4	17.6	18.8	18.8	18.8
150°	3.5	4.7	7.0	8.2	9.4	11.7	14.1	14.1	15.3	15.3	14.1
152.5°	2.3	3.5	4.7	5.9	7.0	8.2	10.6	10.6	11.7	11.7	11.7
155°	2.3	2.3	2.3	3.5	4.7	5.9	7.0	8.2	8.2	8.2	8.2
157.5°	2.3	2.3	2.3	2.3	2.3	3.5	4.7	5.9	5.9	5.9	5.9
160°	2.3	2.3	1.2	1.2	2.3	2.3	2.3	2.3	3.5	3.5	3.5
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: P1213504

CATALOG NUMBER: 4SNLED-LD5-64SL-LN-UNV-L935-CD1-U

CANDELA DISTRIBUTION (continued):

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°
0°	2136.1	2136.1	2136.1	2136.1	2136.1	2136.1	2136.1	2136.1	2136.1	2136.1	2136.1
2.5°	2133.8	2136.1	2136.1	2133.8	2132.6	2137.3	2131.4	2109.1	2116.2	2118.5	2125.6
5°	2123.2	2125.6	2125.6	2125.6	2123.2	2127.9	2122.0	2099.7	2107.9	2111.5	2116.2
7.5°	2107.9	2109.1	2111.5	2110.3	2107.9	2115.0	2109.1	2086.8	2092.7	2098.5	2104.4
10°	2088.0	2088.0	2089.1	2091.5	2089.1	2095.0	2089.1	2069.2	2075.0	2078.6	2085.6
12.5°	2060.9	2063.3	2064.5	2063.3	2062.1	2066.8	2064.5	2045.7	2048.0	2055.1	2062.1
15°	2024.5	2024.5	2030.4	2028.0	2028.0	2032.7	2035.1	2013.9	2017.5	2028.0	2035.1
17.5°	1979.9	1981.0	1985.7	1988.1	1986.9	1995.1	1996.3	1979.9	1978.7	1991.6	1998.7
20°	1922.3	1924.6	1930.5	1935.2	1935.2	1944.6	1948.1	1937.6	1938.7	1952.8	1955.2
22.5°	1851.8	1851.8	1862.4	1869.4	1875.3	1881.2	1891.7	1882.3	1882.3	1901.1	1911.7
25°	1764.8	1773.1	1776.6	1790.7	1798.9	1815.4	1824.8	1825.9	1827.1	1844.7	1851.8
27.5°	1668.5	1670.8	1681.4	1697.9	1707.3	1722.5	1740.2	1743.7	1749.6	1773.1	1783.6
30°	1559.2	1566.3	1571.0	1594.5	1607.4	1627.4	1649.7	1657.9	1662.6	1694.3	1707.3
32.5°	1447.6	1449.9	1469.9	1482.8	1498.1	1519.3	1545.1	1560.4	1569.8	1602.7	1621.5
35°	1336.0	1340.7	1357.1	1373.6	1388.8	1410.0	1437.0	1458.2	1474.6	1504.0	1528.7
37.5°	1233.7	1245.5	1249.0	1265.5	1277.2	1298.4	1317.2	1347.7	1364.2	1394.7	1426.4
40°	1142.1	1145.6	1148.0	1164.4	1172.6	1192.6	1219.6	1239.6	1261.9	1284.3	1321.9
42.5°	1051.6	1054.0	1057.5	1066.9	1076.3	1090.4	1110.4	1130.3	1153.8	1186.7	1211.4
45°	968.2	970.5	972.9	978.8	987.0	999.9	1012.8	1026.9	1050.4	1078.6	1104.5
47.5°	890.6	895.3	895.3	896.5	902.4	913.0	922.4	940.0	952.9	968.2	997.6
50°	816.6	820.1	821.3	821.3	824.8	831.9	834.2	846.0	857.7	871.8	893.0
52.5°	747.3	747.3	746.1	750.8	750.8	755.5	756.7	763.7	772.0	787.2	796.6
55°	681.5	681.5	685.0	682.7	682.7	685.0	683.8	685.0	692.1	701.5	709.7
57.5°	618.0	616.9	620.4	618.0	616.9	619.2	621.6	616.9	618.0	627.4	627.4
60°	554.6	555.8	559.3	556.9	556.9	556.9	554.6	552.2	549.9	555.8	558.1
62.5°	504.1	500.5	504.1	500.5	502.9	501.7	499.4	494.7	495.8	493.5	491.1
65°	451.2	451.2	452.4	448.8	451.2	451.2	447.7	446.5	439.4	437.1	431.2
67.5°	405.4	405.4	406.5	404.2	404.2	405.4	401.8	398.3	391.3	387.7	379.5
70°	365.4	365.4	365.4	364.2	364.2	364.2	361.9	357.2	350.1	344.3	333.7
72.5°	329.0	330.2	329.0	329.0	332.5	329.0	325.5	320.8	314.9	303.1	293.7
75°	299.6	300.8	299.6	299.6	299.6	298.4	297.3	290.2	283.2	273.8	259.7
77.5°	273.8	273.8	274.9	273.8	273.8	272.6	269.1	263.2	255.0	246.7	230.3
80°	249.1	250.3	251.4	252.6	250.3	249.1	245.6	240.9	230.3	220.9	204.4
82.5°	231.5	230.3	231.5	232.6	230.3	229.1	225.6	219.7	211.5	198.6	182.1
85°	213.8	212.7	212.7	213.8	212.7	210.3	206.8	200.9	192.7	179.8	163.3
87.5°	196.2	197.4	198.6	197.4	196.2	193.9	190.3	184.5	175.1	164.5	146.9
90°	183.3	183.3	183.3	183.3	182.1	179.8	176.2	169.2	161.0	148.0	132.8
92.5°	171.5	171.5	171.5	171.5	170.4	166.8	163.3	157.4	148.0	135.1	121.0
95°	159.8	161.0	159.8	159.8	157.4	156.3	150.4	144.5	136.3	123.4	108.1
97.5°	146.9	148.0	146.9	146.9	145.7	143.3	139.8	132.8	124.5	112.8	98.7
100°	137.5	137.5	136.3	136.3	135.1	132.8	128.1	122.2	114.0	102.2	88.1
102.5°	126.9	128.1	126.9	126.9	124.5	122.2	118.7	112.8	104.6	92.8	79.9
105°	118.7	118.7	117.5	117.5	115.1	112.8	109.3	102.2	95.2	84.6	71.7
107.5°	110.4	110.4	109.3	109.3	106.9	104.6	99.9	94.0	86.9	76.4	64.6
110°	102.2	102.2	102.2	101.0	98.7	95.2	91.6	85.8	78.7	69.3	57.6

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CATALOG NUMBER: 4SNLED-LD5-64SL-LN-UNV-L935-CD1-U

CANDELA DISTRIBUTION (continued):

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°
112.5°	96.3	95.2	94.0	92.8	90.5	88.1	83.4	77.5	70.5	62.3	51.7
115°	88.1	88.1	86.9	85.8	83.4	79.9	76.4	71.7	64.6	55.2	45.8
117.5°	81.1	81.1	79.9	78.7	76.4	72.8	69.3	64.6	57.6	49.3	41.1
120°	74.0	74.0	72.8	71.7	69.3	65.8	63.4	57.6	51.7	43.5	36.4
122.5°	68.1	67.0	67.0	64.6	63.4	59.9	56.4	51.7	45.8	38.8	31.7
125°	61.1	61.1	59.9	58.7	57.6	54.0	50.5	45.8	39.9	34.1	28.2
127.5°	55.2	55.2	54.0	52.9	51.7	48.2	44.6	41.1	35.2	29.4	23.5
130°	49.3	49.3	48.2	47.0	45.8	42.3	39.9	35.2	30.5	25.8	20.0
132.5°	44.6	44.6	43.5	42.3	39.9	37.6	35.2	30.5	27.0	22.3	17.6
135°	39.9	38.8	38.8	37.6	35.2	32.9	30.5	27.0	22.3	18.8	14.1
137.5°	35.2	34.1	32.9	31.7	30.5	28.2	25.8	23.5	20.0	15.3	11.7
140°	30.5	29.4	29.4	28.2	25.8	24.7	22.3	18.8	16.4	12.9	9.4
142.5°	25.8	25.8	24.7	23.5	22.3	21.1	18.8	16.4	12.9	10.6	7.0
145°	22.3	21.1	21.1	20.0	18.8	16.4	15.3	12.9	10.6	8.2	5.9
147.5°	17.6	17.6	17.6	16.4	15.3	14.1	12.9	10.6	8.2	5.9	3.5
150°	14.1	14.1	14.1	12.9	11.7	10.6	9.4	8.2	5.9	3.5	2.3
152.5°	11.7	11.7	10.6	10.6	9.4	8.2	7.0	5.9	3.5	2.3	2.3
155°	8.2	8.2	8.2	7.0	7.0	5.9	4.7	3.5	2.3	2.3	2.3
157.5°	5.9	5.9	5.9	4.7	4.7	3.5	3.5	2.3	2.3	2.3	2.3
160°	3.5	3.5	3.5	3.5	2.3	2.3	2.3	2.3	2.3	2.3	2.3
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):

	330°	335°	340°	345°	350°	355°	360°
0°	2136.1	2136.1	2136.1	2136.1	2136.1	2136.1	2136.1
2.5°	2122.0	2120.9	2130.3	2130.3	2119.7	2136.1	2153.8
5°	2115.0	2113.8	2123.2	2123.2	2113.8	2130.3	2149.1
7.5°	2100.9	2102.1	2111.5	2113.8	2102.1	2117.3	2137.3
10°	2085.6	2084.4	2095.0	2097.4	2088.0	2102.1	2120.9
12.5°	2060.9	2060.9	2071.5	2075.0	2065.6	2082.1	2099.7
15°	2035.1	2035.1	2042.1	2048.0	2039.8	2055.1	2072.7
17.5°	2002.2	2001.0	2008.1	2015.1	2006.9	2023.3	2042.1
20°	1959.9	1959.9	1968.1	1976.3	1970.5	1985.7	2006.9
22.5°	1915.2	1910.5	1924.6	1930.5	1927.0	1942.3	1963.4
25°	1858.8	1857.7	1871.8	1880.0	1875.3	1891.7	1910.5
27.5°	1797.7	1796.6	1810.7	1821.2	1818.9	1834.2	1855.3
30°	1723.7	1729.6	1742.5	1760.1	1754.3	1770.7	1793.0
32.5°	1646.2	1652.0	1667.3	1686.1	1687.3	1700.2	1722.5
35°	1553.3	1568.6	1579.2	1603.9	1608.6	1621.5	1645.0
37.5°	1455.8	1473.4	1495.8	1514.6	1524.0	1534.5	1561.6
40°	1346.5	1372.4	1397.1	1419.4	1431.1	1441.7	1467.6
42.5°	1247.8	1267.8	1291.3	1313.6	1334.8	1344.2	1371.2
45°	1136.2	1159.7	1180.9	1207.9	1229.0	1239.6	1266.6
47.5°	1026.9	1050.4	1078.6	1097.4	1119.8	1130.3	1156.2
50°	922.4	943.5	967.0	989.3	1008.1	1017.5	1039.9
52.5°	819.0	841.3	863.6	877.7	897.7	904.7	923.5
55°	727.3	742.6	762.6	770.8	790.8	795.5	808.4
57.5°	639.2	649.8	656.8	670.9	685.0	695.6	710.9
60°	559.3	564.0	568.7	576.9	588.7	592.2	598.1
62.5°	487.6	486.4	495.8	498.2	499.4	511.1	505.2
65°	424.2	425.3	417.1	413.6	418.3	421.8	419.5
67.5°	371.3	364.2	357.2	349.0	341.9	345.4	341.9
70°	319.6	313.7	302.0	290.2	285.5	278.5	274.9
72.5°	278.5	264.4	252.6	237.3	229.1	220.9	215.0
75°	246.7	226.8	210.3	193.9	182.1	170.4	168.0
77.5°	213.8	195.0	176.2	158.6	141.0	128.1	123.4
80°	188.0	170.4	148.0	126.9	108.1	91.6	85.8
82.5°	164.5	145.7	123.4	101.0	79.9	62.3	55.2
85°	144.5	124.5	102.2	79.9	58.7	39.9	30.5
87.5°	129.2	106.9	84.6	63.4	41.1	22.3	11.7
90°	115.1	94.0	72.8	50.5	29.4	11.7	0.0
92.5°	102.2	82.2	61.1	41.1	22.3	7.0	1.2
95°	90.5	72.8	51.7	32.9	16.4	4.7	1.2
97.5°	81.1	63.4	44.6	27.0	12.9	3.5	1.2
100°	72.8	55.2	38.8	22.3	10.6	2.3	1.2
102.5°	64.6	49.3	32.9	18.8	8.2	1.2	1.2
105°	57.6	43.5	28.2	16.4	7.0	1.2	1.2
107.5°	51.7	38.8	24.7	14.1	4.7	1.2	1.2
110°	45.8	32.9	21.1	11.7	3.5	1.2	1.2

TEST NUMBER: P1213504

CATALOG NUMBER: 4SNLED-LD5-64SL-LN-UNV-L935-CD1-U

CANDELA DISTRIBUTION (continued):

	330°	335°	340°	345°	350°	355°	360°
112.5°	41.1	29.4	18.8	9.4	2.3	1.2	1.2
115°	36.4	25.8	16.4	8.2	2.3	1.2	1.2
117.5°	31.7	22.3	14.1	5.9	1.2	1.2	1.2
120°	28.2	20.0	11.7	4.7	1.2	1.2	1.2
122.5°	24.7	16.4	9.4	3.5	1.2	1.2	1.2
125°	21.1	14.1	8.2	2.3	1.2	1.2	1.2
127.5°	17.6	11.7	5.9	2.3	1.2	1.2	1.2
130°	15.3	9.4	4.7	1.2	1.2	1.2	1.2
132.5°	12.9	7.0	3.5	1.2	1.2	1.2	1.2
135°	10.6	5.9	2.3	1.2	1.2	1.2	1.2
137.5°	8.2	4.7	2.3	1.2	1.2	1.2	1.2
140°	5.9	3.5	1.2	1.2	1.2	1.2	1.2
142.5°	4.7	2.3	1.2	1.2	1.2	1.2	1.2
145°	3.5	2.3	1.2	1.2	1.2	1.2	1.2
147.5°	2.3	2.3	2.3	2.3	1.2	1.2	1.2
150°	2.3	2.3	1.2	1.2	2.3	1.2	1.2
152.5°	2.3	1.2	1.2	1.2	2.3	1.2	1.2
155°	2.3	2.3	2.3	2.3	2.3	2.3	1.2
157.5°	2.3	2.3	2.3	2.3	2.3	2.3	2.3
160°	2.3	2.3	2.3	2.3	2.3	2.3	2.3
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)