

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State
Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: METALUX

Report Number: P#

Luminaire Tested: **4SNLED-LD5-48HL-RW-UNV-L950-CD1-U**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P#
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P33525)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 4SNLED-LD5-48HL-RW-UNV-L950-CD1-U
Description: 4FT LINEAR SNLED LED FIXTURE
WHITE REFLECTOR
Light Source: -
Ballast/Driver: -

Summary

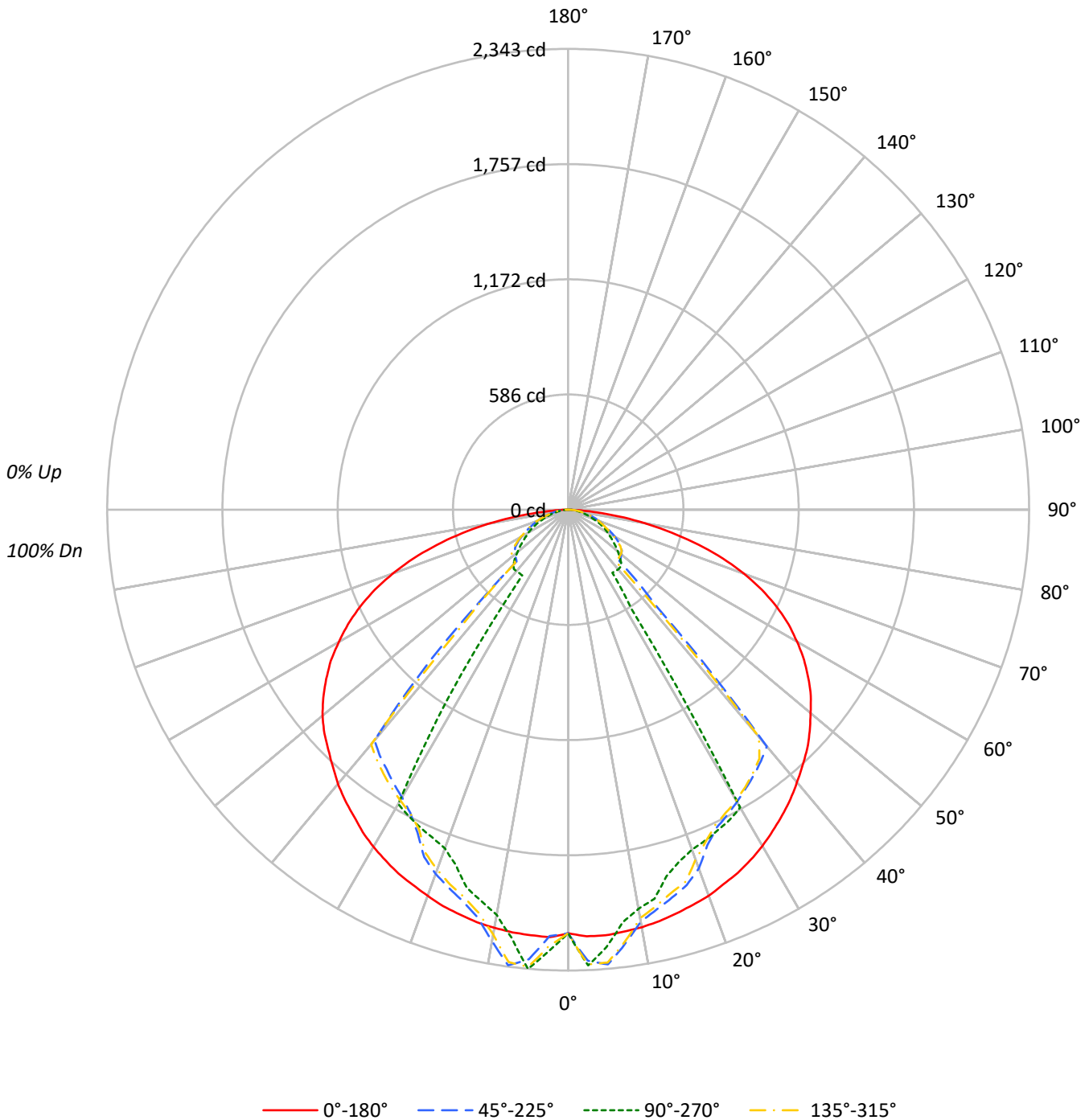
Lumens per Lamp: N/A
Luminaire Lumens: 4313.0 lumens
Efficiency: N/A
Efficacy: 110.6 lumens/watt
Spacing Criteria (0/90/45): 1.36 / 1.16 / 1.2
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.12')
CIE Type: Direct

Input Watts (W): 39
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: 25 FT



TEST NUMBER: P#
CATALOG NUMBER: 4SNLED-LD5-48HL-RW-UNV-L950-CD1-U

Luminous Intensity Polar Plot





TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-48HL-RW-UNV-L950-CD1-U

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	0
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°	17405	17405	17405	17405
5°	17576	17536	17568	18404
10°	17593	15854	17617	16098
15°	17632	14669	17673	15134
20°	17760	13913	17760	13861
25°	17913	13647	17940	13520
30°	18095	13406	18140	13248
35°	18306	3054	18343	3185
40°	18599	3175	18711	3278
45°	19044	3158	19110	3272
50°	19488	2855	19753	2932
55°	20089	2535	20248	2571
60°	20597	2253	20643	2282
65°	20961	1966	20908	1934
70°	20662	1584	20597	1527
75°	19182	1220	19321	1168
80°	15567	866	16192	793
85°	8430	519	8902	398



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-48HL-RW-UNV-L950-CD1-U

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	211.9	4.9
10°-20°	582.6	13.5
20°-30°	863.0	20.0
30°-40°	869.6	20.2
40°-50°	679.2	15.7
50°-60°	524.7	12.2
60°-70°	352.3	8.2
70°-80°	179.7	4.2
80°-90°	50.0	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°	1657.6	38.4
0°-40°	2527.1	58.6
0°-60°	3731.0	86.5
0°-90°	4313.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4313.0	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	2154	2154	2154	2154	2154	
5°	2173	2233	2172	2343	2173	207
15°	2125	1930	2130	1991	2125	601
25°	2038	1798	2041	1782	2038	940
35°	1896	391	1900	408	1896	1188
45°	1718	380	1724	394	1718	1325
55°	1490	276	1501	280	1490	1330
65°	1170	186	1167	183	1170	1150
75°	686	94	691	90	686	717
85°	123	30	130	23	123	170
90°	0	0	0	0	0	



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-48HL-RW-UNV-L950-CD1-U

CANDELA DISTRIBUTION (FULL):

	0°	2.5°	5°	7.5°	10°	12.5°	15°	17.5°	20°	22.5°	25°
0°	2153.8	2153.8	2153.8	2153.8	2153.8	2153.8	2153.8	2153.8	2153.8	2153.8	2153.8
2.5°	2170.6	2178.5	2184.4	2188.3	2190.3	2190.3	2191.3	2192.3	2205.1	2211.1	2215.0
5°	2172.6	2180.5	2192.3	2208.1	2221.9	2233.8	2243.6	2257.4	2271.3	2286.1	2291.0
7.5°	2163.7	2173.5	2197.2	2225.9	2252.5	2271.3	2284.1	2293.0	2299.9	2300.9	2305.8
10°	2155.8	2173.5	2206.1	2243.6	2277.2	2299.9	2299.9	2295.0	2301.9	2275.2	2248.6
12.5°	2142.0	2161.7	2206.1	2255.5	2287.1	2295.9	2292.0	2272.3	2231.8	2199.2	2184.4
15°	2125.2	2151.8	2207.1	2262.4	2289.0	2292.0	2254.5	2204.1	2173.5	2153.8	2129.1
17.5°	2106.4	2142.0	2208.1	2263.4	2273.2	2259.4	2188.3	2156.8	2125.2	2078.8	2045.2
20°	2088.7	2123.2	2200.2	2249.5	2255.5	2193.3	2138.0	2104.4	2051.1	2010.7	1995.9
22.5°	2061.0	2101.5	2193.3	2230.8	2208.1	2136.0	2082.7	2029.4	1981.1	1969.2	1951.5
25°	2038.3	2080.8	2177.5	2208.1	2147.9	2083.7	2021.5	1959.3	1936.6	1919.9	1904.1
27.5°	2007.7	2060.0	2156.8	2166.6	2083.7	2027.5	1936.6	1909.0	1888.3	1869.5	1862.6
30°	1974.2	2038.3	2128.1	2109.4	2030.4	1947.5	1880.4	1854.7	1839.9	1820.2	1812.3
32.5°	1935.7	2005.7	2096.6	2043.2	1973.2	1869.5	1826.1	1806.4	1786.6	1771.8	1722.4
35°	1896.2	1977.1	2059.0	1980.1	1904.1	1810.3	1771.8	1754.0	1735.3	1681.0	1629.7
37.5°	1855.7	1945.5	2013.6	1912.0	1812.3	1749.1	1716.5	1696.8	1654.3	1585.2	1559.6
40°	1809.3	1907.0	1955.4	1841.9	1732.3	1686.9	1656.3	1636.6	1540.8	1510.2	1502.3
42.5°	1762.9	1869.5	1884.3	1773.8	1666.2	1620.8	1595.1	1530.0	1464.8	1449.0	1452.0
45°	1718.5	1829.1	1806.4	1677.0	1597.1	1559.6	1516.1	1426.3	1391.8	1399.7	1401.6
47.5°	1665.2	1780.7	1724.4	1580.3	1526.0	1488.5	1391.8	1337.5	1332.6	1343.4	1349.3
50°	1607.9	1726.4	1637.6	1492.5	1449.0	1404.6	1295.0	1267.4	1273.3	1284.2	1291.1
52.5°	1554.6	1665.2	1547.7	1410.5	1373.0	1271.4	1197.3	1202.3	1212.1	1225.0	1228.9
55°	1489.5	1591.2	1452.0	1327.6	1292.1	1158.8	1125.3	1137.1	1147.0	1157.8	1165.7
57.5°	1421.4	1506.3	1338.5	1234.8	1177.6	1059.1	1062.1	1070.0	1076.9	1089.7	450.1
60°	1343.4	1409.5	1214.1	1149.0	1035.4	980.2	983.1	996.9	1003.9	560.7	309.9
62.5°	1262.5	1297.0	1101.6	1051.2	905.1	901.2	915.0	920.9	626.8	296.1	290.2
65°	1169.7	1162.8	991.0	911.1	816.3	820.3	835.1	805.5	277.4	277.4	275.4
67.5°	1067.0	1025.6	883.4	754.1	730.4	739.3	755.1	263.5	256.6	258.6	251.7
70°	949.6	891.3	771.9	638.6	646.5	655.4	254.7	238.9	235.9	231.0	217.2
72.5°	825.2	745.2	631.7	554.7	559.7	351.4	223.1	215.2	205.3	195.4	180.6
75°	686.0	582.4	463.9	463.9	470.8	200.4	194.5	181.6	170.8	157.9	149.0
77.5°	538.0	448.1	360.3	374.1	182.6	167.8	156.9	143.1	134.2	126.3	121.4
80°	393.8	312.9	271.4	242.8	142.1	127.3	116.5	108.6	104.6	99.7	93.8
82.5°	258.6	188.5	188.5	114.5	99.7	87.8	84.9	79.0	75.0	72.1	69.1
85°	123.4	109.6	82.9	70.1	62.2	56.3	54.3	51.3	51.3	50.3	49.4
87.5°	45.4	49.4	36.5	35.5	33.6	32.6	33.6	33.6	34.5	33.6	32.6
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: P#

CATALOG NUMBER: 4SNLED-LD5-48HL-RW-UNV-L950-CD1-U

CANDELA DISTRIBUTION (continued):

	27.5°	30°	32.5°	35°	37.5°	40°	42.5°	45°	47.5°	50°	52.5°
0°	2153.8	2153.8	2153.8	2153.8	2153.8	2153.8	2153.8	2153.8	2153.8	2153.8	2153.8
2.5°	2224.9	2232.8	2238.7	2248.6	2261.4	2272.3	2282.1	2295.9	2317.7	2323.6	2328.5
5°	2291.0	2294.0	2300.9	2308.8	2310.7	2315.7	2314.7	2320.6	2323.6	2330.5	2315.7
7.5°	2295.0	2279.2	2260.4	2243.6	2231.8	2220.9	2214.0	2224.9	2230.8	2235.7	2220.9
10°	2212.0	2193.3	2182.4	2172.6	2160.7	2143.9	2121.2	2126.2	2124.2	2124.2	2119.3
12.5°	2159.7	2133.1	2105.4	2080.8	2069.9	2068.9	2069.9	2080.8	2080.8	2079.8	2073.8
15°	2077.8	2052.1	2038.3	2032.4	2032.4	2029.4	2029.4	2041.3	2038.3	2038.3	2035.4
17.5°	2023.5	2005.7	1995.9	1989.0	1986.0	1990.9	1996.9	2001.8	2002.8	1998.8	1983.0
20°	1979.1	1962.3	1950.5	1952.4	1951.5	1954.4	1957.4	1940.6	1919.9	1892.2	1879.4
22.5°	1932.7	1919.9	1911.0	1911.0	1899.1	1880.4	1852.7	1846.8	1843.9	1831.0	1820.2
25°	1888.3	1873.5	1860.6	1821.2	1796.5	1799.4	1794.5	1784.6	1783.6	1782.7	1786.6
27.5°	1843.9	1805.4	1756.0	1750.1	1740.2	1739.2	1745.2	1750.1	1750.1	1754.0	1759.0
30°	1752.1	1707.6	1698.8	1687.9	1691.8	1705.7	1708.6	1715.5	1717.5	1724.4	1728.4
32.5°	1668.2	1648.4	1640.5	1645.5	1658.3	1670.1	1677.0	1680.0	1684.9	1690.9	1695.8
35°	1600.1	1594.1	1601.0	1611.9	1624.7	1634.6	1640.5	1646.4	1651.4	1656.3	1660.3
37.5°	1549.7	1553.7	1563.5	1577.3	1590.2	1598.1	1603.0	1609.9	1616.8	1622.8	1599.1
40°	1502.3	1512.2	1523.1	1537.9	1548.7	1556.6	1561.6	1570.4	1511.2	684.0	375.1
42.5°	1460.9	1471.7	1479.6	1491.5	1503.3	1509.2	1465.8	654.4	370.2	368.2	373.1
45°	1410.5	1419.4	1432.2	1441.1	1452.0	953.5	364.2	368.2	362.3	366.2	368.2
47.5°	1359.2	1373.0	1379.9	1316.8	391.9	362.3	358.3	362.3	358.3	363.2	360.3
50°	1301.0	1317.7	937.7	354.4	351.4	349.4	353.4	351.4	354.4	358.3	350.4
52.5°	1241.7	768.9	343.5	341.5	343.5	341.5	348.4	343.5	344.5	340.5	330.7
55°	420.5	332.6	329.7	328.7	334.6	334.6	334.6	326.7	321.8	311.9	305.0
57.5°	321.8	321.8	320.8	321.8	319.8	317.8	309.0	302.0	295.1	281.3	277.4
60°	305.0	305.0	305.0	305.0	296.1	292.2	278.4	272.4	260.6	253.7	249.7
62.5°	291.2	289.2	280.3	277.4	267.5	256.6	248.7	242.8	231.0	227.0	224.1
65°	271.4	264.5	253.7	241.8	236.9	225.1	221.1	212.2	206.3	203.3	201.4
67.5°	238.9	229.0	220.1	212.2	203.3	199.4	194.5	187.5	183.6	181.6	179.6
70°	204.3	197.4	188.5	183.6	177.7	174.7	167.8	165.8	162.9	159.9	156.9
72.5°	170.8	166.8	162.9	156.0	154.0	152.0	145.1	141.2	137.2	133.3	131.3
75°	143.1	140.2	138.2	132.3	129.3	123.4	118.4	115.5	112.5	109.6	107.6
77.5°	117.5	115.5	109.6	105.6	103.6	98.7	96.7	97.7	95.7	91.8	89.8
80°	91.8	89.8	84.9	84.9	82.9	80.9	79.0	77.0	75.0	72.1	70.1
82.5°	70.1	68.1	66.1	64.2	62.2	61.2	60.2	58.2	56.3	54.3	53.3
85°	49.4	48.4	47.4	46.4	45.4	44.4	43.4	41.5	39.5	38.5	37.5
87.5°	33.6	32.6	31.6	30.6	29.6	28.6	27.6	26.7	24.7	23.7	22.7
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: P#

CATALOG NUMBER: 4SNLED-LD5-48HL-RW-UNV-L950-CD1-U

CANDELA DISTRIBUTION (continued):

	55°	57.5°	60°	62.5°	65°	67.5°	70°	72.5°	75°	77.5°	80°
0°	2153.8	2153.8	2153.8	2153.8	2153.8	2153.8	2153.8	2153.8	2153.8	2153.8	2153.8
2.5°	2328.5	2333.4	2328.5	2317.7	2310.7	2307.8	2313.7	2313.7	2317.7	2322.6	2323.6
5°	2292.0	2280.1	2266.3	2252.5	2245.6	2241.7	2230.8	2232.8	2235.7	2237.7	2239.7
7.5°	2201.2	2185.4	2166.6	2148.9	2142.0	2136.0	2123.2	2123.2	2123.2	2124.2	2130.1
10°	2108.4	2101.5	2093.6	2081.7	2072.9	2069.9	2059.0	2062.0	2060.0	2063.0	2069.9
12.5°	2065.0	2057.1	2050.2	2038.3	2028.4	2024.5	2019.6	2022.5	2021.5	2026.5	2032.4
15°	2025.5	2021.5	2013.6	2004.8	1995.9	1988.0	1970.2	1964.3	1960.3	1955.4	1962.3
17.5°	1960.3	1932.7	1913.9	1900.1	1890.3	1883.3	1878.4	1878.4	1881.4	1884.3	1890.3
20°	1871.5	1863.6	1854.7	1839.9	1830.0	1826.1	1823.1	1823.1	1828.1	1832.0	1842.9
22.5°	1810.3	1809.3	1806.4	1799.4	1794.5	1794.5	1795.5	1797.5	1804.4	1810.3	1821.2
25°	1781.7	1785.6	1783.6	1779.7	1776.7	1777.7	1775.8	1777.7	1784.6	1790.6	1799.4
27.5°	1759.0	1764.9	1762.9	1757.0	1752.1	1754.0	1757.0	1755.0	1760.9	1767.9	1774.8
30°	1728.4	1729.4	1733.3	1726.4	1724.4	1727.4	1728.4	1730.3	1736.3	1741.2	1747.1
32.5°	1693.8	1701.7	1700.7	1693.8	1693.8	1696.8	1697.8	1631.6	1508.3	1299.0	1241.7
35°	1660.3	1669.1	1654.3	1394.7	965.4	515.3	397.8	384.0	386.9	388.9	390.9
37.5°	1227.9	582.4	371.1	374.1	377.1	380.0	383.0	385.9	388.9	391.9	392.9
40°	369.2	368.2	371.1	375.1	378.1	380.0	384.0	386.9	389.9	392.9	393.8
42.5°	365.2	367.2	370.2	374.1	378.1	382.0	385.0	388.9	390.9	392.9	393.8
45°	363.2	367.2	371.1	374.1	377.1	379.0	381.0	382.0	381.0	381.0	383.0
47.5°	360.3	364.2	365.2	364.2	365.2	364.2	364.2	364.2	361.3	360.3	360.3
50°	349.4	349.4	347.5	343.5	342.5	341.5	339.6	338.6	334.6	333.6	333.6
52.5°	326.7	325.7	322.8	317.8	315.9	313.9	312.9	311.9	308.0	306.0	307.0
55°	300.1	298.1	295.1	289.2	288.2	286.3	285.3	284.3	280.3	282.3	279.3
57.5°	275.4	271.4	267.5	266.5	262.6	261.6	260.6	259.6	256.6	257.6	255.7
60°	245.8	244.8	242.8	238.9	238.9	237.9	237.9	235.9	233.9	233.0	233.0
62.5°	224.1	221.1	219.1	219.1	216.2	216.2	216.2	214.2	212.2	213.2	212.2
65°	200.4	199.4	198.4	196.4	196.4	195.4	195.4	193.5	190.5	191.5	189.5
67.5°	180.6	178.7	176.7	175.7	171.8	169.8	168.8	167.8	163.9	164.8	162.9
70°	156.0	153.0	151.0	149.0	146.1	144.1	144.1	142.1	139.2	140.2	138.2
72.5°	130.3	128.3	126.3	125.4	122.4	121.4	120.4	119.4	116.5	117.5	116.5
75°	108.6	108.6	107.6	106.6	103.6	100.7	98.7	97.7	95.7	96.7	94.8
77.5°	89.8	87.8	85.9	85.9	82.9	80.9	79.0	79.0	79.0	78.0	77.0
80°	70.1	68.1	68.1	67.1	65.1	63.2	62.2	62.2	61.2	61.2	60.2
82.5°	53.3	51.3	50.3	50.3	48.4	47.4	46.4	45.4	45.4	45.4	44.4
85°	37.5	35.5	34.5	34.5	32.6	31.6	31.6	30.6	30.6	29.6	29.6
87.5°	22.7	21.7	20.7	20.7	18.8	17.8	17.8	17.8	16.8	16.8	15.8
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: P#

CATALOG NUMBER: 4SNLED-LD5-48HL-RW-UNV-L950-CD1-U

CANDELA DISTRIBUTION (continued):

	82.5°	85°	87.5°	90°	92.5°	95°	97.5°	100°	102.5°	105°	107.5°
0°	2153.8	2153.8	2153.8	2153.8	2153.8	2153.8	2153.8	2153.8	2153.8	2153.8	2153.8
2.5°	2323.6	2323.6	2316.7	2318.6	2315.7	2319.6	2314.7	2314.7	2320.6	2320.6	2324.6
5°	2240.7	2235.7	2234.7	2232.8	2222.9	2226.8	2221.9	2217.0	2223.9	2223.9	2232.8
7.5°	2127.2	2118.3	2122.2	2116.3	2110.4	2101.5	2104.4	2100.5	2105.4	2112.3	2121.2
10°	2068.9	2061.0	2066.0	2060.0	2063.0	2050.2	2051.1	2052.1	2057.1	2059.0	2066.9
12.5°	2031.4	2029.4	2027.5	2025.5	2027.5	2020.5	2016.6	2017.6	2019.6	2020.5	2026.5
15°	1952.4	1939.6	1943.6	1929.7	1930.7	1931.7	1923.8	1931.7	1930.7	1943.6	1955.4
17.5°	1888.3	1888.3	1881.4	1875.4	1871.5	1870.5	1864.6	1868.5	1864.6	1872.5	1875.4
20°	1843.9	1842.9	1841.9	1838.9	1829.1	1830.0	1833.0	1824.1	1823.1	1822.1	1828.1
22.5°	1823.1	1824.1	1820.2	1820.2	1811.3	1813.3	1814.2	1804.4	1805.4	1802.4	1805.4
25°	1801.4	1803.4	1798.5	1798.5	1796.5	1795.5	1790.6	1792.5	1786.6	1781.7	1786.6
27.5°	1775.8	1779.7	1775.8	1777.7	1773.8	1771.8	1768.8	1766.9	1760.9	1760.0	1762.9
30°	1752.1	1754.0	1753.0	1748.1	1747.1	1741.2	1744.2	1738.2	1732.3	1733.3	1735.3
32.5°	898.2	857.8	661.3	597.2	591.3	613.0	726.5	884.4	1146.0	1399.7	1582.3
35°	391.9	391.9	391.9	390.9	390.9	389.9	388.9	387.9	386.9	385.9	385.0
37.5°	393.8	393.8	393.8	393.8	392.9	391.9	391.9	389.9	388.9	387.9	386.9
40°	394.8	395.8	395.8	395.8	394.8	394.8	393.8	391.9	390.9	388.9	386.9
42.5°	393.8	394.8	394.8	393.8	393.8	392.9	392.9	391.9	390.9	389.9	388.9
45°	381.0	382.0	380.0	380.0	379.0	379.0	379.0	379.0	379.0	380.0	380.0
47.5°	358.3	358.3	357.3	356.3	356.3	355.3	356.3	355.3	357.3	358.3	360.3
50°	331.7	331.7	329.7	328.7	328.7	328.7	328.7	329.7	330.7	332.6	334.6
52.5°	304.0	304.0	303.0	302.0	301.1	301.1	304.0	303.0	304.0	305.0	308.0
55°	277.4	278.4	276.4	276.4	275.4	275.4	275.4	276.4	277.4	278.4	281.3
57.5°	254.7	254.7	252.7	252.7	252.7	251.7	254.7	252.7	253.7	254.7	256.6
60°	232.0	231.0	231.0	230.0	230.0	230.0	232.0	231.0	231.0	232.0	233.9
62.5°	211.2	211.2	210.2	210.2	209.3	209.3	211.2	210.2	210.2	211.2	212.2
65°	187.5	187.5	186.6	185.6	188.5	185.6	188.5	186.6	188.5	189.5	191.5
67.5°	160.9	160.9	160.9	159.9	159.9	161.9	162.9	160.9	161.9	163.9	164.8
70°	137.2	137.2	136.2	136.2	136.2	138.2	139.2	137.2	138.2	139.2	141.2
72.5°	116.5	114.5	114.5	113.5	115.5	115.5	116.5	115.5	116.5	116.5	118.4
75°	95.7	93.8	93.8	93.8	95.7	94.8	95.7	94.8	95.7	95.7	96.7
77.5°	77.0	76.0	75.0	75.0	77.0	77.0	77.0	76.0	77.0	78.0	79.0
80°	60.2	59.2	58.2	58.2	60.2	60.2	60.2	61.2	60.2	61.2	62.2
82.5°	44.4	43.4	42.4	44.4	44.4	44.4	44.4	45.4	44.4	45.4	46.4
85°	29.6	28.6	27.6	29.6	29.6	29.6	29.6	30.6	29.6	30.6	31.6
87.5°	15.8	14.8	14.8	15.8	15.8	15.8	16.8	16.8	16.8	17.8	17.8
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: P#

CATALOG NUMBER: 4SNLED-LD5-48HL-RW-UNV-L950-CD1-U

CANDELA DISTRIBUTION (continued):

	110°	112.5°	115°	117.5°	120°	122.5°	125°	127.5°	130°	132.5°	135°
0°	2153.8	2153.8	2153.8	2153.8	2153.8	2153.8	2153.8	2153.8	2153.8	2153.8	2153.8
2.5°	2330.5	2333.4	2332.5	2326.5	2320.6	2313.7	2308.8	2309.8	2319.6	2322.6	2313.7
5°	2232.8	2251.5	2251.5	2264.4	2257.4	2251.5	2255.5	2277.2	2288.0	2304.8	2310.7
7.5°	2132.1	2141.0	2140.0	2152.8	2150.8	2150.8	2153.8	2182.4	2196.2	2210.1	2214.0
10°	2075.8	2084.7	2083.7	2084.7	2081.7	2074.8	2074.8	2087.7	2099.5	2106.4	2108.4
12.5°	2035.4	2040.3	2039.3	2039.3	2037.3	2031.4	2030.4	2041.3	2054.1	2063.0	2064.0
15°	1975.1	1989.0	1991.9	2004.8	2001.8	1993.9	1995.9	2004.8	2012.6	2020.5	2017.6
17.5°	1885.3	1892.2	1893.2	1898.1	1896.2	1896.2	1908.0	1940.6	1962.3	1981.1	1983.0
20°	1834.0	1838.9	1836.9	1847.8	1842.9	1841.9	1844.8	1858.7	1868.5	1877.4	1893.2
22.5°	1809.3	1813.3	1810.3	1811.3	1802.4	1794.5	1792.5	1803.4	1814.2	1826.1	1826.1
25°	1788.6	1791.5	1790.6	1788.6	1781.7	1770.8	1768.8	1770.8	1774.8	1775.8	1768.8
27.5°	1763.9	1765.9	1765.9	1766.9	1758.0	1748.1	1746.1	1744.2	1748.1	1747.1	1736.3
30°	1738.2	1735.3	1736.3	1737.3	1729.4	1720.5	1716.5	1715.5	1719.5	1718.5	1707.6
32.5°	1677.0	1699.7	1701.7	1703.7	1696.8	1688.9	1684.9	1682.0	1684.0	1683.0	1673.1
35°	384.0	390.9	478.7	1083.8	1471.7	1629.7	1646.4	1642.5	1643.5	1643.5	1635.6
37.5°	385.0	384.0	383.0	380.0	377.1	375.1	648.5	1382.9	1602.0	1603.0	1596.1
40°	385.0	384.0	383.0	381.0	377.1	374.1	369.2	365.2	374.1	823.2	1506.3
42.5°	386.9	385.0	383.0	381.0	377.1	373.1	369.2	364.2	367.2	365.2	360.3
45°	381.0	380.0	380.0	379.0	377.1	373.1	368.2	362.3	359.3	362.3	357.3
47.5°	362.3	363.2	366.2	367.2	367.2	368.2	365.2	361.3	356.3	359.3	353.4
50°	336.6	338.6	339.6	344.5	346.5	350.4	351.4	351.4	350.4	354.4	350.4
52.5°	309.0	310.9	315.9	317.8	319.8	325.7	327.7	330.7	332.6	338.6	342.5
55°	282.3	283.3	285.3	289.2	292.2	297.1	300.1	303.0	308.0	310.9	322.8
57.5°	257.6	258.6	262.6	263.5	265.5	269.5	272.4	276.4	280.3	282.3	296.1
60°	233.9	234.9	237.9	238.9	239.9	243.8	246.8	249.7	252.7	254.7	264.5
62.5°	213.2	213.2	216.2	216.2	217.2	220.1	222.1	224.1	227.0	228.0	233.0
65°	192.5	193.5	195.4	195.4	196.4	198.4	199.4	200.4	203.3	203.3	207.3
67.5°	166.8	167.8	170.8	172.7	173.7	177.7	178.7	179.6	181.6	182.6	184.6
70°	142.1	143.1	146.1	147.1	148.1	151.0	153.0	156.0	158.9	161.9	163.9
72.5°	119.4	120.4	123.4	123.4	126.3	127.3	129.3	130.3	133.3	135.2	138.2
75°	97.7	98.7	101.7	101.7	104.6	105.6	106.6	107.6	109.6	111.5	113.5
77.5°	80.0	80.0	83.9	85.9	87.8	87.8	88.8	88.8	88.8	89.8	91.8
80°	63.2	63.2	66.1	68.1	70.1	70.1	71.1	72.1	73.0	73.0	74.0
82.5°	47.4	47.4	50.3	51.3	53.3	53.3	53.3	54.3	55.3	54.3	56.3
85°	32.6	32.6	34.5	35.5	37.5	37.5	37.5	38.5	39.5	38.5	39.5
87.5°	18.8	19.7	20.7	21.7	22.7	23.7	23.7	23.7	24.7	24.7	25.7
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: P#

CATALOG NUMBER: 4SNLED-LD5-48HL-RW-UNV-L950-CD1-U

CANDELA DISTRIBUTION (continued):

	137.5°	140°	142.5°	145°	147.5°	150°	152.5°	155°	157.5°	160°	162.5°
0°	2153.8	2153.8	2153.8	2153.8	2153.8	2153.8	2153.8	2153.8	2153.8	2153.8	2153.8
2.5°	2303.8	2292.0	2291.0	2277.2	2273.2	2274.2	2263.4	2259.4	2241.7	2237.7	2218.9
5°	2312.7	2318.6	2315.7	2314.7	2317.7	2315.7	2307.8	2303.8	2300.9	2293.0	2277.2
7.5°	2215.0	2218.9	2221.9	2234.7	2245.6	2264.4	2284.1	2296.9	2306.8	2308.8	2295.9
10°	2115.3	2134.1	2146.9	2166.6	2182.4	2193.3	2205.1	2216.0	2244.6	2273.2	2290.0
12.5°	2064.0	2068.9	2067.9	2078.8	2089.6	2118.3	2145.9	2161.7	2183.4	2196.2	2226.8
15°	2020.5	2021.5	2024.5	2032.4	2038.3	2048.2	2061.0	2084.7	2128.1	2147.9	2164.7
17.5°	1981.1	1981.1	1983.0	1989.9	1997.8	2006.7	2014.6	2024.5	2046.2	2078.8	2120.2
20°	1917.9	1945.5	1948.5	1947.5	1951.5	1968.2	1970.2	1988.0	1998.8	2011.7	2052.1
22.5°	1824.1	1840.9	1864.6	1901.1	1914.9	1922.8	1928.7	1936.6	1953.4	1968.2	1985.0
25°	1772.8	1783.6	1790.6	1801.4	1830.0	1876.4	1885.3	1894.2	1905.1	1915.9	1936.6
27.5°	1727.4	1726.4	1731.3	1741.2	1749.1	1773.8	1817.2	1851.8	1853.7	1869.5	1887.3
30°	1694.8	1688.9	1682.0	1680.0	1690.9	1703.7	1716.5	1770.8	1808.3	1816.2	1835.0
32.5°	1664.2	1654.3	1644.5	1636.6	1629.7	1640.5	1648.4	1672.1	1720.5	1765.9	1775.8
35°	1626.7	1616.8	1605.0	1596.1	1585.2	1584.3	1583.3	1606.0	1621.8	1676.1	1723.4
37.5°	1588.2	1577.3	1567.5	1557.6	1546.7	1538.9	1533.9	1539.8	1554.6	1578.3	1657.3
40°	1547.7	1534.9	1525.0	1517.1	1502.3	1496.4	1486.5	1482.6	1483.6	1504.3	1545.8
42.5°	924.9	1474.7	1479.6	1470.7	1457.9	1450.0	1439.2	1434.2	1424.4	1434.2	1457.9
45°	356.3	360.3	1078.9	1425.3	1409.5	1399.7	1389.8	1384.9	1374.0	1366.1	1387.8
47.5°	349.4	353.4	345.5	489.6	1345.4	1348.3	1336.5	1331.6	1320.7	1314.8	1308.9
50°	344.5	347.5	341.5	343.5	336.6	1232.9	1282.2	1276.3	1264.4	1257.5	1245.7
52.5°	339.6	339.6	335.6	330.7	328.7	329.7	1037.4	1220.0	1206.2	1199.3	1183.5
55°	323.8	325.7	329.7	321.8	319.8	318.8	315.9	988.1	1142.0	1134.2	1120.3
57.5°	300.1	304.0	314.9	312.9	312.9	305.0	303.0	303.0	917.0	1068.0	1054.2
60°	272.4	276.4	288.2	292.2	295.1	293.2	291.2	290.2	286.3	966.3	984.1
62.5°	243.8	247.8	251.7	264.5	268.5	273.4	279.3	276.4	272.4	272.4	910.1
65°	213.2	219.1	221.1	233.0	237.9	246.8	251.7	258.6	256.6	255.7	260.6
67.5°	186.6	193.5	194.5	199.4	208.3	212.2	218.1	231.0	236.9	238.9	240.8
70°	163.9	167.8	170.8	172.7	178.7	179.6	190.5	199.4	208.3	218.1	221.1
72.5°	141.2	144.1	150.0	148.1	150.0	154.0	159.9	165.8	174.7	188.5	197.4
75°	115.5	117.5	121.4	123.4	127.3	130.3	134.2	139.2	147.1	154.0	165.8
77.5°	92.8	93.8	96.7	97.7	101.7	104.6	111.5	114.5	119.4	124.4	131.3
80°	75.0	75.0	76.0	76.0	79.0	81.9	86.9	89.8	95.7	99.7	99.7
82.5°	57.3	57.3	60.2	60.2	62.2	62.2	65.1	65.1	68.1	70.1	72.1
85°	40.5	41.5	43.4	42.4	44.4	43.4	45.4	47.4	48.4	47.4	46.4
87.5°	26.7	26.7	28.6	27.6	28.6	28.6	30.6	30.6	31.6	31.6	30.6
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: P#

CATALOG NUMBER: 4SNLED-LD5-48HL-RW-UNV-L950-CD1-U

CANDELA DISTRIBUTION (continued):

	165°	167.5°	170°	172.5°	175°	177.5°	180°	182.5°	185°	187.5°	190°
0°	2153.8	2153.8	2153.8	2153.8	2153.8	2153.8	2153.8	2153.8	2153.8	2153.8	2153.8
2.5°	2212.0	2197.2	2188.3	2177.5	2174.5	2171.6	2175.5	2175.5	2169.6	2164.7	2155.8
5°	2263.4	2247.6	2230.8	2213.0	2196.2	2178.5	2171.6	2170.6	2159.7	2153.8	2150.8
7.5°	2290.0	2282.1	2263.4	2238.7	2213.0	2181.4	2167.6	2159.7	2148.9	2146.9	2146.9
10°	2293.0	2284.1	2274.2	2256.5	2226.8	2185.4	2158.7	2142.9	2133.1	2140.0	2152.8
12.5°	2264.4	2281.1	2272.3	2260.4	2236.7	2186.4	2147.9	2124.2	2121.2	2139.0	2172.6
15°	2191.3	2240.7	2265.3	2253.5	2234.7	2184.4	2130.1	2102.5	2102.5	2139.0	2182.4
17.5°	2136.0	2174.5	2234.7	2244.6	2222.9	2180.5	2113.3	2080.8	2089.6	2142.9	2189.3
20°	2090.6	2114.3	2172.6	2227.8	2207.1	2171.6	2088.7	2055.1	2072.9	2137.0	2199.2
22.5°	2019.6	2066.9	2102.5	2184.4	2191.3	2154.8	2064.0	2023.5	2059.0	2137.0	2194.3
25°	1950.5	2007.7	2045.2	2125.2	2167.6	2134.1	2041.3	1989.9	2044.2	2134.1	2190.3
27.5°	1902.1	1928.7	1996.9	2054.1	2132.1	2106.4	2010.7	1953.4	2025.5	2118.3	2167.6
30°	1850.8	1868.5	1935.7	1989.9	2084.7	2074.8	1979.1	1913.0	2001.8	2103.5	2108.4
32.5°	1794.5	1814.2	1848.8	1927.8	2018.6	2045.2	1943.6	1872.5	1976.1	2080.8	2039.3
35°	1737.3	1752.1	1779.7	1864.6	1941.6	2000.8	1900.1	1826.1	1958.4	2046.2	1973.2
37.5°	1680.0	1695.8	1719.5	1790.6	1860.6	1959.3	1862.6	1779.7	1925.8	1985.0	1904.1
40°	1625.7	1634.6	1659.3	1703.7	1793.5	1916.9	1820.2	1731.3	1892.2	1907.0	1810.3
42.5°	1526.0	1570.4	1593.1	1628.7	1717.5	1858.7	1770.8	1680.0	1854.7	1829.1	1716.5
45°	1418.4	1515.2	1525.0	1560.6	1650.4	1796.5	1724.4	1629.7	1819.2	1761.9	1627.7
47.5°	1330.6	1400.7	1457.9	1487.5	1570.4	1723.4	1681.0	1587.2	1765.9	1677.0	1540.8
50°	1252.6	1290.1	1393.8	1415.5	1474.7	1635.6	1629.7	1537.9	1691.8	1570.4	1455.9
52.5°	1176.6	1203.2	1297.0	1343.4	1391.8	1540.8	1568.5	1489.5	1610.9	1463.8	1370.1
55°	1110.5	1119.3	1170.7	1268.4	1311.8	1445.1	1501.3	1433.2	1508.3	1362.2	1287.1
57.5°	1042.4	1034.5	1072.0	1197.3	1228.9	1347.4	1430.3	1376.0	1425.3	1258.5	1201.3
60°	971.3	960.4	976.2	1059.1	1141.1	1250.6	1346.4	1312.8	1324.7	1155.9	1105.5
62.5°	897.3	886.4	881.5	933.8	1055.2	1150.9	1261.5	1242.7	1201.3	1062.1	987.1
65°	820.3	809.4	801.5	822.2	960.4	1021.6	1166.7	1161.8	1066.0	963.4	831.1
67.5°	249.7	736.4	719.6	718.6	809.4	904.2	1064.1	1056.2	929.8	857.8	715.6
70°	225.1	597.2	634.7	625.8	665.3	784.7	946.6	940.7	797.6	688.0	632.7
72.5°	206.3	211.2	560.7	550.8	559.7	667.3	824.2	808.4	676.1	542.9	546.8
75°	176.7	185.6	193.5	464.9	453.1	552.8	691.0	666.3	557.7	448.1	457.0
77.5°	144.1	155.0	160.9	338.6	366.2	393.8	551.8	519.2	384.0	358.3	170.8
80°	107.6	116.5	126.3	135.2	278.4	275.4	409.6	377.1	267.5	223.1	133.3
82.5°	79.0	81.9	87.8	97.7	110.6	184.6	263.5	232.0	185.6	101.7	91.8
85°	49.4	53.3	56.3	59.2	67.1	110.6	130.3	103.6	78.0	62.2	58.2
87.5°	31.6	31.6	30.6	31.6	32.6	39.5	44.4	42.4	33.6	31.6	31.6
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: P#

CATALOG NUMBER: 4SNLED-LD5-48HL-RW-UNV-L950-CD1-U

CANDELA DISTRIBUTION (continued):

	192.5°	195°	197.5°	200°	202.5°	205°	207.5°	210°	212.5°	215°	217.5°
0°	2153.8	2153.8	2153.8	2153.8	2153.8	2153.8	2153.8	2153.8	2153.8	2153.8	2153.8
2.5°	2145.9	2132.1	2132.1	2128.1	2131.1	2131.1	2130.1	2131.1	2138.0	2142.0	2148.9
5°	2144.9	2141.0	2149.9	2160.7	2173.5	2189.3	2193.3	2207.1	2219.9	2236.7	2254.5
7.5°	2157.7	2171.6	2188.3	2206.1	2231.8	2250.5	2267.3	2284.1	2295.9	2311.7	2321.6
10°	2176.5	2204.1	2232.8	2255.5	2283.1	2298.9	2309.8	2311.7	2295.0	2268.3	2246.6
12.5°	2203.2	2235.7	2262.4	2284.1	2296.9	2291.0	2259.4	2226.8	2208.1	2180.5	2142.0
15°	2225.9	2255.5	2283.1	2274.2	2239.7	2207.1	2182.4	2143.9	2106.4	2080.8	2064.0
17.5°	2235.7	2264.4	2254.5	2208.1	2175.5	2138.0	2087.7	2058.1	2033.4	2013.6	2003.8
20°	2241.7	2236.7	2183.4	2149.9	2086.7	2052.1	2019.6	1991.9	1973.2	1963.3	1961.3
22.5°	2225.9	2165.6	2120.2	2060.0	2013.6	1985.0	1959.3	1936.6	1923.8	1915.9	1911.0
25°	2173.5	2103.5	2036.3	1989.0	1949.5	1924.8	1905.1	1886.3	1870.5	1866.6	1856.7
27.5°	2100.5	2043.2	1954.4	1917.9	1883.3	1871.5	1849.8	1831.0	1817.2	1805.4	1773.8
30°	2040.3	1949.5	1885.3	1851.8	1831.0	1817.2	1792.5	1772.8	1749.1	1705.7	1687.9
32.5°	1966.3	1876.4	1815.2	1796.5	1770.8	1759.0	1731.3	1687.9	1651.4	1633.6	1632.6
35°	1870.5	1796.5	1752.1	1735.3	1714.6	1694.8	1637.6	1598.1	1580.3	1582.3	1597.1
37.5°	1790.6	1724.4	1695.8	1672.1	1648.4	1598.1	1549.7	1531.0	1535.9	1545.8	1552.7
40°	1709.6	1659.3	1626.7	1607.9	1554.6	1505.3	1479.6	1486.5	1495.4	1502.3	1511.2
42.5°	1630.7	1595.1	1562.5	1526.0	1453.0	1426.3	1432.2	1441.1	1449.0	1458.9	1467.8
45°	1555.6	1524.0	1486.5	1403.6	1367.1	1374.0	1382.9	1389.8	1401.6	1408.6	1417.4
47.5°	1484.6	1451.0	1384.9	1311.8	1307.9	1321.7	1329.6	1338.5	1347.4	1329.6	733.4
50°	1404.6	1370.1	1269.4	1241.7	1250.6	1263.5	1273.3	1282.2	1142.0	454.1	349.4
52.5°	1325.6	1237.8	1173.6	1181.5	1190.4	1205.2	1212.1	900.2	358.3	341.5	342.5
55°	1237.8	1125.3	1106.5	1116.4	1124.3	1139.1	755.1	330.7	328.7	327.7	335.6
57.5°	1099.6	1031.5	1039.4	1049.3	1057.2	746.2	321.8	319.8	320.8	321.8	322.8
60°	976.2	961.4	970.3	979.2	692.9	310.9	305.0	306.0	309.9	307.0	299.1
62.5°	878.5	890.3	899.2	787.7	295.1	292.2	295.1	292.2	285.3	280.3	270.5
65°	803.5	815.3	822.2	277.4	276.4	280.3	277.4	267.5	256.6	242.8	239.9
67.5°	724.5	736.4	263.5	256.6	260.6	255.7	243.8	232.0	224.1	212.2	207.3
70°	642.6	275.4	238.9	237.9	231.0	223.1	210.2	198.4	188.5	183.6	178.7
72.5°	463.9	218.1	215.2	207.3	195.4	184.6	173.7	166.8	161.9	158.9	156.0
75°	193.5	189.5	180.6	166.8	155.0	150.0	142.1	137.2	135.2	129.3	127.3
77.5°	161.9	154.0	141.2	131.3	124.4	121.4	115.5	109.6	106.6	105.6	101.7
80°	124.4	113.5	107.6	102.7	100.7	93.8	86.9	83.9	81.9	80.9	78.0
82.5°	84.9	80.9	77.0	70.1	70.1	67.1	64.2	62.2	60.2	60.2	58.2
85°	55.3	52.3	51.3	48.4	48.4	46.4	45.4	44.4	43.4	42.4	41.5
87.5°	31.6	31.6	32.6	31.6	31.6	30.6	29.6	28.6	27.6	27.6	25.7
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: P#

CATALOG NUMBER: 4SNLED-LD5-48HL-RW-UNV-L950-CD1-U

CANDELA DISTRIBUTION (continued):

	220°	222.5°	225°	227.5°	230°	232.5°	235°	237.5°	240°	242.5°	245°
0°	2153.8	2153.8	2153.8	2153.8	2153.8	2153.8	2153.8	2153.8	2153.8	2153.8	2153.8
2.5°	2157.7	2167.6	2169.6	2203.2	2221.9	2220.9	2215.0	2232.8	2221.9	2216.0	2221.9
5°	2272.3	2284.1	2294.0	2330.5	2343.3	2349.2	2348.3	2358.1	2350.2	2343.3	2343.3
7.5°	2328.5	2332.5	2336.4	2327.5	2321.6	2311.7	2296.9	2275.2	2264.4	2252.5	2237.7
10°	2235.7	2222.9	2227.8	2210.1	2195.3	2184.4	2170.6	2152.8	2138.0	2127.2	2110.4
12.5°	2122.2	2121.2	2123.2	2126.2	2111.4	2102.5	2091.6	2078.8	2067.9	2056.1	2042.3
15°	2053.1	2054.1	2062.0	2059.0	2054.1	2049.2	2037.3	2033.4	2023.5	2010.7	2002.8
17.5°	2003.8	2008.7	2016.6	2012.6	2004.8	1999.8	1990.9	1982.0	1973.2	1963.3	1951.5
20°	1960.3	1965.3	1970.2	1965.3	1950.5	1943.6	1931.7	1904.1	1884.3	1864.6	1846.8
22.5°	1913.0	1915.9	1912.0	1896.2	1858.7	1840.9	1827.1	1819.2	1802.4	1791.5	1780.7
25°	1853.7	1836.9	1811.3	1793.5	1778.7	1770.8	1764.9	1763.9	1761.9	1760.0	1755.0
27.5°	1757.0	1751.1	1737.3	1730.3	1731.3	1734.3	1735.3	1738.2	1735.3	1731.3	1727.4
30°	1684.9	1687.9	1688.9	1690.9	1695.8	1698.8	1699.7	1703.7	1701.7	1698.8	1696.8
32.5°	1639.5	1646.4	1650.4	1656.3	1659.3	1664.2	1664.2	1670.1	1664.2	1663.2	1661.2
35°	1602.0	1607.9	1609.9	1618.8	1621.8	1626.7	1626.7	1631.6	1626.7	1576.4	1244.7
37.5°	1564.5	1570.4	1574.4	1582.3	1583.3	1586.2	1463.8	1071.0	691.0	535.0	408.6
40°	1520.1	1527.0	1531.0	1533.9	1077.9	684.0	470.8	383.0	383.0	385.9	388.9
42.5°	1472.7	1477.7	1029.5	599.2	373.1	372.1	375.1	378.1	381.0	385.0	388.9
45°	1157.8	584.3	371.1	362.3	365.2	369.2	373.1	377.1	382.0	385.9	387.9
47.5°	380.0	356.3	361.3	357.3	362.3	367.2	371.1	375.1	376.1	377.1	376.1
50°	351.4	351.4	354.4	354.4	358.3	360.3	360.3	360.3	356.3	355.3	352.4
52.5°	339.6	347.5	343.5	345.5	343.5	340.5	337.6	334.6	328.7	326.7	322.8
55°	333.6	336.6	326.7	323.8	319.8	311.9	308.0	304.0	299.1	297.1	292.2
57.5°	319.8	312.9	302.0	297.1	290.2	282.3	278.4	275.4	270.5	268.5	265.5
60°	294.1	280.3	273.4	267.5	259.6	252.7	249.7	247.8	243.8	242.8	239.9
62.5°	262.6	250.7	244.8	236.9	231.0	227.0	224.1	223.1	219.1	219.1	217.2
65°	228.0	222.1	217.2	209.3	206.3	202.4	201.4	200.4	198.4	197.4	195.4
67.5°	200.4	196.4	189.5	185.6	183.6	180.6	178.7	176.7	172.7	170.8	167.8
70°	175.7	172.7	165.8	162.9	158.9	154.0	151.0	149.0	146.1	144.1	141.2
72.5°	152.0	143.1	138.2	135.2	132.3	127.3	126.3	124.4	121.4	120.4	117.5
75°	122.4	115.5	112.5	110.6	107.6	104.6	104.6	104.6	101.7	100.7	99.7
77.5°	97.7	93.8	91.8	89.8	88.8	86.9	83.9	82.9	80.0	80.0	79.0
80°	75.0	73.0	71.1	70.1	69.1	67.1	65.1	64.2	61.2	61.2	60.2
82.5°	55.3	54.3	53.3	52.3	51.3	50.3	47.4	46.4	44.4	44.4	43.4
85°	39.5	38.5	36.5	35.5	35.5	34.5	31.6	30.6	28.6	28.6	28.6
87.5°	24.7	23.7	22.7	21.7	20.7	19.7	17.8	16.8	16.8	14.8	13.8
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: P#

CATALOG NUMBER: 4SNLED-LD5-48HL-RW-UNV-L950-CD1-U

CANDELA DISTRIBUTION (continued):

	247.5°	250°	252.5°	255°	257.5°	260°	262.5°	265°	267.5°	270°	272.5°
0°	2153.8	2153.8	2153.8	2153.8	2153.8	2153.8	2153.8	2153.8	2153.8	2153.8	2153.8
2.5°	2210.1	2226.8	2224.9	2236.7	2239.7	2245.6	2247.6	2248.6	2233.8	2245.6	2246.6
5°	2340.4	2343.3	2345.3	2350.2	2355.2	2356.2	2351.2	2345.3	2347.3	2343.3	2333.4
7.5°	2235.7	2220.9	2218.0	2214.0	2212.0	2210.1	2201.2	2209.1	2200.2	2196.2	2182.4
10°	2107.4	2093.6	2092.6	2092.6	2095.6	2094.6	2092.6	2088.7	2096.6	2091.6	2088.7
12.5°	2040.3	2035.4	2038.3	2036.3	2044.2	2046.2	2044.2	2044.2	2042.3	2038.3	2040.3
15°	1999.8	1995.9	1998.8	1995.9	2001.8	2002.8	1997.8	2000.8	1995.9	1990.9	1989.0
17.5°	1946.5	1937.6	1930.7	1920.9	1921.8	1919.9	1913.9	1913.9	1909.0	1896.2	1897.2
20°	1843.9	1835.0	1831.0	1831.0	1836.0	1837.9	1836.9	1838.9	1834.0	1832.0	1824.1
22.5°	1779.7	1778.7	1780.7	1785.6	1793.5	1804.4	1805.4	1805.4	1805.4	1804.4	1794.5
25°	1757.0	1757.0	1759.0	1765.9	1771.8	1779.7	1781.7	1783.6	1781.7	1781.7	1772.8
27.5°	1731.3	1729.4	1733.3	1740.2	1747.1	1753.0	1758.0	1759.0	1756.0	1756.0	1759.0
30°	1699.7	1698.8	1703.7	1710.6	1716.5	1722.4	1727.4	1731.3	1727.4	1727.4	1724.4
32.5°	1667.2	1667.2	1669.1	1627.7	1509.2	1359.2	1362.2	1275.3	1215.1	1139.1	1239.8
35°	1040.4	757.1	650.5	550.8	480.7	435.3	434.3	419.5	412.6	407.7	406.7
37.5°	392.9	394.8	398.8	400.8	403.7	405.7	406.7	406.7	406.7	406.7	405.7
40°	391.9	395.8	398.8	401.7	404.7	406.7	406.7	407.7	408.6	408.6	408.6
42.5°	392.9	396.8	400.8	403.7	405.7	406.7	407.7	408.6	408.6	408.6	408.6
45°	391.9	393.8	393.8	394.8	394.8	394.8	395.8	395.8	394.8	393.8	395.8
47.5°	377.1	377.1	374.1	373.1	372.1	370.2	371.1	370.2	369.2	368.2	370.2
50°	351.4	347.5	345.5	343.5	342.5	340.5	341.5	340.5	339.6	337.6	340.5
52.5°	320.8	319.8	315.9	313.9	312.9	313.9	311.9	310.9	309.9	309.0	309.9
55°	291.2	287.2	286.3	284.3	283.3	284.3	283.3	282.3	281.3	280.3	281.3
57.5°	264.5	261.6	260.6	258.6	258.6	258.6	258.6	257.6	256.6	255.7	256.6
60°	238.9	236.9	235.9	235.9	234.9	234.9	234.9	233.9	233.0	233.0	233.9
62.5°	217.2	217.2	214.2	213.2	213.2	214.2	213.2	212.2	211.2	210.2	212.2
65°	194.5	190.5	189.5	187.5	185.6	186.6	185.6	184.6	183.6	182.6	184.6
67.5°	166.8	165.8	161.9	159.9	158.9	159.9	158.9	157.9	156.9	156.0	157.9
70°	140.2	140.2	136.2	135.2	134.2	134.2	133.3	133.3	132.3	131.3	133.3
72.5°	116.5	116.5	115.5	113.5	112.5	111.5	110.6	109.6	109.6	110.6	110.6
75°	96.7	94.8	90.8	91.8	90.8	89.8	89.8	88.8	87.8	89.8	88.8
77.5°	76.0	75.0	72.1	73.0	72.1	71.1	71.1	70.1	69.1	70.1	70.1
80°	57.3	57.3	56.3	55.3	55.3	54.3	53.3	53.3	52.3	53.3	53.3
82.5°	41.5	41.5	40.5	39.5	38.5	38.5	37.5	37.5	37.5	37.5	37.5
85°	26.7	25.7	25.7	23.7	23.7	23.7	22.7	22.7	22.7	22.7	22.7
87.5°	12.8	12.8	11.8	11.8	10.9	9.9	9.9	8.9	8.9	9.9	9.9
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: P#

CATALOG NUMBER: 4SNLED-LD5-48HL-RW-UNV-L950-CD1-U

CANDELA DISTRIBUTION (continued):

	275°	277.5°	280°	282.5°	285°	287.5°	290°	292.5°	295°	297.5°	300°
0°	2153.8	2153.8	2153.8	2153.8	2153.8	2153.8	2153.8	2153.8	2153.8	2153.8	2153.8
2.5°	2228.8	2241.7	2230.8	2235.7	2236.7	2253.5	2252.5	2256.5	2249.5	2241.7	2230.8
5°	2342.3	2336.4	2328.5	2347.3	2337.4	2349.2	2353.2	2361.1	2361.1	2360.1	2351.2
7.5°	2197.2	2184.4	2194.3	2201.2	2204.1	2196.2	2212.0	2229.8	2244.6	2253.5	2254.5
10°	2083.7	2087.7	2086.7	2089.6	2096.6	2095.6	2105.4	2115.3	2119.3	2125.2	2127.2
12.5°	2030.4	2029.4	2031.4	2038.3	2042.3	2041.3	2051.1	2057.1	2059.0	2060.0	2059.0
15°	1988.0	1981.1	1986.0	1987.0	1989.9	1989.9	2001.8	2010.7	2014.6	2016.6	2014.6
17.5°	1908.0	1891.2	1907.0	1907.0	1917.9	1915.9	1934.7	1949.5	1957.4	1963.3	1963.3
20°	1829.1	1821.2	1827.1	1825.1	1833.0	1832.0	1843.9	1853.7	1860.6	1865.6	1871.5
22.5°	1797.5	1799.4	1790.6	1791.5	1791.5	1790.6	1796.5	1801.4	1803.4	1806.4	1804.4
25°	1776.7	1778.7	1775.8	1770.8	1768.8	1770.8	1773.8	1779.7	1780.7	1778.7	1771.8
27.5°	1756.0	1750.1	1755.0	1746.1	1744.2	1748.1	1752.1	1753.0	1754.0	1754.0	1748.1
30°	1724.4	1719.5	1724.4	1720.5	1716.5	1720.5	1723.4	1723.4	1725.4	1726.4	1719.5
32.5°	1205.2	1215.1	1375.0	1471.7	1607.9	1677.0	1689.9	1689.9	1691.8	1691.8	1685.9
35°	410.6	411.6	445.2	482.7	562.6	661.3	790.6	857.8	1084.8	1356.2	1618.8
37.5°	405.7	404.7	403.7	402.7	401.7	400.8	398.8	397.8	403.7	478.7	649.5
40°	407.7	406.7	404.7	403.7	402.7	400.8	399.8	397.8	395.8	393.8	391.9
42.5°	407.7	406.7	405.7	404.7	403.7	402.7	400.8	398.8	396.8	393.8	390.9
45°	393.8	393.8	394.8	394.8	395.8	395.8	395.8	394.8	394.8	393.8	389.9
47.5°	368.2	368.2	371.1	371.1	373.1	375.1	375.1	377.1	380.0	382.0	383.0
50°	338.6	338.6	341.5	342.5	344.5	347.5	350.4	351.4	354.4	358.3	362.3
52.5°	309.0	309.0	311.9	311.9	313.9	316.9	319.8	320.8	324.7	328.7	333.6
55°	281.3	281.3	283.3	284.3	285.3	287.2	290.2	290.2	294.1	297.1	302.0
57.5°	256.6	258.6	258.6	258.6	259.6	261.6	263.5	263.5	266.5	269.5	273.4
60°	233.0	234.9	234.9	234.9	235.9	236.9	238.9	238.9	240.8	242.8	246.8
62.5°	211.2	213.2	213.2	214.2	214.2	215.2	217.2	216.2	218.1	219.1	222.1
65°	183.6	185.6	186.6	187.5	188.5	190.5	193.5	192.5	195.4	197.4	200.4
67.5°	156.9	158.9	158.9	159.9	160.9	162.9	164.8	164.8	167.8	169.8	173.7
70°	132.3	134.2	134.2	135.2	136.2	138.2	140.2	139.2	142.1	144.1	147.1
72.5°	109.6	111.5	111.5	112.5	112.5	114.5	116.5	118.4	118.4	120.4	122.4
75°	88.8	89.8	90.8	90.8	91.8	92.8	94.8	96.7	97.7	98.7	100.7
77.5°	70.1	71.1	72.1	72.1	73.0	74.0	75.0	79.0	80.9	81.9	81.9
80°	53.3	54.3	54.3	54.3	55.3	56.3	58.2	58.2	62.2	62.2	63.2
82.5°	37.5	38.5	38.5	38.5	39.5	41.5	42.4	43.4	45.4	46.4	46.4
85°	22.7	23.7	23.7	23.7	24.7	25.7	27.6	28.6	29.6	29.6	30.6
87.5°	8.9	9.9	10.9	10.9	11.8	12.8	13.8	14.8	15.8	15.8	16.8
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: P#

CATALOG NUMBER: 4SNLED-LD5-48HL-RW-UNV-L950-CD1-U

CANDELA DISTRIBUTION (continued):

	302.5°	305°	307.5°	310°	312.5°	315°	317.5°	320°	322.5°	325°	327.5°
0°	2153.8	2153.8	2153.8	2153.8	2153.8	2153.8	2153.8	2153.8	2153.8	2153.8	2153.8
2.5°	2218.9	2225.9	2218.9	2222.9	2227.8	2218.9	2198.2	2190.3	2187.4	2175.5	2167.6
5°	2342.3	2342.3	2339.4	2347.3	2346.3	2332.5	2310.7	2300.9	2291.0	2278.2	2268.3
7.5°	2254.5	2262.4	2267.3	2297.9	2317.7	2319.6	2333.4	2336.4	2340.4	2336.4	2330.5
10°	2128.1	2125.2	2139.0	2167.6	2184.4	2193.3	2219.9	2232.8	2243.6	2265.3	2288.0
12.5°	2057.1	2061.0	2066.9	2087.7	2103.5	2099.5	2110.4	2119.3	2132.1	2153.8	2186.4
15°	2009.7	2013.6	2019.6	2035.4	2045.2	2040.3	2046.2	2052.1	2061.0	2071.9	2091.6
17.5°	1958.4	1965.3	1972.2	1989.0	1997.8	1996.9	2001.8	2003.8	2006.7	2013.6	2027.5
20°	1878.4	1900.1	1913.9	1936.6	1949.5	1947.5	1956.4	1959.3	1963.3	1970.2	1976.1
22.5°	1805.4	1811.3	1818.2	1842.9	1864.6	1891.2	1897.2	1905.1	1914.9	1921.8	1927.8
25°	1763.9	1760.0	1762.9	1779.7	1791.5	1793.5	1802.4	1828.1	1854.7	1866.6	1880.4
27.5°	1739.2	1735.3	1734.3	1742.2	1744.2	1739.2	1737.3	1745.2	1764.9	1784.6	1826.1
30°	1712.6	1707.6	1703.7	1710.6	1713.6	1706.7	1693.8	1686.9	1698.8	1703.7	1720.5
32.5°	1681.0	1676.1	1674.1	1678.0	1680.0	1674.1	1660.3	1652.4	1650.4	1646.4	1650.4
35°	1645.5	1640.5	1637.6	1638.5	1642.5	1637.6	1625.7	1615.8	1610.9	1600.1	1592.2
37.5°	847.9	1201.3	1559.6	1597.1	1601.0	1600.1	1588.2	1577.3	1572.4	1559.6	1555.6
40°	387.9	433.3	650.5	849.9	1225.9	1557.6	1546.7	1535.9	1527.0	1523.1	1508.3
42.5°	386.9	387.9	388.9	384.0	475.8	810.4	1196.3	1493.4	1487.5	1477.7	1466.8
45°	386.9	382.0	385.9	380.0	382.0	381.0	474.8	766.0	1363.2	1424.4	1419.4
47.5°	383.0	380.0	384.0	379.0	373.1	376.1	372.1	377.1	588.3	997.9	1367.1
50°	365.2	367.2	374.1	373.1	368.2	372.1	365.2	371.1	366.2	401.7	773.9
52.5°	338.6	342.5	349.4	355.3	357.3	362.3	360.3	362.3	358.3	359.3	360.3
55°	307.0	311.9	317.8	326.7	330.7	338.6	344.5	347.5	352.4	351.4	343.5
57.5°	277.4	282.3	287.2	296.1	305.0	309.0	319.8	325.7	338.6	335.6	333.6
60°	249.7	253.7	258.6	260.6	271.4	278.4	288.2	294.1	310.9	314.9	320.8
62.5°	225.1	227.0	231.0	233.9	240.8	247.8	252.7	262.6	271.4	284.3	293.2
65°	202.4	204.3	207.3	209.3	210.2	220.1	223.1	233.9	236.9	250.7	258.6
67.5°	176.7	180.6	184.6	186.6	188.5	194.5	196.4	201.4	208.3	214.2	224.1
70°	150.0	153.0	156.9	159.9	163.9	167.8	173.7	176.7	181.6	185.6	193.5
72.5°	125.4	128.3	130.3	133.3	136.2	139.2	144.1	151.0	155.0	161.9	163.9
75°	101.7	104.6	106.6	108.6	111.5	113.5	115.5	122.4	126.3	132.3	138.2
77.5°	83.9	83.9	85.9	91.8	90.8	90.8	92.8	96.7	99.7	103.6	109.6
80°	65.1	66.1	67.1	72.1	73.0	74.0	73.0	76.0	79.0	80.0	83.9
82.5°	48.4	49.4	49.4	52.3	55.3	55.3	55.3	56.3	59.2	60.2	62.2
85°	32.6	33.6	34.5	35.5	37.5	38.5	39.5	39.5	41.5	42.4	43.4
87.5°	17.8	19.7	20.7	21.7	22.7	23.7	24.7	25.7	26.7	27.6	28.6
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: P#

CATALOG NUMBER: 4SNLED-LD5-48HL-RW-UNV-L950-CD1-U

CANDELA DISTRIBUTION (continued):

	330°	332.5°	335°	337.5°	340°	342.5°	345°	347.5°	350°	352.5°	355°
0°	2153.8	2153.8	2153.8	2153.8	2153.8	2153.8	2153.8	2153.8	2153.8	2153.8	2153.8
2.5°	2164.7	2159.7	2156.8	2148.9	2146.9	2134.1	2136.0	2134.1	2134.1	2137.0	2146.9
5°	2257.4	2233.8	2227.8	2211.1	2197.2	2173.5	2158.7	2150.8	2139.0	2134.1	2141.0
7.5°	2320.6	2302.8	2288.0	2273.2	2253.5	2225.9	2205.1	2181.4	2161.7	2142.9	2138.0
10°	2309.8	2329.5	2329.5	2320.6	2301.9	2274.2	2249.5	2219.9	2185.4	2155.8	2138.0
12.5°	2218.0	2252.5	2280.1	2300.9	2319.6	2300.9	2276.2	2252.5	2214.0	2170.6	2138.0
15°	2117.3	2152.8	2187.4	2230.8	2276.2	2295.0	2294.0	2266.3	2231.8	2186.4	2141.0
17.5°	2046.2	2070.9	2089.6	2137.0	2192.3	2240.7	2273.2	2275.2	2241.7	2201.2	2142.0
20°	1992.9	2010.7	2026.5	2053.1	2101.5	2160.7	2220.9	2254.5	2248.6	2204.1	2144.9
22.5°	1944.5	1957.4	1970.2	1989.9	2028.4	2066.9	2137.0	2206.1	2235.7	2199.2	2142.0
25°	1896.2	1910.0	1919.9	1933.7	1964.3	1995.9	2045.2	2131.1	2197.2	2195.3	2136.0
27.5°	1838.9	1857.7	1869.5	1888.3	1909.0	1932.7	1966.3	2047.2	2142.0	2175.5	2120.2
30°	1769.8	1797.5	1815.2	1836.0	1853.7	1874.5	1901.1	1950.5	2067.9	2137.0	2103.5
32.5°	1670.1	1719.5	1759.0	1778.7	1798.5	1816.2	1839.9	1881.4	1977.1	2084.7	2084.7
35°	1599.1	1621.8	1657.3	1714.6	1739.2	1757.0	1778.7	1811.3	1872.5	2022.5	2054.1
37.5°	1543.8	1552.7	1570.4	1626.7	1673.1	1701.7	1723.4	1744.2	1804.4	1937.6	2014.6
40°	1502.3	1499.4	1497.4	1524.0	1590.2	1635.6	1660.3	1681.0	1727.4	1836.0	1962.3
42.5°	1454.0	1451.0	1441.1	1448.0	1480.6	1556.6	1594.1	1616.8	1655.3	1729.4	1905.1
45°	1403.6	1398.7	1394.7	1387.8	1399.7	1442.1	1519.1	1552.7	1574.4	1640.5	1833.0
47.5°	1352.3	1345.4	1340.5	1334.5	1327.6	1347.4	1420.4	1480.6	1518.1	1559.6	1746.1
50°	1279.3	1288.1	1282.2	1275.3	1269.4	1265.4	1296.0	1394.7	1441.1	1474.7	1640.5
52.5°	603.1	1172.6	1222.0	1215.1	1207.2	1200.3	1207.2	1282.2	1366.1	1392.8	1513.2
55°	343.5	522.2	1086.8	1149.0	1142.0	1132.2	1126.3	1151.9	1277.3	1312.8	1396.7
57.5°	330.7	331.7	479.7	1035.4	1073.9	1065.1	1058.1	1064.1	1170.7	1230.9	1295.0
60°	319.8	319.8	319.8	458.0	990.0	993.0	984.1	974.2	1020.6	1139.1	1192.4
62.5°	296.1	302.0	305.0	305.0	452.1	917.0	908.1	905.1	907.1	1028.5	1089.7
65°	265.5	279.3	285.3	289.2	289.2	474.8	830.1	825.2	818.3	864.7	986.1
67.5°	232.0	245.8	258.6	266.5	267.5	276.4	495.5	743.3	733.4	734.4	875.5
70°	197.4	209.3	223.1	234.9	245.8	250.7	258.6	616.9	649.5	635.7	750.2
72.5°	170.8	175.7	185.6	197.4	210.2	222.1	229.0	245.8	563.6	548.8	570.5
75°	142.1	146.1	153.0	160.9	170.8	184.6	196.4	208.3	299.1	460.0	457.0
77.5°	110.6	117.5	125.4	130.3	135.2	145.1	160.9	172.7	184.6	310.9	366.2
80°	84.9	89.8	93.8	98.7	104.6	111.5	117.5	131.3	145.1	156.0	280.3
82.5°	63.2	66.1	69.1	71.1	73.0	77.0	87.8	92.8	101.7	111.5	132.3
85°	44.4	46.4	48.4	49.4	50.3	51.3	55.3	56.3	65.1	67.1	80.0
87.5°	28.6	29.6	31.6	32.6	32.6	33.6	34.5	34.5	34.5	32.6	39.5
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: P#

CATALOG NUMBER: 4SNLED-LD5-48HL-RW-UNV-L950-CD1-U

CANDELA DISTRIBUTION (continued):

	357.5°	360°
0°	2153.8	2153.8
2.5°	2154.8	2170.6
5°	2151.8	2172.6
7.5°	2143.9	2163.7
10°	2132.1	2155.8
12.5°	2119.3	2142.0
15°	2108.4	2125.2
17.5°	2096.6	2106.4
20°	2080.8	2088.7
22.5°	2065.0	2061.0
25°	2047.2	2038.3
27.5°	2024.5	2007.7
30°	2003.8	1974.2
32.5°	1984.0	1935.7
35°	1957.4	1896.2
37.5°	1929.7	1855.7
40°	1897.2	1809.3
42.5°	1862.6	1762.9
45°	1819.2	1718.5
47.5°	1780.7	1665.2
50°	1727.4	1607.9
52.5°	1662.2	1554.6
55°	1585.2	1489.5
57.5°	1502.3	1421.4
60°	1413.5	1343.4
62.5°	1305.9	1262.5
65°	1179.6	1169.7
67.5°	1014.7	1067.0
70°	832.1	949.6
72.5°	695.9	825.2
75°	570.5	686.0
77.5°	452.1	538.0
80°	282.3	393.8
82.5°	189.5	258.6
85°	114.5	123.4
87.5°	44.4	45.4
90°	0.0	0.0

(END OF REPORT)