

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-LD5-49SL-LC-UNV-L950-CD1-U**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P#
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P33518)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 4SNLED-LD5-49SL-LC-UNV-L950-CD1-U
Description: 4FT LINEAR SNLED LED FIXTURE
CLEAR LENSED
Light Source: -
Ballast/Driver: -

Summary

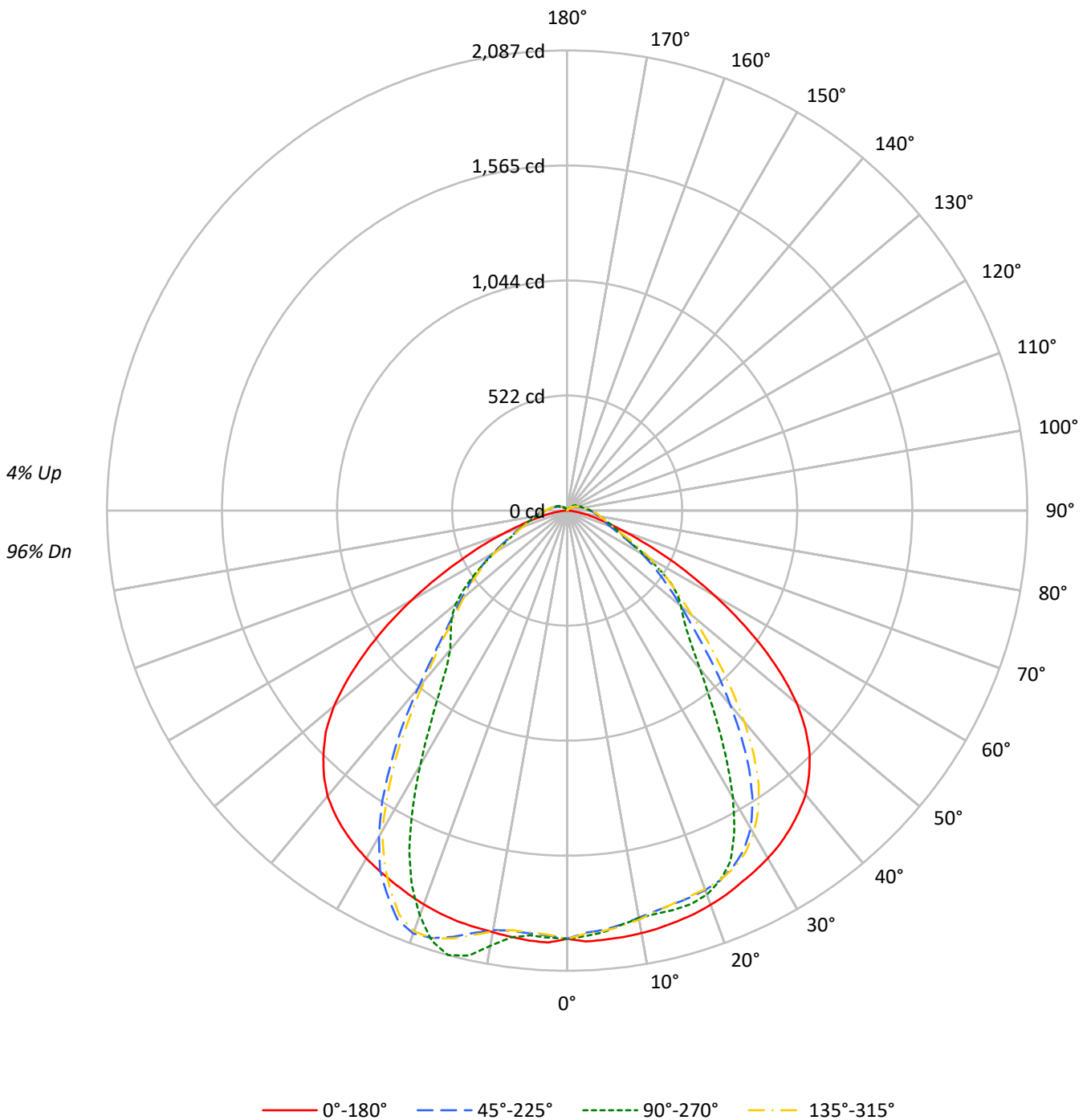
Lumens per Lamp: N/A
Luminaire Lumens: 4629.0 lumens
Efficiency: N/A
Efficacy: 121.8 lumens/watt
Spacing Criteria (0/90/45): 1.4 / 1.12 / 1.19
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.12')
CIE Type: Direct

Input Watts (W): 38
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P#
CATALOG NUMBER: 4SNLED-LD5-49SL-LC-UNV-L950-CD1-U

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	0	
RCR																						
0	118	118	118	118	115	115	115	115	109	109	109	103	103	103	98	98	98	96				
1	109	104	100	97	106	102	98	95	97	94	91	92	90	88	88	86	84	82				
2	100	93	86	81	97	90	85	80	86	82	77	82	79	75	79	76	73	71				
3	92	83	75	69	89	81	74	68	77	71	67	74	69	65	71	67	63	61				
4	85	74	66	60	83	73	65	59	70	63	58	67	61	57	64	60	56	54				
5	79	67	59	52	76	66	58	52	63	56	51	61	55	50	59	53	49	47				
6	73	61	52	46	71	60	52	46	57	51	45	55	49	45	54	48	44	42				
7	68	55	47	42	66	54	47	41	53	46	41	51	45	40	49	44	40	38				
8	64	51	43	37	62	50	42	37	48	42	37	47	41	36	45	40	36	34				
9	60	47	39	34	58	46	39	34	45	38	33	43	37	33	42	37	33	31				
10	56	43	36	31	54	43	36	31	42	35	30	40	34	30	39	34	30	28				

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	15691	15691	15691	15691
5°	15806	15069	15838	15187
10°	15879	14443	15846	15423
15°	16002	14249	15993	15866
20°	16178	14023	16161	14782
25°	16377	13304	16368	12854
30°	16685	11530	16695	10214
35°	17012	9323	17060	7890
40°	17300	7507	17372	6614
45°	17239	6359	17328	6192
50°	16496	5854	16727	5724
55°	14636	5262	15001	4783
60°	11872	4027	12502	3693
65°	8826	3082	9509	2922
70°	6001	2660	6765	2543
75°	3926	2399	4572	2269
80°	2538	2237	2973	2058
85°	1305	2233	1715	2038



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	184.4	4.0
10°-20°	548.8	11.9
20°-30°	834.3	18.0
30°-40°	895.0	19.3
40°-50°	776.8	16.8
50°-60°	575.7	12.4
60°-70°	329.8	7.1
70°-80°	182.6	3.9
80°-90°	111.2	2.4
90°-100°	72.3	1.6
100°-110°	48.4	1.0
110°-120°	32.7	0.7
120°-130°	20.1	0.4
130°-140°	10.6	0.2
140°-150°	4.8	0.1
150°-160°	1.4	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	1567.5	33.9
0°-40°	2462.5	53.2
0°-60°	3815.0	82.4
0°-90°	4438.7	95.9
90°-120°	153.5	3.3
90°-150°	188.9	4.1
90°-180°	190.0	4.1
0°-180°	4629.0	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	1942	1942	1942	1942	1942	
5°	1954	1919	1958	1934	1954	186
15°	1929	1874	1928	2087	1929	546
25°	1864	1753	1862	1694	1864	861
35°	1762	1194	1767	1010	1762	1103
45°	1556	765	1564	745	1556	1191
55°	1085	574	1112	522	1085	962
65°	492	291	531	276	492	496
75°	140	184	164	174	140	160
85°	19	127	25	116	19	25
90°	0	106	2	98	0	1
95°	1	87	0	83	1	1
105°	1	65	1	62	1	1
115°	1	53	1	48	1	1
125°	1	40	1	33	1	1
135°	1	25	1	21	1	1
145°	1	15	2	12	1	1
155°	2	7	2	6	2	1
165°	0	0	0	0	0	0
175°	0	0	0	0	0	0
180°	0	0	0	0	0	0



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-49SL-LC-UNV-L950-CD1-U

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1941.7	1941.7	1941.7	1941.7	1941.7	1941.7	1941.7	1941.7	1941.7	1941.7	1941.7
2.5°	1955.8	1950.8	1948.8	1944.8	1947.8	1959.8	1951.8	1938.7	1939.7	1916.7	1928.7
5°	1953.8	1947.8	1944.8	1940.7	1942.8	1953.8	1945.8	1932.7	1931.7	1908.7	1919.7
7.5°	1950.8	1944.8	1939.7	1936.7	1937.7	1946.8	1936.7	1921.7	1918.7	1893.6	1903.6
10°	1945.8	1941.7	1934.7	1929.7	1928.7	1938.7	1922.7	1907.6	1900.6	1874.5	1884.6
12.5°	1938.7	1932.7	1925.7	1916.7	1915.7	1921.7	1908.7	1887.6	1880.6	1859.5	1870.5
15°	1928.7	1921.7	1913.7	1903.6	1898.6	1902.6	1886.6	1867.5	1866.5	1848.5	1863.5
17.5°	1917.7	1907.6	1898.6	1884.6	1877.6	1880.6	1867.5	1850.5	1852.5	1841.5	1858.5
20°	1902.6	1891.6	1877.6	1863.5	1853.5	1858.5	1849.5	1836.4	1839.4	1831.4	1846.5
22.5°	1885.6	1870.5	1853.5	1837.4	1829.4	1836.4	1829.4	1818.4	1819.4	1814.4	1823.4
25°	1863.5	1846.5	1826.4	1806.3	1802.3	1807.4	1803.3	1794.3	1790.3	1782.3	1786.3
27.5°	1843.5	1824.4	1799.3	1778.3	1771.2	1781.3	1772.2	1757.2	1746.2	1735.1	1727.1
30°	1820.4	1797.3	1769.2	1745.2	1739.1	1743.2	1730.1	1707.1	1678.0	1663.9	1641.9
32.5°	1795.3	1765.2	1730.1	1703.0	1699.0	1696.0	1671.9	1638.9	1593.7	1565.6	1531.5
35°	1762.2	1729.1	1687.0	1653.9	1647.9	1630.8	1591.7	1547.6	1489.4	1441.3	1383.1
37.5°	1725.1	1686.0	1641.9	1597.7	1580.7	1546.6	1491.4	1445.3	1357.0	1298.8	1228.6
40°	1683.0	1635.8	1581.7	1528.5	1500.4	1445.3	1382.1	1313.9	1228.6	1150.4	1091.2
42.5°	1624.8	1574.7	1510.5	1451.3	1403.2	1329.9	1255.7	1159.4	1081.2	1015.0	954.8
45°	1555.6	1495.4	1421.2	1350.0	1288.8	1201.6	1114.3	1018.0	952.8	875.6	834.5
47.5°	1466.3	1401.1	1321.9	1242.7	1162.4	1066.2	974.9	882.6	817.4	762.3	732.2
50°	1361.0	1300.9	1213.6	1119.3	1031.1	930.8	839.5	770.3	707.1	673.0	649.9
52.5°	1230.6	1174.5	1085.2	982.9	897.7	799.4	716.1	660.0	614.8	589.7	581.7
55°	1085.2	1036.1	947.8	852.5	765.3	675.0	611.8	562.7	533.6	518.5	519.5
57.5°	929.8	891.6	808.4	723.1	640.9	572.7	515.5	476.4	454.3	453.3	456.4
60°	774.3	746.2	674.0	600.8	528.6	473.4	431.3	404.2	390.2	391.2	390.2
62.5°	625.9	599.8	547.6	487.4	430.3	393.2	355.1	344.0	332.0	331.0	331.0
65°	492.5	472.4	430.3	387.1	344.0	319.9	300.9	287.9	278.8	276.8	277.8
67.5°	370.1	362.1	333.0	303.9	276.8	261.8	245.7	242.7	235.7	235.7	237.7
70°	275.8	269.8	253.8	236.7	225.7	215.6	207.6	207.6	206.6	205.6	210.6
72.5°	199.6	200.6	195.6	182.5	181.5	179.5	177.5	180.5	181.5	184.5	190.6
75°	140.4	143.4	143.4	141.4	145.4	150.4	153.5	158.5	164.5	168.5	175.5
77.5°	99.3	99.3	104.3	110.3	118.4	127.4	135.4	142.4	150.4	155.5	161.5
80°	64.2	67.2	75.2	86.3	97.3	109.3	120.4	129.4	137.4	145.4	149.4
82.5°	38.1	43.1	53.2	67.2	81.2	96.3	107.3	118.4	127.4	135.4	138.4
85°	19.1	26.1	38.1	53.2	68.2	84.2	98.3	108.3	118.4	125.4	129.4
87.5°	6.0	14.0	27.1	41.1	57.2	73.2	88.3	99.3	108.3	114.3	118.4
90°	0.0	7.0	19.1	34.1	49.1	65.2	79.2	91.3	100.3	105.3	108.3
92.5°	0.0	4.0	15.0	28.1	42.1	58.2	72.2	83.2	91.3	96.3	98.3
95°	1.0	3.0	11.0	23.1	37.1	52.2	65.2	75.2	83.2	88.3	89.3
97.5°	1.0	2.0	9.0	19.1	32.1	46.1	59.2	69.2	75.2	80.2	81.2
100°	1.0	2.0	7.0	17.1	28.1	41.1	53.2	62.2	69.2	73.2	74.2
102.5°	1.0	1.0	6.0	14.0	25.1	36.1	47.1	56.2	62.2	66.2	68.2
105°	1.0	1.0	5.0	12.0	22.1	32.1	42.1	51.2	56.2	60.2	62.2
107.5°	1.0	1.0	4.0	10.0	19.1	28.1	38.1	45.1	51.2	55.2	57.2
110°	1.0	1.0	3.0	9.0	16.0	25.1	33.1	40.1	46.1	50.1	52.2



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-49SL-LC-UNV-L950-CD1-U

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	1.0	1.0	3.0	8.0	14.0	22.1	29.1	36.1	41.1	45.1	48.1
115°	1.0	1.0	3.0	7.0	13.0	19.1	26.1	32.1	37.1	41.1	44.1
117.5°	1.0	1.0	3.0	6.0	11.0	17.1	23.1	29.1	33.1	37.1	40.1
120°	1.0	1.0	2.0	5.0	10.0	15.0	20.1	25.1	30.1	34.1	37.1
122.5°	1.0	1.0	2.0	5.0	8.0	13.0	18.1	22.1	27.1	30.1	33.1
125°	1.0	1.0	2.0	4.0	7.0	12.0	16.0	20.1	23.1	27.1	30.1
127.5°	1.0	1.0	2.0	4.0	6.0	10.0	14.0	18.1	21.1	24.1	26.1
130°	1.0	1.0	2.0	3.0	5.0	8.0	12.0	15.0	19.1	21.1	23.1
132.5°	1.0	1.0	1.0	3.0	4.0	6.0	9.0	13.0	16.0	19.1	20.1
135°	1.0	1.0	1.0	2.0	4.0	5.0	7.0	10.0	13.0	16.0	18.1
137.5°	1.0	1.0	1.0	2.0	3.0	5.0	6.0	8.0	11.0	13.0	16.0
140°	1.0	1.0	1.0	2.0	3.0	4.0	5.0	7.0	9.0	11.0	13.0
142.5°	1.0	1.0	1.0	2.0	2.0	3.0	4.0	6.0	7.0	9.0	11.0
145°	1.0	1.0	1.0	2.0	2.0	3.0	4.0	5.0	6.0	7.0	9.0
147.5°	1.0	1.0	1.0	2.0	2.0	2.0	3.0	4.0	5.0	6.0	7.0
150°	2.0	2.0	2.0	2.0	2.0	2.0	3.0	3.0	4.0	5.0	6.0
152.5°	2.0	2.0	2.0	2.0	2.0	2.0	3.0	3.0	3.0	4.0	5.0
155°	2.0	2.0	2.0	2.0	2.0	2.0	2.0	3.0	3.0	4.0	4.0
157.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
162.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
167.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180°	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-LD5-49SL-LC-UNV-L950-CD1-U

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	1941.7	1941.7	1941.7	1941.7	1941.7	1941.7	1941.7	1941.7	1941.7	1941.7	1941.7
2.5°	1924.7	1926.7	1938.7	1937.7	1935.7	1933.7	1933.7	1931.7	1933.7	1938.7	1936.7
5°	1914.7	1917.7	1926.7	1925.7	1923.7	1922.7	1921.7	1918.7	1920.7	1927.7	1925.7
7.5°	1896.6	1899.6	1907.6	1903.6	1900.6	1902.6	1897.6	1894.6	1898.6	1905.6	1904.6
10°	1877.6	1879.6	1889.6	1887.6	1882.6	1883.6	1878.6	1876.6	1881.6	1885.6	1886.6
12.5°	1864.5	1871.5	1880.6	1879.6	1878.6	1879.6	1874.5	1872.5	1875.6	1879.6	1878.6
15°	1861.5	1870.5	1880.6	1880.6	1881.6	1882.6	1877.6	1874.5	1877.6	1880.6	1879.6
17.5°	1858.5	1869.5	1878.6	1877.6	1878.6	1880.6	1872.5	1870.5	1874.5	1878.6	1876.6
20°	1848.5	1858.5	1864.5	1862.5	1862.5	1863.5	1853.5	1853.5	1859.5	1862.5	1863.5
22.5°	1820.4	1832.4	1832.4	1827.4	1827.4	1823.4	1820.4	1814.4	1821.4	1826.4	1830.4
25°	1778.3	1783.3	1777.3	1766.2	1760.2	1755.2	1741.2	1753.2	1753.2	1768.2	1773.2
27.5°	1719.1	1708.1	1691.0	1667.9	1662.9	1646.9	1637.8	1640.9	1645.9	1666.9	1683.0
30°	1621.8	1588.7	1559.6	1549.6	1527.5	1511.5	1495.4	1503.5	1512.5	1524.5	1557.6
32.5°	1493.4	1461.3	1414.2	1397.1	1374.1	1354.0	1335.0	1347.0	1363.0	1371.1	1407.2
35°	1346.0	1307.9	1264.7	1235.7	1211.6	1200.6	1176.5	1193.5	1210.6	1216.6	1247.7
37.5°	1189.5	1150.4	1112.3	1087.2	1064.2	1057.1	1041.1	1053.1	1066.2	1075.2	1101.3
40°	1041.1	1005.0	975.9	958.8	942.8	936.8	930.8	935.8	945.8	952.8	972.9
42.5°	913.7	884.6	864.6	854.5	843.5	835.5	836.5	838.5	843.5	858.5	867.6
45°	802.4	785.3	772.3	770.3	763.3	762.3	761.3	765.3	768.3	777.3	784.3
47.5°	713.1	706.1	703.1	707.1	710.1	706.1	708.1	713.1	719.1	719.1	718.1
50°	642.9	644.9	648.9	657.9	664.0	666.0	668.0	674.0	675.0	677.0	674.0
52.5°	585.7	587.7	598.8	612.8	619.8	622.8	626.9	632.9	632.9	634.9	630.9
55°	527.6	530.6	541.6	555.6	561.7	565.7	569.7	573.7	576.7	580.7	577.7
57.5°	463.4	472.4	479.4	483.4	487.4	490.5	493.5	494.5	500.5	501.5	506.5
60°	395.2	397.2	404.2	403.2	400.2	408.2	404.2	411.2	418.2	427.3	428.3
62.5°	330.0	331.0	336.0	334.0	338.0	337.0	340.0	340.0	345.0	349.0	354.0
65°	278.8	279.8	283.8	283.8	282.8	285.8	288.9	290.9	290.9	293.9	297.9
67.5°	240.7	243.7	247.7	249.7	251.7	251.7	254.8	255.8	257.8	258.8	260.8
70°	214.6	218.6	222.7	224.7	225.7	227.7	228.7	228.7	230.7	231.7	233.7
72.5°	195.6	199.6	202.6	202.6	204.6	205.6	205.6	206.6	207.6	209.6	211.6
75°	179.5	182.5	184.5	183.5	183.5	183.5	184.5	184.5	186.6	188.6	190.6
77.5°	164.5	167.5	167.5	165.5	165.5	165.5	165.5	166.5	167.5	169.5	171.5
80°	153.5	153.5	152.5	152.5	150.4	149.4	149.4	150.4	150.4	152.5	155.5
82.5°	141.4	141.4	140.4	139.4	138.4	137.4	137.4	138.4	139.4	140.4	142.4
85°	130.4	130.4	128.4	128.4	127.4	127.4	127.4	127.4	128.4	129.4	131.4
87.5°	119.4	118.4	117.3	116.3	116.3	116.3	116.3	116.3	117.3	119.4	120.4
90°	108.3	107.3	106.3	106.3	105.3	105.3	106.3	106.3	107.3	108.3	109.3
92.5°	98.3	97.3	96.3	96.3	95.3	95.3	96.3	95.3	97.3	97.3	98.3
95°	89.3	88.3	87.3	87.3	87.3	87.3	87.3	87.3	88.3	88.3	89.3
97.5°	81.2	80.2	79.2	79.2	80.2	79.2	80.2	80.2	80.2	81.2	82.2
100°	74.2	73.2	73.2	74.2	73.2	73.2	74.2	74.2	74.2	74.2	75.2
102.5°	68.2	68.2	68.2	68.2	68.2	68.2	69.2	69.2	69.2	69.2	70.2
105°	62.2	63.2	63.2	63.2	64.2	64.2	64.2	65.2	65.2	65.2	65.2
107.5°	58.2	59.2	59.2	60.2	60.2	61.2	61.2	61.2	61.2	62.2	62.2
110°	54.2	55.2	56.2	57.2	57.2	58.2	58.2	58.2	58.2	58.2	58.2



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-49SL-LC-UNV-L950-CD1-U

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
112.5°	50.1	51.2	52.2	54.2	55.2	55.2	55.2	55.2	56.2	56.2	55.2
115°	46.1	48.1	49.1	51.2	52.2	52.2	53.2	53.2	53.2	53.2	52.2
117.5°	42.1	45.1	46.1	48.1	49.1	49.1	50.1	50.1	50.1	50.1	49.1
120°	39.1	41.1	43.1	44.1	45.1	46.1	46.1	47.1	47.1	47.1	46.1
122.5°	36.1	38.1	40.1	41.1	42.1	43.1	43.1	43.1	43.1	43.1	43.1
125°	32.1	34.1	36.1	37.1	38.1	39.1	39.1	40.1	40.1	40.1	39.1
127.5°	29.1	31.1	32.1	34.1	35.1	35.1	36.1	36.1	36.1	36.1	35.1
130°	25.1	27.1	29.1	30.1	31.1	31.1	32.1	32.1	32.1	32.1	32.1
132.5°	22.1	24.1	25.1	27.1	27.1	28.1	28.1	29.1	29.1	29.1	28.1
135°	20.1	21.1	22.1	24.1	24.1	25.1	25.1	25.1	25.1	25.1	25.1
137.5°	18.1	19.1	20.1	21.1	21.1	22.1	22.1	22.1	22.1	23.1	22.1
140°	15.0	17.1	18.1	18.1	19.1	19.1	19.1	20.1	20.1	20.1	19.1
142.5°	13.0	14.0	15.0	16.0	17.1	17.1	17.1	17.1	18.1	17.1	17.1
145°	10.0	12.0	13.0	14.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0
147.5°	8.0	9.0	11.0	12.0	12.0	13.0	13.0	13.0	13.0	13.0	13.0
150°	7.0	7.0	9.0	10.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0
152.5°	5.0	6.0	7.0	8.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0
155°	5.0	5.0	6.0	6.0	7.0	7.0	7.0	7.0	8.0	7.0	7.0
157.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
162.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
167.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180°	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-LD5-49SL-LC-UNV-L950-CD1-U

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	1941.7	1941.7	1941.7	1941.7	1941.7	1941.7	1941.7	1941.7	1941.7	1941.7	1941.7
2.5°	1933.7	1932.7	1936.7	1932.7	1912.7	1920.7	1917.7	1928.7	1929.7	1932.7	1942.8
5°	1923.7	1923.7	1928.7	1924.7	1905.6	1913.7	1912.7	1923.7	1925.7	1927.7	1938.7
7.5°	1903.6	1904.6	1911.7	1908.7	1888.6	1900.6	1899.6	1912.7	1916.7	1920.7	1930.7
10°	1884.6	1883.6	1891.6	1888.6	1869.5	1883.6	1882.6	1895.6	1901.6	1908.7	1920.7
12.5°	1874.5	1871.5	1874.5	1871.5	1850.5	1861.5	1862.5	1877.6	1884.6	1893.6	1907.6
15°	1874.5	1869.5	1869.5	1863.5	1839.4	1846.5	1847.5	1857.5	1866.5	1875.6	1892.6
17.5°	1872.5	1867.5	1866.5	1861.5	1835.4	1835.4	1834.4	1841.5	1846.5	1855.5	1873.5
20°	1861.5	1859.5	1858.5	1855.5	1831.4	1827.4	1825.4	1825.4	1828.4	1831.4	1849.5
22.5°	1832.4	1834.4	1836.4	1838.4	1819.4	1812.4	1813.4	1811.4	1808.4	1808.4	1823.4
25°	1778.3	1788.3	1796.3	1805.3	1794.3	1789.3	1795.3	1792.3	1787.3	1783.3	1796.3
27.5°	1692.0	1713.1	1730.1	1752.2	1753.2	1749.2	1765.2	1763.2	1762.2	1756.2	1766.2
30°	1572.7	1605.8	1628.8	1660.9	1688.0	1692.0	1719.1	1723.1	1727.1	1724.1	1734.1
32.5°	1428.2	1473.4	1512.5	1562.6	1588.7	1611.8	1649.9	1665.9	1682.0	1687.0	1698.0
35°	1270.8	1321.9	1368.0	1423.2	1464.3	1514.5	1560.6	1584.7	1620.8	1634.8	1650.9
37.5°	1121.3	1169.5	1214.6	1269.8	1336.0	1388.1	1445.3	1499.4	1548.6	1568.6	1592.7
40°	988.9	1028.0	1071.2	1119.3	1179.5	1247.7	1309.9	1385.1	1443.3	1483.4	1518.5
42.5°	888.6	907.7	944.8	987.9	1036.1	1105.3	1168.5	1252.7	1322.9	1380.1	1438.3
45°	799.4	808.4	835.5	858.5	907.7	968.9	1036.1	1118.3	1191.5	1264.7	1335.0
47.5°	723.1	734.2	747.2	761.3	796.4	847.5	905.7	979.9	1053.1	1138.4	1218.6
50°	672.0	675.0	677.0	683.0	704.1	739.2	786.3	849.5	919.7	1011.0	1096.2
52.5°	626.9	626.9	620.8	617.8	625.9	647.9	675.0	720.1	792.3	876.6	966.9
55°	578.7	569.7	567.7	557.7	559.7	569.7	582.7	617.8	677.0	749.2	836.5
57.5°	511.5	507.5	507.5	503.5	495.5	500.5	503.5	528.6	570.7	632.9	709.1
60°	434.3	432.3	437.3	438.3	431.3	434.3	433.3	448.3	478.4	528.6	591.8
62.5°	357.1	366.1	367.1	371.1	367.1	366.1	371.1	384.1	399.2	437.3	486.4
65°	299.9	304.9	305.9	310.9	308.9	308.9	312.9	323.0	332.0	358.1	396.2
67.5°	262.8	260.8	261.8	264.8	261.8	260.8	263.8	269.8	276.8	292.9	319.9
70°	233.7	231.7	231.7	231.7	227.7	224.7	225.7	227.7	230.7	239.7	256.8
72.5°	211.6	211.6	208.6	205.6	202.6	200.6	198.6	196.6	195.6	198.6	207.6
75°	191.6	192.6	191.6	188.6	184.5	180.5	176.5	172.5	167.5	165.5	166.5
77.5°	173.5	174.5	175.5	174.5	170.5	165.5	159.5	153.5	146.4	139.4	135.4
80°	157.5	159.5	160.5	159.5	156.5	152.5	145.4	138.4	128.4	119.4	109.3
82.5°	143.4	146.4	147.4	147.4	145.4	141.4	133.4	125.4	114.3	102.3	89.3
85°	132.4	134.4	136.4	136.4	135.4	131.4	123.4	114.3	103.3	89.3	75.2
87.5°	121.4	122.4	124.4	126.4	124.4	120.4	113.3	103.3	92.3	78.2	62.2
90°	110.3	111.3	113.3	115.3	114.3	110.3	104.3	95.3	83.2	68.2	52.2
92.5°	99.3	101.3	102.3	103.3	104.3	101.3	96.3	87.3	75.2	60.2	45.1
95°	91.3	91.3	93.3	94.3	95.3	92.3	88.3	79.2	68.2	54.2	39.1
97.5°	83.2	83.2	85.3	85.3	86.3	84.2	80.2	72.2	61.2	48.1	33.1
100°	75.2	76.2	77.2	78.2	78.2	77.2	73.2	65.2	55.2	43.1	29.1
102.5°	70.2	70.2	71.2	71.2	72.2	70.2	66.2	59.2	49.1	38.1	25.1
105°	65.2	65.2	66.2	66.2	65.2	63.2	59.2	53.2	44.1	33.1	22.1
107.5°	61.2	61.2	61.2	61.2	60.2	58.2	54.2	47.1	39.1	30.1	20.1
110°	58.2	57.2	57.2	56.2	55.2	52.2	48.1	42.1	35.1	26.1	17.1



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-49SL-LC-UNV-L950-CD1-U

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
112.5°	55.2	54.2	53.2	52.2	50.1	47.1	43.1	38.1	31.1	23.1	15.0
115°	52.2	51.2	50.1	48.1	46.1	43.1	39.1	34.1	27.1	20.1	13.0
117.5°	49.1	48.1	46.1	44.1	42.1	39.1	35.1	30.1	24.1	18.1	12.0
120°	45.1	44.1	43.1	41.1	39.1	35.1	31.1	27.1	21.1	16.0	10.0
122.5°	42.1	41.1	39.1	38.1	35.1	32.1	28.1	24.1	19.1	14.0	9.0
125°	38.1	37.1	36.1	34.1	32.1	28.1	25.1	21.1	17.1	12.0	7.0
127.5°	35.1	34.1	32.1	30.1	28.1	25.1	22.1	19.1	15.0	10.0	7.0
130°	31.1	30.1	29.1	27.1	25.1	22.1	20.1	16.0	13.0	9.0	6.0
132.5°	27.1	27.1	26.1	24.1	22.1	20.1	17.1	14.0	11.0	8.0	5.0
135°	25.1	24.1	23.1	21.1	20.1	17.1	15.0	12.0	9.0	7.0	4.0
137.5°	22.1	21.1	20.1	19.1	17.1	15.0	13.0	10.0	8.0	6.0	4.0
140°	19.1	18.1	18.1	16.0	15.0	13.0	11.0	9.0	7.0	5.0	3.0
142.5°	17.1	16.0	15.0	14.0	13.0	11.0	9.0	7.0	6.0	4.0	3.0
145°	15.0	14.0	13.0	12.0	11.0	9.0	8.0	6.0	5.0	4.0	3.0
147.5°	12.0	12.0	11.0	10.0	9.0	8.0	7.0	6.0	4.0	3.0	2.0
150°	10.0	10.0	9.0	8.0	8.0	7.0	6.0	5.0	4.0	3.0	2.0
152.5°	9.0	8.0	8.0	7.0	7.0	6.0	5.0	4.0	3.0	3.0	2.0
155°	7.0	7.0	7.0	6.0	6.0	5.0	4.0	4.0	3.0	2.0	2.0
157.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
162.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
167.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180°	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-LD5-49SL-LC-UNV-L950-CD1-U

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
0°	1941.7	1941.7	1941.7	1941.7	1941.7	1941.7	1941.7	1941.7	1941.7	1941.7	1941.7
2.5°	1944.8	1932.7	1942.8	1960.8	1958.8	1956.8	1954.8	1958.8	1971.8	1964.8	1953.8
5°	1941.7	1929.7	1940.7	1957.8	1956.8	1953.8	1951.8	1955.8	1968.8	1961.8	1949.8
7.5°	1935.7	1924.7	1932.7	1949.8	1949.8	1947.8	1945.8	1949.8	1961.8	1955.8	1943.8
10°	1925.7	1917.7	1925.7	1941.7	1942.8	1938.7	1936.7	1941.7	1953.8	1950.8	1940.7
12.5°	1917.7	1909.7	1918.7	1934.7	1935.7	1931.7	1928.7	1934.7	1950.8	1952.8	1949.8
15°	1906.6	1899.6	1910.7	1927.7	1927.7	1924.7	1924.7	1932.7	1954.8	1963.8	1968.8
17.5°	1890.6	1885.6	1898.6	1915.7	1916.7	1914.7	1915.7	1931.7	1960.8	1982.9	1996.9
20°	1870.5	1868.5	1882.6	1900.6	1903.6	1904.6	1909.7	1933.7	1973.8	2003.9	2018.0
22.5°	1846.5	1847.5	1863.5	1882.6	1886.6	1889.6	1899.6	1933.7	1983.9	2016.0	2022.0
25°	1819.4	1822.4	1839.4	1862.5	1867.5	1873.5	1890.6	1934.7	1986.9	2007.9	1997.9
27.5°	1790.3	1796.3	1818.4	1842.5	1848.5	1858.5	1880.6	1928.7	1972.8	1973.8	1936.7
30°	1760.2	1767.2	1793.3	1821.4	1831.4	1841.5	1868.5	1914.7	1938.7	1906.6	1841.5
32.5°	1726.1	1736.1	1762.2	1796.3	1808.4	1821.4	1848.5	1887.6	1878.6	1809.4	1716.1
35°	1683.0	1697.0	1727.1	1767.2	1778.3	1795.3	1814.4	1823.4	1783.3	1685.0	1579.7
37.5°	1629.8	1650.9	1686.0	1732.1	1744.2	1755.2	1760.2	1735.1	1654.9	1548.6	1439.3
40°	1568.6	1600.7	1638.9	1690.0	1702.0	1702.0	1684.0	1630.8	1529.5	1390.1	1268.8
42.5°	1494.4	1533.5	1581.7	1632.8	1644.9	1630.8	1587.7	1494.4	1379.1	1223.6	1095.2
45°	1404.2	1456.3	1510.5	1563.6	1569.6	1538.6	1461.3	1343.0	1200.6	1056.1	933.8
47.5°	1296.8	1365.0	1424.2	1484.4	1476.4	1424.2	1320.9	1186.5	1036.1	899.7	801.4
50°	1176.5	1256.7	1322.9	1380.1	1363.0	1290.8	1169.5	1029.0	879.6	763.3	682.0
52.5°	1048.1	1140.4	1206.6	1252.7	1229.6	1143.4	1010.0	875.6	753.2	646.9	592.8
55°	914.7	1008.0	1076.2	1112.3	1082.2	988.9	857.5	735.2	619.8	550.6	518.5
57.5°	785.3	872.6	936.8	965.9	927.7	834.5	713.1	609.8	526.6	468.4	452.3
60°	661.0	732.2	793.3	815.4	774.3	688.0	583.7	501.5	440.3	400.2	392.2
62.5°	545.6	603.8	651.9	669.0	628.9	561.7	471.4	410.2	367.1	347.0	337.0
65°	450.3	484.4	533.6	530.6	506.5	444.3	378.1	335.0	306.9	293.9	287.9
67.5°	354.0	385.1	416.2	420.2	390.2	347.0	303.9	272.8	257.8	250.7	247.7
70°	273.8	296.9	315.9	310.9	294.9	267.8	240.7	223.7	217.6	214.6	214.6
72.5°	212.6	224.7	233.7	227.7	217.6	203.6	190.6	183.5	184.5	186.6	188.6
75°	164.5	167.5	169.5	163.5	161.5	152.5	151.4	152.5	158.5	164.5	167.5
77.5°	126.4	122.4	119.4	113.3	114.3	113.3	118.4	126.4	135.4	144.4	152.5
80°	97.3	88.3	81.2	75.2	78.2	83.2	93.3	105.3	117.3	127.4	137.4
82.5°	75.2	62.2	52.2	46.1	52.2	60.2	73.2	88.3	102.3	113.3	124.4
85°	58.2	43.1	31.1	25.1	31.1	43.1	57.2	74.2	89.3	101.3	112.3
87.5°	45.1	31.1	17.1	10.0	17.1	30.1	46.1	62.2	77.2	91.3	102.3
90°	36.1	21.1	8.0	2.0	9.0	21.1	36.1	52.2	67.2	82.2	93.3
92.5°	29.1	15.0	4.0	0.0	5.0	16.0	30.1	45.1	60.2	74.2	85.3
95°	24.1	12.0	3.0	0.0	4.0	12.0	24.1	39.1	53.2	67.2	76.2
97.5°	20.1	9.0	2.0	0.0	2.0	10.0	20.1	33.1	47.1	60.2	69.2
100°	17.1	8.0	2.0	0.0	2.0	8.0	17.1	29.1	41.1	53.2	62.2
102.5°	14.0	6.0	1.0	1.0	1.0	6.0	15.0	25.1	36.1	47.1	56.2
105°	13.0	5.0	1.0	1.0	1.0	5.0	13.0	22.1	32.1	42.1	50.1
107.5°	11.0	4.0	1.0	1.0	1.0	4.0	11.0	19.1	29.1	38.1	45.1
110°	9.0	4.0	1.0	1.0	1.0	4.0	9.0	17.1	25.1	33.1	40.1



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-49SL-LC-UNV-L950-CD1-U

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
112.5°	8.0	3.0	1.0	1.0	1.0	3.0	8.0	15.0	22.1	30.1	36.1
115°	7.0	3.0	1.0	1.0	1.0	3.0	7.0	13.0	19.1	26.1	32.1
117.5°	6.0	3.0	1.0	1.0	1.0	2.0	6.0	11.0	17.1	23.1	29.1
120°	5.0	2.0	1.0	1.0	1.0	2.0	5.0	10.0	15.0	20.1	25.1
122.5°	5.0	2.0	1.0	1.0	1.0	2.0	4.0	8.0	13.0	17.1	22.1
125°	4.0	2.0	1.0	1.0	1.0	1.0	4.0	7.0	11.0	15.0	19.1
127.5°	4.0	2.0	1.0	1.0	1.0	1.0	3.0	6.0	9.0	13.0	17.1
130°	3.0	2.0	1.0	1.0	1.0	1.0	2.0	5.0	8.0	11.0	14.0
132.5°	3.0	2.0	1.0	1.0	1.0	1.0	2.0	4.0	6.0	9.0	12.0
135°	3.0	1.0	1.0	1.0	1.0	1.0	1.0	3.0	5.0	7.0	9.0
137.5°	2.0	1.0	1.0	1.0	1.0	1.0	1.0	2.0	4.0	5.0	8.0
140°	2.0	1.0	1.0	1.0	1.0	1.0	1.0	2.0	3.0	4.0	6.0
142.5°	2.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	2.0	3.0	5.0
145°	2.0	1.0	1.0	2.0	2.0	1.0	1.0	2.0	2.0	3.0	4.0
147.5°	2.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	2.0	2.0	3.0
150°	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	3.0
152.5°	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
155°	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
157.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
162.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
167.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180°	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-LD5-49SL-LC-UNV-L950-CD1-U

CANDELA DISTRIBUTION (continued):

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
0°	1941.7	1941.7	1941.7	1941.7	1941.7	1941.7	1941.7	1941.7	1941.7	1941.7	1941.7
2.5°	1951.8	1928.7	1940.7	1936.7	1940.7	1950.8	1949.8	1946.8	1948.8	1943.8	1938.7
5°	1947.8	1924.7	1936.7	1931.7	1936.7	1946.8	1944.8	1941.7	1944.8	1938.7	1933.7
7.5°	1942.8	1921.7	1935.7	1934.7	1943.8	1956.8	1957.8	1957.8	1964.8	1955.8	1951.8
10°	1942.8	1931.7	1950.8	1957.8	1980.9	1997.9	1999.9	2003.9	2016.0	2014.0	2003.9
12.5°	1963.8	1961.8	1989.9	2006.9	2028.0	2052.1	2065.1	2069.1	2077.1	2071.1	2067.1
15°	1990.9	2000.9	2032.0	2051.1	2074.1	2092.2	2095.2	2097.2	2103.2	2094.2	2087.2
17.5°	2027.0	2033.0	2058.1	2066.1	2081.2	2084.2	2080.2	2070.1	2070.1	2050.1	2044.1
20°	2044.1	2041.0	2051.1	2038.0	2032.0	2014.0	1996.9	1977.9	1976.9	1955.8	1953.8
22.5°	2029.0	2008.9	1987.9	1955.8	1941.7	1915.7	1892.6	1881.6	1874.5	1847.5	1840.4
25°	1975.8	1926.7	1895.6	1857.5	1823.4	1793.3	1771.2	1748.2	1726.1	1704.0	1694.0
27.5°	1883.6	1837.4	1787.3	1734.1	1687.0	1640.9	1603.7	1580.7	1559.6	1530.5	1515.5
30°	1770.2	1706.1	1650.9	1599.7	1522.5	1466.3	1435.2	1389.1	1373.1	1360.0	1331.9
32.5°	1636.8	1559.6	1484.4	1415.2	1336.0	1283.8	1242.7	1208.6	1198.5	1164.4	1156.4
35°	1489.4	1388.1	1302.9	1234.7	1177.5	1114.3	1080.2	1057.1	1037.1	1014.0	1010.0
37.5°	1315.9	1224.6	1128.3	1068.2	1023.0	968.9	942.8	926.7	917.7	900.7	897.7
40°	1141.4	1050.1	983.9	923.7	895.7	866.6	847.5	840.5	836.5	830.5	824.4
42.5°	982.9	902.7	855.5	815.4	803.4	789.3	784.3	788.3	784.3	782.3	781.3
45°	848.5	787.3	754.2	742.2	739.2	735.2	739.2	746.2	747.2	745.2	745.2
47.5°	726.1	697.1	683.0	685.0	690.0	693.1	700.1	709.1	711.1	706.1	708.1
50°	645.9	628.9	625.9	633.9	644.9	648.9	656.9	664.0	663.0	661.0	659.0
52.5°	570.7	565.7	573.7	581.7	593.8	595.8	598.8	601.8	600.8	596.8	594.8
55°	507.5	511.5	518.5	521.5	530.6	529.6	530.6	530.6	526.6	524.6	521.5
57.5°	450.3	451.3	455.3	456.4	461.4	459.4	458.4	456.4	450.3	449.3	446.3
60°	392.2	390.2	399.2	392.2	396.2	392.2	391.2	386.1	380.1	379.1	377.1
62.5°	337.0	333.0	339.0	336.0	338.0	334.0	332.0	326.0	321.0	319.9	318.9
65°	287.9	285.8	291.9	290.9	292.9	287.9	285.8	281.8	277.8	276.8	275.8
67.5°	246.7	251.7	254.8	254.8	256.8	255.8	250.7	249.7	248.7	244.7	244.7
70°	216.6	219.7	225.7	226.7	225.7	227.7	223.7	222.7	221.7	219.7	218.6
72.5°	192.6	196.6	202.6	203.6	202.6	202.6	200.6	199.6	199.6	196.6	196.6
75°	173.5	178.5	183.5	183.5	183.5	181.5	179.5	179.5	177.5	176.5	174.5
77.5°	157.5	163.5	167.5	166.5	165.5	163.5	163.5	160.5	157.5	157.5	155.5
80°	145.4	149.4	152.5	151.4	150.4	147.4	146.4	143.4	141.4	138.4	138.4
82.5°	132.4	137.4	139.4	138.4	136.4	133.4	132.4	130.4	128.4	127.4	125.4
85°	121.4	126.4	127.4	125.4	123.4	121.4	120.4	119.4	118.4	116.3	116.3
87.5°	110.3	115.3	115.3	114.3	112.3	111.3	110.3	109.3	108.3	107.3	106.3
90°	101.3	105.3	105.3	104.3	103.3	102.3	101.3	100.3	99.3	98.3	98.3
92.5°	92.3	96.3	96.3	95.3	94.3	93.3	93.3	92.3	91.3	90.3	89.3
95°	84.2	88.3	88.3	88.3	87.3	86.3	86.3	85.3	84.2	84.2	83.2
97.5°	76.2	80.2	80.2	80.2	79.2	78.2	78.2	77.2	77.2	77.2	76.2
100°	69.2	72.2	73.2	73.2	72.2	72.2	72.2	71.2	71.2	71.2	70.2
102.5°	62.2	65.2	67.2	67.2	67.2	66.2	66.2	66.2	66.2	66.2	65.2
105°	56.2	59.2	61.2	62.2	62.2	62.2	62.2	62.2	62.2	62.2	62.2
107.5°	51.2	54.2	56.2	57.2	58.2	58.2	59.2	59.2	59.2	59.2	59.2
110°	46.1	49.1	52.2	53.2	54.2	55.2	55.2	56.2	55.2	55.2	55.2



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-49SL-LC-UNV-L950-CD1-U

CANDELA DISTRIBUTION (continued):

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
112.5°	41.1	45.1	47.1	49.1	50.1	51.2	52.2	52.2	52.2	52.2	52.2
115°	37.1	41.1	43.1	45.1	47.1	48.1	48.1	49.1	49.1	49.1	48.1
117.5°	33.1	37.1	39.1	41.1	42.1	44.1	45.1	45.1	45.1	45.1	44.1
120°	30.1	33.1	35.1	37.1	39.1	40.1	41.1	41.1	41.1	41.1	41.1
122.5°	26.1	29.1	32.1	34.1	35.1	36.1	37.1	37.1	37.1	37.1	37.1
125°	23.1	26.1	28.1	30.1	31.1	33.1	33.1	33.1	33.1	33.1	33.1
127.5°	20.1	23.1	25.1	27.1	28.1	29.1	30.1	30.1	30.1	30.1	30.1
130°	17.1	20.1	22.1	24.1	25.1	26.1	26.1	27.1	27.1	27.1	27.1
132.5°	15.0	17.1	19.1	21.1	22.1	23.1	23.1	24.1	24.1	24.1	24.1
135°	12.0	15.0	16.0	18.1	19.1	20.1	20.1	21.1	21.1	21.1	21.1
137.5°	10.0	12.0	14.0	16.0	17.1	17.1	18.1	18.1	19.1	19.1	19.1
140°	8.0	9.0	12.0	13.0	14.0	15.0	16.0	16.0	16.0	16.0	16.0
142.5°	6.0	8.0	9.0	11.0	12.0	13.0	14.0	14.0	14.0	14.0	14.0
145°	5.0	6.0	7.0	9.0	10.0	11.0	12.0	12.0	12.0	12.0	12.0
147.5°	4.0	5.0	6.0	7.0	8.0	9.0	10.0	10.0	10.0	10.0	10.0
150°	3.0	4.0	5.0	5.0	6.0	7.0	8.0	9.0	9.0	9.0	9.0
152.5°	3.0	3.0	4.0	4.0	5.0	6.0	7.0	7.0	7.0	7.0	7.0
155°	2.0	3.0	3.0	3.0	4.0	4.0	5.0	6.0	6.0	6.0	6.0
157.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
162.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
167.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180°	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-LD5-49SL-LC-UNV-L950-CD1-U

CANDELA DISTRIBUTION (continued):

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°
0°	1941.7	1941.7	1941.7	1941.7	1941.7	1941.7	1941.7	1941.7	1941.7	1941.7	1941.7
2.5°	1941.7	1945.8	1943.8	1940.7	1939.7	1944.8	1939.7	1916.7	1925.7	1926.7	1933.7
5°	1938.7	1941.7	1939.7	1937.7	1934.7	1940.7	1934.7	1910.7	1919.7	1920.7	1927.7
7.5°	1958.8	1959.8	1959.8	1954.8	1946.8	1949.8	1941.7	1914.7	1919.7	1919.7	1924.7
10°	2008.9	2011.0	2014.0	2000.9	1990.9	1982.9	1971.8	1938.7	1937.7	1929.7	1929.7
12.5°	2074.1	2069.1	2064.1	2058.1	2050.1	2040.0	2024.0	1984.9	1971.8	1958.8	1945.8
15°	2093.2	2091.2	2090.2	2087.2	2082.2	2079.2	2067.1	2028.0	2008.9	1992.9	1969.8
17.5°	2043.0	2047.1	2060.1	2061.1	2067.1	2079.2	2077.1	2050.1	2033.0	2026.0	1997.9
20°	1952.8	1953.8	1969.8	1976.9	2002.9	2023.0	2038.0	2035.0	2031.0	2039.0	2018.0
22.5°	1844.5	1851.5	1868.5	1879.6	1904.6	1927.7	1951.8	1964.8	1985.9	2019.0	2015.0
25°	1697.0	1706.1	1730.1	1748.2	1783.3	1818.4	1850.5	1873.5	1898.6	1961.8	1982.9
27.5°	1520.5	1534.5	1565.6	1583.7	1632.8	1668.9	1715.1	1760.2	1795.3	1867.5	1910.7
30°	1335.0	1347.0	1380.1	1405.2	1447.3	1496.4	1554.6	1618.8	1677.0	1750.2	1804.3
32.5°	1161.4	1174.5	1201.6	1223.6	1270.8	1311.9	1376.1	1455.3	1509.5	1610.8	1683.0
35°	1010.0	1022.0	1041.1	1060.1	1099.3	1141.4	1196.5	1273.8	1343.0	1448.3	1539.6
37.5°	903.7	905.7	916.7	927.7	956.8	988.9	1032.1	1100.3	1164.4	1277.8	1378.1
40°	827.4	827.4	833.5	836.5	849.5	868.6	895.7	948.8	1002.0	1088.2	1210.6
42.5°	780.3	778.3	778.3	779.3	778.3	787.3	803.4	828.5	875.6	946.8	1042.1
45°	745.2	741.2	738.2	731.2	727.2	727.2	728.2	737.2	764.3	810.4	887.6
47.5°	706.1	705.1	700.1	692.0	685.0	680.0	672.0	669.0	677.0	703.1	755.2
50°	661.0	655.9	650.9	644.9	636.9	631.9	616.8	617.8	610.8	622.8	649.9
52.5°	594.8	590.7	588.7	583.7	580.7	578.7	566.7	554.6	551.6	553.6	563.7
55°	521.5	523.5	515.5	519.5	518.5	509.5	504.5	495.5	492.5	491.5	496.5
57.5°	445.3	447.3	442.3	446.3	446.3	441.3	438.3	438.3	431.3	425.3	432.3
60°	376.1	372.1	375.1	380.1	380.1	377.1	375.1	375.1	370.1	368.1	373.1
62.5°	319.9	315.9	318.9	324.0	325.0	323.0	321.0	321.0	314.9	314.9	318.9
65°	276.8	277.8	276.8	280.8	280.8	281.8	279.8	277.8	270.8	273.8	272.8
67.5°	245.7	244.7	244.7	248.7	247.7	249.7	247.7	244.7	239.7	235.7	234.7
70°	219.7	218.6	218.6	220.7	221.7	221.7	220.7	218.6	211.6	207.6	204.6
72.5°	196.6	195.6	196.6	197.6	198.6	199.6	198.6	196.6	190.6	185.5	180.5
75°	175.5	174.5	177.5	177.5	178.5	178.5	179.5	178.5	173.5	167.5	161.5
77.5°	154.5	155.5	158.5	159.5	161.5	162.5	163.5	163.5	158.5	153.5	145.4
80°	137.4	139.4	141.4	142.4	144.4	147.4	148.4	149.4	145.4	140.4	131.4
82.5°	125.4	126.4	128.4	129.4	132.4	133.4	134.4	136.4	134.4	129.4	119.4
85°	115.3	116.3	118.4	118.4	120.4	122.4	123.4	124.4	123.4	118.4	108.3
87.5°	106.3	107.3	108.3	109.3	110.3	111.3	112.3	113.3	112.3	107.3	98.3
90°	98.3	98.3	99.3	99.3	100.3	101.3	103.3	103.3	102.3	98.3	89.3
92.5°	89.3	90.3	90.3	91.3	92.3	93.3	94.3	94.3	93.3	89.3	81.2
95°	83.2	83.2	84.2	84.2	85.3	85.3	86.3	86.3	85.3	81.2	73.2
97.5°	76.2	76.2	76.2	76.2	77.2	77.2	78.2	78.2	77.2	73.2	66.2
100°	70.2	70.2	70.2	70.2	70.2	71.2	71.2	71.2	70.2	66.2	59.2
102.5°	65.2	65.2	65.2	65.2	65.2	65.2	65.2	65.2	63.2	60.2	53.2
105°	62.2	62.2	62.2	61.2	61.2	61.2	60.2	60.2	57.2	54.2	48.1
107.5°	58.2	58.2	58.2	57.2	57.2	56.2	55.2	55.2	52.2	49.1	43.1
110°	55.2	55.2	55.2	54.2	53.2	52.2	51.2	50.1	47.1	43.1	38.1



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-49SL-LC-UNV-L950-CD1-U

CANDELA DISTRIBUTION (continued):

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°
112.5°	52.2	52.2	51.2	51.2	50.1	49.1	47.1	46.1	43.1	39.1	34.1
115°	48.1	48.1	48.1	47.1	46.1	45.1	44.1	42.1	39.1	35.1	30.1
117.5°	44.1	44.1	44.1	43.1	42.1	41.1	40.1	38.1	35.1	31.1	27.1
120°	40.1	40.1	40.1	39.1	38.1	37.1	36.1	34.1	31.1	28.1	23.1
122.5°	37.1	37.1	36.1	35.1	34.1	33.1	32.1	30.1	28.1	24.1	20.1
125°	33.1	33.1	32.1	32.1	31.1	30.1	29.1	27.1	24.1	21.1	18.1
127.5°	30.1	29.1	29.1	29.1	28.1	27.1	25.1	24.1	21.1	18.1	15.0
130°	26.1	26.1	26.1	25.1	25.1	24.1	22.1	20.1	18.1	16.0	13.0
132.5°	23.1	23.1	23.1	23.1	22.1	21.1	19.1	18.1	16.0	13.0	11.0
135°	21.1	21.1	20.1	20.1	19.1	18.1	17.1	15.0	13.0	11.0	9.0
137.5°	18.1	18.1	18.1	17.1	17.1	16.0	14.0	13.0	12.0	10.0	8.0
140°	16.0	16.0	15.0	15.0	14.0	14.0	13.0	11.0	10.0	8.0	7.0
142.5°	14.0	14.0	13.0	13.0	12.0	12.0	11.0	10.0	8.0	7.0	5.0
145°	12.0	12.0	11.0	11.0	11.0	10.0	9.0	8.0	7.0	6.0	5.0
147.5°	10.0	10.0	10.0	9.0	9.0	8.0	8.0	7.0	6.0	5.0	4.0
150°	9.0	9.0	8.0	8.0	8.0	7.0	6.0	6.0	5.0	4.0	3.0
152.5°	7.0	7.0	7.0	7.0	6.0	6.0	5.0	5.0	4.0	3.0	3.0
155°	6.0	6.0	6.0	5.0	5.0	5.0	4.0	4.0	3.0	3.0	2.0
157.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
162.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
167.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180°	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-LD5-49SL-LC-UNV-L950-CD1-U

CANDELA DISTRIBUTION (continued):

	330°	335°	340°	345°	350°	355°	360°
0°	1941.7	1941.7	1941.7	1941.7	1941.7	1941.7	1941.7
2.5°	1930.7	1929.7	1938.7	1937.7	1925.7	1943.8	1955.8
5°	1925.7	1924.7	1932.7	1934.7	1921.7	1940.7	1953.8
7.5°	1921.7	1920.7	1929.7	1932.7	1919.7	1936.7	1950.8
10°	1922.7	1917.7	1925.7	1927.7	1915.7	1933.7	1945.8
12.5°	1929.7	1917.7	1920.7	1920.7	1909.7	1925.7	1938.7
15°	1946.8	1921.7	1917.7	1914.7	1900.6	1915.7	1928.7
17.5°	1965.8	1931.7	1917.7	1907.6	1890.6	1903.6	1917.7
20°	1984.9	1942.8	1919.7	1903.6	1880.6	1892.6	1902.6
22.5°	1993.9	1952.8	1921.7	1897.6	1868.5	1874.5	1885.6
25°	1981.9	1948.8	1917.7	1888.6	1853.5	1854.5	1863.5
27.5°	1937.7	1928.7	1908.7	1879.6	1841.5	1836.4	1843.5
30°	1862.5	1887.6	1888.6	1867.5	1827.4	1817.4	1820.4
32.5°	1757.2	1813.4	1846.5	1842.5	1807.4	1793.3	1795.3
35°	1635.8	1706.1	1778.3	1802.3	1777.3	1766.2	1762.2
37.5°	1490.4	1584.7	1681.0	1740.2	1736.1	1729.1	1725.1
40°	1329.9	1443.3	1557.6	1651.9	1681.0	1681.0	1683.0
42.5°	1158.4	1290.8	1416.2	1535.5	1603.7	1618.8	1624.8
45°	992.9	1126.3	1262.7	1400.1	1491.4	1538.6	1555.6
47.5°	842.5	976.9	1106.3	1256.7	1378.1	1439.3	1466.3
50°	714.1	814.4	950.8	1100.3	1232.6	1307.9	1361.0
52.5°	607.8	686.0	805.4	944.8	1078.2	1181.5	1230.6
55°	518.5	571.7	673.0	793.3	920.7	1028.0	1085.2
57.5°	443.3	485.4	554.6	654.9	762.3	868.6	929.8
60°	377.1	406.2	453.3	532.6	623.8	715.1	774.3
62.5°	319.9	339.0	370.1	428.3	499.5	570.7	625.9
65°	275.8	283.8	300.9	337.0	391.2	445.3	492.5
67.5°	232.7	237.7	250.7	272.8	299.9	339.0	370.1
70°	200.6	200.6	201.6	214.6	228.7	253.8	275.8
72.5°	174.5	171.5	165.5	168.5	171.5	185.5	199.6
75°	153.5	146.4	136.4	132.4	130.4	132.4	140.4
77.5°	135.4	125.4	113.3	103.3	95.3	92.3	99.3
80°	120.4	108.3	94.3	81.2	68.2	61.2	64.2
82.5°	108.3	93.3	78.2	63.2	48.1	38.1	38.1
85°	95.3	81.2	65.2	49.1	34.1	21.1	19.1
87.5°	86.3	71.2	54.2	39.1	24.1	11.0	6.0
90°	77.2	62.2	46.1	31.1	17.1	5.0	0.0
92.5°	69.2	55.2	40.1	25.1	12.0	3.0	0.0
95°	62.2	49.1	34.1	21.1	10.0	2.0	1.0
97.5°	55.2	43.1	30.1	17.1	7.0	2.0	1.0
100°	50.1	38.1	26.1	14.0	6.0	1.0	1.0
102.5°	44.1	34.1	22.1	12.0	5.0	1.0	1.0
105°	39.1	30.1	19.1	10.0	4.0	1.0	1.0
107.5°	35.1	26.1	17.1	9.0	4.0	1.0	1.0
110°	31.1	23.1	15.0	8.0	3.0	1.0	1.0



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-49SL-LC-UNV-L950-CD1-U

CANDELA DISTRIBUTION (continued):

	330°	335°	340°	345°	350°	355°	360°
112.5°	28.1	20.1	13.0	7.0	2.0	1.0	1.0
115°	24.1	18.1	11.0	6.0	2.0	1.0	1.0
117.5°	21.1	15.0	10.0	5.0	2.0	1.0	1.0
120°	18.1	13.0	8.0	4.0	1.0	1.0	1.0
122.5°	16.0	11.0	7.0	4.0	1.0	1.0	1.0
125°	14.0	10.0	6.0	3.0	1.0	1.0	1.0
127.5°	12.0	8.0	5.0	2.0	1.0	1.0	1.0
130°	10.0	7.0	4.0	2.0	1.0	1.0	1.0
132.5°	8.0	6.0	4.0	2.0	1.0	1.0	1.0
135°	7.0	5.0	3.0	2.0	1.0	1.0	1.0
137.5°	6.0	4.0	2.0	2.0	2.0	1.0	1.0
140°	5.0	3.0	2.0	2.0	2.0	2.0	1.0
142.5°	4.0	3.0	2.0	2.0	2.0	2.0	1.0
145°	3.0	2.0	2.0	2.0	2.0	2.0	1.0
147.5°	3.0	2.0	2.0	2.0	2.0	2.0	1.0
150°	2.0	2.0	2.0	2.0	2.0	2.0	2.0
152.5°	2.0	2.0	2.0	2.0	2.0	2.0	2.0
155°	2.0	2.0	2.0	2.0	2.0	2.0	2.0
157.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	0.0	0.0	0.0	0.0	0.0
162.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0	0.0	0.0
167.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180°	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)