

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: P1213855

Luminaire Tested: 4SNLED-LD5-64SL-LN-UNV-L940-CD1-U

Issue Date: 3/29/2018

Test Information

Test Method: LM-79-2019
Report Number: P1213855
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-L940-CD1-U
Description: 4FT LINEAR SNLED LED FIXTURE
NARROW LENS
Light Source: -
Ballast/Driver: -

Summary

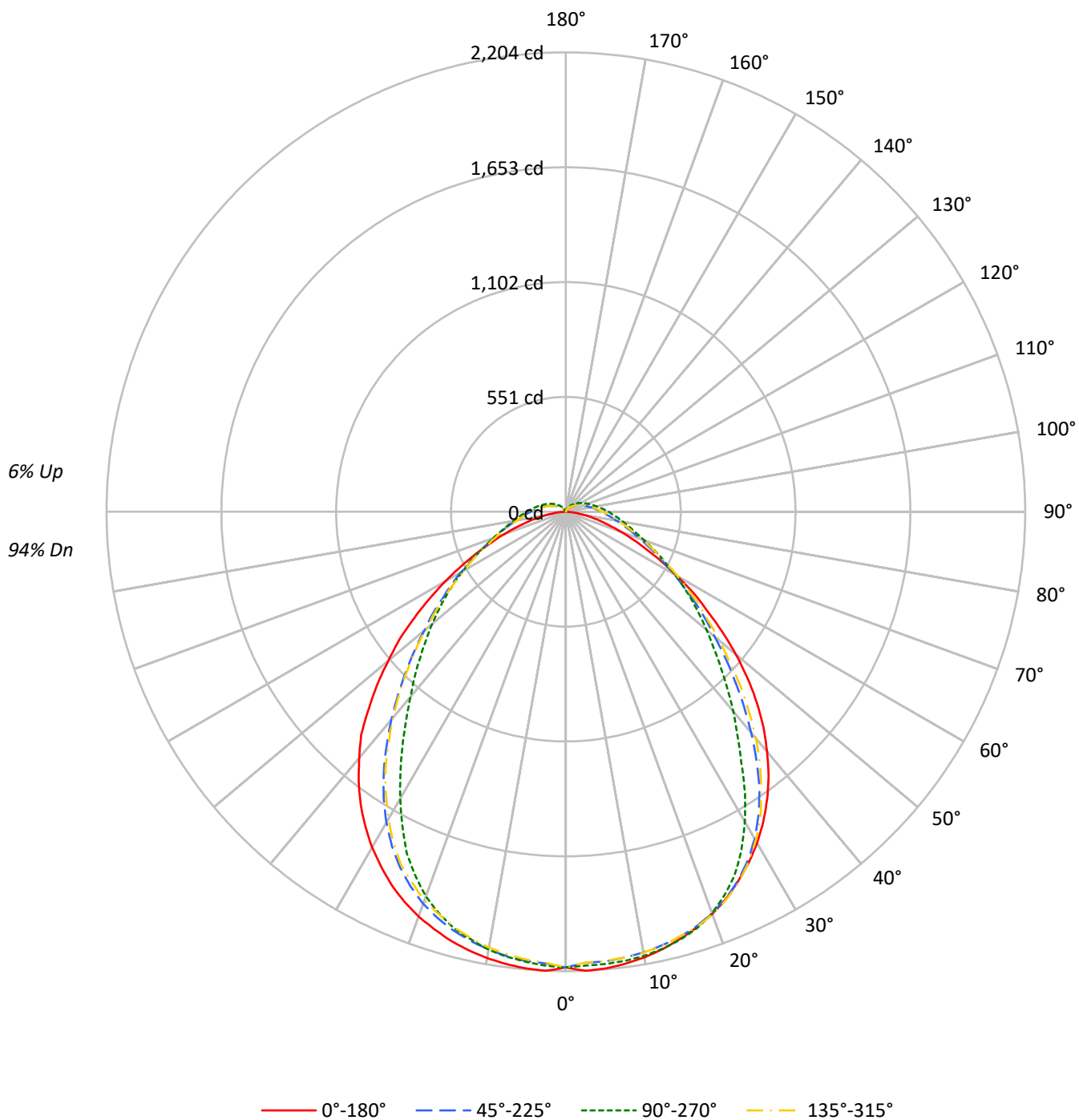
Lumens per Lamp: N/A
Luminaire Lumens: 5533.0 lumens
Efficiency: N/A
Efficacy: 100.6 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.14 / 1.24
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.12')
CIE Type: Direct

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

TEST NUMBER: P1213855

CATALOG NUMBER: 4SNLED-LD5-64SL-LN-UNV-L940-CD1-U

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°	17668	17668	17668	17668
5°	17793	17105	17793	17030
10°	17714	16651	17744	16419
15°	17600	16153	17680	15733
20°	17465	15513	17568	14858
25°	17185	14564	17375	13707
30°	16821	13170	17041	12192
35°	16253	11462	16567	10672
40°	15440	10024	15848	9300
45°	14367	8714	14833	8214
50°	12900	7657	13468	7270
55°	11159	6761	11970	6419
60°	9385	5936	10233	5594
65°	7693	5249	8469	4867
70°	6123	4658	6856	4308
75°	4809	4301	5413	3957
80°	3471	4150	4087	3793
85°	2138	4173	2876	3836

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 180°

Vertical Angle: 45°

Luminance: 14833 cd/sqm

TEST NUMBER: P1213855

CATALOG NUMBER: 4SNLED-LD5-64SL-LN-UNV-L940-CD1-U

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	207.3	3.7
10°-20°	594.3	10.7
20°-30°	880.9	15.9
30°-40°	978.6	17.7
40°-50°	887.1	16.0
50°-60°	687.4	12.4
60°-70°	466.8	8.4
70°-80°	297.0	5.4
80°-90°	189.9	3.4
90°-100°	128.0	2.3
100°-110°	87.7	1.6
110°-120°	58.5	1.1
120°-130°	36.4	0.7
130°-140°	20.1	0.4
140°-150°	9.4	0.2
150°-160°	3.5	0.1
160°-170°	0.2	0.0
170°-180°	0.0	0.0
0°-30°	1682.5	30.4
0°-40°	2661.1	48.1
0°-60°	4235.6	76.6
0°-90°	5189.2	93.8
90°-120°	274.2	5.0
90°-150°	340.1	6.1
90°-180°	344.0	6.2
0°-180°	5533.0	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	2186	2186	2186	2186	2186	
5°	2200	2178	2200	2168	2200	209
15°	2121	2125	2131	2070	2121	599
25°	1955	1919	1977	1806	1955	901
35°	1684	1467	1716	1366	1684	1050
45°	1296	1049	1338	988	1296	996
55°	827	737	888	700	827	745
65°	429	496	473	459	429	430
75°	172	331	194	304	172	185
85°	31	238	42	219	31	37
90°	0	206	2	188	0	2
95°	1	176	0	164	1	1
105°	1	129	0	122	1	1
115°	1	97	0	90	1	1
125°	1	72	1	64	1	1
135°	1	50	1	41	1	1
145°	1	32	1	23	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

TEST NUMBER: P1213855

CATALOG NUMBER: 4SNLED-LD5-64SL-LN-UNV-L940-CD1-U

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	2186.3	2186.3	2186.3	2186.3	2186.3	2186.3	2186.3	2186.3	2186.3	2186.3	2186.3
2.5°	2204.4	2202.0	2199.5	2195.9	2199.5	2209.2	2203.2	2189.9	2187.5	2165.9	2175.5
5°	2199.5	2195.9	2193.5	2189.9	2194.7	2206.8	2200.8	2188.7	2185.1	2164.7	2175.5
7.5°	2187.5	2185.1	2181.5	2181.5	2186.3	2198.3	2193.5	2180.3	2177.9	2157.5	2169.5
10°	2170.7	2169.5	2167.1	2167.1	2171.9	2186.3	2180.3	2168.3	2165.9	2146.6	2159.9
12.5°	2149.0	2150.2	2146.6	2146.6	2153.8	2168.3	2163.5	2150.2	2147.8	2131.0	2144.2
15°	2121.4	2122.6	2120.2	2121.4	2128.6	2145.4	2139.4	2127.4	2125.0	2111.8	2122.6
17.5°	2090.1	2091.3	2091.3	2090.1	2098.5	2115.4	2110.6	2099.7	2096.1	2085.3	2098.5
20°	2054.0	2054.0	2054.0	2054.0	2063.7	2080.5	2074.5	2066.1	2058.8	2050.4	2061.2
22.5°	2009.5	2008.3	2009.5	2013.1	2022.8	2036.0	2032.4	2022.8	2011.9	2007.1	2015.6
25°	1955.4	1959.0	1960.2	1963.8	1975.9	1986.7	1983.1	1973.5	1956.6	1953.0	1955.4
27.5°	1898.9	1901.3	1904.9	1903.7	1920.5	1931.4	1924.2	1915.7	1891.7	1888.1	1885.7
30°	1835.2	1838.8	1841.2	1840.0	1853.2	1865.2	1858.0	1847.2	1814.7	1812.3	1793.1
32.5°	1763.0	1766.6	1769.0	1769.0	1788.3	1793.1	1779.8	1764.2	1729.3	1720.9	1704.1
35°	1683.6	1687.2	1688.4	1688.4	1707.7	1706.5	1689.6	1668.0	1629.5	1618.7	1589.8
37.5°	1598.3	1600.7	1601.9	1609.1	1617.5	1610.3	1588.6	1561.0	1532.1	1502.0	1470.8
40°	1502.0	1505.7	1508.1	1512.9	1521.3	1512.9	1481.6	1447.9	1416.7	1383.0	1351.7
42.5°	1403.4	1414.3	1411.8	1410.6	1415.5	1392.6	1368.6	1330.1	1298.8	1263.9	1232.7
45°	1296.4	1295.2	1301.2	1303.6	1302.4	1283.2	1249.5	1214.6	1183.4	1147.3	1120.8
47.5°	1183.4	1182.2	1187.0	1189.4	1182.2	1161.7	1135.3	1095.6	1069.1	1037.8	1017.4
50°	1064.3	1064.3	1071.5	1064.3	1060.7	1040.2	1018.6	978.9	958.5	930.8	918.8
52.5°	945.2	956.1	948.8	946.4	942.8	922.4	905.6	873.1	856.2	844.2	829.8
55°	827.4	839.4	834.6	831.0	829.8	813.0	797.3	773.3	762.4	754.0	745.6
57.5°	727.6	726.4	724.0	720.4	721.6	708.3	692.7	679.5	674.7	671.0	673.5
60°	612.1	621.7	618.1	619.3	620.5	618.1	604.9	596.5	597.7	598.9	602.5
62.5°	517.1	525.5	531.5	526.7	529.1	532.8	525.5	523.1	527.9	532.8	537.6
65°	429.3	437.7	443.8	442.6	449.8	457.0	455.8	458.2	469.0	475.0	481.0
67.5°	350.0	358.4	366.8	368.0	378.8	389.6	394.5	402.9	414.9	423.3	430.5
70°	281.4	288.6	298.2	304.3	318.7	333.1	341.5	358.4	365.6	377.6	382.4
72.5°	220.1	226.1	239.3	253.7	265.8	283.8	300.6	315.1	325.9	339.1	345.1
75°	172.0	174.4	188.8	205.6	222.5	242.9	261.0	276.6	291.0	304.3	313.9
77.5°	126.3	129.9	143.1	166.0	185.2	206.8	227.3	244.1	259.8	273.0	286.2
80°	87.8	95.0	109.4	132.3	153.9	178.0	197.2	216.5	233.3	246.5	259.8
82.5°	56.5	62.5	83.0	105.8	128.7	152.7	173.2	192.4	210.5	224.9	236.9
85°	31.3	39.7	60.1	84.2	107.0	131.1	152.7	172.0	190.0	203.2	215.3
87.5°	12.0	24.1	43.3	66.1	89.0	111.8	134.7	152.7	170.8	185.2	196.0
90°	0.0	14.4	32.5	55.3	78.2	101.0	122.7	141.9	158.7	172.0	184.0
92.5°	1.2	9.6	25.3	44.5	66.1	87.8	108.2	127.5	144.3	157.5	168.4
95°	1.2	7.2	20.4	38.5	57.7	78.2	97.4	115.4	131.1	144.3	155.1
97.5°	1.2	4.8	16.8	33.7	50.5	71.0	89.0	105.8	120.3	133.5	141.9
100°	1.2	4.8	14.4	28.9	45.7	63.7	80.6	97.4	110.6	121.5	131.1
102.5°	1.2	3.6	12.0	25.3	40.9	56.5	73.4	89.0	101.0	111.8	121.5
105°	1.2	3.6	10.8	21.6	36.1	51.7	66.1	80.6	93.8	103.4	111.8
107.5°	1.2	2.4	9.6	18.0	31.3	46.9	61.3	73.4	85.4	95.0	103.4
110°	1.2	2.4	8.4	16.8	27.7	42.1	55.3	67.3	78.2	87.8	95.0



TEST NUMBER: P1213855

CATALOG NUMBER: 4SNLED-LD5-64SL-LN-UNV-L940-CD1-U

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	1.2	2.4	7.2	15.6	25.3	37.3	50.5	61.3	72.2	80.6	87.8
115°	1.2	2.4	7.2	14.4	22.8	32.5	44.5	56.5	64.9	74.6	80.6
117.5°	1.2	2.4	6.0	12.0	21.6	30.1	40.9	50.5	60.1	68.5	74.6
120°	1.2	2.4	6.0	10.8	19.2	27.7	36.1	45.7	55.3	61.3	67.3
122.5°	1.2	2.4	4.8	10.8	16.8	25.3	32.5	40.9	49.3	56.5	62.5
125°	1.2	2.4	4.8	9.6	15.6	22.8	30.1	36.1	44.5	50.5	56.5
127.5°	1.2	2.4	4.8	8.4	14.4	20.4	27.7	33.7	39.7	45.7	50.5
130°	1.2	2.4	3.6	7.2	13.2	18.0	24.1	31.3	36.1	40.9	45.7
132.5°	1.2	2.4	3.6	7.2	10.8	15.6	21.6	27.7	32.5	37.3	40.9
135°	1.2	2.4	3.6	6.0	9.6	14.4	18.0	24.1	28.9	33.7	37.3
137.5°	1.2	2.4	3.6	6.0	8.4	12.0	15.6	20.4	25.3	28.9	33.7
140°	1.2	2.4	3.6	4.8	7.2	10.8	14.4	16.8	21.6	25.3	28.9
142.5°	1.2	2.4	3.6	4.8	7.2	9.6	12.0	14.4	18.0	21.6	25.3
145°	1.2	2.4	3.6	4.8	6.0	8.4	10.8	13.2	14.4	18.0	20.4
147.5°	1.2	2.4	3.6	4.8	4.8	7.2	9.6	10.8	13.2	14.4	16.8
150°	1.2	2.4	3.6	3.6	4.8	6.0	8.4	9.6	10.8	13.2	14.4
152.5°	1.2	2.4	3.6	3.6	4.8	6.0	7.2	8.4	9.6	10.8	12.0
155°	1.2	2.4	3.6	3.6	3.6	4.8	6.0	7.2	8.4	9.6	10.8
157.5°	2.4	2.4	2.4	3.6	3.6	4.8	4.8	6.0	7.2	7.2	8.4
160°	2.4	2.4	2.4	3.6	3.6	3.6	4.8	4.8	6.0	6.0	7.2
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: P1213855

CATALOG NUMBER: 4SNLED-LD5-64SL-LN-UNV-L940-CD1-U

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	2186.3	2186.3	2186.3	2186.3	2186.3	2186.3	2186.3	2186.3	2186.3	2186.3	2186.3
2.5°	2173.1	2176.7	2187.5	2187.5	2185.1	2182.7	2182.7	2179.1	2181.5	2186.3	2183.9
5°	2173.1	2176.7	2187.5	2187.5	2185.1	2182.7	2181.5	2177.9	2181.5	2186.3	2183.9
7.5°	2165.9	2170.7	2181.5	2181.5	2179.1	2177.9	2175.5	2173.1	2176.7	2181.5	2179.1
10°	2156.3	2161.1	2171.9	2171.9	2169.5	2169.5	2165.9	2163.5	2168.3	2171.9	2170.7
12.5°	2141.8	2147.8	2157.5	2156.3	2153.8	2155.1	2151.4	2146.6	2151.4	2155.1	2156.3
15°	2121.4	2128.6	2138.2	2135.8	2132.2	2134.6	2128.6	2125.0	2128.6	2135.8	2134.6
17.5°	2094.9	2099.7	2106.9	2106.9	2103.3	2100.9	2098.5	2094.9	2097.3	2102.1	2103.3
20°	2057.6	2063.7	2067.3	2063.7	2062.5	2058.8	2054.0	2050.4	2055.2	2062.5	2063.7
22.5°	2008.3	2009.5	2018.0	2009.5	2003.5	2002.3	1997.5	1990.3	1997.5	2003.5	2004.7
25°	1947.0	1953.0	1949.4	1935.0	1935.0	1925.4	1923.0	1919.3	1920.5	1931.4	1936.2
27.5°	1868.8	1871.2	1861.6	1849.6	1838.8	1832.8	1824.3	1825.5	1825.5	1840.0	1844.8
30°	1783.4	1770.2	1761.8	1742.6	1734.1	1719.7	1717.3	1717.3	1714.9	1722.1	1743.8
32.5°	1681.2	1663.2	1650.0	1631.9	1617.5	1603.1	1595.8	1599.5	1598.3	1616.3	1623.5
35°	1569.4	1558.6	1530.9	1508.1	1499.6	1478.0	1478.0	1467.2	1474.4	1494.8	1503.2
37.5°	1451.5	1434.7	1411.8	1386.6	1380.6	1363.7	1357.7	1351.7	1367.4	1371.0	1379.4
40°	1331.3	1315.6	1294.0	1269.9	1269.9	1249.5	1249.5	1249.5	1250.7	1257.9	1273.5
42.5°	1217.0	1200.2	1180.9	1164.1	1161.7	1146.1	1146.1	1144.9	1147.3	1153.3	1167.7
45°	1106.4	1093.2	1072.7	1064.3	1065.5	1048.7	1052.3	1048.7	1053.5	1059.5	1064.3
47.5°	1004.2	995.7	987.3	975.3	971.7	970.5	964.5	959.7	968.1	968.1	975.3
50°	909.2	904.4	899.5	892.3	893.5	888.7	881.5	881.5	887.5	888.7	893.5
52.5°	826.2	820.2	814.2	815.4	816.6	814.2	810.5	806.9	810.5	813.0	819.0
55°	743.2	738.4	744.4	742.0	744.4	742.0	739.6	737.2	743.2	739.6	745.6
57.5°	668.6	673.5	675.9	671.0	674.7	672.3	673.5	669.8	674.7	677.1	675.9
60°	600.1	607.3	603.7	604.9	609.7	607.3	602.5	606.1	610.9	612.1	610.9
62.5°	537.6	546.0	549.6	547.2	548.4	546.0	549.6	544.8	550.8	553.2	549.6
65°	481.0	490.7	493.1	493.1	493.1	490.7	494.3	495.5	497.9	497.9	495.5
67.5°	432.9	441.4	443.8	446.2	443.8	441.4	441.4	442.6	447.4	449.8	447.4
70°	389.6	398.1	399.3	399.3	400.5	402.9	398.1	400.5	404.1	405.3	404.1
72.5°	352.4	360.8	363.2	362.0	363.2	364.4	364.4	362.0	365.6	368.0	368.0
75°	322.3	327.1	329.5	329.5	330.7	331.9	331.9	330.7	333.1	334.3	335.5
77.5°	294.6	298.2	301.9	301.9	303.1	301.9	304.3	304.3	305.5	306.7	307.9
80°	267.0	271.8	274.2	275.4	277.8	279.0	279.0	279.0	280.2	281.4	281.4
82.5°	245.3	248.9	252.5	256.2	256.2	257.4	257.4	257.4	258.6	258.6	259.8
85°	223.7	228.5	232.1	234.5	235.7	236.9	236.9	238.1	238.1	238.1	239.3
87.5°	204.4	210.5	212.9	215.3	216.5	218.9	218.9	218.9	220.1	220.1	220.1
90°	191.2	197.2	199.6	202.0	203.2	204.4	204.4	205.6	205.6	206.8	206.8
92.5°	175.6	181.6	186.4	186.4	187.6	190.0	188.8	188.8	190.0	191.2	191.2
95°	163.6	168.4	172.0	173.2	174.4	174.4	174.4	175.6	174.4	175.6	175.6
97.5°	149.1	153.9	157.5	159.9	161.1	161.1	161.1	162.4	161.1	162.4	162.4
100°	137.1	141.9	145.5	146.7	149.1	149.1	149.1	149.1	149.1	149.1	150.3
102.5°	127.5	132.3	134.7	135.9	137.1	138.3	138.3	138.3	138.3	139.5	139.5
105°	117.9	122.7	125.1	126.3	127.5	128.7	128.7	128.7	129.9	129.9	128.7
107.5°	109.4	113.0	115.4	117.9	119.1	119.1	120.3	120.3	120.3	120.3	120.3
110°	101.0	104.6	108.2	110.6	110.6	111.8	111.8	113.0	113.0	111.8	113.0

TEST NUMBER: P1213855

CATALOG NUMBER: 4SNLED-LD5-64SL-LN-UNV-L940-CD1-U

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
112.5°	92.6	97.4	99.8	102.2	103.4	104.6	104.6	104.6	104.6	104.6	104.6
115°	85.4	90.2	92.6	95.0	96.2	97.4	97.4	97.4	97.4	97.4	97.4
117.5°	79.4	84.2	86.6	87.8	89.0	90.2	91.4	91.4	91.4	91.4	90.2
120°	73.4	77.0	79.4	81.8	83.0	84.2	84.2	84.2	84.2	84.2	84.2
122.5°	67.3	71.0	73.4	75.8	77.0	78.2	78.2	78.2	78.2	78.2	78.2
125°	61.3	64.9	67.3	69.8	71.0	72.2	72.2	72.2	72.2	72.2	72.2
127.5°	55.3	58.9	62.5	63.7	64.9	66.1	66.1	66.1	67.3	66.1	66.1
130°	49.3	52.9	56.5	57.7	58.9	60.1	61.3	61.3	61.3	61.3	60.1
132.5°	44.5	48.1	50.5	51.7	54.1	54.1	55.3	55.3	55.3	55.3	54.1
135°	40.9	43.3	45.7	46.9	49.3	49.3	49.3	50.5	50.5	49.3	48.1
137.5°	36.1	38.5	40.9	42.1	43.3	44.5	44.5	45.7	44.5	44.5	44.5
140°	33.7	34.9	37.3	38.5	39.7	39.7	39.7	40.9	40.9	39.7	39.7
142.5°	28.9	31.3	33.7	34.9	36.1	36.1	36.1	36.1	36.1	36.1	36.1
145°	24.1	27.7	28.9	31.3	31.3	32.5	32.5	32.5	32.5	32.5	31.3
147.5°	20.4	22.8	26.5	27.7	27.7	28.9	28.9	28.9	28.9	28.9	27.7
150°	15.6	18.0	21.6	24.1	24.1	25.3	25.3	25.3	25.3	24.1	24.1
152.5°	13.2	15.6	16.8	19.2	20.4	20.4	20.4	21.6	20.4	20.4	20.4
155°	12.0	13.2	14.4	15.6	16.8	18.0	18.0	18.0	18.0	16.8	16.8
157.5°	9.6	10.8	12.0	13.2	14.4	15.6	15.6	15.6	15.6	15.6	14.4
160°	7.2	8.4	9.6	9.6	10.8	12.0	13.2	12.0	12.0	12.0	12.0
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: P1213855

CATALOG NUMBER: 4SNLED-LD5-64SL-LN-UNV-L940-CD1-U

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	2186.3	2186.3	2186.3	2186.3	2186.3	2186.3	2186.3	2186.3	2186.3	2186.3	2186.3
2.5°	2181.5	2180.3	2183.9	2177.9	2159.9	2164.7	2162.3	2173.1	2175.5	2177.9	2188.7
5°	2181.5	2180.3	2182.7	2177.9	2158.7	2162.3	2159.9	2170.7	2173.1	2174.3	2185.1
7.5°	2176.7	2175.5	2179.1	2173.1	2152.6	2157.5	2153.8	2164.7	2165.9	2167.1	2176.7
10°	2167.1	2165.9	2168.3	2163.5	2143.0	2147.8	2143.0	2153.8	2153.8	2156.3	2163.5
12.5°	2152.6	2150.2	2155.1	2149.0	2126.2	2132.2	2129.8	2137.0	2138.2	2139.4	2146.6
15°	2132.2	2129.8	2133.4	2129.8	2109.4	2110.6	2106.9	2117.8	2119.0	2116.6	2123.8
17.5°	2102.1	2099.7	2106.9	2104.5	2084.1	2088.9	2087.7	2090.1	2093.7	2087.7	2097.3
20°	2064.9	2067.3	2069.7	2070.9	2055.2	2055.2	2054.0	2058.8	2062.5	2057.6	2064.9
22.5°	2009.5	2015.6	2022.8	2025.2	2014.3	2013.1	2020.4	2018.0	2021.6	2019.2	2024.0
25°	1939.8	1951.8	1959.0	1966.2	1960.2	1962.6	1973.5	1975.9	1975.9	1974.7	1979.5
27.5°	1853.2	1868.8	1882.1	1897.7	1891.7	1896.5	1914.5	1916.9	1921.7	1916.9	1926.6
30°	1749.8	1764.2	1789.5	1812.3	1814.7	1821.9	1847.2	1849.6	1862.8	1858.0	1861.6
32.5°	1646.4	1653.6	1682.4	1705.3	1719.7	1737.8	1765.4	1770.2	1788.3	1791.9	1791.9
35°	1516.5	1536.9	1563.4	1595.8	1613.9	1633.1	1670.4	1677.6	1704.1	1712.5	1722.1
37.5°	1407.0	1426.3	1443.1	1476.8	1509.3	1530.9	1561.0	1579.0	1606.7	1622.3	1634.3
40°	1290.4	1306.0	1324.1	1357.7	1385.4	1417.9	1447.9	1469.6	1504.4	1522.5	1538.1
42.5°	1179.7	1191.8	1211.0	1235.1	1263.9	1300.0	1328.9	1354.1	1391.4	1416.7	1434.7
45°	1081.1	1088.3	1105.2	1123.2	1148.5	1185.8	1213.4	1245.9	1276.0	1302.4	1324.1
47.5°	988.5	998.2	1006.6	1018.6	1041.4	1064.3	1096.8	1128.0	1158.1	1187.0	1208.6
50°	903.1	903.1	916.4	924.8	940.4	960.9	986.1	1007.8	1045.1	1065.5	1093.2
52.5°	820.2	825.0	832.2	837.0	849.0	862.3	882.7	900.7	932.0	951.3	977.7
55°	746.8	751.6	755.2	757.6	764.9	780.5	787.7	802.1	823.8	839.4	862.3
57.5°	677.1	679.5	683.1	684.3	685.5	695.1	701.1	704.7	726.4	742.0	761.2
60°	613.3	613.3	616.9	615.7	614.5	619.3	618.1	621.7	635.0	644.6	653.0
62.5°	553.2	553.2	554.4	552.0	550.8	550.8	546.0	549.6	553.2	554.4	560.4
65°	497.9	503.9	499.1	500.3	493.1	490.7	488.3	481.0	479.8	475.0	477.4
67.5°	448.6	453.4	448.6	448.6	442.6	437.7	431.7	419.7	416.1	406.5	404.1
70°	408.9	405.3	407.7	404.1	396.9	390.8	382.4	372.8	360.8	348.8	340.3
72.5°	370.4	370.4	368.0	364.4	360.8	348.8	339.1	328.3	313.9	298.2	286.2
75°	333.1	334.3	334.3	330.7	324.7	313.9	303.1	287.4	271.8	253.7	238.1
77.5°	306.7	306.7	306.7	300.6	294.6	285.0	271.8	255.0	238.1	216.5	198.4
80°	281.4	280.2	280.2	273.0	267.0	256.2	242.9	226.1	208.0	185.2	164.8
82.5°	261.0	259.8	257.4	251.3	242.9	232.1	218.9	200.8	181.6	161.1	135.9
85°	239.3	238.1	235.7	229.7	221.3	211.7	197.2	179.2	159.9	137.1	113.0
87.5°	220.1	218.9	215.3	211.7	202.0	191.2	176.8	159.9	139.5	117.9	93.8
90°	206.8	204.4	202.0	197.2	188.8	176.8	162.4	144.3	123.9	102.2	78.2
92.5°	191.2	190.0	186.4	181.6	174.4	162.4	147.9	131.1	110.6	90.2	67.3
95°	175.6	174.4	172.0	167.2	159.9	149.1	135.9	119.1	99.8	79.4	58.9
97.5°	161.1	161.1	157.5	153.9	145.5	137.1	123.9	108.2	90.2	72.2	52.9
100°	149.1	149.1	145.5	140.7	134.7	126.3	113.0	98.6	81.8	64.9	45.7
102.5°	138.3	137.1	134.7	129.9	123.9	115.4	103.4	90.2	74.6	57.7	40.9
105°	128.7	127.5	125.1	120.3	115.4	105.8	96.2	83.0	67.3	51.7	36.1
107.5°	119.1	117.9	116.7	111.8	105.8	97.4	87.8	74.6	61.3	46.9	32.5
110°	110.6	109.4	107.0	102.2	96.2	89.0	79.4	68.5	55.3	42.1	28.9

TEST NUMBER: P1213855

CATALOG NUMBER: 4SNLED-LD5-64SL-LN-UNV-L940-CD1-U

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
112.5°	103.4	102.2	99.8	95.0	90.2	81.8	73.4	61.3	50.5	38.5	25.3
115°	96.2	95.0	92.6	87.8	81.8	74.6	66.1	56.5	44.5	33.7	22.8
117.5°	89.0	87.8	85.4	81.8	75.8	68.5	60.1	50.5	39.7	31.3	20.4
120°	83.0	80.6	78.2	74.6	68.5	62.5	54.1	45.7	36.1	27.7	18.0
122.5°	77.0	74.6	72.2	68.5	62.5	56.5	48.1	40.9	33.7	25.3	16.8
125°	69.8	68.5	66.1	62.5	56.5	50.5	44.5	37.3	30.1	22.8	14.4
127.5°	63.7	62.5	60.1	55.3	50.5	45.7	39.7	33.7	26.5	19.2	13.2
130°	58.9	56.5	54.1	50.5	46.9	42.1	36.1	30.1	24.1	16.8	12.0
132.5°	52.9	50.5	48.1	45.7	42.1	37.3	32.5	26.5	21.6	15.6	10.8
135°	48.1	45.7	43.3	40.9	37.3	33.7	28.9	24.1	19.2	14.4	9.6
137.5°	42.1	40.9	39.7	37.3	33.7	30.1	26.5	20.4	16.8	13.2	8.4
140°	38.5	37.3	36.1	32.5	30.1	26.5	22.8	18.0	14.4	10.8	7.2
142.5°	34.9	33.7	31.3	28.9	26.5	24.1	19.2	16.8	13.2	9.6	7.2
145°	30.1	28.9	27.7	25.3	22.8	19.2	16.8	14.4	12.0	8.4	6.0
147.5°	27.7	26.5	24.1	21.6	19.2	16.8	15.6	13.2	9.6	7.2	4.8
150°	22.8	21.6	20.4	18.0	16.8	15.6	13.2	10.8	8.4	6.0	4.8
152.5°	19.2	18.0	16.8	16.8	14.4	13.2	10.8	9.6	7.2	6.0	3.6
155°	16.8	16.8	15.6	14.4	12.0	10.8	9.6	7.2	6.0	4.8	3.6
157.5°	14.4	13.2	12.0	12.0	10.8	9.6	7.2	6.0	4.8	4.8	3.6
160°	12.0	10.8	10.8	9.6	8.4	7.2	6.0	6.0	4.8	3.6	3.6
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: P1213855

CATALOG NUMBER: 4SNLED-LD5-64SL-LN-UNV-L940-CD1-U

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
0°	2186.3	2186.3	2186.3	2186.3	2186.3	2186.3	2186.3	2186.3	2186.3	2186.3	2186.3
2.5°	2189.9	2176.7	2188.7	2204.4	2204.4	2202.0	2199.5	2204.4	2216.4	2211.6	2197.1
5°	2186.3	2173.1	2183.9	2199.5	2199.5	2195.9	2193.5	2197.1	2210.4	2204.4	2191.1
7.5°	2179.1	2167.1	2174.3	2188.7	2188.7	2185.1	2182.7	2187.5	2198.3	2192.3	2177.9
10°	2165.9	2152.6	2161.1	2174.3	2173.1	2170.7	2167.1	2173.1	2182.7	2174.3	2157.5
12.5°	2149.0	2135.8	2143.0	2155.1	2153.8	2149.0	2146.6	2150.2	2158.7	2153.8	2135.8
15°	2126.2	2113.0	2119.0	2131.0	2127.4	2123.8	2119.0	2120.2	2131.0	2122.6	2103.3
17.5°	2098.5	2084.1	2088.9	2099.7	2096.1	2092.5	2086.5	2087.7	2099.7	2087.7	2067.3
20°	2064.9	2049.2	2052.8	2066.1	2060.0	2054.0	2048.0	2048.0	2060.0	2046.8	2024.0
22.5°	2028.8	2013.1	2015.6	2025.2	2020.4	2009.5	2003.5	2007.1	2013.1	1996.3	1972.3
25°	1984.3	1963.8	1967.4	1977.1	1973.5	1959.0	1953.0	1955.4	1953.0	1939.8	1914.5
27.5°	1932.6	1910.9	1913.3	1919.3	1914.5	1901.3	1894.1	1895.3	1890.5	1873.6	1844.8
30°	1867.6	1856.8	1855.6	1859.2	1852.0	1838.8	1830.4	1827.9	1826.7	1802.7	1767.8
32.5°	1801.5	1791.9	1785.9	1790.7	1782.2	1769.0	1754.6	1754.6	1742.6	1719.7	1689.6
35°	1734.1	1718.5	1712.5	1716.1	1706.5	1689.6	1677.6	1671.6	1653.6	1624.7	1592.2
37.5°	1647.6	1636.7	1629.5	1633.1	1622.3	1610.3	1587.4	1581.4	1562.2	1522.5	1481.6
40°	1553.8	1545.3	1538.1	1541.7	1529.7	1511.7	1491.2	1481.6	1460.0	1415.5	1383.0
42.5°	1452.7	1449.1	1440.7	1453.9	1429.9	1411.8	1391.4	1375.8	1354.1	1306.0	1268.7
45°	1345.7	1354.1	1334.9	1338.5	1322.9	1307.2	1285.6	1262.7	1241.1	1195.4	1153.3
47.5°	1232.7	1238.7	1225.4	1227.9	1211.0	1196.6	1177.3	1148.5	1124.4	1084.7	1047.5
50°	1116.0	1113.6	1113.6	1111.2	1098.0	1079.9	1060.7	1034.2	1010.2	974.1	942.8
52.5°	992.1	997.0	999.4	1005.4	988.5	977.7	947.6	924.8	906.8	869.5	843.0
55°	873.1	889.9	885.1	887.5	868.3	859.9	835.8	817.8	791.3	769.7	752.8
57.5°	764.9	768.5	770.9	774.5	766.1	749.2	730.0	715.5	695.1	677.1	665.0
60°	660.2	660.2	661.4	667.4	659.0	644.6	630.2	619.3	604.9	594.1	586.9
62.5°	561.6	570.0	571.2	566.4	555.6	548.4	538.8	532.8	523.1	519.5	517.1
65°	470.2	470.2	470.2	472.6	466.6	461.8	455.8	454.6	458.2	453.4	455.8
67.5°	393.2	389.6	387.2	388.4	386.0	383.6	382.4	386.0	393.2	393.2	399.3
70°	327.1	319.9	315.1	315.1	315.1	316.3	319.9	327.1	339.1	343.9	352.4
72.5°	273.0	257.4	250.1	250.1	251.3	256.2	267.0	280.2	291.0	300.6	311.5
75°	221.3	205.6	194.8	193.6	196.0	203.2	218.9	230.9	248.9	262.2	275.4
77.5°	179.2	159.9	146.7	145.5	149.1	159.9	179.2	194.8	215.3	229.7	244.1
80°	143.1	121.5	110.6	103.4	109.4	122.7	144.3	163.6	182.8	202.0	220.1
82.5°	114.2	93.8	77.0	69.8	77.0	95.0	115.4	138.3	157.5	178.0	196.0
85°	90.2	68.5	49.3	42.1	50.5	69.8	92.6	115.4	137.1	157.5	175.6
87.5°	71.0	49.3	30.1	20.4	31.3	51.7	73.4	96.2	119.1	139.5	157.5
90°	55.3	34.9	16.8	2.4	18.0	37.3	58.9	80.6	103.4	123.9	141.9
92.5°	46.9	26.5	9.6	0.0	10.8	27.7	48.1	69.8	90.2	110.6	128.7
95°	39.7	21.6	7.2	0.0	7.2	21.6	39.7	58.9	79.4	99.8	117.9
97.5°	33.7	16.8	4.8	0.0	4.8	16.8	32.5	51.7	69.8	89.0	105.8
100°	28.9	14.4	3.6	0.0	3.6	13.2	27.7	44.5	62.5	80.6	96.2
102.5°	25.3	12.0	2.4	0.0	2.4	10.8	22.8	38.5	54.1	71.0	86.6
105°	21.6	9.6	2.4	0.0	1.2	8.4	19.2	33.7	48.1	63.7	78.2
107.5°	19.2	8.4	2.4	0.0	1.2	7.2	16.8	28.9	43.3	56.5	69.8
110°	16.8	7.2	2.4	0.0	1.2	4.8	14.4	25.3	37.3	50.5	63.7

TEST NUMBER: P1213855

CATALOG NUMBER: 4SNLED-LD5-64SL-LN-UNV-L940-CD1-U

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
112.5°	14.4	6.0	1.2	0.0	0.0	3.6	12.0	21.6	32.5	45.7	56.5
115°	13.2	6.0	1.2	0.0	0.0	2.4	9.6	19.2	28.9	40.9	50.5
117.5°	12.0	4.8	1.2	0.0	1.2	2.4	8.4	16.8	25.3	34.9	45.7
120°	10.8	4.8	1.2	0.0	1.2	1.2	6.0	14.4	21.6	31.3	39.7
122.5°	9.6	4.8	1.2	0.0	1.2	1.2	4.8	12.0	19.2	27.7	34.9
125°	8.4	3.6	2.4	1.2	1.2	1.2	3.6	9.6	16.8	22.8	31.3
127.5°	8.4	3.6	2.4	1.2	1.2	1.2	2.4	8.4	13.2	20.4	27.7
130°	7.2	3.6	2.4	1.2	1.2	1.2	1.2	6.0	12.0	16.8	22.8
132.5°	6.0	3.6	2.4	1.2	1.2	1.2	1.2	3.6	8.4	14.4	19.2
135°	6.0	3.6	2.4	1.2	1.2	1.2	1.2	2.4	6.0	10.8	15.6
137.5°	4.8	2.4	2.4	1.2	1.2	1.2	1.2	1.2	4.8	8.4	12.0
140°	4.8	2.4	2.4	1.2	1.2	1.2	1.2	1.2	3.6	6.0	9.6
142.5°	3.6	2.4	2.4	1.2	1.2	1.2	1.2	1.2	2.4	4.8	7.2
145°	3.6	2.4	2.4	1.2	1.2	1.2	1.2	1.2	1.2	2.4	4.8
147.5°	3.6	3.6	2.4	1.2	1.2	1.2	1.2	1.2	1.2	2.4	3.6
150°	3.6	2.4	2.4	1.2	1.2	1.2	1.2	1.2	1.2	1.2	2.4
152.5°	3.6	2.4	2.4	1.2	1.2	1.2	1.2	1.2	1.2	1.2	2.4
155°	3.6	2.4	2.4	1.2	1.2	1.2	1.2	1.2	1.2	2.4	2.4
157.5°	3.6	2.4	2.4	1.2	1.2	1.2	1.2	1.2	1.2	1.2	2.4
160°	3.6	2.4	2.4	1.2	2.4	1.2	2.4	2.4	2.4	2.4	2.4
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

TEST NUMBER: P1213855

CATALOG NUMBER: 4SNLED-LD5-64SL-LN-UNV-L940-CD1-U

CANDELA DISTRIBUTION (continued):

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
0°	2186.3	2186.3	2186.3	2186.3	2186.3	2186.3	2186.3	2186.3	2186.3	2186.3	2186.3
2.5°	2192.3	2169.5	2181.5	2177.9	2182.7	2192.3	2191.1	2188.7	2188.7	2185.1	2180.3
5°	2185.1	2163.5	2174.3	2168.3	2174.3	2182.7	2181.5	2177.9	2180.3	2174.3	2168.3
7.5°	2170.7	2151.4	2161.1	2156.3	2161.1	2169.5	2165.9	2164.7	2167.1	2157.5	2153.8
10°	2153.8	2132.2	2143.0	2137.0	2143.0	2149.0	2146.6	2141.8	2146.6	2137.0	2133.4
12.5°	2127.4	2109.4	2116.6	2114.2	2117.8	2123.8	2119.0	2115.4	2117.8	2109.4	2102.1
15°	2098.5	2080.5	2086.5	2082.9	2085.3	2092.5	2084.1	2082.9	2080.5	2072.1	2069.7
17.5°	2061.2	2044.4	2050.4	2044.4	2048.0	2045.6	2044.4	2038.4	2038.4	2028.8	2021.6
20°	2015.6	2001.1	1997.5	1992.7	1997.5	1992.7	1985.5	1980.7	1979.5	1969.9	1963.8
22.5°	1962.6	1945.8	1948.2	1935.0	1936.2	1929.0	1916.9	1912.1	1907.3	1896.5	1888.1
25°	1898.9	1882.1	1870.0	1861.6	1850.8	1849.6	1834.0	1821.9	1820.7	1807.5	1806.3
27.5°	1826.7	1807.5	1797.9	1777.4	1764.2	1753.4	1740.2	1728.1	1722.1	1707.7	1698.1
30°	1743.8	1722.1	1698.1	1683.6	1663.2	1654.8	1631.9	1617.5	1612.7	1597.0	1589.8
32.5°	1650.0	1627.1	1607.9	1580.2	1557.4	1545.3	1522.5	1508.1	1502.0	1485.2	1475.6
35°	1547.7	1522.5	1499.6	1473.2	1455.1	1434.7	1407.0	1392.6	1379.4	1373.4	1366.1
37.5°	1440.7	1413.1	1386.6	1360.1	1344.5	1320.5	1296.4	1286.8	1271.1	1265.1	1257.9
40°	1330.1	1302.4	1277.2	1251.9	1233.9	1212.2	1190.6	1187.0	1170.1	1164.1	1159.3
42.5°	1220.6	1191.8	1162.9	1144.9	1131.6	1110.0	1095.6	1092.0	1077.5	1073.9	1073.9
45°	1122.0	1085.9	1061.9	1046.3	1035.4	1017.4	1005.4	1003.0	990.9	988.5	988.5
47.5°	1016.2	982.5	964.5	954.9	945.2	932.0	924.8	924.8	912.8	910.4	909.2
50°	917.6	886.3	873.1	863.5	862.3	852.6	846.6	844.2	844.2	835.8	837.0
52.5°	823.8	808.1	797.3	791.3	784.1	778.1	773.3	773.3	769.7	763.6	766.1
55°	737.2	719.2	720.4	715.5	711.9	708.3	709.5	702.3	701.1	696.3	699.9
57.5°	650.6	650.6	648.2	644.6	638.6	641.0	641.0	641.0	635.0	631.4	635.0
60°	577.2	580.9	574.8	578.4	576.0	577.2	574.8	574.8	571.2	570.0	571.2
62.5°	512.3	518.3	515.9	520.7	518.3	519.5	521.9	517.1	514.7	512.3	514.7
65°	454.6	461.8	460.6	464.2	465.4	466.6	467.8	465.4	463.0	460.6	459.4
67.5°	404.1	411.3	416.1	417.3	418.5	422.1	420.9	418.5	416.1	412.5	411.3
70°	358.4	368.0	374.0	376.4	381.2	378.8	378.8	377.6	375.2	371.6	370.4
72.5°	319.9	330.7	336.7	339.1	343.9	343.9	342.7	341.5	339.1	335.5	334.3
75°	286.2	295.8	304.3	309.1	312.7	312.7	311.5	310.3	307.9	305.5	304.3
77.5°	259.8	268.2	275.4	281.4	283.8	285.0	283.8	281.4	281.4	280.2	279.0
80°	233.3	242.9	250.1	256.2	259.8	259.8	258.6	259.8	257.4	256.2	255.0
82.5°	210.5	221.3	229.7	235.7	238.1	239.3	238.1	239.3	236.9	236.9	236.9
85°	190.0	200.8	210.5	215.3	218.9	220.1	220.1	220.1	218.9	218.9	218.9
87.5°	173.2	184.0	193.6	198.4	202.0	203.2	203.2	204.4	202.0	202.0	202.0
90°	157.5	168.4	178.0	182.8	186.4	188.8	188.8	190.0	188.8	187.6	187.6
92.5°	143.1	155.1	164.8	169.6	173.2	176.8	176.8	178.0	175.6	175.6	175.6
95°	131.1	143.1	151.5	157.5	161.1	163.6	164.8	164.8	163.6	163.6	163.6
97.5°	120.3	131.1	139.5	145.5	149.1	150.3	151.5	152.7	151.5	151.5	151.5
100°	109.4	120.3	128.7	133.5	138.3	139.5	140.7	141.9	141.9	140.7	140.7
102.5°	99.8	110.6	117.9	123.9	127.5	129.9	131.1	131.1	131.1	131.1	131.1
105°	90.2	101.0	108.2	114.2	117.9	120.3	121.5	122.7	122.7	121.5	121.5
107.5°	81.8	91.4	99.8	104.6	109.4	111.8	113.0	113.0	114.2	113.0	113.0
110°	73.4	84.2	91.4	96.2	101.0	103.4	104.6	105.8	105.8	105.8	105.8



TEST NUMBER: P1213855

CATALOG NUMBER: 4SNLED-LD5-64SL-LN-UNV-L940-CD1-U

CANDELA DISTRIBUTION (continued):

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
112.5°	67.3	75.8	83.0	87.8	92.6	95.0	96.2	97.4	98.6	97.4	97.4
115°	60.1	68.5	75.8	80.6	84.2	86.6	89.0	90.2	90.2	91.4	90.2
117.5°	54.1	61.3	68.5	73.4	77.0	80.6	81.8	83.0	84.2	83.0	83.0
120°	48.1	55.3	61.3	66.1	69.8	73.4	74.6	75.8	77.0	75.8	75.8
122.5°	43.3	49.3	55.3	60.1	63.7	66.1	68.5	68.5	69.8	69.8	69.8
125°	38.5	44.5	49.3	54.1	57.7	60.1	61.3	62.5	62.5	63.7	63.7
127.5°	33.7	38.5	44.5	48.1	51.7	54.1	55.3	56.5	56.5	57.7	57.7
130°	28.9	33.7	38.5	42.1	45.7	48.1	49.3	50.5	51.7	51.7	51.7
132.5°	25.3	30.1	33.7	37.3	39.7	42.1	44.5	45.7	45.7	45.7	45.7
135°	20.4	25.3	28.9	32.5	34.9	37.3	38.5	40.9	40.9	40.9	40.9
137.5°	16.8	21.6	25.3	27.7	30.1	32.5	33.7	34.9	36.1	36.1	36.1
140°	13.2	16.8	20.4	24.1	26.5	27.7	30.1	30.1	31.3	31.3	31.3
142.5°	9.6	13.2	15.6	19.2	21.6	24.1	25.3	26.5	26.5	26.5	26.5
145°	7.2	9.6	12.0	14.4	18.0	19.2	20.4	21.6	22.8	22.8	22.8
147.5°	4.8	7.2	8.4	10.8	13.2	15.6	16.8	18.0	19.2	19.2	19.2
150°	3.6	4.8	7.2	8.4	9.6	12.0	14.4	14.4	15.6	15.6	14.4
152.5°	2.4	3.6	4.8	6.0	7.2	8.4	10.8	10.8	12.0	12.0	12.0
155°	2.4	2.4	2.4	3.6	4.8	6.0	7.2	8.4	8.4	8.4	8.4
157.5°	2.4	2.4	2.4	2.4	2.4	3.6	4.8	6.0	6.0	6.0	6.0
160°	2.4	2.4	1.2	1.2	2.4	2.4	2.4	2.4	3.6	3.6	3.6
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: P1213855

CATALOG NUMBER: 4SNLED-LD5-64SL-LN-UNV-L940-CD1-U

CANDELA DISTRIBUTION (continued):

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°
0°	2186.3	2186.3	2186.3	2186.3	2186.3	2186.3	2186.3	2186.3	2186.3	2186.3	2186.3
2.5°	2183.9	2186.3	2186.3	2183.9	2182.7	2187.5	2181.5	2158.7	2165.9	2168.3	2175.5
5°	2173.1	2175.5	2175.5	2175.5	2173.1	2177.9	2171.9	2149.0	2157.5	2161.1	2165.9
7.5°	2157.5	2158.7	2161.1	2159.9	2157.5	2164.7	2158.7	2135.8	2141.8	2147.8	2153.8
10°	2137.0	2137.0	2138.2	2140.6	2138.2	2144.2	2138.2	2117.8	2123.8	2127.4	2134.6
12.5°	2109.4	2111.8	2113.0	2111.8	2110.6	2115.4	2113.0	2093.7	2096.1	2103.3	2110.6
15°	2072.1	2072.1	2078.1	2075.7	2075.7	2080.5	2082.9	2061.2	2064.9	2075.7	2082.9
17.5°	2026.4	2027.6	2032.4	2034.8	2033.6	2042.0	2043.2	2026.4	2025.2	2038.4	2045.6
20°	1967.4	1969.9	1975.9	1980.7	1980.7	1990.3	1993.9	1983.1	1984.3	1998.7	2001.1
22.5°	1895.3	1895.3	1906.1	1913.3	1919.3	1925.4	1936.2	1926.6	1926.6	1945.8	1956.6
25°	1806.3	1814.7	1818.3	1832.8	1841.2	1858.0	1867.6	1868.8	1870.0	1888.1	1895.3
27.5°	1707.7	1710.1	1720.9	1737.8	1747.4	1763.0	1781.0	1784.7	1790.7	1814.7	1825.5
30°	1595.8	1603.1	1607.9	1631.9	1645.2	1665.6	1688.4	1696.9	1701.7	1734.1	1747.4
32.5°	1481.6	1484.0	1504.4	1517.7	1533.3	1555.0	1581.4	1597.0	1606.7	1640.3	1659.6
35°	1367.4	1372.2	1389.0	1405.8	1421.5	1443.1	1470.8	1492.4	1509.3	1539.3	1564.6
37.5°	1262.7	1274.8	1278.4	1295.2	1307.2	1328.9	1348.1	1379.4	1396.2	1427.5	1460.0
40°	1168.9	1172.5	1174.9	1191.8	1200.2	1220.6	1248.3	1268.7	1291.6	1314.4	1352.9
42.5°	1076.3	1078.7	1082.3	1092.0	1101.6	1116.0	1136.5	1156.9	1180.9	1214.6	1239.9
45°	990.9	993.3	995.7	1001.8	1010.2	1023.4	1036.6	1051.1	1075.1	1104.0	1130.4
47.5°	911.6	916.4	916.4	917.6	923.6	934.4	944.0	962.1	975.3	990.9	1021.0
50°	835.8	839.4	840.6	840.6	844.2	851.4	853.8	865.9	877.9	892.3	914.0
52.5°	764.9	764.9	763.6	768.5	768.5	773.3	774.5	781.7	790.1	805.7	815.4
55°	697.5	697.5	701.1	698.7	698.7	701.1	699.9	701.1	708.3	717.9	726.4
57.5°	632.6	631.4	635.0	632.6	631.4	633.8	636.2	631.4	632.6	642.2	642.2
60°	567.6	568.8	572.4	570.0	570.0	570.0	567.6	565.2	562.8	568.8	571.2
62.5°	515.9	512.3	515.9	512.3	514.7	513.5	511.1	506.3	507.5	505.1	502.7
65°	461.8	461.8	463.0	459.4	461.8	461.8	458.2	457.0	449.8	447.4	441.4
67.5°	414.9	414.9	416.1	413.7	413.7	414.9	411.3	407.7	400.5	396.9	388.4
70°	374.0	374.0	374.0	372.8	372.8	372.8	370.4	365.6	358.4	352.4	341.5
72.5°	336.7	337.9	336.7	336.7	340.3	336.7	333.1	328.3	322.3	310.3	300.6
75°	306.7	307.9	306.7	306.7	306.7	305.5	304.3	297.0	289.8	280.2	265.8
77.5°	280.2	280.2	281.4	280.2	280.2	279.0	275.4	269.4	261.0	252.5	235.7
80°	255.0	256.2	257.4	258.6	256.2	255.0	251.3	246.5	235.7	226.1	209.3
82.5°	236.9	235.7	236.9	238.1	235.7	234.5	230.9	224.9	216.5	203.2	186.4
85°	218.9	217.7	217.7	218.9	217.7	215.3	211.7	205.6	197.2	184.0	167.2
87.5°	200.8	202.0	203.2	202.0	200.8	198.4	194.8	188.8	179.2	168.4	150.3
90°	187.6	187.6	187.6	187.6	186.4	184.0	180.4	173.2	164.8	151.5	135.9
92.5°	175.6	175.6	175.6	175.6	174.4	170.8	167.2	161.1	151.5	138.3	123.9
95°	163.6	164.8	163.6	163.6	161.1	159.9	153.9	147.9	139.5	126.3	110.6
97.5°	150.3	151.5	150.3	150.3	149.1	146.7	143.1	135.9	127.5	115.4	101.0
100°	140.7	140.7	139.5	139.5	138.3	135.9	131.1	125.1	116.7	104.6	90.2
102.5°	129.9	131.1	129.9	129.9	127.5	125.1	121.5	115.4	107.0	95.0	81.8
105°	121.5	121.5	120.3	120.3	117.9	115.4	111.8	104.6	97.4	86.6	73.4
107.5°	113.0	113.0	111.8	111.8	109.4	107.0	102.2	96.2	89.0	78.2	66.1
110°	104.6	104.6	104.6	103.4	101.0	97.4	93.8	87.8	80.6	71.0	58.9

TEST NUMBER: P1213855

CATALOG NUMBER: 4SNLED-LD5-64SL-LN-UNV-L940-CD1-U

CANDELA DISTRIBUTION (continued):

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°
112.5°	98.6	97.4	96.2	95.0	92.6	90.2	85.4	79.4	72.2	63.7	52.9
115°	90.2	90.2	89.0	87.8	85.4	81.8	78.2	73.4	66.1	56.5	46.9
117.5°	83.0	83.0	81.8	80.6	78.2	74.6	71.0	66.1	58.9	50.5	42.1
120°	75.8	75.8	74.6	73.4	71.0	67.3	64.9	58.9	52.9	44.5	37.3
122.5°	69.8	68.5	68.5	66.1	64.9	61.3	57.7	52.9	46.9	39.7	32.5
125°	62.5	62.5	61.3	60.1	58.9	55.3	51.7	46.9	40.9	34.9	28.9
127.5°	56.5	56.5	55.3	54.1	52.9	49.3	45.7	42.1	36.1	30.1	24.1
130°	50.5	50.5	49.3	48.1	46.9	43.3	40.9	36.1	31.3	26.5	20.4
132.5°	45.7	45.7	44.5	43.3	40.9	38.5	36.1	31.3	27.7	22.8	18.0
135°	40.9	39.7	39.7	38.5	36.1	33.7	31.3	27.7	22.8	19.2	14.4
137.5°	36.1	34.9	33.7	32.5	31.3	28.9	26.5	24.1	20.4	15.6	12.0
140°	31.3	30.1	30.1	28.9	26.5	25.3	22.8	19.2	16.8	13.2	9.6
142.5°	26.5	26.5	25.3	24.1	22.8	21.6	19.2	16.8	13.2	10.8	7.2
145°	22.8	21.6	21.6	20.4	19.2	16.8	15.6	13.2	10.8	8.4	6.0
147.5°	18.0	18.0	18.0	16.8	15.6	14.4	13.2	10.8	8.4	6.0	3.6
150°	14.4	14.4	14.4	13.2	12.0	10.8	9.6	8.4	6.0	3.6	2.4
152.5°	12.0	12.0	10.8	10.8	9.6	8.4	7.2	6.0	3.6	2.4	2.4
155°	8.4	8.4	8.4	7.2	7.2	6.0	4.8	3.6	2.4	2.4	2.4
157.5°	6.0	6.0	6.0	4.8	4.8	3.6	3.6	2.4	2.4	2.4	2.4
160°	3.6	3.6	3.6	3.6	2.4	2.4	2.4	2.4	2.4	2.4	2.4
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

TEST NUMBER: P1213855

CATALOG NUMBER: 4SNLED-LD5-64SL-LN-UNV-L940-CD1-U

CANDELA DISTRIBUTION (continued):

	330°	335°	340°	345°	350°	355°	360°
0°	2186.3	2186.3	2186.3	2186.3	2186.3	2186.3	2186.3
2.5°	2171.9	2170.7	2180.3	2180.3	2169.5	2186.3	2204.4
5°	2164.7	2163.5	2173.1	2173.1	2163.5	2180.3	2199.5
7.5°	2150.2	2151.4	2161.1	2163.5	2151.4	2167.1	2187.5
10°	2134.6	2133.4	2144.2	2146.6	2137.0	2151.4	2170.7
12.5°	2109.4	2109.4	2120.2	2123.8	2114.2	2131.0	2149.0
15°	2082.9	2082.9	2090.1	2096.1	2087.7	2103.3	2121.4
17.5°	2049.2	2048.0	2055.2	2062.5	2054.0	2070.9	2090.1
20°	2005.9	2005.9	2014.3	2022.8	2016.8	2032.4	2054.0
22.5°	1960.2	1955.4	1969.9	1975.9	1972.3	1987.9	2009.5
25°	1902.5	1901.3	1915.7	1924.2	1919.3	1936.2	1955.4
27.5°	1840.0	1838.8	1853.2	1864.0	1861.6	1877.3	1898.9
30°	1764.2	1770.2	1783.4	1801.5	1795.5	1812.3	1835.2
32.5°	1684.8	1690.9	1706.5	1725.7	1726.9	1740.2	1763.0
35°	1589.8	1605.5	1616.3	1641.5	1646.4	1659.6	1683.6
37.5°	1490.0	1508.1	1530.9	1550.1	1559.8	1570.6	1598.3
40°	1378.2	1404.6	1429.9	1452.7	1464.8	1475.6	1502.0
42.5°	1277.2	1297.6	1321.7	1344.5	1366.1	1375.8	1403.4
45°	1162.9	1187.0	1208.6	1236.3	1257.9	1268.7	1296.4
47.5°	1051.1	1075.1	1104.0	1123.2	1146.1	1156.9	1183.4
50°	944.0	965.7	989.7	1012.6	1031.8	1041.4	1064.3
52.5°	838.2	861.1	883.9	898.3	918.8	926.0	945.2
55°	744.4	760.0	780.5	788.9	809.3	814.2	827.4
57.5°	654.2	665.0	672.3	686.7	701.1	711.9	727.6
60°	572.4	577.2	582.1	590.5	602.5	606.1	612.1
62.5°	499.1	497.9	507.5	509.9	511.1	523.1	517.1
65°	434.1	435.3	426.9	423.3	428.1	431.7	429.3
67.5°	380.0	372.8	365.6	357.2	350.0	353.6	350.0
70°	327.1	321.1	309.1	297.0	292.2	285.0	281.4
72.5°	285.0	270.6	258.6	242.9	234.5	226.1	220.1
75°	252.5	232.1	215.3	198.4	186.4	174.4	172.0
77.5°	218.9	199.6	180.4	162.4	144.3	131.1	126.3
80°	192.4	174.4	151.5	129.9	110.6	93.8	87.8
82.5°	168.4	149.1	126.3	103.4	81.8	63.7	56.5
85°	147.9	127.5	104.6	81.8	60.1	40.9	31.3
87.5°	132.3	109.4	86.6	64.9	42.1	22.8	12.0
90°	117.9	96.2	74.6	51.7	30.1	12.0	0.0
92.5°	104.6	84.2	62.5	42.1	22.8	7.2	1.2
95°	92.6	74.6	52.9	33.7	16.8	4.8	1.2
97.5°	83.0	64.9	45.7	27.7	13.2	3.6	1.2
100°	74.6	56.5	39.7	22.8	10.8	2.4	1.2
102.5°	66.1	50.5	33.7	19.2	8.4	1.2	1.2
105°	58.9	44.5	28.9	16.8	7.2	1.2	1.2
107.5°	52.9	39.7	25.3	14.4	4.8	1.2	1.2
110°	46.9	33.7	21.6	12.0	3.6	1.2	1.2

TEST NUMBER: P1213855

CATALOG NUMBER: 4SNLED-LD5-64SL-LN-UNV-L940-CD1-U

CANDELA DISTRIBUTION (continued):

	330°	335°	340°	345°	350°	355°	360°
112.5°	42.1	30.1	19.2	9.6	2.4	1.2	1.2
115°	37.3	26.5	16.8	8.4	2.4	1.2	1.2
117.5°	32.5	22.8	14.4	6.0	1.2	1.2	1.2
120°	28.9	20.4	12.0	4.8	1.2	1.2	1.2
122.5°	25.3	16.8	9.6	3.6	1.2	1.2	1.2
125°	21.6	14.4	8.4	2.4	1.2	1.2	1.2
127.5°	18.0	12.0	6.0	2.4	1.2	1.2	1.2
130°	15.6	9.6	4.8	1.2	1.2	1.2	1.2
132.5°	13.2	7.2	3.6	1.2	1.2	1.2	1.2
135°	10.8	6.0	2.4	1.2	1.2	1.2	1.2
137.5°	8.4	4.8	2.4	1.2	1.2	1.2	1.2
140°	6.0	3.6	1.2	1.2	1.2	1.2	1.2
142.5°	4.8	2.4	1.2	1.2	1.2	1.2	1.2
145°	3.6	2.4	1.2	1.2	1.2	1.2	1.2
147.5°	2.4	2.4	2.4	2.4	1.2	1.2	1.2
150°	2.4	2.4	1.2	1.2	2.4	1.2	1.2
152.5°	2.4	1.2	1.2	1.2	2.4	1.2	1.2
155°	2.4	2.4	2.4	2.4	2.4	2.4	1.2
157.5°	2.4	2.4	2.4	2.4	2.4	2.4	2.4
160°	2.4	2.4	2.4	2.4	2.4	2.4	2.4
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)