

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: P1213173

Luminaire Tested: 4SNLED-LD5-74HL-LN-UNV-L930-CD1-U

Issue Date: 3/29/2018

Test Information

Test Method: LM-79-2019
Report Number: P1213173
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-LD5-74HL-LN-UNV-L930-CD1-U
Description: 4FT LINEAR SNLED LED FIXTURE
NARROW LENS
Light Source: -
Ballast/Driver: -

Summary

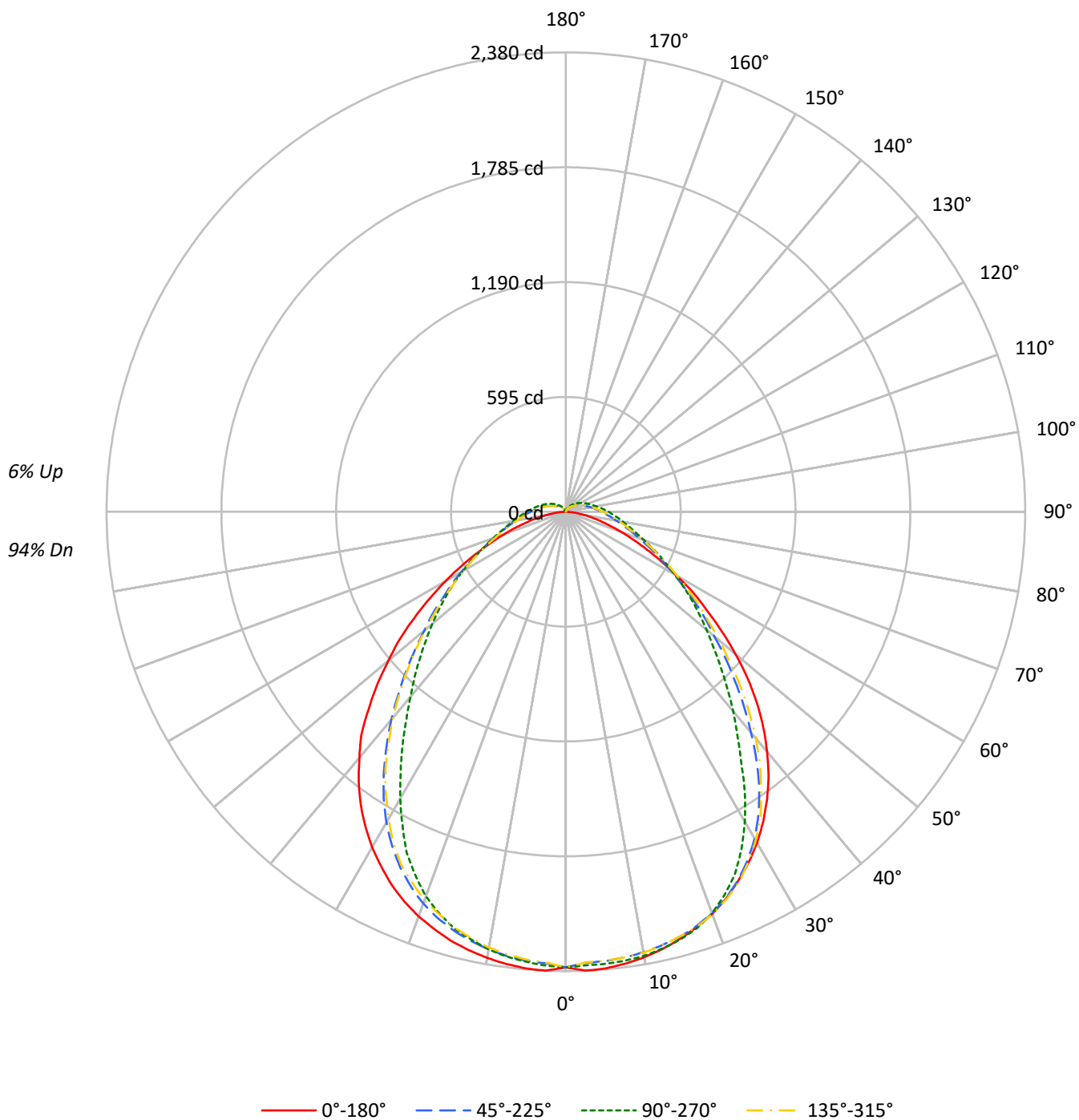
Lumens per Lamp: N/A
Luminaire Lumens: 5973.0 lumens
Efficiency: N/A
Efficacy: 96.3 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.14 / 1.24
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.12')
CIE Type: Direct

Input Watts (W): 62
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT

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Luminous Intensity Polar Plot



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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20
RC	80				70				50				30				10
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10
RCR																	
0	118	118	118	118	114	114	114	114	108	108	108	102	102	102	96	96	96
1	107	103	98	95	104	100	96	92	94	91	88	89	87	85	85	83	81
2	98	90	84	78	95	88	82	77	83	78	74	79	75	72	75	72	69
3	90	80	72	66	87	78	71	65	74	68	63	71	66	61	67	63	60
4	83	72	63	57	80	70	62	56	67	60	55	64	58	53	61	56	52
5	77	64	56	50	74	63	55	49	60	53	48	58	52	47	55	50	46
6	71	58	50	44	69	57	49	43	55	48	42	52	46	42	50	45	41
7	66	53	45	39	64	52	44	39	50	43	38	48	42	37	46	41	37
8	62	49	41	35	60	48	40	35	46	39	34	44	38	34	43	37	33
9	58	45	37	32	56	44	37	31	42	36	31	41	35	30	40	34	30
10	54	42	34	29	53	41	34	29	39	33	28	38	32	28	37	31	27

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	19073	19073	19073	19073
5°	19209	18465	19209	18384
10°	19123	17975	19155	17725
15°	19000	17438	19086	16984
20°	18854	16747	18965	16040
25°	18551	15723	18757	14796
30°	18158	14218	18397	13162
35°	17546	12372	17885	11521
40°	16668	10821	17108	10040
45°	15509	9407	16012	8867
50°	13925	8266	14540	7849
55°	12047	7299	12922	6930
60°	10131	6408	11047	6040
65°	8306	5666	9143	5253
70°	6610	5028	7400	4651
75°	5190	4643	5844	4272
80°	3748	4480	4412	4093
85°	2309	4504	3102	4141

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 180°

Vertical Angle: 45°

Luminance: 16012 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	223.8	3.7
10°-20°	641.6	10.7
20°-30°	950.9	15.9
30°-40°	1056.4	17.7
40°-50°	957.6	16.0
50°-60°	742.1	12.4
60°-70°	503.9	8.4
70°-80°	320.6	5.4
80°-90°	205.0	3.4
90°-100°	138.2	2.3
100°-110°	94.7	1.6
110°-120°	63.1	1.1
120°-130°	39.3	0.7
130°-140°	21.7	0.4
140°-150°	10.2	0.2
150°-160°	3.7	0.1
160°-170°	0.2	0.0
170°-180°	0.0	0.0
0°-30°	1816.3	30.4
0°-40°	2872.7	48.1
0°-60°	4572.4	76.6
0°-90°	5601.9	93.8
90°-120°	296.0	5.0
90°-150°	367.2	6.1
90°-180°	371.0	6.2
0°-180°	5973.0	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	2360	2360	2360	2360	2360	
5°	2374	2351	2374	2341	2374	226
15°	2290	2294	2300	2234	2290	646
25°	2111	2072	2134	1950	2111	972
35°	1818	1584	1853	1475	1818	1134
45°	1400	1132	1445	1067	1400	1075
55°	893	796	958	756	893	804
65°	464	535	510	496	464	465
75°	186	357	209	328	186	200
85°	34	257	45	236	34	40
90°	0	222	3	202	0	2
95°	1	190	0	177	1	1
105°	1	139	0	131	1	1
115°	1	105	0	97	1	1
125°	1	78	1	69	1	1
135°	1	54	1	44	1	1
145°	1	35	1	25	1	1
155°	1	20	1	9	1	1
165°	0	0	0	0	0	0
175°	0	0	0	0	0	0
180°	0	0	0	0	0	0

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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	2360.2	2360.2	2360.2	2360.2	2360.2	2360.2	2360.2	2360.2	2360.2	2360.2	2360.2
2.5°	2379.7	2377.1	2374.5	2370.6	2374.5	2384.8	2378.4	2364.1	2361.5	2338.1	2348.5
5°	2374.5	2370.6	2368.0	2364.1	2369.3	2382.3	2375.8	2362.8	2358.9	2336.8	2348.5
7.5°	2361.5	2358.9	2355.0	2355.0	2360.2	2373.2	2368.0	2353.7	2351.1	2329.0	2342.0
10°	2343.3	2342.0	2339.4	2339.4	2344.6	2360.2	2353.7	2340.7	2338.1	2317.3	2331.6
12.5°	2319.9	2321.2	2317.3	2317.3	2325.1	2340.7	2335.5	2321.2	2318.6	2300.5	2314.7
15°	2290.1	2291.4	2288.8	2290.1	2297.9	2316.0	2309.6	2296.6	2294.0	2279.7	2291.4
17.5°	2256.3	2257.6	2257.6	2256.3	2265.4	2283.6	2278.4	2266.7	2262.8	2251.1	2265.4
20°	2217.4	2217.4	2217.4	2217.4	2227.8	2245.9	2239.4	2230.4	2222.6	2213.5	2225.2
22.5°	2169.3	2168.0	2169.3	2173.2	2183.6	2197.9	2194.0	2183.6	2171.9	2166.7	2175.8
25°	2110.9	2114.8	2116.1	2120.0	2133.0	2144.7	2140.8	2130.4	2112.2	2108.3	2110.9
27.5°	2049.9	2052.5	2056.4	2055.1	2073.3	2085.0	2077.2	2068.1	2042.1	2038.2	2035.6
30°	1981.1	1985.0	1987.6	1986.3	2000.6	2013.6	2005.8	1994.1	1959.0	1956.4	1935.7
32.5°	1903.2	1907.1	1909.7	1909.7	1930.5	1935.7	1921.4	1904.5	1866.9	1857.8	1839.6
35°	1817.5	1821.4	1822.7	1822.7	1843.5	1842.2	1824.0	1800.6	1759.1	1747.4	1716.3
37.5°	1725.3	1727.9	1729.2	1737.0	1746.1	1738.3	1715.0	1685.1	1653.9	1621.5	1587.7
40°	1621.5	1625.4	1628.0	1633.2	1642.3	1633.2	1599.4	1563.1	1529.3	1493.0	1459.2
42.5°	1515.0	1526.7	1524.1	1522.8	1528.0	1503.4	1477.4	1435.8	1402.1	1364.4	1330.7
45°	1399.5	1398.2	1404.7	1407.3	1406.0	1385.2	1348.9	1311.2	1277.5	1238.5	1210.0
47.5°	1277.5	1276.2	1281.4	1283.9	1276.2	1254.1	1225.5	1182.7	1154.1	1120.4	1098.3
50°	1148.9	1148.9	1156.7	1148.9	1145.0	1123.0	1099.6	1056.8	1034.7	1004.8	991.8
52.5°	1020.4	1032.1	1024.3	1021.7	1017.8	995.7	977.6	942.5	924.3	911.4	895.8
55°	893.2	906.2	901.0	897.1	895.8	877.6	860.7	834.8	823.1	814.0	804.9
57.5°	785.4	784.1	781.5	777.6	778.9	764.7	747.8	733.5	728.3	724.4	727.0
60°	660.8	671.2	667.3	668.6	669.9	667.3	653.0	643.9	645.2	646.5	650.4
62.5°	558.2	567.3	573.8	568.6	571.2	575.1	567.3	564.7	569.9	575.1	580.3
65°	463.5	472.6	479.0	477.7	485.5	493.3	492.0	494.6	506.3	512.8	519.3
67.5°	377.8	386.9	396.0	397.3	408.9	420.6	425.8	434.9	447.9	457.0	464.8
70°	303.8	311.6	322.0	328.5	344.0	359.6	368.7	386.9	394.7	407.6	412.8
72.5°	237.6	244.1	258.3	273.9	286.9	306.4	324.6	340.1	351.8	366.1	372.6
75°	185.6	188.2	203.8	222.0	240.2	262.2	281.7	298.6	314.2	328.5	338.8
77.5°	136.3	140.2	154.5	179.2	199.9	223.3	245.4	263.5	280.4	294.7	309.0
80°	94.8	102.6	118.1	142.8	166.2	192.1	212.9	233.7	251.9	266.1	280.4
82.5°	61.0	67.5	89.6	114.2	138.9	164.9	186.9	207.7	227.2	242.8	255.8
85°	33.8	42.8	64.9	90.9	115.5	141.5	164.9	185.6	205.1	219.4	232.4
87.5°	13.0	26.0	46.7	71.4	96.1	120.7	145.4	164.9	184.3	199.9	211.6
90°	0.0	15.6	35.1	59.7	84.4	109.1	132.4	153.2	171.4	185.6	198.6
92.5°	1.3	10.4	27.3	48.0	71.4	94.8	116.8	137.6	155.8	170.1	181.8
95°	1.3	7.8	22.1	41.5	62.3	84.4	105.2	124.6	141.5	155.8	167.5
97.5°	1.3	5.2	18.2	36.4	54.5	76.6	96.1	114.2	129.8	144.1	153.2
100°	1.3	5.2	15.6	31.2	49.3	68.8	87.0	105.2	119.4	131.1	141.5
102.5°	1.3	3.9	13.0	27.3	44.1	61.0	79.2	96.1	109.1	120.7	131.1
105°	1.3	3.9	11.7	23.4	38.9	55.8	71.4	87.0	101.3	111.6	120.7
107.5°	1.3	2.6	10.4	19.5	33.8	50.6	66.2	79.2	92.2	102.6	111.6
110°	1.3	2.6	9.1	18.2	29.9	45.4	59.7	72.7	84.4	94.8	102.6

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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	1.3	2.6	7.8	16.9	27.3	40.2	54.5	66.2	77.9	87.0	94.8
115°	1.3	2.6	7.8	15.6	24.7	35.1	48.0	61.0	70.1	80.5	87.0
117.5°	1.3	2.6	6.5	13.0	23.4	32.5	44.1	54.5	64.9	74.0	80.5
120°	1.3	2.6	6.5	11.7	20.8	29.9	38.9	49.3	59.7	66.2	72.7
122.5°	1.3	2.6	5.2	11.7	18.2	27.3	35.1	44.1	53.2	61.0	67.5
125°	1.3	2.6	5.2	10.4	16.9	24.7	32.5	38.9	48.0	54.5	61.0
127.5°	1.3	2.6	5.2	9.1	15.6	22.1	29.9	36.4	42.8	49.3	54.5
130°	1.3	2.6	3.9	7.8	14.3	19.5	26.0	33.8	38.9	44.1	49.3
132.5°	1.3	2.6	3.9	7.8	11.7	16.9	23.4	29.9	35.1	40.2	44.1
135°	1.3	2.6	3.9	6.5	10.4	15.6	19.5	26.0	31.2	36.4	40.2
137.5°	1.3	2.6	3.9	6.5	9.1	13.0	16.9	22.1	27.3	31.2	36.4
140°	1.3	2.6	3.9	5.2	7.8	11.7	15.6	18.2	23.4	27.3	31.2
142.5°	1.3	2.6	3.9	5.2	7.8	10.4	13.0	15.6	19.5	23.4	27.3
145°	1.3	2.6	3.9	5.2	6.5	9.1	11.7	14.3	15.6	19.5	22.1
147.5°	1.3	2.6	3.9	5.2	5.2	7.8	10.4	11.7	14.3	15.6	18.2
150°	1.3	2.6	3.9	3.9	5.2	6.5	9.1	10.4	11.7	14.3	15.6
152.5°	1.3	2.6	3.9	3.9	5.2	6.5	7.8	9.1	10.4	11.7	13.0
155°	1.3	2.6	3.9	3.9	3.9	5.2	6.5	7.8	9.1	10.4	11.7
157.5°	2.6	2.6	2.6	3.9	3.9	5.2	5.2	6.5	7.8	7.8	9.1
160°	2.6	2.6	2.6	3.9	3.9	3.9	5.2	5.2	6.5	6.5	7.8
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°	2360.2	2360.2	2360.2	2360.2	2360.2	2360.2	2360.2	2360.2	2360.2	2360.2	2360.2
2.5°	2345.9	2349.8	2361.5	2361.5	2358.9	2356.3	2356.3	2352.4	2355.0	2360.2	2357.6
5°	2345.9	2349.8	2361.5	2361.5	2358.9	2356.3	2355.0	2351.1	2355.0	2360.2	2357.6
7.5°	2338.1	2343.3	2355.0	2355.0	2352.4	2351.1	2348.5	2345.9	2349.8	2355.0	2352.4
10°	2327.7	2332.9	2344.6	2344.6	2342.0	2342.0	2338.1	2335.5	2340.7	2344.6	2343.3
12.5°	2312.1	2318.6	2329.0	2327.7	2325.1	2326.4	2322.5	2317.3	2322.5	2326.4	2327.7
15°	2290.1	2297.9	2308.3	2305.7	2301.8	2304.4	2297.9	2294.0	2297.9	2305.7	2304.4
17.5°	2261.5	2266.7	2274.5	2274.5	2270.6	2268.0	2265.4	2261.5	2264.1	2269.3	2270.6
20°	2221.3	2227.8	2231.7	2227.8	2226.5	2222.6	2217.4	2213.5	2218.7	2226.5	2227.8
22.5°	2168.0	2169.3	2178.4	2169.3	2162.9	2161.6	2156.4	2148.6	2156.4	2162.9	2164.1
25°	2101.8	2108.3	2104.4	2088.9	2088.9	2078.5	2075.9	2072.0	2073.3	2085.0	2090.2
27.5°	2017.4	2020.0	2009.7	1996.7	1985.0	1978.5	1969.4	1970.7	1970.7	1986.3	1991.5
30°	1925.3	1911.0	1901.9	1881.1	1872.0	1856.5	1853.9	1853.9	1851.3	1859.1	1882.4
32.5°	1814.9	1795.5	1781.2	1761.7	1746.1	1730.5	1722.8	1726.6	1725.3	1744.8	1752.6
35°	1694.2	1682.5	1652.6	1628.0	1618.9	1595.5	1595.5	1583.8	1591.6	1613.7	1622.8
37.5°	1567.0	1548.8	1524.1	1496.9	1490.4	1472.2	1465.7	1459.2	1476.1	1480.0	1489.1
40°	1437.1	1420.3	1396.9	1370.9	1370.9	1348.9	1348.9	1348.9	1350.2	1357.9	1374.8
42.5°	1313.8	1295.6	1274.9	1256.7	1254.1	1237.2	1237.2	1235.9	1238.5	1245.0	1260.6
45°	1194.4	1180.1	1158.0	1148.9	1150.2	1132.1	1136.0	1132.1	1137.2	1143.7	1148.9
47.5°	1084.0	1074.9	1065.8	1052.9	1049.0	1047.7	1041.2	1036.0	1045.1	1045.1	1052.9
50°	981.5	976.3	971.1	963.3	964.6	959.4	951.6	951.6	958.1	959.4	964.6
52.5°	891.9	885.4	878.9	880.2	881.5	878.9	875.0	871.1	875.0	877.6	884.1
55°	802.3	797.1	803.6	801.0	803.6	801.0	798.4	795.8	802.3	798.4	804.9
57.5°	721.8	727.0	729.6	724.4	728.3	725.7	727.0	723.1	728.3	730.9	729.6
60°	647.8	655.6	651.7	653.0	658.2	655.6	650.4	654.3	659.5	660.8	659.5
62.5°	580.3	589.4	593.3	590.7	592.0	589.4	593.3	588.1	594.6	597.2	593.3
65°	519.3	529.7	532.3	532.3	532.3	529.7	533.6	534.9	537.5	537.5	534.9
67.5°	467.4	476.5	479.0	481.6	479.0	476.5	476.5	477.7	482.9	485.5	482.9
70°	420.6	429.7	431.0	431.0	432.3	434.9	429.7	432.3	436.2	437.5	436.2
72.5°	380.4	389.5	392.1	390.8	392.1	393.4	393.4	390.8	394.7	397.3	397.3
75°	347.9	353.1	355.7	355.7	357.0	358.3	358.3	357.0	359.6	360.9	362.2
77.5°	318.1	322.0	325.9	325.9	327.2	325.9	328.5	328.5	329.8	331.0	332.3
80°	288.2	293.4	296.0	297.3	299.9	301.2	301.2	301.2	302.5	303.8	303.8
82.5°	264.8	268.7	272.6	276.5	276.5	277.8	277.8	277.8	279.1	279.1	280.4
85°	241.5	246.7	250.6	253.2	254.5	255.8	255.8	257.0	257.0	257.0	258.3
87.5°	220.7	227.2	229.8	232.4	233.7	236.3	236.3	236.3	237.6	237.6	237.6
90°	206.4	212.9	215.5	218.1	219.4	220.7	220.7	222.0	222.0	223.3	223.3
92.5°	189.5	196.0	201.2	201.2	202.5	205.1	203.8	203.8	205.1	206.4	206.4
95°	176.6	181.8	185.6	186.9	188.2	188.2	188.2	189.5	188.2	189.5	189.5
97.5°	161.0	166.2	170.1	172.7	174.0	174.0	174.0	175.3	174.0	175.3	175.3
100°	148.0	153.2	157.1	158.4	161.0	161.0	161.0	161.0	161.0	161.0	162.3
102.5°	137.6	142.8	145.4	146.7	148.0	149.3	149.3	149.3	149.3	150.6	150.6
105°	127.2	132.4	135.0	136.3	137.6	138.9	138.9	138.9	140.2	140.2	138.9
107.5°	118.1	122.0	124.6	127.2	128.5	128.5	129.8	129.8	129.8	129.8	129.8
110°	109.1	112.9	116.8	119.4	119.4	120.7	120.7	122.0	122.0	120.7	122.0

TEST NUMBER: P1213173

CATALOG NUMBER: 4SNLED-LD5-74HL-LN-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
112.5°	100.0	105.2	107.8	110.3	111.6	112.9	112.9	112.9	112.9	112.9	112.9
115°	92.2	97.4	100.0	102.6	103.9	105.2	105.2	105.2	105.2	105.2	105.2
117.5°	85.7	90.9	93.5	94.8	96.1	97.4	98.7	98.7	98.7	98.7	97.4
120°	79.2	83.1	85.7	88.3	89.6	90.9	90.9	90.9	90.9	90.9	90.9
122.5°	72.7	76.6	79.2	81.8	83.1	84.4	84.4	84.4	84.4	84.4	84.4
125°	66.2	70.1	72.7	75.3	76.6	77.9	77.9	77.9	77.9	77.9	77.9
127.5°	59.7	63.6	67.5	68.8	70.1	71.4	71.4	71.4	72.7	71.4	71.4
130°	53.2	57.1	61.0	62.3	63.6	64.9	66.2	66.2	66.2	66.2	64.9
132.5°	48.0	51.9	54.5	55.8	58.4	58.4	59.7	59.7	59.7	59.7	58.4
135°	44.1	46.7	49.3	50.6	53.2	53.2	53.2	54.5	54.5	53.2	51.9
137.5°	38.9	41.5	44.1	45.4	46.7	48.0	48.0	49.3	48.0	48.0	48.0
140°	36.4	37.6	40.2	41.5	42.8	42.8	42.8	44.1	44.1	42.8	42.8
142.5°	31.2	33.8	36.4	37.6	38.9	38.9	38.9	38.9	38.9	38.9	38.9
145°	26.0	29.9	31.2	33.8	33.8	35.1	35.1	35.1	35.1	35.1	33.8
147.5°	22.1	24.7	28.6	29.9	29.9	31.2	31.2	31.2	31.2	31.2	29.9
150°	16.9	19.5	23.4	26.0	26.0	27.3	27.3	27.3	27.3	26.0	26.0
152.5°	14.3	16.9	18.2	20.8	22.1	22.1	22.1	23.4	22.1	22.1	22.1
155°	13.0	14.3	15.6	16.9	18.2	19.5	19.5	19.5	19.5	18.2	18.2
157.5°	10.4	11.7	13.0	14.3	15.6	16.9	16.9	16.9	16.9	16.9	15.6
160°	7.8	9.1	10.4	10.4	11.7	13.0	14.3	13.0	13.0	13.0	13.0
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: P1213173

CATALOG NUMBER: 4SNLED-LD5-74HL-LN-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	2360.2	2360.2	2360.2	2360.2	2360.2	2360.2	2360.2	2360.2	2360.2	2360.2	2360.2
2.5°	2355.0	2353.7	2357.6	2351.1	2331.6	2336.8	2334.2	2345.9	2348.5	2351.1	2362.8
5°	2355.0	2353.7	2356.3	2351.1	2330.3	2334.2	2331.6	2343.3	2345.9	2347.2	2358.9
7.5°	2349.8	2348.5	2352.4	2345.9	2323.8	2329.0	2325.1	2336.8	2338.1	2339.4	2349.8
10°	2339.4	2338.1	2340.7	2335.5	2313.4	2318.6	2313.4	2325.1	2325.1	2327.7	2335.5
12.5°	2323.8	2321.2	2326.4	2319.9	2295.3	2301.8	2299.2	2307.0	2308.3	2309.6	2317.3
15°	2301.8	2299.2	2303.1	2299.2	2277.1	2278.4	2274.5	2286.2	2287.5	2284.9	2292.7
17.5°	2269.3	2266.7	2274.5	2271.9	2249.8	2255.0	2253.7	2256.3	2260.2	2253.7	2264.1
20°	2229.1	2231.7	2234.3	2235.6	2218.7	2218.7	2217.4	2222.6	2226.5	2221.3	2229.1
22.5°	2169.3	2175.8	2183.6	2186.2	2174.5	2173.2	2181.0	2178.4	2182.3	2179.7	2184.9
25°	2094.0	2107.0	2114.8	2122.6	2116.1	2118.7	2130.4	2133.0	2133.0	2131.7	2136.9
27.5°	2000.6	2017.4	2031.7	2048.6	2042.1	2047.3	2066.8	2069.4	2074.6	2069.4	2079.8
30°	1888.9	1904.5	1931.8	1956.4	1959.0	1966.8	1994.1	1996.7	2011.0	2005.8	2009.7
32.5°	1777.3	1785.1	1816.2	1840.9	1856.5	1875.9	1905.8	1911.0	1930.5	1934.4	1934.4
35°	1637.1	1659.1	1687.7	1722.8	1742.2	1763.0	1803.2	1811.0	1839.6	1848.7	1859.1
37.5°	1518.9	1539.7	1557.9	1594.2	1629.3	1652.6	1685.1	1704.6	1734.4	1751.3	1764.3
40°	1393.0	1409.9	1429.4	1465.7	1495.6	1530.6	1563.1	1586.4	1624.1	1643.6	1660.4
42.5°	1273.6	1286.5	1307.3	1333.3	1364.4	1403.4	1434.5	1461.8	1502.1	1529.3	1548.8
45°	1167.1	1174.9	1193.1	1212.5	1239.8	1280.1	1309.9	1345.0	1377.4	1406.0	1429.4
47.5°	1067.1	1077.5	1086.6	1099.6	1124.3	1148.9	1184.0	1217.7	1250.2	1281.4	1304.7
50°	975.0	975.0	989.3	998.3	1015.2	1037.3	1064.5	1087.9	1128.2	1150.2	1180.1
52.5°	885.4	890.6	898.4	903.6	916.6	930.8	952.9	972.4	1006.1	1026.9	1055.5
55°	806.2	811.4	815.3	817.9	825.7	842.6	850.3	865.9	889.3	906.2	930.8
57.5°	730.9	733.5	737.4	738.7	740.0	750.4	756.9	760.8	784.1	801.0	821.8
60°	662.1	662.1	666.0	664.7	663.4	668.6	667.3	671.2	685.5	695.9	704.9
62.5°	597.2	597.2	598.5	595.9	594.6	594.6	589.4	593.3	597.2	598.5	605.0
65°	537.5	544.0	538.8	540.1	532.3	529.7	527.1	519.3	518.0	512.8	515.4
67.5°	484.2	489.4	484.2	484.2	477.7	472.6	466.1	453.1	449.2	438.8	436.2
70°	441.4	437.5	440.1	436.2	428.4	421.9	412.8	402.5	389.5	376.5	367.4
72.5°	399.9	399.9	397.3	393.4	389.5	376.5	366.1	354.4	338.8	322.0	309.0
75°	359.6	360.9	360.9	357.0	350.5	338.8	327.2	310.3	293.4	273.9	257.0
77.5°	331.0	331.0	331.0	324.6	318.1	307.7	293.4	275.2	257.0	233.7	214.2
80°	303.8	302.5	302.5	294.7	288.2	276.5	262.2	244.1	224.6	199.9	177.9
82.5°	281.7	280.4	277.8	271.3	262.2	250.6	236.3	216.8	196.0	174.0	146.7
85°	258.3	257.0	254.5	248.0	238.9	228.5	212.9	193.4	172.7	148.0	122.0
87.5°	237.6	236.3	232.4	228.5	218.1	206.4	190.8	172.7	150.6	127.2	101.3
90°	223.3	220.7	218.1	212.9	203.8	190.8	175.3	155.8	133.7	110.3	84.4
92.5°	206.4	205.1	201.2	196.0	188.2	175.3	159.7	141.5	119.4	97.4	72.7
95°	189.5	188.2	185.6	180.5	172.7	161.0	146.7	128.5	107.8	85.7	63.6
97.5°	174.0	174.0	170.1	166.2	157.1	148.0	133.7	116.8	97.4	77.9	57.1
100°	161.0	161.0	157.1	151.9	145.4	136.3	122.0	106.5	88.3	70.1	49.3
102.5°	149.3	148.0	145.4	140.2	133.7	124.6	111.6	97.4	80.5	62.3	44.1
105°	138.9	137.6	135.0	129.8	124.6	114.2	103.9	89.6	72.7	55.8	38.9
107.5°	128.5	127.2	125.9	120.7	114.2	105.2	94.8	80.5	66.2	50.6	35.1
110°	119.4	118.1	115.5	110.3	103.9	96.1	85.7	74.0	59.7	45.4	31.2

TEST NUMBER: P1213173

CATALOG NUMBER: 4SNLED-LD5-74HL-LN-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
112.5°	111.6	110.3	107.8	102.6	97.4	88.3	79.2	66.2	54.5	41.5	27.3
115°	103.9	102.6	100.0	94.8	88.3	80.5	71.4	61.0	48.0	36.4	24.7
117.5°	96.1	94.8	92.2	88.3	81.8	74.0	64.9	54.5	42.8	33.8	22.1
120°	89.6	87.0	84.4	80.5	74.0	67.5	58.4	49.3	38.9	29.9	19.5
122.5°	83.1	80.5	77.9	74.0	67.5	61.0	51.9	44.1	36.4	27.3	18.2
125°	75.3	74.0	71.4	67.5	61.0	54.5	48.0	40.2	32.5	24.7	15.6
127.5°	68.8	67.5	64.9	59.7	54.5	49.3	42.8	36.4	28.6	20.8	14.3
130°	63.6	61.0	58.4	54.5	50.6	45.4	38.9	32.5	26.0	18.2	13.0
132.5°	57.1	54.5	51.9	49.3	45.4	40.2	35.1	28.6	23.4	16.9	11.7
135°	51.9	49.3	46.7	44.1	40.2	36.4	31.2	26.0	20.8	15.6	10.4
137.5°	45.4	44.1	42.8	40.2	36.4	32.5	28.6	22.1	18.2	14.3	9.1
140°	41.5	40.2	38.9	35.1	32.5	28.6	24.7	19.5	15.6	11.7	7.8
142.5°	37.6	36.4	33.8	31.2	28.6	26.0	20.8	18.2	14.3	10.4	7.8
145°	32.5	31.2	29.9	27.3	24.7	20.8	18.2	15.6	13.0	9.1	6.5
147.5°	29.9	28.6	26.0	23.4	20.8	18.2	16.9	14.3	10.4	7.8	5.2
150°	24.7	23.4	22.1	19.5	18.2	16.9	14.3	11.7	9.1	6.5	5.2
152.5°	20.8	19.5	18.2	18.2	15.6	14.3	11.7	10.4	7.8	6.5	3.9
155°	18.2	18.2	16.9	15.6	13.0	11.7	10.4	7.8	6.5	5.2	3.9
157.5°	15.6	14.3	13.0	13.0	11.7	10.4	7.8	6.5	5.2	5.2	3.9
160°	13.0	11.7	11.7	10.4	9.1	7.8	6.5	6.5	5.2	3.9	3.9
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: P1213173

CATALOG NUMBER: 4SNLED-LD5-74HL-LN-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
0°	2360.2	2360.2	2360.2	2360.2	2360.2	2360.2	2360.2	2360.2	2360.2	2360.2	2360.2
2.5°	2364.1	2349.8	2362.8	2379.7	2379.7	2377.1	2374.5	2379.7	2392.6	2387.4	2371.9
5°	2360.2	2345.9	2357.6	2374.5	2374.5	2370.6	2368.0	2371.9	2386.1	2379.7	2365.4
7.5°	2352.4	2339.4	2347.2	2362.8	2362.8	2358.9	2356.3	2361.5	2373.2	2366.7	2351.1
10°	2338.1	2323.8	2332.9	2347.2	2345.9	2343.3	2339.4	2345.9	2356.3	2347.2	2329.0
12.5°	2319.9	2305.7	2313.4	2326.4	2325.1	2319.9	2317.3	2321.2	2330.3	2325.1	2305.7
15°	2295.3	2281.0	2287.5	2300.5	2296.6	2292.7	2287.5	2288.8	2300.5	2291.4	2270.6
17.5°	2265.4	2249.8	2255.0	2266.7	2262.8	2258.9	2252.4	2253.7	2266.7	2253.7	2231.7
20°	2229.1	2212.2	2216.1	2230.4	2223.9	2217.4	2210.9	2210.9	2223.9	2209.6	2184.9
22.5°	2190.1	2173.2	2175.8	2186.2	2181.0	2169.3	2162.9	2166.7	2173.2	2155.1	2129.1
25°	2142.1	2120.0	2123.9	2134.3	2130.4	2114.8	2108.3	2110.9	2108.3	2094.0	2066.8
27.5°	2086.3	2062.9	2065.5	2072.0	2066.8	2052.5	2044.7	2046.0	2040.8	2022.6	1991.5
30°	2016.2	2004.5	2003.2	2007.1	1999.3	1985.0	1975.9	1973.3	1972.0	1946.0	1908.4
32.5°	1944.7	1934.4	1927.9	1933.1	1924.0	1909.7	1894.1	1894.1	1881.1	1856.5	1824.0
35°	1872.0	1855.2	1848.7	1852.6	1842.2	1824.0	1811.0	1804.5	1785.1	1753.9	1718.9
37.5°	1778.6	1766.9	1759.1	1763.0	1751.3	1738.3	1713.7	1707.2	1686.4	1643.6	1599.4
40°	1677.3	1668.2	1660.4	1664.3	1651.3	1631.9	1609.8	1599.4	1576.1	1528.0	1493.0
42.5°	1568.3	1564.4	1555.3	1569.6	1543.6	1524.1	1502.1	1485.2	1461.8	1409.9	1369.6
45°	1452.7	1461.8	1441.0	1444.9	1428.1	1411.2	1387.8	1363.1	1339.8	1290.4	1245.0
47.5°	1330.7	1337.2	1322.9	1325.5	1307.3	1291.7	1271.0	1239.8	1213.8	1171.0	1130.8
50°	1204.8	1202.2	1202.2	1199.6	1185.3	1165.8	1145.0	1116.5	1090.5	1051.6	1017.8
52.5°	1071.0	1076.2	1078.8	1085.3	1067.1	1055.5	1023.0	998.3	978.9	938.6	910.1
55°	942.5	960.7	955.5	958.1	937.3	928.2	902.3	882.8	854.2	830.9	812.7
57.5°	825.7	829.6	832.2	836.1	827.0	808.8	788.0	772.4	750.4	730.9	717.9
60°	712.7	712.7	714.0	720.5	711.4	695.9	680.3	668.6	653.0	641.3	633.5
62.5°	606.3	615.4	616.7	611.5	599.8	592.0	581.6	575.1	564.7	560.8	558.2
65°	507.6	507.6	507.6	510.2	503.7	498.5	492.0	490.7	494.6	489.4	492.0
67.5°	424.5	420.6	418.0	419.3	416.7	414.1	412.8	416.7	424.5	424.5	431.0
70°	353.1	345.3	340.1	340.1	340.1	341.4	345.3	353.1	366.1	371.3	380.4
72.5°	294.7	277.8	270.0	270.0	271.3	276.5	288.2	302.5	314.2	324.6	336.2
75°	238.9	222.0	210.3	209.0	211.6	219.4	236.3	249.3	268.7	283.0	297.3
77.5°	193.4	172.7	158.4	157.1	161.0	172.7	193.4	210.3	232.4	248.0	263.5
80°	154.5	131.1	119.4	111.6	118.1	132.4	155.8	176.6	197.3	218.1	237.6
82.5°	123.3	101.3	83.1	75.3	83.1	102.6	124.6	149.3	170.1	192.1	211.6
85°	97.4	74.0	53.2	45.4	54.5	75.3	100.0	124.6	148.0	170.1	189.5
87.5°	76.6	53.2	32.5	22.1	33.8	55.8	79.2	103.9	128.5	150.6	170.1
90°	59.7	37.6	18.2	2.6	19.5	40.2	63.6	87.0	111.6	133.7	153.2
92.5°	50.6	28.6	10.4	0.0	11.7	29.9	51.9	75.3	97.4	119.4	138.9
95°	42.8	23.4	7.8	0.0	7.8	23.4	42.8	63.6	85.7	107.8	127.2
97.5°	36.4	18.2	5.2	0.0	5.2	18.2	35.1	55.8	75.3	96.1	114.2
100°	31.2	15.6	3.9	0.0	3.9	14.3	29.9	48.0	67.5	87.0	103.9
102.5°	27.3	13.0	2.6	0.0	2.6	11.7	24.7	41.5	58.4	76.6	93.5
105°	23.4	10.4	2.6	0.0	1.3	9.1	20.8	36.4	51.9	68.8	84.4
107.5°	20.8	9.1	2.6	0.0	1.3	7.8	18.2	31.2	46.7	61.0	75.3
110°	18.2	7.8	2.6	0.0	1.3	5.2	15.6	27.3	40.2	54.5	68.8

TEST NUMBER: P1213173

CATALOG NUMBER: 4SNLED-LD5-74HL-LN-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
112.5°	15.6	6.5	1.3	0.0	0.0	3.9	13.0	23.4	35.1	49.3	61.0
115°	14.3	6.5	1.3	0.0	0.0	2.6	10.4	20.8	31.2	44.1	54.5
117.5°	13.0	5.2	1.3	0.0	1.3	2.6	9.1	18.2	27.3	37.6	49.3
120°	11.7	5.2	1.3	0.0	1.3	1.3	6.5	15.6	23.4	33.8	42.8
122.5°	10.4	5.2	1.3	0.0	1.3	1.3	5.2	13.0	20.8	29.9	37.6
125°	9.1	3.9	2.6	1.3	1.3	1.3	3.9	10.4	18.2	24.7	33.8
127.5°	9.1	3.9	2.6	1.3	1.3	1.3	2.6	9.1	14.3	22.1	29.9
130°	7.8	3.9	2.6	1.3	1.3	1.3	1.3	6.5	13.0	18.2	24.7
132.5°	6.5	3.9	2.6	1.3	1.3	1.3	1.3	3.9	9.1	15.6	20.8
135°	6.5	3.9	2.6	1.3	1.3	1.3	1.3	2.6	6.5	11.7	16.9
137.5°	5.2	2.6	2.6	1.3	1.3	1.3	1.3	1.3	5.2	9.1	13.0
140°	5.2	2.6	2.6	1.3	1.3	1.3	1.3	1.3	3.9	6.5	10.4
142.5°	3.9	2.6	2.6	1.3	1.3	1.3	1.3	1.3	2.6	5.2	7.8
145°	3.9	2.6	2.6	1.3	1.3	1.3	1.3	1.3	1.3	2.6	5.2
147.5°	3.9	3.9	2.6	1.3	1.3	1.3	1.3	1.3	1.3	2.6	3.9
150°	3.9	2.6	2.6	1.3	1.3	1.3	1.3	1.3	1.3	1.3	2.6
152.5°	3.9	2.6	2.6	1.3	1.3	1.3	1.3	1.3	1.3	1.3	2.6
155°	3.9	2.6	2.6	1.3	1.3	1.3	1.3	1.3	1.3	2.6	2.6
157.5°	3.9	2.6	2.6	1.3	1.3	1.3	1.3	1.3	1.3	1.3	2.6
160°	3.9	2.6	2.6	1.3	2.6	1.3	2.6	2.6	2.6	2.6	2.6
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: P1213173

CATALOG NUMBER: 4SNLED-LD5-74HL-LN-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
0°	2360.2	2360.2	2360.2	2360.2	2360.2	2360.2	2360.2	2360.2	2360.2	2360.2	2360.2
2.5°	2366.7	2342.0	2355.0	2351.1	2356.3	2366.7	2365.4	2362.8	2362.8	2358.9	2353.7
5°	2358.9	2335.5	2347.2	2340.7	2347.2	2356.3	2355.0	2351.1	2353.7	2347.2	2340.7
7.5°	2343.3	2322.5	2332.9	2327.7	2332.9	2342.0	2338.1	2336.8	2339.4	2329.0	2325.1
10°	2325.1	2301.8	2313.4	2307.0	2313.4	2319.9	2317.3	2312.1	2317.3	2307.0	2303.1
12.5°	2296.6	2277.1	2284.9	2282.3	2286.2	2292.7	2287.5	2283.6	2286.2	2277.1	2269.3
15°	2265.4	2245.9	2252.4	2248.5	2251.1	2258.9	2249.8	2248.5	2245.9	2236.9	2234.3
17.5°	2225.2	2207.0	2213.5	2207.0	2210.9	2208.3	2207.0	2200.5	2200.5	2190.1	2182.3
20°	2175.8	2160.3	2156.4	2151.2	2156.4	2151.2	2143.4	2138.2	2136.9	2126.5	2120.0
22.5°	2118.7	2100.5	2103.1	2088.9	2090.2	2082.4	2069.4	2064.2	2059.0	2047.3	2038.2
25°	2049.9	2031.7	2018.7	2009.7	1998.0	1996.7	1979.8	1966.8	1965.5	1951.2	1949.9
27.5°	1972.0	1951.2	1940.9	1918.8	1904.5	1892.8	1878.5	1865.6	1859.1	1843.5	1833.1
30°	1882.4	1859.1	1833.1	1817.5	1795.5	1786.4	1761.7	1746.1	1740.9	1724.0	1716.3
32.5°	1781.2	1756.5	1735.7	1705.9	1681.2	1668.2	1643.6	1628.0	1621.5	1603.3	1592.9
35°	1670.8	1643.6	1618.9	1590.3	1570.9	1548.8	1518.9	1503.4	1489.1	1482.6	1474.8
37.5°	1555.3	1525.4	1496.9	1468.3	1451.4	1425.5	1399.5	1389.1	1372.2	1365.7	1357.9
40°	1435.8	1406.0	1378.7	1351.5	1332.0	1308.6	1285.2	1281.4	1263.2	1256.7	1251.5
42.5°	1317.7	1286.5	1255.4	1235.9	1221.6	1198.3	1182.7	1178.8	1163.2	1159.3	1159.3
45°	1211.2	1172.3	1146.3	1129.5	1117.8	1098.3	1085.3	1082.7	1069.7	1067.1	1067.1
47.5°	1097.0	1060.7	1041.2	1030.8	1020.4	1006.1	998.3	998.3	985.4	982.8	981.5
50°	990.5	956.8	942.5	932.1	930.8	920.4	914.0	911.4	911.4	902.3	903.6
52.5°	889.3	872.4	860.7	854.2	846.4	840.0	834.8	834.8	830.9	824.4	827.0
55°	795.8	776.3	777.6	772.4	768.6	764.7	766.0	758.2	756.9	751.7	755.6
57.5°	702.3	702.3	699.7	695.9	689.4	692.0	692.0	692.0	685.5	681.6	685.5
60°	623.2	627.0	620.6	624.4	621.9	623.2	620.6	620.6	616.7	615.4	616.7
62.5°	553.0	559.5	556.9	562.1	559.5	560.8	563.4	558.2	555.6	553.0	555.6
65°	490.7	498.5	497.2	501.1	502.4	503.7	505.0	502.4	499.8	497.2	495.9
67.5°	436.2	444.0	449.2	450.5	451.8	455.7	454.4	451.8	449.2	445.3	444.0
70°	386.9	397.3	403.7	406.3	411.5	408.9	408.9	407.6	405.0	401.2	399.9
72.5°	345.3	357.0	363.5	366.1	371.3	371.3	370.0	368.7	366.1	362.2	360.9
75°	309.0	319.4	328.5	333.6	337.5	337.5	336.2	334.9	332.3	329.8	328.5
77.5°	280.4	289.5	297.3	303.8	306.4	307.7	306.4	303.8	303.8	302.5	301.2
80°	251.9	262.2	270.0	276.5	280.4	280.4	279.1	280.4	277.8	276.5	275.2
82.5°	227.2	238.9	248.0	254.5	257.0	258.3	257.0	258.3	255.8	255.8	255.8
85°	205.1	216.8	227.2	232.4	236.3	237.6	237.6	237.6	236.3	236.3	236.3
87.5°	186.9	198.6	209.0	214.2	218.1	219.4	219.4	220.7	218.1	218.1	218.1
90°	170.1	181.8	192.1	197.3	201.2	203.8	203.8	205.1	203.8	202.5	202.5
92.5°	154.5	167.5	177.9	183.1	186.9	190.8	190.8	192.1	189.5	189.5	189.5
95°	141.5	154.5	163.6	170.1	174.0	176.6	177.9	177.9	176.6	176.6	176.6
97.5°	129.8	141.5	150.6	157.1	161.0	162.3	163.6	164.9	163.6	163.6	163.6
100°	118.1	129.8	138.9	144.1	149.3	150.6	151.9	153.2	153.2	151.9	151.9
102.5°	107.8	119.4	127.2	133.7	137.6	140.2	141.5	141.5	141.5	141.5	141.5
105°	97.4	109.1	116.8	123.3	127.2	129.8	131.1	132.4	132.4	131.1	131.1
107.5°	88.3	98.7	107.8	112.9	118.1	120.7	122.0	122.0	123.3	122.0	122.0
110°	79.2	90.9	98.7	103.9	109.1	111.6	112.9	114.2	114.2	114.2	114.2



TEST NUMBER: P1213173

CATALOG NUMBER: 4SNLED-LD5-74HL-LN-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
112.5°	72.7	81.8	89.6	94.8	100.0	102.6	103.9	105.2	106.5	105.2	105.2
115°	64.9	74.0	81.8	87.0	90.9	93.5	96.1	97.4	97.4	98.7	97.4
117.5°	58.4	66.2	74.0	79.2	83.1	87.0	88.3	89.6	90.9	89.6	89.6
120°	51.9	59.7	66.2	71.4	75.3	79.2	80.5	81.8	83.1	81.8	81.8
122.5°	46.7	53.2	59.7	64.9	68.8	71.4	74.0	74.0	75.3	75.3	75.3
125°	41.5	48.0	53.2	58.4	62.3	64.9	66.2	67.5	67.5	68.8	68.8
127.5°	36.4	41.5	48.0	51.9	55.8	58.4	59.7	61.0	61.0	62.3	62.3
130°	31.2	36.4	41.5	45.4	49.3	51.9	53.2	54.5	55.8	55.8	55.8
132.5°	27.3	32.5	36.4	40.2	42.8	45.4	48.0	49.3	49.3	49.3	49.3
135°	22.1	27.3	31.2	35.1	37.6	40.2	41.5	44.1	44.1	44.1	44.1
137.5°	18.2	23.4	27.3	29.9	32.5	35.1	36.4	37.6	38.9	38.9	38.9
140°	14.3	18.2	22.1	26.0	28.6	29.9	32.5	32.5	33.8	33.8	33.8
142.5°	10.4	14.3	16.9	20.8	23.4	26.0	27.3	28.6	28.6	28.6	28.6
145°	7.8	10.4	13.0	15.6	19.5	20.8	22.1	23.4	24.7	24.7	24.7
147.5°	5.2	7.8	9.1	11.7	14.3	16.9	18.2	19.5	20.8	20.8	20.8
150°	3.9	5.2	7.8	9.1	10.4	13.0	15.6	15.6	16.9	16.9	15.6
152.5°	2.6	3.9	5.2	6.5	7.8	9.1	11.7	11.7	13.0	13.0	13.0
155°	2.6	2.6	2.6	3.9	5.2	6.5	7.8	9.1	9.1	9.1	9.1
157.5°	2.6	2.6	2.6	2.6	2.6	3.9	5.2	6.5	6.5	6.5	6.5
160°	2.6	2.6	1.3	1.3	2.6	2.6	2.6	2.6	3.9	3.9	3.9
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: P1213173

CATALOG NUMBER: 4SNLED-LD5-74HL-LN-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°
0°	2360.2	2360.2	2360.2	2360.2	2360.2	2360.2	2360.2	2360.2	2360.2	2360.2	2360.2
2.5°	2357.6	2360.2	2360.2	2357.6	2356.3	2361.5	2355.0	2330.3	2338.1	2340.7	2348.5
5°	2345.9	2348.5	2348.5	2348.5	2345.9	2351.1	2344.6	2319.9	2329.0	2332.9	2338.1
7.5°	2329.0	2330.3	2332.9	2331.6	2329.0	2336.8	2330.3	2305.7	2312.1	2318.6	2325.1
10°	2307.0	2307.0	2308.3	2310.8	2308.3	2314.7	2308.3	2286.2	2292.7	2296.6	2304.4
12.5°	2277.1	2279.7	2281.0	2279.7	2278.4	2283.6	2281.0	2260.2	2262.8	2270.6	2278.4
15°	2236.9	2236.9	2243.3	2240.7	2240.7	2245.9	2248.5	2225.2	2229.1	2240.7	2248.5
17.5°	2187.5	2188.8	2194.0	2196.6	2195.3	2204.4	2205.7	2187.5	2186.2	2200.5	2208.3
20°	2123.9	2126.5	2133.0	2138.2	2138.2	2148.6	2152.5	2140.8	2142.1	2157.7	2160.3
22.5°	2046.0	2046.0	2057.7	2065.5	2072.0	2078.5	2090.2	2079.8	2079.8	2100.5	2112.2
25°	1949.9	1959.0	1962.9	1978.5	1987.6	2005.8	2016.2	2017.4	2018.7	2038.2	2046.0
27.5°	1843.5	1846.1	1857.8	1875.9	1886.3	1903.2	1922.7	1926.6	1933.1	1959.0	1970.7
30°	1722.8	1730.5	1735.7	1761.7	1776.0	1798.0	1822.7	1831.8	1837.0	1872.0	1886.3
32.5°	1599.4	1602.0	1624.1	1638.4	1655.2	1678.6	1707.2	1724.0	1734.4	1770.8	1791.6
35°	1476.1	1481.3	1499.5	1517.6	1534.5	1557.9	1587.7	1611.1	1629.3	1661.7	1689.0
37.5°	1363.1	1376.1	1380.0	1398.2	1411.2	1434.5	1455.3	1489.1	1507.2	1541.0	1576.1
40°	1261.9	1265.8	1268.4	1286.5	1295.6	1317.7	1347.6	1369.6	1394.3	1419.0	1460.5
42.5°	1161.9	1164.5	1168.4	1178.8	1189.2	1204.8	1226.8	1248.9	1274.9	1311.2	1338.5
45°	1069.7	1072.3	1074.9	1081.4	1090.5	1104.8	1119.1	1134.7	1160.6	1191.8	1220.3
47.5°	984.1	989.3	989.3	990.5	997.0	1008.7	1019.1	1038.6	1052.9	1069.7	1102.2
50°	902.3	906.2	907.5	907.5	911.4	919.1	921.7	934.7	947.7	963.3	986.7
52.5°	825.7	825.7	824.4	829.6	829.6	834.8	836.1	843.8	852.9	869.8	880.2
55°	753.0	753.0	756.9	754.3	754.3	756.9	755.6	756.9	764.7	775.0	784.1
57.5°	682.9	681.6	685.5	682.9	681.6	684.2	686.8	681.6	682.9	693.3	693.3
60°	612.8	614.1	618.0	615.4	615.4	615.4	612.8	610.2	607.6	614.1	616.7
62.5°	556.9	553.0	556.9	553.0	555.6	554.3	551.7	546.6	547.9	545.3	542.7
65°	498.5	498.5	499.8	495.9	498.5	498.5	494.6	493.3	485.5	482.9	476.5
67.5°	447.9	447.9	449.2	446.6	446.6	447.9	444.0	440.1	432.3	428.4	419.3
70°	403.7	403.7	403.7	402.5	402.5	402.5	399.9	394.7	386.9	380.4	368.7
72.5°	363.5	364.8	363.5	363.5	367.4	363.5	359.6	354.4	347.9	334.9	324.6
75°	331.0	332.3	331.0	331.0	331.0	329.8	328.5	320.7	312.9	302.5	286.9
77.5°	302.5	302.5	303.8	302.5	302.5	301.2	297.3	290.8	281.7	272.6	254.5
80°	275.2	276.5	277.8	279.1	276.5	275.2	271.3	266.1	254.5	244.1	225.9
82.5°	255.8	254.5	255.8	257.0	254.5	253.2	249.3	242.8	233.7	219.4	201.2
85°	236.3	235.0	235.0	236.3	235.0	232.4	228.5	222.0	212.9	198.6	180.5
87.5°	216.8	218.1	219.4	218.1	216.8	214.2	210.3	203.8	193.4	181.8	162.3
90°	202.5	202.5	202.5	202.5	201.2	198.6	194.7	186.9	177.9	163.6	146.7
92.5°	189.5	189.5	189.5	189.5	188.2	184.3	180.5	174.0	163.6	149.3	133.7
95°	176.6	177.9	176.6	176.6	174.0	172.7	166.2	159.7	150.6	136.3	119.4
97.5°	162.3	163.6	162.3	162.3	161.0	158.4	154.5	146.7	137.6	124.6	109.1
100°	151.9	151.9	150.6	150.6	149.3	146.7	141.5	135.0	125.9	112.9	97.4
102.5°	140.2	141.5	140.2	140.2	137.6	135.0	131.1	124.6	115.5	102.6	88.3
105°	131.1	131.1	129.8	129.8	127.2	124.6	120.7	112.9	105.2	93.5	79.2
107.5°	122.0	122.0	120.7	120.7	118.1	115.5	110.3	103.9	96.1	84.4	71.4
110°	112.9	112.9	112.9	111.6	109.1	105.2	101.3	94.8	87.0	76.6	63.6



TEST NUMBER: P1213173

CATALOG NUMBER: 4SNLED-LD5-74HL-LN-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°
112.5°	106.5	105.2	103.9	102.6	100.0	97.4	92.2	85.7	77.9	68.8	57.1
115°	97.4	97.4	96.1	94.8	92.2	88.3	84.4	79.2	71.4	61.0	50.6
117.5°	89.6	89.6	88.3	87.0	84.4	80.5	76.6	71.4	63.6	54.5	45.4
120°	81.8	81.8	80.5	79.2	76.6	72.7	70.1	63.6	57.1	48.0	40.2
122.5°	75.3	74.0	74.0	71.4	70.1	66.2	62.3	57.1	50.6	42.8	35.1
125°	67.5	67.5	66.2	64.9	63.6	59.7	55.8	50.6	44.1	37.6	31.2
127.5°	61.0	61.0	59.7	58.4	57.1	53.2	49.3	45.4	38.9	32.5	26.0
130°	54.5	54.5	53.2	51.9	50.6	46.7	44.1	38.9	33.8	28.6	22.1
132.5°	49.3	49.3	48.0	46.7	44.1	41.5	38.9	33.8	29.9	24.7	19.5
135°	44.1	42.8	42.8	41.5	38.9	36.4	33.8	29.9	24.7	20.8	15.6
137.5°	38.9	37.6	36.4	35.1	33.8	31.2	28.6	26.0	22.1	16.9	13.0
140°	33.8	32.5	32.5	31.2	28.6	27.3	24.7	20.8	18.2	14.3	10.4
142.5°	28.6	28.6	27.3	26.0	24.7	23.4	20.8	18.2	14.3	11.7	7.8
145°	24.7	23.4	23.4	22.1	20.8	18.2	16.9	14.3	11.7	9.1	6.5
147.5°	19.5	19.5	19.5	18.2	16.9	15.6	14.3	11.7	9.1	6.5	3.9
150°	15.6	15.6	15.6	14.3	13.0	11.7	10.4	9.1	6.5	3.9	2.6
152.5°	13.0	13.0	11.7	11.7	10.4	9.1	7.8	6.5	3.9	2.6	2.6
155°	9.1	9.1	9.1	7.8	7.8	6.5	5.2	3.9	2.6	2.6	2.6
157.5°	6.5	6.5	6.5	5.2	5.2	3.9	3.9	2.6	2.6	2.6	2.6
160°	3.9	3.9	3.9	3.9	2.6	2.6	2.6	2.6	2.6	2.6	2.6
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: P1213173

CATALOG NUMBER: 4SNLED-LD5-74HL-LN-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	330°	335°	340°	345°	350°	355°	360°
0°	2360.2	2360.2	2360.2	2360.2	2360.2	2360.2	2360.2
2.5°	2344.6	2343.3	2353.7	2353.7	2342.0	2360.2	2379.7
5°	2336.8	2335.5	2345.9	2345.9	2335.5	2353.7	2374.5
7.5°	2321.2	2322.5	2332.9	2335.5	2322.5	2339.4	2361.5
10°	2304.4	2303.1	2314.7	2317.3	2307.0	2322.5	2343.3
12.5°	2277.1	2277.1	2288.8	2292.7	2282.3	2300.5	2319.9
15°	2248.5	2248.5	2256.3	2262.8	2253.7	2270.6	2290.1
17.5°	2212.2	2210.9	2218.7	2226.5	2217.4	2235.6	2256.3
20°	2165.4	2165.4	2174.5	2183.6	2177.1	2194.0	2217.4
22.5°	2116.1	2110.9	2126.5	2133.0	2129.1	2146.0	2169.3
25°	2053.8	2052.5	2068.1	2077.2	2072.0	2090.2	2110.9
27.5°	1986.3	1985.0	2000.6	2012.3	2009.7	2026.5	2049.9
30°	1904.5	1911.0	1925.3	1944.7	1938.3	1956.4	1981.1
32.5°	1818.8	1825.3	1842.2	1863.0	1864.3	1878.5	1903.2
35°	1716.3	1733.1	1744.8	1772.1	1777.3	1791.6	1817.5
37.5°	1608.5	1628.0	1652.6	1673.4	1683.8	1695.5	1725.3
40°	1487.8	1516.3	1543.6	1568.3	1581.2	1592.9	1621.5
42.5°	1378.7	1400.8	1426.8	1451.4	1474.8	1485.2	1515.0
45°	1255.4	1281.4	1304.7	1334.6	1357.9	1369.6	1399.5
47.5°	1134.7	1160.6	1191.8	1212.5	1237.2	1248.9	1277.5
50°	1019.1	1042.5	1068.4	1093.1	1113.9	1124.3	1148.9
52.5°	904.9	929.5	954.2	969.8	991.8	999.6	1020.4
55°	803.6	820.5	842.6	851.6	873.7	878.9	893.2
57.5°	706.2	717.9	725.7	741.3	756.9	768.6	785.4
60°	618.0	623.2	628.3	637.4	650.4	654.3	660.8
62.5°	538.8	537.5	547.9	550.4	551.7	564.7	558.2
65°	468.7	470.0	460.9	457.0	462.2	466.1	463.5
67.5°	410.2	402.5	394.7	385.6	377.8	381.7	377.8
70°	353.1	346.6	333.6	320.7	315.5	307.7	303.8
72.5°	307.7	292.1	279.1	262.2	253.2	244.1	237.6
75°	272.6	250.6	232.4	214.2	201.2	188.2	185.6
77.5°	236.3	215.5	194.7	175.3	155.8	141.5	136.3
80°	207.7	188.2	163.6	140.2	119.4	101.3	94.8
82.5°	181.8	161.0	136.3	111.6	88.3	68.8	61.0
85°	159.7	137.6	112.9	88.3	64.9	44.1	33.8
87.5°	142.8	118.1	93.5	70.1	45.4	24.7	13.0
90°	127.2	103.9	80.5	55.8	32.5	13.0	0.0
92.5°	112.9	90.9	67.5	45.4	24.7	7.8	1.3
95°	100.0	80.5	57.1	36.4	18.2	5.2	1.3
97.5°	89.6	70.1	49.3	29.9	14.3	3.9	1.3
100°	80.5	61.0	42.8	24.7	11.7	2.6	1.3
102.5°	71.4	54.5	36.4	20.8	9.1	1.3	1.3
105°	63.6	48.0	31.2	18.2	7.8	1.3	1.3
107.5°	57.1	42.8	27.3	15.6	5.2	1.3	1.3
110°	50.6	36.4	23.4	13.0	3.9	1.3	1.3



TEST NUMBER: P1213173

CATALOG NUMBER: 4SNLED-LD5-74HL-LN-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	330°	335°	340°	345°	350°	355°	360°
112.5°	45.4	32.5	20.8	10.4	2.6	1.3	1.3
115°	40.2	28.6	18.2	9.1	2.6	1.3	1.3
117.5°	35.1	24.7	15.6	6.5	1.3	1.3	1.3
120°	31.2	22.1	13.0	5.2	1.3	1.3	1.3
122.5°	27.3	18.2	10.4	3.9	1.3	1.3	1.3
125°	23.4	15.6	9.1	2.6	1.3	1.3	1.3
127.5°	19.5	13.0	6.5	2.6	1.3	1.3	1.3
130°	16.9	10.4	5.2	1.3	1.3	1.3	1.3
132.5°	14.3	7.8	3.9	1.3	1.3	1.3	1.3
135°	11.7	6.5	2.6	1.3	1.3	1.3	1.3
137.5°	9.1	5.2	2.6	1.3	1.3	1.3	1.3
140°	6.5	3.9	1.3	1.3	1.3	1.3	1.3
142.5°	5.2	2.6	1.3	1.3	1.3	1.3	1.3
145°	3.9	2.6	1.3	1.3	1.3	1.3	1.3
147.5°	2.6	2.6	2.6	2.6	1.3	1.3	1.3
150°	2.6	2.6	1.3	1.3	2.6	1.3	1.3
152.5°	2.6	1.3	1.3	1.3	2.6	1.3	1.3
155°	2.6	2.6	2.6	2.6	2.6	2.6	1.3
157.5°	2.6	2.6	2.6	2.6	2.6	2.6	2.6
160°	2.6	2.6	2.6	2.6	2.6	2.6	2.6
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)