

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: P1213784

Luminaire Tested: 4SNLED-LD5-46SL-RW-UNV-L940-CD1-U

Issue Date: 3/29/2018

Test Information

Test Method: LM-79-2019
Report Number: P1213784
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P33525)
Test Lab: INNOVATIONS CENTER-P3
Issue Date: 3/29/2018
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: METALUX
Catalog Number: 4SNLED-LD5-46SL-RW-UNV-L940-CD1-U
Description: 4FT LINEAR SNLED LED FIXTURE
WHITE REFLECTOR
Light Source: -
Ballast/Driver: -

Summary

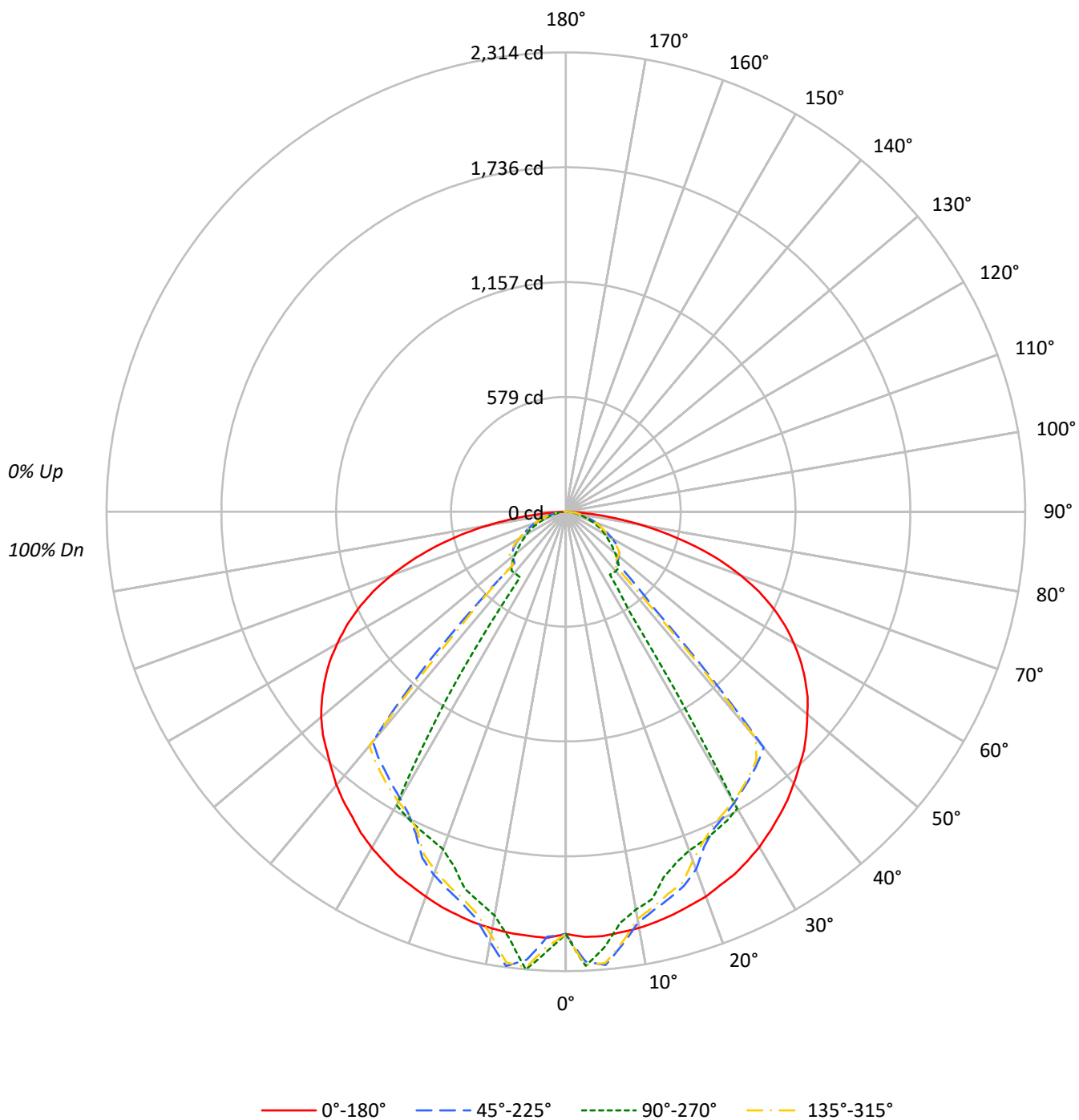
Lumens per Lamp: N/A
Luminaire Lumens: 4259.0 lumens
Efficiency: N/A
Efficacy: 112.1 lumens/watt
Spacing Criteria (0/90/45): 1.36 / 1.16 / 1.2
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.12')
CIE Type: Direct

Input Watts (W): 38
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			0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10
RCR																				
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100		
1	110	106	102	99	108	104	101	98	100	97	94	96	94	92	92	91	89	87		
2	102	94	88	83	99	93	87	82	89	85	81	86	82	79	83	80	77	75		
3	94	84	77	72	91	83	76	71	80	74	70	77	73	69	75	71	67	65		
4	87	76	68	62	85	75	67	62	72	66	61	70	65	60	68	63	59	57		
5	81	69	61	55	79	68	60	55	66	59	54	64	58	53	62	57	53	51		
6	75	63	55	49	73	62	54	49	60	53	48	59	53	48	57	52	47	46		
7	70	58	50	44	68	57	49	44	55	48	43	54	48	43	53	47	43	41		
8	66	53	45	40	64	52	45	40	51	44	39	50	44	39	49	43	39	37		
9	62	49	41	36	60	48	41	36	47	41	36	46	40	36	45	40	36	34		
10	58	46	38	33	57	45	38	33	44	38	33	43	37	33	42	37	33	31		

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	17187	17187	17187	17187
5°	17356	17316	17348	18174
10°	17373	15656	17396	15896
15°	17411	14485	17451	14945
20°	17537	13739	17537	13688
25°	17689	13476	17715	13351
30°	17868	13238	17913	13082
35°	18076	3015	18114	3145
40°	18366	3136	18476	3237
45°	18806	3118	18870	3231
50°	19245	2819	19505	2896
55°	19837	2503	19994	2539
60°	20340	2224	20384	2253
65°	20698	1941	20646	1910
70°	20404	1564	20340	1507
75°	18941	1204	19078	1153
80°	15374	855	15990	782
85°	8321	512	8792	393

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 357.5°

Vertical Angle: 60°

Luminance: 20841 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	209.3	4.9
10°-20°	575.3	13.5
20°-30°	852.2	20.0
30°-40°	858.7	20.2
40°-50°	670.7	15.7
50°-60°	518.1	12.2
60°-70°	347.9	8.2
70°-80°	177.4	4.2
80°-90°	49.4	1.2
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	1636.8	38.4
0°-40°	2495.5	58.6
0°-60°	3684.3	86.5
0°-90°	4259.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4259.0	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	2127	2127	2127	2127	2127	
5°	2145	2205	2144	2314	2145	204
15°	2099	1906	2103	1966	2099	594
25°	2013	1776	2016	1759	2013	928
35°	1872	386	1876	403	1872	1173
45°	1697	375	1703	389	1697	1309
55°	1471	273	1482	277	1471	1314
65°	1155	183	1152	180	1155	1136
75°	677	93	682	89	677	708
85°	122	29	129	22	122	168
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	2.5°	5°	7.5°	10°	12.5°	15°	17.5°	20°	22.5°	25°
0°	2126.8	2126.8	2126.8	2126.8	2126.8	2126.8	2126.8	2126.8	2126.8	2126.8	2126.8
2.5°	2143.4	2151.2	2157.1	2161.0	2162.9	2162.9	2163.9	2164.8	2177.5	2183.4	2187.3
5°	2145.4	2153.2	2164.8	2180.4	2194.1	2205.8	2215.5	2229.2	2242.8	2257.4	2262.3
7.5°	2136.6	2146.3	2169.7	2198.0	2224.3	2242.8	2255.5	2264.3	2271.1	2272.1	2276.9
10°	2128.8	2146.3	2178.5	2215.5	2248.7	2271.1	2271.1	2266.2	2273.0	2246.7	2220.4
12.5°	2115.1	2134.6	2178.5	2227.2	2258.4	2267.2	2263.3	2243.8	2203.8	2171.7	2157.1
15°	2098.6	2124.9	2179.5	2234.1	2260.4	2263.3	2226.3	2176.5	2146.3	2126.8	2102.5
17.5°	2080.0	2115.1	2180.4	2235.0	2244.8	2231.1	2161.0	2129.8	2098.6	2052.8	2019.6
20°	2062.5	2096.6	2172.6	2221.4	2227.2	2165.8	2111.2	2078.1	2025.5	1985.5	1970.9
22.5°	2035.2	2075.2	2165.8	2202.9	2180.4	2109.3	2056.7	2004.0	1956.3	1944.6	1927.0
25°	2012.8	2054.7	2150.2	2180.4	2121.0	2057.6	1996.2	1934.8	1912.4	1895.8	1880.2
27.5°	1982.6	2034.2	2129.8	2139.5	2057.6	2002.1	1912.4	1885.1	1864.6	1846.1	1839.3
30°	1949.4	2012.8	2101.5	2083.0	2005.0	1923.1	1856.8	1831.5	1816.9	1797.4	1789.6
32.5°	1911.4	1980.6	2070.3	2017.7	1948.5	1846.1	1803.2	1783.7	1764.2	1749.6	1700.9
35°	1872.4	1952.4	2033.3	1955.3	1880.2	1787.6	1749.6	1732.1	1713.6	1659.9	1609.3
37.5°	1832.5	1921.2	1988.4	1888.0	1789.6	1727.2	1695.0	1675.5	1633.6	1565.4	1540.1
40°	1786.7	1883.2	1930.9	1818.8	1710.6	1665.8	1635.6	1616.1	1521.5	1491.3	1483.5
42.5°	1740.8	1846.1	1860.7	1751.6	1645.3	1600.5	1575.1	1510.8	1446.5	1430.9	1433.8
45°	1697.0	1806.2	1783.7	1656.0	1577.1	1540.1	1497.2	1408.5	1374.4	1382.2	1384.1
47.5°	1644.3	1758.4	1702.8	1560.5	1506.9	1469.9	1374.4	1320.7	1315.9	1326.6	1332.4
50°	1587.8	1704.8	1617.1	1473.8	1430.9	1387.0	1278.8	1251.5	1257.4	1268.1	1274.9
52.5°	1535.2	1644.3	1528.4	1392.9	1355.8	1255.4	1182.3	1187.2	1197.0	1209.6	1213.5
55°	1470.8	1571.2	1433.8	1311.0	1275.9	1144.3	1111.2	1122.9	1132.6	1143.3	1151.1
57.5°	1403.6	1487.4	1321.7	1219.4	1162.8	1045.9	1048.8	1056.6	1063.4	1076.1	444.5
60°	1326.6	1391.9	1198.9	1134.6	1022.5	967.9	970.8	984.5	991.3	553.6	306.1
62.5°	1246.7	1280.8	1087.8	1038.1	893.8	889.9	903.6	909.4	618.9	292.4	286.6
65°	1155.0	1148.2	978.6	899.7	806.1	810.0	824.6	795.4	273.9	273.9	271.9
67.5°	1053.7	1012.7	872.4	744.7	721.3	730.1	745.7	260.2	253.4	255.4	248.6
70°	937.7	880.2	762.2	630.6	638.4	647.2	251.5	235.9	233.0	228.1	214.4
72.5°	814.9	735.9	623.8	547.8	552.7	347.0	220.3	212.5	202.7	193.0	178.4
75°	677.4	575.1	458.1	458.1	464.9	197.9	192.0	179.3	168.6	156.0	147.2
77.5°	531.2	442.5	355.8	369.4	180.3	165.7	155.0	141.3	132.6	124.8	119.9
80°	388.9	309.0	268.0	239.8	140.4	125.7	115.0	107.2	103.3	98.4	92.6
82.5°	255.4	186.2	186.2	113.1	98.4	86.7	83.8	78.0	74.1	71.2	68.2
85°	121.8	108.2	81.9	69.2	61.4	55.6	53.6	50.7	50.7	49.7	48.7
87.5°	44.8	48.7	36.1	35.1	33.1	32.2	33.1	33.1	34.1	33.1	32.2
90°	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):

	27.5°	30°	32.5°	35°	37.5°	40°	42.5°	45°	47.5°	50°	52.5°
0°	2126.8	2126.8	2126.8	2126.8	2126.8	2126.8	2126.8	2126.8	2126.8	2126.8	2126.8
2.5°	2197.0	2204.8	2210.7	2220.4	2233.1	2243.8	2253.5	2267.2	2288.6	2294.5	2299.4
5°	2262.3	2265.2	2272.1	2279.9	2281.8	2286.7	2285.7	2291.6	2294.5	2301.3	2286.7
7.5°	2266.2	2250.6	2232.1	2215.5	2203.8	2193.1	2186.3	2197.0	2202.9	2207.7	2193.1
10°	2184.3	2165.8	2155.1	2145.4	2133.7	2117.1	2094.7	2099.5	2097.6	2097.6	2092.7
12.5°	2132.7	2106.4	2079.1	2054.7	2044.0	2043.0	2044.0	2054.7	2054.7	2053.7	2047.9
15°	2051.8	2026.4	2012.8	2006.9	2006.9	2004.0	2004.0	2015.7	2012.8	2012.8	2009.9
17.5°	1998.2	1980.6	1970.9	1964.1	1961.1	1966.0	1971.9	1976.7	1977.7	1973.8	1958.2
20°	1954.3	1937.7	1926.0	1928.0	1927.0	1929.9	1932.9	1916.3	1895.8	1868.5	1855.9
22.5°	1908.5	1895.8	1887.1	1887.1	1875.4	1856.8	1829.5	1823.7	1820.8	1808.1	1797.4
25°	1864.6	1850.0	1837.3	1798.4	1774.0	1776.9	1772.0	1762.3	1761.3	1760.3	1764.2
27.5°	1820.8	1782.8	1734.0	1728.2	1718.4	1717.5	1723.3	1728.2	1728.2	1732.1	1736.9
30°	1730.1	1686.3	1677.5	1666.8	1670.7	1684.3	1687.2	1694.1	1696.0	1702.8	1706.7
32.5°	1647.3	1627.8	1620.0	1624.9	1637.5	1649.2	1656.0	1659.0	1663.8	1669.7	1674.6
35°	1580.0	1574.2	1581.0	1591.7	1604.4	1614.1	1620.0	1625.8	1630.7	1635.6	1639.5
37.5°	1530.3	1534.2	1544.0	1557.6	1570.3	1578.1	1582.9	1589.8	1596.6	1602.4	1579.0
40°	1483.5	1493.3	1504.0	1518.6	1529.3	1537.1	1542.0	1550.8	1492.3	675.5	370.4
42.5°	1442.6	1453.3	1461.1	1472.8	1484.5	1490.3	1447.5	646.2	365.5	363.6	368.4
45°	1392.9	1401.6	1414.3	1423.1	1433.8	941.6	359.7	363.6	357.7	361.6	363.6
47.5°	1342.2	1355.8	1362.7	1300.3	387.0	357.7	353.8	357.7	353.8	358.7	355.8
50°	1284.7	1301.2	926.0	349.9	347.0	345.1	348.9	347.0	349.9	353.8	346.0
52.5°	1226.2	759.3	339.2	337.3	339.2	337.3	344.1	339.2	340.2	336.3	326.5
55°	415.2	328.5	325.6	324.6	330.4	330.4	330.4	322.6	317.8	308.0	301.2
57.5°	317.8	317.8	316.8	317.8	315.8	313.9	305.1	298.3	291.4	277.8	273.9
60°	301.2	301.2	301.2	301.2	292.4	288.5	274.9	269.0	257.3	250.5	246.6
62.5°	287.5	285.6	276.8	273.9	264.1	253.4	245.6	239.8	228.1	224.2	221.3
65°	268.0	261.2	250.5	238.8	233.9	222.2	218.3	209.6	203.7	200.8	198.8
67.5°	235.9	226.1	217.4	209.6	200.8	196.9	192.0	185.2	181.3	179.3	177.4
70°	201.8	194.9	186.2	181.3	175.4	172.5	165.7	163.8	160.8	157.9	155.0
72.5°	168.6	164.7	160.8	154.0	152.1	150.1	143.3	139.4	135.5	131.6	129.6
75°	141.3	138.4	136.5	130.6	127.7	121.8	117.0	114.0	111.1	108.2	106.2
77.5°	116.0	114.0	108.2	104.3	102.3	97.5	95.5	96.5	94.5	90.6	88.7
80°	90.6	88.7	83.8	83.8	81.9	79.9	78.0	76.0	74.1	71.2	69.2
82.5°	69.2	67.3	65.3	63.4	61.4	60.4	59.5	57.5	55.6	53.6	52.6
85°	48.7	47.8	46.8	45.8	44.8	43.9	42.9	40.9	39.0	38.0	37.0
87.5°	33.1	32.2	31.2	30.2	29.2	28.3	27.3	26.3	24.4	23.4	22.4
90°	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°	57.5°	60°	62.5°	65°	67.5°	70°	72.5°	75°	77.5°	80°
0°	2126.8	2126.8	2126.8	2126.8	2126.8	2126.8	2126.8	2126.8	2126.8	2126.8	2126.8
2.5°	2299.4	2304.2	2299.4	2288.6	2281.8	2278.9	2284.7	2284.7	2288.6	2293.5	2294.5
5°	2263.3	2251.6	2238.0	2224.3	2217.5	2213.6	2202.9	2204.8	2207.7	2209.7	2211.6
7.5°	2173.6	2158.0	2139.5	2122.0	2115.1	2109.3	2096.6	2096.6	2096.6	2097.6	2103.4
10°	2082.0	2075.2	2067.4	2055.7	2046.9	2044.0	2033.3	2036.2	2034.2	2037.2	2044.0
12.5°	2039.1	2031.3	2024.5	2012.8	2003.0	1999.1	1994.3	1997.2	1996.2	2001.1	2006.9
15°	2000.1	1996.2	1988.4	1979.7	1970.9	1963.1	1945.5	1939.7	1935.8	1930.9	1937.7
17.5°	1935.8	1908.5	1890.0	1876.3	1866.6	1859.8	1854.9	1854.9	1857.8	1860.7	1866.6
20°	1848.1	1840.3	1831.5	1816.9	1807.1	1803.2	1800.3	1800.3	1805.2	1809.1	1819.8
22.5°	1787.6	1786.7	1783.7	1776.9	1772.0	1772.0	1773.0	1775.0	1781.8	1787.6	1798.4
25°	1759.4	1763.3	1761.3	1757.4	1754.5	1755.5	1753.5	1755.5	1762.3	1768.1	1776.9
27.5°	1736.9	1742.8	1740.8	1735.0	1730.1	1732.1	1735.0	1733.0	1738.9	1745.7	1752.5
30°	1706.7	1707.7	1711.6	1704.8	1702.8	1705.8	1706.7	1708.7	1714.5	1719.4	1725.3
32.5°	1672.6	1680.4	1679.4	1672.6	1672.6	1675.5	1676.5	1611.2	1489.4	1282.7	1226.2
35°	1639.5	1648.2	1633.6	1377.3	953.3	508.8	392.8	379.2	382.1	384.0	386.0
37.5°	1212.5	575.1	366.5	369.4	372.3	375.3	378.2	381.1	384.0	387.0	387.9
40°	364.5	363.6	366.5	370.4	373.3	375.3	379.2	382.1	385.0	387.9	388.9
42.5°	360.6	362.6	365.5	369.4	373.3	377.2	380.1	384.0	386.0	387.9	388.9
45°	358.7	362.6	366.5	369.4	372.3	374.3	376.2	377.2	376.2	376.2	378.2
47.5°	355.8	359.7	360.6	359.7	360.6	359.7	359.7	359.7	356.7	355.8	355.8
50°	345.1	345.1	343.1	339.2	338.2	337.3	335.3	334.3	330.4	329.5	329.5
52.5°	322.6	321.7	318.7	313.9	311.9	310.0	309.0	308.0	304.1	302.2	303.1
55°	296.3	294.4	291.4	285.6	284.6	282.7	281.7	280.7	276.8	278.8	275.8
57.5°	271.9	268.0	264.1	263.2	259.3	258.3	257.3	256.4	253.4	254.4	252.5
60°	242.7	241.7	239.8	235.9	235.9	234.9	234.9	233.0	231.0	230.0	230.0
62.5°	221.3	218.3	216.4	216.4	213.5	213.5	213.5	211.5	209.6	210.5	209.6
65°	197.9	196.9	195.9	194.0	194.0	193.0	193.0	191.0	188.1	189.1	187.1
67.5°	178.4	176.4	174.5	173.5	169.6	167.7	166.7	165.7	161.8	162.8	160.8
70°	154.0	151.1	149.1	147.2	144.3	142.3	142.3	140.4	137.4	138.4	136.5
72.5°	128.7	126.7	124.8	123.8	120.9	119.9	118.9	117.9	115.0	116.0	115.0
75°	107.2	107.2	106.2	105.3	102.3	99.4	97.5	96.5	94.5	95.5	93.6
77.5°	88.7	86.7	84.8	84.8	81.9	79.9	78.0	78.0	78.0	77.0	76.0
80°	69.2	67.3	67.3	66.3	64.3	62.4	61.4	61.4	60.4	60.4	59.5
82.5°	52.6	50.7	49.7	49.7	47.8	46.8	45.8	44.8	44.8	44.8	43.9
85°	37.0	35.1	34.1	34.1	32.2	31.2	31.2	30.2	30.2	29.2	29.2
87.5°	22.4	21.4	20.5	20.5	18.5	17.5	17.5	17.5	16.6	16.6	15.6
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

TEST NUMBER: P1213784

CATALOG NUMBER: 4SNLED-LD5-46SL-RW-UNV-L940-CD1-U

CANDELA DISTRIBUTION (continued):

	82.5°	85°	87.5°	90°	92.5°	95°	97.5°	100°	102.5°	105°	107.5°
0°	2126.8	2126.8	2126.8	2126.8	2126.8	2126.8	2126.8	2126.8	2126.8	2126.8	2126.8
2.5°	2294.5	2294.5	2287.7	2289.6	2286.7	2290.6	2285.7	2285.7	2291.6	2291.6	2295.5
5°	2212.6	2207.7	2206.8	2204.8	2195.1	2199.0	2194.1	2189.2	2196.0	2196.0	2204.8
7.5°	2100.5	2091.7	2095.6	2089.8	2083.9	2075.2	2078.1	2074.2	2079.1	2085.9	2094.7
10°	2043.0	2035.2	2040.1	2034.2	2037.2	2024.5	2025.5	2026.4	2031.3	2033.3	2041.1
12.5°	2006.0	2004.0	2002.1	2000.1	2002.1	1995.2	1991.3	1992.3	1994.3	1995.2	2001.1
15°	1928.0	1915.3	1919.2	1905.6	1906.5	1907.5	1899.7	1907.5	1906.5	1919.2	1930.9
17.5°	1864.6	1864.6	1857.8	1852.0	1848.1	1847.1	1841.2	1845.1	1841.2	1849.0	1852.0
20°	1820.8	1819.8	1818.8	1815.9	1806.2	1807.1	1810.1	1801.3	1800.3	1799.3	1805.2
22.5°	1800.3	1801.3	1797.4	1797.4	1788.6	1790.6	1791.5	1781.8	1782.8	1779.8	1782.8
25°	1778.9	1780.8	1775.9	1775.9	1774.0	1773.0	1768.1	1770.1	1764.2	1759.4	1764.2
27.5°	1753.5	1757.4	1753.5	1755.5	1751.6	1749.6	1746.7	1744.7	1738.9	1737.9	1740.8
30°	1730.1	1732.1	1731.1	1726.2	1725.3	1719.4	1722.3	1716.5	1710.6	1711.6	1713.6
32.5°	887.0	847.0	653.1	589.7	583.9	605.3	717.4	873.3	1131.6	1382.2	1562.5
35°	387.0	387.0	387.0	386.0	386.0	385.0	384.0	383.1	382.1	381.1	380.1
37.5°	388.9	388.9	388.9	388.9	387.9	387.0	387.0	385.0	384.0	383.1	382.1
40°	389.9	390.9	390.9	390.9	389.9	389.9	388.9	387.0	386.0	384.0	382.1
42.5°	388.9	389.9	389.9	388.9	388.9	387.9	387.9	387.0	386.0	385.0	384.0
45°	376.2	377.2	375.3	375.3	374.3	374.3	374.3	374.3	374.3	375.3	375.3
47.5°	353.8	353.8	352.8	351.9	351.9	350.9	351.9	350.9	352.8	353.8	355.8
50°	327.5	327.5	325.6	324.6	324.6	324.6	324.6	325.6	326.5	328.5	330.4
52.5°	300.2	300.2	299.2	298.3	297.3	297.3	300.2	299.2	300.2	301.2	304.1
55°	273.9	274.9	272.9	272.9	271.9	271.9	271.9	272.9	273.9	274.9	277.8
57.5°	251.5	251.5	249.5	249.5	249.5	248.6	251.5	249.5	250.5	251.5	253.4
60°	229.1	228.1	228.1	227.1	227.1	227.1	229.1	228.1	228.1	229.1	231.0
62.5°	208.6	208.6	207.6	207.6	206.6	206.6	208.6	207.6	207.6	208.6	209.6
65°	185.2	185.2	184.2	183.2	186.2	183.2	186.2	184.2	186.2	187.1	189.1
67.5°	158.9	158.9	158.9	157.9	157.9	159.9	160.8	158.9	159.9	161.8	162.8
70°	135.5	135.5	134.5	134.5	134.5	136.5	137.4	135.5	136.5	137.4	139.4
72.5°	115.0	113.1	113.1	112.1	114.0	114.0	115.0	114.0	115.0	115.0	117.0
75°	94.5	92.6	92.6	92.6	94.5	93.6	94.5	93.6	94.5	94.5	95.5
77.5°	76.0	75.1	74.1	74.1	76.0	76.0	76.0	75.1	76.0	77.0	78.0
80°	59.5	58.5	57.5	57.5	59.5	59.5	59.5	60.4	59.5	60.4	61.4
82.5°	43.9	42.9	41.9	43.9	43.9	43.9	43.9	44.8	43.9	44.8	45.8
85°	29.2	28.3	27.3	29.2	29.2	29.2	29.2	30.2	29.2	30.2	31.2
87.5°	15.6	14.6	14.6	15.6	15.6	15.6	16.6	16.6	16.6	17.5	17.5
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

TEST NUMBER: P1213784

CATALOG NUMBER: 4SNLED-LD5-46SL-RW-UNV-L940-CD1-U

CANDELA DISTRIBUTION (continued):

	110°	112.5°	115°	117.5°	120°	122.5°	125°	127.5°	130°	132.5°	135°
0°	2126.8	2126.8	2126.8	2126.8	2126.8	2126.8	2126.8	2126.8	2126.8	2126.8	2126.8
2.5°	2301.3	2304.2	2303.3	2297.4	2291.6	2284.7	2279.9	2280.8	2290.6	2293.5	2284.7
5°	2204.8	2223.3	2223.3	2236.0	2229.2	2223.3	2227.2	2248.7	2259.4	2276.0	2281.8
7.5°	2105.4	2114.2	2113.2	2125.9	2123.9	2123.9	2126.8	2155.1	2168.7	2182.4	2186.3
10°	2049.8	2058.6	2057.6	2058.6	2055.7	2048.9	2048.9	2061.5	2073.2	2080.0	2082.0
12.5°	2009.9	2014.7	2013.8	2013.8	2011.8	2006.0	2005.0	2015.7	2028.4	2037.2	2038.1
15°	1950.4	1964.1	1967.0	1979.7	1976.7	1968.9	1970.9	1979.7	1987.5	1995.2	1992.3
17.5°	1861.7	1868.5	1869.5	1874.4	1872.4	1872.4	1884.1	1916.3	1937.7	1956.3	1958.2
20°	1811.0	1815.9	1814.0	1824.7	1819.8	1818.8	1821.7	1835.4	1845.1	1853.9	1869.5
22.5°	1786.7	1790.6	1787.6	1788.6	1779.8	1772.0	1770.1	1780.8	1791.5	1803.2	1803.2
25°	1766.2	1769.1	1768.1	1766.2	1759.4	1748.6	1746.7	1748.6	1752.5	1753.5	1746.7
27.5°	1741.8	1743.8	1743.8	1744.7	1736.0	1726.2	1724.3	1722.3	1726.2	1725.3	1714.5
30°	1716.5	1713.6	1714.5	1715.5	1707.7	1698.9	1695.0	1694.1	1698.0	1697.0	1686.3
32.5°	1656.0	1678.5	1680.4	1682.4	1675.5	1667.7	1663.8	1660.9	1662.9	1661.9	1652.1
35°	379.2	386.0	472.7	1070.2	1453.3	1609.3	1625.8	1621.9	1622.9	1622.9	1615.1
37.5°	380.1	379.2	378.2	375.3	372.3	370.4	640.4	1365.6	1582.0	1582.9	1576.1
40°	380.1	379.2	378.2	376.2	372.3	369.4	364.5	360.6	369.4	812.9	1487.4
42.5°	382.1	380.1	378.2	376.2	372.3	368.4	364.5	359.7	362.6	360.6	355.8
45°	376.2	375.3	375.3	374.3	372.3	368.4	363.6	357.7	354.8	357.7	352.8
47.5°	357.7	358.7	361.6	362.6	362.6	363.6	360.6	356.7	351.9	354.8	348.9
50°	332.4	334.3	335.3	340.2	342.1	346.0	347.0	347.0	346.0	349.9	346.0
52.5°	305.1	307.0	311.9	313.9	315.8	321.7	323.6	326.5	328.5	334.3	338.2
55°	278.8	279.7	281.7	285.6	288.5	293.4	296.3	299.2	304.1	307.0	318.7
57.5°	254.4	255.4	259.3	260.2	262.2	266.1	269.0	272.9	276.8	278.8	292.4
60°	231.0	232.0	234.9	235.9	236.9	240.8	243.7	246.6	249.5	251.5	261.2
62.5°	210.5	210.5	213.5	213.5	214.4	217.4	219.3	221.3	224.2	225.2	230.0
65°	190.1	191.0	193.0	193.0	194.0	195.9	196.9	197.9	200.8	200.8	204.7
67.5°	164.7	165.7	168.6	170.6	171.6	175.4	176.4	177.4	179.3	180.3	182.3
70°	140.4	141.3	144.3	145.2	146.2	149.1	151.1	154.0	156.9	159.9	161.8
72.5°	117.9	118.9	121.8	121.8	124.8	125.7	127.7	128.7	131.6	133.5	136.5
75°	96.5	97.5	100.4	100.4	103.3	104.3	105.3	106.2	108.2	110.1	112.1
77.5°	79.0	79.0	82.9	84.8	86.7	86.7	87.7	87.7	87.7	88.7	90.6
80°	62.4	62.4	65.3	67.3	69.2	69.2	70.2	71.2	72.1	72.1	73.1
82.5°	46.8	46.8	49.7	50.7	52.6	52.6	52.6	53.6	54.6	53.6	55.6
85°	32.2	32.2	34.1	35.1	37.0	37.0	37.0	38.0	39.0	38.0	39.0
87.5°	18.5	19.5	20.5	21.4	22.4	23.4	23.4	23.4	24.4	24.4	25.3
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

TEST NUMBER: P1213784

CATALOG NUMBER: 4SNLED-LD5-46SL-RW-UNV-L940-CD1-U

CANDELA DISTRIBUTION (continued):

	137.5°	140°	142.5°	145°	147.5°	150°	152.5°	155°	157.5°	160°	162.5°
0°	2126.8	2126.8	2126.8	2126.8	2126.8	2126.8	2126.8	2126.8	2126.8	2126.8	2126.8
2.5°	2275.0	2263.3	2262.3	2248.7	2244.8	2245.8	2235.0	2231.1	2213.6	2209.7	2191.2
5°	2283.8	2289.6	2286.7	2285.7	2288.6	2286.7	2278.9	2275.0	2272.1	2264.3	2248.7
7.5°	2187.3	2191.2	2194.1	2206.8	2217.5	2236.0	2255.5	2268.2	2277.9	2279.9	2267.2
10°	2088.8	2107.3	2120.0	2139.5	2155.1	2165.8	2177.5	2188.2	2216.5	2244.8	2261.3
12.5°	2038.1	2043.0	2042.0	2052.8	2063.5	2091.7	2119.0	2134.6	2156.1	2168.7	2199.0
15°	1995.2	1996.2	1999.1	2006.9	2012.8	2022.5	2035.2	2058.6	2101.5	2121.0	2137.6
17.5°	1956.3	1956.3	1958.2	1965.0	1972.8	1981.6	1989.4	1999.1	2020.6	2052.8	2093.7
20°	1893.9	1921.2	1924.1	1923.1	1927.0	1943.6	1945.5	1963.1	1973.8	1986.5	2026.4
22.5°	1801.3	1817.8	1841.2	1877.3	1891.0	1898.8	1904.6	1912.4	1929.0	1943.6	1960.2
25°	1750.6	1761.3	1768.1	1778.9	1807.1	1852.9	1861.7	1870.5	1881.2	1891.9	1912.4
27.5°	1705.8	1704.8	1709.7	1719.4	1727.2	1751.6	1794.5	1828.6	1830.5	1846.1	1863.7
30°	1673.6	1667.7	1660.9	1659.0	1669.7	1682.4	1695.0	1748.6	1785.7	1793.5	1812.0
32.5°	1643.4	1633.6	1623.9	1616.1	1609.3	1620.0	1627.8	1651.2	1698.9	1743.8	1753.5
35°	1606.3	1596.6	1584.9	1576.1	1565.4	1564.4	1563.4	1585.9	1601.5	1655.1	1701.9
37.5°	1568.3	1557.6	1547.9	1538.1	1527.4	1519.6	1514.7	1520.6	1535.2	1558.6	1636.6
40°	1528.4	1515.7	1505.9	1498.1	1483.5	1477.7	1467.9	1464.0	1465.0	1485.5	1526.4
42.5°	913.3	1456.2	1461.1	1452.3	1439.7	1431.9	1421.1	1416.3	1406.5	1416.3	1439.7
45°	351.9	355.8	1065.4	1407.5	1391.9	1382.2	1372.4	1367.5	1356.8	1349.0	1370.5
47.5°	345.1	348.9	341.2	483.5	1328.5	1331.5	1319.8	1314.9	1304.2	1298.3	1292.5
50°	340.2	343.1	337.3	339.2	332.4	1217.4	1266.2	1260.3	1248.6	1241.8	1230.1
52.5°	335.3	335.3	331.4	326.5	324.6	325.6	1024.4	1204.8	1191.1	1184.3	1168.7
55°	319.7	321.7	325.6	317.8	315.8	314.8	311.9	975.7	1127.7	1120.0	1106.3
57.5°	296.3	300.2	310.9	309.0	309.0	301.2	299.2	299.2	905.5	1054.6	1041.0
60°	269.0	272.9	284.6	288.5	291.4	289.5	287.5	286.6	282.7	954.2	971.8
62.5°	240.8	244.7	248.6	261.2	265.1	270.0	275.8	272.9	269.0	269.0	898.7
65°	210.5	216.4	218.3	230.0	234.9	243.7	248.6	255.4	253.4	252.5	257.3
67.5°	184.2	191.0	192.0	196.9	205.7	209.6	215.4	228.1	233.9	235.9	237.8
70°	161.8	165.7	168.6	170.6	176.4	177.4	188.1	196.9	205.7	215.4	218.3
72.5°	139.4	142.3	148.2	146.2	148.2	152.1	157.9	163.8	172.5	186.2	194.9
75°	114.0	116.0	119.9	121.8	125.7	128.7	132.6	137.4	145.2	152.1	163.8
77.5°	91.6	92.6	95.5	96.5	100.4	103.3	110.1	113.1	117.9	122.8	129.6
80°	74.1	74.1	75.1	75.1	78.0	80.9	85.8	88.7	94.5	98.4	98.4
82.5°	56.5	56.5	59.5	59.5	61.4	61.4	64.3	64.3	67.3	69.2	71.2
85°	40.0	40.9	42.9	41.9	43.9	42.9	44.8	46.8	47.8	46.8	45.8
87.5°	26.3	26.3	28.3	27.3	28.3	28.3	30.2	30.2	31.2	31.2	30.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

TEST NUMBER: P1213784

CATALOG NUMBER: 4SNLED-LD5-46SL-RW-UNV-L940-CD1-U

CANDELA DISTRIBUTION (continued):

	165°	167.5°	170°	172.5°	175°	177.5°	180°	182.5°	185°	187.5°	190°
0°	2126.8	2126.8	2126.8	2126.8	2126.8	2126.8	2126.8	2126.8	2126.8	2126.8	2126.8
2.5°	2184.3	2169.7	2161.0	2150.2	2147.3	2144.4	2148.3	2148.3	2142.4	2137.6	2128.8
5°	2235.0	2219.4	2202.9	2185.3	2168.7	2151.2	2144.4	2143.4	2132.7	2126.8	2123.9
7.5°	2261.3	2253.5	2235.0	2210.7	2185.3	2154.1	2140.5	2132.7	2122.0	2120.0	2120.0
10°	2264.3	2255.5	2245.8	2228.2	2199.0	2158.0	2131.7	2116.1	2106.4	2113.2	2125.9
12.5°	2236.0	2252.6	2243.8	2232.1	2208.7	2159.0	2121.0	2097.6	2094.7	2112.2	2145.4
15°	2163.9	2212.6	2237.0	2225.3	2206.8	2157.1	2103.4	2076.1	2076.1	2112.2	2155.1
17.5°	2109.3	2147.3	2206.8	2216.5	2195.1	2153.2	2086.9	2054.7	2063.5	2116.1	2161.9
20°	2064.5	2087.8	2145.4	2199.9	2179.5	2144.4	2062.5	2029.4	2046.9	2110.3	2171.7
22.5°	1994.3	2041.1	2076.1	2157.1	2163.9	2127.8	2038.1	1998.2	2033.3	2110.3	2166.8
25°	1926.0	1982.6	2019.6	2098.6	2140.5	2107.3	2015.7	1965.0	2018.6	2107.3	2162.9
27.5°	1878.3	1904.6	1971.9	2028.4	2105.4	2080.0	1985.5	1929.0	2000.1	2091.7	2140.5
30°	1827.6	1845.1	1911.4	1965.0	2058.6	2048.9	1954.3	1889.0	1976.7	2077.1	2082.0
32.5°	1772.0	1791.5	1825.6	1903.6	1993.3	2019.6	1919.2	1849.0	1951.4	2054.7	2013.8
35°	1715.5	1730.1	1757.4	1841.2	1917.3	1975.8	1876.3	1803.2	1933.8	2020.6	1948.5
37.5°	1659.0	1674.6	1698.0	1768.1	1837.3	1934.8	1839.3	1757.4	1901.7	1960.2	1880.2
40°	1605.4	1614.1	1638.5	1682.4	1771.1	1892.9	1797.4	1709.7	1868.5	1883.2	1787.6
42.5°	1506.9	1550.8	1573.2	1608.3	1696.0	1835.4	1748.6	1659.0	1831.5	1806.2	1695.0
45°	1400.7	1496.2	1505.9	1541.0	1629.7	1774.0	1702.8	1609.3	1796.4	1739.9	1607.3
47.5°	1313.9	1383.1	1439.7	1468.9	1550.8	1701.9	1659.9	1567.3	1743.8	1656.0	1521.5
50°	1236.9	1274.0	1376.3	1397.7	1456.2	1615.1	1609.3	1518.6	1670.7	1550.8	1437.7
52.5°	1161.9	1188.2	1280.8	1326.6	1374.4	1521.5	1548.8	1470.8	1590.7	1445.5	1352.9
55°	1096.6	1105.3	1156.0	1252.5	1295.4	1427.0	1482.5	1415.3	1489.4	1345.1	1271.0
57.5°	1029.3	1021.5	1058.5	1182.3	1213.5	1330.5	1412.4	1358.8	1407.5	1242.8	1186.2
60°	959.1	948.4	964.0	1045.9	1126.8	1235.0	1329.5	1296.4	1308.1	1141.4	1091.7
62.5°	886.0	875.3	870.4	922.1	1042.0	1136.5	1245.7	1227.2	1186.2	1048.8	974.7
65°	810.0	799.3	791.5	811.9	948.4	1008.8	1152.1	1147.2	1052.7	951.3	820.7
67.5°	246.6	727.1	710.6	709.6	799.3	892.8	1050.7	1042.9	918.2	847.0	706.7
70°	222.2	589.7	626.7	618.0	657.0	774.9	934.8	928.9	787.6	679.4	624.8
72.5°	203.7	208.6	553.6	543.9	552.7	658.9	813.9	798.3	667.7	536.1	540.0
75°	174.5	183.2	191.0	459.1	447.4	545.8	682.3	657.9	550.7	442.5	451.3
77.5°	142.3	153.0	158.9	334.3	361.6	388.9	544.9	512.7	379.2	353.8	168.6
80°	106.2	115.0	124.8	133.5	274.9	271.9	404.5	372.3	264.1	220.3	131.6
82.5°	78.0	80.9	86.7	96.5	109.2	182.3	260.2	229.1	183.2	100.4	90.6
85°	48.7	52.6	55.6	58.5	66.3	109.2	128.7	102.3	77.0	61.4	57.5
87.5°	31.2	31.2	30.2	31.2	32.2	39.0	43.9	41.9	33.1	31.2	31.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

TEST NUMBER: P1213784

CATALOG NUMBER: 4SNLED-LD5-46SL-RW-UNV-L940-CD1-U

CANDELA DISTRIBUTION (continued):

	192.5°	195°	197.5°	200°	202.5°	205°	207.5°	210°	212.5°	215°	217.5°
0°	2126.8	2126.8	2126.8	2126.8	2126.8	2126.8	2126.8	2126.8	2126.8	2126.8	2126.8
2.5°	2119.0	2105.4	2105.4	2101.5	2104.4	2104.4	2103.4	2104.4	2111.2	2115.1	2122.0
5°	2118.1	2114.2	2122.9	2133.7	2146.3	2161.9	2165.8	2179.5	2192.1	2208.7	2226.3
7.5°	2130.7	2144.4	2161.0	2178.5	2203.8	2222.4	2238.9	2255.5	2267.2	2282.8	2292.5
10°	2149.3	2176.5	2204.8	2227.2	2254.5	2270.1	2280.8	2282.8	2266.2	2239.9	2218.5
12.5°	2175.6	2207.7	2234.1	2255.5	2268.2	2262.3	2231.1	2199.0	2180.4	2153.2	2115.1
15°	2198.0	2227.2	2254.5	2245.8	2211.6	2179.5	2155.1	2117.1	2080.0	2054.7	2038.1
17.5°	2207.7	2236.0	2226.3	2180.4	2148.3	2111.2	2061.5	2032.3	2007.9	1988.4	1978.7
20°	2213.6	2208.7	2156.1	2122.9	2060.6	2026.4	1994.3	1967.0	1948.5	1938.7	1936.8
22.5°	2198.0	2138.5	2093.7	2034.2	1988.4	1960.2	1934.8	1912.4	1899.7	1891.9	1887.1
25°	2146.3	2077.1	2010.8	1964.1	1925.1	1900.7	1881.2	1862.7	1847.1	1843.2	1833.4
27.5°	2074.2	2017.7	1929.9	1893.9	1859.8	1848.1	1826.6	1808.1	1794.5	1782.8	1751.6
30°	2014.7	1925.1	1861.7	1828.6	1808.1	1794.5	1770.1	1750.6	1727.2	1684.3	1666.8
32.5°	1941.6	1852.9	1792.5	1774.0	1748.6	1736.9	1709.7	1666.8	1630.7	1613.2	1612.2
35°	1847.1	1774.0	1730.1	1713.6	1693.1	1673.6	1617.1	1578.1	1560.5	1562.5	1577.1
37.5°	1768.1	1702.8	1674.6	1651.2	1627.8	1578.1	1530.3	1511.8	1516.7	1526.4	1533.2
40°	1688.2	1638.5	1606.3	1587.8	1535.2	1486.4	1461.1	1467.9	1476.7	1483.5	1492.3
42.5°	1610.2	1575.1	1543.0	1506.9	1434.8	1408.5	1414.3	1423.1	1430.9	1440.6	1449.4
45°	1536.2	1505.0	1467.9	1386.0	1350.0	1356.8	1365.6	1372.4	1384.1	1390.9	1399.7
47.5°	1466.0	1432.8	1367.5	1295.4	1291.5	1305.1	1312.9	1321.7	1330.5	1312.9	724.2
50°	1387.0	1352.9	1253.5	1226.2	1235.0	1247.6	1257.4	1266.2	1127.7	448.4	345.1
52.5°	1309.0	1222.3	1158.9	1166.7	1175.5	1190.1	1197.0	888.9	353.8	337.3	338.2
55°	1222.3	1111.2	1092.7	1102.4	1110.2	1124.8	745.7	326.5	324.6	323.6	331.4
57.5°	1085.8	1018.6	1026.4	1036.1	1043.9	736.9	317.8	315.8	316.8	317.8	318.7
60°	964.0	949.4	958.1	966.9	684.3	307.0	301.2	302.2	306.1	303.1	295.3
62.5°	867.5	879.2	888.0	777.8	291.4	288.5	291.4	288.5	281.7	276.8	267.1
65°	793.4	805.1	811.9	273.9	272.9	276.8	273.9	264.1	253.4	239.8	236.9
67.5°	715.4	727.1	260.2	253.4	257.3	252.5	240.8	229.1	221.3	209.6	204.7
70°	634.5	271.9	235.9	234.9	228.1	220.3	207.6	195.9	186.2	181.3	176.4
72.5°	458.1	215.4	212.5	204.7	193.0	182.3	171.6	164.7	159.9	156.9	154.0
75°	191.0	187.1	178.4	164.7	153.0	148.2	140.4	135.5	133.5	127.7	125.7
77.5°	159.9	152.1	139.4	129.6	122.8	119.9	114.0	108.2	105.3	104.3	100.4
80°	122.8	112.1	106.2	101.4	99.4	92.6	85.8	82.9	80.9	79.9	77.0
82.5°	83.8	79.9	76.0	69.2	69.2	66.3	63.4	61.4	59.5	59.5	57.5
85°	54.6	51.7	50.7	47.8	47.8	45.8	44.8	43.9	42.9	41.9	40.9
87.5°	31.2	31.2	32.2	31.2	31.2	30.2	29.2	28.3	27.3	27.3	25.3
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

TEST NUMBER: P1213784

CATALOG NUMBER: 4SNLED-LD5-46SL-RW-UNV-L940-CD1-U

CANDELA DISTRIBUTION (continued):

	220°	222.5°	225°	227.5°	230°	232.5°	235°	237.5°	240°	242.5°	245°
0°	2126.8	2126.8	2126.8	2126.8	2126.8	2126.8	2126.8	2126.8	2126.8	2126.8	2126.8
2.5°	2130.7	2140.5	2142.4	2175.6	2194.1	2193.1	2187.3	2204.8	2194.1	2188.2	2194.1
5°	2243.8	2255.5	2265.2	2301.3	2314.0	2319.8	2318.9	2328.6	2320.8	2314.0	2314.0
7.5°	2299.4	2303.3	2307.2	2298.4	2292.5	2282.8	2268.2	2246.7	2236.0	2224.3	2209.7
10°	2207.7	2195.1	2199.9	2182.4	2167.8	2157.1	2143.4	2125.9	2111.2	2100.5	2083.9
12.5°	2095.6	2094.7	2096.6	2099.5	2084.9	2076.1	2065.4	2052.8	2042.0	2030.3	2016.7
15°	2027.4	2028.4	2036.2	2033.3	2028.4	2023.5	2011.8	2007.9	1998.2	1985.5	1977.7
17.5°	1978.7	1983.6	1991.3	1987.5	1979.7	1974.8	1966.0	1957.2	1948.5	1938.7	1927.0
20°	1935.8	1940.7	1945.5	1940.7	1926.0	1919.2	1907.5	1880.2	1860.7	1841.2	1823.7
22.5°	1889.0	1891.9	1888.0	1872.4	1835.4	1817.8	1804.2	1796.4	1779.8	1769.1	1758.4
25°	1830.5	1814.0	1788.6	1771.1	1756.4	1748.6	1742.8	1741.8	1739.9	1737.9	1733.0
27.5°	1735.0	1729.2	1715.5	1708.7	1709.7	1712.6	1713.6	1716.5	1713.6	1709.7	1705.8
30°	1663.8	1666.8	1667.7	1669.7	1674.6	1677.5	1678.5	1682.4	1680.4	1677.5	1675.5
32.5°	1619.0	1625.8	1629.7	1635.6	1638.5	1643.4	1643.4	1649.2	1643.4	1642.4	1640.5
35°	1582.0	1587.8	1589.8	1598.5	1601.5	1606.3	1606.3	1611.2	1606.3	1556.6	1229.1
37.5°	1544.9	1550.8	1554.7	1562.5	1563.4	1566.4	1445.5	1057.6	682.3	528.3	403.5
40°	1501.1	1507.9	1511.8	1514.7	1064.4	675.5	464.9	378.2	378.2	381.1	384.0
42.5°	1454.3	1459.2	1016.6	591.7	368.4	367.5	370.4	373.3	376.2	380.1	384.0
45°	1143.3	577.0	366.5	357.7	360.6	364.5	368.4	372.3	377.2	381.1	383.1
47.5°	375.3	351.9	356.7	352.8	357.7	362.6	366.5	370.4	371.4	372.3	371.4
50°	347.0	347.0	349.9	349.9	353.8	355.8	355.8	355.8	351.9	350.9	348.0
52.5°	335.3	343.1	339.2	341.2	339.2	336.3	333.4	330.4	324.6	322.6	318.7
55°	329.5	332.4	322.6	319.7	315.8	308.0	304.1	300.2	295.3	293.4	288.5
57.5°	315.8	309.0	298.3	293.4	286.6	278.8	274.9	271.9	267.1	265.1	262.2
60°	290.5	276.8	270.0	264.1	256.4	249.5	246.6	244.7	240.8	239.8	236.9
62.5°	259.3	247.6	241.7	233.9	228.1	224.2	221.3	220.3	216.4	216.4	214.4
65°	225.2	219.3	214.4	206.6	203.7	199.8	198.8	197.9	195.9	194.9	193.0
67.5°	197.9	194.0	187.1	183.2	181.3	178.4	176.4	174.5	170.6	168.6	165.7
70°	173.5	170.6	163.8	160.8	156.9	152.1	149.1	147.2	144.3	142.3	139.4
72.5°	150.1	141.3	136.5	133.5	130.6	125.7	124.8	122.8	119.9	118.9	116.0
75°	120.9	114.0	111.1	109.2	106.2	103.3	103.3	103.3	100.4	99.4	98.4
77.5°	96.5	92.6	90.6	88.7	87.7	85.8	82.9	81.9	79.0	79.0	78.0
80°	74.1	72.1	70.2	69.2	68.2	66.3	64.3	63.4	60.4	60.4	59.5
82.5°	54.6	53.6	52.6	51.7	50.7	49.7	46.8	45.8	43.9	43.9	42.9
85°	39.0	38.0	36.1	35.1	35.1	34.1	31.2	30.2	28.3	28.3	28.3
87.5°	24.4	23.4	22.4	21.4	20.5	19.5	17.5	16.6	16.6	14.6	13.6
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

TEST NUMBER: P1213784

CATALOG NUMBER: 4SNLED-LD5-46SL-RW-UNV-L940-CD1-U

CANDELA DISTRIBUTION (continued):

	247.5°	250°	252.5°	255°	257.5°	260°	262.5°	265°	267.5°	270°	272.5°
0°	2126.8	2126.8	2126.8	2126.8	2126.8	2126.8	2126.8	2126.8	2126.8	2126.8	2126.8
2.5°	2182.4	2199.0	2197.0	2208.7	2211.6	2217.5	2219.4	2220.4	2205.8	2217.5	2218.5
5°	2311.1	2314.0	2315.9	2320.8	2325.7	2326.7	2321.8	2315.9	2317.9	2314.0	2304.2
7.5°	2207.7	2193.1	2190.2	2186.3	2184.3	2182.4	2173.6	2181.4	2172.6	2168.7	2155.1
10°	2081.0	2067.4	2066.4	2066.4	2069.3	2068.4	2066.4	2062.5	2070.3	2065.4	2062.5
12.5°	2014.7	2009.9	2012.8	2010.8	2018.6	2020.6	2018.6	2018.6	2016.7	2012.8	2014.7
15°	1974.8	1970.9	1973.8	1970.9	1976.7	1977.7	1972.8	1975.8	1970.9	1966.0	1964.1
17.5°	1922.1	1913.4	1906.5	1896.8	1897.8	1895.8	1890.0	1890.0	1885.1	1872.4	1873.4
20°	1820.8	1812.0	1808.1	1808.1	1813.0	1814.9	1814.0	1815.9	1811.0	1809.1	1801.3
22.5°	1757.4	1756.4	1758.4	1763.3	1771.1	1781.8	1782.8	1782.8	1782.8	1781.8	1772.0
25°	1735.0	1735.0	1736.9	1743.8	1749.6	1757.4	1759.4	1761.3	1759.4	1759.4	1750.6
27.5°	1709.7	1707.7	1711.6	1718.4	1725.3	1731.1	1736.0	1736.9	1734.0	1734.0	1736.9
30°	1678.5	1677.5	1682.4	1689.2	1695.0	1700.9	1705.8	1709.7	1705.8	1705.8	1702.8
32.5°	1646.3	1646.3	1648.2	1607.3	1490.3	1342.2	1345.1	1259.3	1199.9	1124.8	1224.2
35°	1027.4	747.6	642.3	543.9	474.7	429.9	428.9	414.3	407.4	402.6	401.6
37.5°	387.9	389.9	393.8	395.7	398.7	400.6	401.6	401.6	401.6	401.6	400.6
40°	387.0	390.9	393.8	396.7	399.6	401.6	401.6	402.6	403.5	403.5	403.5
42.5°	387.9	391.8	395.7	398.7	400.6	401.6	402.6	403.5	403.5	403.5	403.5
45°	387.0	388.9	388.9	389.9	389.9	389.9	390.9	390.9	389.9	388.9	390.9
47.5°	372.3	372.3	369.4	368.4	367.5	365.5	366.5	365.5	364.5	363.6	365.5
50°	347.0	343.1	341.2	339.2	338.2	336.3	337.3	336.3	335.3	333.4	336.3
52.5°	316.8	315.8	311.9	310.0	309.0	310.0	308.0	307.0	306.1	305.1	306.1
55°	287.5	283.6	282.7	280.7	279.7	280.7	279.7	278.8	277.8	276.8	277.8
57.5°	261.2	258.3	257.3	255.4	255.4	255.4	255.4	254.4	253.4	252.5	253.4
60°	235.9	233.9	233.0	233.0	232.0	232.0	232.0	231.0	230.0	230.0	231.0
62.5°	214.4	214.4	211.5	210.5	210.5	211.5	210.5	209.6	208.6	207.6	209.6
65°	192.0	188.1	187.1	185.2	183.2	184.2	183.2	182.3	181.3	180.3	182.3
67.5°	164.7	163.8	159.9	157.9	156.9	157.9	156.9	156.0	155.0	154.0	156.0
70°	138.4	138.4	134.5	133.5	132.6	132.6	131.6	131.6	130.6	129.6	131.6
72.5°	115.0	115.0	114.0	112.1	111.1	110.1	109.2	108.2	108.2	109.2	109.2
75°	95.5	93.6	89.7	90.6	89.7	88.7	88.7	87.7	86.7	88.7	87.7
77.5°	75.1	74.1	71.2	72.1	71.2	70.2	70.2	69.2	68.2	69.2	69.2
80°	56.5	56.5	55.6	54.6	54.6	53.6	52.6	52.6	51.7	52.6	52.6
82.5°	40.9	40.9	40.0	39.0	38.0	38.0	37.0	37.0	37.0	37.0	37.0
85°	26.3	25.3	25.3	23.4	23.4	23.4	22.4	22.4	22.4	22.4	22.4
87.5°	12.7	12.7	11.7	11.7	10.7	9.7	9.7	8.8	8.8	9.7	9.7
90°	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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CATALOG NUMBER: 4SNLED-LD5-46SL-RW-UNV-L940-CD1-U

CANDELA DISTRIBUTION (continued):

	275°	277.5°	280°	282.5°	285°	287.5°	290°	292.5°	295°	297.5°	300°
0°	2126.8	2126.8	2126.8	2126.8	2126.8	2126.8	2126.8	2126.8	2126.8	2126.8	2126.8
2.5°	2200.9	2213.6	2202.9	2207.7	2208.7	2225.3	2224.3	2228.2	2221.4	2213.6	2202.9
5°	2313.0	2307.2	2299.4	2317.9	2308.1	2319.8	2323.7	2331.5	2331.5	2330.6	2321.8
7.5°	2169.7	2157.1	2166.8	2173.6	2176.5	2168.7	2184.3	2201.9	2216.5	2225.3	2226.3
10°	2057.6	2061.5	2060.6	2063.5	2070.3	2069.3	2079.1	2088.8	2092.7	2098.6	2100.5
12.5°	2005.0	2004.0	2006.0	2012.8	2016.7	2015.7	2025.5	2031.3	2033.3	2034.2	2033.3
15°	1963.1	1956.3	1961.1	1962.1	1965.0	1965.0	1976.7	1985.5	1989.4	1991.3	1989.4
17.5°	1884.1	1867.6	1883.2	1883.2	1893.9	1891.9	1910.4	1925.1	1932.9	1938.7	1938.7
20°	1806.2	1798.4	1804.2	1802.3	1810.1	1809.1	1820.8	1830.5	1837.3	1842.2	1848.1
22.5°	1775.0	1776.9	1768.1	1769.1	1769.1	1768.1	1774.0	1778.9	1780.8	1783.7	1781.8
25°	1754.5	1756.4	1753.5	1748.6	1746.7	1748.6	1751.6	1757.4	1758.4	1756.4	1749.6
27.5°	1734.0	1728.2	1733.0	1724.3	1722.3	1726.2	1730.1	1731.1	1732.1	1732.1	1726.2
30°	1702.8	1698.0	1702.8	1698.9	1695.0	1698.9	1701.9	1701.9	1703.8	1704.8	1698.0
32.5°	1190.1	1199.9	1357.8	1453.3	1587.8	1656.0	1668.7	1668.7	1670.7	1670.7	1664.8
35°	405.5	406.5	439.6	476.6	555.6	653.1	780.7	847.0	1071.2	1339.3	1598.5
37.5°	400.6	399.6	398.7	397.7	396.7	395.7	393.8	392.8	398.7	472.7	641.4
40°	402.6	401.6	399.6	398.7	397.7	395.7	394.8	392.8	390.9	388.9	387.0
42.5°	402.6	401.6	400.6	399.6	398.7	397.7	395.7	393.8	391.8	388.9	386.0
45°	388.9	388.9	389.9	389.9	390.9	390.9	390.9	389.9	389.9	388.9	385.0
47.5°	363.6	363.6	366.5	366.5	368.4	370.4	370.4	372.3	375.3	377.2	378.2
50°	334.3	334.3	337.3	338.2	340.2	343.1	346.0	347.0	349.9	353.8	357.7
52.5°	305.1	305.1	308.0	308.0	310.0	312.9	315.8	316.8	320.7	324.6	329.5
55°	277.8	277.8	279.7	280.7	281.7	283.6	286.6	286.6	290.5	293.4	298.3
57.5°	253.4	255.4	255.4	255.4	256.4	258.3	260.2	260.2	263.2	266.1	270.0
60°	230.0	232.0	232.0	232.0	233.0	233.9	235.9	235.9	237.8	239.8	243.7
62.5°	208.6	210.5	210.5	211.5	211.5	212.5	214.4	213.5	215.4	216.4	219.3
65°	181.3	183.2	184.2	185.2	186.2	188.1	191.0	190.1	193.0	194.9	197.9
67.5°	155.0	156.9	156.9	157.9	158.9	160.8	162.8	162.8	165.7	167.7	171.6
70°	130.6	132.6	132.6	133.5	134.5	136.5	138.4	137.4	140.4	142.3	145.2
72.5°	108.2	110.1	110.1	111.1	111.1	113.1	115.0	117.0	117.0	118.9	120.9
75°	87.7	88.7	89.7	89.7	90.6	91.6	93.6	95.5	96.5	97.5	99.4
77.5°	69.2	70.2	71.2	71.2	72.1	73.1	74.1	78.0	79.9	80.9	80.9
80°	52.6	53.6	53.6	53.6	54.6	55.6	57.5	57.5	61.4	61.4	62.4
82.5°	37.0	38.0	38.0	38.0	39.0	40.9	41.9	42.9	44.8	45.8	45.8
85°	22.4	23.4	23.4	23.4	24.4	25.3	27.3	28.3	29.2	29.2	30.2
87.5°	8.8	9.7	10.7	10.7	11.7	12.7	13.6	14.6	15.6	15.6	16.6
90°	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):

	302.5°	305°	307.5°	310°	312.5°	315°	317.5°	320°	322.5°	325°	327.5°
0°	2126.8	2126.8	2126.8	2126.8	2126.8	2126.8	2126.8	2126.8	2126.8	2126.8	2126.8
2.5°	2191.2	2198.0	2191.2	2195.1	2199.9	2191.2	2170.7	2162.9	2160.0	2148.3	2140.5
5°	2313.0	2313.0	2310.1	2317.9	2316.9	2303.3	2281.8	2272.1	2262.3	2249.6	2239.9
7.5°	2226.3	2234.1	2238.9	2269.1	2288.6	2290.6	2304.2	2307.2	2311.1	2307.2	2301.3
10°	2101.5	2098.6	2112.2	2140.5	2157.1	2165.8	2192.1	2204.8	2215.5	2237.0	2259.4
12.5°	2031.3	2035.2	2041.1	2061.5	2077.1	2073.2	2083.9	2092.7	2105.4	2126.8	2159.0
15°	1984.5	1988.4	1994.3	2009.9	2019.6	2014.7	2020.6	2026.4	2035.2	2045.9	2065.4
17.5°	1933.8	1940.7	1947.5	1964.1	1972.8	1971.9	1976.7	1978.7	1981.6	1988.4	2002.1
20°	1854.9	1876.3	1890.0	1912.4	1925.1	1923.1	1931.9	1934.8	1938.7	1945.5	1951.4
22.5°	1782.8	1788.6	1795.4	1819.8	1841.2	1867.6	1873.4	1881.2	1891.0	1897.8	1903.6
25°	1741.8	1737.9	1740.8	1757.4	1769.1	1771.1	1779.8	1805.2	1831.5	1843.2	1856.8
27.5°	1717.5	1713.6	1712.6	1720.4	1722.3	1717.5	1715.5	1723.3	1742.8	1762.3	1803.2
30°	1691.1	1686.3	1682.4	1689.2	1692.1	1685.3	1672.6	1665.8	1677.5	1682.4	1698.9
32.5°	1659.9	1655.1	1653.1	1657.0	1659.0	1653.1	1639.5	1631.7	1629.7	1625.8	1629.7
35°	1624.9	1620.0	1617.1	1618.0	1621.9	1617.1	1605.4	1595.6	1590.7	1580.0	1572.2
37.5°	837.3	1186.2	1540.1	1577.1	1581.0	1580.0	1568.3	1557.6	1552.7	1540.1	1536.2
40°	383.1	427.9	642.3	839.2	1210.6	1538.1	1527.4	1516.7	1507.9	1504.0	1489.4
42.5°	382.1	383.1	384.0	379.2	469.8	800.2	1181.4	1474.7	1468.9	1459.2	1448.4
45°	382.1	377.2	381.1	375.3	377.2	376.2	468.8	756.4	1346.1	1406.5	1401.6
47.5°	378.2	375.3	379.2	374.3	368.4	371.4	367.5	372.3	580.9	985.4	1350.0
50°	360.6	362.6	369.4	368.4	363.6	367.5	360.6	366.5	361.6	396.7	764.2
52.5°	334.3	338.2	345.1	350.9	352.8	357.7	355.8	357.7	353.8	354.8	355.8
55°	303.1	308.0	313.9	322.6	326.5	334.3	340.2	343.1	348.0	347.0	339.2
57.5°	273.9	278.8	283.6	292.4	301.2	305.1	315.8	321.7	334.3	331.4	329.5
60°	246.6	250.5	255.4	257.3	268.0	274.9	284.6	290.5	307.0	310.9	316.8
62.5°	222.2	224.2	228.1	231.0	237.8	244.7	249.5	259.3	268.0	280.7	289.5
65°	199.8	201.8	204.7	206.6	207.6	217.4	220.3	231.0	233.9	247.6	255.4
67.5°	174.5	178.4	182.3	184.2	186.2	192.0	194.0	198.8	205.7	211.5	221.3
70°	148.2	151.1	155.0	157.9	161.8	165.7	171.6	174.5	179.3	183.2	191.0
72.5°	123.8	126.7	128.7	131.6	134.5	137.4	142.3	149.1	153.0	159.9	161.8
75°	100.4	103.3	105.3	107.2	110.1	112.1	114.0	120.9	124.8	130.6	136.5
77.5°	82.9	82.9	84.8	90.6	89.7	89.7	91.6	95.5	98.4	102.3	108.2
80°	64.3	65.3	66.3	71.2	72.1	73.1	72.1	75.1	78.0	79.0	82.9
82.5°	47.8	48.7	48.7	51.7	54.6	54.6	54.6	55.6	58.5	59.5	61.4
85°	32.2	33.1	34.1	35.1	37.0	38.0	39.0	39.0	40.9	41.9	42.9
87.5°	17.5	19.5	20.5	21.4	22.4	23.4	24.4	25.3	26.3	27.3	28.3
90°	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):

	330°	332.5°	335°	337.5°	340°	342.5°	345°	347.5°	350°	352.5°	355°
0°	2126.8	2126.8	2126.8	2126.8	2126.8	2126.8	2126.8	2126.8	2126.8	2126.8	2126.8
2.5°	2137.6	2132.7	2129.8	2122.0	2120.0	2107.3	2109.3	2107.3	2107.3	2110.3	2120.0
5°	2229.2	2205.8	2199.9	2183.4	2169.7	2146.3	2131.7	2123.9	2112.2	2107.3	2114.2
7.5°	2291.6	2274.0	2259.4	2244.8	2225.3	2198.0	2177.5	2154.1	2134.6	2116.1	2111.2
10°	2280.8	2300.3	2300.3	2291.6	2273.0	2245.8	2221.4	2192.1	2158.0	2128.8	2111.2
12.5°	2190.2	2224.3	2251.6	2272.1	2290.6	2272.1	2247.7	2224.3	2186.3	2143.4	2111.2
15°	2090.8	2125.9	2160.0	2202.9	2247.7	2266.2	2265.2	2238.0	2203.8	2159.0	2114.2
17.5°	2020.6	2045.0	2063.5	2110.3	2164.8	2212.6	2244.8	2246.7	2213.6	2173.6	2115.1
20°	1968.0	1985.5	2001.1	2027.4	2075.2	2133.7	2193.1	2226.3	2220.4	2176.5	2118.1
22.5°	1920.2	1932.9	1945.5	1965.0	2003.0	2041.1	2110.3	2178.5	2207.7	2171.7	2115.1
25°	1872.4	1886.1	1895.8	1909.5	1939.7	1970.9	2019.6	2104.4	2169.7	2167.8	2109.3
27.5°	1815.9	1834.4	1846.1	1864.6	1885.1	1908.5	1941.6	2021.6	2115.1	2148.3	2093.7
30°	1747.7	1775.0	1792.5	1813.0	1830.5	1851.0	1877.3	1926.0	2042.0	2110.3	2077.1
32.5°	1649.2	1698.0	1736.9	1756.4	1775.9	1793.5	1816.9	1857.8	1952.4	2058.6	2058.6
35°	1579.0	1601.5	1636.6	1693.1	1717.5	1735.0	1756.4	1788.6	1849.0	1997.2	2028.4
37.5°	1524.5	1533.2	1550.8	1606.3	1652.1	1680.4	1701.9	1722.3	1781.8	1913.4	1989.4
40°	1483.5	1480.6	1478.6	1505.0	1570.3	1615.1	1639.5	1659.9	1705.8	1813.0	1937.7
42.5°	1435.8	1432.8	1423.1	1429.9	1462.1	1537.1	1574.2	1596.6	1634.6	1707.7	1881.2
45°	1386.0	1381.2	1377.3	1370.5	1382.2	1424.1	1500.1	1533.2	1554.7	1620.0	1810.1
47.5°	1335.4	1328.5	1323.7	1317.8	1311.0	1330.5	1402.6	1462.1	1499.1	1540.1	1724.3
50°	1263.2	1272.0	1266.2	1259.3	1253.5	1249.6	1279.8	1377.3	1423.1	1456.2	1620.0
52.5°	595.6	1158.0	1206.7	1199.9	1192.1	1185.3	1192.1	1266.2	1349.0	1375.3	1494.2
55°	339.2	515.6	1073.2	1134.6	1127.7	1118.0	1112.2	1137.5	1261.3	1296.4	1379.2
57.5°	326.5	327.5	473.7	1022.5	1060.5	1051.7	1044.9	1050.7	1156.0	1215.5	1278.8
60°	315.8	315.8	315.8	452.3	977.6	980.6	971.8	962.0	1007.9	1124.8	1177.5
62.5°	292.4	298.3	301.2	301.2	446.4	905.5	896.7	893.8	895.8	1015.7	1076.1
65°	262.2	275.8	281.7	285.6	285.6	468.8	819.7	814.9	808.0	853.9	973.7
67.5°	229.1	242.7	255.4	263.2	264.1	272.9	489.3	734.0	724.2	725.2	864.6
70°	194.9	206.6	220.3	232.0	242.7	247.6	255.4	609.2	641.4	627.7	740.8
72.5°	168.6	173.5	183.2	194.9	207.6	219.3	226.1	242.7	556.6	541.9	563.4
75°	140.4	144.3	151.1	158.9	168.6	182.3	194.0	205.7	295.3	454.2	451.3
77.5°	109.2	116.0	123.8	128.7	133.5	143.3	158.9	170.6	182.3	307.0	361.6
80°	83.8	88.7	92.6	97.5	103.3	110.1	116.0	129.6	143.3	154.0	276.8
82.5°	62.4	65.3	68.2	70.2	72.1	76.0	86.7	91.6	100.4	110.1	130.6
85°	43.9	45.8	47.8	48.7	49.7	50.7	54.6	55.6	64.3	66.3	79.0
87.5°	28.3	29.2	31.2	32.2	32.2	33.1	34.1	34.1	34.1	32.2	39.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

TEST NUMBER: P1213784

CATALOG NUMBER: 4SNLED-LD5-46SL-RW-UNV-L940-CD1-U

CANDELA DISTRIBUTION (continued):

	357.5°	360°
0°	2126.8	2126.8
2.5°	2127.8	2143.4
5°	2124.9	2145.4
7.5°	2117.1	2136.6
10°	2105.4	2128.8
12.5°	2092.7	2115.1
15°	2082.0	2098.6
17.5°	2070.3	2080.0
20°	2054.7	2062.5
22.5°	2039.1	2035.2
25°	2021.6	2012.8
27.5°	1999.1	1982.6
30°	1978.7	1949.4
32.5°	1959.2	1911.4
35°	1932.9	1872.4
37.5°	1905.6	1832.5
40°	1873.4	1786.7
42.5°	1839.3	1740.8
45°	1796.4	1697.0
47.5°	1758.4	1644.3
50°	1705.8	1587.8
52.5°	1641.4	1535.2
55°	1565.4	1470.8
57.5°	1483.5	1403.6
60°	1395.8	1326.6
62.5°	1289.6	1246.7
65°	1164.8	1155.0
67.5°	1002.0	1053.7
70°	821.7	937.7
72.5°	687.2	814.9
75°	563.4	677.4
77.5°	446.4	531.2
80°	278.8	388.9
82.5°	187.1	255.4
85°	113.1	121.8
87.5°	43.9	44.8
90°	0.0	0.0

(END OF REPORT)