

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-LD5-31SL-RM-UNV-L940-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 (P33524)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 4SNLED-LD5-31SL-RM-UNV-L940-CD1-U
Description: 4FT LINEAR SNLED LED FIXTURE
METALIC FINISH REFLECTOR
Light Source: -
Ballast/Driver: -

Summary

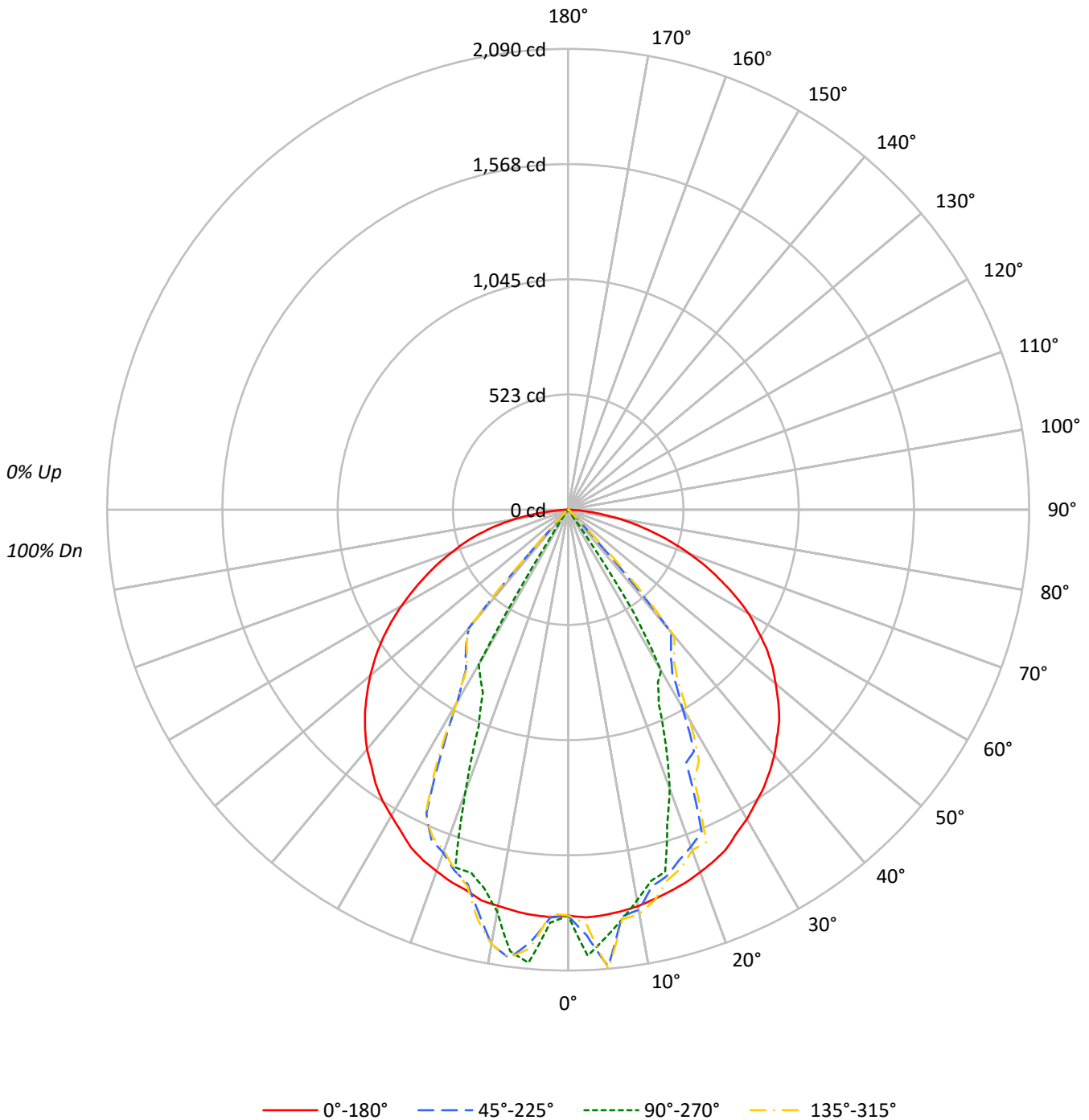
Lumens per Lamp: N/A
Luminaire Lumens: 2617.1 lumens
Efficiency: N/A
Efficacy: 124.6 lumens/watt
Spacing Criteria (0/90/45): 1.3 / 0.81 / 0.97
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.12')
CIE Type: Direct

Input Watts (W): 21
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



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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	50	30	10	0		
RCR																										
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100					100			
1	112	108	105	103	109	106	103	101	102	100	98	98	96	95	95	93	92	90					90			
2	105	98	93	89	102	97	92	88	93	89	86	90	87	84	87	85	82	81					81			
3	98	90	83	78	95	88	82	78	85	80	76	83	79	75	80	77	74	72					72			
4	91	82	75	70	89	81	74	69	78	73	69	76	72	68	74	70	67	65					65			
5	85	75	68	63	84	74	68	63	72	66	62	71	65	61	69	64	61	59					59			
6	80	69	62	57	79	69	62	57	67	61	56	65	60	56	64	59	55	54					54			
7	75	64	57	52	74	64	57	52	62	56	52	61	55	51	60	55	51	49					49			
8	71	60	53	48	70	59	52	48	58	52	47	57	51	47	56	51	47	45					45			
9	67	56	49	44	66	55	49	44	54	48	44	53	48	44	52	47	44	42					42			
10	63	52	45	41	62	52	45	41	51	45	41	50	44	41	49	44	40	39					39			

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	14873	14873	14873	14873
5°	14934	15296	14929	16199
10°	14898	13842	14889	14241
15°	14858	12920	14820	12953
20°	14874	10176	14833	10302
25°	14917	7364	14844	6949
30°	14849	6460	14693	6210
35°	14893	142	14675	173
40°	14944	31	14587	31
45°	14997	18	14434	14
50°	14883	15	14200	15
55°	14795	10	13886	10
60°	14515	11	13380	11
65°	13759	18	12779	12
70°	12764	20	12150	20
75°	11291	22	11475	22
80°	9171	25	9693	25
85°	5397	30	5506	30



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	184.7	7.1
10°-20°	503.7	19.2
20°-30°	640.9	24.5
30°-40°	541.4	20.7
40°-50°	354.0	13.5
50°-60°	223.0	8.5
60°-70°	118.7	4.5
70°-80°	43.3	1.7
80°-90°	7.5	0.3
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°	1329.2	50.8
0°-40°	1870.6	71.5
0°-60°	2447.6	93.5
0°-90°	2617.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2617.1	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	1840	1840	1840	1840	1840	
5°	1846	1948	1845	2062	1846	176
15°	1791	1700	1786	1704	1791	506
25°	1697	970	1689	916	1697	781
35°	1543	18	1520	22	1543	965
45°	1353	2	1302	2	1353	1041
55°	1097	1	1030	1	1097	977
65°	768	2	713	1	768	760
75°	404	2	410	2	404	429
85°	79	2	81	2	79	100
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°	10°
0°	1840.5	1840.5	1840.5	1840.5	1840.5	1840.5	1840.5	1840.5	1840.5	1840.5	1840.5
2.5°	1851.0	1852.1	1852.6	1853.7	1855.4	1855.9	1857.0	1855.9	1855.9	1855.9	1855.9
5°	1846.0	1848.2	1849.9	1852.1	1855.9	1856.5	1860.9	1861.5	1863.7	1868.1	1871.4
7.5°	1837.7	1839.9	1843.2	1848.8	1854.3	1860.4	1868.1	1876.4	1888.0	1899.0	1912.8
10°	1825.6	1828.3	1832.2	1837.2	1864.2	1868.1	1885.2	1909.0	1915.6	1950.4	1976.4
12.5°	1807.9	1817.3	1827.2	1831.6	1857.6	1898.5	1955.9	1944.3	1931.6	2045.4	2043.7
15°	1790.8	1803.5	1798.5	1834.4	1858.1	1929.4	1905.1	1957.0	2052.0	2028.8	2029.9
17.5°	1772.5	1775.3	1802.9	1832.7	1875.3	1911.7	1941.6	2012.8	2031.6	2033.2	2012.8
20°	1749.3	1762.6	1802.9	1830.0	1901.8	1918.9	1983.5	2020.0	2012.3	1993.5	1958.7
22.5°	1725.6	1765.9	1806.8	1844.9	1895.2	1941.0	1973.0	1990.2	1949.8	1875.8	1836.1
25°	1697.4	1721.2	1774.7	1830.5	1893.5	1920.0	1938.8	1911.2	1858.7	1792.4	1725.6
27.5°	1653.8	1691.9	1760.4	1823.3	1880.2	1912.3	1881.9	1815.6	1731.1	1687.5	1657.1
30°	1620.1	1669.8	1726.1	1786.9	1846.0	1864.8	1787.4	1711.8	1653.8	1610.1	1603.5
32.5°	1579.2	1649.9	1703.5	1761.5	1811.2	1786.3	1711.2	1613.4	1565.4	1548.8	1555.5
35°	1542.7	1596.3	1666.5	1723.4	1759.3	1703.5	1584.7	1524.0	1500.8	1510.2	1498.0
37.5°	1499.1	1569.8	1634.4	1683.6	1671.4	1587.5	1487.0	1448.3	1451.1	1443.3	1420.1
40°	1453.8	1521.2	1588.6	1635.0	1592.5	1464.3	1397.5	1389.2	1390.8	1366.0	1332.8
42.5°	1400.8	1462.1	1529.5	1571.5	1479.8	1379.8	1334.5	1335.6	1321.2	1286.5	1268.8
45°	1353.3	1409.6	1479.8	1483.6	1371.0	1287.6	1274.3	1259.9	1227.9	1216.3	1203.0
47.5°	1292.5	1354.9	1412.9	1392.0	1264.4	1212.4	1202.5	1171.0	1155.0	1146.2	1135.1
50°	1227.9	1290.9	1343.9	1284.2	1163.8	1151.7	1119.1	1094.2	1083.2	1073.8	1063.8
52.5°	1166.6	1218.5	1272.6	1169.9	1086.5	1074.9	1037.9	1023.5	1012.5	1002.0	999.8
55°	1097.0	1142.8	1179.8	1061.1	1012.5	985.4	958.9	949.0	938.5	933.5	941.8
57.5°	1018.0	1069.9	1064.4	953.9	932.4	893.2	883.2	876.6	868.9	872.2	803.1
60°	946.7	986.5	959.5	875.5	839.0	812.5	803.7	799.3	803.7	736.3	647.4
62.5°	858.9	903.7	849.0	783.8	745.1	732.4	724.7	730.8	666.1	592.1	570.6
65°	767.8	816.4	735.7	685.5	661.2	650.1	649.6	598.2	534.7	506.0	506.0
67.5°	680.0	730.2	626.4	584.4	575.0	576.1	544.1	466.2	448.5	429.2	373.4
70°	586.6	630.8	517.6	492.2	486.6	482.8	404.9	383.9	362.9	311.5	307.1
72.5°	493.8	515.4	415.9	409.9	408.7	339.7	324.2	288.3	264.0	258.0	255.2
75°	403.8	397.1	328.7	334.2	281.7	257.4	232.5	211.6	208.2	206.0	51.4
77.5°	318.7	285.6	259.1	225.4	201.6	171.2	166.3	162.9	107.2	38.7	31.5
80°	232.0	185.0	172.3	146.4	124.8	119.9	122.6	37.6	29.8	24.9	21.5
82.5°	147.5	118.2	96.7	84.5	82.3	35.9	26.5	21.5	18.8	16.0	13.3
85°	79.0	52.5	48.6	40.9	24.3	16.6	13.8	10.5	8.8	7.2	6.6
87.5°	24.9	21.0	17.1	13.8	8.3	5.5	4.4	3.9	3.3	2.8	2.8
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):

	11°	12°	13°	14°	15°	16°	17°	18°	19°	20°	25°
0°	1840.5	1840.5	1840.5	1840.5	1840.5	1840.5	1840.5	1840.5	1840.5	1840.5	1840.5
2.5°	1854.8	1855.9	1855.4	1857.0	1857.0	1859.3	1860.9	1862.6	1865.9	1867.5	1880.2
5°	1878.6	1881.3	1889.6	1897.4	1906.8	1909.5	1925.5	1929.4	1948.2	1950.4	2012.3
7.5°	1931.6	1942.1	1962.0	1981.9	2001.8	2014.5	2036.6	2050.4	2065.3	2078.5	2127.7
10°	1995.7	2013.4	2032.7	2052.6	2064.2	2088.5	2101.7	2103.9	2100.1	2078.5	1999.0
12.5°	2058.7	2076.3	2068.0	2071.9	2085.7	2042.6	2048.7	2017.8	2039.3	1932.7	1853.7
15°	2049.8	2048.7	2028.3	1962.0	1973.0	1890.7	1857.6	1832.2	1852.6	1841.6	1829.4
17.5°	2023.3	1973.0	1937.7	1858.1	1824.5	1801.3	1801.8	1802.4	1792.4	1802.9	1772.0
20°	1911.2	1854.8	1802.4	1774.2	1764.2	1747.7	1756.0	1747.7	1748.2	1751.5	1704.0
22.5°	1762.0	1744.9	1714.5	1723.4	1720.1	1735.0	1723.9	1706.8	1712.3	1687.5	1651.6
25°	1701.8	1681.9	1680.8	1684.2	1679.2	1672.6	1662.6	1636.6	1635.0	1627.3	1610.7
27.5°	1641.1	1642.2	1645.5	1635.5	1617.9	1604.6	1589.7	1577.0	1582.0	1573.1	1550.5
30°	1599.1	1598.5	1578.7	1569.8	1537.2	1537.8	1533.9	1526.2	1521.2	1521.8	1507.4
32.5°	1539.4	1522.3	1499.7	1488.6	1485.9	1475.9	1468.2	1469.8	1473.7	1459.9	1474.8
35°	1478.1	1442.8	1439.5	1430.1	1421.2	1414.6	1417.4	1406.3	1405.8	1404.1	1282.6
37.5°	1395.8	1378.7	1377.0	1367.1	1361.0	1359.4	1348.9	1350.5	1355.5	1364.3	1093.7
40°	1327.9	1312.4	1308.5	1308.0	1294.7	1293.6	1296.4	1306.9	1314.1	1258.8	1042.3
42.5°	1255.0	1256.1	1243.9	1236.2	1237.8	1242.8	1256.1	1219.6	1056.7	1007.0	952.8
45°	1192.5	1187.0	1180.4	1178.2	1192.5	1182.6	1036.8	956.7	937.4	935.1	783.2
47.5°	1127.4	1125.7	1123.0	1124.6	1042.9	929.6	896.5	886.0	889.3	887.1	672.8
50°	1061.6	1063.8	1063.8	929.1	852.8	834.1	836.8	846.2	787.7	735.2	626.9
52.5°	1004.7	987.6	846.2	797.6	780.5	788.8	768.9	695.4	642.4	611.5	580.0
55°	899.2	773.3	741.8	734.1	740.2	666.7	621.4	573.9	560.1	556.8	538.6
57.5°	707.6	682.2	684.9	654.0	583.8	542.4	524.2	517.6	511.5	507.1	44.2
60°	625.8	633.0	579.4	513.1	485.0	479.5	475.0	469.0	467.9	460.1	28.2
62.5°	572.8	503.8	457.4	440.8	434.2	432.5	424.2	421.5	357.9	49.2	21.0
65°	431.9	403.8	394.9	391.1	383.9	383.9	318.7	50.3	40.9	35.4	18.8
67.5°	352.4	350.2	345.8	340.8	232.0	48.6	42.5	37.0	32.0	28.2	16.6
70°	298.3	297.2	270.7	49.7	41.4	36.5	32.0	28.7	26.5	23.8	14.9
72.5°	244.7	49.7	42.0	36.5	31.5	28.7	26.0	23.2	21.0	19.3	12.2
75°	38.1	33.7	29.8	27.1	24.9	22.1	19.9	18.2	17.7	15.5	8.3
77.5°	27.6	23.8	21.5	19.3	17.1	15.5	13.3	11.6	10.5	8.8	6.1
80°	19.3	17.1	15.5	12.7	11.0	9.4	8.3	7.2	6.6	5.5	2.8
82.5°	11.0	9.4	8.3	6.6	6.1	5.0	4.4	3.9	3.9	2.8	2.8
85°	5.0	5.0	3.9	3.3	2.8	2.8	2.8	2.2	2.2	1.7	1.7
87.5°	2.2	2.2	2.2	2.2	2.2	1.7	1.7	1.7	1.7	1.7	1.1
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):

	30°	35°	40°	45°	50°	55°	60°	65°	70°	75°	80°
0°	1840.5	1840.5	1840.5	1840.5	1840.5	1840.5	1840.5	1840.5	1840.5	1840.5	1840.5
2.5°	1897.9	1905.1	1918.9	1933.3	1917.2	1974.7	1970.3	1989.6	2000.1	2005.1	2016.7
5°	2066.9	2099.0	2109.5	2078.0	2059.8	2041.0	1998.4	1966.4	1970.3	1959.8	1921.7
7.5°	2063.6	1995.1	1902.9	1860.9	1857.6	1852.6	1865.9	1873.6	1874.7	1874.2	1873.1
10°	1889.1	1853.7	1847.7	1842.1	1844.3	1823.9	1814.5	1788.0	1802.4	1794.6	1797.4
12.5°	1836.1	1827.8	1795.2	1749.9	1776.9	1756.5	1744.9	1752.6	1743.8	1735.5	1732.8
15°	1804.6	1751.0	1732.8	1721.7	1714.0	1709.6	1713.4	1704.6	1701.8	1700.2	1704.0
17.5°	1739.4	1717.8	1698.0	1668.7	1669.2	1667.6	1678.6	1695.2	1696.3	1611.2	1534.5
20°	1688.0	1670.3	1644.9	1626.7	1651.6	1607.4	1436.7	1355.5	1342.8	1342.8	1345.0
22.5°	1647.1	1607.9	1609.6	1580.9	1348.3	1300.8	1301.9	1306.9	1284.2	1206.9	1198.6
25°	1591.4	1585.3	1464.3	1265.5	1267.1	1230.1	1173.2	1093.1	1006.4	1006.4	992.0
27.5°	1549.4	1420.7	1243.9	1235.6	1111.4	1032.9	984.3	910.8	900.9	891.5	892.6
30°	1513.5	1201.9	1206.4	1032.9	941.2	876.0	872.2	860.0	854.0	852.3	846.2
32.5°	1196.4	1170.5	1009.7	879.4	843.5	833.0	828.0	814.2	813.6	803.1	730.2
35°	1121.8	1027.4	845.1	809.8	799.3	789.3	781.0	524.2	61.9	24.9	21.5
37.5°	1036.8	858.4	781.6	765.6	755.6	558.4	55.8	19.3	13.8	9.9	8.8
40°	878.8	766.7	742.4	724.7	298.8	19.3	12.2	9.4	5.5	5.0	4.4
42.5°	741.3	722.5	696.5	212.1	22.1	9.4	6.1	4.4	3.9	3.9	3.3
45°	693.8	677.2	280.6	21.0	13.8	4.4	3.9	3.9	3.3	2.2	2.2
47.5°	649.6	571.7	25.4	13.3	8.8	3.9	3.3	2.2	2.2	2.2	1.7
50°	602.6	31.5	17.7	9.9	5.5	2.2	2.2	2.2	2.2	1.7	1.7
52.5°	112.7	22.1	14.4	8.8	2.8	2.2	2.2	2.2	1.7	1.7	1.7
55°	26.5	17.7	13.3	7.7	2.2	2.2	2.2	1.7	1.7	1.7	1.1
57.5°	19.9	13.3	10.5	7.2	2.2	1.7	1.7	1.7	1.7	1.7	1.1
60°	16.6	9.4	8.3	6.6	1.7	1.7	1.7	1.7	1.7	1.7	1.1
62.5°	11.6	7.7	6.1	5.0	1.7	1.7	1.7	1.7	1.7	1.7	1.7
65°	9.4	6.1	5.0	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
67.5°	8.3	5.0	3.3	1.1	1.7	1.7	1.7	1.7	1.7	1.7	1.7
70°	6.6	1.7	1.7	1.1	1.7	1.7	1.7	1.7	1.7	1.7	1.7
72.5°	5.5	1.7	1.1	1.1	1.7	1.7	1.7	1.7	1.7	1.7	1.7
75°	5.5	2.8	1.1	1.1	1.7	1.7	2.2	2.2	1.7	1.7	1.7
77.5°	3.9	2.8	1.1	1.1	1.7	1.7	2.2	2.2	1.7	1.7	1.7
80°	2.2	2.8	1.1	1.7	1.7	3.3	3.9	2.2	1.7	1.7	1.7
82.5°	2.2	2.8	3.3	3.3	1.7	2.8	3.3	2.8	2.2	1.7	1.7
85°	2.2	1.7	2.2	2.8	1.7	2.8	2.8	2.2	2.2	1.7	1.7
87.5°	1.1	1.7	1.7	2.2	2.2	2.2	2.8	2.2	2.2	2.2	1.7
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-LD5-31SL-RM-UNV-L940-CD1-U

CANDELA DISTRIBUTION (continued):

	85°	90°	95°	100°	105°	110°	115°	120°	125°	130°	135°
0°	1840.5	1840.5	1840.5	1840.5	1840.5	1840.5	1840.5	1840.5	1840.5	1840.5	1840.5
2.5°	2022.2	2024.4	1989.6	1977.5	1988.0	1985.7	1976.4	1941.6	1937.7	1914.5	1880.8
5°	1932.7	1947.6	1929.4	1960.9	1946.0	1960.9	2006.2	2027.2	2061.4	2082.4	2090.1
7.5°	1870.3	1873.6	1873.6	1876.4	1879.1	1879.7	1876.4	1874.2	1864.8	1853.2	1874.2
10°	1794.6	1798.5	1805.1	1804.0	1803.5	1815.1	1817.8	1841.6	1840.5	1844.9	1860.9
12.5°	1755.4	1725.6	1752.6	1745.5	1755.4	1739.9	1768.7	1763.7	1765.3	1778.6	1812.9
15°	1690.2	1699.6	1706.2	1706.2	1710.1	1706.8	1703.5	1726.1	1739.9	1740.5	1738.3
17.5°	1564.8	1493.6	1566.5	1547.7	1697.4	1701.3	1688.6	1678.1	1678.1	1686.4	1704.0
20°	1343.3	1345.0	1345.6	1352.7	1361.6	1361.0	1361.6	1579.2	1682.5	1658.7	1642.7
22.5°	1177.6	1157.2	1195.3	1192.5	1240.1	1292.5	1342.8	1337.8	1341.1	1494.7	1632.8
25°	944.0	970.5	949.0	958.3	1011.9	1074.3	1113.0	1214.1	1324.0	1316.3	1352.2
27.5°	888.8	881.6	891.5	891.5	898.7	907.0	928.5	985.4	1083.2	1185.9	1283.1
30°	836.3	842.4	843.5	853.4	858.9	864.4	867.8	889.3	911.4	982.7	1102.5
32.5°	628.0	550.7	724.7	771.6	811.4	820.8	827.4	836.3	852.3	862.8	923.0
35°	18.2	18.2	19.3	22.1	28.2	190.0	723.6	797.6	808.1	821.4	832.4
37.5°	8.8	6.6	7.7	8.3	9.9	13.8	19.9	61.9	688.8	778.8	791.0
40°	3.9	3.9	3.9	3.9	4.4	5.5	8.3	13.8	21.0	554.0	747.3
42.5°	3.3	3.3	3.3	3.3	3.3	3.3	3.9	5.0	9.9	23.8	392.2
45°	2.2	2.2	1.7	2.2	2.2	2.8	3.3	3.3	4.4	14.9	27.1
47.5°	1.7	1.7	1.7	1.7	1.7	1.7	1.7	2.8	3.3	9.9	14.4
50°	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	7.7	9.9
52.5°	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	3.3	8.8
55°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.7	1.7	2.2	7.7
57.5°	1.1	1.1	1.1	1.1	1.1	1.7	1.1	1.1	1.7	1.7	7.2
60°	1.1	1.1	1.1	1.1	1.1	1.7	1.7	1.7	1.7	1.7	6.6
62.5°	1.7	1.7	1.1	1.7	1.1	1.1	1.7	1.7	1.7	1.7	4.4
65°	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.1	1.7
67.5°	1.7	1.7	1.7	1.7	1.1	1.7	1.1	1.7	1.7	1.1	1.1
70°	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.1	1.1	1.1	1.1
72.5°	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.1	1.1	1.1	1.1
75°	1.7	1.7	1.7	1.7	1.7	1.7	2.2	2.2	1.1	1.1	1.1
77.5°	1.7	1.7	1.7	1.7	1.7	1.7	2.8	3.3	2.8	2.8	1.1
80°	1.7	1.7	1.7	1.7	1.7	1.7	2.8	2.8	2.8	2.8	3.9
82.5°	1.7	1.7	1.7	1.7	1.7	1.7	2.2	2.2	2.2	2.2	2.8
85°	1.7	1.7	1.7	1.7	1.7	1.7	2.2	2.2	2.2	1.7	2.2
87.5°	1.7	1.7	1.7	1.7	1.7	1.7	1.7	2.2	1.7	1.7	1.7
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-LD5-31SL-RM-UNV-L940-CD1-U

CANDELA DISTRIBUTION (continued):

	140°	145°	150°	155°	160°	161°	162°	163°	164°	165°	166°
0°	1840.5	1840.5	1840.5	1840.5	1840.5	1840.5	1840.5	1840.5	1840.5	1840.5	1840.5
2.5°	1883.6	1864.8	1858.7	1846.0	1844.9	1846.0	1843.2	1839.4	1841.6	1837.7	1834.4
5°	2094.6	2044.3	2011.7	1968.1	1907.9	1894.6	1891.3	1872.5	1865.9	1863.7	1854.8
7.5°	1923.9	2015.6	2070.8	2089.6	2018.9	2002.3	1983.0	1967.5	1952.6	1924.4	1907.3
10°	1848.2	1852.6	1905.6	1967.5	2068.0	2081.9	2092.3	2058.7	2049.3	1977.5	1962.0
12.5°	1830.5	1831.1	1837.2	1874.7	1953.7	1962.5	1999.6	2019.4	2043.7	2057.5	2046.5
15°	1749.9	1794.6	1827.8	1831.1	1838.3	1853.7	1864.8	1933.8	1963.1	2041.5	2037.1
17.5°	1712.3	1726.7	1774.7	1814.0	1807.3	1801.8	1810.6	1820.0	1848.2	1926.6	1925.5
20°	1649.9	1695.8	1721.7	1762.6	1799.6	1801.3	1791.3	1785.8	1774.7	1787.4	1799.0
22.5°	1623.4	1630.6	1679.2	1707.9	1749.9	1764.8	1767.0	1767.6	1761.5	1754.9	1751.5
25°	1620.6	1598.0	1622.8	1658.7	1689.7	1705.7	1723.9	1730.0	1727.8	1727.8	1724.5
27.5°	1326.2	1590.8	1577.5	1601.3	1638.9	1649.9	1659.3	1678.1	1689.7	1698.0	1701.8
30°	1263.3	1310.8	1542.2	1545.5	1583.6	1582.5	1593.0	1608.5	1623.4	1642.7	1647.7
32.5°	1117.4	1234.0	1411.8	1489.7	1529.5	1533.4	1538.9	1543.3	1557.1	1578.7	1597.4
35°	895.4	1124.1	1209.7	1463.2	1470.4	1478.1	1481.4	1491.9	1496.3	1505.2	1521.8
37.5°	810.3	929.1	1160.5	1265.5	1402.4	1409.1	1426.8	1431.2	1438.4	1445.5	1458.2
40°	761.2	793.7	966.1	1130.1	1347.8	1352.2	1358.3	1369.3	1369.9	1378.1	1389.7
42.5°	721.9	742.9	793.2	1079.3	1309.1	1308.5	1294.2	1301.4	1304.7	1313.5	1329.5
45°	576.7	697.1	729.1	881.6	1042.3	1117.4	1261.6	1237.8	1237.3	1240.6	1257.7
47.5°	29.3	655.7	678.3	727.5	984.3	987.1	1005.9	1163.8	1188.1	1180.4	1182.1
50°	19.9	45.3	631.9	654.5	848.4	916.9	930.7	937.9	1029.1	1130.7	1114.1
52.5°	15.5	26.0	387.2	607.6	689.3	739.6	828.5	879.4	884.9	925.8	1064.4
55°	13.8	19.9	42.0	560.6	586.1	597.1	649.0	738.0	809.8	831.3	833.0
57.5°	12.2	18.2	28.7	253.5	533.0	535.2	544.1	575.0	639.6	698.7	765.6
60°	11.0	16.0	22.6	43.6	484.4	489.9	491.6	499.9	507.6	547.9	624.7
62.5°	6.6	12.7	19.9	31.5	383.3	440.2	439.7	445.2	452.4	456.8	472.3
65°	5.5	9.9	17.1	26.5	47.0	58.6	355.7	395.5	399.9	406.0	408.7
67.5°	5.0	8.8	12.7	21.0	35.4	40.3	46.4	57.4	313.7	353.5	359.0
70°	4.4	6.1	10.5	17.7	28.7	30.9	34.8	39.8	47.0	58.0	283.9
72.5°	2.8	4.4	7.2	12.7	22.1	24.9	27.1	30.4	33.7	40.3	46.4
75°	1.1	3.3	6.1	9.4	17.1	18.8	20.4	22.6	25.4	29.8	33.1
77.5°	1.1	2.8	5.0	6.6	11.0	12.7	14.9	16.6	18.8	21.0	24.3
80°	3.9	2.2	3.3	5.0	7.7	8.3	9.4	10.5	12.2	13.8	16.0
82.5°	2.8	3.3	3.9	3.3	3.9	5.0	5.5	6.6	7.2	8.3	8.8
85°	2.2	2.2	2.8	2.8	2.8	2.8	2.8	2.8	3.3	3.9	5.0
87.5°	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	2.2	2.2
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: P#

CATALOG NUMBER: 4SNLED-LD5-31SL-RM-UNV-L940-CD1-U

CANDELA DISTRIBUTION (continued):

	167°	168°	169°	170°	171°	172°	173°	174°	175°	176°	177°
0°	1840.5	1840.5	1840.5	1840.5	1840.5	1840.5	1840.5	1840.5	1840.5	1840.5	1840.5
2.5°	1834.4	1833.3	1830.0	1830.0	1829.4	1831.6	1833.3	1834.9	1834.4	1837.7	1834.4
5°	1848.2	1845.4	1840.5	1836.1	1834.4	1835.5	1833.8	1835.5	1833.3	1836.1	1831.1
7.5°	1886.3	1876.9	1857.6	1849.9	1839.9	1839.4	1834.4	1833.3	1830.0	1830.0	1823.9
10°	1953.7	1908.4	1902.9	1879.7	1871.4	1831.1	1839.9	1825.0	1823.3	1816.2	1813.4
12.5°	2008.9	1973.6	1963.1	1942.7	1919.5	1837.7	1855.9	1823.9	1822.2	1807.9	1793.0
15°	2010.0	2030.5	2001.8	1945.4	1940.4	1884.1	1847.1	1836.1	1821.7	1778.6	1785.8
17.5°	1945.4	1992.4	2006.2	1994.0	1958.7	1920.6	1868.6	1846.5	1803.5	1784.1	1770.9
20°	1840.5	1888.0	1947.1	1950.9	1973.0	1946.0	1878.0	1842.1	1790.2	1756.5	1745.5
22.5°	1757.1	1791.9	1859.8	1891.3	1918.4	1927.7	1884.7	1831.6	1767.0	1734.4	1727.8
25°	1712.9	1720.6	1741.0	1778.1	1837.7	1880.8	1886.9	1830.5	1796.8	1725.6	1688.0
27.5°	1696.9	1690.2	1681.9	1700.7	1745.5	1797.9	1832.7	1842.1	1758.2	1690.2	1652.7
30°	1656.0	1659.8	1647.1	1640.5	1669.8	1723.9	1785.8	1801.3	1736.6	1666.5	1623.4
32.5°	1605.7	1612.3	1614.6	1603.0	1596.9	1634.4	1701.3	1738.3	1735.0	1632.8	1584.7
35°	1542.7	1561.5	1566.5	1567.1	1557.1	1551.0	1589.7	1666.5	1695.8	1617.3	1547.7
37.5°	1476.5	1482.0	1509.1	1516.2	1516.2	1498.0	1526.7	1588.0	1628.9	1582.5	1502.4
40°	1393.6	1411.3	1436.7	1449.4	1462.1	1463.8	1447.7	1490.8	1558.2	1546.6	1459.9
42.5°	1333.4	1345.0	1360.5	1377.6	1403.6	1410.2	1393.6	1401.3	1471.5	1501.9	1404.7
45°	1263.3	1278.7	1283.1	1301.9	1329.0	1348.3	1347.8	1331.7	1388.1	1425.6	1364.3
47.5°	1191.4	1206.4	1214.1	1223.5	1243.4	1268.2	1282.0	1274.9	1285.9	1359.4	1310.8
50°	1117.4	1125.7	1141.2	1151.7	1164.9	1179.3	1212.4	1219.1	1203.6	1262.1	1251.7
52.5°	1047.3	1050.0	1060.5	1071.0	1088.7	1099.2	1125.7	1145.6	1144.5	1161.6	1185.9
55°	992.6	980.4	982.7	990.9	1002.5	1018.6	1033.5	1064.4	1074.9	1078.2	1116.9
57.5°	775.5	900.4	911.4	910.8	924.7	931.8	945.6	966.1	1003.6	995.4	1038.4
60°	704.8	718.6	823.0	835.2	840.1	846.8	863.3	882.1	909.7	927.4	946.2
62.5°	537.4	621.4	652.9	745.1	759.5	763.4	774.4	783.2	812.0	852.3	844.6
65°	415.9	451.8	547.9	585.5	663.9	673.9	689.3	698.7	707.0	753.4	755.6
67.5°	359.6	365.1	391.1	463.4	513.1	589.9	599.3	607.6	620.3	653.4	673.9
70°	307.1	313.7	320.9	327.0	391.6	442.4	513.7	516.5	524.7	546.8	593.2
72.5°	58.0	262.4	266.8	270.7	277.8	311.5	379.5	434.7	438.0	448.5	491.0
75°	39.2	45.8	63.0	216.5	223.7	225.9	237.5	306.6	357.4	359.6	378.4
77.5°	28.2	31.5	38.1	45.3	115.4	173.4	176.2	188.9	241.4	279.5	282.8
80°	19.3	21.5	25.4	28.7	35.4	46.4	128.1	132.0	138.6	191.1	201.1
82.5°	11.0	12.7	14.9	18.2	21.0	26.5	34.2	44.2	90.0	96.1	127.6
85°	5.5	6.1	7.2	8.8	10.5	12.7	17.1	21.0	28.7	51.9	53.6
87.5°	2.8	2.8	2.8	2.8	4.4	5.0	6.1	7.7	9.9	14.9	19.3
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: P#

CATALOG NUMBER: 4SNLED-LD5-31SL-RM-UNV-L940-CD1-U

CANDELA DISTRIBUTION (continued):

	178°	179°	180°	181°	182°	183°	184°	185°	186°	187°	188°
0°	1840.5	1840.5	1840.5	1840.5	1840.5	1840.5	1840.5	1840.5	1840.5	1840.5	1840.5
2.5°	1834.9	1842.7	1849.3	1851.0	1851.0	1852.1	1853.7	1854.8	1855.9	1857.0	1855.9
5°	1831.6	1839.9	1845.4	1847.1	1847.1	1850.4	1853.2	1856.5	1858.1	1858.1	1857.0
7.5°	1823.3	1829.4	1836.6	1841.0	1841.6	1847.1	1852.1	1851.5	1853.7	1854.8	1857.6
10°	1812.3	1812.3	1824.5	1827.8	1830.5	1836.6	1838.3	1841.6	1849.3	1850.4	1857.6
12.5°	1806.8	1801.3	1815.6	1817.3	1826.7	1818.9	1828.9	1832.2	1824.5	1834.9	1821.1
15°	1781.9	1788.5	1786.3	1791.3	1807.9	1799.0	1826.1	1817.3	1837.2	1813.4	1855.4
17.5°	1761.5	1760.4	1769.2	1773.6	1776.9	1795.7	1802.9	1812.9	1820.6	1814.0	1830.5
20°	1746.6	1737.7	1744.4	1749.3	1760.9	1775.3	1779.7	1764.8	1790.8	1834.9	1845.4
22.5°	1718.4	1712.3	1720.1	1720.1	1737.7	1735.5	1752.1	1742.7	1767.0	1818.4	1872.0
25°	1680.3	1680.8	1689.1	1699.1	1702.4	1727.2	1736.1	1748.2	1778.6	1839.9	1872.5
27.5°	1641.6	1638.3	1643.3	1663.7	1680.8	1699.1	1701.8	1743.3	1784.7	1826.7	1855.4
30°	1603.0	1599.6	1603.0	1617.9	1638.3	1650.5	1680.8	1736.1	1774.7	1803.5	1830.5
32.5°	1561.5	1558.2	1565.9	1577.0	1612.9	1614.6	1674.8	1726.7	1757.1	1778.1	1773.1
35°	1517.3	1512.9	1520.1	1537.2	1570.4	1582.5	1645.5	1684.2	1718.4	1728.3	1705.1
37.5°	1464.3	1456.6	1465.4	1489.2	1524.0	1559.3	1611.8	1656.5	1674.8	1648.2	1620.6
40°	1409.1	1403.6	1419.0	1431.2	1472.0	1521.2	1581.4	1612.9	1601.3	1570.9	1540.5
42.5°	1359.9	1348.3	1362.1	1385.3	1431.7	1487.5	1536.1	1553.8	1526.2	1481.4	1446.1
45°	1299.7	1285.9	1302.5	1333.4	1383.1	1446.6	1484.7	1478.7	1431.7	1393.1	1344.4
47.5°	1236.7	1220.2	1236.7	1273.7	1329.5	1396.9	1424.5	1396.9	1337.8	1289.2	1250.0
50°	1174.9	1155.5	1171.6	1227.3	1282.0	1334.0	1333.4	1279.8	1244.5	1191.4	1157.2
52.5°	1113.6	1085.9	1102.0	1162.7	1217.4	1276.5	1232.9	1183.2	1140.6	1094.2	1083.2
55°	1037.9	1008.1	1029.6	1118.0	1160.0	1194.8	1125.2	1081.5	1039.5	1016.3	1002.5
57.5°	966.1	933.5	952.3	1056.7	1087.6	1096.4	1032.4	970.5	945.6	937.9	918.0
60°	892.1	855.1	872.7	993.1	1014.7	978.8	915.8	867.8	862.8	847.3	831.9
62.5°	821.4	780.5	791.5	914.2	924.1	858.9	800.9	788.2	776.1	760.6	752.3
65°	740.2	697.6	713.1	830.2	820.8	736.9	704.3	701.5	685.5	672.8	684.9
67.5°	665.6	615.3	636.9	738.5	696.0	627.5	614.2	607.6	594.9	602.1	474.5
70°	583.8	529.2	558.4	639.6	576.7	531.4	526.4	516.5	517.0	411.0	346.3
72.5°	492.7	445.2	487.7	531.4	456.3	443.0	435.8	434.7	350.7	285.0	269.0
75°	412.6	364.6	410.4	427.0	363.5	354.6	354.1	292.8	230.3	219.8	214.9
77.5°	322.0	285.0	328.7	303.8	278.9	269.0	241.4	181.2	173.4	166.3	62.4
80°	217.1	219.8	245.2	209.3	198.9	169.6	133.7	128.1	110.5	44.2	34.8
82.5°	132.0	165.7	156.3	130.9	128.1	92.2	84.5	43.1	32.0	25.4	22.1
85°	68.5	84.0	80.6	71.3	53.0	47.5	26.5	20.4	16.6	12.7	10.5
87.5°	23.2	30.9	29.8	23.8	18.2	14.4	9.4	7.7	5.5	4.4	3.9
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-LD5-31SL-RM-UNV-L940-CD1-U

CANDELA DISTRIBUTION (continued):

	189°	190°	191°	192°	193°	194°	195°	196°	197°	198°	199°
0°	1840.5	1840.5	1840.5	1840.5	1840.5	1840.5	1840.5	1840.5	1840.5	1840.5	1840.5
2.5°	1854.8	1854.8	1853.7	1854.8	1855.4	1854.3	1854.3	1855.4	1855.9	1856.5	1859.3
5°	1857.6	1858.7	1860.4	1863.7	1864.2	1870.9	1873.6	1875.3	1876.9	1877.5	1873.6
7.5°	1863.7	1867.5	1870.9	1870.3	1866.4	1855.9	1852.6	1849.9	1854.8	1867.5	1882.4
10°	1869.2	1851.5	1818.4	1863.7	1849.9	1862.6	1900.1	1908.4	1933.8	1969.7	1980.2
12.5°	1831.1	1879.7	1890.2	1839.4	1933.3	1898.5	1939.9	1976.4	1986.8	2023.3	2001.2
15°	1872.0	1895.7	1911.7	1962.5	1957.0	1986.8	1998.4	1991.3	1992.9	2002.3	2027.2
17.5°	1871.4	1918.9	1929.4	1963.6	1986.8	1987.4	1984.1	1980.8	1989.6	1996.8	1981.9
20°	1903.4	1918.9	1939.3	1953.2	1957.6	1963.1	1973.6	1965.3	1948.7	1932.7	1926.1
22.5°	1887.4	1922.2	1939.9	1942.1	1939.3	1922.2	1906.8	1883.6	1875.8	1867.5	1870.3
25°	1890.7	1906.8	1904.5	1895.7	1884.1	1852.1	1844.3	1834.4	1819.5	1783.6	1751.0
27.5°	1867.0	1858.7	1848.8	1827.2	1806.2	1789.1	1769.8	1737.7	1711.2	1672.6	1658.2
30°	1827.2	1794.1	1769.8	1757.1	1736.6	1707.9	1678.6	1639.4	1605.7	1598.0	1590.8
32.5°	1751.0	1718.4	1698.5	1667.6	1632.8	1598.5	1564.8	1549.4	1542.2	1543.3	1536.7
35°	1673.1	1644.4	1614.6	1568.2	1542.2	1507.9	1495.8	1492.5	1485.9	1478.7	1470.9
37.5°	1590.3	1556.6	1511.8	1484.2	1458.2	1444.4	1438.4	1433.4	1421.8	1409.1	1400.2
40°	1510.2	1449.4	1424.5	1397.5	1389.7	1383.7	1374.8	1362.7	1346.7	1344.4	1340.6
42.5°	1403.0	1359.4	1337.8	1332.3	1322.9	1312.4	1304.7	1291.4	1284.8	1289.2	1292.5
45°	1301.4	1279.3	1272.1	1265.5	1247.8	1232.9	1227.9	1223.5	1229.0	1253.3	1195.3
47.5°	1219.1	1210.2	1201.4	1190.3	1173.8	1162.7	1167.7	1172.1	1177.1	998.7	911.4
50°	1147.8	1135.7	1121.8	1109.7	1099.8	1098.6	1124.6	1046.7	876.6	872.2	783.8
52.5°	1069.9	1051.7	1043.4	1036.2	1040.6	1057.2	874.9	812.0	778.8	676.6	631.3
55°	986.0	969.9	969.9	976.6	952.8	772.2	762.8	659.5	597.1	579.4	572.2
57.5°	902.0	900.4	909.7	831.9	700.9	672.2	565.1	542.4	532.5	530.3	518.7
60°	825.2	840.7	703.7	647.4	562.9	507.6	492.2	489.4	478.9	475.0	464.5
62.5°	763.9	633.6	589.9	481.7	453.5	446.3	438.0	434.2	424.8	375.1	109.9
65°	551.8	521.4	423.1	404.9	402.7	392.2	388.9	349.6	82.3	55.2	47.0
67.5°	416.5	369.5	356.8	353.5	343.0	322.0	95.6	54.7	47.0	40.9	35.9
70°	319.8	311.5	302.1	294.4	86.7	54.1	47.0	39.8	34.2	30.4	27.6
72.5°	261.8	256.3	149.1	56.9	46.4	39.2	34.8	30.4	26.5	24.3	22.1
75°	204.9	56.9	47.0	39.2	33.7	28.7	25.4	22.6	20.4	18.8	17.1
77.5°	46.4	37.6	32.0	27.1	24.3	21.5	19.3	16.6	14.9	13.3	11.0
80°	28.7	24.9	21.0	19.3	16.6	13.8	12.2	11.0	8.8	8.3	7.2
82.5°	18.8	14.9	13.3	11.0	8.8	8.3	7.2	5.5	5.0	4.4	3.9
85°	8.3	7.2	6.1	5.0	3.9	3.3	2.8	2.2	2.2	2.2	2.2
87.5°	2.8	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.1	1.1
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-LD5-31SL-RM-UNV-L940-CD1-U

CANDELA DISTRIBUTION (continued):

	200°	205°	210°	215°	220°	225°	230°	235°	240°	245°	250°
0°	1840.5	1840.5	1840.5	1840.5	1840.5	1840.5	1840.5	1840.5	1840.5	1840.5	1840.5
2.5°	1860.4	1870.3	1879.7	1876.9	1867.0	1851.5	1847.1	1841.0	1845.4	1854.8	1858.7
5°	1873.6	1868.1	1888.0	1917.2	1964.8	1969.2	2002.3	2010.0	2036.6	2053.1	2052.6
7.5°	1892.4	1970.8	2003.4	2038.8	2054.8	2050.9	2055.9	2052.0	2045.9	2043.2	2039.9
10°	1988.0	2047.6	2059.8	2059.8	2034.9	2001.2	1986.8	1962.0	1912.3	1913.4	1905.1
12.5°	2043.7	2064.7	2036.0	2011.7	1911.7	1873.1	1831.1	1811.2	1799.6	1781.9	1788.5
15°	2014.5	1984.6	1967.5	1889.1	1827.8	1758.2	1759.3	1747.1	1734.4	1735.5	1727.2
17.5°	1971.4	1947.6	1826.1	1772.0	1742.1	1715.1	1710.1	1694.1	1685.8	1683.0	1682.5
20°	1912.3	1826.7	1736.1	1722.8	1686.9	1656.0	1651.0	1656.0	1681.4	1636.1	1482.5
22.5°	1843.2	1720.1	1693.5	1656.0	1631.7	1619.5	1649.9	1511.8	1303.0	1328.4	1301.4
25°	1726.1	1672.6	1627.3	1598.5	1595.8	1521.2	1267.7	1241.2	1106.9	1035.1	954.5
27.5°	1640.5	1617.3	1569.8	1564.8	1528.9	1243.9	1111.9	966.1	912.5	904.2	886.5
30°	1588.6	1555.5	1526.7	1401.3	1220.2	1001.4	892.1	871.6	862.2	852.3	836.8
32.5°	1526.2	1494.7	1508.5	1178.2	972.7	862.2	840.1	825.2	808.1	801.5	745.7
35°	1462.7	1448.3	1178.7	990.4	836.3	809.8	793.2	777.7	618.6	149.7	50.8
37.5°	1394.7	1391.4	1059.4	821.9	783.2	758.4	711.4	146.9	34.8	23.8	17.7
40°	1341.7	1060.0	837.4	770.5	739.1	699.8	98.3	24.3	15.5	9.4	6.1
42.5°	1306.3	953.4	749.6	723.0	654.5	72.4	24.9	10.5	6.1	5.0	3.9
45°	1007.0	752.9	700.4	672.8	82.9	24.9	14.4	5.0	3.9	3.3	2.2
47.5°	929.1	683.8	652.9	146.9	27.6	13.3	9.9	3.3	2.2	2.2	2.2
50°	703.7	631.9	519.8	35.9	17.7	9.4	7.2	2.2	2.2	2.2	1.7
52.5°	617.0	583.3	55.8	23.8	13.8	7.2	4.4	1.7	1.7	1.7	1.7
55°	564.0	370.1	33.1	18.2	11.6	6.6	2.8	1.7	1.7	1.7	1.1
57.5°	515.9	49.7	24.3	15.5	10.5	6.1	1.7	1.7	1.7	1.7	1.1
60°	437.5	35.9	19.9	13.8	9.9	5.5	1.7	1.7	1.7	1.7	1.7
62.5°	56.9	28.2	17.1	12.2	7.2	4.4	1.1	1.7	1.7	1.7	1.7
65°	41.4	22.1	15.5	8.3	4.4	1.7	1.1	1.7	1.7	1.7	1.7
67.5°	32.0	18.2	11.6	7.2	3.9	1.1	1.1	1.7	1.7	1.7	1.7
70°	25.4	15.5	9.4	6.1	3.3	1.1	1.1	1.7	1.7	1.7	1.7
72.5°	19.9	11.0	6.6	3.3	2.2	1.1	1.1	1.7	1.7	1.7	1.7
75°	14.9	8.8	5.0	2.8	1.1	1.1	1.1	1.7	1.7	1.7	1.7
77.5°	9.9	5.5	3.9	2.2	2.2	2.2	2.8	2.8	1.7	1.7	1.7
80°	6.6	3.9	2.8	2.8	2.8	2.2	2.8	2.8	1.7	2.8	1.7
82.5°	3.3	2.8	2.8	2.2	2.2	1.7	2.2	2.2	2.2	2.2	1.7
85°	2.2	1.7	1.7	1.7	1.7	1.7	1.7	1.7	2.2	2.2	1.7
87.5°	1.1	1.1	1.1	1.1	1.7	1.7	1.7	1.7	2.2	2.2	1.7
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-LD5-31SL-RM-UNV-L940-CD1-U

CANDELA DISTRIBUTION (continued):

	255°	260°	265°	270°	275°	280°	285°	290°	295°	300°	305°
0°	1840.5	1840.5	1840.5	1840.5	1840.5	1840.5	1840.5	1840.5	1840.5	1840.5	1840.5
2.5°	1853.7	1855.4	1851.0	1874.7	1862.6	1863.7	1868.6	1855.9	1858.7	1849.9	1843.8
5°	2054.8	2058.1	2061.4	2062.5	2064.7	2067.5	2064.2	2062.5	2059.2	2048.2	2036.6
7.5°	2023.3	2019.4	2017.8	2020.0	2023.9	2025.5	2022.7	2026.6	2041.0	2047.1	2050.9
10°	1857.6	1839.9	1852.1	1850.4	1836.6	1883.0	1870.3	1877.5	1882.4	1933.3	1964.2
12.5°	1778.6	1789.7	1768.7	1758.2	1772.0	1781.4	1790.8	1770.9	1798.5	1785.8	1826.7
15°	1712.3	1705.7	1703.5	1704.0	1701.3	1714.5	1717.8	1722.3	1726.1	1743.3	1749.9
17.5°	1682.5	1693.5	1698.0	1701.3	1695.8	1689.7	1683.6	1674.8	1677.5	1673.1	1685.8
20°	1379.2	1342.2	1340.0	1361.6	1337.8	1351.1	1383.1	1597.4	1590.3	1673.7	1645.5
22.5°	1151.1	1116.3	1086.5	1060.5	1097.5	1113.0	1172.7	1240.1	1349.4	1332.3	1451.1
25°	940.1	927.4	919.7	915.8	918.6	917.5	930.7	962.2	1011.9	1129.0	1280.4
27.5°	879.4	873.3	870.5	861.7	868.3	866.1	876.6	883.2	898.1	909.7	958.9
30°	831.3	824.1	819.2	809.8	816.4	816.9	820.3	837.4	843.5	853.4	868.9
32.5°	303.8	179.0	167.9	159.6	174.5	227.6	399.4	698.2	796.5	804.2	821.9
35°	29.8	24.9	22.1	22.1	22.6	24.9	33.1	87.3	159.6	617.0	772.2
37.5°	11.6	9.9	8.3	7.7	8.3	9.4	12.7	16.6	22.6	47.0	209.3
40°	5.0	4.4	3.9	3.9	3.9	3.9	4.4	5.5	8.3	15.5	24.3
42.5°	3.3	2.8	2.8	2.8	2.8	2.8	2.8	2.8	3.9	5.0	9.9
45°	2.2	1.7	1.7	1.7	1.7	1.7	1.7	1.7	2.2	2.8	4.4
47.5°	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	2.2
50°	1.7	1.7	1.7	1.7	1.1	1.7	1.1	1.7	1.7	1.7	1.7
52.5°	1.7	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.7	1.7
55°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.7
57.5°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
60°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
62.5°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.7	1.7	1.1
65°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.7	1.1
67.5°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
70°	1.7	1.7	1.1	1.7	1.1	1.1	1.7	1.7	1.7	1.1	1.1
72.5°	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	3.3	3.3	2.2
75°	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	2.8	3.3	2.8
77.5°	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	2.8	2.8	2.8
80°	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	2.2	2.2	2.2
82.5°	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	2.2	2.2	2.2
85°	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
87.5°	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
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-LD5-31SL-RM-UNV-L940-CD1-U

CANDELA DISTRIBUTION (continued):

	310°	315°	320°	325°	330°	335°	340°	341°	342°	343°	344°
0°	1840.5	1840.5	1840.5	1840.5	1840.5	1840.5	1840.5	1840.5	1840.5	1840.5	1840.5
2.5°	1833.3	1832.7	1844.3	1853.2	1849.9	1853.2	1857.0	1857.6	1858.7	1854.3	1852.6
5°	2014.5	1997.3	1964.2	1940.4	1912.8	1862.6	1837.7	1840.5	1841.0	1839.4	1841.6
7.5°	2049.3	2047.6	2036.0	2031.0	2012.3	1976.4	1918.9	1909.0	1884.7	1869.2	1856.5
10°	1962.0	2001.8	2012.3	2029.9	2041.0	2034.3	1985.7	1978.6	1963.1	1945.4	1949.3
12.5°	1867.5	1900.1	1901.8	1997.9	2019.4	2021.6	2002.9	2012.8	2015.0	1975.2	1952.0
15°	1751.5	1767.0	1799.6	1889.1	1954.3	1995.1	2007.3	2012.8	1985.7	1984.1	1974.7
17.5°	1700.7	1710.7	1725.6	1775.8	1874.7	1934.9	1986.3	1982.4	1992.9	1985.2	1961.4
20°	1636.6	1644.9	1671.4	1696.9	1745.5	1825.6	1921.7	1928.8	1942.7	1941.0	1947.6
22.5°	1635.5	1606.3	1610.7	1630.6	1681.4	1753.2	1855.4	1879.1	1888.0	1894.0	1901.2
25°	1297.5	1530.0	1572.6	1585.3	1618.4	1660.4	1780.8	1789.7	1806.2	1833.3	1853.2
27.5°	1124.1	1282.0	1452.2	1540.5	1561.5	1596.3	1668.1	1681.4	1737.7	1744.4	1775.3
30°	887.1	1009.2	1263.3	1475.9	1510.7	1535.0	1585.8	1612.3	1636.6	1663.2	1695.8
32.5°	834.6	854.0	994.8	1221.3	1491.9	1473.7	1511.3	1527.3	1553.8	1577.0	1600.7
35°	786.6	799.8	829.6	1000.3	1215.2	1423.4	1448.8	1459.3	1474.3	1491.9	1509.1
37.5°	736.3	756.2	776.6	822.5	1124.1	1383.7	1383.1	1395.3	1404.1	1419.0	1433.4
40°	133.7	694.3	727.5	757.3	871.6	1103.6	1321.2	1326.8	1332.8	1342.2	1357.2
42.5°	21.5	116.0	681.6	710.3	742.9	988.2	1293.1	1270.4	1266.6	1273.2	1286.5
45°	11.0	28.2	137.0	663.4	692.7	788.2	1057.2	1231.2	1227.3	1214.6	1217.4
47.5°	8.3	17.7	33.7	229.2	648.5	676.6	975.5	965.0	1038.4	1179.3	1157.8
50°	7.2	12.2	19.9	47.0	572.8	623.1	751.2	877.7	916.4	921.3	1090.4
52.5°	6.6	8.3	14.4	30.4	120.4	576.1	610.9	655.1	720.3	860.0	856.7
55°	6.1	7.7	12.2	20.4	42.0	519.2	555.1	563.4	577.2	644.1	732.4
57.5°	3.3	7.2	11.6	17.7	31.5	95.0	503.8	510.4	521.4	524.2	555.7
60°	1.7	6.6	10.5	15.5	23.2	44.2	452.9	460.7	467.3	468.4	478.3
62.5°	1.1	6.1	8.8	14.4	19.3	31.5	107.2	218.7	415.9	415.9	427.5
65°	1.1	4.4	5.5	9.4	17.7	26.0	45.3	52.5	102.2	251.3	375.1
67.5°	1.1	1.7	5.0	7.7	13.3	19.9	33.1	38.7	46.4	53.0	98.3
70°	1.1	1.1	4.4	5.0	8.3	14.9	23.8	27.1	31.5	35.9	41.4
72.5°	1.1	1.1	3.9	3.9	5.5	9.9	18.2	19.9	22.6	25.4	29.3
75°	2.8	2.2	3.3	3.3	3.9	7.7	13.8	15.5	16.6	18.8	21.5
77.5°	2.8	2.8	2.8	2.8	2.8	5.0	8.8	9.9	11.6	12.7	14.9
80°	2.2	2.2	2.2	2.8	2.8	3.3	5.5	6.1	6.6	8.3	8.8
82.5°	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	3.3	3.9	5.0
85°	1.7	1.7	1.7	1.7	1.7	1.7	1.7	2.2	2.2	2.2	2.2
87.5°	1.7	1.7	1.7	1.1	1.1	1.7	1.7	1.7	1.7	1.7	1.7
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-LD5-31SL-RM-UNV-L940-CD1-U

CANDELA DISTRIBUTION (continued):

	345°	346°	347°	348°	349°	350°	351°	352°	353°	354°	355°
0°	1840.5	1840.5	1840.5	1840.5	1840.5	1840.5	1840.5	1840.5	1840.5	1840.5	1840.5
2.5°	1852.1	1848.8	1846.0	1847.7	1842.7	1840.5	1842.1	1842.7	1843.8	1846.5	1847.1
5°	1847.1	1846.0	1851.0	1853.7	1852.6	1853.7	1853.7	1851.5	1848.2	1850.4	1845.4
7.5°	1843.8	1836.6	1831.1	1832.2	1826.7	1833.3	1839.4	1848.2	1851.0	1851.0	1845.4
10°	1900.7	1892.9	1862.0	1841.0	1827.2	1815.1	1843.8	1814.5	1828.3	1775.8	1836.1
12.5°	1947.6	1958.1	1944.3	1886.9	1876.9	1840.5	1861.5	1825.6	1815.1	1754.9	1774.2
15°	1966.4	1946.5	1942.1	1926.1	1904.5	1894.0	1837.7	1831.6	1814.5	1821.1	1795.7
17.5°	1949.8	1959.8	1946.5	1936.0	1913.9	1889.1	1855.4	1825.6	1801.8	1748.8	1793.5
20°	1933.8	1947.1	1907.3	1913.9	1916.1	1887.4	1869.7	1844.9	1815.1	1765.3	1726.7
22.5°	1907.3	1897.9	1901.2	1891.3	1883.0	1886.9	1862.6	1845.4	1795.2	1772.5	1720.1
25°	1864.2	1860.9	1869.7	1868.6	1848.8	1842.1	1830.0	1811.7	1791.9	1755.4	1712.3
27.5°	1794.1	1811.2	1826.7	1833.8	1823.3	1805.7	1799.0	1788.5	1774.7	1737.7	1705.7
30°	1720.1	1739.4	1757.1	1772.5	1781.9	1774.2	1768.1	1762.0	1741.0	1716.7	1680.8
32.5°	1635.5	1661.0	1685.3	1704.0	1724.5	1730.6	1726.1	1721.2	1703.5	1681.4	1652.7
35°	1537.8	1572.6	1607.9	1641.6	1650.5	1664.8	1679.2	1670.9	1661.5	1639.4	1612.9
37.5°	1454.9	1479.8	1505.2	1547.7	1578.7	1596.9	1622.3	1625.6	1609.6	1599.1	1564.3
40°	1369.3	1392.0	1429.0	1453.8	1496.3	1517.3	1544.4	1556.6	1552.7	1546.6	1516.2
42.5°	1301.9	1313.0	1337.3	1359.4	1401.3	1444.4	1468.2	1481.4	1495.2	1490.3	1474.8
45°	1230.1	1240.1	1248.3	1267.7	1308.5	1346.7	1375.9	1395.8	1420.7	1432.3	1413.5
47.5°	1158.9	1161.6	1171.6	1187.6	1211.9	1241.2	1290.3	1320.1	1343.3	1366.0	1353.8
50°	1104.2	1094.2	1095.9	1105.8	1125.7	1154.4	1189.8	1231.8	1258.3	1285.9	1288.7
52.5°	965.0	1045.6	1026.3	1031.8	1042.3	1056.1	1093.1	1134.6	1167.1	1190.9	1214.6
55°	809.8	825.8	981.0	958.9	965.5	977.7	994.8	1036.2	1067.7	1100.9	1134.0
57.5°	628.0	747.3	753.4	897.0	893.7	894.8	909.2	932.9	964.4	1005.9	1034.0
60°	488.3	538.6	636.3	686.0	812.0	816.4	824.7	838.5	865.6	904.8	949.5
62.5°	430.8	437.5	472.3	546.8	628.6	727.5	745.1	747.3	759.5	798.7	850.6
65°	378.4	382.8	393.3	401.0	469.5	565.1	650.1	663.9	671.7	694.9	739.1
67.5°	260.7	329.8	339.2	344.7	351.3	395.5	501.0	571.1	580.0	600.4	639.1
70°	50.3	104.4	285.6	291.6	295.0	304.9	322.0	433.6	492.2	511.5	529.2
72.5°	34.2	40.3	48.6	114.9	243.0	248.6	252.4	266.8	365.7	422.0	431.4
75°	24.9	27.6	32.6	40.3	49.7	161.8	200.5	207.7	214.9	296.6	344.1
77.5°	17.7	19.9	22.1	26.0	30.4	39.2	56.3	155.2	162.4	166.3	234.8
80°	9.9	12.2	14.9	17.1	19.3	22.1	28.7	35.9	80.1	117.1	123.2
82.5°	5.5	6.6	7.7	9.4	10.5	13.3	16.0	19.3	25.4	37.6	79.5
85°	2.8	2.8	2.8	3.9	4.4	6.1	7.2	8.3	11.6	16.0	22.1
87.5°	1.7	1.7	2.2	2.2	2.2	2.8	2.8	2.8	3.3	5.0	7.2
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: P#

CATALOG NUMBER: 4SNLED-LD5-31SL-RM-UNV-L940-CD1-U

CANDELA DISTRIBUTION (continued):

	356°	357°	358°	359°	360°
0°	1840.5	1840.5	1840.5	1840.5	1840.5
2.5°	1847.7	1846.0	1846.0	1852.6	1851.0
5°	1844.3	1842.7	1842.1	1849.3	1846.0
7.5°	1841.6	1835.5	1833.8	1840.5	1837.7
10°	1830.5	1826.1	1828.9	1826.7	1825.6
12.5°	1811.7	1809.0	1797.4	1798.5	1807.9
15°	1778.1	1789.1	1769.2	1786.9	1790.8
17.5°	1716.2	1741.0	1760.4	1770.9	1772.5
20°	1743.8	1752.1	1742.1	1742.7	1749.3
22.5°	1707.9	1711.8	1714.5	1711.2	1725.6
25°	1650.5	1635.5	1667.6	1674.2	1697.4
27.5°	1632.8	1620.6	1635.5	1634.4	1653.8
30°	1618.4	1579.2	1585.8	1596.3	1620.1
32.5°	1598.0	1536.1	1529.5	1552.7	1579.2
35°	1562.1	1503.5	1488.1	1503.0	1542.7
37.5°	1531.7	1458.2	1427.3	1447.2	1499.1
40°	1486.4	1422.9	1374.8	1392.5	1453.8
42.5°	1432.3	1392.5	1318.5	1330.6	1400.8
45°	1377.6	1342.2	1263.8	1269.9	1353.3
47.5°	1321.8	1289.2	1206.9	1208.0	1292.5
50°	1267.1	1224.0	1156.1	1136.8	1227.9
52.5°	1195.9	1156.1	1104.7	1073.2	1166.6
55°	1128.5	1083.7	1046.2	997.6	1097.0
57.5°	1062.7	1013.0	987.6	925.2	1018.0
60°	972.7	949.0	911.4	851.7	946.7
62.5°	880.5	872.7	834.6	772.8	858.9
65°	772.8	791.0	751.8	698.7	767.8
67.5°	671.1	703.7	660.6	628.0	680.0
70°	562.9	600.4	576.1	564.5	586.6
72.5°	456.3	492.7	494.9	486.6	493.8
75°	352.4	392.7	414.8	402.1	403.8
77.5°	267.3	286.7	311.0	320.9	318.7
80°	165.2	198.9	218.7	239.2	232.0
82.5°	83.4	111.6	135.9	158.0	147.5
85°	34.8	44.7	62.4	82.3	79.0
87.5°	10.5	17.7	18.8	26.5	24.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)