

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: P1213499

Luminaire Tested: 4SNLED-LD5-63SL-LC-UNV-L935-CD1-U

Issue Date: 3/29/2018

Test Information

Test Method: LM-79-2019
Report Number: P1213499
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P33518)
Test Lab: INNOVATIONS CENTER-P3
Issue Date: 3/29/2018
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: METALUX
Catalog Number: 4SNLED-LD5-63SL-LC-UNV-L935-CD1-U
Description: 4FT LINEAR SNLED LED FIXTURE
CLEAR LENSED
Light Source: -
Ballast/Driver: -

Summary

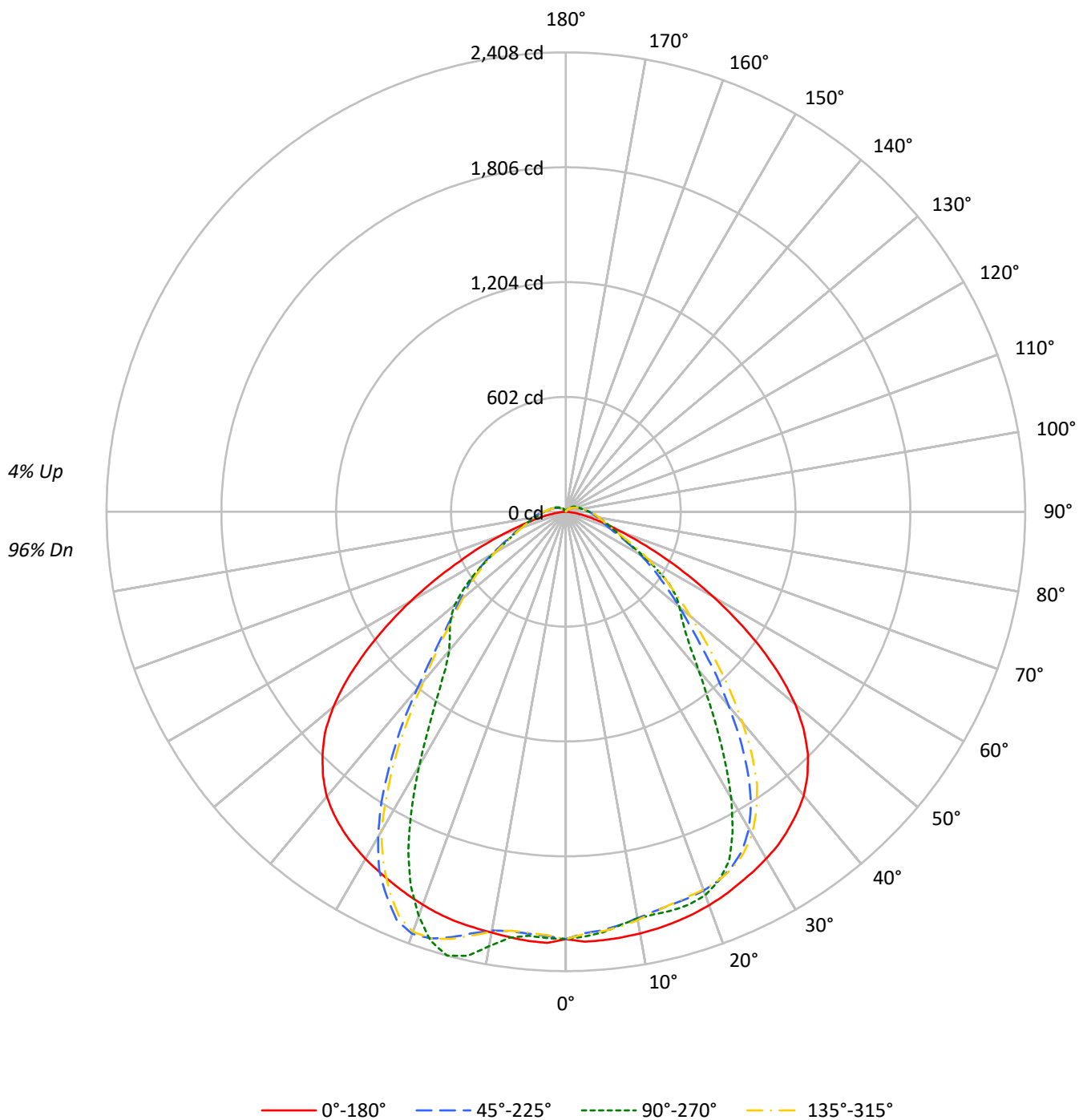
Lumens per Lamp: N/A
Luminaire Lumens: 5340.0 lumens
Efficiency: N/A
Efficacy: 102.7 lumens/watt
Spacing Criteria (0/90/45): 1.4 / 1.12 / 1.19
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.12')
CIE Type: Direct

Input Watts (W): 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

TEST NUMBER: P1213499

CATALOG NUMBER: 4SNLED-LD5-63SL-LC-UNV-L935-CD1-U

Luminous Intensity Polar Plot



TEST NUMBER: P1213499

CATALOG NUMBER: 4SNLED-LD5-63SL-LC-UNV-L935-CD1-U

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20					20					20					20
RC	80				70					50					30					10
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10
RCR																				
0	118	118	118	118	115	115	115	115	109	109	109	103	103	103	98	98	98	98	98	96
1	109	104	100	97	106	102	98	95	97	94	91	92	90	88	88	86	84	84	84	82
2	100	93	86	81	97	90	85	80	86	82	77	82	79	75	79	76	73	73	73	71
3	92	83	75	69	89	81	74	68	77	71	67	74	69	65	71	67	63	63	63	61
4	85	74	66	60	83	73	65	59	70	63	58	67	61	57	64	60	56	56	56	54
5	79	67	59	52	76	66	58	52	63	56	51	61	55	50	59	53	49	49	49	47
6	73	61	52	46	71	60	52	46	57	51	45	55	49	45	54	48	44	44	44	42
7	68	55	47	42	66	54	47	41	53	46	41	51	45	40	49	44	40	40	40	38
8	64	51	43	37	62	50	42	37	48	42	37	47	41	36	45	40	36	36	36	34
9	60	47	39	34	58	46	39	34	45	38	33	43	37	33	42	37	33	33	33	31
10	56	43	36	31	54	43	36	31	42	35	30	40	34	30	39	34	30	30	30	28

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	18101	18101	18101	18101
5°	18234	17384	18271	17520
10°	18318	16661	18280	17791
15°	18460	16438	18450	18303
20°	18663	16177	18644	17053
25°	18892	15347	18883	14829
30°	19248	13301	19259	11784
35°	19625	10756	19681	9102
40°	19958	8660	20041	7630
45°	19887	7335	19990	7143
50°	19030	6753	19297	6603
55°	16884	6070	17305	5519
60°	13695	4646	14423	4260
65°	10181	3554	10969	3371
70°	6924	3068	7805	2933
75°	4530	2769	5274	2618
80°	2925	2582	3431	2375
85°	1503	2574	1974	2352

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 180°

Vertical Angle: 45°

Luminance: 19990 cd/sqm

TEST NUMBER: P1213499

CATALOG NUMBER: 4SNLED-LD5-63SL-LC-UNV-L935-CD1-U

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	212.8	4.0
10°-20°	633.1	11.9
20°-30°	962.4	18.0
30°-40°	1032.5	19.3
40°-50°	896.1	16.8
50°-60°	664.1	12.4
60°-70°	380.5	7.1
70°-80°	210.7	3.9
80°-90°	128.3	2.4
90°-100°	83.4	1.6
100°-110°	55.9	1.0
110°-120°	37.7	0.7
120°-130°	23.2	0.4
130°-140°	12.2	0.2
140°-150°	5.6	0.1
150°-160°	1.6	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	1808.3	33.9
0°-40°	2840.8	53.2
0°-60°	4400.9	82.4
0°-90°	5120.4	95.9
90°-120°	177.1	3.3
90°-150°	218.0	4.1
90°-180°	220.0	4.1
0°-180°	5340.0	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	2240	2240	2240	2240	2240	
5°	2254	2213	2258	2231	2254	215
15°	2225	2162	2224	2408	2225	630
25°	2150	2022	2149	1954	2150	994
35°	2033	1377	2039	1165	2033	1272
45°	1794	883	1804	860	1794	1374
55°	1252	662	1283	602	1252	1110
65°	568	336	612	318	568	573
75°	162	213	189	201	162	185
85°	22	147	29	134	22	29
90°	0	123	2	113	0	1
95°	1	101	0	96	1	1
105°	1	75	1	72	1	1
115°	1	61	1	56	1	1
125°	1	46	1	38	1	1
135°	1	29	1	24	1	1
145°	1	17	2	14	1	1
155°	2	8	2	7	2	1
165°	0	0	0	0	0	0
175°	0	0	0	0	0	0
180°	0	0	0	0	0	

TEST NUMBER: P1213499

CATALOG NUMBER: 4SNLED-LD5-63SL-LC-UNV-L935-CD1-U

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	2240.0	2240.0	2240.0	2240.0	2240.0	2240.0	2240.0	2240.0	2240.0	2240.0	2240.0
2.5°	2256.2	2250.4	2248.1	2243.5	2246.9	2260.8	2251.6	2236.5	2237.7	2211.1	2225.0
5°	2253.9	2246.9	2243.5	2238.8	2241.2	2253.9	2244.6	2229.6	2228.4	2201.8	2214.5
7.5°	2250.4	2243.5	2237.7	2234.2	2235.4	2245.8	2234.2	2216.9	2213.4	2184.5	2196.0
10°	2244.6	2240.0	2231.9	2226.1	2225.0	2236.5	2218.0	2200.7	2192.6	2162.5	2174.0
12.5°	2236.5	2229.6	2221.5	2211.1	2209.9	2216.9	2201.8	2177.5	2169.4	2145.1	2157.8
15°	2225.0	2216.9	2207.6	2196.0	2190.2	2194.9	2176.4	2154.4	2153.2	2132.4	2149.7
17.5°	2212.2	2200.7	2190.2	2174.0	2165.9	2169.4	2154.4	2134.7	2137.0	2124.3	2144.0
20°	2194.9	2182.1	2165.9	2149.7	2138.2	2144.0	2133.5	2118.5	2122.0	2112.7	2130.1
22.5°	2175.2	2157.8	2138.2	2119.7	2110.4	2118.5	2110.4	2097.7	2098.8	2093.1	2103.5
25°	2149.7	2130.1	2106.9	2083.8	2079.2	2085.0	2080.3	2069.9	2065.3	2056.0	2060.7
27.5°	2126.6	2104.6	2075.7	2051.4	2043.3	2054.9	2044.5	2027.1	2014.4	2001.6	1992.4
30°	2100.0	2073.4	2041.0	2013.2	2006.3	2010.9	1995.9	1969.3	1935.7	1919.5	1894.0
32.5°	2071.1	2036.4	1995.9	1964.6	1960.0	1956.5	1928.8	1890.6	1838.5	1806.1	1766.8
35°	2032.9	1994.7	1946.1	1907.9	1901.0	1881.3	1836.2	1785.3	1718.2	1662.6	1595.5
37.5°	1990.1	1945.0	1894.0	1843.1	1823.5	1784.1	1720.5	1667.3	1565.5	1498.3	1417.4
40°	1941.5	1887.1	1824.6	1763.3	1730.9	1667.3	1594.4	1515.7	1417.4	1327.1	1258.8
42.5°	1874.4	1816.5	1742.5	1674.2	1618.7	1534.2	1448.6	1337.5	1247.3	1170.9	1101.5
45°	1794.5	1725.1	1639.5	1557.4	1486.8	1386.1	1285.5	1174.4	1099.2	1010.1	962.6
47.5°	1691.6	1616.4	1525.0	1433.6	1341.0	1229.9	1124.6	1018.2	943.0	879.3	844.6
50°	1570.1	1500.7	1400.0	1291.2	1189.4	1073.7	968.4	888.6	815.7	776.4	749.8
52.5°	1419.7	1354.9	1251.9	1133.9	1035.5	922.1	826.1	761.3	709.3	680.3	671.1
55°	1251.9	1195.2	1093.4	983.5	882.8	778.7	705.8	649.1	615.5	598.2	599.3
57.5°	1072.6	1028.6	932.6	834.2	739.3	660.7	594.7	549.6	524.1	523.0	526.4
60°	893.2	860.8	777.5	693.1	609.8	546.1	497.5	466.3	450.1	451.2	450.1
62.5°	722.0	691.9	631.7	562.3	496.4	453.6	409.6	396.9	383.0	381.8	381.8
65°	568.1	545.0	496.4	446.6	396.9	369.1	347.1	332.1	321.7	319.3	320.5
67.5°	426.9	417.7	384.1	350.6	319.3	302.0	283.5	280.0	271.9	271.9	274.2
70°	318.2	311.2	292.7	273.1	260.3	248.8	239.5	239.5	238.3	237.2	243.0
72.5°	230.2	231.4	225.6	210.6	209.4	207.1	204.8	208.3	209.4	212.9	219.8
75°	162.0	165.5	165.5	163.1	167.8	173.6	177.0	182.8	189.8	194.4	202.5
77.5°	114.5	114.5	120.3	127.3	136.5	146.9	156.2	164.3	173.6	179.3	186.3
80°	74.0	77.5	86.8	99.5	112.2	126.1	138.8	149.3	158.5	167.8	172.4
82.5°	44.0	49.8	61.3	77.5	93.7	111.1	123.8	136.5	146.9	156.2	159.7
85°	22.0	30.1	44.0	61.3	78.7	97.2	113.4	125.0	136.5	144.6	149.3
87.5°	6.9	16.2	31.2	47.4	66.0	84.5	101.8	114.5	125.0	131.9	136.5
90°	0.0	8.1	22.0	39.3	56.7	75.2	91.4	105.3	115.7	121.5	125.0
92.5°	0.0	4.6	17.4	32.4	48.6	67.1	83.3	96.0	105.3	111.1	113.4
95°	1.2	3.5	12.7	26.6	42.8	60.2	75.2	86.8	96.0	101.8	103.0
97.5°	1.2	2.3	10.4	22.0	37.0	53.2	68.3	79.8	86.8	92.6	93.7
100°	1.2	2.3	8.1	19.7	32.4	47.4	61.3	71.7	79.8	84.5	85.6
102.5°	1.2	1.2	6.9	16.2	28.9	41.7	54.4	64.8	71.7	76.4	78.7
105°	1.2	1.2	5.8	13.9	25.5	37.0	48.6	59.0	64.8	69.4	71.7
107.5°	1.2	1.2	4.6	11.6	22.0	32.4	44.0	52.1	59.0	63.6	66.0
110°	1.2	1.2	3.5	10.4	18.5	28.9	38.2	46.3	53.2	57.9	60.2

TEST NUMBER: P1213499

CATALOG NUMBER: 4SNLED-LD5-63SL-LC-UNV-L935-CD1-U

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	1.2	1.2	3.5	9.3	16.2	25.5	33.6	41.7	47.4	52.1	55.5
115°	1.2	1.2	3.5	8.1	15.0	22.0	30.1	37.0	42.8	47.4	50.9
117.5°	1.2	1.2	3.5	6.9	12.7	19.7	26.6	33.6	38.2	42.8	46.3
120°	1.2	1.2	2.3	5.8	11.6	17.4	23.1	28.9	34.7	39.3	42.8
122.5°	1.2	1.2	2.3	5.8	9.3	15.0	20.8	25.5	31.2	34.7	38.2
125°	1.2	1.2	2.3	4.6	8.1	13.9	18.5	23.1	26.6	31.2	34.7
127.5°	1.2	1.2	2.3	4.6	6.9	11.6	16.2	20.8	24.3	27.8	30.1
130°	1.2	1.2	2.3	3.5	5.8	9.3	13.9	17.4	22.0	24.3	26.6
132.5°	1.2	1.2	1.2	3.5	4.6	6.9	10.4	15.0	18.5	22.0	23.1
135°	1.2	1.2	1.2	2.3	4.6	5.8	8.1	11.6	15.0	18.5	20.8
137.5°	1.2	1.2	1.2	2.3	3.5	5.8	6.9	9.3	12.7	15.0	18.5
140°	1.2	1.2	1.2	2.3	3.5	4.6	5.8	8.1	10.4	12.7	15.0
142.5°	1.2	1.2	1.2	2.3	2.3	3.5	4.6	6.9	8.1	10.4	12.7
145°	1.2	1.2	1.2	2.3	2.3	3.5	4.6	5.8	6.9	8.1	10.4
147.5°	1.2	1.2	1.2	2.3	2.3	2.3	3.5	4.6	5.8	6.9	8.1
150°	2.3	2.3	2.3	2.3	2.3	2.3	3.5	3.5	4.6	5.8	6.9
152.5°	2.3	2.3	2.3	2.3	2.3	2.3	3.5	3.5	3.5	4.6	5.8
155°	2.3	2.3	2.3	2.3	2.3	2.3	2.3	3.5	3.5	4.6	4.6
157.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
162.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
167.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

TEST NUMBER: P1213499

CATALOG NUMBER: 4SNLED-LD5-63SL-LC-UNV-L935-CD1-U

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	2240.0	2240.0	2240.0	2240.0	2240.0	2240.0	2240.0	2240.0	2240.0	2240.0	2240.0
2.5°	2220.3	2222.6	2236.5	2235.4	2233.1	2230.7	2230.7	2228.4	2230.7	2236.5	2234.2
5°	2208.8	2212.2	2222.6	2221.5	2219.2	2218.0	2216.9	2213.4	2215.7	2223.8	2221.5
7.5°	2187.9	2191.4	2200.7	2196.0	2192.6	2194.9	2189.1	2185.6	2190.2	2198.3	2197.2
10°	2165.9	2168.3	2179.8	2177.5	2171.7	2172.9	2167.1	2164.8	2170.6	2175.2	2176.4
12.5°	2150.9	2159.0	2169.4	2168.3	2167.1	2168.3	2162.5	2160.2	2163.6	2168.3	2167.1
15°	2147.4	2157.8	2169.4	2169.4	2170.6	2171.7	2165.9	2162.5	2165.9	2169.4	2168.3
17.5°	2144.0	2156.7	2167.1	2165.9	2167.1	2169.4	2160.2	2157.8	2162.5	2167.1	2164.8
20°	2132.4	2144.0	2150.9	2148.6	2148.6	2149.7	2138.2	2138.2	2145.1	2148.6	2149.7
22.5°	2100.0	2113.9	2113.9	2108.1	2108.1	2103.5	2100.0	2093.1	2101.2	2106.9	2111.6
25°	2051.4	2057.2	2050.2	2037.5	2030.6	2024.8	2008.6	2022.5	2022.5	2039.8	2045.6
27.5°	1983.1	1970.4	1950.7	1924.1	1918.3	1899.8	1889.4	1892.9	1898.7	1923.0	1941.5
30°	1870.9	1832.7	1799.2	1787.6	1762.1	1743.6	1725.1	1734.4	1744.8	1758.7	1796.9
32.5°	1722.8	1685.8	1631.4	1611.7	1585.1	1562.0	1540.0	1553.9	1572.4	1581.6	1623.3
35°	1552.7	1508.8	1459.0	1425.5	1397.7	1385.0	1357.2	1376.9	1396.5	1403.5	1439.3
37.5°	1372.2	1327.1	1283.1	1254.2	1227.6	1219.5	1201.0	1214.9	1229.9	1240.3	1270.4
40°	1201.0	1159.3	1125.8	1106.1	1087.6	1080.7	1073.7	1079.5	1091.1	1099.2	1122.3
42.5°	1054.0	1020.5	997.4	985.8	973.1	963.8	965.0	967.3	973.1	990.4	1000.8
45°	925.6	905.9	890.9	888.6	880.5	879.3	878.2	882.8	886.3	896.7	904.8
47.5°	822.6	814.5	811.1	815.7	819.2	814.5	816.9	822.6	829.6	829.6	828.4
50°	741.7	744.0	748.6	759.0	765.9	768.3	770.6	777.5	778.7	781.0	777.5
52.5°	675.7	678.0	690.7	706.9	715.0	718.5	723.1	730.1	730.1	732.4	727.8
55°	608.6	612.1	624.8	641.0	647.9	652.6	657.2	661.8	665.3	669.9	666.4
57.5°	534.5	545.0	553.1	557.7	562.3	565.8	569.3	570.4	577.4	578.5	584.3
60°	455.9	458.2	466.3	465.1	461.7	470.9	466.3	474.4	482.5	492.9	494.0
62.5°	380.7	381.8	387.6	385.3	389.9	388.8	392.2	392.2	398.0	402.6	408.4
65°	321.7	322.8	327.4	327.4	326.3	329.8	333.2	335.5	335.5	339.0	343.6
67.5°	277.7	281.2	285.8	288.1	290.4	290.4	293.9	295.0	297.4	298.5	300.8
70°	247.6	252.2	256.9	259.2	260.3	262.6	263.8	263.8	266.1	267.3	269.6
72.5°	225.6	230.2	233.7	233.7	236.0	237.2	237.2	238.3	239.5	241.8	244.1
75°	207.1	210.6	212.9	211.7	211.7	211.7	212.9	212.9	215.2	217.5	219.8
77.5°	189.8	193.2	193.2	190.9	190.9	190.9	190.9	192.1	193.2	195.5	197.9
80°	177.0	177.0	175.9	175.9	173.6	172.4	172.4	173.6	173.6	175.9	179.3
82.5°	163.1	163.1	162.0	160.8	159.7	158.5	158.5	159.7	160.8	162.0	164.3
85°	150.4	150.4	148.1	148.1	146.9	146.9	146.9	146.9	148.1	149.3	151.6
87.5°	137.7	136.5	135.4	134.2	134.2	134.2	134.2	134.2	135.4	137.7	138.8
90°	125.0	123.8	122.6	122.6	121.5	121.5	122.6	122.6	123.8	125.0	126.1
92.5°	113.4	112.2	111.1	111.1	109.9	109.9	111.1	109.9	112.2	112.2	113.4
95°	103.0	101.8	100.7	100.7	100.7	100.7	100.7	100.7	101.8	101.8	103.0
97.5°	93.7	92.6	91.4	91.4	92.6	91.4	92.6	92.6	92.6	93.7	94.9
100°	85.6	84.5	84.5	85.6	84.5	84.5	85.6	85.6	85.6	85.6	86.8
102.5°	78.7	78.7	78.7	78.7	78.7	78.7	79.8	79.8	79.8	79.8	81.0
105°	71.7	72.9	72.9	72.9	74.0	74.0	74.0	75.2	75.2	75.2	75.2
107.5°	67.1	68.3	68.3	69.4	69.4	70.6	70.6	70.6	70.6	71.7	71.7
110°	62.5	63.6	64.8	66.0	66.0	67.1	67.1	67.1	67.1	67.1	67.1

TEST NUMBER: P1213499

CATALOG NUMBER: 4SNLED-LD5-63SL-LC-UNV-L935-CD1-U

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
112.5°	57.9	59.0	60.2	62.5	63.6	63.6	63.6	63.6	64.8	64.8	63.6
115°	53.2	55.5	56.7	59.0	60.2	60.2	61.3	61.3	61.3	61.3	60.2
117.5°	48.6	52.1	53.2	55.5	56.7	56.7	57.9	57.9	57.9	57.9	56.7
120°	45.1	47.4	49.8	50.9	52.1	53.2	53.2	54.4	54.4	54.4	53.2
122.5°	41.7	44.0	46.3	47.4	48.6	49.8	49.8	49.8	49.8	49.8	49.8
125°	37.0	39.3	41.7	42.8	44.0	45.1	45.1	46.3	46.3	46.3	45.1
127.5°	33.6	35.9	37.0	39.3	40.5	40.5	41.7	41.7	41.7	41.7	40.5
130°	28.9	31.2	33.6	34.7	35.9	35.9	37.0	37.0	37.0	37.0	37.0
132.5°	25.5	27.8	28.9	31.2	31.2	32.4	32.4	33.6	33.6	33.6	32.4
135°	23.1	24.3	25.5	27.8	27.8	28.9	28.9	28.9	28.9	28.9	28.9
137.5°	20.8	22.0	23.1	24.3	24.3	25.5	25.5	25.5	25.5	26.6	25.5
140°	17.4	19.7	20.8	20.8	22.0	22.0	22.0	23.1	23.1	23.1	22.0
142.5°	15.0	16.2	17.4	18.5	19.7	19.7	19.7	19.7	20.8	19.7	19.7
145°	11.6	13.9	15.0	16.2	17.4	17.4	17.4	17.4	17.4	17.4	17.4
147.5°	9.3	10.4	12.7	13.9	13.9	15.0	15.0	15.0	15.0	15.0	15.0
150°	8.1	8.1	10.4	11.6	12.7	12.7	12.7	12.7	12.7	12.7	12.7
152.5°	5.8	6.9	8.1	9.3	10.4	10.4	10.4	10.4	10.4	10.4	10.4
155°	5.8	5.8	6.9	6.9	8.1	8.1	8.1	8.1	9.3	8.1	8.1
157.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
162.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
167.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

TEST NUMBER: P1213499

CATALOG NUMBER: 4SNLED-LD5-63SL-LC-UNV-L935-CD1-U

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	2240.0	2240.0	2240.0	2240.0	2240.0	2240.0	2240.0	2240.0	2240.0	2240.0	2240.0
2.5°	2230.7	2229.6	2234.2	2229.6	2206.4	2215.7	2212.2	2225.0	2226.1	2229.6	2241.2
5°	2219.2	2219.2	2225.0	2220.3	2198.3	2207.6	2206.4	2219.2	2221.5	2223.8	2236.5
7.5°	2196.0	2197.2	2205.3	2201.8	2178.7	2192.6	2191.4	2206.4	2211.1	2215.7	2227.3
10°	2174.0	2172.9	2182.1	2178.7	2156.7	2172.9	2171.7	2186.8	2193.7	2201.8	2215.7
12.5°	2162.5	2159.0	2162.5	2159.0	2134.7	2147.4	2148.6	2165.9	2174.0	2184.5	2200.7
15°	2162.5	2156.7	2156.7	2149.7	2122.0	2130.1	2131.2	2142.8	2153.2	2163.6	2183.3
17.5°	2160.2	2154.4	2153.2	2147.4	2117.4	2117.4	2116.2	2124.3	2130.1	2140.5	2161.3
20°	2147.4	2145.1	2144.0	2140.5	2112.7	2108.1	2105.8	2105.8	2109.3	2112.7	2133.5
22.5°	2113.9	2116.2	2118.5	2120.8	2098.8	2090.7	2091.9	2089.6	2086.1	2086.1	2103.5
25°	2051.4	2063.0	2072.2	2082.6	2069.9	2064.1	2071.1	2067.6	2061.8	2057.2	2072.2
27.5°	1951.9	1976.2	1995.9	2021.3	2022.5	2017.8	2036.4	2034.0	2032.9	2025.9	2037.5
30°	1814.2	1852.4	1879.0	1916.0	1947.3	1951.9	1983.1	1987.8	1992.4	1988.9	2000.5
32.5°	1647.6	1699.7	1744.8	1802.6	1832.7	1859.3	1903.3	1921.8	1940.3	1946.1	1958.8
35°	1465.9	1525.0	1578.2	1641.8	1689.3	1747.1	1800.3	1828.1	1869.7	1885.9	1904.5
37.5°	1293.6	1349.1	1401.2	1464.8	1541.2	1601.3	1667.3	1729.7	1786.4	1809.6	1837.4
40°	1140.8	1185.9	1235.7	1291.2	1360.7	1439.3	1511.1	1597.8	1665.0	1711.2	1751.7
42.5°	1025.1	1047.1	1089.9	1139.7	1195.2	1275.0	1347.9	1445.1	1526.1	1592.1	1659.2
45°	922.1	932.6	963.8	990.4	1047.1	1117.7	1195.2	1290.1	1374.5	1459.0	1540.0
47.5°	834.2	846.9	862.0	878.2	918.7	977.7	1044.8	1130.4	1214.9	1313.2	1405.8
50°	775.2	778.7	781.0	787.9	812.2	852.7	907.1	980.0	1061.0	1166.3	1264.6
52.5°	723.1	723.1	716.2	712.7	722.0	747.4	778.7	830.7	914.0	1011.2	1115.4
55°	667.6	657.2	654.9	643.3	645.6	657.2	672.2	712.7	781.0	864.3	965.0
57.5°	590.1	585.5	585.5	580.8	571.6	577.4	580.8	609.8	658.3	730.1	818.0
60°	501.0	498.7	504.5	505.6	497.5	501.0	499.8	517.2	551.9	609.8	682.6
62.5°	411.9	422.3	423.5	428.1	423.5	422.3	428.1	443.1	460.5	504.5	561.2
65°	345.9	351.7	352.9	358.7	356.4	356.4	361.0	372.6	383.0	413.1	457.0
67.5°	303.1	300.8	302.0	305.5	302.0	300.8	304.3	311.2	319.3	337.9	369.1
70°	269.6	267.3	267.3	267.3	262.6	259.2	260.3	262.6	266.1	276.5	296.2
72.5°	244.1	244.1	240.7	237.2	233.7	231.4	229.1	226.8	225.6	229.1	239.5
75°	221.0	222.1	221.0	217.5	212.9	208.3	203.6	199.0	193.2	190.9	192.1
77.5°	200.2	201.3	202.5	201.3	196.7	190.9	184.0	177.0	168.9	160.8	156.2
80°	181.7	184.0	185.1	184.0	180.5	175.9	167.8	159.7	148.1	137.7	126.1
82.5°	165.5	168.9	170.1	170.1	167.8	163.1	153.9	144.6	131.9	118.0	103.0
85°	152.7	155.0	157.4	157.4	156.2	151.6	142.3	131.9	119.2	103.0	86.8
87.5°	140.0	141.2	143.5	145.8	143.5	138.8	130.7	119.2	106.4	90.2	71.7
90°	127.3	128.4	130.7	133.1	131.9	127.3	120.3	109.9	96.0	78.7	60.2
92.5°	114.5	116.9	118.0	119.2	120.3	116.9	111.1	100.7	86.8	69.4	52.1
95°	105.3	105.3	107.6	108.8	109.9	106.4	101.8	91.4	78.7	62.5	45.1
97.5°	96.0	96.0	98.3	98.3	99.5	97.2	92.6	83.3	70.6	55.5	38.2
100°	86.8	87.9	89.1	90.2	90.2	89.1	84.5	75.2	63.6	49.8	33.6
102.5°	81.0	81.0	82.1	82.1	83.3	81.0	76.4	68.3	56.7	44.0	28.9
105°	75.2	75.2	76.4	76.4	75.2	72.9	68.3	61.3	50.9	38.2	25.5
107.5°	70.6	70.6	70.6	70.6	69.4	67.1	62.5	54.4	45.1	34.7	23.1
110°	67.1	66.0	66.0	64.8	63.6	60.2	55.5	48.6	40.5	30.1	19.7

TEST NUMBER: P1213499

CATALOG NUMBER: 4SNLED-LD5-63SL-LC-UNV-L935-CD1-U

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
112.5°	63.6	62.5	61.3	60.2	57.9	54.4	49.8	44.0	35.9	26.6	17.4
115°	60.2	59.0	57.9	55.5	53.2	49.8	45.1	39.3	31.2	23.1	15.0
117.5°	56.7	55.5	53.2	50.9	48.6	45.1	40.5	34.7	27.8	20.8	13.9
120°	52.1	50.9	49.8	47.4	45.1	40.5	35.9	31.2	24.3	18.5	11.6
122.5°	48.6	47.4	45.1	44.0	40.5	37.0	32.4	27.8	22.0	16.2	10.4
125°	44.0	42.8	41.7	39.3	37.0	32.4	28.9	24.3	19.7	13.9	8.1
127.5°	40.5	39.3	37.0	34.7	32.4	28.9	25.5	22.0	17.4	11.6	8.1
130°	35.9	34.7	33.6	31.2	28.9	25.5	23.1	18.5	15.0	10.4	6.9
132.5°	31.2	31.2	30.1	27.8	25.5	23.1	19.7	16.2	12.7	9.3	5.8
135°	28.9	27.8	26.6	24.3	23.1	19.7	17.4	13.9	10.4	8.1	4.6
137.5°	25.5	24.3	23.1	22.0	19.7	17.4	15.0	11.6	9.3	6.9	4.6
140°	22.0	20.8	20.8	18.5	17.4	15.0	12.7	10.4	8.1	5.8	3.5
142.5°	19.7	18.5	17.4	16.2	15.0	12.7	10.4	8.1	6.9	4.6	3.5
145°	17.4	16.2	15.0	13.9	12.7	10.4	9.3	6.9	5.8	4.6	3.5
147.5°	13.9	13.9	12.7	11.6	10.4	9.3	8.1	6.9	4.6	3.5	2.3
150°	11.6	11.6	10.4	9.3	9.3	8.1	6.9	5.8	4.6	3.5	2.3
152.5°	10.4	9.3	9.3	8.1	8.1	6.9	5.8	4.6	3.5	3.5	2.3
155°	8.1	8.1	8.1	6.9	6.9	5.8	4.6	4.6	3.5	2.3	2.3
157.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
162.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
167.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

TEST NUMBER: P1213499

CATALOG NUMBER: 4SNLED-LD5-63SL-LC-UNV-L935-CD1-U

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
0°	2240.0	2240.0	2240.0	2240.0	2240.0	2240.0	2240.0	2240.0	2240.0	2240.0	2240.0
2.5°	2243.5	2229.6	2241.2	2262.0	2259.7	2257.3	2255.0	2259.7	2274.7	2266.6	2253.9
5°	2240.0	2226.1	2238.8	2258.5	2257.3	2253.9	2251.6	2256.2	2271.2	2263.1	2249.3
7.5°	2233.1	2220.3	2229.6	2249.3	2249.3	2246.9	2244.6	2249.3	2263.1	2256.2	2242.3
10°	2221.5	2212.2	2221.5	2240.0	2241.2	2236.5	2234.2	2240.0	2253.9	2250.4	2238.8
12.5°	2212.2	2203.0	2213.4	2231.9	2233.1	2228.4	2225.0	2231.9	2250.4	2252.7	2249.3
15°	2199.5	2191.4	2204.1	2223.8	2223.8	2220.3	2220.3	2229.6	2255.0	2265.4	2271.2
17.5°	2181.0	2175.2	2190.2	2209.9	2211.1	2208.8	2209.9	2228.4	2262.0	2287.4	2303.6
20°	2157.8	2155.5	2171.7	2192.6	2196.0	2197.2	2203.0	2230.7	2277.0	2311.7	2327.9
22.5°	2130.1	2131.2	2149.7	2171.7	2176.4	2179.8	2191.4	2230.7	2288.6	2325.6	2332.6
25°	2098.8	2102.3	2122.0	2148.6	2154.4	2161.3	2181.0	2231.9	2292.1	2316.4	2304.8
27.5°	2065.3	2072.2	2097.7	2125.4	2132.4	2144.0	2169.4	2225.0	2275.9	2277.0	2234.2
30°	2030.6	2038.7	2068.8	2101.2	2112.7	2124.3	2155.5	2208.8	2236.5	2199.5	2124.3
32.5°	1991.2	2002.8	2032.9	2072.2	2086.1	2101.2	2132.4	2177.5	2167.1	2087.3	1979.7
35°	1941.5	1957.7	1992.4	2038.7	2051.4	2071.1	2093.1	2103.5	2057.2	1943.8	1822.3
37.5°	1880.2	1904.5	1945.0	1998.2	2012.1	2024.8	2030.6	2001.6	1909.1	1786.4	1660.3
40°	1809.6	1846.6	1890.6	1949.6	1963.5	1963.5	1942.6	1881.3	1764.5	1603.6	1463.6
42.5°	1724.0	1769.1	1824.6	1883.6	1897.5	1881.3	1831.6	1724.0	1590.9	1411.6	1263.5
45°	1619.8	1680.0	1742.5	1803.8	1810.7	1774.9	1685.8	1549.3	1385.0	1218.3	1077.2
47.5°	1496.0	1574.7	1643.0	1712.4	1703.1	1643.0	1523.8	1368.8	1195.2	1037.8	924.5
50°	1357.2	1449.7	1526.1	1592.1	1572.4	1489.1	1349.1	1187.1	1014.7	880.5	786.8
52.5°	1209.1	1315.5	1391.9	1445.1	1418.5	1319.0	1165.1	1010.1	868.9	746.3	683.8
55°	1055.2	1162.8	1241.5	1283.1	1248.4	1140.8	989.3	848.1	715.0	635.2	598.2
57.5°	905.9	1006.6	1080.7	1114.2	1070.2	962.6	822.6	703.5	607.4	540.3	521.8
60°	762.5	844.6	915.2	940.7	893.2	793.7	673.4	578.5	507.9	461.7	452.4
62.5°	629.4	696.5	752.1	771.7	725.5	647.9	543.8	473.2	423.5	400.3	388.8
65°	519.5	558.8	615.5	612.1	584.3	512.6	436.2	386.4	354.0	339.0	332.1
67.5°	408.4	444.3	480.2	484.8	450.1	400.3	350.6	314.7	297.4	289.3	285.8
70°	315.9	342.5	364.5	358.7	340.2	308.9	277.7	258.0	251.1	247.6	247.6
72.5°	245.3	259.2	269.6	262.6	251.1	234.9	219.8	211.7	212.9	215.2	217.5
75°	189.8	193.2	195.5	188.6	186.3	175.9	174.7	175.9	182.8	189.8	193.2
77.5°	145.8	141.2	137.7	130.7	131.9	130.7	136.5	145.8	156.2	166.6	175.9
80°	112.2	101.8	93.7	86.8	90.2	96.0	107.6	121.5	135.4	146.9	158.5
82.5°	86.8	71.7	60.2	53.2	60.2	69.4	84.5	101.8	118.0	130.7	143.5
85°	67.1	49.8	35.9	28.9	35.9	49.8	66.0	85.6	103.0	116.9	129.6
87.5°	52.1	35.9	19.7	11.6	19.7	34.7	53.2	71.7	89.1	105.3	118.0
90°	41.7	24.3	9.3	2.3	10.4	24.3	41.7	60.2	77.5	94.9	107.6
92.5°	33.6	17.4	4.6	0.0	5.8	18.5	34.7	52.1	69.4	85.6	98.3
95°	27.8	13.9	3.5	0.0	4.6	13.9	27.8	45.1	61.3	77.5	87.9
97.5°	23.1	10.4	2.3	0.0	2.3	11.6	23.1	38.2	54.4	69.4	79.8
100°	19.7	9.3	2.3	0.0	2.3	9.3	19.7	33.6	47.4	61.3	71.7
102.5°	16.2	6.9	1.2	1.2	1.2	6.9	17.4	28.9	41.7	54.4	64.8
105°	15.0	5.8	1.2	1.2	1.2	5.8	15.0	25.5	37.0	48.6	57.9
107.5°	12.7	4.6	1.2	1.2	1.2	4.6	12.7	22.0	33.6	44.0	52.1
110°	10.4	4.6	1.2	1.2	1.2	4.6	10.4	19.7	28.9	38.2	46.3

TEST NUMBER: P1213499

CATALOG NUMBER: 4SNLED-LD5-63SL-LC-UNV-L935-CD1-U

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
112.5°	9.3	3.5	1.2	1.2	1.2	3.5	9.3	17.4	25.5	34.7	41.7
115°	8.1	3.5	1.2	1.2	1.2	3.5	8.1	15.0	22.0	30.1	37.0
117.5°	6.9	3.5	1.2	1.2	1.2	2.3	6.9	12.7	19.7	26.6	33.6
120°	5.8	2.3	1.2	1.2	1.2	2.3	5.8	11.6	17.4	23.1	28.9
122.5°	5.8	2.3	1.2	1.2	1.2	2.3	4.6	9.3	15.0	19.7	25.5
125°	4.6	2.3	1.2	1.2	1.2	1.2	4.6	8.1	12.7	17.4	22.0
127.5°	4.6	2.3	1.2	1.2	1.2	1.2	3.5	6.9	10.4	15.0	19.7
130°	3.5	2.3	1.2	1.2	1.2	1.2	2.3	5.8	9.3	12.7	16.2
132.5°	3.5	2.3	1.2	1.2	1.2	1.2	2.3	4.6	6.9	10.4	13.9
135°	3.5	1.2	1.2	1.2	1.2	1.2	1.2	3.5	5.8	8.1	10.4
137.5°	2.3	1.2	1.2	1.2	1.2	1.2	1.2	2.3	4.6	5.8	9.3
140°	2.3	1.2	1.2	1.2	1.2	1.2	1.2	2.3	3.5	4.6	6.9
142.5°	2.3	1.2	1.2	1.2	1.2	1.2	1.2	1.2	2.3	3.5	5.8
145°	2.3	1.2	1.2	2.3	2.3	1.2	1.2	2.3	2.3	3.5	4.6
147.5°	2.3	1.2	1.2	1.2	1.2	1.2	1.2	1.2	2.3	2.3	3.5
150°	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	3.5
152.5°	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
155°	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
157.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
162.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
167.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

TEST NUMBER: P1213499

CATALOG NUMBER: 4SNLED-LD5-63SL-LC-UNV-L935-CD1-U

CANDELA DISTRIBUTION (continued):

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
0°	2240.0	2240.0	2240.0	2240.0	2240.0	2240.0	2240.0	2240.0	2240.0	2240.0	2240.0
2.5°	2251.6	2225.0	2238.8	2234.2	2238.8	2250.4	2249.3	2245.8	2248.1	2242.3	2236.5
5°	2246.9	2220.3	2234.2	2228.4	2234.2	2245.8	2243.5	2240.0	2243.5	2236.5	2230.7
7.5°	2241.2	2216.9	2233.1	2231.9	2242.3	2257.3	2258.5	2258.5	2266.6	2256.2	2251.6
10°	2241.2	2228.4	2250.4	2258.5	2285.1	2304.8	2307.1	2311.7	2325.6	2323.3	2311.7
12.5°	2265.4	2263.1	2295.5	2315.2	2339.5	2367.3	2382.3	2386.9	2396.2	2389.3	2384.6
15°	2296.7	2308.3	2344.1	2366.1	2392.7	2413.5	2417.0	2419.3	2426.3	2415.9	2407.8
17.5°	2338.3	2345.3	2374.2	2383.5	2400.8	2404.3	2399.7	2388.1	2388.1	2365.0	2358.0
20°	2358.0	2354.5	2366.1	2351.1	2344.1	2323.3	2303.6	2281.6	2280.5	2256.2	2253.9
22.5°	2340.7	2317.5	2293.2	2256.2	2240.0	2209.9	2183.3	2170.6	2162.5	2131.2	2123.1
25°	2279.3	2222.6	2186.8	2142.8	2103.5	2068.8	2043.3	2016.7	1991.2	1965.8	1954.2
27.5°	2172.9	2119.7	2061.8	2000.5	1946.1	1892.9	1850.1	1823.5	1799.2	1765.6	1748.3
30°	2042.1	1968.1	1904.5	1845.5	1756.4	1691.6	1655.7	1602.5	1584.0	1568.9	1536.5
32.5°	1888.3	1799.2	1712.4	1632.6	1541.2	1481.0	1433.6	1394.2	1382.6	1343.3	1334.0
35°	1718.2	1601.3	1503.0	1424.3	1358.3	1285.5	1246.1	1219.5	1196.4	1169.7	1165.1
37.5°	1518.0	1412.7	1301.6	1232.2	1180.2	1117.7	1087.6	1069.1	1058.7	1039.0	1035.5
40°	1316.7	1211.4	1135.0	1065.6	1033.2	999.7	977.7	969.6	965.0	958.0	951.1
42.5°	1133.9	1041.3	986.9	940.7	926.8	910.6	904.8	909.4	904.8	902.5	901.3
45°	978.8	908.3	870.1	856.2	852.7	848.1	852.7	860.8	862.0	859.7	859.7
47.5°	837.7	804.1	787.9	790.2	796.0	799.5	807.6	818.0	820.3	814.5	816.9
50°	745.1	725.5	722.0	731.2	744.0	748.6	757.8	765.9	764.8	762.5	760.2
52.5°	658.3	652.6	661.8	671.1	685.0	687.3	690.7	694.2	693.1	688.4	686.1
55°	585.5	590.1	598.2	601.7	612.1	610.9	612.1	612.1	607.4	605.1	601.7
57.5°	519.5	520.7	525.3	526.4	532.2	529.9	528.8	526.4	519.5	518.3	514.9
60°	452.4	450.1	460.5	452.4	457.0	452.4	451.2	445.5	438.5	437.4	435.0
62.5°	388.8	384.1	391.1	387.6	389.9	385.3	383.0	376.0	370.2	369.1	367.9
65°	332.1	329.8	336.7	335.5	337.9	332.1	329.8	325.1	320.5	319.3	318.2
67.5°	284.6	290.4	293.9	293.9	296.2	295.0	289.3	288.1	286.9	282.3	282.3
70°	249.9	253.4	260.3	261.5	260.3	262.6	258.0	256.9	255.7	253.4	252.2
72.5°	222.1	226.8	233.7	234.9	233.7	233.7	231.4	230.2	230.2	226.8	226.8
75°	200.2	205.9	211.7	211.7	211.7	209.4	207.1	207.1	204.8	203.6	201.3
77.5°	181.7	188.6	193.2	192.1	190.9	188.6	188.6	185.1	181.7	181.7	179.3
80°	167.8	172.4	175.9	174.7	173.6	170.1	168.9	165.5	163.1	159.7	159.7
82.5°	152.7	158.5	160.8	159.7	157.4	153.9	152.7	150.4	148.1	146.9	144.6
85°	140.0	145.8	146.9	144.6	142.3	140.0	138.8	137.7	136.5	134.2	134.2
87.5°	127.3	133.1	133.1	131.9	129.6	128.4	127.3	126.1	125.0	123.8	122.6
90°	116.9	121.5	121.5	120.3	119.2	118.0	116.9	115.7	114.5	113.4	113.4
92.5°	106.4	111.1	111.1	109.9	108.8	107.6	107.6	106.4	105.3	104.1	103.0
95°	97.2	101.8	101.8	101.8	100.7	99.5	99.5	98.3	97.2	97.2	96.0
97.5°	87.9	92.6	92.6	92.6	91.4	90.2	90.2	89.1	89.1	89.1	87.9
100°	79.8	83.3	84.5	84.5	83.3	83.3	83.3	82.1	82.1	82.1	81.0
102.5°	71.7	75.2	77.5	77.5	77.5	76.4	76.4	76.4	76.4	76.4	75.2
105°	64.8	68.3	70.6	71.7	71.7	71.7	71.7	71.7	71.7	71.7	71.7
107.5°	59.0	62.5	64.8	66.0	67.1	67.1	68.3	68.3	68.3	68.3	68.3
110°	53.2	56.7	60.2	61.3	62.5	63.6	63.6	64.8	63.6	63.6	63.6

TEST NUMBER: P1213499

CATALOG NUMBER: 4SNLED-LD5-63SL-LC-UNV-L935-CD1-U

CANDELA DISTRIBUTION (continued):

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
112.5°	47.4	52.1	54.4	56.7	57.9	59.0	60.2	60.2	60.2	60.2	60.2
115°	42.8	47.4	49.8	52.1	54.4	55.5	55.5	56.7	56.7	56.7	55.5
117.5°	38.2	42.8	45.1	47.4	48.6	50.9	52.1	52.1	52.1	52.1	50.9
120°	34.7	38.2	40.5	42.8	45.1	46.3	47.4	47.4	47.4	47.4	47.4
122.5°	30.1	33.6	37.0	39.3	40.5	41.7	42.8	42.8	42.8	42.8	42.8
125°	26.6	30.1	32.4	34.7	35.9	38.2	38.2	38.2	38.2	38.2	38.2
127.5°	23.1	26.6	28.9	31.2	32.4	33.6	34.7	34.7	34.7	34.7	34.7
130°	19.7	23.1	25.5	27.8	28.9	30.1	30.1	31.2	31.2	31.2	31.2
132.5°	17.4	19.7	22.0	24.3	25.5	26.6	26.6	27.8	27.8	27.8	27.8
135°	13.9	17.4	18.5	20.8	22.0	23.1	23.1	24.3	24.3	24.3	24.3
137.5°	11.6	13.9	16.2	18.5	19.7	19.7	20.8	20.8	22.0	22.0	22.0
140°	9.3	10.4	13.9	15.0	16.2	17.4	18.5	18.5	18.5	18.5	18.5
142.5°	6.9	9.3	10.4	12.7	13.9	15.0	16.2	16.2	16.2	16.2	16.2
145°	5.8	6.9	8.1	10.4	11.6	12.7	13.9	13.9	13.9	13.9	13.9
147.5°	4.6	5.8	6.9	8.1	9.3	10.4	11.6	11.6	11.6	11.6	11.6
150°	3.5	4.6	5.8	5.8	6.9	8.1	9.3	10.4	10.4	10.4	10.4
152.5°	3.5	3.5	4.6	4.6	5.8	6.9	8.1	8.1	8.1	8.1	8.1
155°	2.3	3.5	3.5	3.5	4.6	4.6	5.8	6.9	6.9	6.9	6.9
157.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
162.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
167.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

TEST NUMBER: P1213499

CATALOG NUMBER: 4SNLED-LD5-63SL-LC-UNV-L935-CD1-U

CANDELA DISTRIBUTION (continued):

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°
0°	2240.0	2240.0	2240.0	2240.0	2240.0	2240.0	2240.0	2240.0	2240.0	2240.0	2240.0
2.5°	2240.0	2244.6	2242.3	2238.8	2237.7	2243.5	2237.7	2211.1	2221.5	2222.6	2230.7
5°	2236.5	2240.0	2237.7	2235.4	2231.9	2238.8	2231.9	2204.1	2214.5	2215.7	2223.8
7.5°	2259.7	2260.8	2260.8	2255.0	2245.8	2249.3	2240.0	2208.8	2214.5	2214.5	2220.3
10°	2317.5	2319.8	2323.3	2308.3	2296.7	2287.4	2274.7	2236.5	2235.4	2226.1	2226.1
12.5°	2392.7	2386.9	2381.2	2374.2	2365.0	2353.4	2334.9	2289.7	2274.7	2259.7	2244.6
15°	2414.7	2412.4	2411.2	2407.8	2402.0	2398.5	2384.6	2339.5	2317.5	2299.0	2272.4
17.5°	2356.9	2361.5	2376.5	2377.7	2384.6	2398.5	2396.2	2365.0	2345.3	2337.2	2304.8
20°	2252.7	2253.9	2272.4	2280.5	2310.6	2333.7	2351.1	2347.6	2343.0	2352.2	2327.9
22.5°	2127.8	2135.9	2155.5	2168.3	2197.2	2223.8	2251.6	2266.6	2290.9	2329.1	2324.5
25°	1957.7	1968.1	1995.9	2016.7	2057.2	2097.7	2134.7	2161.3	2190.2	2263.1	2287.4
27.5°	1754.0	1770.2	1806.1	1826.9	1883.6	1925.3	1978.5	2030.6	2071.1	2154.4	2204.1
30°	1540.0	1553.9	1592.1	1621.0	1669.6	1726.3	1793.4	1867.4	1934.5	2019.0	2081.5
32.5°	1339.8	1354.9	1386.1	1411.6	1465.9	1513.4	1587.4	1678.8	1741.3	1858.2	1941.5
35°	1165.1	1179.0	1201.0	1223.0	1268.1	1316.7	1380.3	1469.4	1549.3	1670.7	1776.0
37.5°	1042.5	1044.8	1057.5	1070.2	1103.8	1140.8	1190.6	1269.3	1343.3	1474.0	1589.7
40°	954.5	954.5	961.5	965.0	980.0	1002.0	1033.2	1094.5	1155.9	1255.4	1396.5
42.5°	900.2	897.8	897.8	899.0	897.8	908.3	926.8	955.7	1010.1	1092.2	1202.1
45°	859.7	855.0	851.6	843.5	838.8	838.8	840.0	850.4	881.7	934.9	1024.0
47.5°	814.5	813.4	807.6	798.3	790.2	784.5	775.2	771.7	781.0	811.1	871.2
50°	762.5	756.7	750.9	744.0	734.7	728.9	711.6	712.7	704.6	718.5	749.8
52.5°	686.1	681.5	679.2	673.4	669.9	667.6	653.7	639.8	636.4	638.7	650.2
55°	601.7	604.0	594.7	599.3	598.2	587.8	582.0	571.6	568.1	566.9	572.7
57.5°	513.7	516.0	510.2	514.9	514.9	509.1	505.6	505.6	497.5	490.6	498.7
60°	433.9	429.3	432.7	438.5	438.5	435.0	432.7	432.7	426.9	424.6	430.4
62.5°	369.1	364.5	367.9	373.7	374.9	372.6	370.2	370.2	363.3	363.3	367.9
65°	319.3	320.5	319.3	324.0	324.0	325.1	322.8	320.5	312.4	315.9	314.7
67.5°	283.5	282.3	282.3	286.9	285.8	288.1	285.8	282.3	276.5	271.9	270.7
70°	253.4	252.2	252.2	254.5	255.7	255.7	254.5	252.2	244.1	239.5	236.0
72.5°	226.8	225.6	226.8	227.9	229.1	230.2	229.1	226.8	219.8	214.0	208.3
75°	202.5	201.3	204.8	204.8	205.9	205.9	207.1	205.9	200.2	193.2	186.3
77.5°	178.2	179.3	182.8	184.0	186.3	187.4	188.6	188.6	182.8	177.0	167.8
80°	158.5	160.8	163.1	164.3	166.6	170.1	171.2	172.4	167.8	162.0	151.6
82.5°	144.6	145.8	148.1	149.3	152.7	153.9	155.0	157.4	155.0	149.3	137.7
85°	133.1	134.2	136.5	136.5	138.8	141.2	142.3	143.5	142.3	136.5	125.0
87.5°	122.6	123.8	125.0	126.1	127.3	128.4	129.6	130.7	129.6	123.8	113.4
90°	113.4	113.4	114.5	114.5	115.7	116.9	119.2	119.2	118.0	113.4	103.0
92.5°	103.0	104.1	104.1	105.3	106.4	107.6	108.8	108.8	107.6	103.0	93.7
95°	96.0	96.0	97.2	97.2	98.3	98.3	99.5	99.5	98.3	93.7	84.5
97.5°	87.9	87.9	87.9	87.9	89.1	89.1	90.2	90.2	89.1	84.5	76.4
100°	81.0	81.0	81.0	81.0	81.0	82.1	82.1	82.1	81.0	76.4	68.3
102.5°	75.2	75.2	75.2	75.2	75.2	75.2	75.2	75.2	72.9	69.4	61.3
105°	71.7	71.7	71.7	70.6	70.6	70.6	69.4	69.4	66.0	62.5	55.5
107.5°	67.1	67.1	67.1	66.0	66.0	64.8	63.6	63.6	60.2	56.7	49.8
110°	63.6	63.6	63.6	62.5	61.3	60.2	59.0	57.9	54.4	49.8	44.0



TEST NUMBER: P1213499

CATALOG NUMBER: 4SNLED-LD5-63SL-LC-UNV-L935-CD1-U

CANDELA DISTRIBUTION (continued):

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°
112.5°	60.2	60.2	59.0	59.0	57.9	56.7	54.4	53.2	49.8	45.1	39.3
115°	55.5	55.5	55.5	54.4	53.2	52.1	50.9	48.6	45.1	40.5	34.7
117.5°	50.9	50.9	50.9	49.8	48.6	47.4	46.3	44.0	40.5	35.9	31.2
120°	46.3	46.3	46.3	45.1	44.0	42.8	41.7	39.3	35.9	32.4	26.6
122.5°	42.8	42.8	41.7	40.5	39.3	38.2	37.0	34.7	32.4	27.8	23.1
125°	38.2	38.2	37.0	37.0	35.9	34.7	33.6	31.2	27.8	24.3	20.8
127.5°	34.7	33.6	33.6	33.6	32.4	31.2	28.9	27.8	24.3	20.8	17.4
130°	30.1	30.1	30.1	28.9	28.9	27.8	25.5	23.1	20.8	18.5	15.0
132.5°	26.6	26.6	26.6	26.6	25.5	24.3	22.0	20.8	18.5	15.0	12.7
135°	24.3	24.3	23.1	23.1	22.0	20.8	19.7	17.4	15.0	12.7	10.4
137.5°	20.8	20.8	20.8	19.7	19.7	18.5	16.2	15.0	13.9	11.6	9.3
140°	18.5	18.5	17.4	17.4	16.2	16.2	15.0	12.7	11.6	9.3	8.1
142.5°	16.2	16.2	15.0	15.0	13.9	13.9	12.7	11.6	9.3	8.1	5.8
145°	13.9	13.9	12.7	12.7	12.7	11.6	10.4	9.3	8.1	6.9	5.8
147.5°	11.6	11.6	11.6	10.4	10.4	9.3	9.3	8.1	6.9	5.8	4.6
150°	10.4	10.4	9.3	9.3	9.3	8.1	6.9	6.9	5.8	4.6	3.5
152.5°	8.1	8.1	8.1	8.1	6.9	6.9	5.8	5.8	4.6	3.5	3.5
155°	6.9	6.9	6.9	5.8	5.8	5.8	4.6	4.6	3.5	3.5	2.3
157.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
162.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
167.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

TEST NUMBER: P1213499

CATALOG NUMBER: 4SNLED-LD5-63SL-LC-UNV-L935-CD1-U

CANDELA DISTRIBUTION (continued):

	330°	335°	340°	345°	350°	355°	360°
0°	2240.0	2240.0	2240.0	2240.0	2240.0	2240.0	2240.0
2.5°	2227.3	2226.1	2236.5	2235.4	2221.5	2242.3	2256.2
5°	2221.5	2220.3	2229.6	2231.9	2216.9	2238.8	2253.9
7.5°	2216.9	2215.7	2226.1	2229.6	2214.5	2234.2	2250.4
10°	2218.0	2212.2	2221.5	2223.8	2209.9	2230.7	2244.6
12.5°	2226.1	2212.2	2215.7	2215.7	2203.0	2221.5	2236.5
15°	2245.8	2216.9	2212.2	2208.8	2192.6	2209.9	2225.0
17.5°	2267.8	2228.4	2212.2	2200.7	2181.0	2196.0	2212.2
20°	2289.7	2241.2	2214.5	2196.0	2169.4	2183.3	2194.9
22.5°	2300.2	2252.7	2216.9	2189.1	2155.5	2162.5	2175.2
25°	2286.3	2248.1	2212.2	2178.7	2138.2	2139.3	2149.7
27.5°	2235.4	2225.0	2201.8	2168.3	2124.3	2118.5	2126.6
30°	2148.6	2177.5	2178.7	2154.4	2108.1	2096.5	2100.0
32.5°	2027.1	2091.9	2130.1	2125.4	2085.0	2068.8	2071.1
35°	1887.1	1968.1	2051.4	2079.2	2050.2	2037.5	2032.9
37.5°	1719.3	1828.1	1939.2	2007.4	2002.8	1994.7	1990.1
40°	1534.2	1665.0	1796.9	1905.6	1939.2	1939.2	1941.5
42.5°	1336.4	1489.1	1633.7	1771.4	1850.1	1867.4	1874.4
45°	1145.5	1299.3	1456.7	1615.2	1720.5	1774.9	1794.5
47.5°	971.9	1126.9	1276.2	1449.7	1589.7	1660.3	1691.6
50°	823.8	939.5	1096.9	1269.3	1422.0	1508.8	1570.1
52.5°	701.2	791.4	929.1	1089.9	1243.8	1363.0	1419.7
55°	598.2	659.5	776.4	915.2	1062.1	1185.9	1251.9
57.5°	511.4	560.0	639.8	755.5	879.3	1002.0	1072.6
60°	435.0	468.6	523.0	614.4	719.7	825.0	893.2
62.5°	369.1	391.1	426.9	494.0	576.2	658.3	722.0
65°	318.2	327.4	347.1	388.8	451.2	513.7	568.1
67.5°	268.4	274.2	289.3	314.7	345.9	391.1	426.9
70°	231.4	231.4	232.6	247.6	263.8	292.7	318.2
72.5°	201.3	197.9	190.9	194.4	197.9	214.0	230.2
75°	177.0	168.9	157.4	152.7	150.4	152.7	162.0
77.5°	156.2	144.6	130.7	119.2	109.9	106.4	114.5
80°	138.8	125.0	108.8	93.7	78.7	70.6	74.0
82.5°	125.0	107.6	90.2	72.9	55.5	44.0	44.0
85°	109.9	93.7	75.2	56.7	39.3	24.3	22.0
87.5°	99.5	82.1	62.5	45.1	27.8	12.7	6.9
90°	89.1	71.7	53.2	35.9	19.7	5.8	0.0
92.5°	79.8	63.6	46.3	28.9	13.9	3.5	0.0
95°	71.7	56.7	39.3	24.3	11.6	2.3	1.2
97.5°	63.6	49.8	34.7	19.7	8.1	2.3	1.2
100°	57.9	44.0	30.1	16.2	6.9	1.2	1.2
102.5°	50.9	39.3	25.5	13.9	5.8	1.2	1.2
105°	45.1	34.7	22.0	11.6	4.6	1.2	1.2
107.5°	40.5	30.1	19.7	10.4	4.6	1.2	1.2
110°	35.9	26.6	17.4	9.3	3.5	1.2	1.2



TEST NUMBER: P1213499

CATALOG NUMBER: 4SNLED-LD5-63SL-LC-UNV-L935-CD1-U

CANDELA DISTRIBUTION (continued):

	330°	335°	340°	345°	350°	355°	360°
112.5°	32.4	23.1	15.0	8.1	2.3	1.2	1.2
115°	27.8	20.8	12.7	6.9	2.3	1.2	1.2
117.5°	24.3	17.4	11.6	5.8	2.3	1.2	1.2
120°	20.8	15.0	9.3	4.6	1.2	1.2	1.2
122.5°	18.5	12.7	8.1	4.6	1.2	1.2	1.2
125°	16.2	11.6	6.9	3.5	1.2	1.2	1.2
127.5°	13.9	9.3	5.8	2.3	1.2	1.2	1.2
130°	11.6	8.1	4.6	2.3	1.2	1.2	1.2
132.5°	9.3	6.9	4.6	2.3	1.2	1.2	1.2
135°	8.1	5.8	3.5	2.3	1.2	1.2	1.2
137.5°	6.9	4.6	2.3	2.3	2.3	1.2	1.2
140°	5.8	3.5	2.3	2.3	2.3	2.3	1.2
142.5°	4.6	3.5	2.3	2.3	2.3	2.3	1.2
145°	3.5	2.3	2.3	2.3	2.3	2.3	1.2
147.5°	3.5	2.3	2.3	2.3	2.3	2.3	1.2
150°	2.3	2.3	2.3	2.3	2.3	2.3	2.3
152.5°	2.3	2.3	2.3	2.3	2.3	2.3	2.3
155°	2.3	2.3	2.3	2.3	2.3	2.3	2.3
157.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	0.0	0.0	0.0	0.0	0.0
162.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0	0.0	0.0
167.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180°	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)