

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: P1213850

Luminaire Tested: 4SNLED-LD5-63SL-LC-UNV-L940-CD1-U

Issue Date: 3/29/2018

Test Information

Test Method: LM-79-2019
Report Number: P1213850
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-L940-CD1-U
Description: 4FT LINEAR SNLED LED FIXTURE
CLEAR LENSED
Light Source: -
Ballast/Driver: -

Summary

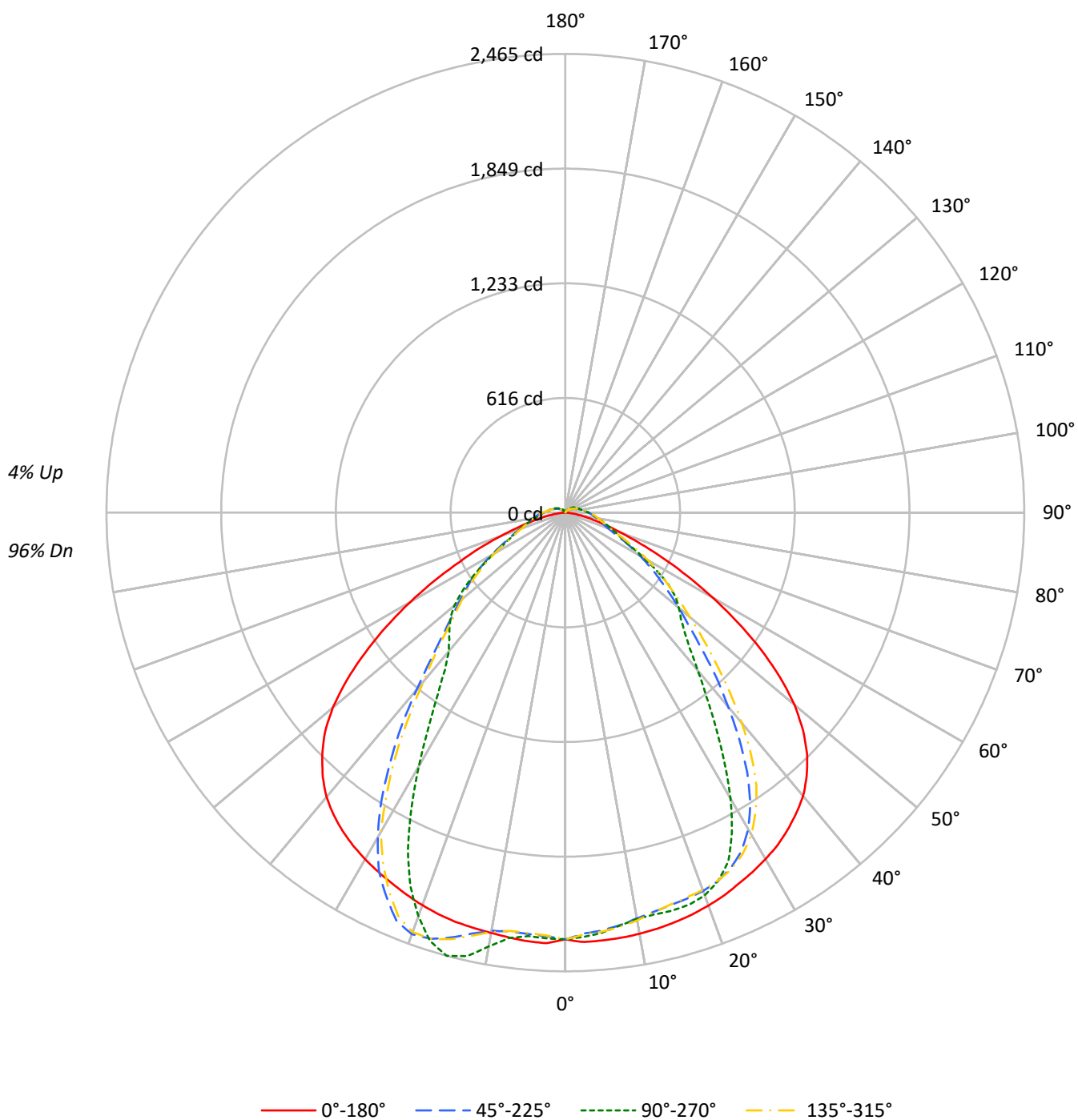
Lumens per Lamp: N/A
Luminaire Lumens: 5467.0 lumens
Efficiency: N/A
Efficacy: 105.1 lumens/watt
Spacing Criteria (0/90/45): 1.4 / 1.12 / 1.19
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.12')
CIE Type: Direct

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

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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	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°	18532	18532	18532	18532
5°	18667	17797	18705	17937
10°	18753	17057	18715	18215
15°	18899	16829	18889	18738
20°	19107	16562	19087	17458
25°	19342	15712	19332	15182
30°	19706	13617	19717	12064
35°	20092	11012	20150	9318
40°	20433	8866	20517	7811
45°	20360	7510	20465	7313
50°	19482	6914	19755	6760
55°	17286	6215	17718	5650
60°	14021	4757	14765	4362
65°	10422	3639	11229	3450
70°	7087	3142	7990	3003
75°	4636	2835	5399	2680
80°	2996	2643	3510	2432
85°	1537	2636	2022	2408

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 180°

Vertical Angle: 45°

Luminance: 20465 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	217.8	4.0
10°-20°	648.1	11.9
20°-30°	985.3	18.0
30°-40°	1057.0	19.3
40°-50°	917.4	16.8
50°-60°	679.9	12.4
60°-70°	389.5	7.1
70°-80°	215.7	3.9
80°-90°	131.4	2.4
90°-100°	85.4	1.6
100°-110°	57.2	1.0
110°-120°	38.6	0.7
120°-130°	23.7	0.4
130°-140°	12.5	0.2
140°-150°	5.7	0.1
150°-160°	1.7	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	1851.3	33.9
0°-40°	2908.3	53.2
0°-60°	4505.6	82.4
0°-90°	5242.2	95.9
90°-120°	181.3	3.3
90°-150°	223.1	4.1
90°-180°	225.0	4.1
0°-180°	5467.0	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	2293	2293	2293	2293	2293	
5°	2308	2266	2312	2284	2308	220
15°	2278	2214	2277	2465	2278	645
25°	2201	2071	2200	2001	2201	1017
35°	2081	1410	2087	1193	2081	1303
45°	1837	904	1847	880	1837	1407
55°	1282	678	1314	616	1282	1137
65°	582	344	627	326	582	586
75°	166	218	193	206	166	189
85°	22	150	30	137	22	30
90°	0	126	2	116	0	1
95°	1	103	0	98	1	1
105°	1	77	1	73	1	1
115°	1	63	1	57	1	1
125°	1	47	1	39	1	1
135°	1	30	1	25	1	1
145°	1	18	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	

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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	2293.3	2293.3	2293.3	2293.3	2293.3	2293.3	2293.3	2293.3	2293.3	2293.3	2293.3
2.5°	2309.9	2303.9	2301.6	2296.8	2300.4	2314.6	2305.1	2289.7	2290.9	2263.7	2277.9
5°	2307.5	2300.4	2296.8	2292.1	2294.5	2307.5	2298.0	2282.6	2281.4	2254.2	2267.2
7.5°	2303.9	2296.8	2290.9	2287.3	2288.5	2299.2	2287.3	2269.6	2266.0	2236.4	2248.3
10°	2298.0	2293.3	2285.0	2279.1	2277.9	2289.7	2270.8	2253.0	2244.7	2213.9	2225.7
12.5°	2289.7	2282.6	2274.3	2263.7	2262.5	2269.6	2254.2	2229.3	2221.0	2196.1	2209.2
15°	2277.9	2269.6	2260.1	2248.3	2242.3	2247.1	2228.1	2205.6	2204.4	2183.1	2200.9
17.5°	2264.8	2253.0	2242.3	2225.7	2217.5	2221.0	2205.6	2185.5	2187.8	2174.8	2195.0
20°	2247.1	2234.0	2217.5	2200.9	2189.0	2195.0	2184.3	2168.9	2172.4	2163.0	2180.7
22.5°	2226.9	2209.2	2189.0	2170.1	2160.6	2168.9	2160.6	2147.6	2148.8	2142.8	2153.5
25°	2200.9	2180.7	2157.0	2133.4	2128.6	2134.5	2129.8	2119.1	2114.4	2104.9	2109.7
27.5°	2177.2	2154.7	2125.1	2100.2	2091.9	2103.7	2093.1	2075.3	2062.3	2049.3	2039.8
30°	2149.9	2122.7	2089.5	2061.1	2054.0	2058.7	2043.3	2016.1	1981.7	1965.2	1939.1
32.5°	2120.3	2084.8	2043.3	2011.3	2006.6	2003.1	1974.6	1935.5	1882.2	1849.1	1808.8
35°	2081.2	2042.1	1992.4	1953.3	1946.2	1926.1	1879.9	1827.7	1759.0	1702.2	1633.5
37.5°	2037.4	1991.2	1939.1	1887.0	1866.8	1826.6	1761.4	1706.9	1602.7	1534.0	1451.1
40°	1987.7	1932.0	1868.0	1805.2	1772.1	1706.9	1632.3	1551.7	1451.1	1358.7	1288.8
42.5°	1919.0	1859.7	1783.9	1714.0	1657.2	1570.7	1483.0	1369.3	1276.9	1198.8	1127.7
45°	1837.2	1766.1	1678.5	1594.4	1522.1	1419.1	1316.0	1202.3	1125.3	1034.1	985.5
47.5°	1731.8	1654.8	1561.2	1467.6	1372.9	1259.2	1151.4	1042.4	965.4	900.2	864.7
50°	1607.4	1536.3	1433.3	1321.9	1217.7	1099.3	991.5	909.7	835.1	794.8	767.6
52.5°	1453.4	1387.1	1281.7	1160.8	1060.2	944.1	845.8	779.4	726.1	696.5	687.0
55°	1281.7	1223.6	1119.4	1006.9	903.8	797.2	722.6	664.5	630.2	612.4	613.6
57.5°	1098.1	1053.1	954.7	854.1	756.9	676.4	608.9	562.7	536.6	535.4	539.0
60°	914.5	881.3	796.0	709.5	624.3	559.1	509.4	477.4	460.8	462.0	460.8
62.5°	739.2	708.4	646.8	575.7	508.2	464.3	419.3	406.3	392.1	390.9	390.9
65°	581.6	557.9	508.2	457.2	406.3	377.9	355.4	340.0	329.3	326.9	328.1
67.5°	437.1	427.6	393.3	358.9	326.9	309.2	290.2	286.7	278.4	278.4	280.7
70°	325.7	318.6	299.7	279.6	266.5	254.7	245.2	245.2	244.0	242.8	248.8
72.5°	235.7	236.9	231.0	215.6	214.4	212.0	209.7	213.2	214.4	218.0	225.1
75°	165.8	169.4	169.4	167.0	171.8	177.7	181.2	187.2	194.3	199.0	207.3
77.5°	117.3	117.3	123.2	130.3	139.8	150.4	159.9	168.2	177.7	183.6	190.7
80°	75.8	79.4	88.8	101.9	114.9	129.1	142.1	152.8	162.3	171.8	176.5
82.5°	45.0	50.9	62.8	79.4	95.9	113.7	126.7	139.8	150.4	159.9	163.5
85°	22.5	30.8	45.0	62.8	80.5	99.5	116.1	127.9	139.8	148.1	152.8
87.5°	7.1	16.6	32.0	48.6	67.5	86.5	104.2	117.3	127.9	135.0	139.8
90°	0.0	8.3	22.5	40.3	58.0	77.0	93.6	107.8	118.5	124.4	127.9
92.5°	0.0	4.7	17.8	33.2	49.8	68.7	85.3	98.3	107.8	113.7	116.1
95°	1.2	3.6	13.0	27.2	43.8	61.6	77.0	88.8	98.3	104.2	105.4
97.5°	1.2	2.4	10.7	22.5	37.9	54.5	69.9	81.7	88.8	94.8	95.9
100°	1.2	2.4	8.3	20.1	33.2	48.6	62.8	73.4	81.7	86.5	87.7
102.5°	1.2	1.2	7.1	16.6	29.6	42.6	55.7	66.3	73.4	78.2	80.5
105°	1.2	1.2	5.9	14.2	26.1	37.9	49.8	60.4	66.3	71.1	73.4
107.5°	1.2	1.2	4.7	11.8	22.5	33.2	45.0	53.3	60.4	65.1	67.5
110°	1.2	1.2	3.6	10.7	19.0	29.6	39.1	47.4	54.5	59.2	61.6

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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	1.2	1.2	3.6	9.5	16.6	26.1	34.4	42.6	48.6	53.3	56.9
115°	1.2	1.2	3.6	8.3	15.4	22.5	30.8	37.9	43.8	48.6	52.1
117.5°	1.2	1.2	3.6	7.1	13.0	20.1	27.2	34.4	39.1	43.8	47.4
120°	1.2	1.2	2.4	5.9	11.8	17.8	23.7	29.6	35.5	40.3	43.8
122.5°	1.2	1.2	2.4	5.9	9.5	15.4	21.3	26.1	32.0	35.5	39.1
125°	1.2	1.2	2.4	4.7	8.3	14.2	19.0	23.7	27.2	32.0	35.5
127.5°	1.2	1.2	2.4	4.7	7.1	11.8	16.6	21.3	24.9	28.4	30.8
130°	1.2	1.2	2.4	3.6	5.9	9.5	14.2	17.8	22.5	24.9	27.2
132.5°	1.2	1.2	1.2	3.6	4.7	7.1	10.7	15.4	19.0	22.5	23.7
135°	1.2	1.2	1.2	2.4	4.7	5.9	8.3	11.8	15.4	19.0	21.3
137.5°	1.2	1.2	1.2	2.4	3.6	5.9	7.1	9.5	13.0	15.4	19.0
140°	1.2	1.2	1.2	2.4	3.6	4.7	5.9	8.3	10.7	13.0	15.4
142.5°	1.2	1.2	1.2	2.4	2.4	3.6	4.7	7.1	8.3	10.7	13.0
145°	1.2	1.2	1.2	2.4	2.4	3.6	4.7	5.9	7.1	8.3	10.7
147.5°	1.2	1.2	1.2	2.4	2.4	2.4	3.6	4.7	5.9	7.1	8.3
150°	2.4	2.4	2.4	2.4	2.4	2.4	3.6	3.6	4.7	5.9	7.1
152.5°	2.4	2.4	2.4	2.4	2.4	2.4	3.6	3.6	3.6	4.7	5.9
155°	2.4	2.4	2.4	2.4	2.4	2.4	2.4	3.6	3.6	4.7	4.7
157.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
162.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
167.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	2293.3	2293.3	2293.3	2293.3	2293.3	2293.3	2293.3	2293.3	2293.3	2293.3	2293.3
2.5°	2273.1	2275.5	2289.7	2288.5	2286.2	2283.8	2283.8	2281.4	2283.8	2289.7	2287.3
5°	2261.3	2264.8	2275.5	2274.3	2271.9	2270.8	2269.6	2266.0	2268.4	2276.7	2274.3
7.5°	2240.0	2243.5	2253.0	2248.3	2244.7	2247.1	2241.1	2237.6	2242.3	2250.6	2249.4
10°	2217.5	2219.8	2231.7	2229.3	2223.4	2224.6	2218.6	2216.3	2222.2	2226.9	2228.1
12.5°	2202.1	2210.4	2221.0	2219.8	2218.6	2219.8	2213.9	2211.5	2215.1	2219.8	2218.6
15°	2198.5	2209.2	2221.0	2221.0	2222.2	2223.4	2217.5	2213.9	2217.5	2221.0	2219.8
17.5°	2195.0	2208.0	2218.6	2217.5	2218.6	2221.0	2211.5	2209.2	2213.9	2218.6	2216.3
20°	2183.1	2195.0	2202.1	2199.7	2199.7	2200.9	2189.0	2189.0	2196.1	2199.7	2200.9
22.5°	2149.9	2164.2	2164.2	2158.2	2158.2	2153.5	2149.9	2142.8	2151.1	2157.0	2161.8
25°	2100.2	2106.1	2099.0	2086.0	2078.9	2072.9	2056.4	2070.6	2070.6	2088.3	2094.3
27.5°	2030.3	2017.3	1997.1	1969.9	1964.0	1945.0	1934.4	1937.9	1943.8	1968.7	1987.7
30°	1915.4	1876.3	1842.0	1830.1	1804.1	1785.1	1766.1	1775.6	1786.3	1800.5	1839.6
32.5°	1763.8	1725.9	1670.2	1650.1	1622.8	1599.1	1576.6	1590.8	1609.8	1619.3	1661.9
35°	1589.7	1544.6	1493.7	1459.4	1430.9	1417.9	1389.5	1409.6	1429.7	1436.8	1473.6
37.5°	1404.9	1358.7	1313.7	1284.0	1256.8	1248.5	1229.6	1243.8	1259.2	1269.8	1300.6
40°	1229.6	1186.9	1152.6	1132.4	1113.5	1106.4	1099.3	1105.2	1117.0	1125.3	1149.0
42.5°	1079.1	1044.8	1021.1	1009.2	996.2	986.7	987.9	990.3	996.2	1014.0	1024.6
45°	947.6	927.5	912.1	909.7	901.4	900.2	899.1	903.8	907.4	918.0	926.3
47.5°	842.2	833.9	830.4	835.1	838.7	833.9	836.3	842.2	849.3	849.3	848.1
50°	759.3	761.7	766.4	777.1	784.2	786.5	788.9	796.0	797.2	799.6	796.0
52.5°	691.8	694.1	707.2	723.8	732.0	735.6	740.3	747.4	747.4	749.8	745.1
55°	623.1	626.6	639.7	656.2	663.3	668.1	672.8	677.6	681.1	685.8	682.3
57.5°	547.3	557.9	566.2	570.9	575.7	579.2	582.8	584.0	591.1	592.3	598.2
60°	466.7	469.1	477.4	476.2	472.6	482.1	477.4	485.7	494.0	504.6	505.8
62.5°	389.7	390.9	396.8	394.5	399.2	398.0	401.6	401.6	407.5	412.2	418.1
65°	329.3	330.5	335.2	335.2	334.0	337.6	341.1	343.5	343.5	347.1	351.8
67.5°	284.3	287.8	292.6	295.0	297.3	297.3	300.9	302.1	304.4	305.6	308.0
70°	253.5	258.2	263.0	265.3	266.5	268.9	270.1	270.1	272.4	273.6	276.0
72.5°	231.0	235.7	239.3	239.3	241.6	242.8	242.8	244.0	245.2	247.6	249.9
75°	212.0	215.6	218.0	216.8	216.8	216.8	218.0	218.0	220.3	222.7	225.1
77.5°	194.3	197.8	197.8	195.4	195.4	195.4	195.4	196.6	197.8	200.2	202.6
80°	181.2	181.2	180.0	180.0	177.7	176.5	176.5	177.7	177.7	180.0	183.6
82.5°	167.0	167.0	165.8	164.7	163.5	162.3	162.3	163.5	164.7	165.8	168.2
85°	154.0	154.0	151.6	151.6	150.4	150.4	150.4	150.4	151.6	152.8	155.2
87.5°	141.0	139.8	138.6	137.4	137.4	137.4	137.4	137.4	138.6	141.0	142.1
90°	127.9	126.7	125.6	125.6	124.4	124.4	125.6	125.6	126.7	127.9	129.1
92.5°	116.1	114.9	113.7	113.7	112.5	112.5	113.7	112.5	114.9	114.9	116.1
95°	105.4	104.2	103.1	103.1	103.1	103.1	103.1	103.1	104.2	104.2	105.4
97.5°	95.9	94.8	93.6	93.6	94.8	93.6	94.8	94.8	94.8	95.9	97.1
100°	87.7	86.5	86.5	87.7	86.5	86.5	87.7	87.7	87.7	87.7	88.8
102.5°	80.5	80.5	80.5	80.5	80.5	80.5	81.7	81.7	81.7	81.7	82.9
105°	73.4	74.6	74.6	74.6	75.8	75.8	75.8	77.0	77.0	77.0	77.0
107.5°	68.7	69.9	69.9	71.1	71.1	72.3	72.3	72.3	72.3	73.4	73.4
110°	64.0	65.1	66.3	67.5	67.5	68.7	68.7	68.7	68.7	68.7	68.7



TEST NUMBER: P1213850

CATALOG NUMBER: 4SNLED-LD5-63SL-LC-UNV-L940-CD1-U

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
112.5°	59.2	60.4	61.6	64.0	65.1	65.1	65.1	65.1	66.3	66.3	65.1
115°	54.5	56.9	58.0	60.4	61.6	61.6	62.8	62.8	62.8	62.8	61.6
117.5°	49.8	53.3	54.5	56.9	58.0	58.0	59.2	59.2	59.2	59.2	58.0
120°	46.2	48.6	50.9	52.1	53.3	54.5	54.5	55.7	55.7	55.7	54.5
122.5°	42.6	45.0	47.4	48.6	49.8	50.9	50.9	50.9	50.9	50.9	50.9
125°	37.9	40.3	42.6	43.8	45.0	46.2	46.2	47.4	47.4	47.4	46.2
127.5°	34.4	36.7	37.9	40.3	41.5	41.5	42.6	42.6	42.6	42.6	41.5
130°	29.6	32.0	34.4	35.5	36.7	36.7	37.9	37.9	37.9	37.9	37.9
132.5°	26.1	28.4	29.6	32.0	32.0	33.2	33.2	34.4	34.4	34.4	33.2
135°	23.7	24.9	26.1	28.4	28.4	29.6	29.6	29.6	29.6	29.6	29.6
137.5°	21.3	22.5	23.7	24.9	24.9	26.1	26.1	26.1	26.1	27.2	26.1
140°	17.8	20.1	21.3	21.3	22.5	22.5	22.5	23.7	23.7	23.7	22.5
142.5°	15.4	16.6	17.8	19.0	20.1	20.1	20.1	20.1	21.3	20.1	20.1
145°	11.8	14.2	15.4	16.6	17.8	17.8	17.8	17.8	17.8	17.8	17.8
147.5°	9.5	10.7	13.0	14.2	14.2	15.4	15.4	15.4	15.4	15.4	15.4
150°	8.3	8.3	10.7	11.8	13.0	13.0	13.0	13.0	13.0	13.0	13.0
152.5°	5.9	7.1	8.3	9.5	10.7	10.7	10.7	10.7	10.7	10.7	10.7
155°	5.9	5.9	7.1	7.1	8.3	8.3	8.3	8.3	9.5	8.3	8.3
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: P1213850

CATALOG NUMBER: 4SNLED-LD5-63SL-LC-UNV-L940-CD1-U

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	2293.3	2293.3	2293.3	2293.3	2293.3	2293.3	2293.3	2293.3	2293.3	2293.3	2293.3
2.5°	2283.8	2282.6	2287.3	2282.6	2258.9	2268.4	2264.8	2277.9	2279.1	2282.6	2294.5
5°	2271.9	2271.9	2277.9	2273.1	2250.6	2260.1	2258.9	2271.9	2274.3	2276.7	2289.7
7.5°	2248.3	2249.4	2257.7	2254.2	2230.5	2244.7	2243.5	2258.9	2263.7	2268.4	2280.2
10°	2225.7	2224.6	2234.0	2230.5	2208.0	2224.6	2223.4	2238.8	2245.9	2254.2	2268.4
12.5°	2213.9	2210.4	2213.9	2210.4	2185.5	2198.5	2199.7	2217.5	2225.7	2236.4	2253.0
15°	2213.9	2208.0	2208.0	2200.9	2172.4	2180.7	2181.9	2193.8	2204.4	2215.1	2235.2
17.5°	2211.5	2205.6	2204.4	2198.5	2167.7	2167.7	2166.5	2174.8	2180.7	2191.4	2212.7
20°	2198.5	2196.1	2195.0	2191.4	2163.0	2158.2	2155.9	2155.9	2159.4	2163.0	2184.3
22.5°	2164.2	2166.5	2168.9	2171.3	2148.8	2140.5	2141.6	2139.3	2135.7	2135.7	2153.5
25°	2100.2	2112.0	2121.5	2132.2	2119.1	2113.2	2120.3	2116.8	2110.8	2106.1	2121.5
27.5°	1998.3	2023.2	2043.3	2069.4	2070.6	2065.8	2084.8	2082.4	2081.2	2074.1	2086.0
30°	1857.4	1896.4	1923.7	1961.6	1993.6	1998.3	2030.3	2035.0	2039.8	2036.2	2048.1
32.5°	1686.8	1740.1	1786.3	1845.5	1876.3	1903.6	1948.6	1967.5	1986.5	1992.4	2005.4
35°	1500.8	1561.2	1615.7	1680.9	1729.4	1788.7	1843.1	1871.6	1914.2	1930.8	1949.8
37.5°	1324.3	1381.2	1434.5	1499.6	1577.8	1639.4	1706.9	1770.9	1828.9	1852.6	1881.0
40°	1168.0	1214.2	1265.1	1321.9	1393.0	1473.6	1547.0	1635.8	1704.6	1751.9	1793.4
42.5°	1049.5	1072.0	1115.8	1166.8	1223.6	1305.4	1380.0	1479.5	1562.4	1629.9	1698.6
45°	944.1	954.7	986.7	1014.0	1072.0	1144.3	1223.6	1320.8	1407.2	1493.7	1576.6
47.5°	854.1	867.1	882.5	899.1	940.5	1000.9	1069.6	1157.3	1243.8	1344.5	1439.2
50°	793.6	797.2	799.6	806.7	831.5	873.0	928.7	1003.3	1086.2	1194.0	1294.7
52.5°	740.3	740.3	733.2	729.7	739.2	765.2	797.2	850.5	935.8	1035.3	1141.9
55°	683.5	672.8	670.4	658.6	661.0	672.8	688.2	729.7	799.6	884.9	987.9
57.5°	604.1	599.4	599.4	594.6	585.2	591.1	594.6	624.3	674.0	747.4	837.5
60°	512.9	510.5	516.5	517.6	509.4	512.9	511.7	529.5	565.0	624.3	698.9
62.5°	421.7	432.4	433.5	438.3	433.5	432.4	438.3	453.7	471.4	516.5	574.5
65°	354.2	360.1	361.3	367.2	364.8	364.8	369.6	381.4	392.1	422.9	467.9
67.5°	310.3	308.0	309.2	312.7	309.2	308.0	311.5	318.6	326.9	345.9	377.9
70°	276.0	273.6	273.6	273.6	268.9	265.3	266.5	268.9	272.4	283.1	303.2
72.5°	249.9	249.9	246.4	242.8	239.3	236.9	234.5	232.2	231.0	234.5	245.2
75°	226.2	227.4	226.2	222.7	218.0	213.2	208.5	203.7	197.8	195.4	196.6
77.5°	204.9	206.1	207.3	206.1	201.4	195.4	188.3	181.2	172.9	164.7	159.9
80°	186.0	188.3	189.5	188.3	184.8	180.0	171.8	163.5	151.6	141.0	129.1
82.5°	169.4	172.9	174.1	174.1	171.8	167.0	157.5	148.1	135.0	120.8	105.4
85°	156.4	158.7	161.1	161.1	159.9	155.2	145.7	135.0	122.0	105.4	88.8
87.5°	143.3	144.5	146.9	149.3	146.9	142.1	133.9	122.0	109.0	92.4	73.4
90°	130.3	131.5	133.9	136.2	135.0	130.3	123.2	112.5	98.3	80.5	61.6
92.5°	117.3	119.6	120.8	122.0	123.2	119.6	113.7	103.1	88.8	71.1	53.3
95°	107.8	107.8	110.2	111.3	112.5	109.0	104.2	93.6	80.5	64.0	46.2
97.5°	98.3	98.3	100.7	100.7	101.9	99.5	94.8	85.3	72.3	56.9	39.1
100°	88.8	90.0	91.2	92.4	92.4	91.2	86.5	77.0	65.1	50.9	34.4
102.5°	82.9	82.9	84.1	84.1	85.3	82.9	78.2	69.9	58.0	45.0	29.6
105°	77.0	77.0	78.2	78.2	77.0	74.6	69.9	62.8	52.1	39.1	26.1
107.5°	72.3	72.3	72.3	72.3	71.1	68.7	64.0	55.7	46.2	35.5	23.7
110°	68.7	67.5	67.5	66.3	65.1	61.6	56.9	49.8	41.5	30.8	20.1

TEST NUMBER: P1213850

CATALOG NUMBER: 4SNLED-LD5-63SL-LC-UNV-L940-CD1-U

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
112.5°	65.1	64.0	62.8	61.6	59.2	55.7	50.9	45.0	36.7	27.2	17.8
115°	61.6	60.4	59.2	56.9	54.5	50.9	46.2	40.3	32.0	23.7	15.4
117.5°	58.0	56.9	54.5	52.1	49.8	46.2	41.5	35.5	28.4	21.3	14.2
120°	53.3	52.1	50.9	48.6	46.2	41.5	36.7	32.0	24.9	19.0	11.8
122.5°	49.8	48.6	46.2	45.0	41.5	37.9	33.2	28.4	22.5	16.6	10.7
125°	45.0	43.8	42.6	40.3	37.9	33.2	29.6	24.9	20.1	14.2	8.3
127.5°	41.5	40.3	37.9	35.5	33.2	29.6	26.1	22.5	17.8	11.8	8.3
130°	36.7	35.5	34.4	32.0	29.6	26.1	23.7	19.0	15.4	10.7	7.1
132.5°	32.0	32.0	30.8	28.4	26.1	23.7	20.1	16.6	13.0	9.5	5.9
135°	29.6	28.4	27.2	24.9	23.7	20.1	17.8	14.2	10.7	8.3	4.7
137.5°	26.1	24.9	23.7	22.5	20.1	17.8	15.4	11.8	9.5	7.1	4.7
140°	22.5	21.3	21.3	19.0	17.8	15.4	13.0	10.7	8.3	5.9	3.6
142.5°	20.1	19.0	17.8	16.6	15.4	13.0	10.7	8.3	7.1	4.7	3.6
145°	17.8	16.6	15.4	14.2	13.0	10.7	9.5	7.1	5.9	4.7	3.6
147.5°	14.2	14.2	13.0	11.8	10.7	9.5	8.3	7.1	4.7	3.6	2.4
150°	11.8	11.8	10.7	9.5	9.5	8.3	7.1	5.9	4.7	3.6	2.4
152.5°	10.7	9.5	9.5	8.3	8.3	7.1	5.9	4.7	3.6	3.6	2.4
155°	8.3	8.3	8.3	7.1	7.1	5.9	4.7	4.7	3.6	2.4	2.4
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: P1213850

CATALOG NUMBER: 4SNLED-LD5-63SL-LC-UNV-L940-CD1-U

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
0°	2293.3	2293.3	2293.3	2293.3	2293.3	2293.3	2293.3	2293.3	2293.3	2293.3	2293.3
2.5°	2296.8	2282.6	2294.5	2315.8	2313.4	2311.0	2308.7	2313.4	2328.8	2320.5	2307.5
5°	2293.3	2279.1	2292.1	2312.2	2311.0	2307.5	2305.1	2309.9	2325.3	2317.0	2302.7
7.5°	2286.2	2273.1	2282.6	2302.7	2302.7	2300.4	2298.0	2302.7	2317.0	2309.9	2295.6
10°	2274.3	2264.8	2274.3	2293.3	2294.5	2289.7	2287.3	2293.3	2307.5	2303.9	2292.1
12.5°	2264.8	2255.4	2266.0	2285.0	2286.2	2281.4	2277.9	2285.0	2303.9	2306.3	2302.7
15°	2251.8	2243.5	2256.5	2276.7	2276.7	2273.1	2273.1	2282.6	2308.7	2319.3	2325.3
17.5°	2232.9	2226.9	2242.3	2262.5	2263.7	2261.3	2262.5	2281.4	2315.8	2341.8	2358.4
20°	2209.2	2206.8	2223.4	2244.7	2248.3	2249.4	2255.4	2283.8	2331.2	2366.7	2383.3
22.5°	2180.7	2181.9	2200.9	2223.4	2228.1	2231.7	2243.5	2283.8	2343.0	2380.9	2388.0
25°	2148.8	2152.3	2172.4	2199.7	2205.6	2212.7	2232.9	2285.0	2346.6	2371.4	2359.6
27.5°	2114.4	2121.5	2147.6	2176.0	2183.1	2195.0	2221.0	2277.9	2330.0	2331.2	2287.3
30°	2078.9	2087.2	2118.0	2151.1	2163.0	2174.8	2206.8	2261.3	2289.7	2251.8	2174.8
32.5°	2038.6	2050.4	2081.2	2121.5	2135.7	2151.1	2183.1	2229.3	2218.6	2136.9	2026.7
35°	1987.7	2004.2	2039.8	2087.2	2100.2	2120.3	2142.8	2153.5	2106.1	1990.0	1865.6
37.5°	1924.9	1949.8	1991.2	2045.7	2059.9	2072.9	2078.9	2049.3	1954.5	1828.9	1699.8
40°	1852.6	1890.5	1935.5	1995.9	2010.2	2010.2	1988.8	1926.1	1806.4	1641.8	1498.4
42.5°	1765.0	1811.2	1868.0	1928.4	1942.6	1926.1	1875.1	1765.0	1628.7	1445.1	1293.5
45°	1658.4	1720.0	1783.9	1846.7	1853.8	1817.1	1725.9	1586.1	1417.9	1247.3	1102.8
47.5°	1531.6	1612.2	1682.0	1753.1	1743.6	1682.0	1560.0	1401.3	1223.6	1062.5	946.4
50°	1389.5	1484.2	1562.4	1629.9	1609.8	1524.5	1381.2	1215.3	1038.8	901.4	805.5
52.5°	1237.8	1346.8	1425.0	1479.5	1452.2	1350.4	1192.8	1034.1	889.6	764.0	700.1
55°	1080.3	1190.5	1271.0	1313.7	1278.1	1168.0	1012.8	868.3	732.0	650.3	612.4
57.5°	927.5	1030.5	1106.4	1140.7	1095.7	985.5	842.2	720.2	621.9	553.2	534.2
60°	780.6	864.7	937.0	963.0	914.5	812.6	689.4	592.3	520.0	472.6	463.2
62.5°	644.4	713.1	770.0	790.1	742.7	663.3	556.7	484.5	433.5	409.9	398.0
65°	531.9	572.1	630.2	626.6	598.2	524.8	446.6	395.6	362.5	347.1	340.0
67.5°	418.1	454.9	491.6	496.3	460.8	409.9	358.9	322.2	304.4	296.1	292.6
70°	323.4	350.6	373.1	367.2	348.3	316.3	284.3	264.2	257.0	253.5	253.5
72.5°	251.1	265.3	276.0	268.9	257.0	240.5	225.1	216.8	218.0	220.3	222.7
75°	194.3	197.8	200.2	193.1	190.7	180.0	178.9	180.0	187.2	194.3	197.8
77.5°	149.3	144.5	141.0	133.9	135.0	133.9	139.8	149.3	159.9	170.6	180.0
80°	114.9	104.2	95.9	88.8	92.4	98.3	110.2	124.4	138.6	150.4	162.3
82.5°	88.8	73.4	61.6	54.5	61.6	71.1	86.5	104.2	120.8	133.9	146.9
85°	68.7	50.9	36.7	29.6	36.7	50.9	67.5	87.7	105.4	119.6	132.7
87.5°	53.3	36.7	20.1	11.8	20.1	35.5	54.5	73.4	91.2	107.8	120.8
90°	42.6	24.9	9.5	2.4	10.7	24.9	42.6	61.6	79.4	97.1	110.2
92.5°	34.4	17.8	4.7	0.0	5.9	19.0	35.5	53.3	71.1	87.7	100.7
95°	28.4	14.2	3.6	0.0	4.7	14.2	28.4	46.2	62.8	79.4	90.0
97.5°	23.7	10.7	2.4	0.0	2.4	11.8	23.7	39.1	55.7	71.1	81.7
100°	20.1	9.5	2.4	0.0	2.4	9.5	20.1	34.4	48.6	62.8	73.4
102.5°	16.6	7.1	1.2	1.2	1.2	7.1	17.8	29.6	42.6	55.7	66.3
105°	15.4	5.9	1.2	1.2	1.2	5.9	15.4	26.1	37.9	49.8	59.2
107.5°	13.0	4.7	1.2	1.2	1.2	4.7	13.0	22.5	34.4	45.0	53.3
110°	10.7	4.7	1.2	1.2	1.2	4.7	10.7	20.1	29.6	39.1	47.4

TEST NUMBER: P1213850

CATALOG NUMBER: 4SNLED-LD5-63SL-LC-UNV-L940-CD1-U

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
112.5°	9.5	3.6	1.2	1.2	1.2	3.6	9.5	17.8	26.1	35.5	42.6
115°	8.3	3.6	1.2	1.2	1.2	3.6	8.3	15.4	22.5	30.8	37.9
117.5°	7.1	3.6	1.2	1.2	1.2	2.4	7.1	13.0	20.1	27.2	34.4
120°	5.9	2.4	1.2	1.2	1.2	2.4	5.9	11.8	17.8	23.7	29.6
122.5°	5.9	2.4	1.2	1.2	1.2	2.4	4.7	9.5	15.4	20.1	26.1
125°	4.7	2.4	1.2	1.2	1.2	1.2	4.7	8.3	13.0	17.8	22.5
127.5°	4.7	2.4	1.2	1.2	1.2	1.2	3.6	7.1	10.7	15.4	20.1
130°	3.6	2.4	1.2	1.2	1.2	1.2	2.4	5.9	9.5	13.0	16.6
132.5°	3.6	2.4	1.2	1.2	1.2	1.2	2.4	4.7	7.1	10.7	14.2
135°	3.6	1.2	1.2	1.2	1.2	1.2	1.2	3.6	5.9	8.3	10.7
137.5°	2.4	1.2	1.2	1.2	1.2	1.2	1.2	2.4	4.7	5.9	9.5
140°	2.4	1.2	1.2	1.2	1.2	1.2	1.2	2.4	3.6	4.7	7.1
142.5°	2.4	1.2	1.2	1.2	1.2	1.2	1.2	1.2	2.4	3.6	5.9
145°	2.4	1.2	1.2	2.4	2.4	1.2	1.2	2.4	2.4	3.6	4.7
147.5°	2.4	1.2	1.2	1.2	1.2	1.2	1.2	1.2	2.4	2.4	3.6
150°	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	3.6
152.5°	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4
155°	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4
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: P1213850

CATALOG NUMBER: 4SNLED-LD5-63SL-LC-UNV-L940-CD1-U

CANDELA DISTRIBUTION (continued):

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
0°	2293.3	2293.3	2293.3	2293.3	2293.3	2293.3	2293.3	2293.3	2293.3	2293.3	2293.3
2.5°	2305.1	2277.9	2292.1	2287.3	2292.1	2303.9	2302.7	2299.2	2301.6	2295.6	2289.7
5°	2300.4	2273.1	2287.3	2281.4	2287.3	2299.2	2296.8	2293.3	2296.8	2289.7	2283.8
7.5°	2294.5	2269.6	2286.2	2285.0	2295.6	2311.0	2312.2	2312.2	2320.5	2309.9	2305.1
10°	2294.5	2281.4	2303.9	2312.2	2339.5	2359.6	2362.0	2366.7	2380.9	2378.6	2366.7
12.5°	2319.3	2317.0	2350.1	2370.3	2395.1	2423.6	2439.0	2443.7	2453.2	2446.1	2441.3
15°	2351.3	2363.2	2399.9	2422.4	2449.6	2470.9	2474.5	2476.9	2484.0	2473.3	2465.0
17.5°	2394.0	2401.1	2430.7	2440.2	2457.9	2461.5	2456.7	2444.9	2444.9	2421.2	2414.1
20°	2414.1	2410.5	2422.4	2407.0	2399.9	2378.6	2358.4	2335.9	2334.7	2309.9	2307.5
22.5°	2396.3	2372.6	2347.8	2309.9	2293.3	2262.5	2235.2	2222.2	2213.9	2181.9	2173.6
25°	2333.5	2275.5	2238.8	2193.8	2153.5	2118.0	2091.9	2064.7	2038.6	2012.5	2000.7
27.5°	2224.6	2170.1	2110.8	2048.1	1992.4	1937.9	1894.1	1866.8	1842.0	1807.6	1789.8
30°	2090.7	2014.9	1949.8	1889.3	1798.1	1731.8	1695.1	1640.6	1621.6	1606.2	1573.1
32.5°	1933.2	1842.0	1753.1	1671.4	1577.8	1516.2	1467.6	1427.4	1415.5	1375.2	1365.8
35°	1759.0	1639.4	1538.7	1458.2	1390.6	1316.0	1275.7	1248.5	1224.8	1197.6	1192.8
37.5°	1554.1	1446.3	1332.6	1261.5	1208.2	1144.3	1113.5	1094.5	1083.9	1063.7	1060.2
40°	1348.0	1240.2	1162.0	1091.0	1057.8	1023.4	1000.9	992.6	987.9	980.8	973.7
42.5°	1160.8	1066.1	1010.4	963.0	948.8	932.2	926.3	931.0	926.3	923.9	922.8
45°	1002.1	929.9	890.8	876.6	873.0	868.3	873.0	881.3	882.5	880.1	880.1
47.5°	857.6	823.3	806.7	809.0	815.0	818.5	826.8	837.5	839.8	833.9	836.3
50°	762.8	742.7	739.2	748.6	761.7	766.4	775.9	784.2	783.0	780.6	778.2
52.5°	674.0	668.1	677.6	687.0	701.2	703.6	707.2	710.7	709.5	704.8	702.4
55°	599.4	604.1	612.4	616.0	626.6	625.4	626.6	626.6	621.9	619.5	616.0
57.5°	531.9	533.0	537.8	539.0	544.9	542.5	541.3	539.0	531.9	530.7	527.1
60°	463.2	460.8	471.4	463.2	467.9	463.2	462.0	456.0	448.9	447.8	445.4
62.5°	398.0	393.3	400.4	396.8	399.2	394.5	392.1	385.0	379.1	377.9	376.7
65°	340.0	337.6	344.7	343.5	345.9	340.0	337.6	332.9	328.1	326.9	325.7
67.5°	291.4	297.3	300.9	300.9	303.2	302.1	296.1	295.0	293.8	289.0	289.0
70°	255.9	259.4	266.5	267.7	266.5	268.9	264.2	263.0	261.8	259.4	258.2
72.5°	227.4	232.2	239.3	240.5	239.3	239.3	236.9	235.7	235.7	232.2	232.2
75°	204.9	210.8	216.8	216.8	216.8	214.4	212.0	212.0	209.7	208.5	206.1
77.5°	186.0	193.1	197.8	196.6	195.4	193.1	193.1	189.5	186.0	186.0	183.6
80°	171.8	176.5	180.0	178.9	177.7	174.1	172.9	169.4	167.0	163.5	163.5
82.5°	156.4	162.3	164.7	163.5	161.1	157.5	156.4	154.0	151.6	150.4	148.1
85°	143.3	149.3	150.4	148.1	145.7	143.3	142.1	141.0	139.8	137.4	137.4
87.5°	130.3	136.2	136.2	135.0	132.7	131.5	130.3	129.1	127.9	126.7	125.6
90°	119.6	124.4	124.4	123.2	122.0	120.8	119.6	118.5	117.3	116.1	116.1
92.5°	109.0	113.7	113.7	112.5	111.3	110.2	110.2	109.0	107.8	106.6	105.4
95°	99.5	104.2	104.2	104.2	103.1	101.9	101.9	100.7	99.5	99.5	98.3
97.5°	90.0	94.8	94.8	94.8	93.6	92.4	92.4	91.2	91.2	91.2	90.0
100°	81.7	85.3	86.5	86.5	85.3	85.3	85.3	84.1	84.1	84.1	82.9
102.5°	73.4	77.0	79.4	79.4	79.4	78.2	78.2	78.2	78.2	78.2	77.0
105°	66.3	69.9	72.3	73.4	73.4	73.4	73.4	73.4	73.4	73.4	73.4
107.5°	60.4	64.0	66.3	67.5	68.7	68.7	69.9	69.9	69.9	69.9	69.9
110°	54.5	58.0	61.6	62.8	64.0	65.1	65.1	66.3	65.1	65.1	65.1

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CATALOG NUMBER: 4SNLED-LD5-63SL-LC-UNV-L940-CD1-U

CANDELA DISTRIBUTION (continued):

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
112.5°	48.6	53.3	55.7	58.0	59.2	60.4	61.6	61.6	61.6	61.6	61.6
115°	43.8	48.6	50.9	53.3	55.7	56.9	56.9	58.0	58.0	58.0	56.9
117.5°	39.1	43.8	46.2	48.6	49.8	52.1	53.3	53.3	53.3	53.3	52.1
120°	35.5	39.1	41.5	43.8	46.2	47.4	48.6	48.6	48.6	48.6	48.6
122.5°	30.8	34.4	37.9	40.3	41.5	42.6	43.8	43.8	43.8	43.8	43.8
125°	27.2	30.8	33.2	35.5	36.7	39.1	39.1	39.1	39.1	39.1	39.1
127.5°	23.7	27.2	29.6	32.0	33.2	34.4	35.5	35.5	35.5	35.5	35.5
130°	20.1	23.7	26.1	28.4	29.6	30.8	30.8	32.0	32.0	32.0	32.0
132.5°	17.8	20.1	22.5	24.9	26.1	27.2	27.2	28.4	28.4	28.4	28.4
135°	14.2	17.8	19.0	21.3	22.5	23.7	23.7	24.9	24.9	24.9	24.9
137.5°	11.8	14.2	16.6	19.0	20.1	20.1	21.3	21.3	22.5	22.5	22.5
140°	9.5	10.7	14.2	15.4	16.6	17.8	19.0	19.0	19.0	19.0	19.0
142.5°	7.1	9.5	10.7	13.0	14.2	15.4	16.6	16.6	16.6	16.6	16.6
145°	5.9	7.1	8.3	10.7	11.8	13.0	14.2	14.2	14.2	14.2	14.2
147.5°	4.7	5.9	7.1	8.3	9.5	10.7	11.8	11.8	11.8	11.8	11.8
150°	3.6	4.7	5.9	5.9	7.1	8.3	9.5	10.7	10.7	10.7	10.7
152.5°	3.6	3.6	4.7	4.7	5.9	7.1	8.3	8.3	8.3	8.3	8.3
155°	2.4	3.6	3.6	3.6	4.7	4.7	5.9	7.1	7.1	7.1	7.1
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: P1213850

CATALOG NUMBER: 4SNLED-LD5-63SL-LC-UNV-L940-CD1-U

CANDELA DISTRIBUTION (continued):

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°
0°	2293.3	2293.3	2293.3	2293.3	2293.3	2293.3	2293.3	2293.3	2293.3	2293.3	2293.3
2.5°	2293.3	2298.0	2295.6	2292.1	2290.9	2296.8	2290.9	2263.7	2274.3	2275.5	2283.8
5°	2289.7	2293.3	2290.9	2288.5	2285.0	2292.1	2285.0	2256.5	2267.2	2268.4	2276.7
7.5°	2313.4	2314.6	2314.6	2308.7	2299.2	2302.7	2293.3	2261.3	2267.2	2267.2	2273.1
10°	2372.6	2375.0	2378.6	2363.2	2351.3	2341.8	2328.8	2289.7	2288.5	2279.1	2279.1
12.5°	2449.6	2443.7	2437.8	2430.7	2421.2	2409.4	2390.4	2344.2	2328.8	2313.4	2298.0
15°	2472.1	2469.8	2468.6	2465.0	2459.1	2455.5	2441.3	2395.1	2372.6	2353.7	2326.4
17.5°	2412.9	2417.6	2433.0	2434.2	2441.3	2455.5	2453.2	2421.2	2401.1	2392.8	2359.6
20°	2306.3	2307.5	2326.4	2334.7	2365.5	2389.2	2407.0	2403.4	2398.7	2408.2	2383.3
22.5°	2178.4	2186.7	2206.8	2219.8	2249.4	2276.7	2305.1	2320.5	2345.4	2384.5	2379.7
25°	2004.2	2014.9	2043.3	2064.7	2106.1	2147.6	2185.5	2212.7	2242.3	2317.0	2341.8
27.5°	1795.8	1812.3	1849.1	1870.4	1928.4	1971.1	2025.6	2078.9	2120.3	2205.6	2256.5
30°	1576.6	1590.8	1629.9	1659.5	1709.3	1767.3	1836.0	1911.8	1980.5	2067.0	2131.0
32.5°	1371.7	1387.1	1419.1	1445.1	1500.8	1549.4	1625.2	1718.8	1782.7	1902.4	1987.7
35°	1192.8	1207.0	1229.6	1252.1	1298.3	1348.0	1413.2	1504.4	1586.1	1710.5	1818.3
37.5°	1067.3	1069.6	1082.7	1095.7	1130.1	1168.0	1218.9	1299.4	1375.2	1509.1	1627.6
40°	977.2	977.2	984.4	987.9	1003.3	1025.8	1057.8	1120.6	1183.4	1285.2	1429.7
42.5°	921.6	919.2	919.2	920.4	919.2	929.9	948.8	978.4	1034.1	1118.2	1230.7
45°	880.1	875.4	871.8	863.5	858.8	858.8	860.0	870.6	902.6	957.1	1048.3
47.5°	833.9	832.7	826.8	817.3	809.0	803.1	793.6	790.1	799.6	830.4	892.0
50°	780.6	774.7	768.8	761.7	752.2	746.3	728.5	729.7	721.4	735.6	767.6
52.5°	702.4	697.7	695.3	689.4	685.8	683.5	669.3	655.1	651.5	653.9	665.7
55°	616.0	618.3	608.9	613.6	612.4	601.7	595.8	585.2	581.6	580.4	586.3
57.5°	525.9	528.3	522.4	527.1	527.1	521.2	517.6	517.6	509.4	502.2	510.5
60°	444.2	439.5	443.0	448.9	448.9	445.4	443.0	443.0	437.1	434.7	440.6
62.5°	377.9	373.1	376.7	382.6	383.8	381.4	379.1	379.1	371.9	371.9	376.7
65°	326.9	328.1	326.9	331.7	331.7	332.9	330.5	328.1	319.8	323.4	322.2
67.5°	290.2	289.0	289.0	293.8	292.6	295.0	292.6	289.0	283.1	278.4	277.2
70°	259.4	258.2	258.2	260.6	261.8	261.8	260.6	258.2	249.9	245.2	241.6
72.5°	232.2	231.0	232.2	233.4	234.5	235.7	234.5	232.2	225.1	219.1	213.2
75°	207.3	206.1	209.7	209.7	210.8	210.8	212.0	210.8	204.9	197.8	190.7
77.5°	182.4	183.6	187.2	188.3	190.7	191.9	193.1	193.1	187.2	181.2	171.8
80°	162.3	164.7	167.0	168.2	170.6	174.1	175.3	176.5	171.8	165.8	155.2
82.5°	148.1	149.3	151.6	152.8	156.4	157.5	158.7	161.1	158.7	152.8	141.0
85°	136.2	137.4	139.8	139.8	142.1	144.5	145.7	146.9	145.7	139.8	127.9
87.5°	125.6	126.7	127.9	129.1	130.3	131.5	132.7	133.9	132.7	126.7	116.1
90°	116.1	116.1	117.3	117.3	118.5	119.6	122.0	122.0	120.8	116.1	105.4
92.5°	105.4	106.6	106.6	107.8	109.0	110.2	111.3	111.3	110.2	105.4	95.9
95°	98.3	98.3	99.5	99.5	100.7	100.7	101.9	101.9	100.7	95.9	86.5
97.5°	90.0	90.0	90.0	90.0	91.2	91.2	92.4	92.4	91.2	86.5	78.2
100°	82.9	82.9	82.9	82.9	82.9	84.1	84.1	84.1	82.9	78.2	69.9
102.5°	77.0	77.0	77.0	77.0	77.0	77.0	77.0	77.0	74.6	71.1	62.8
105°	73.4	73.4	73.4	72.3	72.3	72.3	71.1	71.1	67.5	64.0	56.9
107.5°	68.7	68.7	68.7	67.5	67.5	66.3	65.1	65.1	61.6	58.0	50.9
110°	65.1	65.1	65.1	64.0	62.8	61.6	60.4	59.2	55.7	50.9	45.0



TEST NUMBER: P1213850

CATALOG NUMBER: 4SNLED-LD5-63SL-LC-UNV-L940-CD1-U

CANDELA DISTRIBUTION (continued):

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°
112.5°	61.6	61.6	60.4	60.4	59.2	58.0	55.7	54.5	50.9	46.2	40.3
115°	56.9	56.9	56.9	55.7	54.5	53.3	52.1	49.8	46.2	41.5	35.5
117.5°	52.1	52.1	52.1	50.9	49.8	48.6	47.4	45.0	41.5	36.7	32.0
120°	47.4	47.4	47.4	46.2	45.0	43.8	42.6	40.3	36.7	33.2	27.2
122.5°	43.8	43.8	42.6	41.5	40.3	39.1	37.9	35.5	33.2	28.4	23.7
125°	39.1	39.1	37.9	37.9	36.7	35.5	34.4	32.0	28.4	24.9	21.3
127.5°	35.5	34.4	34.4	34.4	33.2	32.0	29.6	28.4	24.9	21.3	17.8
130°	30.8	30.8	30.8	29.6	29.6	28.4	26.1	23.7	21.3	19.0	15.4
132.5°	27.2	27.2	27.2	27.2	26.1	24.9	22.5	21.3	19.0	15.4	13.0
135°	24.9	24.9	23.7	23.7	22.5	21.3	20.1	17.8	15.4	13.0	10.7
137.5°	21.3	21.3	21.3	20.1	20.1	19.0	16.6	15.4	14.2	11.8	9.5
140°	19.0	19.0	17.8	17.8	16.6	16.6	15.4	13.0	11.8	9.5	8.3
142.5°	16.6	16.6	15.4	15.4	14.2	14.2	13.0	11.8	9.5	8.3	5.9
145°	14.2	14.2	13.0	13.0	13.0	11.8	10.7	9.5	8.3	7.1	5.9
147.5°	11.8	11.8	11.8	10.7	10.7	9.5	9.5	8.3	7.1	5.9	4.7
150°	10.7	10.7	9.5	9.5	9.5	8.3	7.1	7.1	5.9	4.7	3.6
152.5°	8.3	8.3	8.3	8.3	7.1	7.1	5.9	5.9	4.7	3.6	3.6
155°	7.1	7.1	7.1	5.9	5.9	5.9	4.7	4.7	3.6	3.6	2.4
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: P1213850

CATALOG NUMBER: 4SNLED-LD5-63SL-LC-UNV-L940-CD1-U

CANDELA DISTRIBUTION (continued):

	330°	335°	340°	345°	350°	355°	360°
0°	2293.3	2293.3	2293.3	2293.3	2293.3	2293.3	2293.3
2.5°	2280.2	2279.1	2289.7	2288.5	2274.3	2295.6	2309.9
5°	2274.3	2273.1	2282.6	2285.0	2269.6	2292.1	2307.5
7.5°	2269.6	2268.4	2279.1	2282.6	2267.2	2287.3	2303.9
10°	2270.8	2264.8	2274.3	2276.7	2262.5	2283.8	2298.0
12.5°	2279.1	2264.8	2268.4	2268.4	2255.4	2274.3	2289.7
15°	2299.2	2269.6	2264.8	2261.3	2244.7	2262.5	2277.9
17.5°	2321.7	2281.4	2264.8	2253.0	2232.9	2248.3	2264.8
20°	2344.2	2294.5	2267.2	2248.3	2221.0	2235.2	2247.1
22.5°	2354.9	2306.3	2269.6	2241.1	2206.8	2213.9	2226.9
25°	2340.6	2301.6	2264.8	2230.5	2189.0	2190.2	2200.9
27.5°	2288.5	2277.9	2254.2	2219.8	2174.8	2168.9	2177.2
30°	2199.7	2229.3	2230.5	2205.6	2158.2	2146.4	2149.9
32.5°	2075.3	2141.6	2180.7	2176.0	2134.5	2118.0	2120.3
35°	1932.0	2014.9	2100.2	2128.6	2099.0	2086.0	2081.2
37.5°	1760.2	1871.6	1985.3	2055.2	2050.4	2042.1	2037.4
40°	1570.7	1704.6	1839.6	1950.9	1985.3	1985.3	1987.7
42.5°	1368.1	1524.5	1672.6	1813.5	1894.1	1911.8	1919.0
45°	1172.7	1330.2	1491.3	1653.6	1761.4	1817.1	1837.2
47.5°	995.0	1153.7	1306.5	1484.2	1627.6	1699.8	1731.8
50°	843.4	961.8	1122.9	1299.4	1455.8	1544.6	1607.4
52.5°	717.8	810.2	951.2	1115.8	1273.4	1395.4	1453.4
55°	612.4	675.2	794.8	937.0	1087.4	1214.2	1281.7
57.5°	523.6	573.3	655.1	773.5	900.2	1025.8	1098.1
60°	445.4	479.7	535.4	629.0	736.8	844.6	914.5
62.5°	377.9	400.4	437.1	505.8	589.9	674.0	739.2
65°	325.7	335.2	355.4	398.0	462.0	525.9	581.6
67.5°	274.8	280.7	296.1	322.2	354.2	400.4	437.1
70°	236.9	236.9	238.1	253.5	270.1	299.7	325.7
72.5°	206.1	202.6	195.4	199.0	202.6	219.1	235.7
75°	181.2	172.9	161.1	156.4	154.0	156.4	165.8
77.5°	159.9	148.1	133.9	122.0	112.5	109.0	117.3
80°	142.1	127.9	111.3	95.9	80.5	72.3	75.8
82.5°	127.9	110.2	92.4	74.6	56.9	45.0	45.0
85°	112.5	95.9	77.0	58.0	40.3	24.9	22.5
87.5°	101.9	84.1	64.0	46.2	28.4	13.0	7.1
90°	91.2	73.4	54.5	36.7	20.1	5.9	0.0
92.5°	81.7	65.1	47.4	29.6	14.2	3.6	0.0
95°	73.4	58.0	40.3	24.9	11.8	2.4	1.2
97.5°	65.1	50.9	35.5	20.1	8.3	2.4	1.2
100°	59.2	45.0	30.8	16.6	7.1	1.2	1.2
102.5°	52.1	40.3	26.1	14.2	5.9	1.2	1.2
105°	46.2	35.5	22.5	11.8	4.7	1.2	1.2
107.5°	41.5	30.8	20.1	10.7	4.7	1.2	1.2
110°	36.7	27.2	17.8	9.5	3.6	1.2	1.2



TEST NUMBER: P1213850

CATALOG NUMBER: 4SNLED-LD5-63SL-LC-UNV-L940-CD1-U

CANDELA DISTRIBUTION (continued):

	330°	335°	340°	345°	350°	355°	360°
112.5°	33.2	23.7	15.4	8.3	2.4	1.2	1.2
115°	28.4	21.3	13.0	7.1	2.4	1.2	1.2
117.5°	24.9	17.8	11.8	5.9	2.4	1.2	1.2
120°	21.3	15.4	9.5	4.7	1.2	1.2	1.2
122.5°	19.0	13.0	8.3	4.7	1.2	1.2	1.2
125°	16.6	11.8	7.1	3.6	1.2	1.2	1.2
127.5°	14.2	9.5	5.9	2.4	1.2	1.2	1.2
130°	11.8	8.3	4.7	2.4	1.2	1.2	1.2
132.5°	9.5	7.1	4.7	2.4	1.2	1.2	1.2
135°	8.3	5.9	3.6	2.4	1.2	1.2	1.2
137.5°	7.1	4.7	2.4	2.4	2.4	1.2	1.2
140°	5.9	3.6	2.4	2.4	2.4	2.4	1.2
142.5°	4.7	3.6	2.4	2.4	2.4	2.4	1.2
145°	3.6	2.4	2.4	2.4	2.4	2.4	1.2
147.5°	3.6	2.4	2.4	2.4	2.4	2.4	1.2
150°	2.4	2.4	2.4	2.4	2.4	2.4	2.4
152.5°	2.4	2.4	2.4	2.4	2.4	2.4	2.4
155°	2.4	2.4	2.4	2.4	2.4	2.4	2.4
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)