

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-LD5-56HL-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-LD5-56HL-RW-UNV-L930-CD1-U
Description: 4FT LINEAR SNLED LED FIXTURE
WHITE REFLECTOR
Light Source: -
Ballast/Driver: -

Summary

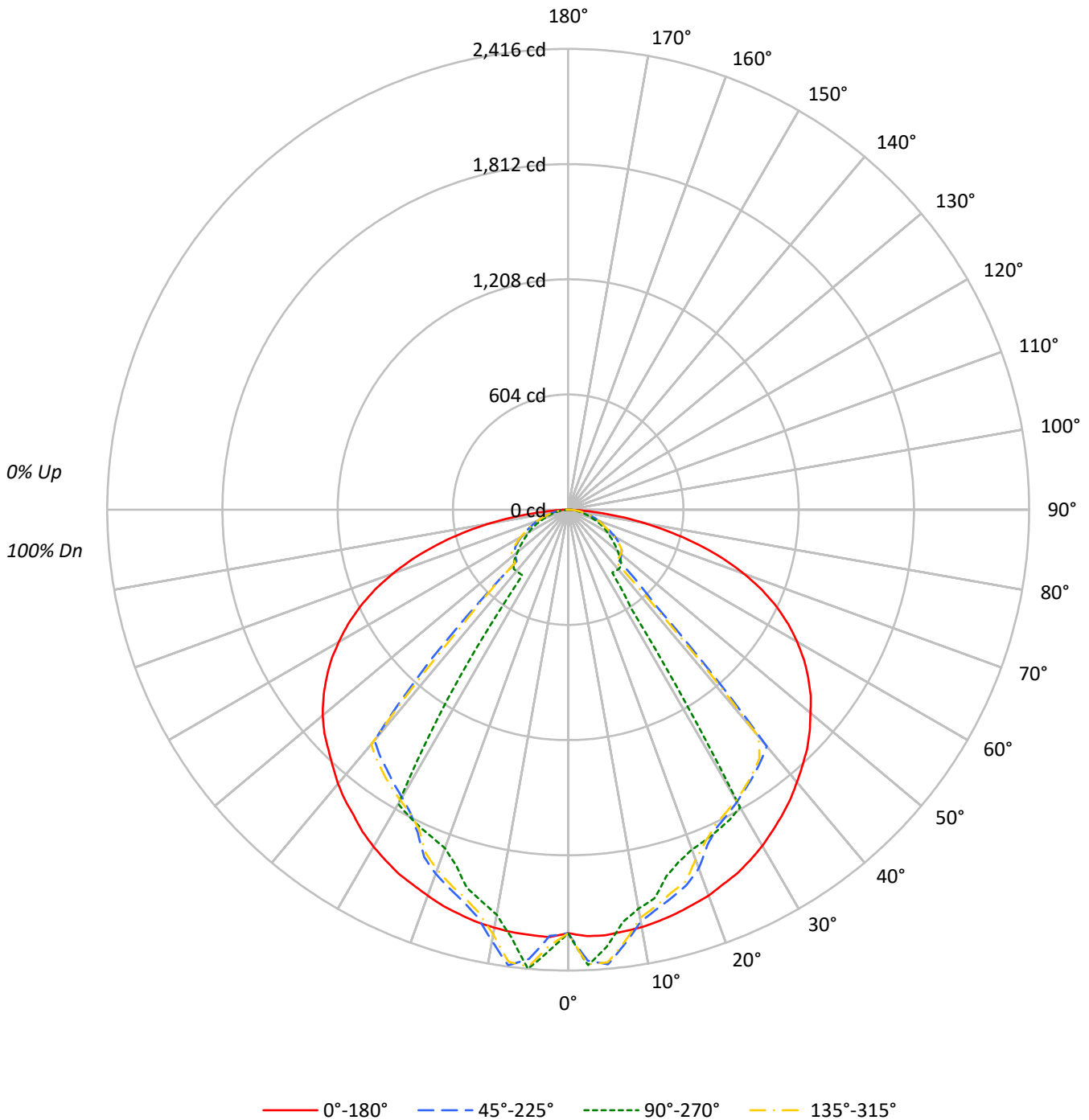
Lumens per Lamp: N/A
Luminaire Lumens: 4446.0 lumens
Efficiency: N/A
Efficacy: 92.6 lumens/watt
Spacing Criteria (0/90/45): 1.36 / 1.16 / 1.2
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.12')
CIE Type: Direct

Input Watts (W): 48
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	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°	17941	17941	17941	17941
5°	18118	18077	18109	18972
10°	18136	16344	18160	16594
15°	18175	15121	18218	15601
20°	18308	14342	18308	14288
25°	18466	14068	18492	13936
30°	18652	13820	18699	13656
35°	18869	3147	18909	3283
40°	19172	3273	19287	3380
45°	19632	3255	19699	3374
50°	20090	2943	20361	3023
55°	20708	2613	20872	2651
60°	21232	2322	21280	2352
65°	21608	2027	21553	1994
70°	21298	1633	21233	1574
75°	19774	1258	19917	1204
80°	16049	892	16694	817
85°	8690	535	9175	410



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	218.4	4.9
10°-20°	600.6	13.5
20°-30°	889.6	20.0
30°-40°	896.4	20.2
40°-50°	700.2	15.7
50°-60°	540.9	12.2
60°-70°	363.1	8.2
70°-80°	185.2	4.2
80°-90°	51.5	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°	1708.7	38.4
0°-40°	2605.0	58.6
0°-60°	3846.1	86.5
0°-90°	4446.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4446.0	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	2220	2220	2220	2220	2220	
5°	2240	2302	2238	2416	2240	213
15°	2191	1989	2196	2052	2191	620
25°	2101	1854	2104	1837	2101	969
35°	1955	403	1959	420	1955	1225
45°	1772	392	1778	406	1772	1366
55°	1535	285	1548	289	1535	1371
65°	1206	191	1203	188	1206	1186
75°	707	97	712	93	707	740
85°	127	30	134	23	127	175
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	2.5°	5°	7.5°	10°	12.5°	15°	17.5°	20°	22.5°	25°
0°	2220.2	2220.2	2220.2	2220.2	2220.2	2220.2	2220.2	2220.2	2220.2	2220.2	2220.2
2.5°	2237.5	2245.7	2251.8	2255.8	2257.9	2257.9	2258.9	2259.9	2273.1	2279.2	2283.3
5°	2239.6	2247.7	2259.9	2276.2	2290.4	2302.6	2312.8	2327.1	2341.3	2356.6	2361.7
7.5°	2230.4	2240.6	2265.0	2294.5	2322.0	2341.3	2354.5	2363.7	2370.8	2371.8	2376.9
10°	2222.3	2240.6	2274.1	2312.8	2347.4	2370.8	2370.8	2365.7	2372.8	2345.4	2317.9
12.5°	2208.0	2228.4	2274.1	2325.0	2357.6	2366.7	2362.7	2342.3	2300.6	2267.0	2251.8
15°	2190.7	2218.2	2275.2	2332.1	2359.6	2362.7	2324.0	2272.1	2240.6	2220.2	2194.8
17.5°	2171.4	2208.0	2276.2	2333.2	2343.3	2329.1	2255.8	2223.3	2190.7	2142.9	2108.3
20°	2153.1	2188.7	2268.0	2318.9	2325.0	2260.9	2203.9	2169.3	2114.4	2072.7	2057.4
22.5°	2124.6	2166.3	2260.9	2299.6	2276.2	2201.9	2147.0	2092.0	2042.2	2029.9	2011.6
25°	2101.2	2144.9	2244.6	2276.2	2214.1	2148.0	2083.9	2019.8	1996.4	1979.1	1962.8
27.5°	2069.6	2123.6	2223.3	2233.4	2148.0	2090.0	1996.4	1967.9	1946.5	1927.2	1920.1
30°	2035.0	2101.2	2193.8	2174.4	2093.0	2007.6	1938.4	1911.9	1896.6	1876.3	1868.2
32.5°	1995.3	2067.6	2161.2	2106.3	2034.0	1927.2	1882.4	1862.1	1841.7	1826.4	1775.6
35°	1954.6	2038.1	2122.5	2041.1	1962.8	1866.1	1826.4	1808.1	1788.8	1732.8	1679.9
37.5°	1912.9	2005.5	2075.7	1970.9	1868.2	1803.0	1769.5	1749.1	1705.4	1634.1	1607.7
40°	1865.1	1965.8	2015.7	1898.7	1785.7	1738.9	1707.4	1687.0	1588.3	1556.8	1548.7
42.5°	1817.3	1927.2	1942.4	1828.5	1717.6	1670.8	1644.3	1577.1	1510.0	1493.7	1496.8
45°	1771.5	1885.5	1862.1	1728.8	1646.3	1607.7	1562.9	1470.3	1434.7	1442.8	1444.9
47.5°	1716.5	1835.6	1777.6	1629.0	1573.1	1534.4	1434.7	1378.7	1373.6	1384.8	1390.9
50°	1657.5	1779.6	1688.1	1538.5	1493.7	1447.9	1335.0	1306.5	1312.6	1323.8	1330.9
52.5°	1602.6	1716.5	1595.5	1454.0	1415.4	1310.6	1234.2	1239.3	1249.5	1262.7	1266.8
55°	1535.4	1640.2	1496.8	1368.6	1331.9	1194.6	1160.0	1172.2	1182.4	1193.5	1201.7
57.5°	1465.2	1552.7	1379.8	1272.9	1213.9	1091.8	1094.8	1103.0	1110.1	1123.3	464.0
60°	1384.8	1453.0	1251.5	1184.4	1067.4	1010.4	1013.4	1027.7	1034.8	577.9	319.5
62.5°	1301.4	1337.0	1135.5	1083.7	933.1	929.0	943.2	949.3	646.1	305.3	299.1
65°	1205.8	1198.6	1021.6	939.2	841.5	845.6	860.8	830.3	285.9	285.9	283.9
67.5°	1099.9	1057.2	910.7	777.4	753.0	762.1	778.4	271.7	264.6	266.6	259.5
70°	978.8	918.8	795.7	658.3	666.5	675.6	262.5	246.2	243.2	238.1	223.9
72.5°	850.6	768.2	651.2	571.8	576.9	362.2	230.0	221.8	211.6	201.5	186.2
75°	707.2	600.3	478.2	478.2	485.4	206.6	200.5	187.2	176.0	162.8	153.6
77.5°	554.5	462.0	371.4	385.6	188.2	173.0	161.8	147.5	138.4	130.2	125.2
80°	406.0	322.6	279.8	250.3	146.5	131.3	120.1	111.9	107.9	102.8	96.7
82.5°	266.6	194.3	194.3	118.0	102.8	90.6	87.5	81.4	77.3	74.3	71.2
85°	127.2	112.9	85.5	72.2	64.1	58.0	56.0	52.9	52.9	51.9	50.9
87.5°	46.8	50.9	37.6	36.6	34.6	33.6	34.6	34.6	35.6	34.6	33.6
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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CANDELA DISTRIBUTION (continued):

	27.5°	30°	32.5°	35°	37.5°	40°	42.5°	45°	47.5°	50°	52.5°
0°	2220.2	2220.2	2220.2	2220.2	2220.2	2220.2	2220.2	2220.2	2220.2	2220.2	2220.2
2.5°	2293.5	2301.6	2307.7	2317.9	2331.1	2342.3	2352.5	2366.7	2389.1	2395.2	2400.3
5°	2361.7	2364.7	2371.8	2380.0	2382.0	2387.1	2386.1	2392.2	2395.2	2402.4	2387.1
7.5°	2365.7	2349.4	2330.1	2312.8	2300.6	2289.4	2282.3	2293.5	2299.6	2304.7	2289.4
10°	2280.3	2260.9	2249.7	2239.6	2227.3	2210.0	2186.6	2191.7	2189.7	2189.7	2184.6
12.5°	2226.3	2198.9	2170.4	2144.9	2133.7	2132.7	2133.7	2144.9	2144.9	2143.9	2137.8
15°	2141.9	2115.4	2101.2	2095.1	2095.1	2092.0	2092.0	2104.2	2101.2	2101.2	2098.1
17.5°	2085.9	2067.6	2057.4	2050.3	2047.2	2052.3	2058.4	2063.5	2064.5	2060.5	2044.2
20°	2040.1	2022.8	2010.6	2012.6	2011.6	2014.7	2017.7	2000.4	1979.1	1950.6	1937.3
22.5°	1992.3	1979.1	1969.9	1969.9	1957.7	1938.4	1909.9	1903.8	1900.7	1887.5	1876.3
25°	1946.5	1931.2	1918.0	1877.3	1851.9	1854.9	1849.8	1839.7	1838.6	1837.6	1841.7
27.5°	1900.7	1861.0	1810.2	1804.1	1793.9	1792.9	1799.0	1804.1	1804.1	1808.1	1813.2
30°	1806.1	1760.3	1751.1	1740.0	1744.0	1758.3	1761.3	1768.4	1770.5	1777.6	1781.7
32.5°	1719.6	1699.3	1691.1	1696.2	1709.4	1721.6	1728.8	1731.8	1736.9	1743.0	1748.1
35°	1649.4	1643.3	1650.4	1661.6	1674.8	1685.0	1691.1	1697.2	1702.3	1707.4	1711.5
37.5°	1597.5	1601.6	1611.7	1626.0	1639.2	1647.4	1652.4	1659.6	1666.7	1672.8	1648.4
40°	1548.7	1558.8	1570.0	1585.3	1596.5	1604.6	1609.7	1618.9	1557.8	705.1	386.7
42.5°	1505.9	1517.1	1525.3	1537.5	1549.7	1555.8	1511.0	674.6	381.6	379.5	384.6
45°	1454.0	1463.2	1476.4	1485.6	1496.8	982.9	375.5	379.5	373.4	377.5	379.5
47.5°	1401.1	1415.4	1422.5	1357.4	404.0	373.4	369.4	373.4	369.4	374.4	371.4
50°	1341.1	1358.4	966.6	365.3	362.2	360.2	364.3	362.2	365.3	369.4	361.2
52.5°	1280.0	792.6	354.1	352.1	354.1	352.1	359.2	354.1	355.1	351.0	340.9
55°	433.5	342.9	339.9	338.8	344.9	344.9	344.9	336.8	331.7	321.5	314.4
57.5°	331.7	331.7	330.7	331.7	329.7	327.6	318.5	311.4	304.2	290.0	285.9
60°	314.4	314.4	314.4	314.4	305.3	301.2	286.9	280.8	268.6	261.5	257.4
62.5°	300.2	298.1	289.0	285.9	275.7	264.6	256.4	250.3	238.1	234.0	231.0
65°	279.8	272.7	261.5	249.3	244.2	232.0	227.9	218.8	212.7	209.6	207.6
67.5°	246.2	236.1	226.9	218.8	209.6	205.5	200.5	193.3	189.3	187.2	185.2
70°	210.6	203.5	194.3	189.3	183.2	180.1	173.0	170.9	167.9	164.8	161.8
72.5°	176.0	172.0	167.9	160.8	158.7	156.7	149.6	145.5	141.4	137.4	135.3
75°	147.5	144.5	142.5	136.3	133.3	127.2	122.1	119.0	116.0	112.9	110.9
77.5°	121.1	119.0	112.9	108.9	106.8	101.8	99.7	100.7	98.7	94.6	92.6
80°	94.6	92.6	87.5	87.5	85.5	83.4	81.4	79.4	77.3	74.3	72.2
82.5°	72.2	70.2	68.2	66.1	64.1	63.1	62.1	60.0	58.0	56.0	54.9
85°	50.9	49.9	48.8	47.8	46.8	45.8	44.8	42.7	40.7	39.7	38.7
87.5°	34.6	33.6	32.6	31.5	30.5	29.5	28.5	27.5	25.4	24.4	23.4
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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CANDELA DISTRIBUTION (continued):

	55°	57.5°	60°	62.5°	65°	67.5°	70°	72.5°	75°	77.5°	80°
0°	2220.2	2220.2	2220.2	2220.2	2220.2	2220.2	2220.2	2220.2	2220.2	2220.2	2220.2
2.5°	2400.3	2405.4	2400.3	2389.1	2382.0	2379.0	2385.1	2385.1	2389.1	2394.2	2395.2
5°	2362.7	2350.5	2336.2	2322.0	2314.8	2310.8	2299.6	2301.6	2304.7	2306.7	2308.7
7.5°	2269.1	2252.8	2233.4	2215.1	2208.0	2201.9	2188.7	2188.7	2188.7	2189.7	2195.8
10°	2173.4	2166.3	2158.1	2145.9	2136.8	2133.7	2122.5	2125.6	2123.6	2126.6	2133.7
12.5°	2128.6	2120.5	2113.4	2101.2	2091.0	2086.9	2081.8	2084.9	2083.9	2089.0	2095.1
15°	2087.9	2083.9	2075.7	2066.6	2057.4	2049.3	2031.0	2024.9	2020.8	2015.7	2022.8
17.5°	2020.8	1992.3	1973.0	1958.7	1948.5	1941.4	1936.3	1936.3	1939.4	1942.4	1948.5
20°	1929.2	1921.1	1911.9	1896.6	1886.5	1882.4	1879.4	1879.4	1884.4	1888.5	1899.7
22.5°	1866.1	1865.1	1862.1	1854.9	1849.8	1849.8	1850.9	1852.9	1860.0	1866.1	1877.3
25°	1836.6	1840.7	1838.6	1834.6	1831.5	1832.5	1830.5	1832.5	1839.7	1845.8	1854.9
27.5°	1813.2	1819.3	1817.3	1811.2	1806.1	1808.1	1811.2	1809.1	1815.2	1822.4	1829.5
30°	1781.7	1782.7	1786.8	1779.6	1777.6	1780.7	1781.7	1783.7	1789.8	1794.9	1801.0
32.5°	1746.1	1754.2	1753.2	1746.1	1746.1	1749.1	1750.1	1682.0	1554.8	1339.0	1280.0
35°	1711.5	1720.6	1705.4	1437.7	995.1	531.1	410.1	395.8	398.9	400.9	402.9
37.5°	1265.8	600.3	382.6	385.6	388.7	391.7	394.8	397.8	400.9	404.0	405.0
40°	380.6	379.5	382.6	386.7	389.7	391.7	395.8	398.9	401.9	405.0	406.0
42.5°	376.5	378.5	381.6	385.6	389.7	393.8	396.8	400.9	402.9	405.0	406.0
45°	374.4	378.5	382.6	385.6	388.7	390.7	392.8	393.8	392.8	392.8	394.8
47.5°	371.4	375.5	376.5	375.5	376.5	375.5	375.5	375.5	372.4	371.4	371.4
50°	360.2	360.2	358.2	354.1	353.1	352.1	350.0	349.0	344.9	343.9	343.9
52.5°	336.8	335.8	332.7	327.6	325.6	323.6	322.6	321.5	317.5	315.4	316.4
55°	309.3	307.3	304.2	298.1	297.1	295.1	294.1	293.0	289.0	291.0	288.0
57.5°	283.9	279.8	275.7	274.7	270.7	269.6	268.6	267.6	264.6	265.6	263.5
60°	253.4	252.3	250.3	246.2	246.2	245.2	245.2	243.2	241.2	240.1	240.1
62.5°	231.0	227.9	225.9	225.9	222.8	222.8	222.8	220.8	218.8	219.8	218.8
65°	206.6	205.5	204.5	202.5	202.5	201.5	201.5	199.4	196.4	197.4	195.4
67.5°	186.2	184.2	182.1	181.1	177.0	175.0	174.0	173.0	168.9	169.9	167.9
70°	160.8	157.7	155.7	153.6	150.6	148.6	148.6	146.5	143.5	144.5	142.5
72.5°	134.3	132.3	130.2	129.2	126.2	125.2	124.1	123.1	120.1	121.1	120.1
75°	111.9	111.9	110.9	109.9	106.8	103.8	101.8	100.7	98.7	99.7	97.7
77.5°	92.6	90.6	88.5	88.5	85.5	83.4	81.4	81.4	81.4	80.4	79.4
80°	72.2	70.2	70.2	69.2	67.2	65.1	64.1	64.1	63.1	63.1	62.1
82.5°	54.9	52.9	51.9	51.9	49.9	48.8	47.8	46.8	46.8	46.8	45.8
85°	38.7	36.6	35.6	35.6	33.6	32.6	32.6	31.5	31.5	30.5	30.5
87.5°	23.4	22.4	21.4	21.4	19.3	18.3	18.3	18.3	17.3	17.3	16.3
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-LD5-56HL-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°	2220.2	2220.2	2220.2	2220.2	2220.2	2220.2	2220.2	2220.2	2220.2	2220.2	2220.2
2.5°	2395.2	2395.2	2388.1	2390.1	2387.1	2391.2	2386.1	2386.1	2392.2	2392.2	2396.2
5°	2309.8	2304.7	2303.7	2301.6	2291.4	2295.5	2290.4	2285.3	2292.5	2292.5	2301.6
7.5°	2192.7	2183.6	2187.7	2181.6	2175.4	2166.3	2169.3	2165.3	2170.4	2177.5	2186.6
10°	2132.7	2124.6	2129.7	2123.6	2126.6	2113.4	2114.4	2115.4	2120.5	2122.5	2130.7
12.5°	2094.0	2092.0	2090.0	2087.9	2090.0	2082.9	2078.8	2079.8	2081.8	2082.9	2089.0
15°	2012.6	1999.4	2003.5	1989.2	1990.3	1991.3	1983.1	1991.3	1990.3	2003.5	2015.7
17.5°	1946.5	1946.5	1939.4	1933.3	1929.2	1928.2	1922.1	1926.2	1922.1	1930.2	1933.3
20°	1900.7	1899.7	1898.7	1895.6	1885.5	1886.5	1889.5	1880.4	1879.4	1878.3	1884.4
22.5°	1879.4	1880.4	1876.3	1876.3	1867.1	1869.2	1870.2	1860.0	1861.0	1858.0	1861.0
25°	1857.0	1859.0	1853.9	1853.9	1851.9	1850.9	1845.8	1847.8	1841.7	1836.6	1841.7
27.5°	1830.5	1834.6	1830.5	1832.5	1828.5	1826.4	1823.4	1821.4	1815.2	1814.2	1817.3
30°	1806.1	1808.1	1807.1	1802.0	1801.0	1794.9	1797.9	1791.8	1785.7	1786.8	1788.8
32.5°	925.9	884.2	681.7	615.6	609.5	631.9	748.9	911.7	1181.3	1442.8	1631.1
35°	404.0	404.0	404.0	402.9	402.9	401.9	400.9	399.9	398.9	397.8	396.8
37.5°	406.0	406.0	406.0	406.0	405.0	404.0	404.0	401.9	400.9	399.9	398.9
40°	407.0	408.0	408.0	408.0	407.0	407.0	406.0	404.0	402.9	400.9	398.9
42.5°	406.0	407.0	407.0	406.0	406.0	405.0	405.0	404.0	402.9	401.9	400.9
45°	392.8	393.8	391.7	391.7	390.7	390.7	390.7	390.7	390.7	391.7	391.7
47.5°	369.4	369.4	368.3	367.3	367.3	366.3	367.3	366.3	368.3	369.4	371.4
50°	341.9	341.9	339.9	338.8	338.8	338.8	338.8	339.9	340.9	342.9	344.9
52.5°	313.4	313.4	312.4	311.4	310.3	310.3	313.4	312.4	313.4	314.4	317.5
55°	285.9	286.9	284.9	284.9	283.9	283.9	283.9	284.9	285.9	286.9	290.0
57.5°	262.5	262.5	260.5	260.5	260.5	259.5	262.5	260.5	261.5	262.5	264.6
60°	239.1	238.1	238.1	237.1	237.1	237.1	239.1	238.1	238.1	239.1	241.2
62.5°	217.7	217.7	216.7	216.7	215.7	215.7	217.7	216.7	216.7	217.7	218.8
65°	193.3	193.3	192.3	191.3	194.3	191.3	194.3	192.3	194.3	195.4	197.4
67.5°	165.9	165.9	165.9	164.8	164.8	166.9	167.9	165.9	166.9	168.9	169.9
70°	141.4	141.4	140.4	140.4	140.4	142.5	143.5	141.4	142.5	143.5	145.5
72.5°	120.1	118.0	118.0	117.0	119.0	119.0	120.1	119.0	120.1	120.1	122.1
75°	98.7	96.7	96.7	96.7	98.7	97.7	98.7	97.7	98.7	98.7	99.7
77.5°	79.4	78.3	77.3	77.3	79.4	79.4	79.4	78.3	79.4	80.4	81.4
80°	62.1	61.1	60.0	60.0	62.1	62.1	62.1	63.1	62.1	63.1	64.1
82.5°	45.8	44.8	43.8	45.8	45.8	45.8	45.8	46.8	45.8	46.8	47.8
85°	30.5	29.5	28.5	30.5	30.5	30.5	30.5	31.5	30.5	31.5	32.6
87.5°	16.3	15.3	15.3	16.3	16.3	16.3	17.3	17.3	17.3	18.3	18.3
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-LD5-56HL-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°	2220.2	2220.2	2220.2	2220.2	2220.2	2220.2	2220.2	2220.2	2220.2	2220.2	2220.2
2.5°	2402.4	2405.4	2404.4	2398.3	2392.2	2385.1	2380.0	2381.0	2391.2	2394.2	2385.1
5°	2301.6	2321.0	2321.0	2334.2	2327.1	2321.0	2325.0	2347.4	2358.6	2375.9	2382.0
7.5°	2197.8	2207.0	2206.0	2219.2	2217.2	2217.2	2220.2	2249.7	2264.0	2278.2	2282.3
10°	2139.8	2149.0	2148.0	2149.0	2145.9	2138.8	2138.8	2152.0	2164.3	2171.4	2173.4
12.5°	2098.1	2103.2	2102.2	2102.2	2100.2	2094.0	2093.0	2104.2	2117.4	2126.6	2127.6
15°	2036.0	2050.3	2053.3	2066.6	2063.5	2055.4	2057.4	2066.6	2074.7	2082.9	2079.8
17.5°	1943.5	1950.6	1951.6	1956.7	1954.6	1954.6	1966.9	2000.4	2022.8	2042.2	2044.2
20°	1890.5	1895.6	1893.6	1904.8	1899.7	1898.7	1901.7	1916.0	1926.2	1935.3	1951.6
22.5°	1865.1	1869.2	1866.1	1867.1	1858.0	1849.8	1847.8	1859.0	1870.2	1882.4	1882.4
25°	1843.7	1846.8	1845.8	1843.7	1836.6	1825.4	1823.4	1825.4	1829.5	1830.5	1823.4
27.5°	1818.3	1820.3	1820.3	1821.4	1812.2	1802.0	1800.0	1797.9	1802.0	1801.0	1789.8
30°	1791.8	1788.8	1789.8	1790.8	1782.7	1773.5	1769.5	1768.4	1772.5	1771.5	1760.3
32.5°	1728.8	1752.2	1754.2	1756.2	1749.1	1741.0	1736.9	1733.8	1735.9	1734.9	1724.7
35°	395.8	402.9	493.5	1117.2	1517.1	1679.9	1697.2	1693.1	1694.2	1694.2	1686.0
37.5°	396.8	395.8	394.8	391.7	388.7	386.7	668.5	1425.5	1651.4	1652.4	1645.3
40°	396.8	395.8	394.8	392.8	388.7	385.6	380.6	376.5	385.6	848.6	1552.7
42.5°	398.9	396.8	394.8	392.8	388.7	384.6	380.6	375.5	378.5	376.5	371.4
45°	392.8	391.7	391.7	390.7	388.7	384.6	379.5	373.4	370.4	373.4	368.3
47.5°	373.4	374.4	377.5	378.5	378.5	379.5	376.5	372.4	367.3	370.4	364.3
50°	347.0	349.0	350.0	355.1	357.1	361.2	362.2	362.2	361.2	365.3	361.2
52.5°	318.5	320.5	325.6	327.6	329.7	335.8	337.8	340.9	342.9	349.0	353.1
55°	291.0	292.0	294.1	298.1	301.2	306.3	309.3	312.4	317.5	320.5	332.7
57.5°	265.6	266.6	270.7	271.7	273.7	277.8	280.8	284.9	289.0	291.0	305.3
60°	241.2	242.2	245.2	246.2	247.3	251.3	254.4	257.4	260.5	262.5	272.7
62.5°	219.8	219.8	222.8	222.8	223.9	226.9	228.9	231.0	234.0	235.0	240.1
65°	198.4	199.4	201.5	201.5	202.5	204.5	205.5	206.6	209.6	209.6	213.7
67.5°	172.0	173.0	176.0	178.1	179.1	183.2	184.2	185.2	187.2	188.2	190.3
70°	146.5	147.5	150.6	151.6	152.6	155.7	157.7	160.8	163.8	166.9	168.9
72.5°	123.1	124.1	127.2	127.2	130.2	131.3	133.3	134.3	137.4	139.4	142.5
75°	100.7	101.8	104.8	104.8	107.9	108.9	109.9	110.9	112.9	115.0	117.0
77.5°	82.4	82.4	86.5	88.5	90.6	90.6	91.6	91.6	91.6	92.6	94.6
80°	65.1	65.1	68.2	70.2	72.2	72.2	73.3	74.3	75.3	75.3	76.3
82.5°	48.8	48.8	51.9	52.9	54.9	54.9	54.9	56.0	57.0	56.0	58.0
85°	33.6	33.6	35.6	36.6	38.7	38.7	38.7	39.7	40.7	39.7	40.7
87.5°	19.3	20.4	21.4	22.4	23.4	24.4	24.4	24.4	25.4	25.4	26.5
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-LD5-56HL-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°	2220.2	2220.2	2220.2	2220.2	2220.2	2220.2	2220.2	2220.2	2220.2	2220.2	2220.2
2.5°	2374.9	2362.7	2361.7	2347.4	2343.3	2344.4	2333.2	2329.1	2310.8	2306.7	2287.4
5°	2384.0	2390.1	2387.1	2386.1	2389.1	2387.1	2379.0	2374.9	2371.8	2363.7	2347.4
7.5°	2283.3	2287.4	2290.4	2303.7	2314.8	2334.2	2354.5	2367.8	2377.9	2380.0	2366.7
10°	2180.5	2199.9	2213.1	2233.4	2249.7	2260.9	2273.1	2284.3	2313.8	2343.3	2360.6
12.5°	2127.6	2132.7	2131.7	2142.9	2154.1	2183.6	2212.1	2228.4	2250.7	2264.0	2295.5
15°	2082.9	2083.9	2086.9	2095.1	2101.2	2111.3	2124.6	2149.0	2193.8	2214.1	2231.4
17.5°	2042.2	2042.2	2044.2	2051.3	2059.5	2068.6	2076.7	2086.9	2109.3	2142.9	2185.6
20°	1977.0	2005.5	2008.6	2007.6	2011.6	2028.9	2031.0	2049.3	2060.5	2073.7	2115.4
22.5°	1880.4	1897.7	1922.1	1959.7	1974.0	1982.1	1988.2	1996.4	2013.7	2028.9	2046.2
25°	1827.5	1838.6	1845.8	1857.0	1886.5	1934.3	1943.5	1952.6	1963.8	1975.0	1996.4
27.5°	1780.7	1779.6	1784.7	1794.9	1803.0	1828.5	1873.2	1908.9	1910.9	1927.2	1945.5
30°	1747.1	1741.0	1733.8	1731.8	1743.0	1756.2	1769.5	1825.4	1864.1	1872.2	1891.6
32.5°	1715.5	1705.4	1695.2	1687.0	1679.9	1691.1	1699.3	1723.7	1773.5	1820.3	1830.5
35°	1676.9	1666.7	1654.5	1645.3	1634.1	1633.1	1632.1	1655.5	1671.8	1727.7	1776.6
37.5°	1637.2	1626.0	1615.8	1605.6	1594.4	1586.3	1581.2	1587.3	1602.6	1627.0	1708.4
40°	1595.5	1582.2	1572.1	1563.9	1548.7	1542.6	1532.4	1528.3	1529.3	1550.7	1593.4
42.5°	953.4	1520.2	1525.3	1516.1	1502.9	1494.7	1483.5	1478.4	1468.3	1478.4	1502.9
45°	367.3	371.4	1112.1	1469.3	1453.0	1442.8	1432.7	1427.6	1416.4	1408.2	1430.6
47.5°	360.2	364.3	356.1	504.7	1386.9	1389.9	1377.7	1372.6	1361.4	1355.3	1349.2
50°	355.1	358.2	352.1	354.1	347.0	1270.9	1321.8	1315.6	1303.4	1296.3	1284.1
52.5°	350.0	350.0	346.0	340.9	338.8	339.9	1069.4	1257.6	1243.4	1236.3	1220.0
55°	333.7	335.8	339.9	331.7	329.7	328.7	325.6	1018.5	1177.3	1169.1	1154.9
57.5°	309.3	313.4	324.6	322.6	322.6	314.4	312.4	312.4	945.3	1101.0	1086.7
60°	280.8	284.9	297.1	301.2	304.2	302.2	300.2	299.1	295.1	996.1	1014.5
62.5°	251.3	255.4	259.5	272.7	276.8	281.9	288.0	284.9	280.8	280.8	938.1
65°	219.8	225.9	227.9	240.1	245.2	254.4	259.5	266.6	264.6	263.5	268.6
67.5°	192.3	199.4	200.5	205.5	214.7	218.8	224.9	238.1	244.2	246.2	248.3
70°	168.9	173.0	176.0	178.1	184.2	185.2	196.4	205.5	214.7	224.9	227.9
72.5°	145.5	148.6	154.7	152.6	154.7	158.7	164.8	170.9	180.1	194.3	203.5
75°	119.0	121.1	125.2	127.2	131.3	134.3	138.4	143.5	151.6	158.7	170.9
77.5°	95.6	96.7	99.7	100.7	104.8	107.9	115.0	118.0	123.1	128.2	135.3
80°	77.3	77.3	78.3	78.3	81.4	84.5	89.5	92.6	98.7	102.8	102.8
82.5°	59.0	59.0	62.1	62.1	64.1	64.1	67.2	67.2	70.2	72.2	74.3
85°	41.7	42.7	44.8	43.8	45.8	44.8	46.8	48.8	49.9	48.8	47.8
87.5°	27.5	27.5	29.5	28.5	29.5	29.5	31.5	31.5	32.6	32.6	31.5
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-LD5-56HL-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°	2220.2	2220.2	2220.2	2220.2	2220.2	2220.2	2220.2	2220.2	2220.2	2220.2	2220.2
2.5°	2280.3	2265.0	2255.8	2244.6	2241.6	2238.5	2242.6	2242.6	2236.5	2231.4	2222.3
5°	2333.2	2316.9	2299.6	2281.3	2264.0	2245.7	2238.5	2237.5	2226.3	2220.2	2217.2
7.5°	2360.6	2352.5	2333.2	2307.7	2281.3	2248.7	2234.5	2226.3	2215.1	2213.1	2213.1
10°	2363.7	2354.5	2344.4	2326.0	2295.5	2252.8	2225.3	2209.0	2198.9	2206.0	2219.2
12.5°	2334.2	2351.5	2342.3	2330.1	2305.7	2253.8	2214.1	2189.7	2186.6	2205.0	2239.6
15°	2258.9	2309.8	2335.2	2323.0	2303.7	2251.8	2195.8	2167.3	2167.3	2205.0	2249.7
17.5°	2201.9	2241.6	2303.7	2313.8	2291.4	2247.7	2178.5	2144.9	2154.1	2209.0	2256.8
20°	2155.1	2179.5	2239.6	2296.5	2275.2	2238.5	2153.1	2118.5	2136.8	2202.9	2267.0
22.5°	2081.8	2130.7	2167.3	2251.8	2258.9	2221.2	2127.6	2085.9	2122.5	2202.9	2261.9
25°	2010.6	2069.6	2108.3	2190.7	2234.5	2199.9	2104.2	2051.3	2107.3	2199.9	2257.9
27.5°	1960.8	1988.2	2058.4	2117.4	2197.8	2171.4	2072.7	2013.7	2087.9	2183.6	2234.5
30°	1907.8	1926.2	1995.3	2051.3	2149.0	2138.8	2040.1	1971.9	2063.5	2168.3	2173.4
32.5°	1849.8	1870.2	1905.8	1987.2	2080.8	2108.3	2003.5	1930.2	2037.1	2144.9	2102.2
35°	1790.8	1806.1	1834.6	1922.1	2001.5	2062.5	1958.7	1882.4	2018.8	2109.3	2034.0
37.5°	1731.8	1748.1	1772.5	1845.8	1918.0	2019.8	1920.1	1834.6	1985.2	2046.2	1962.8
40°	1675.8	1685.0	1710.4	1756.2	1848.8	1976.0	1876.3	1784.7	1950.6	1965.8	1866.1
42.5°	1573.1	1618.9	1642.3	1678.9	1770.5	1916.0	1825.4	1731.8	1911.9	1885.5	1769.5
45°	1462.2	1561.9	1572.1	1608.7	1701.3	1851.9	1777.6	1679.9	1875.3	1816.3	1677.9
47.5°	1371.6	1443.9	1502.9	1533.4	1618.9	1776.6	1732.8	1636.2	1820.3	1728.8	1588.3
50°	1291.2	1329.9	1436.7	1459.1	1520.2	1686.0	1679.9	1585.3	1744.0	1618.9	1500.8
52.5°	1212.9	1240.4	1337.0	1384.8	1434.7	1588.3	1616.8	1535.4	1660.6	1509.0	1412.3
55°	1144.7	1153.9	1206.8	1307.5	1352.3	1489.6	1547.6	1477.4	1554.8	1404.2	1326.8
57.5°	1074.5	1066.4	1105.0	1234.2	1266.8	1388.9	1474.4	1418.4	1469.3	1297.3	1238.3
60°	1001.2	990.0	1006.3	1091.8	1176.2	1289.2	1387.9	1353.3	1365.5	1191.5	1139.6
62.5°	924.9	913.7	908.6	962.6	1087.7	1186.4	1300.4	1281.1	1238.3	1094.8	1017.5
65°	845.6	834.4	826.2	847.6	990.0	1053.1	1202.7	1197.6	1098.9	993.1	856.7
67.5°	257.4	759.1	741.8	740.8	834.4	932.0	1096.9	1088.7	958.5	884.2	737.7
70°	232.0	615.6	654.3	645.1	685.8	808.9	975.8	969.7	822.2	709.2	652.2
72.5°	212.7	217.7	577.9	567.8	576.9	687.8	849.6	833.3	697.0	559.6	563.7
75°	182.1	191.3	199.4	479.2	467.0	569.8	712.3	686.8	574.9	462.0	471.1
77.5°	148.6	159.7	165.9	349.0	377.5	406.0	568.8	535.2	395.8	369.4	176.0
80°	110.9	120.1	130.2	139.4	286.9	283.9	422.3	388.7	275.7	230.0	137.4
82.5°	81.4	84.5	90.6	100.7	114.0	190.3	271.7	239.1	191.3	104.8	94.6
85°	50.9	54.9	58.0	61.1	69.2	114.0	134.3	106.8	80.4	64.1	60.0
87.5°	32.6	32.6	31.5	32.6	33.6	40.7	45.8	43.8	34.6	32.6	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-LD5-56HL-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°	2220.2	2220.2	2220.2	2220.2	2220.2	2220.2	2220.2	2220.2	2220.2	2220.2	2220.2
2.5°	2212.1	2197.8	2197.8	2193.8	2196.8	2196.8	2195.8	2196.8	2203.9	2208.0	2215.1
5°	2211.1	2207.0	2216.1	2227.3	2240.6	2256.8	2260.9	2275.2	2288.4	2305.7	2324.0
7.5°	2224.3	2238.5	2255.8	2274.1	2300.6	2319.9	2337.2	2354.5	2366.7	2383.0	2393.2
10°	2243.6	2272.1	2301.6	2325.0	2353.5	2369.8	2381.0	2383.0	2365.7	2338.2	2315.9
12.5°	2271.1	2304.7	2332.1	2354.5	2367.8	2361.7	2329.1	2295.5	2276.2	2247.7	2208.0
15°	2294.5	2325.0	2353.5	2344.4	2308.7	2275.2	2249.7	2210.0	2171.4	2144.9	2127.6
17.5°	2304.7	2334.2	2324.0	2276.2	2242.6	2203.9	2152.0	2121.5	2096.1	2075.7	2065.6
20°	2310.8	2305.7	2250.7	2216.1	2151.0	2115.4	2081.8	2053.3	2034.0	2023.8	2021.8
22.5°	2294.5	2232.4	2185.6	2123.6	2075.7	2046.2	2019.8	1996.4	1983.1	1975.0	1969.9
25°	2240.6	2168.3	2099.1	2050.3	2009.6	1984.2	1963.8	1944.5	1928.2	1924.1	1913.9
27.5°	2165.3	2106.3	2014.7	1977.0	1941.4	1929.2	1906.8	1887.5	1873.2	1861.0	1828.5
30°	2103.2	2009.6	1943.5	1908.9	1887.5	1873.2	1847.8	1827.5	1803.0	1758.3	1740.0
32.5°	2026.9	1934.3	1871.2	1851.9	1825.4	1813.2	1784.7	1740.0	1702.3	1684.0	1683.0
35°	1928.2	1851.9	1806.1	1788.8	1767.4	1747.1	1688.1	1647.4	1629.0	1631.1	1646.3
37.5°	1845.8	1777.6	1748.1	1723.7	1699.3	1647.4	1597.5	1578.2	1583.3	1593.4	1600.6
40°	1762.3	1710.4	1676.9	1657.5	1602.6	1551.7	1525.3	1532.4	1541.5	1548.7	1557.8
42.5°	1680.9	1644.3	1610.7	1573.1	1497.8	1470.3	1476.4	1485.6	1493.7	1503.9	1513.0
45°	1603.6	1571.0	1532.4	1446.9	1409.3	1416.4	1425.5	1432.7	1444.9	1452.0	1461.2
47.5°	1530.3	1495.7	1427.6	1352.3	1348.2	1362.5	1370.6	1379.8	1388.9	1370.6	756.0
50°	1447.9	1412.3	1308.5	1280.0	1289.2	1302.4	1312.6	1321.8	1177.3	468.1	360.2
52.5°	1366.5	1276.0	1209.8	1218.0	1227.1	1242.4	1249.5	928.0	369.4	352.1	353.1
55°	1276.0	1160.0	1140.6	1150.8	1158.9	1174.2	778.4	340.9	338.8	337.8	346.0
57.5°	1133.5	1063.3	1071.4	1081.6	1089.8	769.2	331.7	329.7	330.7	331.7	332.7
60°	1006.3	991.1	1000.2	1009.4	714.3	320.5	314.4	315.4	319.5	316.4	308.3
62.5°	905.6	917.8	927.0	812.0	304.2	301.2	304.2	301.2	294.1	289.0	278.8
65°	828.3	840.5	847.6	285.9	284.9	289.0	285.9	275.7	264.6	250.3	247.3
67.5°	746.9	759.1	271.7	264.6	268.6	263.5	251.3	239.1	231.0	218.8	213.7
70°	662.4	283.9	246.2	245.2	238.1	230.0	216.7	204.5	194.3	189.3	184.2
72.5°	478.2	224.9	221.8	213.7	201.5	190.3	179.1	172.0	166.9	163.8	160.8
75°	199.4	195.4	186.2	172.0	159.7	154.7	146.5	141.4	139.4	133.3	131.3
77.5°	166.9	158.7	145.5	135.3	128.2	125.2	119.0	112.9	109.9	108.9	104.8
80°	128.2	117.0	110.9	105.8	103.8	96.7	89.5	86.5	84.5	83.4	80.4
82.5°	87.5	83.4	79.4	72.2	72.2	69.2	66.1	64.1	62.1	62.1	60.0
85°	57.0	53.9	52.9	49.9	49.9	47.8	46.8	45.8	44.8	43.8	42.7
87.5°	32.6	32.6	33.6	32.6	32.6	31.5	30.5	29.5	28.5	28.5	26.5
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-LD5-56HL-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°	2220.2	2220.2	2220.2	2220.2	2220.2	2220.2	2220.2	2220.2	2220.2	2220.2	2220.2
2.5°	2224.3	2234.5	2236.5	2271.1	2290.4	2289.4	2283.3	2301.6	2290.4	2284.3	2290.4
5°	2342.3	2354.5	2364.7	2402.4	2415.6	2421.7	2420.7	2430.8	2422.7	2415.6	2415.6
7.5°	2400.3	2404.4	2408.5	2399.3	2393.2	2383.0	2367.8	2345.4	2334.2	2322.0	2306.7
10°	2304.7	2291.4	2296.5	2278.2	2263.0	2251.8	2237.5	2219.2	2203.9	2192.7	2175.4
12.5°	2187.7	2186.6	2188.7	2191.7	2176.5	2167.3	2156.1	2142.9	2131.7	2119.5	2105.2
15°	2116.4	2117.4	2125.6	2122.5	2117.4	2112.4	2100.2	2096.1	2085.9	2072.7	2064.5
17.5°	2065.6	2070.6	2078.8	2074.7	2066.6	2061.5	2052.3	2043.2	2034.0	2023.8	2011.6
20°	2020.8	2025.9	2031.0	2025.9	2010.6	2003.5	1991.3	1962.8	1942.4	1922.1	1903.8
22.5°	1971.9	1975.0	1970.9	1954.6	1916.0	1897.7	1883.4	1875.3	1858.0	1846.8	1835.6
25°	1910.9	1893.6	1867.1	1848.8	1833.6	1825.4	1819.3	1818.3	1816.3	1814.2	1809.1
27.5°	1811.2	1805.1	1790.8	1783.7	1784.7	1787.8	1788.8	1791.8	1788.8	1784.7	1780.7
30°	1736.9	1740.0	1741.0	1743.0	1748.1	1751.1	1752.2	1756.2	1754.2	1751.1	1749.1
32.5°	1690.1	1697.2	1701.3	1707.4	1710.4	1715.5	1715.5	1721.6	1715.5	1714.5	1712.5
35°	1651.4	1657.5	1659.6	1668.7	1671.8	1676.9	1676.9	1682.0	1676.9	1625.0	1283.1
37.5°	1612.8	1618.9	1622.9	1631.1	1632.1	1635.1	1509.0	1104.0	712.3	551.5	421.3
40°	1567.0	1574.1	1578.2	1581.2	1111.1	705.1	485.4	394.8	394.8	397.8	400.9
42.5°	1518.1	1523.2	1061.3	617.6	384.6	383.6	386.7	389.7	392.8	396.8	400.9
45°	1193.5	602.4	382.6	373.4	376.5	380.6	384.6	388.7	393.8	397.8	399.9
47.5°	391.7	367.3	372.4	368.3	373.4	378.5	382.6	386.7	387.7	388.7	387.7
50°	362.2	362.2	365.3	365.3	369.4	371.4	371.4	371.4	367.3	366.3	363.3
52.5°	350.0	358.2	354.1	356.1	354.1	351.0	348.0	344.9	338.8	336.8	332.7
55°	343.9	347.0	336.8	333.7	329.7	321.5	317.5	313.4	308.3	306.3	301.2
57.5°	329.7	322.6	311.4	306.3	299.1	291.0	286.9	283.9	278.8	276.8	273.7
60°	303.2	289.0	281.9	275.7	267.6	260.5	257.4	255.4	251.3	250.3	247.3
62.5°	270.7	258.4	252.3	244.2	238.1	234.0	231.0	230.0	225.9	225.9	223.9
65°	235.0	228.9	223.9	215.7	212.7	208.6	207.6	206.6	204.5	203.5	201.5
67.5°	206.6	202.5	195.4	191.3	189.3	186.2	184.2	182.1	178.1	176.0	173.0
70°	181.1	178.1	170.9	167.9	163.8	158.7	155.7	153.6	150.6	148.6	145.5
72.5°	156.7	147.5	142.5	139.4	136.3	131.3	130.2	128.2	125.2	124.1	121.1
75°	126.2	119.0	116.0	114.0	110.9	107.9	107.9	107.9	104.8	103.8	102.8
77.5°	100.7	96.7	94.6	92.6	91.6	89.5	86.5	85.5	82.4	82.4	81.4
80°	77.3	75.3	73.3	72.2	71.2	69.2	67.2	66.1	63.1	63.1	62.1
82.5°	57.0	56.0	54.9	53.9	52.9	51.9	48.8	47.8	45.8	45.8	44.8
85°	40.7	39.7	37.6	36.6	36.6	35.6	32.6	31.5	29.5	29.5	29.5
87.5°	25.4	24.4	23.4	22.4	21.4	20.4	18.3	17.3	17.3	15.3	14.2
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-LD5-56HL-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°	2220.2	2220.2	2220.2	2220.2	2220.2	2220.2	2220.2	2220.2	2220.2	2220.2	2220.2
2.5°	2278.2	2295.5	2293.5	2305.7	2308.7	2314.8	2316.9	2317.9	2302.6	2314.8	2315.9
5°	2412.5	2415.6	2417.6	2422.7	2427.8	2428.8	2423.7	2417.6	2419.7	2415.6	2405.4
7.5°	2304.7	2289.4	2286.4	2282.3	2280.3	2278.2	2269.1	2277.2	2268.0	2264.0	2249.7
10°	2172.4	2158.1	2157.1	2157.1	2160.2	2159.2	2157.1	2153.1	2161.2	2156.1	2153.1
12.5°	2103.2	2098.1	2101.2	2099.1	2107.3	2109.3	2107.3	2107.3	2105.2	2101.2	2103.2
15°	2061.5	2057.4	2060.5	2057.4	2063.5	2064.5	2059.5	2062.5	2057.4	2052.3	2050.3
17.5°	2006.5	1997.4	1990.3	1980.1	1981.1	1979.1	1973.0	1973.0	1967.9	1954.6	1955.7
20°	1900.7	1891.6	1887.5	1887.5	1892.6	1894.6	1893.6	1895.6	1890.5	1888.5	1880.4
22.5°	1834.6	1833.6	1835.6	1840.7	1848.8	1860.0	1861.0	1861.0	1861.0	1860.0	1849.8
25°	1811.2	1811.2	1813.2	1820.3	1826.4	1834.6	1836.6	1838.6	1836.6	1836.6	1827.5
27.5°	1784.7	1782.7	1786.8	1793.9	1801.0	1807.1	1812.2	1813.2	1810.2	1810.2	1813.2
30°	1752.2	1751.1	1756.2	1763.4	1769.5	1775.6	1780.7	1784.7	1780.7	1780.7	1777.6
32.5°	1718.6	1718.6	1720.6	1677.9	1555.8	1401.1	1404.2	1314.6	1252.6	1174.2	1278.0
35°	1072.5	780.4	670.5	567.8	495.5	448.7	447.7	432.4	425.3	420.2	419.2
37.5°	405.0	407.0	411.1	413.1	416.2	418.2	419.2	419.2	419.2	419.2	418.2
40°	404.0	408.0	411.1	414.1	417.2	419.2	419.2	420.2	421.3	421.3	421.3
42.5°	405.0	409.0	413.1	416.2	418.2	419.2	420.2	421.3	421.3	421.3	421.3
45°	404.0	406.0	406.0	407.0	407.0	407.0	408.0	408.0	407.0	406.0	408.0
47.5°	388.7	388.7	385.6	384.6	383.6	381.6	382.6	381.6	380.6	379.5	381.6
50°	362.2	358.2	356.1	354.1	353.1	351.0	352.1	351.0	350.0	348.0	351.0
52.5°	330.7	329.7	325.6	323.6	322.6	323.6	321.5	320.5	319.5	318.5	319.5
55°	300.2	296.1	295.1	293.0	292.0	293.0	292.0	291.0	290.0	289.0	290.0
57.5°	272.7	269.6	268.6	266.6	266.6	266.6	266.6	265.6	264.6	263.5	264.6
60°	246.2	244.2	243.2	243.2	242.2	242.2	242.2	241.2	240.1	240.1	241.2
62.5°	223.9	223.9	220.8	219.8	219.8	220.8	219.8	218.8	217.7	216.7	218.8
65°	200.5	196.4	195.4	193.3	191.3	192.3	191.3	190.3	189.3	188.2	190.3
67.5°	172.0	170.9	166.9	164.8	163.8	164.8	163.8	162.8	161.8	160.8	162.8
70°	144.5	144.5	140.4	139.4	138.4	138.4	137.4	137.4	136.3	135.3	137.4
72.5°	120.1	120.1	119.0	117.0	116.0	115.0	114.0	112.9	112.9	114.0	114.0
75°	99.7	97.7	93.6	94.6	93.6	92.6	92.6	91.6	90.6	92.6	91.6
77.5°	78.3	77.3	74.3	75.3	74.3	73.3	73.3	72.2	71.2	72.2	72.2
80°	59.0	59.0	58.0	57.0	57.0	56.0	54.9	54.9	53.9	54.9	54.9
82.5°	42.7	42.7	41.7	40.7	39.7	39.7	38.7	38.7	38.7	38.7	38.7
85°	27.5	26.5	26.5	24.4	24.4	24.4	23.4	23.4	23.4	23.4	23.4
87.5°	13.2	13.2	12.2	12.2	11.2	10.2	10.2	9.2	9.2	10.2	10.2
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-LD5-56HL-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°	2220.2	2220.2	2220.2	2220.2	2220.2	2220.2	2220.2	2220.2	2220.2	2220.2	2220.2
2.5°	2297.5	2310.8	2299.6	2304.7	2305.7	2323.0	2322.0	2326.0	2318.9	2310.8	2299.6
5°	2414.6	2408.5	2400.3	2419.7	2409.5	2421.7	2425.8	2433.9	2433.9	2432.9	2423.7
7.5°	2265.0	2251.8	2261.9	2269.1	2272.1	2264.0	2280.3	2298.6	2313.8	2323.0	2324.0
10°	2148.0	2152.0	2151.0	2154.1	2161.2	2160.2	2170.4	2180.5	2184.6	2190.7	2192.7
12.5°	2093.0	2092.0	2094.0	2101.2	2105.2	2104.2	2114.4	2120.5	2122.5	2123.6	2122.5
15°	2049.3	2042.2	2047.2	2048.3	2051.3	2051.3	2063.5	2072.7	2076.7	2078.8	2076.7
17.5°	1966.9	1949.6	1965.8	1965.8	1977.0	1975.0	1994.3	2009.6	2017.7	2023.8	2023.8
20°	1885.5	1877.3	1883.4	1881.4	1889.5	1888.5	1900.7	1910.9	1918.0	1923.1	1929.2
22.5°	1852.9	1854.9	1845.8	1846.8	1846.8	1845.8	1851.9	1857.0	1859.0	1862.1	1860.0
25°	1831.5	1833.6	1830.5	1825.4	1823.4	1825.4	1828.5	1834.6	1835.6	1833.6	1826.4
27.5°	1810.2	1804.1	1809.1	1800.0	1797.9	1802.0	1806.1	1807.1	1808.1	1808.1	1802.0
30°	1777.6	1772.5	1777.6	1773.5	1769.5	1773.5	1776.6	1776.6	1778.6	1779.6	1772.5
32.5°	1242.4	1252.6	1417.4	1517.1	1657.5	1728.8	1742.0	1742.0	1744.0	1744.0	1737.9
35°	423.3	424.3	458.9	497.6	580.0	681.7	815.0	884.2	1118.2	1398.1	1668.7
37.5°	418.2	417.2	416.2	415.1	414.1	413.1	411.1	410.1	416.2	493.5	669.5
40°	420.2	419.2	417.2	416.2	415.1	413.1	412.1	410.1	408.0	406.0	404.0
42.5°	420.2	419.2	418.2	417.2	416.2	415.1	413.1	411.1	409.0	406.0	402.9
45°	406.0	406.0	407.0	407.0	408.0	408.0	408.0	407.0	407.0	406.0	401.9
47.5°	379.5	379.5	382.6	382.6	384.6	386.7	386.7	388.7	391.7	393.8	394.8
50°	349.0	349.0	352.1	353.1	355.1	358.2	361.2	362.2	365.3	369.4	373.4
52.5°	318.5	318.5	321.5	321.5	323.6	326.6	329.7	330.7	334.8	338.8	343.9
55°	290.0	290.0	292.0	293.0	294.1	296.1	299.1	299.1	303.2	306.3	311.4
57.5°	264.6	266.6	266.6	266.6	267.6	269.6	271.7	271.7	274.7	277.8	281.9
60°	240.1	242.2	242.2	242.2	243.2	244.2	246.2	246.2	248.3	250.3	254.4
62.5°	217.7	219.8	219.8	220.8	220.8	221.8	223.9	222.8	224.9	225.9	228.9
65°	189.3	191.3	192.3	193.3	194.3	196.4	199.4	198.4	201.5	203.5	206.6
67.5°	161.8	163.8	163.8	164.8	165.9	167.9	169.9	169.9	173.0	175.0	179.1
70°	136.3	138.4	138.4	139.4	140.4	142.5	144.5	143.5	146.5	148.6	151.6
72.5°	112.9	115.0	115.0	116.0	116.0	118.0	120.1	122.1	122.1	124.1	126.2
75°	91.6	92.6	93.6	93.6	94.6	95.6	97.7	99.7	100.7	101.8	103.8
77.5°	72.2	73.3	74.3	74.3	75.3	76.3	77.3	81.4	83.4	84.5	84.5
80°	54.9	56.0	56.0	56.0	57.0	58.0	60.0	60.0	64.1	64.1	65.1
82.5°	38.7	39.7	39.7	39.7	40.7	42.7	43.8	44.8	46.8	47.8	47.8
85°	23.4	24.4	24.4	24.4	25.4	26.5	28.5	29.5	30.5	30.5	31.5
87.5°	9.2	10.2	11.2	11.2	12.2	13.2	14.2	15.3	16.3	16.3	17.3
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-LD5-56HL-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°	2220.2	2220.2	2220.2	2220.2	2220.2	2220.2	2220.2	2220.2	2220.2	2220.2	2220.2
2.5°	2287.4	2294.5	2287.4	2291.4	2296.5	2287.4	2266.0	2257.9	2254.8	2242.6	2234.5
5°	2414.6	2414.6	2411.5	2419.7	2418.6	2404.4	2382.0	2371.8	2361.7	2348.4	2338.2
7.5°	2324.0	2332.1	2337.2	2368.8	2389.1	2391.2	2405.4	2408.5	2412.5	2408.5	2402.4
10°	2193.8	2190.7	2205.0	2234.5	2251.8	2260.9	2288.4	2301.6	2312.8	2335.2	2358.6
12.5°	2120.5	2124.6	2130.7	2152.0	2168.3	2164.3	2175.4	2184.6	2197.8	2220.2	2253.8
15°	2071.7	2075.7	2081.8	2098.1	2108.3	2103.2	2109.3	2115.4	2124.6	2135.8	2156.1
17.5°	2018.8	2025.9	2033.0	2050.3	2059.5	2058.4	2063.5	2065.6	2068.6	2075.7	2090.0
20°	1936.3	1958.7	1973.0	1996.4	2009.6	2007.6	2016.7	2019.8	2023.8	2031.0	2037.1
22.5°	1861.0	1867.1	1874.3	1899.7	1922.1	1949.6	1955.7	1963.8	1974.0	1981.1	1987.2
25°	1818.3	1814.2	1817.3	1834.6	1846.8	1848.8	1858.0	1884.4	1911.9	1924.1	1938.4
27.5°	1792.9	1788.8	1787.8	1795.9	1797.9	1792.9	1790.8	1799.0	1819.3	1839.7	1882.4
30°	1765.4	1760.3	1756.2	1763.4	1766.4	1759.3	1746.1	1738.9	1751.1	1756.2	1773.5
32.5°	1732.8	1727.7	1725.7	1729.8	1731.8	1725.7	1711.5	1703.3	1701.3	1697.2	1701.3
35°	1696.2	1691.1	1688.1	1689.1	1693.1	1688.1	1675.8	1665.7	1660.6	1649.4	1641.3
37.5°	874.0	1238.3	1607.7	1646.3	1650.4	1649.4	1637.2	1626.0	1620.9	1607.7	1603.6
40°	399.9	446.7	670.5	876.1	1263.8	1605.6	1594.4	1583.3	1574.1	1570.0	1554.8
42.5°	398.9	399.9	400.9	395.8	490.4	835.4	1233.2	1539.5	1533.4	1523.2	1512.0
45°	398.9	393.8	397.8	391.7	393.8	392.8	489.4	789.6	1405.2	1468.3	1463.2
47.5°	394.8	391.7	395.8	390.7	384.6	387.7	383.6	388.7	606.4	1028.7	1409.3
50°	376.5	378.5	385.6	384.6	379.5	383.6	376.5	382.6	377.5	414.1	797.7
52.5°	349.0	353.1	360.2	366.3	368.3	373.4	371.4	373.4	369.4	370.4	371.4
55°	316.4	321.5	327.6	336.8	340.9	349.0	355.1	358.2	363.3	362.2	354.1
57.5°	285.9	291.0	296.1	305.3	314.4	318.5	329.7	335.8	349.0	346.0	343.9
60°	257.4	261.5	266.6	268.6	279.8	286.9	297.1	303.2	320.5	324.6	330.7
62.5°	232.0	234.0	238.1	241.2	248.3	255.4	260.5	270.7	279.8	293.0	302.2
65°	208.6	210.6	213.7	215.7	216.7	226.9	230.0	241.2	244.2	258.4	266.6
67.5°	182.1	186.2	190.3	192.3	194.3	200.5	202.5	207.6	214.7	220.8	231.0
70°	154.7	157.7	161.8	164.8	168.9	173.0	179.1	182.1	187.2	191.3	199.4
72.5°	129.2	132.3	134.3	137.4	140.4	143.5	148.6	155.7	159.7	166.9	168.9
75°	104.8	107.9	109.9	111.9	115.0	117.0	119.0	126.2	130.2	136.3	142.5
77.5°	86.5	86.5	88.5	94.6	93.6	93.6	95.6	99.7	102.8	106.8	112.9
80°	67.2	68.2	69.2	74.3	75.3	76.3	75.3	78.3	81.4	82.4	86.5
82.5°	49.9	50.9	50.9	53.9	57.0	57.0	57.0	58.0	61.1	62.1	64.1
85°	33.6	34.6	35.6	36.6	38.7	39.7	40.7	40.7	42.7	43.8	44.8
87.5°	18.3	20.4	21.4	22.4	23.4	24.4	25.4	26.5	27.5	28.5	29.5
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-LD5-56HL-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°	2220.2	2220.2	2220.2	2220.2	2220.2	2220.2	2220.2	2220.2	2220.2	2220.2	2220.2
2.5°	2231.4	2226.3	2223.3	2215.1	2213.1	2199.9	2201.9	2199.9	2199.9	2202.9	2213.1
5°	2327.1	2302.6	2296.5	2279.2	2265.0	2240.6	2225.3	2217.2	2205.0	2199.9	2207.0
7.5°	2392.2	2373.9	2358.6	2343.3	2323.0	2294.5	2273.1	2248.7	2228.4	2209.0	2203.9
10°	2381.0	2401.3	2401.3	2392.2	2372.8	2344.4	2318.9	2288.4	2252.8	2222.3	2203.9
12.5°	2286.4	2322.0	2350.5	2371.8	2391.2	2371.8	2346.4	2322.0	2282.3	2237.5	2203.9
15°	2182.6	2219.2	2254.8	2299.6	2346.4	2365.7	2364.7	2336.2	2300.6	2253.8	2207.0
17.5°	2109.3	2134.7	2154.1	2202.9	2259.9	2309.8	2343.3	2345.4	2310.8	2269.1	2208.0
20°	2054.4	2072.7	2089.0	2116.4	2166.3	2227.3	2289.4	2324.0	2317.9	2272.1	2211.1
22.5°	2004.5	2017.7	2031.0	2051.3	2091.0	2130.7	2202.9	2274.1	2304.7	2267.0	2208.0
25°	1954.6	1968.9	1979.1	1993.3	2024.9	2057.4	2108.3	2196.8	2265.0	2263.0	2201.9
27.5°	1895.6	1915.0	1927.2	1946.5	1967.9	1992.3	2026.9	2110.3	2208.0	2242.6	2185.6
30°	1824.4	1852.9	1871.2	1892.6	1910.9	1932.3	1959.7	2010.6	2131.7	2202.9	2168.3
32.5°	1721.6	1772.5	1813.2	1833.6	1853.9	1872.2	1896.6	1939.4	2038.1	2149.0	2149.0
35°	1648.4	1671.8	1708.4	1767.4	1792.9	1811.2	1833.6	1867.1	1930.2	2084.9	2117.4
37.5°	1591.4	1600.6	1618.9	1676.9	1724.7	1754.2	1776.6	1797.9	1860.0	1997.4	2076.7
40°	1548.7	1545.6	1543.6	1571.0	1639.2	1686.0	1711.5	1732.8	1780.7	1892.6	2022.8
42.5°	1498.8	1495.7	1485.6	1492.7	1526.3	1604.6	1643.3	1666.7	1706.4	1782.7	1963.8
45°	1446.9	1441.8	1437.7	1430.6	1442.8	1486.6	1566.0	1600.6	1622.9	1691.1	1889.5
47.5°	1394.0	1386.9	1381.8	1375.7	1368.6	1388.9	1464.2	1526.3	1564.9	1607.7	1800.0
50°	1318.7	1327.9	1321.8	1314.6	1308.5	1304.5	1336.0	1437.7	1485.6	1520.2	1691.1
52.5°	621.7	1208.8	1259.7	1252.6	1244.4	1237.3	1244.4	1321.8	1408.2	1435.7	1559.9
55°	354.1	538.3	1120.3	1184.4	1177.3	1167.1	1161.0	1187.4	1316.7	1353.3	1439.8
57.5°	340.9	341.9	494.5	1067.4	1107.1	1097.9	1090.8	1096.9	1206.8	1268.8	1335.0
60°	329.7	329.7	329.7	472.1	1020.6	1023.6	1014.5	1004.3	1052.1	1174.2	1229.2
62.5°	305.3	311.4	314.4	314.4	466.0	945.3	936.1	933.1	935.1	1060.3	1123.3
65°	273.7	288.0	294.1	298.1	298.1	489.4	855.7	850.6	843.5	891.3	1016.5
67.5°	239.1	253.4	266.6	274.7	275.7	284.9	510.8	766.2	756.0	757.0	902.5
70°	203.5	215.7	230.0	242.2	253.4	258.4	266.6	635.9	669.5	655.3	773.3
72.5°	176.0	181.1	191.3	203.5	216.7	228.9	236.1	253.4	581.0	565.7	588.1
75°	146.5	150.6	157.7	165.9	176.0	190.3	202.5	214.7	308.3	474.2	471.1
77.5°	114.0	121.1	129.2	134.3	139.4	149.6	165.9	178.1	190.3	320.5	377.5
80°	87.5	92.6	96.7	101.8	107.9	115.0	121.1	135.3	149.6	160.8	289.0
82.5°	65.1	68.2	71.2	73.3	75.3	79.4	90.6	95.6	104.8	115.0	136.3
85°	45.8	47.8	49.9	50.9	51.9	52.9	57.0	58.0	67.2	69.2	82.4
87.5°	29.5	30.5	32.6	33.6	33.6	34.6	35.6	35.6	35.6	33.6	40.7
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-LD5-56HL-RW-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

	357.5°	360°
0°	2220.2	2220.2
2.5°	2221.2	2237.5
5°	2218.2	2239.6
7.5°	2210.0	2230.4
10°	2197.8	2222.3
12.5°	2184.6	2208.0
15°	2173.4	2190.7
17.5°	2161.2	2171.4
20°	2144.9	2153.1
22.5°	2128.6	2124.6
25°	2110.3	2101.2
27.5°	2086.9	2069.6
30°	2065.6	2035.0
32.5°	2045.2	1995.3
35°	2017.7	1954.6
37.5°	1989.2	1912.9
40°	1955.7	1865.1
42.5°	1920.1	1817.3
45°	1875.3	1771.5
47.5°	1835.6	1716.5
50°	1780.7	1657.5
52.5°	1713.5	1602.6
55°	1634.1	1535.4
57.5°	1548.7	1465.2
60°	1457.1	1384.8
62.5°	1346.2	1301.4
65°	1215.9	1205.8
67.5°	1046.0	1099.9
70°	857.8	978.8
72.5°	717.3	850.6
75°	588.1	707.2
77.5°	466.0	554.5
80°	291.0	406.0
82.5°	195.4	266.6
85°	118.0	127.2
87.5°	45.8	46.8
90°	0.0	0.0

(END OF REPORT)