

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-LD5-45HL-RW-UNV-L930-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-LD5-45HL-RW-UNV-L930-CD1-U  
Description: 4FT LINEAR SNLED LED FIXTURE  
WHITE REFLECTOR  
Light Source: -  
Ballast/Driver: -

**Summary**

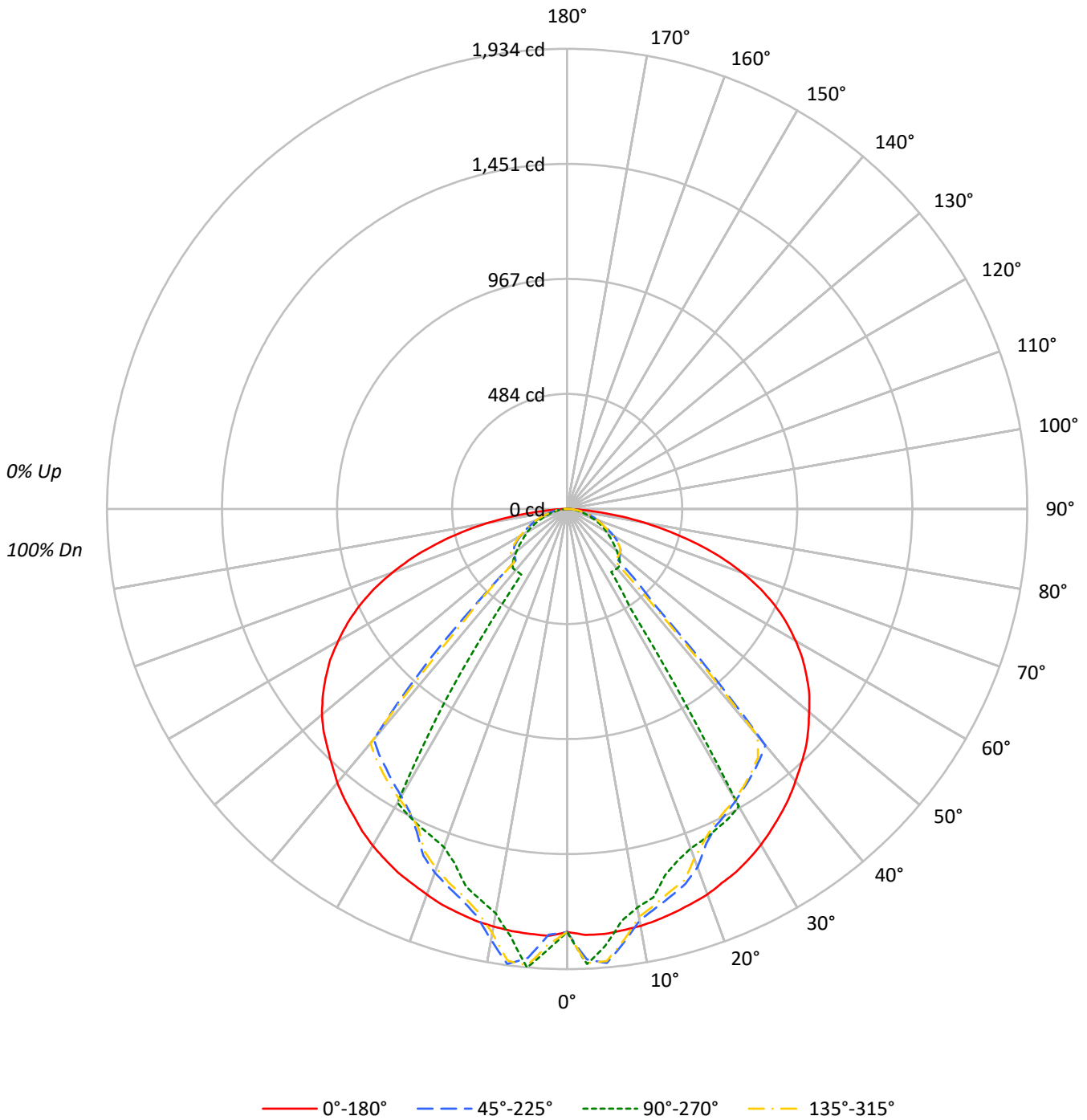
Lumens per Lamp: N/A  
Luminaire Lumens: 3560.0 lumens  
Efficiency: N/A  
Efficacy: 96.2 lumens/watt  
Spacing Criteria (0/90/45): 1.36 / 1.16 / 1.2  
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.12')  
CIE Type: Direct

Input Watts (W): 37  
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-LD5-45HL-RW-UNV-L930-CD1-U

### Luminous Intensity Polar Plot





TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-45HL-RW-UNV-L930-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°	14366	14366	14366	14366
5°	14507	14475	14500	15191
10°	14521	13087	14541	13287
15°	14553	12108	14587	12492
20°	14659	11484	14659	11441
25°	14786	11265	14807	11159
30°	14936	11066	14973	10935
35°	15109	2520	15141	2629
40°	15351	2621	15444	2706
45°	15720	2607	15774	2701
50°	16086	2357	16303	2420
55°	16581	2092	16713	2122
60°	17002	1859	17039	1883
65°	17302	1623	17257	1596
70°	17055	1307	17000	1261
75°	15832	1007	15946	964
80°	12851	715	13365	654
85°	6955	428	7344	328



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-45HL-RW-UNV-L930-CD1-U

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	174.9	4.9
10°-20°	480.9	13.5
20°-30°	712.3	20.0
30°-40°	717.7	20.2
40°-50°	560.7	15.7
50°-60°	433.1	12.2
60°-70°	290.8	8.2
70°-80°	148.3	4.2
80°-90°	41.3	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°	1368.2	38.4
0°-40°	2085.9	58.6
0°-60°	3079.6	86.5
0°-90°	3560.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3560.0	100.0

**CANDELA DISTRIBUTION:**

	0°	90°	180°	270°	360°	Flux
0°	1778	1778	1778	1778	1778	
5°	1793	1843	1792	1934	1793	171
15°	1754	1593	1758	1643	1754	496
25°	1682	1484	1685	1471	1682	776
35°	1565	323	1568	336	1565	981
45°	1418	314	1423	325	1418	1094
55°	1229	228	1239	231	1229	1098
65°	966	153	963	151	966	950
75°	566	77	570	74	566	592
85°	102	24	108	19	102	140
90°	0	0	0	0	0	



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-45HL-RW-UNV-L930-CD1-U

**CANDELA DISTRIBUTION (FULL):**

	0°	2.5°	5°	7.5°	10°	12.5°	15°	17.5°	20°	22.5°	25°
0°	1777.8	1777.8	1777.8	1777.8	1777.8	1777.8	1777.8	1777.8	1777.8	1777.8	1777.8
2.5°	1791.6	1798.1	1803.0	1806.3	1807.9	1807.9	1808.7	1809.5	1820.1	1825.0	1828.3
5°	1793.3	1799.8	1809.5	1822.6	1834.0	1843.8	1851.9	1863.3	1874.7	1886.9	1891.0
7.5°	1785.9	1794.1	1813.6	1837.2	1859.2	1874.7	1885.3	1892.7	1898.4	1899.2	1903.2
10°	1779.4	1794.1	1821.0	1851.9	1879.6	1898.4	1898.4	1894.3	1900.0	1878.0	1856.0
12.5°	1768.0	1784.3	1821.0	1861.7	1887.8	1895.1	1891.8	1875.5	1842.1	1815.3	1803.0
15°	1754.1	1776.1	1821.8	1867.4	1889.4	1891.8	1860.9	1819.3	1794.1	1777.8	1757.4
17.5°	1738.7	1768.0	1822.6	1868.2	1876.4	1865.0	1806.3	1780.2	1754.1	1715.9	1688.2
20°	1724.0	1752.5	1816.1	1856.8	1861.7	1810.4	1764.7	1737.0	1693.0	1659.6	1647.4
22.5°	1701.2	1734.6	1810.4	1841.3	1822.6	1763.1	1719.1	1675.1	1635.2	1625.4	1610.7
25°	1682.4	1717.5	1797.3	1822.6	1772.9	1719.9	1668.6	1617.3	1598.5	1584.7	1571.6
27.5°	1657.2	1700.4	1780.2	1788.4	1719.9	1673.5	1598.5	1575.7	1558.6	1543.1	1537.4
30°	1629.5	1682.4	1756.6	1741.1	1675.9	1607.5	1552.1	1530.9	1518.7	1502.4	1495.9
32.5°	1597.7	1655.6	1730.5	1686.5	1628.7	1543.1	1507.3	1491.0	1474.7	1462.5	1421.7
35°	1565.1	1631.9	1699.6	1634.4	1571.6	1494.2	1462.5	1447.8	1432.3	1387.5	1345.1
37.5°	1531.7	1605.9	1662.1	1578.2	1495.9	1443.7	1416.8	1400.5	1365.5	1308.5	1287.3
40°	1493.4	1574.1	1614.0	1520.3	1429.9	1392.4	1367.1	1350.8	1271.8	1246.6	1240.0
42.5°	1455.1	1543.1	1555.3	1464.1	1375.3	1337.8	1316.6	1262.9	1209.1	1196.0	1198.5
45°	1418.5	1509.7	1491.0	1384.3	1318.3	1287.3	1251.4	1177.3	1148.8	1155.3	1156.9
47.5°	1374.5	1469.8	1423.4	1304.4	1259.6	1228.6	1148.8	1104.0	1099.9	1108.9	1113.8
50°	1327.2	1425.0	1351.7	1231.9	1196.0	1159.4	1068.9	1046.1	1051.0	1060.0	1065.7
52.5°	1283.2	1374.5	1277.5	1164.3	1133.3	1049.4	988.3	992.4	1000.5	1011.1	1014.4
55°	1229.4	1313.4	1198.5	1095.8	1066.5	956.5	928.8	938.6	946.7	955.7	962.2
57.5°	1173.2	1243.3	1104.8	1019.2	972.0	874.2	876.7	883.2	888.9	899.5	371.5
60°	1108.9	1163.5	1002.1	948.4	854.7	809.0	811.5	822.9	828.6	462.8	255.8
62.5°	1042.1	1070.6	909.3	867.7	747.1	743.9	755.3	760.2	517.4	244.4	239.5
65°	965.5	959.8	818.0	752.0	673.8	677.1	689.3	664.8	228.9	228.9	227.3
67.5°	880.7	846.5	729.2	622.5	602.9	610.2	623.3	217.5	211.8	213.5	207.8
70°	783.8	735.7	637.1	527.1	533.7	541.0	210.2	197.2	194.7	190.7	179.2
72.5°	681.1	615.1	521.4	457.9	462.0	290.0	184.1	177.6	169.5	161.3	149.1
75°	566.2	480.7	382.9	382.9	388.6	165.4	160.5	149.9	141.0	130.4	123.0
77.5°	444.0	369.9	297.4	308.8	150.7	138.5	129.5	118.1	110.8	104.3	100.2
80°	325.1	258.3	224.1	200.4	117.3	105.1	96.1	89.6	86.4	82.3	77.4
82.5°	213.5	155.6	155.6	94.5	82.3	72.5	70.1	65.2	61.9	59.5	57.0
85°	101.8	90.4	68.4	57.8	51.3	46.4	44.8	42.4	42.4	41.6	40.7
87.5°	37.5	40.7	30.1	29.3	27.7	26.9	27.7	27.7	28.5	27.7	26.9
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-LD5-45HL-RW-UNV-L930-CD1-U

**CANDELA DISTRIBUTION (continued):**

	27.5°	30°	32.5°	35°	37.5°	40°	42.5°	45°	47.5°	50°	52.5°
0°	1777.8	1777.8	1777.8	1777.8	1777.8	1777.8	1777.8	1777.8	1777.8	1777.8	1777.8
2.5°	1836.4	1843.0	1847.8	1856.0	1866.6	1875.5	1883.7	1895.1	1913.0	1917.9	1922.0
5°	1891.0	1893.5	1899.2	1905.7	1907.3	1911.4	1910.6	1915.5	1917.9	1923.6	1911.4
7.5°	1894.3	1881.2	1865.8	1851.9	1842.1	1833.2	1827.5	1836.4	1841.3	1845.4	1833.2
10°	1825.8	1810.4	1801.4	1793.3	1783.5	1769.6	1750.9	1755.0	1753.3	1753.3	1749.3
12.5°	1782.7	1760.7	1737.8	1717.5	1708.5	1707.7	1708.5	1717.5	1717.5	1716.7	1711.8
15°	1715.0	1693.9	1682.4	1677.6	1677.6	1675.1	1675.1	1684.9	1682.4	1682.4	1680.0
17.5°	1670.2	1655.6	1647.4	1641.7	1639.3	1643.3	1648.2	1652.3	1653.1	1649.9	1636.8
20°	1633.6	1619.7	1609.9	1611.6	1610.7	1613.2	1615.6	1601.8	1584.7	1561.9	1551.3
22.5°	1595.3	1584.7	1577.3	1577.3	1567.6	1552.1	1529.3	1524.4	1521.9	1511.4	1502.4
25°	1558.6	1546.4	1535.8	1503.2	1482.8	1485.3	1481.2	1473.1	1472.2	1471.4	1474.7
27.5°	1521.9	1490.2	1449.4	1444.5	1436.4	1435.6	1440.5	1444.5	1444.5	1447.8	1451.9
30°	1446.2	1409.5	1402.2	1393.2	1396.5	1407.9	1410.3	1416.0	1417.7	1423.4	1426.6
32.5°	1376.9	1360.6	1354.1	1358.2	1368.8	1378.5	1384.3	1386.7	1390.8	1395.7	1399.7
35°	1320.7	1315.8	1321.5	1330.5	1341.1	1349.2	1354.1	1359.0	1363.1	1367.1	1370.4
37.5°	1279.1	1282.4	1290.6	1302.0	1312.6	1319.1	1323.1	1328.8	1334.6	1339.4	1319.9
40°	1240.0	1248.2	1257.2	1269.4	1278.3	1284.9	1288.9	1296.3	1247.4	564.6	309.6
42.5°	1205.8	1214.8	1221.3	1231.1	1240.9	1245.7	1209.9	540.2	305.5	303.9	308.0
45°	1164.3	1171.6	1182.2	1189.5	1198.5	787.0	300.6	303.9	299.0	302.3	303.9
47.5°	1121.9	1133.3	1139.0	1086.9	323.5	299.0	295.8	299.0	295.8	299.8	297.4
50°	1073.8	1087.7	774.0	292.5	290.0	288.4	291.7	290.0	292.5	295.8	289.2
52.5°	1024.9	634.7	283.5	281.9	283.5	281.9	287.6	283.5	284.3	281.1	272.9
55°	347.1	274.6	272.1	271.3	276.2	276.2	276.2	269.7	265.6	257.5	251.8
57.5°	265.6	265.6	264.8	265.6	264.0	262.3	255.0	249.3	243.6	232.2	228.9
60°	251.8	251.8	251.8	251.8	244.4	241.2	229.8	224.9	215.1	209.4	206.1
62.5°	240.3	238.7	231.4	228.9	220.8	211.8	205.3	200.4	190.7	187.4	184.9
65°	224.1	218.4	209.4	199.6	195.5	185.8	182.5	175.2	170.3	167.8	166.2
67.5°	197.2	189.0	181.7	175.2	167.8	164.6	160.5	154.8	151.5	149.9	148.3
70°	168.7	162.9	155.6	151.5	146.7	144.2	138.5	136.9	134.4	132.0	129.5
72.5°	141.0	137.7	134.4	128.7	127.1	125.5	119.8	116.5	113.2	110.0	108.4
75°	118.1	115.7	114.1	109.2	106.7	101.8	97.8	95.3	92.9	90.4	88.8
77.5°	97.0	95.3	90.4	87.2	85.5	81.5	79.8	80.7	79.0	75.8	74.1
80°	75.8	74.1	70.1	70.1	68.4	66.8	65.2	63.6	61.9	59.5	57.8
82.5°	57.8	56.2	54.6	53.0	51.3	50.5	49.7	48.1	46.4	44.8	44.0
85°	40.7	39.9	39.1	38.3	37.5	36.7	35.8	34.2	32.6	31.8	31.0
87.5°	27.7	26.9	26.1	25.3	24.4	23.6	22.8	22.0	20.4	19.6	18.7
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-LD5-45HL-RW-UNV-L930-CD1-U

**CANDELA DISTRIBUTION (continued):**

	55°	57.5°	60°	62.5°	65°	67.5°	70°	72.5°	75°	77.5°	80°
0°	1777.8	1777.8	1777.8	1777.8	1777.8	1777.8	1777.8	1777.8	1777.8	1777.8	1777.8
2.5°	1922.0	1926.1	1922.0	1913.0	1907.3	1904.9	1909.8	1909.8	1913.0	1917.1	1917.9
5°	1891.8	1882.1	1870.7	1859.2	1853.5	1850.3	1841.3	1843.0	1845.4	1847.0	1848.7
7.5°	1816.9	1803.8	1788.4	1773.7	1768.0	1763.1	1752.5	1752.5	1752.5	1753.3	1758.2
10°	1740.3	1734.6	1728.1	1718.3	1711.0	1708.5	1699.6	1702.0	1700.4	1702.8	1708.5
12.5°	1704.4	1697.9	1692.2	1682.4	1674.3	1671.0	1667.0	1669.4	1668.6	1672.7	1677.6
15°	1671.9	1668.6	1662.1	1654.7	1647.4	1640.9	1626.2	1621.3	1618.1	1614.0	1619.7
17.5°	1618.1	1595.3	1579.8	1568.4	1560.2	1554.5	1550.5	1550.5	1552.9	1555.3	1560.2
20°	1544.8	1538.2	1530.9	1518.7	1510.5	1507.3	1504.8	1504.8	1508.9	1512.2	1521.1
22.5°	1494.2	1493.4	1491.0	1485.3	1481.2	1481.2	1482.0	1483.6	1489.4	1494.2	1503.2
25°	1470.6	1473.9	1472.2	1469.0	1466.5	1467.4	1465.7	1467.4	1473.1	1477.9	1485.3
27.5°	1451.9	1456.8	1455.1	1450.2	1446.2	1447.8	1450.2	1448.6	1453.5	1459.2	1464.9
30°	1426.6	1427.4	1430.7	1425.0	1423.4	1425.8	1426.6	1428.2	1433.1	1437.2	1442.1
32.5°	1398.1	1404.6	1403.8	1398.1	1398.1	1400.5	1401.4	1346.8	1244.9	1072.2	1024.9
35°	1370.4	1377.7	1365.5	1151.2	796.8	425.3	328.3	316.9	319.4	321.0	322.6
37.5°	1013.5	480.7	306.3	308.8	311.2	313.7	316.1	318.6	321.0	323.5	324.3
40°	304.7	303.9	306.3	309.6	312.0	313.7	316.9	319.4	321.8	324.3	325.1
42.5°	301.5	303.1	305.5	308.8	312.0	315.3	317.8	321.0	322.6	324.3	325.1
45°	299.8	303.1	306.3	308.8	311.2	312.9	314.5	315.3	314.5	314.5	316.1
47.5°	297.4	300.6	301.5	300.6	301.5	300.6	300.6	300.6	298.2	297.4	297.4
50°	288.4	288.4	286.8	283.5	282.7	281.9	280.3	279.5	276.2	275.4	275.4
52.5°	269.7	268.9	266.4	262.3	260.7	259.1	258.3	257.5	254.2	252.6	253.4
55°	247.7	246.1	243.6	238.7	237.9	236.3	235.5	234.6	231.4	233.0	230.6
57.5°	227.3	224.1	220.8	220.0	216.7	215.9	215.1	214.3	211.8	212.6	211.0
60°	202.9	202.1	200.4	197.2	197.2	196.4	196.4	194.7	193.1	192.3	192.3
62.5°	184.9	182.5	180.9	180.9	178.4	178.4	178.4	176.8	175.2	176.0	175.2
65°	165.4	164.6	163.8	162.1	162.1	161.3	161.3	159.7	157.2	158.1	156.4
67.5°	149.1	147.5	145.8	145.0	141.8	140.1	139.3	138.5	135.2	136.1	134.4
70°	128.7	126.3	124.7	123.0	120.6	119.0	119.0	117.3	114.9	115.7	114.1
72.5°	107.5	105.9	104.3	103.5	101.0	100.2	99.4	98.6	96.1	97.0	96.1
75°	89.6	89.6	88.8	88.0	85.5	83.1	81.5	80.7	79.0	79.8	78.2
77.5°	74.1	72.5	70.9	70.9	68.4	66.8	65.2	65.2	65.2	64.4	63.6
80°	57.8	56.2	56.2	55.4	53.8	52.1	51.3	51.3	50.5	50.5	49.7
82.5°	44.0	42.4	41.6	41.6	39.9	39.1	38.3	37.5	37.5	37.5	36.7
85°	31.0	29.3	28.5	28.5	26.9	26.1	26.1	25.3	25.3	24.4	24.4
87.5°	18.7	17.9	17.1	17.1	15.5	14.7	14.7	14.7	13.9	13.9	13.0
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: P#

CATALOG NUMBER: 4SNLED-LD5-45HL-RW-UNV-L930-CD1-U

**CANDELA DISTRIBUTION (continued):**

	82.5°	85°	87.5°	90°	92.5°	95°	97.5°	100°	102.5°	105°	107.5°
0°	1777.8	1777.8	1777.8	1777.8	1777.8	1777.8	1777.8	1777.8	1777.8	1777.8	1777.8
2.5°	1917.9	1917.9	1912.2	1913.8	1911.4	1914.6	1910.6	1910.6	1915.5	1915.5	1918.7
5°	1849.5	1845.4	1844.6	1843.0	1834.8	1838.1	1834.0	1829.9	1835.6	1835.6	1843.0
7.5°	1755.8	1748.4	1751.7	1746.8	1741.9	1734.6	1737.0	1733.8	1737.8	1743.6	1750.9
10°	1707.7	1701.2	1705.3	1700.4	1702.8	1692.2	1693.0	1693.9	1697.9	1699.6	1706.1
12.5°	1676.7	1675.1	1673.5	1671.9	1673.5	1667.8	1664.5	1665.3	1667.0	1667.8	1672.7
15°	1611.6	1601.0	1604.2	1592.8	1593.6	1594.5	1587.9	1594.5	1593.6	1604.2	1614.0
17.5°	1558.6	1558.6	1552.9	1548.0	1544.8	1543.9	1539.1	1542.3	1539.1	1545.6	1548.0
20°	1521.9	1521.1	1520.3	1517.9	1509.7	1510.5	1513.0	1505.6	1504.8	1504.0	1508.9
22.5°	1504.8	1505.6	1502.4	1502.4	1495.1	1496.7	1497.5	1489.4	1490.2	1487.7	1490.2
25°	1486.9	1488.5	1484.5	1484.5	1482.8	1482.0	1477.9	1479.6	1474.7	1470.6	1474.7
27.5°	1465.7	1469.0	1465.7	1467.4	1464.1	1462.5	1460.0	1458.4	1453.5	1452.7	1455.1
30°	1446.2	1447.8	1447.0	1442.9	1442.1	1437.2	1439.7	1434.8	1429.9	1430.7	1432.3
32.5°	741.4	708.0	545.9	492.9	488.0	506.0	599.7	730.0	945.9	1155.3	1306.0
35°	323.5	323.5	323.5	322.6	322.6	321.8	321.0	320.2	319.4	318.6	317.8
37.5°	325.1	325.1	325.1	325.1	324.3	323.5	323.5	321.8	321.0	320.2	319.4
40°	325.9	326.7	326.7	326.7	325.9	325.9	325.1	323.5	322.6	321.0	319.4
42.5°	325.1	325.9	325.9	325.1	325.1	324.3	324.3	323.5	322.6	321.8	321.0
45°	314.5	315.3	313.7	313.7	312.9	312.9	312.9	312.9	312.9	313.7	313.7
47.5°	295.8	295.8	294.9	294.1	294.1	293.3	294.1	293.3	294.9	295.8	297.4
50°	273.8	273.8	272.1	271.3	271.3	271.3	271.3	272.1	272.9	274.6	276.2
52.5°	250.9	250.9	250.1	249.3	248.5	248.5	250.9	250.1	250.9	251.8	254.2
55°	228.9	229.8	228.1	228.1	227.3	227.3	227.3	228.1	228.9	229.8	232.2
57.5°	210.2	210.2	208.6	208.6	208.6	207.8	210.2	208.6	209.4	210.2	211.8
60°	191.5	190.7	190.7	189.8	189.8	189.8	191.5	190.7	190.7	191.5	193.1
62.5°	174.4	174.4	173.5	173.5	172.7	172.7	174.4	173.5	173.5	174.4	175.2
65°	154.8	154.8	154.0	153.2	155.6	153.2	155.6	154.0	155.6	156.4	158.1
67.5°	132.8	132.8	132.8	132.0	132.0	133.6	134.4	132.8	133.6	135.2	136.1
70°	113.2	113.2	112.4	112.4	112.4	114.1	114.9	113.2	114.1	114.9	116.5
72.5°	96.1	94.5	94.5	93.7	95.3	95.3	96.1	95.3	96.1	96.1	97.8
75°	79.0	77.4	77.4	77.4	79.0	78.2	79.0	78.2	79.0	79.0	79.8
77.5°	63.6	62.7	61.9	61.9	63.6	63.6	63.6	62.7	63.6	64.4	65.2
80°	49.7	48.9	48.1	48.1	49.7	49.7	49.7	50.5	49.7	50.5	51.3
82.5°	36.7	35.8	35.0	36.7	36.7	36.7	36.7	37.5	36.7	37.5	38.3
85°	24.4	23.6	22.8	24.4	24.4	24.4	24.4	25.3	24.4	25.3	26.1
87.5°	13.0	12.2	12.2	13.0	13.0	13.0	13.9	13.9	13.9	14.7	14.7
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-LD5-45HL-RW-UNV-L930-CD1-U

**CANDELA DISTRIBUTION (continued):**

	110°	112.5°	115°	117.5°	120°	122.5°	125°	127.5°	130°	132.5°	135°
0°	1777.8	1777.8	1777.8	1777.8	1777.8	1777.8	1777.8	1777.8	1777.8	1777.8	1777.8
2.5°	1923.6	1926.1	1925.2	1920.4	1915.5	1909.8	1905.7	1906.5	1914.6	1917.1	1909.8
5°	1843.0	1858.4	1858.4	1869.0	1863.3	1858.4	1861.7	1879.6	1888.6	1902.4	1907.3
7.5°	1759.8	1767.2	1766.4	1777.0	1775.3	1775.3	1777.8	1801.4	1812.8	1824.2	1827.5
10°	1713.4	1720.7	1719.9	1720.7	1718.3	1712.6	1712.6	1723.2	1733.0	1738.7	1740.3
12.5°	1680.0	1684.1	1683.3	1683.3	1681.6	1676.7	1675.9	1684.9	1695.5	1702.8	1703.6
15°	1630.3	1641.7	1644.2	1654.7	1652.3	1645.8	1647.4	1654.7	1661.3	1667.8	1665.3
17.5°	1556.2	1561.9	1562.7	1566.8	1565.1	1565.1	1574.9	1601.8	1619.7	1635.2	1636.8
20°	1513.8	1517.9	1516.2	1525.2	1521.1	1520.3	1522.8	1534.2	1542.3	1549.6	1562.7
22.5°	1493.4	1496.7	1494.2	1495.1	1487.7	1481.2	1479.6	1488.5	1497.5	1507.3	1507.3
25°	1476.3	1478.8	1477.9	1476.3	1470.6	1461.7	1460.0	1461.7	1464.9	1465.7	1460.0
27.5°	1455.9	1457.6	1457.6	1458.4	1451.1	1442.9	1441.3	1439.7	1442.9	1442.1	1433.1
30°	1434.8	1432.3	1433.1	1434.0	1427.4	1420.1	1416.8	1416.0	1419.3	1418.5	1409.5
32.5°	1384.3	1403.0	1404.6	1406.2	1400.5	1394.0	1390.8	1388.3	1390.0	1389.1	1381.0
35°	316.9	322.6	395.2	894.6	1214.8	1345.1	1359.0	1355.7	1356.5	1356.5	1350.0
37.5°	317.8	316.9	316.1	313.7	311.2	309.6	535.3	1141.5	1322.3	1323.1	1317.4
40°	317.8	316.9	316.1	314.5	311.2	308.8	304.7	301.5	308.8	679.5	1243.3
42.5°	319.4	317.8	316.1	314.5	311.2	308.0	304.7	300.6	303.1	301.5	297.4
45°	314.5	313.7	313.7	312.9	311.2	308.0	303.9	299.0	296.6	299.0	294.9
47.5°	299.0	299.8	302.3	303.1	303.1	303.9	301.5	298.2	294.1	296.6	291.7
50°	277.8	279.5	280.3	284.3	286.0	289.2	290.0	290.0	289.2	292.5	289.2
52.5°	255.0	256.6	260.7	262.3	264.0	268.9	270.5	272.9	274.6	279.5	282.7
55°	233.0	233.8	235.5	238.7	241.2	245.2	247.7	250.1	254.2	256.6	266.4
57.5°	212.6	213.5	216.7	217.5	219.2	222.4	224.9	228.1	231.4	233.0	244.4
60°	193.1	193.9	196.4	197.2	198.0	201.2	203.7	206.1	208.6	210.2	218.4
62.5°	176.0	176.0	178.4	178.4	179.2	181.7	183.3	184.9	187.4	188.2	192.3
65°	158.9	159.7	161.3	161.3	162.1	163.8	164.6	165.4	167.8	167.8	171.1
67.5°	137.7	138.5	141.0	142.6	143.4	146.7	147.5	148.3	149.9	150.7	152.4
70°	117.3	118.1	120.6	121.4	122.2	124.7	126.3	128.7	131.2	133.6	135.2
72.5°	98.6	99.4	101.8	101.8	104.3	105.1	106.7	107.5	110.0	111.6	114.1
75°	80.7	81.5	83.9	83.9	86.4	87.2	88.0	88.8	90.4	92.1	93.7
77.5°	66.0	66.0	69.3	70.9	72.5	72.5	73.3	73.3	73.3	74.1	75.8
80°	52.1	52.1	54.6	56.2	57.8	57.8	58.7	59.5	60.3	60.3	61.1
82.5°	39.1	39.1	41.6	42.4	44.0	44.0	44.0	44.8	45.6	44.8	46.4
85°	26.9	26.9	28.5	29.3	31.0	31.0	31.0	31.8	32.6	31.8	32.6
87.5°	15.5	16.3	17.1	17.9	18.7	19.6	19.6	19.6	20.4	20.4	21.2
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-LD5-45HL-RW-UNV-L930-CD1-U

**CANDELA DISTRIBUTION (continued):**

	137.5°	140°	142.5°	145°	147.5°	150°	152.5°	155°	157.5°	160°	162.5°
0°	1777.8	1777.8	1777.8	1777.8	1777.8	1777.8	1777.8	1777.8	1777.8	1777.8	1777.8
2.5°	1901.6	1891.8	1891.0	1879.6	1876.4	1877.2	1868.2	1865.0	1850.3	1847.0	1831.5
5°	1908.9	1913.8	1911.4	1910.6	1913.0	1911.4	1904.9	1901.6	1899.2	1892.7	1879.6
7.5°	1828.3	1831.5	1834.0	1844.6	1853.5	1869.0	1885.3	1895.9	1904.1	1905.7	1895.1
10°	1746.0	1761.5	1772.1	1788.4	1801.4	1810.4	1820.1	1829.1	1852.7	1876.4	1890.2
12.5°	1703.6	1707.7	1706.9	1715.9	1724.8	1748.4	1771.3	1784.3	1802.2	1812.8	1838.1
15°	1667.8	1668.6	1671.0	1677.6	1682.4	1690.6	1701.2	1720.7	1756.6	1772.9	1786.7
17.5°	1635.2	1635.2	1636.8	1642.5	1649.0	1656.4	1662.9	1671.0	1689.0	1715.9	1750.1
20°	1583.0	1605.9	1608.3	1607.5	1610.7	1624.6	1626.2	1640.9	1649.9	1660.4	1693.9
22.5°	1505.6	1519.5	1539.1	1569.2	1580.6	1587.1	1592.0	1598.5	1612.4	1624.6	1638.5
25°	1463.3	1472.2	1477.9	1486.9	1510.5	1548.8	1556.2	1563.5	1572.5	1581.4	1598.5
27.5°	1425.8	1425.0	1429.1	1437.2	1443.7	1464.1	1499.9	1528.5	1530.1	1543.1	1557.8
30°	1398.9	1394.0	1388.3	1386.7	1395.7	1406.2	1416.8	1461.7	1492.6	1499.1	1514.6
32.5°	1373.7	1365.5	1357.4	1350.8	1345.1	1354.1	1360.6	1380.2	1420.1	1457.6	1465.7
35°	1342.7	1334.6	1324.8	1317.4	1308.5	1307.7	1306.9	1325.6	1338.6	1383.4	1422.5
37.5°	1310.9	1302.0	1293.8	1285.7	1276.7	1270.2	1266.1	1271.0	1283.2	1302.8	1368.0
40°	1277.5	1266.9	1258.8	1252.3	1240.0	1235.2	1227.0	1223.7	1224.6	1241.7	1275.9
42.5°	763.4	1217.2	1221.3	1214.0	1203.4	1196.9	1187.9	1183.8	1175.7	1183.8	1203.4
45°	294.1	297.4	890.5	1176.5	1163.5	1155.3	1147.2	1143.1	1134.1	1127.6	1145.5
47.5°	288.4	291.7	285.2	404.1	1110.5	1112.9	1103.2	1099.1	1090.1	1085.2	1080.4
50°	284.3	286.8	281.9	283.5	277.8	1017.6	1058.4	1053.5	1043.7	1038.0	1028.2
52.5°	280.3	280.3	277.0	272.9	271.3	272.1	856.3	1007.0	995.6	989.9	976.9
55°	267.2	268.9	272.1	265.6	264.0	263.2	260.7	815.6	942.7	936.1	924.7
57.5°	247.7	250.9	259.9	258.3	258.3	251.8	250.1	250.1	756.9	881.6	870.1
60°	224.9	228.1	237.9	241.2	243.6	242.0	240.3	239.5	236.3	797.6	812.3
62.5°	201.2	204.5	207.8	218.4	221.6	225.7	230.6	228.1	224.9	224.9	751.2
65°	176.0	180.9	182.5	192.3	196.4	203.7	207.8	213.5	211.8	211.0	215.1
67.5°	154.0	159.7	160.5	164.6	171.9	175.2	180.1	190.7	195.5	197.2	198.8
70°	135.2	138.5	141.0	142.6	147.5	148.3	157.2	164.6	171.9	180.1	182.5
72.5°	116.5	119.0	123.8	122.2	123.8	127.1	132.0	136.9	144.2	155.6	162.9
75°	95.3	97.0	100.2	101.8	105.1	107.5	110.8	114.9	121.4	127.1	136.9
77.5°	76.6	77.4	79.8	80.7	83.9	86.4	92.1	94.5	98.6	102.7	108.4
80°	61.9	61.9	62.7	62.7	65.2	67.6	71.7	74.1	79.0	82.3	82.3
82.5°	47.3	47.3	49.7	49.7	51.3	51.3	53.8	53.8	56.2	57.8	59.5
85°	33.4	34.2	35.8	35.0	36.7	35.8	37.5	39.1	39.9	39.1	38.3
87.5°	22.0	22.0	23.6	22.8	23.6	23.6	25.3	25.3	26.1	26.1	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: P#

CATALOG NUMBER: 4SNLED-LD5-45HL-RW-UNV-L930-CD1-U

**CANDELA DISTRIBUTION (continued):**

	165°	167.5°	170°	172.5°	175°	177.5°	180°	182.5°	185°	187.5°	190°
0°	1777.8	1777.8	1777.8	1777.8	1777.8	1777.8	1777.8	1777.8	1777.8	1777.8	1777.8
2.5°	1825.8	1813.6	1806.3	1797.3	1794.9	1792.4	1795.7	1795.7	1790.8	1786.7	1779.4
5°	1868.2	1855.2	1841.3	1826.7	1812.8	1798.1	1792.4	1791.6	1782.7	1777.8	1775.3
7.5°	1890.2	1883.7	1868.2	1847.8	1826.7	1800.6	1789.2	1782.7	1773.7	1772.1	1772.1
10°	1892.7	1885.3	1877.2	1862.5	1838.1	1803.8	1781.8	1768.8	1760.7	1766.4	1777.0
12.5°	1869.0	1882.9	1875.5	1865.8	1846.2	1804.7	1772.9	1753.3	1750.9	1765.6	1793.3
15°	1808.7	1849.5	1869.8	1860.1	1844.6	1803.0	1758.2	1735.4	1735.4	1765.6	1801.4
17.5°	1763.1	1794.9	1844.6	1852.7	1834.8	1799.8	1744.4	1717.5	1724.8	1768.8	1807.1
20°	1725.6	1745.2	1793.3	1838.9	1821.8	1792.4	1724.0	1696.3	1711.0	1763.9	1815.3
22.5°	1667.0	1706.1	1735.4	1803.0	1808.7	1778.6	1703.6	1670.2	1699.6	1763.9	1811.2
25°	1609.9	1657.2	1688.2	1754.1	1789.2	1761.5	1684.9	1642.5	1687.3	1761.5	1807.9
27.5°	1570.0	1592.0	1648.2	1695.5	1759.8	1738.7	1659.6	1612.4	1671.9	1748.4	1789.2
30°	1527.6	1542.3	1597.7	1642.5	1720.7	1712.6	1633.6	1579.0	1652.3	1736.2	1740.3
32.5°	1481.2	1497.5	1526.0	1591.2	1666.2	1688.2	1604.2	1545.6	1631.1	1717.5	1683.3
35°	1434.0	1446.2	1469.0	1539.1	1602.6	1651.5	1568.4	1507.3	1616.5	1689.0	1628.7
37.5°	1386.7	1399.7	1419.3	1477.9	1535.8	1617.3	1537.4	1469.0	1589.6	1638.5	1571.6
40°	1341.9	1349.2	1369.6	1406.2	1480.4	1582.2	1502.4	1429.1	1561.9	1574.1	1494.2
42.5°	1259.6	1296.3	1315.0	1344.3	1417.7	1534.2	1461.7	1386.7	1530.9	1509.7	1416.8
45°	1170.8	1250.6	1258.8	1288.1	1362.3	1482.8	1423.4	1345.1	1501.6	1454.3	1343.5
47.5°	1098.3	1156.1	1203.4	1227.8	1296.3	1422.5	1387.5	1310.1	1457.6	1384.3	1271.8
50°	1033.9	1064.9	1150.4	1168.3	1217.2	1350.0	1345.1	1269.4	1396.5	1296.3	1201.7
52.5°	971.2	993.2	1070.6	1108.9	1148.8	1271.8	1294.6	1229.4	1329.7	1208.3	1130.9
55°	916.6	923.9	966.3	1046.9	1082.8	1192.8	1239.2	1183.0	1244.9	1124.3	1062.4
57.5°	860.4	853.9	884.8	988.3	1014.4	1112.1	1180.6	1135.8	1176.5	1038.8	991.5
60°	801.7	792.7	805.8	874.2	941.8	1032.3	1111.3	1083.6	1093.4	954.1	912.5
62.5°	740.6	731.6	727.6	770.7	871.0	950.0	1041.2	1025.8	991.5	876.7	814.7
65°	677.1	668.1	661.6	678.7	792.7	843.3	963.0	959.0	879.9	795.2	686.0
67.5°	206.1	607.8	593.9	593.1	668.1	746.3	878.3	871.8	767.5	708.0	590.7
70°	185.8	492.9	523.9	516.5	549.1	647.7	781.3	776.5	658.3	567.9	522.3
72.5°	170.3	174.4	462.8	454.6	462.0	550.8	680.3	667.3	558.1	448.1	451.4
75°	145.8	153.2	159.7	383.7	374.0	456.3	570.3	550.0	460.3	369.9	377.2
77.5°	119.0	127.9	132.8	279.5	302.3	325.1	455.4	428.6	316.9	295.8	141.0
80°	88.8	96.1	104.3	111.6	229.8	227.3	338.1	311.2	220.8	184.1	110.0
82.5°	65.2	67.6	72.5	80.7	91.3	152.4	217.5	191.5	153.2	83.9	75.8
85°	40.7	44.0	46.4	48.9	55.4	91.3	107.5	85.5	64.4	51.3	48.1
87.5°	26.1	26.1	25.3	26.1	26.9	32.6	36.7	35.0	27.7	26.1	26.1
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-LD5-45HL-RW-UNV-L930-CD1-U

**CANDELA DISTRIBUTION (continued):**

	192.5°	195°	197.5°	200°	202.5°	205°	207.5°	210°	212.5°	215°	217.5°
0°	1777.8	1777.8	1777.8	1777.8	1777.8	1777.8	1777.8	1777.8	1777.8	1777.8	1777.8
2.5°	1771.3	1759.8	1759.8	1756.6	1759.0	1759.0	1758.2	1759.0	1764.7	1768.0	1773.7
5°	1770.4	1767.2	1774.5	1783.5	1794.1	1807.1	1810.4	1821.8	1832.4	1846.2	1860.9
7.5°	1781.0	1792.4	1806.3	1821.0	1842.1	1857.6	1871.5	1885.3	1895.1	1908.1	1916.3
10°	1796.5	1819.3	1843.0	1861.7	1884.5	1897.5	1906.5	1908.1	1894.3	1872.3	1854.4
12.5°	1818.5	1845.4	1867.4	1885.3	1895.9	1891.0	1865.0	1838.1	1822.6	1799.8	1768.0
15°	1837.2	1861.7	1884.5	1877.2	1848.7	1821.8	1801.4	1769.6	1738.7	1717.5	1703.6
17.5°	1845.4	1869.0	1860.9	1822.6	1795.7	1764.7	1723.2	1698.7	1678.4	1662.1	1653.9
20°	1850.3	1846.2	1802.2	1774.5	1722.4	1693.9	1667.0	1644.2	1628.7	1620.5	1618.9
22.5°	1837.2	1787.5	1750.1	1700.4	1662.1	1638.5	1617.3	1598.5	1587.9	1581.4	1577.3
25°	1794.1	1736.2	1680.8	1641.7	1609.1	1588.8	1572.5	1557.0	1543.9	1540.7	1532.5
27.5°	1733.8	1686.5	1613.2	1583.0	1554.5	1544.8	1526.8	1511.4	1499.9	1490.2	1464.1
30°	1684.1	1609.1	1556.2	1528.5	1511.4	1499.9	1479.6	1463.3	1443.7	1407.9	1393.2
32.5°	1623.0	1548.8	1498.3	1482.8	1461.7	1451.9	1429.1	1393.2	1363.1	1348.4	1347.6
35°	1543.9	1482.8	1446.2	1432.3	1415.2	1398.9	1351.7	1319.1	1304.4	1306.0	1318.3
37.5°	1477.9	1423.4	1399.7	1380.2	1360.6	1319.1	1279.1	1263.7	1267.7	1275.9	1281.6
40°	1411.1	1369.6	1342.7	1327.2	1283.2	1242.5	1221.3	1227.0	1234.3	1240.0	1247.4
42.5°	1346.0	1316.6	1289.7	1259.6	1199.3	1177.3	1182.2	1189.5	1196.0	1204.2	1211.5
45°	1284.0	1258.0	1227.0	1158.6	1128.4	1134.1	1141.5	1147.2	1156.9	1162.6	1170.0
47.5°	1225.4	1197.7	1143.1	1082.8	1079.5	1090.9	1097.5	1104.8	1112.1	1097.5	605.4
50°	1159.4	1130.9	1047.8	1024.9	1032.3	1042.9	1051.0	1058.4	942.7	374.8	288.4
52.5°	1094.2	1021.7	968.7	975.2	982.6	994.8	1000.5	743.0	295.8	281.9	282.7
55°	1021.7	928.8	913.3	921.5	928.0	940.2	623.3	272.9	271.3	270.5	277.0
57.5°	907.6	851.4	857.9	866.1	872.6	615.9	265.6	264.0	264.8	265.6	266.4
60°	805.8	793.6	800.9	808.2	572.0	256.6	251.8	252.6	255.8	253.4	246.9
62.5°	725.1	734.9	742.2	650.2	243.6	241.2	243.6	241.2	235.5	231.4	223.2
65°	663.2	673.0	678.7	228.9	228.1	231.4	228.9	220.8	211.8	200.4	198.0
67.5°	598.0	607.8	217.5	211.8	215.1	211.0	201.2	191.5	184.9	175.2	171.1
70°	530.4	227.3	197.2	196.4	190.7	184.1	173.5	163.8	155.6	151.5	147.5
72.5°	382.9	180.1	177.6	171.1	161.3	152.4	143.4	137.7	133.6	131.2	128.7
75°	159.7	156.4	149.1	137.7	127.9	123.8	117.3	113.2	111.6	106.7	105.1
77.5°	133.6	127.1	116.5	108.4	102.7	100.2	95.3	90.4	88.0	87.2	83.9
80°	102.7	93.7	88.8	84.7	83.1	77.4	71.7	69.3	67.6	66.8	64.4
82.5°	70.1	66.8	63.6	57.8	57.8	55.4	53.0	51.3	49.7	49.7	48.1
85°	45.6	43.2	42.4	39.9	39.9	38.3	37.5	36.7	35.8	35.0	34.2
87.5°	26.1	26.1	26.9	26.1	26.1	25.3	24.4	23.6	22.8	22.8	21.2
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-LD5-45HL-RW-UNV-L930-CD1-U

**CANDELA DISTRIBUTION (continued):**

	220°	222.5°	225°	227.5°	230°	232.5°	235°	237.5°	240°	242.5°	245°
0°	1777.8	1777.8	1777.8	1777.8	1777.8	1777.8	1777.8	1777.8	1777.8	1777.8	1777.8
2.5°	1781.0	1789.2	1790.8	1818.5	1834.0	1833.2	1828.3	1843.0	1834.0	1829.1	1834.0
5°	1875.5	1885.3	1893.5	1923.6	1934.2	1939.1	1938.3	1946.4	1939.9	1934.2	1934.2
7.5°	1922.0	1925.2	1928.5	1921.2	1916.3	1908.1	1895.9	1878.0	1869.0	1859.2	1847.0
10°	1845.4	1834.8	1838.9	1824.2	1812.0	1803.0	1791.6	1777.0	1764.7	1755.8	1741.9
12.5°	1751.7	1750.9	1752.5	1755.0	1742.7	1735.4	1726.4	1715.9	1706.9	1697.1	1685.7
15°	1694.7	1695.5	1702.0	1699.6	1695.5	1691.4	1681.6	1678.4	1670.2	1659.6	1653.1
17.5°	1653.9	1658.0	1664.5	1661.3	1654.7	1650.7	1643.3	1636.0	1628.7	1620.5	1610.7
20°	1618.1	1622.2	1626.2	1622.2	1609.9	1604.2	1594.5	1571.6	1555.3	1539.1	1524.4
22.5°	1579.0	1581.4	1578.2	1565.1	1534.2	1519.5	1508.1	1501.6	1487.7	1478.8	1469.8
25°	1530.1	1516.2	1495.1	1480.4	1468.2	1461.7	1456.8	1455.9	1454.3	1452.7	1448.6
27.5°	1450.2	1445.4	1434.0	1428.2	1429.1	1431.5	1432.3	1434.8	1432.3	1429.1	1425.8
30°	1390.8	1393.2	1394.0	1395.7	1399.7	1402.2	1403.0	1406.2	1404.6	1402.2	1400.5
32.5°	1353.3	1359.0	1362.3	1367.1	1369.6	1373.7	1373.7	1378.5	1373.7	1372.8	1371.2
35°	1322.3	1327.2	1328.8	1336.2	1338.6	1342.7	1342.7	1346.8	1342.7	1301.1	1027.4
37.5°	1291.4	1296.3	1299.5	1306.0	1306.9	1309.3	1208.3	884.0	570.3	441.6	337.3
40°	1254.7	1260.4	1263.7	1266.1	889.7	564.6	388.6	316.1	316.1	318.6	321.0
42.5°	1215.6	1219.7	849.8	494.5	308.0	307.2	309.6	312.0	314.5	317.8	321.0
45°	955.7	482.3	306.3	299.0	301.5	304.7	308.0	311.2	315.3	318.6	320.2
47.5°	313.7	294.1	298.2	294.9	299.0	303.1	306.3	309.6	310.4	311.2	310.4
50°	290.0	290.0	292.5	292.5	295.8	297.4	297.4	297.4	294.1	293.3	290.9
52.5°	280.3	286.8	283.5	285.2	283.5	281.1	278.6	276.2	271.3	269.7	266.4
55°	275.4	277.8	269.7	267.2	264.0	257.5	254.2	250.9	246.9	245.2	241.2
57.5°	264.0	258.3	249.3	245.2	239.5	233.0	229.8	227.3	223.2	221.6	219.2
60°	242.8	231.4	225.7	220.8	214.3	208.6	206.1	204.5	201.2	200.4	198.0
62.5°	216.7	206.9	202.1	195.5	190.7	187.4	184.9	184.1	180.9	180.9	179.2
65°	188.2	183.3	179.2	172.7	170.3	167.0	166.2	165.4	163.8	162.9	161.3
67.5°	165.4	162.1	156.4	153.2	151.5	149.1	147.5	145.8	142.6	141.0	138.5
70°	145.0	142.6	136.9	134.4	131.2	127.1	124.7	123.0	120.6	119.0	116.5
72.5°	125.5	118.1	114.1	111.6	109.2	105.1	104.3	102.7	100.2	99.4	97.0
75°	101.0	95.3	92.9	91.3	88.8	86.4	86.4	86.4	83.9	83.1	82.3
77.5°	80.7	77.4	75.8	74.1	73.3	71.7	69.3	68.4	66.0	66.0	65.2
80°	61.9	60.3	58.7	57.8	57.0	55.4	53.8	53.0	50.5	50.5	49.7
82.5°	45.6	44.8	44.0	43.2	42.4	41.6	39.1	38.3	36.7	36.7	35.8
85°	32.6	31.8	30.1	29.3	29.3	28.5	26.1	25.3	23.6	23.6	23.6
87.5°	20.4	19.6	18.7	17.9	17.1	16.3	14.7	13.9	13.9	12.2	11.4
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-LD5-45HL-RW-UNV-L930-CD1-U

**CANDELA DISTRIBUTION (continued):**

	247.5°	250°	252.5°	255°	257.5°	260°	262.5°	265°	267.5°	270°	272.5°
0°	1777.8	1777.8	1777.8	1777.8	1777.8	1777.8	1777.8	1777.8	1777.8	1777.8	1777.8
2.5°	1824.2	1838.1	1836.4	1846.2	1848.7	1853.5	1855.2	1856.0	1843.8	1853.5	1854.4
5°	1931.8	1934.2	1935.8	1939.9	1944.0	1944.8	1940.7	1935.8	1937.5	1934.2	1926.1
7.5°	1845.4	1833.2	1830.7	1827.5	1825.8	1824.2	1816.9	1823.4	1816.1	1812.8	1801.4
10°	1739.5	1728.1	1727.3	1727.3	1729.7	1728.9	1727.3	1724.0	1730.5	1726.4	1724.0
12.5°	1684.1	1680.0	1682.4	1680.8	1687.3	1689.0	1687.3	1687.3	1685.7	1682.4	1684.1
15°	1650.7	1647.4	1649.9	1647.4	1652.3	1653.1	1649.0	1651.5	1647.4	1643.3	1641.7
17.5°	1606.7	1599.3	1593.6	1585.5	1586.3	1584.7	1579.8	1579.8	1575.7	1565.1	1565.9
20°	1521.9	1514.6	1511.4	1511.4	1515.4	1517.1	1516.2	1517.9	1513.8	1512.2	1505.6
22.5°	1469.0	1468.2	1469.8	1473.9	1480.4	1489.4	1490.2	1490.2	1490.2	1489.4	1481.2
25°	1450.2	1450.2	1451.9	1457.6	1462.5	1469.0	1470.6	1472.2	1470.6	1470.6	1463.3
27.5°	1429.1	1427.4	1430.7	1436.4	1442.1	1447.0	1451.1	1451.9	1449.4	1449.4	1451.9
30°	1403.0	1402.2	1406.2	1412.0	1416.8	1421.7	1425.8	1429.1	1425.8	1425.8	1423.4
32.5°	1376.1	1376.1	1377.7	1343.5	1245.7	1121.9	1124.3	1052.6	1003.0	940.2	1023.3
35°	858.7	624.9	536.9	454.6	396.8	359.3	358.5	346.3	340.6	336.5	335.7
37.5°	324.3	325.9	329.2	330.8	333.2	334.9	335.7	335.7	335.7	335.7	334.9
40°	323.5	326.7	329.2	331.6	334.0	335.7	335.7	336.5	337.3	337.3	337.3
42.5°	324.3	327.5	330.8	333.2	334.9	335.7	336.5	337.3	337.3	337.3	337.3
45°	323.5	325.1	325.1	325.9	325.9	325.9	326.7	326.7	325.9	325.1	326.7
47.5°	311.2	311.2	308.8	308.0	307.2	305.5	306.3	305.5	304.7	303.9	305.5
50°	290.0	286.8	285.2	283.5	282.7	281.1	281.9	281.1	280.3	278.6	281.1
52.5°	264.8	264.0	260.7	259.1	258.3	259.1	257.5	256.6	255.8	255.0	255.8
55°	240.3	237.1	236.3	234.6	233.8	234.6	233.8	233.0	232.2	231.4	232.2
57.5°	218.4	215.9	215.1	213.5	213.5	213.5	213.5	212.6	211.8	211.0	211.8
60°	197.2	195.5	194.7	194.7	193.9	193.9	193.9	193.1	192.3	192.3	193.1
62.5°	179.2	179.2	176.8	176.0	176.0	176.8	176.0	175.2	174.4	173.5	175.2
65°	160.5	157.2	156.4	154.8	153.2	154.0	153.2	152.4	151.5	150.7	152.4
67.5°	137.7	136.9	133.6	132.0	131.2	132.0	131.2	130.4	129.5	128.7	130.4
70°	115.7	115.7	112.4	111.6	110.8	110.8	110.0	110.0	109.2	108.4	110.0
72.5°	96.1	96.1	95.3	93.7	92.9	92.1	91.3	90.4	90.4	91.3	91.3
75°	79.8	78.2	75.0	75.8	75.0	74.1	74.1	73.3	72.5	74.1	73.3
77.5°	62.7	61.9	59.5	60.3	59.5	58.7	58.7	57.8	57.0	57.8	57.8
80°	47.3	47.3	46.4	45.6	45.6	44.8	44.0	44.0	43.2	44.0	44.0
82.5°	34.2	34.2	33.4	32.6	31.8	31.8	31.0	31.0	31.0	31.0	31.0
85°	22.0	21.2	21.2	19.6	19.6	19.6	18.7	18.7	18.7	18.7	18.7
87.5°	10.6	10.6	9.8	9.8	9.0	8.1	8.1	7.3	7.3	8.1	8.1
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-LD5-45HL-RW-UNV-L930-CD1-U

**CANDELA DISTRIBUTION (continued):**

	275°	277.5°	280°	282.5°	285°	287.5°	290°	292.5°	295°	297.5°	300°
0°	1777.8	1777.8	1777.8	1777.8	1777.8	1777.8	1777.8	1777.8	1777.8	1777.8	1777.8
2.5°	1839.7	1850.3	1841.3	1845.4	1846.2	1860.1	1859.2	1862.5	1856.8	1850.3	1841.3
5°	1933.4	1928.5	1922.0	1937.5	1929.3	1939.1	1942.4	1948.9	1948.9	1948.1	1940.7
7.5°	1813.6	1803.0	1811.2	1816.9	1819.3	1812.8	1825.8	1840.5	1852.7	1860.1	1860.9
10°	1719.9	1723.2	1722.4	1724.8	1730.5	1729.7	1737.8	1746.0	1749.3	1754.1	1755.8
12.5°	1675.9	1675.1	1676.7	1682.4	1685.7	1684.9	1693.0	1697.9	1699.6	1700.4	1699.6
15°	1640.9	1635.2	1639.3	1640.1	1642.5	1642.5	1652.3	1659.6	1662.9	1664.5	1662.9
17.5°	1574.9	1561.1	1574.1	1574.1	1583.0	1581.4	1596.9	1609.1	1615.6	1620.5	1620.5
20°	1509.7	1503.2	1508.1	1506.5	1513.0	1512.2	1521.9	1530.1	1535.8	1539.9	1544.8
22.5°	1483.6	1485.3	1477.9	1478.8	1478.8	1477.9	1482.8	1486.9	1488.5	1491.0	1489.4
25°	1466.5	1468.2	1465.7	1461.7	1460.0	1461.7	1464.1	1469.0	1469.8	1468.2	1462.5
27.5°	1449.4	1444.5	1448.6	1441.3	1439.7	1442.9	1446.2	1447.0	1447.8	1447.8	1442.9
30°	1423.4	1419.3	1423.4	1420.1	1416.8	1420.1	1422.5	1422.5	1424.2	1425.0	1419.3
32.5°	994.8	1003.0	1134.9	1214.8	1327.2	1384.3	1394.8	1394.8	1396.5	1396.5	1391.6
35°	338.9	339.7	367.4	398.4	464.4	545.9	652.6	708.0	895.4	1119.5	1336.2
37.5°	334.9	334.0	333.2	332.4	331.6	330.8	329.2	328.3	333.2	395.2	536.1
40°	336.5	335.7	334.0	333.2	332.4	330.8	330.0	328.3	326.7	325.1	323.5
42.5°	336.5	335.7	334.9	334.0	333.2	332.4	330.8	329.2	327.5	325.1	322.6
45°	325.1	325.1	325.9	325.9	326.7	326.7	326.7	325.9	325.9	325.1	321.8
47.5°	303.9	303.9	306.3	306.3	308.0	309.6	309.6	311.2	313.7	315.3	316.1
50°	279.5	279.5	281.9	282.7	284.3	286.8	289.2	290.0	292.5	295.8	299.0
52.5°	255.0	255.0	257.5	257.5	259.1	261.5	264.0	264.8	268.1	271.3	275.4
55°	232.2	232.2	233.8	234.6	235.5	237.1	239.5	239.5	242.8	245.2	249.3
57.5°	211.8	213.5	213.5	213.5	214.3	215.9	217.5	217.5	220.0	222.4	225.7
60°	192.3	193.9	193.9	193.9	194.7	195.5	197.2	197.2	198.8	200.4	203.7
62.5°	174.4	176.0	176.0	176.8	176.8	177.6	179.2	178.4	180.1	180.9	183.3
65°	151.5	153.2	154.0	154.8	155.6	157.2	159.7	158.9	161.3	162.9	165.4
67.5°	129.5	131.2	131.2	132.0	132.8	134.4	136.1	136.1	138.5	140.1	143.4
70°	109.2	110.8	110.8	111.6	112.4	114.1	115.7	114.9	117.3	119.0	121.4
72.5°	90.4	92.1	92.1	92.9	92.9	94.5	96.1	97.8	97.8	99.4	101.0
75°	73.3	74.1	75.0	75.0	75.8	76.6	78.2	79.8	80.7	81.5	83.1
77.5°	57.8	58.7	59.5	59.5	60.3	61.1	61.9	65.2	66.8	67.6	67.6
80°	44.0	44.8	44.8	44.8	45.6	46.4	48.1	48.1	51.3	51.3	52.1
82.5°	31.0	31.8	31.8	31.8	32.6	34.2	35.0	35.8	37.5	38.3	38.3
85°	18.7	19.6	19.6	19.6	20.4	21.2	22.8	23.6	24.4	24.4	25.3
87.5°	7.3	8.1	9.0	9.0	9.8	10.6	11.4	12.2	13.0	13.0	13.9
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-LD5-45HL-RW-UNV-L930-CD1-U

**CANDELA DISTRIBUTION (continued):**

	302.5°	305°	307.5°	310°	312.5°	315°	317.5°	320°	322.5°	325°	327.5°
0°	1777.8	1777.8	1777.8	1777.8	1777.8	1777.8	1777.8	1777.8	1777.8	1777.8	1777.8
2.5°	1831.5	1837.2	1831.5	1834.8	1838.9	1831.5	1814.4	1807.9	1805.5	1795.7	1789.2
5°	1933.4	1933.4	1930.9	1937.5	1936.6	1925.2	1907.3	1899.2	1891.0	1880.4	1872.3
7.5°	1860.9	1867.4	1871.5	1896.7	1913.0	1914.6	1926.1	1928.5	1931.8	1928.5	1923.6
10°	1756.6	1754.1	1765.6	1789.2	1803.0	1810.4	1832.4	1843.0	1851.9	1869.8	1888.6
12.5°	1697.9	1701.2	1706.1	1723.2	1736.2	1733.0	1741.9	1749.3	1759.8	1777.8	1804.7
15°	1658.8	1662.1	1667.0	1680.0	1688.2	1684.1	1689.0	1693.9	1701.2	1710.1	1726.4
17.5°	1616.5	1622.2	1627.9	1641.7	1649.0	1648.2	1652.3	1653.9	1656.4	1662.1	1673.5
20°	1550.5	1568.4	1579.8	1598.5	1609.1	1607.5	1614.8	1617.3	1620.5	1626.2	1631.1
22.5°	1490.2	1495.1	1500.8	1521.1	1539.1	1561.1	1565.9	1572.5	1580.6	1586.3	1591.2
25°	1455.9	1452.7	1455.1	1469.0	1478.8	1480.4	1487.7	1508.9	1530.9	1540.7	1552.1
27.5°	1435.6	1432.3	1431.5	1438.0	1439.7	1435.6	1434.0	1440.5	1456.8	1473.1	1507.3
30°	1413.6	1409.5	1406.2	1412.0	1414.4	1408.7	1398.1	1392.4	1402.2	1406.2	1420.1
32.5°	1387.5	1383.4	1381.8	1385.1	1386.7	1381.8	1370.4	1363.9	1362.3	1359.0	1362.3
35°	1358.2	1354.1	1351.7	1352.5	1355.7	1351.7	1341.9	1333.7	1329.7	1320.7	1314.2
37.5°	699.9	991.5	1287.3	1318.3	1321.5	1320.7	1310.9	1302.0	1297.9	1287.3	1284.0
40°	320.2	357.7	536.9	701.5	1011.9	1285.7	1276.7	1267.7	1260.4	1257.2	1244.9
42.5°	319.4	320.2	321.0	316.9	392.7	668.9	987.5	1232.7	1227.8	1219.7	1210.7
45°	319.4	315.3	318.6	313.7	315.3	314.5	391.9	632.2	1125.2	1175.7	1171.6
47.5°	316.1	313.7	316.9	312.9	308.0	310.4	307.2	311.2	485.6	823.7	1128.4
50°	301.5	303.1	308.8	308.0	303.9	307.2	301.5	306.3	302.3	331.6	638.8
52.5°	279.5	282.7	288.4	293.3	294.9	299.0	297.4	299.0	295.8	296.6	297.4
55°	253.4	257.5	262.3	269.7	272.9	279.5	284.3	286.8	290.9	290.0	283.5
57.5°	228.9	233.0	237.1	244.4	251.8	255.0	264.0	268.9	279.5	277.0	275.4
60°	206.1	209.4	213.5	215.1	224.1	229.8	237.9	242.8	256.6	259.9	264.8
62.5°	185.8	187.4	190.7	193.1	198.8	204.5	208.6	216.7	224.1	234.6	242.0
65°	167.0	168.7	171.1	172.7	173.5	181.7	184.1	193.1	195.5	206.9	213.5
67.5°	145.8	149.1	152.4	154.0	155.6	160.5	162.1	166.2	171.9	176.8	184.9
70°	123.8	126.3	129.5	132.0	135.2	138.5	143.4	145.8	149.9	153.2	159.7
72.5°	103.5	105.9	107.5	110.0	112.4	114.9	119.0	124.7	127.9	133.6	135.2
75°	83.9	86.4	88.0	89.6	92.1	93.7	95.3	101.0	104.3	109.2	114.1
77.5°	69.3	69.3	70.9	75.8	75.0	75.0	76.6	79.8	82.3	85.5	90.4
80°	53.8	54.6	55.4	59.5	60.3	61.1	60.3	62.7	65.2	66.0	69.3
82.5°	39.9	40.7	40.7	43.2	45.6	45.6	45.6	46.4	48.9	49.7	51.3
85°	26.9	27.7	28.5	29.3	31.0	31.8	32.6	32.6	34.2	35.0	35.8
87.5°	14.7	16.3	17.1	17.9	18.7	19.6	20.4	21.2	22.0	22.8	23.6
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-LD5-45HL-RW-UNV-L930-CD1-U

**CANDELA DISTRIBUTION (continued):**

	330°	332.5°	335°	337.5°	340°	342.5°	345°	347.5°	350°	352.5°	355°
0°	1777.8	1777.8	1777.8	1777.8	1777.8	1777.8	1777.8	1777.8	1777.8	1777.8	1777.8
2.5°	1786.7	1782.7	1780.2	1773.7	1772.1	1761.5	1763.1	1761.5	1761.5	1763.9	1772.1
5°	1863.3	1843.8	1838.9	1825.0	1813.6	1794.1	1781.8	1775.3	1765.6	1761.5	1767.2
7.5°	1915.5	1900.8	1888.6	1876.4	1860.1	1837.2	1820.1	1800.6	1784.3	1768.8	1764.7
10°	1906.5	1922.8	1922.8	1915.5	1900.0	1877.2	1856.8	1832.4	1803.8	1779.4	1764.7
12.5°	1830.7	1859.2	1882.1	1899.2	1914.6	1899.2	1878.8	1859.2	1827.5	1791.6	1764.7
15°	1747.6	1777.0	1805.5	1841.3	1878.8	1894.3	1893.5	1870.7	1842.1	1804.7	1767.2
17.5°	1689.0	1709.3	1724.8	1763.9	1809.5	1849.5	1876.4	1878.0	1850.3	1816.9	1768.0
20°	1645.0	1659.6	1672.7	1694.7	1734.6	1783.5	1833.2	1860.9	1856.0	1819.3	1770.4
22.5°	1605.0	1615.6	1626.2	1642.5	1674.3	1706.1	1763.9	1821.0	1845.4	1815.3	1768.0
25°	1565.1	1576.5	1584.7	1596.1	1621.3	1647.4	1688.2	1759.0	1813.6	1812.0	1763.1
27.5°	1517.9	1533.3	1543.1	1558.6	1575.7	1595.3	1623.0	1689.8	1768.0	1795.7	1750.1
30°	1460.8	1483.6	1498.3	1515.4	1530.1	1547.2	1569.2	1609.9	1706.9	1763.9	1736.2
32.5°	1378.5	1419.3	1451.9	1468.2	1484.5	1499.1	1518.7	1552.9	1631.9	1720.7	1720.7
35°	1319.9	1338.6	1368.0	1415.2	1435.6	1450.2	1468.2	1495.1	1545.6	1669.4	1695.5
37.5°	1274.3	1281.6	1296.3	1342.7	1381.0	1404.6	1422.5	1439.7	1489.4	1599.3	1662.9
40°	1240.0	1237.6	1236.0	1258.0	1312.6	1350.0	1370.4	1387.5	1425.8	1515.4	1619.7
42.5°	1200.1	1197.7	1189.5	1195.2	1222.1	1284.9	1315.8	1334.6	1366.3	1427.4	1572.5
45°	1158.6	1154.5	1151.2	1145.5	1155.3	1190.3	1253.9	1281.6	1299.5	1354.1	1513.0
47.5°	1116.2	1110.5	1106.4	1101.5	1095.8	1112.1	1172.4	1222.1	1253.1	1287.3	1441.3
50°	1055.9	1063.2	1058.4	1052.6	1047.8	1044.5	1069.8	1151.2	1189.5	1217.2	1354.1
52.5°	497.8	967.9	1008.7	1003.0	996.4	990.7	996.4	1058.4	1127.6	1149.6	1249.0
55°	283.5	431.0	897.0	948.4	942.7	934.5	929.6	950.8	1054.3	1083.6	1152.9
57.5°	272.9	273.8	396.0	854.7	886.4	879.1	873.4	878.3	966.3	1016.0	1068.9
60°	264.0	264.0	264.0	378.0	817.2	819.6	812.3	804.2	842.4	940.2	984.2
62.5°	244.4	249.3	251.8	251.8	373.2	756.9	749.6	747.1	748.8	849.0	899.5
65°	219.2	230.6	235.5	238.7	238.7	391.9	685.2	681.1	675.4	713.7	813.9
67.5°	191.5	202.9	213.5	220.0	220.8	228.1	409.0	613.5	605.4	606.2	722.7
70°	162.9	172.7	184.1	193.9	202.9	206.9	213.5	509.2	536.1	524.7	619.2
72.5°	141.0	145.0	153.2	162.9	173.5	183.3	189.0	202.9	465.2	453.0	470.9
75°	117.3	120.6	126.3	132.8	141.0	152.4	162.1	171.9	246.9	379.7	377.2
77.5°	91.3	97.0	103.5	107.5	111.6	119.8	132.8	142.6	152.4	256.6	302.3
80°	70.1	74.1	77.4	81.5	86.4	92.1	97.0	108.4	119.8	128.7	231.4
82.5°	52.1	54.6	57.0	58.7	60.3	63.6	72.5	76.6	83.9	92.1	109.2
85°	36.7	38.3	39.9	40.7	41.6	42.4	45.6	46.4	53.8	55.4	66.0
87.5°	23.6	24.4	26.1	26.9	26.9	27.7	28.5	28.5	28.5	26.9	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-LD5-45HL-RW-UNV-L930-CD1-U

**CANDELA DISTRIBUTION (continued):**

	357.5°	360°
0°	1777.8	1777.8
2.5°	1778.6	1791.6
5°	1776.1	1793.3
7.5°	1769.6	1785.9
10°	1759.8	1779.4
12.5°	1749.3	1768.0
15°	1740.3	1754.1
17.5°	1730.5	1738.7
20°	1717.5	1724.0
22.5°	1704.4	1701.2
25°	1689.8	1682.4
27.5°	1671.0	1657.2
30°	1653.9	1629.5
32.5°	1637.6	1597.7
35°	1615.6	1565.1
37.5°	1592.8	1531.7
40°	1565.9	1493.4
42.5°	1537.4	1455.1
45°	1501.6	1418.5
47.5°	1469.8	1374.5
50°	1425.8	1327.2
52.5°	1372.0	1283.2
55°	1308.5	1229.4
57.5°	1240.0	1173.2
60°	1166.7	1108.9
62.5°	1077.9	1042.1
65°	973.6	965.5
67.5°	837.6	880.7
70°	686.8	783.8
72.5°	574.4	681.1
75°	470.9	566.2
77.5°	373.2	444.0
80°	233.0	325.1
82.5°	156.4	213.5
85°	94.5	101.8
87.5°	36.7	37.5
90°	0.0	0.0

(END OF REPORT)