

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: P1213134

Luminaire Tested: 4SNLED-LD5-60HL-LC-UNV-L930-CD1-U

Issue Date: 3/29/2018

Test Information

Test Method: LM-79-2019
Report Number: P1213134
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-LD5-60HL-LC-UNV-L930-CD1-U
Description: 4FT LINEAR SNLED LED FIXTURE
CLEAR LENSED
Light Source: -
Ballast/Driver: -

Summary

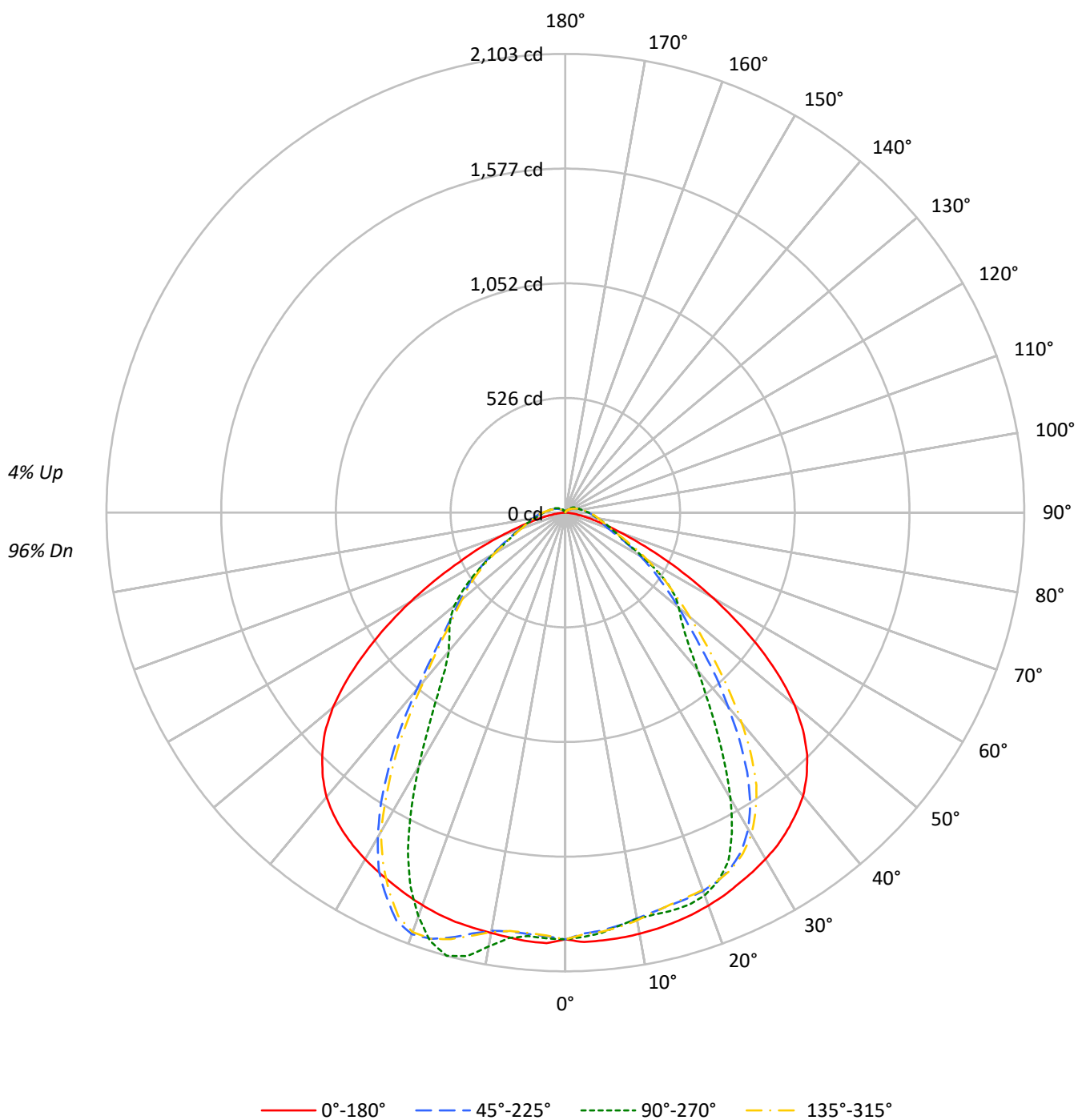
Lumens per Lamp: N/A
Luminaire Lumens: 4664.0 lumens
Efficiency: N/A
Efficacy: 108.5 lumens/watt
Spacing Criteria (0/90/45): 1.4 / 1.12 / 1.19
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.12')
CIE Type: Direct

Input Watts (W): 43
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					0
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°	15810	15810	15810	15810
5°	15926	15183	15958	15302
10°	15999	14551	15966	15540
15°	16123	14357	16115	15986
20°	16300	14129	16283	14894
25°	16501	13404	16492	12952
30°	16812	11617	16821	10292
35°	17140	9395	17190	7949
40°	17431	7563	17504	6664
45°	17370	6407	17460	6239
50°	16621	5899	16853	5767
55°	14747	5301	15115	4820
60°	11961	4058	12597	3722
65°	8892	3105	9580	2944
70°	6047	2680	6817	2562
75°	3957	2418	4605	2286
80°	2558	2255	2996	2075
85°	1312	2249	1728	2054

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 180°

Vertical Angle: 45°

Luminance: 17460 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	185.8	4.0
10°-20°	552.9	11.9
20°-30°	840.6	18.0
30°-40°	901.8	19.3
40°-50°	782.6	16.8
50°-60°	580.0	12.4
60°-70°	332.3	7.1
70°-80°	184.0	3.9
80°-90°	112.1	2.4
90°-100°	72.9	1.6
100°-110°	48.8	1.0
110°-120°	33.0	0.7
120°-130°	20.2	0.4
130°-140°	10.6	0.2
140°-150°	4.8	0.1
150°-160°	1.4	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	1579.4	33.9
0°-40°	2481.2	53.2
0°-60°	3843.8	82.4
0°-90°	4472.2	95.9
90°-120°	154.6	3.3
90°-150°	190.3	4.1
90°-180°	192.0	4.1
0°-180°	4664.0	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	1956	1956	1956	1956	1956	
5°	1969	1933	1973	1948	1969	188
15°	1943	1889	1942	2103	1943	550
25°	1878	1766	1877	1707	1878	868
35°	1776	1203	1781	1018	1776	1111
45°	1567	771	1576	751	1567	1200
55°	1093	578	1121	526	1093	970
65°	496	293	535	278	496	500
75°	142	186	165	176	142	162
85°	19	128	25	117	19	25
90°	0	107	2	99	0	1
95°	1	88	0	84	1	1
105°	1	66	1	63	1	1
115°	1	54	1	48	1	1
125°	1	40	1	33	1	1
135°	1	25	1	21	1	1
145°	1	15	2	12	1	1
155°	2	7	2	6	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°	1956.4	1956.4	1956.4	1956.4	1956.4	1956.4	1956.4	1956.4	1956.4	1956.4	1956.4
2.5°	1970.6	1965.5	1963.5	1959.5	1962.5	1974.6	1966.5	1953.4	1954.4	1931.2	1943.3
5°	1968.6	1962.5	1959.5	1955.4	1957.4	1968.6	1960.5	1947.3	1946.3	1923.1	1934.2
7.5°	1965.5	1959.5	1954.4	1951.4	1952.4	1961.5	1951.4	1936.2	1933.2	1907.9	1918.0
10°	1960.5	1956.4	1949.4	1944.3	1943.3	1953.4	1937.2	1922.1	1915.0	1888.7	1898.8
12.5°	1953.4	1947.3	1940.3	1931.2	1930.2	1936.2	1923.1	1901.9	1894.8	1873.6	1884.7
15°	1943.3	1936.2	1928.1	1918.0	1913.0	1917.0	1900.8	1881.6	1880.6	1862.4	1877.6
17.5°	1932.2	1922.1	1913.0	1898.8	1891.8	1894.8	1881.6	1864.5	1866.5	1855.4	1872.6
20°	1917.0	1905.9	1891.8	1877.6	1867.5	1872.6	1863.5	1850.3	1853.4	1845.3	1860.4
22.5°	1899.8	1884.7	1867.5	1851.3	1843.2	1850.3	1843.2	1832.1	1833.1	1828.1	1837.2
25°	1877.6	1860.4	1840.2	1820.0	1816.0	1821.0	1817.0	1807.9	1803.8	1795.8	1799.8
27.5°	1857.4	1838.2	1812.9	1791.7	1784.6	1794.7	1785.6	1770.5	1759.4	1748.3	1740.2
30°	1834.2	1810.9	1782.6	1758.4	1752.3	1756.3	1743.2	1720.0	1690.7	1676.5	1654.3
32.5°	1808.9	1778.6	1743.2	1715.9	1711.9	1708.8	1684.6	1651.2	1605.8	1577.5	1543.1
35°	1775.5	1742.2	1699.7	1666.4	1660.3	1643.2	1603.7	1559.3	1500.7	1452.2	1393.6
37.5°	1738.2	1698.7	1654.3	1609.8	1592.6	1558.3	1502.7	1456.2	1367.3	1308.7	1237.9
40°	1695.7	1648.2	1593.6	1540.1	1511.8	1456.2	1392.5	1323.8	1237.9	1159.1	1099.5
42.5°	1637.1	1586.6	1521.9	1462.3	1413.8	1340.0	1265.2	1168.2	1089.4	1022.7	962.0
45°	1567.4	1506.7	1432.0	1360.2	1298.6	1210.6	1122.7	1025.7	960.0	882.2	840.8
47.5°	1477.4	1411.7	1331.9	1252.1	1171.2	1074.2	982.3	889.3	823.6	768.0	737.7
50°	1371.3	1310.7	1222.8	1127.8	1038.8	937.8	845.8	776.1	712.4	678.1	654.8
52.5°	1239.9	1183.4	1093.4	990.3	904.4	805.4	721.5	664.9	619.5	594.2	586.1
55°	1093.4	1043.9	955.0	859.0	771.1	680.1	616.4	566.9	537.6	522.5	523.5
57.5°	936.8	898.4	814.5	728.6	645.7	577.0	519.4	480.0	457.8	456.8	459.8
60°	780.1	751.9	679.1	605.3	532.6	477.0	434.5	407.3	393.1	394.1	393.1
62.5°	630.6	604.3	551.8	491.1	433.5	396.1	357.7	346.6	334.5	333.5	333.5
65°	496.2	476.0	433.5	390.1	346.6	322.4	303.2	290.0	280.9	278.9	279.9
67.5°	372.9	364.8	335.5	306.2	278.9	263.8	247.6	244.6	237.5	237.5	239.5
70°	277.9	271.8	255.7	238.5	227.4	217.3	209.2	209.2	208.2	207.2	212.2
72.5°	201.1	202.1	197.1	183.9	182.9	180.9	178.9	181.9	182.9	185.9	192.0
75°	141.5	144.5	144.5	142.5	146.5	151.6	154.6	159.7	165.7	169.8	176.8
77.5°	100.0	100.0	105.1	111.2	119.2	128.3	136.4	143.5	151.6	156.6	162.7
80°	64.7	67.7	75.8	86.9	98.0	110.2	121.3	130.4	138.4	146.5	150.6
82.5°	38.4	43.5	53.6	67.7	81.9	97.0	108.1	119.2	128.3	136.4	139.5
85°	19.2	26.3	38.4	53.6	68.7	84.9	99.0	109.1	119.2	126.3	130.4
87.5°	6.1	14.1	27.3	41.4	57.6	73.8	88.9	100.0	109.1	115.2	119.2
90°	0.0	7.1	19.2	34.4	49.5	65.7	79.8	92.0	101.1	106.1	109.1
92.5°	0.0	4.0	15.2	28.3	42.4	58.6	72.8	83.9	92.0	97.0	99.0
95°	1.0	3.0	11.1	23.2	37.4	52.5	65.7	75.8	83.9	88.9	89.9
97.5°	1.0	2.0	9.1	19.2	32.3	46.5	59.6	69.7	75.8	80.8	81.9
100°	1.0	2.0	7.1	17.2	28.3	41.4	53.6	62.7	69.7	73.8	74.8
102.5°	1.0	1.0	6.1	14.1	25.3	36.4	47.5	56.6	62.7	66.7	68.7
105°	1.0	1.0	5.1	12.1	22.2	32.3	42.4	51.5	56.6	60.6	62.7
107.5°	1.0	1.0	4.0	10.1	19.2	28.3	38.4	45.5	51.5	55.6	57.6
110°	1.0	1.0	3.0	9.1	16.2	25.3	33.3	40.4	46.5	50.5	52.5

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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	1.0	1.0	3.0	8.1	14.1	22.2	29.3	36.4	41.4	45.5	48.5
115°	1.0	1.0	3.0	7.1	13.1	19.2	26.3	32.3	37.4	41.4	44.5
117.5°	1.0	1.0	3.0	6.1	11.1	17.2	23.2	29.3	33.3	37.4	40.4
120°	1.0	1.0	2.0	5.1	10.1	15.2	20.2	25.3	30.3	34.4	37.4
122.5°	1.0	1.0	2.0	5.1	8.1	13.1	18.2	22.2	27.3	30.3	33.3
125°	1.0	1.0	2.0	4.0	7.1	12.1	16.2	20.2	23.2	27.3	30.3
127.5°	1.0	1.0	2.0	4.0	6.1	10.1	14.1	18.2	21.2	24.3	26.3
130°	1.0	1.0	2.0	3.0	5.1	8.1	12.1	15.2	19.2	21.2	23.2
132.5°	1.0	1.0	1.0	3.0	4.0	6.1	9.1	13.1	16.2	19.2	20.2
135°	1.0	1.0	1.0	2.0	4.0	5.1	7.1	10.1	13.1	16.2	18.2
137.5°	1.0	1.0	1.0	2.0	3.0	5.1	6.1	8.1	11.1	13.1	16.2
140°	1.0	1.0	1.0	2.0	3.0	4.0	5.1	7.1	9.1	11.1	13.1
142.5°	1.0	1.0	1.0	2.0	2.0	3.0	4.0	6.1	7.1	9.1	11.1
145°	1.0	1.0	1.0	2.0	2.0	3.0	4.0	5.1	6.1	7.1	9.1
147.5°	1.0	1.0	1.0	2.0	2.0	2.0	3.0	4.0	5.1	6.1	7.1
150°	2.0	2.0	2.0	2.0	2.0	2.0	3.0	3.0	4.0	5.1	6.1
152.5°	2.0	2.0	2.0	2.0	2.0	2.0	3.0	3.0	3.0	4.0	5.1
155°	2.0	2.0	2.0	2.0	2.0	2.0	2.0	3.0	3.0	4.0	4.0
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°	1956.4	1956.4	1956.4	1956.4	1956.4	1956.4	1956.4	1956.4	1956.4	1956.4	1956.4
2.5°	1939.3	1941.3	1953.4	1952.4	1950.4	1948.3	1948.3	1946.3	1948.3	1953.4	1951.4
5°	1929.1	1932.2	1941.3	1940.3	1938.2	1937.2	1936.2	1933.2	1935.2	1942.3	1940.3
7.5°	1911.0	1914.0	1922.1	1918.0	1915.0	1917.0	1912.0	1908.9	1913.0	1920.0	1919.0
10°	1891.8	1893.8	1903.9	1901.9	1896.8	1897.8	1892.8	1890.7	1895.8	1899.8	1900.8
12.5°	1878.6	1885.7	1894.8	1893.8	1892.8	1893.8	1888.7	1886.7	1889.7	1893.8	1892.8
15°	1875.6	1884.7	1894.8	1894.8	1895.8	1896.8	1891.8	1888.7	1891.8	1894.8	1893.8
17.5°	1872.6	1883.7	1892.8	1891.8	1892.8	1894.8	1886.7	1884.7	1888.7	1892.8	1890.7
20°	1862.4	1872.6	1878.6	1876.6	1876.6	1877.6	1867.5	1867.5	1873.6	1876.6	1877.6
22.5°	1834.2	1846.3	1846.3	1841.2	1841.2	1837.2	1834.2	1828.1	1835.2	1840.2	1844.3
25°	1791.7	1796.8	1790.7	1779.6	1773.5	1768.5	1754.3	1766.4	1766.4	1781.6	1786.7
27.5°	1732.1	1721.0	1703.8	1680.5	1675.5	1659.3	1650.2	1653.3	1658.3	1679.5	1695.7
30°	1634.1	1600.7	1571.4	1561.3	1539.1	1522.9	1506.7	1514.8	1523.9	1536.0	1569.4
32.5°	1504.7	1472.4	1424.9	1407.7	1384.5	1364.2	1345.0	1357.2	1373.3	1381.4	1417.8
35°	1356.2	1317.8	1274.3	1245.0	1220.7	1209.6	1185.4	1202.6	1219.7	1225.8	1257.1
37.5°	1198.5	1159.1	1120.7	1095.4	1072.2	1065.1	1049.0	1061.1	1074.2	1083.3	1109.6
40°	1049.0	1012.6	983.3	966.1	949.9	943.9	937.8	942.8	953.0	960.0	980.2
42.5°	920.6	891.3	871.1	861.0	849.9	841.8	842.8	844.8	849.9	865.0	874.1
45°	808.4	791.3	778.1	776.1	769.0	768.0	767.0	771.1	774.1	783.2	790.3
47.5°	718.5	711.4	708.4	712.4	715.5	711.4	713.5	718.5	724.6	724.6	723.6
50°	647.8	649.8	653.8	662.9	669.0	671.0	673.0	679.1	680.1	682.1	679.1
52.5°	590.2	592.2	603.3	617.4	624.5	627.6	631.6	637.7	637.7	639.7	635.6
55°	531.6	534.6	545.7	559.8	565.9	570.0	574.0	578.0	581.1	585.1	582.1
57.5°	466.9	476.0	483.0	487.1	491.1	494.2	497.2	498.2	504.3	505.3	510.3
60°	398.2	400.2	407.3	406.2	403.2	411.3	407.3	414.3	421.4	430.5	431.5
62.5°	332.5	333.5	338.5	336.5	340.6	339.5	342.6	342.6	347.6	351.7	356.7
65°	280.9	281.9	286.0	286.0	285.0	288.0	291.0	293.1	293.1	296.1	300.1
67.5°	242.5	245.6	249.6	251.6	253.6	253.6	256.7	257.7	259.7	260.7	262.7
70°	216.3	220.3	224.3	226.4	227.4	229.4	230.4	230.4	232.4	233.4	235.5
72.5°	197.1	201.1	204.1	204.1	206.2	207.2	207.2	208.2	209.2	211.2	213.2
75°	180.9	183.9	185.9	184.9	184.9	184.9	185.9	185.9	188.0	190.0	192.0
77.5°	165.7	168.8	168.8	166.7	166.7	166.7	166.7	167.8	168.8	170.8	172.8
80°	154.6	154.6	153.6	153.6	151.6	150.6	150.6	151.6	151.6	153.6	156.6
82.5°	142.5	142.5	141.5	140.5	139.5	138.4	138.4	139.5	140.5	141.5	143.5
85°	131.4	131.4	129.4	129.4	128.3	128.3	128.3	128.3	129.4	130.4	132.4
87.5°	120.3	119.2	118.2	117.2	117.2	117.2	117.2	117.2	118.2	120.3	121.3
90°	109.1	108.1	107.1	107.1	106.1	106.1	107.1	107.1	108.1	109.1	110.2
92.5°	99.0	98.0	97.0	97.0	96.0	96.0	97.0	96.0	98.0	98.0	99.0
95°	89.9	88.9	87.9	87.9	87.9	87.9	87.9	87.9	88.9	88.9	89.9
97.5°	81.9	80.8	79.8	79.8	80.8	79.8	80.8	80.8	80.8	81.9	82.9
100°	74.8	73.8	73.8	74.8	73.8	73.8	74.8	74.8	74.8	74.8	75.8
102.5°	68.7	68.7	68.7	68.7	68.7	68.7	69.7	69.7	69.7	69.7	70.7
105°	62.7	63.7	63.7	63.7	64.7	64.7	64.7	65.7	65.7	65.7	65.7
107.5°	58.6	59.6	59.6	60.6	60.6	61.6	61.6	61.6	61.6	62.7	62.7
110°	54.6	55.6	56.6	57.6	57.6	58.6	58.6	58.6	58.6	58.6	58.6

TEST NUMBER: P1213134

CATALOG NUMBER: 4SNLED-LD5-60HL-LC-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
112.5°	50.5	51.5	52.5	54.6	55.6	55.6	55.6	55.6	56.6	56.6	55.6
115°	46.5	48.5	49.5	51.5	52.5	52.5	53.6	53.6	53.6	53.6	52.5
117.5°	42.4	45.5	46.5	48.5	49.5	49.5	50.5	50.5	50.5	50.5	49.5
120°	39.4	41.4	43.5	44.5	45.5	46.5	46.5	47.5	47.5	47.5	46.5
122.5°	36.4	38.4	40.4	41.4	42.4	43.5	43.5	43.5	43.5	43.5	43.5
125°	32.3	34.4	36.4	37.4	38.4	39.4	39.4	40.4	40.4	40.4	39.4
127.5°	29.3	31.3	32.3	34.4	35.4	35.4	36.4	36.4	36.4	36.4	35.4
130°	25.3	27.3	29.3	30.3	31.3	31.3	32.3	32.3	32.3	32.3	32.3
132.5°	22.2	24.3	25.3	27.3	27.3	28.3	28.3	29.3	29.3	29.3	28.3
135°	20.2	21.2	22.2	24.3	24.3	25.3	25.3	25.3	25.3	25.3	25.3
137.5°	18.2	19.2	20.2	21.2	21.2	22.2	22.2	22.2	22.2	23.2	22.2
140°	15.2	17.2	18.2	18.2	19.2	19.2	19.2	20.2	20.2	20.2	19.2
142.5°	13.1	14.1	15.2	16.2	17.2	17.2	17.2	17.2	18.2	17.2	17.2
145°	10.1	12.1	13.1	14.1	15.2	15.2	15.2	15.2	15.2	15.2	15.2
147.5°	8.1	9.1	11.1	12.1	12.1	13.1	13.1	13.1	13.1	13.1	13.1
150°	7.1	7.1	9.1	10.1	11.1	11.1	11.1	11.1	11.1	11.1	11.1
152.5°	5.1	6.1	7.1	8.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1
155°	5.1	5.1	6.1	6.1	7.1	7.1	7.1	7.1	8.1	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: P1213134

CATALOG NUMBER: 4SNLED-LD5-60HL-LC-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	1956.4	1956.4	1956.4	1956.4	1956.4	1956.4	1956.4	1956.4	1956.4	1956.4	1956.4
2.5°	1948.3	1947.3	1951.4	1947.3	1927.1	1935.2	1932.2	1943.3	1944.3	1947.3	1957.4
5°	1938.2	1938.2	1943.3	1939.3	1920.0	1928.1	1927.1	1938.2	1940.3	1942.3	1953.4
7.5°	1918.0	1919.0	1926.1	1923.1	1902.9	1915.0	1914.0	1927.1	1931.2	1935.2	1945.3
10°	1898.8	1897.8	1905.9	1902.9	1883.7	1897.8	1896.8	1909.9	1916.0	1923.1	1935.2
12.5°	1888.7	1885.7	1888.7	1885.7	1864.5	1875.6	1876.6	1891.8	1898.8	1907.9	1922.1
15°	1888.7	1883.7	1883.7	1877.6	1853.4	1860.4	1861.4	1871.5	1880.6	1889.7	1906.9
17.5°	1886.7	1881.6	1880.6	1875.6	1849.3	1849.3	1848.3	1855.4	1860.4	1869.5	1887.7
20°	1875.6	1873.6	1872.6	1869.5	1845.3	1841.2	1839.2	1839.2	1842.2	1845.3	1863.5
22.5°	1846.3	1848.3	1850.3	1852.3	1833.1	1826.1	1827.1	1825.1	1822.0	1822.0	1837.2
25°	1791.7	1801.8	1809.9	1819.0	1807.9	1802.8	1808.9	1805.9	1800.8	1796.8	1809.9
27.5°	1704.8	1726.0	1743.2	1765.4	1766.4	1762.4	1778.6	1776.6	1775.5	1769.5	1779.6
30°	1584.5	1617.9	1641.1	1673.5	1700.8	1704.8	1732.1	1736.1	1740.2	1737.1	1747.2
32.5°	1439.0	1484.5	1523.9	1574.4	1600.7	1624.0	1662.4	1678.5	1694.7	1699.7	1710.9
35°	1280.4	1331.9	1378.4	1434.0	1475.4	1525.9	1572.4	1596.7	1633.1	1647.2	1663.4
37.5°	1129.8	1178.3	1223.8	1279.4	1346.1	1398.6	1456.2	1510.8	1560.3	1580.5	1604.8
40°	996.4	1035.8	1079.3	1127.8	1188.4	1257.1	1319.8	1395.6	1454.2	1494.6	1530.0
42.5°	895.3	914.6	951.9	995.4	1043.9	1113.6	1177.3	1262.2	1332.9	1390.5	1449.1
45°	805.4	814.5	841.8	865.0	914.6	976.2	1043.9	1126.8	1200.5	1274.3	1345.0
47.5°	728.6	739.7	752.9	767.0	802.4	853.9	912.5	987.3	1061.1	1147.0	1227.8
50°	677.1	680.1	682.1	688.2	709.4	744.8	792.3	855.9	926.7	1018.6	1104.5
52.5°	631.6	631.6	625.5	622.5	630.6	652.8	680.1	725.6	798.3	883.2	974.2
55°	583.1	574.0	572.0	561.9	563.9	574.0	587.1	622.5	682.1	754.9	842.8
57.5°	515.4	511.3	511.3	507.3	499.2	504.3	507.3	532.6	575.0	637.7	714.5
60°	437.6	435.5	440.6	441.6	434.5	437.6	436.6	451.7	482.0	532.6	596.2
62.5°	359.8	368.9	369.9	373.9	369.9	368.9	373.9	387.0	402.2	440.6	490.1
65°	302.2	307.2	308.2	313.3	311.3	311.3	315.3	325.4	334.5	360.8	399.2
67.5°	264.8	262.7	263.8	266.8	263.8	262.7	265.8	271.8	278.9	295.1	322.4
70°	235.5	233.4	233.4	233.4	229.4	226.4	227.4	229.4	232.4	241.5	258.7
72.5°	213.2	213.2	210.2	207.2	204.1	202.1	200.1	198.1	197.1	200.1	209.2
75°	193.0	194.0	193.0	190.0	185.9	181.9	177.9	173.8	168.8	166.7	167.8
77.5°	174.8	175.8	176.8	175.8	171.8	166.7	160.7	154.6	147.5	140.5	136.4
80°	158.7	160.7	161.7	160.7	157.6	153.6	146.5	139.5	129.4	120.3	110.2
82.5°	144.5	147.5	148.6	148.6	146.5	142.5	134.4	126.3	115.2	103.1	89.9
85°	133.4	135.4	137.4	137.4	136.4	132.4	124.3	115.2	104.1	89.9	75.8
87.5°	122.3	123.3	125.3	127.3	125.3	121.3	114.2	104.1	93.0	78.8	62.7
90°	111.2	112.2	114.2	116.2	115.2	111.2	105.1	96.0	83.9	68.7	52.5
92.5°	100.0	102.1	103.1	104.1	105.1	102.1	97.0	87.9	75.8	60.6	45.5
95°	92.0	92.0	94.0	95.0	96.0	93.0	88.9	79.8	68.7	54.6	39.4
97.5°	83.9	83.9	85.9	85.9	86.9	84.9	80.8	72.8	61.6	48.5	33.3
100°	75.8	76.8	77.8	78.8	78.8	77.8	73.8	65.7	55.6	43.5	29.3
102.5°	70.7	70.7	71.7	71.7	72.8	70.7	66.7	59.6	49.5	38.4	25.3
105°	65.7	65.7	66.7	66.7	65.7	63.7	59.6	53.6	44.5	33.3	22.2
107.5°	61.6	61.6	61.6	61.6	60.6	58.6	54.6	47.5	39.4	30.3	20.2
110°	58.6	57.6	57.6	56.6	55.6	52.5	48.5	42.4	35.4	26.3	17.2



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CATALOG NUMBER: 4SNLED-LD5-60HL-LC-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
112.5°	55.6	54.6	53.6	52.5	50.5	47.5	43.5	38.4	31.3	23.2	15.2
115°	52.5	51.5	50.5	48.5	46.5	43.5	39.4	34.4	27.3	20.2	13.1
117.5°	49.5	48.5	46.5	44.5	42.4	39.4	35.4	30.3	24.3	18.2	12.1
120°	45.5	44.5	43.5	41.4	39.4	35.4	31.3	27.3	21.2	16.2	10.1
122.5°	42.4	41.4	39.4	38.4	35.4	32.3	28.3	24.3	19.2	14.1	9.1
125°	38.4	37.4	36.4	34.4	32.3	28.3	25.3	21.2	17.2	12.1	7.1
127.5°	35.4	34.4	32.3	30.3	28.3	25.3	22.2	19.2	15.2	10.1	7.1
130°	31.3	30.3	29.3	27.3	25.3	22.2	20.2	16.2	13.1	9.1	6.1
132.5°	27.3	27.3	26.3	24.3	22.2	20.2	17.2	14.1	11.1	8.1	5.1
135°	25.3	24.3	23.2	21.2	20.2	17.2	15.2	12.1	9.1	7.1	4.0
137.5°	22.2	21.2	20.2	19.2	17.2	15.2	13.1	10.1	8.1	6.1	4.0
140°	19.2	18.2	18.2	16.2	15.2	13.1	11.1	9.1	7.1	5.1	3.0
142.5°	17.2	16.2	15.2	14.1	13.1	11.1	9.1	7.1	6.1	4.0	3.0
145°	15.2	14.1	13.1	12.1	11.1	9.1	8.1	6.1	5.1	4.0	3.0
147.5°	12.1	12.1	11.1	10.1	9.1	8.1	7.1	6.1	4.0	3.0	2.0
150°	10.1	10.1	9.1	8.1	8.1	7.1	6.1	5.1	4.0	3.0	2.0
152.5°	9.1	8.1	8.1	7.1	7.1	6.1	5.1	4.0	3.0	3.0	2.0
155°	7.1	7.1	7.1	6.1	6.1	5.1	4.0	4.0	3.0	2.0	2.0
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: P1213134

CATALOG NUMBER: 4SNLED-LD5-60HL-LC-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
0°	1956.4	1956.4	1956.4	1956.4	1956.4	1956.4	1956.4	1956.4	1956.4	1956.4	1956.4
2.5°	1959.5	1947.3	1957.4	1975.6	1973.6	1971.6	1969.6	1973.6	1986.7	1979.7	1968.6
5°	1956.4	1944.3	1955.4	1972.6	1971.6	1968.6	1966.5	1970.6	1983.7	1976.6	1964.5
7.5°	1950.4	1939.3	1947.3	1964.5	1964.5	1962.5	1960.5	1964.5	1976.6	1970.6	1958.5
10°	1940.3	1932.2	1940.3	1956.4	1957.4	1953.4	1951.4	1956.4	1968.6	1965.5	1955.4
12.5°	1932.2	1924.1	1933.2	1949.4	1950.4	1946.3	1943.3	1949.4	1965.5	1967.5	1964.5
15°	1921.1	1914.0	1925.1	1942.3	1942.3	1939.3	1939.3	1947.3	1969.6	1978.7	1983.7
17.5°	1904.9	1899.8	1913.0	1930.2	1931.2	1929.1	1930.2	1946.3	1975.6	1997.9	2012.0
20°	1884.7	1882.7	1896.8	1915.0	1918.0	1919.0	1924.1	1948.3	1988.8	2019.1	2033.2
22.5°	1860.4	1861.4	1877.6	1896.8	1900.8	1903.9	1914.0	1948.3	1998.9	2031.2	2037.3
25°	1833.1	1836.2	1853.4	1876.6	1881.6	1887.7	1904.9	1949.4	2001.9	2023.1	2013.0
27.5°	1803.8	1809.9	1832.1	1856.4	1862.4	1872.6	1894.8	1943.3	1987.8	1988.8	1951.4
30°	1773.5	1780.6	1806.9	1835.2	1845.3	1855.4	1882.7	1929.1	1953.4	1921.1	1855.4
32.5°	1739.2	1749.3	1775.5	1809.9	1822.0	1835.2	1862.4	1901.9	1892.8	1823.0	1729.1
35°	1695.7	1709.9	1740.2	1780.6	1791.7	1808.9	1828.1	1837.2	1796.8	1697.7	1591.6
37.5°	1642.1	1663.4	1698.7	1745.2	1757.4	1768.5	1773.5	1748.3	1667.4	1560.3	1450.1
40°	1580.5	1612.8	1651.2	1702.8	1714.9	1714.9	1696.7	1643.2	1541.1	1400.6	1278.3
42.5°	1505.7	1545.1	1593.6	1645.2	1657.3	1643.2	1599.7	1505.7	1389.5	1232.9	1103.5
45°	1414.8	1467.3	1521.9	1575.5	1581.5	1550.2	1472.4	1353.1	1209.6	1064.1	940.8
47.5°	1306.6	1375.4	1435.0	1495.6	1487.5	1435.0	1330.9	1195.5	1043.9	906.5	807.4
50°	1185.4	1266.2	1332.9	1390.5	1373.3	1300.6	1178.3	1036.8	886.3	769.0	687.2
52.5°	1056.0	1149.0	1215.7	1262.2	1238.9	1152.0	1017.6	882.2	758.9	651.8	597.2
55°	921.6	1015.6	1084.3	1120.7	1090.4	996.4	864.0	740.7	624.5	554.8	522.5
57.5°	791.3	879.2	943.9	973.2	934.8	840.8	718.5	614.4	530.5	471.9	455.8
60°	666.0	737.7	799.3	821.6	780.1	693.2	588.1	505.3	443.6	403.2	395.1
62.5°	549.7	608.4	656.9	674.0	633.6	565.9	475.0	413.3	369.9	349.7	339.5
65°	453.7	488.1	537.6	534.6	510.3	447.7	381.0	337.5	309.2	296.1	290.0
67.5°	356.7	388.1	419.4	423.4	393.1	349.7	306.2	274.9	259.7	252.6	249.6
70°	275.9	299.1	318.3	313.3	297.1	269.8	242.5	225.4	219.3	216.3	216.3
72.5°	214.2	226.4	235.5	229.4	219.3	205.1	192.0	184.9	185.9	188.0	190.0
75°	165.7	168.8	170.8	164.7	162.7	153.6	152.6	153.6	159.7	165.7	168.8
77.5°	127.3	123.3	120.3	114.2	115.2	114.2	119.2	127.3	136.4	145.5	153.6
80°	98.0	88.9	81.9	75.8	78.8	83.9	94.0	106.1	118.2	128.3	138.4
82.5°	75.8	62.7	52.5	46.5	52.5	60.6	73.8	88.9	103.1	114.2	125.3
85°	58.6	43.5	31.3	25.3	31.3	43.5	57.6	74.8	89.9	102.1	113.2
87.5°	45.5	31.3	17.2	10.1	17.2	30.3	46.5	62.7	77.8	92.0	103.1
90°	36.4	21.2	8.1	2.0	9.1	21.2	36.4	52.5	67.7	82.9	94.0
92.5°	29.3	15.2	4.0	0.0	5.1	16.2	30.3	45.5	60.6	74.8	85.9
95°	24.3	12.1	3.0	0.0	4.0	12.1	24.3	39.4	53.6	67.7	76.8
97.5°	20.2	9.1	2.0	0.0	2.0	10.1	20.2	33.3	47.5	60.6	69.7
100°	17.2	8.1	2.0	0.0	2.0	8.1	17.2	29.3	41.4	53.6	62.7
102.5°	14.1	6.1	1.0	1.0	1.0	6.1	15.2	25.3	36.4	47.5	56.6
105°	13.1	5.1	1.0	1.0	1.0	5.1	13.1	22.2	32.3	42.4	50.5
107.5°	11.1	4.0	1.0	1.0	1.0	4.0	11.1	19.2	29.3	38.4	45.5
110°	9.1	4.0	1.0	1.0	1.0	4.0	9.1	17.2	25.3	33.3	40.4

TEST NUMBER: P1213134

CATALOG NUMBER: 4SNLED-LD5-60HL-LC-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
112.5°	8.1	3.0	1.0	1.0	1.0	3.0	8.1	15.2	22.2	30.3	36.4
115°	7.1	3.0	1.0	1.0	1.0	3.0	7.1	13.1	19.2	26.3	32.3
117.5°	6.1	3.0	1.0	1.0	1.0	2.0	6.1	11.1	17.2	23.2	29.3
120°	5.1	2.0	1.0	1.0	1.0	2.0	5.1	10.1	15.2	20.2	25.3
122.5°	5.1	2.0	1.0	1.0	1.0	2.0	4.0	8.1	13.1	17.2	22.2
125°	4.0	2.0	1.0	1.0	1.0	1.0	4.0	7.1	11.1	15.2	19.2
127.5°	4.0	2.0	1.0	1.0	1.0	1.0	3.0	6.1	9.1	13.1	17.2
130°	3.0	2.0	1.0	1.0	1.0	1.0	2.0	5.1	8.1	11.1	14.1
132.5°	3.0	2.0	1.0	1.0	1.0	1.0	2.0	4.0	6.1	9.1	12.1
135°	3.0	1.0	1.0	1.0	1.0	1.0	1.0	3.0	5.1	7.1	9.1
137.5°	2.0	1.0	1.0	1.0	1.0	1.0	1.0	2.0	4.0	5.1	8.1
140°	2.0	1.0	1.0	1.0	1.0	1.0	1.0	2.0	3.0	4.0	6.1
142.5°	2.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	2.0	3.0	5.1
145°	2.0	1.0	1.0	2.0	2.0	1.0	1.0	2.0	2.0	3.0	4.0
147.5°	2.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	2.0	2.0	3.0
150°	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	3.0
152.5°	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
155°	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
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: P1213134

CATALOG NUMBER: 4SNLED-LD5-60HL-LC-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
0°	1956.4	1956.4	1956.4	1956.4	1956.4	1956.4	1956.4	1956.4	1956.4	1956.4	1956.4
2.5°	1966.5	1943.3	1955.4	1951.4	1955.4	1965.5	1964.5	1961.5	1963.5	1958.5	1953.4
5°	1962.5	1939.3	1951.4	1946.3	1951.4	1961.5	1959.5	1956.4	1959.5	1953.4	1948.3
7.5°	1957.4	1936.2	1950.4	1949.4	1958.5	1971.6	1972.6	1972.6	1979.7	1970.6	1966.5
10°	1957.4	1946.3	1965.5	1972.6	1995.8	2013.0	2015.0	2019.1	2031.2	2029.2	2019.1
12.5°	1978.7	1976.6	2004.9	2022.1	2043.3	2067.6	2080.7	2084.8	2092.9	2086.8	2082.7
15°	2005.9	2016.1	2047.4	2066.6	2089.8	2108.0	2111.0	2113.1	2119.1	2110.0	2103.0
17.5°	2042.3	2048.4	2073.7	2081.7	2096.9	2099.9	2095.9	2085.8	2085.8	2065.6	2059.5
20°	2059.5	2056.5	2066.6	2053.4	2047.4	2029.2	2012.0	1992.8	1991.8	1970.6	1968.6
22.5°	2044.3	2024.1	2002.9	1970.6	1956.4	1930.2	1906.9	1895.8	1888.7	1861.4	1854.4
25°	1990.8	1941.3	1909.9	1871.5	1837.2	1806.9	1784.6	1761.4	1739.2	1716.9	1706.8
27.5°	1897.8	1851.3	1800.8	1747.2	1699.7	1653.3	1615.9	1592.6	1571.4	1542.1	1526.9
30°	1783.6	1718.9	1663.4	1611.8	1534.0	1477.4	1446.1	1399.6	1383.4	1370.3	1342.0
32.5°	1649.2	1571.4	1495.6	1425.9	1346.1	1293.5	1252.1	1217.7	1207.6	1173.3	1165.2
35°	1500.7	1398.6	1312.7	1244.0	1186.4	1122.7	1088.4	1065.1	1044.9	1021.7	1017.6
37.5°	1325.8	1233.9	1136.9	1076.2	1030.8	976.2	949.9	933.8	924.7	907.5	904.4
40°	1150.0	1058.0	991.4	930.7	902.4	873.1	853.9	846.8	842.8	836.7	830.7
42.5°	990.3	909.5	862.0	821.6	809.5	795.3	790.3	794.3	790.3	788.2	787.2
45°	854.9	793.3	759.9	747.8	744.8	740.7	744.8	751.9	752.9	750.8	750.8
47.5°	731.6	702.3	688.2	690.2	695.3	698.3	705.4	714.5	716.5	711.4	713.5
50°	650.8	633.6	630.6	638.7	649.8	653.8	661.9	669.0	668.0	666.0	663.9
52.5°	575.0	570.0	578.0	586.1	598.2	600.3	603.3	606.3	605.3	601.3	599.3
55°	511.3	515.4	522.5	525.5	534.6	533.6	534.6	534.6	530.5	528.5	525.5
57.5°	453.7	454.7	458.8	459.8	464.9	462.8	461.8	459.8	453.7	452.7	449.7
60°	395.1	393.1	402.2	395.1	399.2	395.1	394.1	389.1	383.0	382.0	380.0
62.5°	339.5	335.5	341.6	338.5	340.6	336.5	334.5	328.4	323.4	322.4	321.4
65°	290.0	288.0	294.1	293.1	295.1	290.0	288.0	284.0	279.9	278.9	277.9
67.5°	248.6	253.6	256.7	256.7	258.7	257.7	252.6	251.6	250.6	246.6	246.6
70°	218.3	221.3	227.4	228.4	227.4	229.4	225.4	224.3	223.3	221.3	220.3
72.5°	194.0	198.1	204.1	205.1	204.1	204.1	202.1	201.1	201.1	198.1	198.1
75°	174.8	179.9	184.9	184.9	184.9	182.9	180.9	180.9	178.9	177.9	175.8
77.5°	158.7	164.7	168.8	167.8	166.7	164.7	164.7	161.7	158.7	158.7	156.6
80°	146.5	150.6	153.6	152.6	151.6	148.6	147.5	144.5	142.5	139.5	139.5
82.5°	133.4	138.4	140.5	139.5	137.4	134.4	133.4	131.4	129.4	128.3	126.3
85°	122.3	127.3	128.3	126.3	124.3	122.3	121.3	120.3	119.2	117.2	117.2
87.5°	111.2	116.2	116.2	115.2	113.2	112.2	111.2	110.2	109.1	108.1	107.1
90°	102.1	106.1	106.1	105.1	104.1	103.1	102.1	101.1	100.0	99.0	99.0
92.5°	93.0	97.0	97.0	96.0	95.0	94.0	94.0	93.0	92.0	90.9	89.9
95°	84.9	88.9	88.9	88.9	87.9	86.9	86.9	85.9	84.9	84.9	83.9
97.5°	76.8	80.8	80.8	80.8	79.8	78.8	78.8	77.8	77.8	77.8	76.8
100°	69.7	72.8	73.8	73.8	72.8	72.8	72.8	71.7	71.7	71.7	70.7
102.5°	62.7	65.7	67.7	67.7	67.7	66.7	66.7	66.7	66.7	66.7	65.7
105°	56.6	59.6	61.6	62.7	62.7	62.7	62.7	62.7	62.7	62.7	62.7
107.5°	51.5	54.6	56.6	57.6	58.6	58.6	59.6	59.6	59.6	59.6	59.6
110°	46.5	49.5	52.5	53.6	54.6	55.6	55.6	56.6	55.6	55.6	55.6

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CATALOG NUMBER: 4SNLED-LD5-60HL-LC-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
112.5°	41.4	45.5	47.5	49.5	50.5	51.5	52.5	52.5	52.5	52.5	52.5
115°	37.4	41.4	43.5	45.5	47.5	48.5	48.5	49.5	49.5	49.5	48.5
117.5°	33.3	37.4	39.4	41.4	42.4	44.5	45.5	45.5	45.5	45.5	44.5
120°	30.3	33.3	35.4	37.4	39.4	40.4	41.4	41.4	41.4	41.4	41.4
122.5°	26.3	29.3	32.3	34.4	35.4	36.4	37.4	37.4	37.4	37.4	37.4
125°	23.2	26.3	28.3	30.3	31.3	33.3	33.3	33.3	33.3	33.3	33.3
127.5°	20.2	23.2	25.3	27.3	28.3	29.3	30.3	30.3	30.3	30.3	30.3
130°	17.2	20.2	22.2	24.3	25.3	26.3	26.3	27.3	27.3	27.3	27.3
132.5°	15.2	17.2	19.2	21.2	22.2	23.2	23.2	24.3	24.3	24.3	24.3
135°	12.1	15.2	16.2	18.2	19.2	20.2	20.2	21.2	21.2	21.2	21.2
137.5°	10.1	12.1	14.1	16.2	17.2	17.2	18.2	18.2	19.2	19.2	19.2
140°	8.1	9.1	12.1	13.1	14.1	15.2	16.2	16.2	16.2	16.2	16.2
142.5°	6.1	8.1	9.1	11.1	12.1	13.1	14.1	14.1	14.1	14.1	14.1
145°	5.1	6.1	7.1	9.1	10.1	11.1	12.1	12.1	12.1	12.1	12.1
147.5°	4.0	5.1	6.1	7.1	8.1	9.1	10.1	10.1	10.1	10.1	10.1
150°	3.0	4.0	5.1	5.1	6.1	7.1	8.1	9.1	9.1	9.1	9.1
152.5°	3.0	3.0	4.0	4.0	5.1	6.1	7.1	7.1	7.1	7.1	7.1
155°	2.0	3.0	3.0	3.0	4.0	4.0	5.1	6.1	6.1	6.1	6.1
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

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CANDELA DISTRIBUTION (continued):

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°
0°	1956.4	1956.4	1956.4	1956.4	1956.4	1956.4	1956.4	1956.4	1956.4	1956.4	1956.4
2.5°	1956.4	1960.5	1958.5	1955.4	1954.4	1959.5	1954.4	1931.2	1940.3	1941.3	1948.3
5°	1953.4	1956.4	1954.4	1952.4	1949.4	1955.4	1949.4	1925.1	1934.2	1935.2	1942.3
7.5°	1973.6	1974.6	1974.6	1969.6	1961.5	1964.5	1956.4	1929.1	1934.2	1934.2	1939.3
10°	2024.1	2026.2	2029.2	2016.1	2005.9	1997.9	1986.7	1953.4	1952.4	1944.3	1944.3
12.5°	2089.8	2084.8	2079.7	2073.7	2065.6	2055.5	2039.3	1999.9	1986.7	1973.6	1960.5
15°	2109.0	2107.0	2106.0	2103.0	2097.9	2094.9	2082.7	2043.3	2024.1	2008.0	1984.7
17.5°	2058.5	2062.5	2075.7	2076.7	2082.7	2094.9	2092.9	2065.6	2048.4	2041.3	2013.0
20°	1967.5	1968.6	1984.7	1991.8	2018.1	2038.3	2053.4	2050.4	2046.4	2054.5	2033.2
22.5°	1858.4	1865.5	1882.7	1893.8	1919.0	1942.3	1966.5	1979.7	2000.9	2034.2	2030.2
25°	1709.9	1718.9	1743.2	1761.4	1796.8	1832.1	1864.5	1887.7	1913.0	1976.6	1997.9
27.5°	1532.0	1546.1	1577.5	1595.7	1645.2	1681.6	1728.0	1773.5	1808.9	1881.6	1925.1
30°	1345.0	1357.2	1390.5	1415.8	1458.2	1507.7	1566.4	1631.0	1689.6	1763.4	1818.0
32.5°	1170.2	1183.4	1210.6	1232.9	1280.4	1321.8	1386.5	1466.3	1520.9	1622.9	1695.7
35°	1017.6	1029.8	1049.0	1068.2	1107.6	1150.0	1205.6	1283.4	1353.1	1459.2	1551.2
37.5°	910.5	912.5	923.6	934.8	964.1	996.4	1039.9	1108.6	1173.3	1287.4	1388.5
40°	833.7	833.7	839.8	842.8	855.9	875.1	902.4	956.0	1009.5	1096.4	1219.7
42.5°	786.2	784.2	784.2	785.2	784.2	793.3	809.5	834.7	882.2	954.0	1050.0
45°	750.8	746.8	743.8	736.7	732.7	732.7	733.7	742.8	770.0	816.5	894.3
47.5°	711.4	710.4	705.4	697.3	690.2	685.2	677.1	674.0	682.1	708.4	760.9
50°	666.0	660.9	655.8	649.8	641.7	636.6	621.5	622.5	615.4	627.6	654.8
52.5°	599.3	595.2	593.2	588.1	585.1	583.1	571.0	558.8	555.8	557.8	567.9
55°	525.5	527.5	519.4	523.5	522.5	513.4	508.3	499.2	496.2	495.2	500.2
57.5°	448.7	450.7	445.7	449.7	449.7	444.6	441.6	441.6	434.5	428.5	435.5
60°	379.0	374.9	377.9	383.0	383.0	380.0	377.9	377.9	372.9	370.9	375.9
62.5°	322.4	318.3	321.4	326.4	327.4	325.4	323.4	323.4	317.3	317.3	321.4
65°	278.9	279.9	278.9	283.0	283.0	284.0	281.9	279.9	272.8	275.9	274.9
67.5°	247.6	246.6	246.6	250.6	249.6	251.6	249.6	246.6	241.5	237.5	236.5
70°	221.3	220.3	220.3	222.3	223.3	223.3	222.3	220.3	213.2	209.2	206.2
72.5°	198.1	197.1	198.1	199.1	200.1	201.1	200.1	198.1	192.0	187.0	181.9
75°	176.8	175.8	178.9	178.9	179.9	179.9	180.9	179.9	174.8	168.8	162.7
77.5°	155.6	156.6	159.7	160.7	162.7	163.7	164.7	164.7	159.7	154.6	146.5
80°	138.4	140.5	142.5	143.5	145.5	148.6	149.6	150.6	146.5	141.5	132.4
82.5°	126.3	127.3	129.4	130.4	133.4	134.4	135.4	137.4	135.4	130.4	120.3
85°	116.2	117.2	119.2	119.2	121.3	123.3	124.3	125.3	124.3	119.2	109.1
87.5°	107.1	108.1	109.1	110.2	111.2	112.2	113.2	114.2	113.2	108.1	99.0
90°	99.0	99.0	100.0	100.0	101.1	102.1	104.1	104.1	103.1	99.0	89.9
92.5°	89.9	90.9	90.9	92.0	93.0	94.0	95.0	95.0	94.0	89.9	81.9
95°	83.9	83.9	84.9	84.9	85.9	85.9	86.9	86.9	85.9	81.9	73.8
97.5°	76.8	76.8	76.8	76.8	77.8	77.8	78.8	78.8	77.8	73.8	66.7
100°	70.7	70.7	70.7	70.7	70.7	71.7	71.7	71.7	70.7	66.7	59.6
102.5°	65.7	65.7	65.7	65.7	65.7	65.7	65.7	65.7	63.7	60.6	53.6
105°	62.7	62.7	62.7	61.6	61.6	61.6	60.6	60.6	57.6	54.6	48.5
107.5°	58.6	58.6	58.6	57.6	57.6	56.6	55.6	55.6	52.5	49.5	43.5
110°	55.6	55.6	55.6	54.6	53.6	52.5	51.5	50.5	47.5	43.5	38.4



TEST NUMBER: P1213134

CATALOG NUMBER: 4SNLED-LD5-60HL-LC-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°
112.5°	52.5	52.5	51.5	51.5	50.5	49.5	47.5	46.5	43.5	39.4	34.4
115°	48.5	48.5	48.5	47.5	46.5	45.5	44.5	42.4	39.4	35.4	30.3
117.5°	44.5	44.5	44.5	43.5	42.4	41.4	40.4	38.4	35.4	31.3	27.3
120°	40.4	40.4	40.4	39.4	38.4	37.4	36.4	34.4	31.3	28.3	23.2
122.5°	37.4	37.4	36.4	35.4	34.4	33.3	32.3	30.3	28.3	24.3	20.2
125°	33.3	33.3	32.3	32.3	31.3	30.3	29.3	27.3	24.3	21.2	18.2
127.5°	30.3	29.3	29.3	29.3	28.3	27.3	25.3	24.3	21.2	18.2	15.2
130°	26.3	26.3	26.3	25.3	25.3	24.3	22.2	20.2	18.2	16.2	13.1
132.5°	23.2	23.2	23.2	23.2	22.2	21.2	19.2	18.2	16.2	13.1	11.1
135°	21.2	21.2	20.2	20.2	19.2	18.2	17.2	15.2	13.1	11.1	9.1
137.5°	18.2	18.2	18.2	17.2	17.2	16.2	14.1	13.1	12.1	10.1	8.1
140°	16.2	16.2	15.2	15.2	14.1	14.1	13.1	11.1	10.1	8.1	7.1
142.5°	14.1	14.1	13.1	13.1	12.1	12.1	11.1	10.1	8.1	7.1	5.1
145°	12.1	12.1	11.1	11.1	11.1	10.1	9.1	8.1	7.1	6.1	5.1
147.5°	10.1	10.1	10.1	9.1	9.1	8.1	8.1	7.1	6.1	5.1	4.0
150°	9.1	9.1	8.1	8.1	8.1	7.1	6.1	6.1	5.1	4.0	3.0
152.5°	7.1	7.1	7.1	7.1	6.1	6.1	5.1	5.1	4.0	3.0	3.0
155°	6.1	6.1	6.1	5.1	5.1	5.1	4.0	4.0	3.0	3.0	2.0
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: P1213134

CATALOG NUMBER: 4SNLED-LD5-60HL-LC-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	330°	335°	340°	345°	350°	355°	360°
0°	1956.4	1956.4	1956.4	1956.4	1956.4	1956.4	1956.4
2.5°	1945.3	1944.3	1953.4	1952.4	1940.3	1958.5	1970.6
5°	1940.3	1939.3	1947.3	1949.4	1936.2	1955.4	1968.6
7.5°	1936.2	1935.2	1944.3	1947.3	1934.2	1951.4	1965.5
10°	1937.2	1932.2	1940.3	1942.3	1930.2	1948.3	1960.5
12.5°	1944.3	1932.2	1935.2	1935.2	1924.1	1940.3	1953.4
15°	1961.5	1936.2	1932.2	1929.1	1915.0	1930.2	1943.3
17.5°	1980.7	1946.3	1932.2	1922.1	1904.9	1918.0	1932.2
20°	1999.9	1957.4	1934.2	1918.0	1894.8	1906.9	1917.0
22.5°	2009.0	1967.5	1936.2	1912.0	1882.7	1888.7	1899.8
25°	1996.9	1963.5	1932.2	1902.9	1867.5	1868.5	1877.6
27.5°	1952.4	1943.3	1923.1	1893.8	1855.4	1850.3	1857.4
30°	1876.6	1901.9	1902.9	1881.6	1841.2	1831.1	1834.2
32.5°	1770.5	1827.1	1860.4	1856.4	1821.0	1806.9	1808.9
35°	1648.2	1718.9	1791.7	1816.0	1790.7	1779.6	1775.5
37.5°	1501.7	1596.7	1693.7	1753.3	1749.3	1742.2	1738.2
40°	1340.0	1454.2	1569.4	1664.4	1693.7	1693.7	1695.7
42.5°	1167.2	1300.6	1426.9	1547.2	1615.9	1631.0	1637.1
45°	1000.4	1134.9	1272.3	1410.7	1502.7	1550.2	1567.4
47.5°	848.9	984.3	1114.6	1266.2	1388.5	1450.1	1477.4
50°	719.5	820.6	958.0	1108.6	1242.0	1317.8	1371.3
52.5°	612.4	691.2	811.5	951.9	1086.3	1190.4	1239.9
55°	522.5	576.0	678.1	799.3	927.7	1035.8	1093.4
57.5°	446.7	489.1	558.8	659.9	768.0	875.1	936.8
60°	380.0	409.3	456.8	536.6	628.6	720.5	780.1
62.5°	322.4	341.6	372.9	431.5	503.3	575.0	630.6
65°	277.9	286.0	303.2	339.5	394.1	448.7	496.2
67.5°	234.4	239.5	252.6	274.9	302.2	341.6	372.9
70°	202.1	202.1	203.1	216.3	230.4	255.7	277.9
72.5°	175.8	172.8	166.7	169.8	172.8	187.0	201.1
75°	154.6	147.5	137.4	133.4	131.4	133.4	141.5
77.5°	136.4	126.3	114.2	104.1	96.0	93.0	100.0
80°	121.3	109.1	95.0	81.9	68.7	61.6	64.7
82.5°	109.1	94.0	78.8	63.7	48.5	38.4	38.4
85°	96.0	81.9	65.7	49.5	34.4	21.2	19.2
87.5°	86.9	71.7	54.6	39.4	24.3	11.1	6.1
90°	77.8	62.7	46.5	31.3	17.2	5.1	0.0
92.5°	69.7	55.6	40.4	25.3	12.1	3.0	0.0
95°	62.7	49.5	34.4	21.2	10.1	2.0	1.0
97.5°	55.6	43.5	30.3	17.2	7.1	2.0	1.0
100°	50.5	38.4	26.3	14.1	6.1	1.0	1.0
102.5°	44.5	34.4	22.2	12.1	5.1	1.0	1.0
105°	39.4	30.3	19.2	10.1	4.0	1.0	1.0
107.5°	35.4	26.3	17.2	9.1	4.0	1.0	1.0
110°	31.3	23.2	15.2	8.1	3.0	1.0	1.0

TEST NUMBER: P1213134

CATALOG NUMBER: 4SNLED-LD5-60HL-LC-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	330°	335°	340°	345°	350°	355°	360°
112.5°	28.3	20.2	13.1	7.1	2.0	1.0	1.0
115°	24.3	18.2	11.1	6.1	2.0	1.0	1.0
117.5°	21.2	15.2	10.1	5.1	2.0	1.0	1.0
120°	18.2	13.1	8.1	4.0	1.0	1.0	1.0
122.5°	16.2	11.1	7.1	4.0	1.0	1.0	1.0
125°	14.1	10.1	6.1	3.0	1.0	1.0	1.0
127.5°	12.1	8.1	5.1	2.0	1.0	1.0	1.0
130°	10.1	7.1	4.0	2.0	1.0	1.0	1.0
132.5°	8.1	6.1	4.0	2.0	1.0	1.0	1.0
135°	7.1	5.1	3.0	2.0	1.0	1.0	1.0
137.5°	6.1	4.0	2.0	2.0	2.0	1.0	1.0
140°	5.1	3.0	2.0	2.0	2.0	2.0	1.0
142.5°	4.0	3.0	2.0	2.0	2.0	2.0	1.0
145°	3.0	2.0	2.0	2.0	2.0	2.0	1.0
147.5°	3.0	2.0	2.0	2.0	2.0	2.0	1.0
150°	2.0	2.0	2.0	2.0	2.0	2.0	2.0
152.5°	2.0	2.0	2.0	2.0	2.0	2.0	2.0
155°	2.0	2.0	2.0	2.0	2.0	2.0	2.0
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)