

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-LD5-52SL-LC-UNV-L940-CD1-U**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P#
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P33518)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 4SNLED-LD5-52SL-LC-UNV-L940-CD1-U
Description: 4FT LINEAR SNLED LED FIXTURE
CLEAR LENSED
Light Source: -
Ballast/Driver: -

Summary

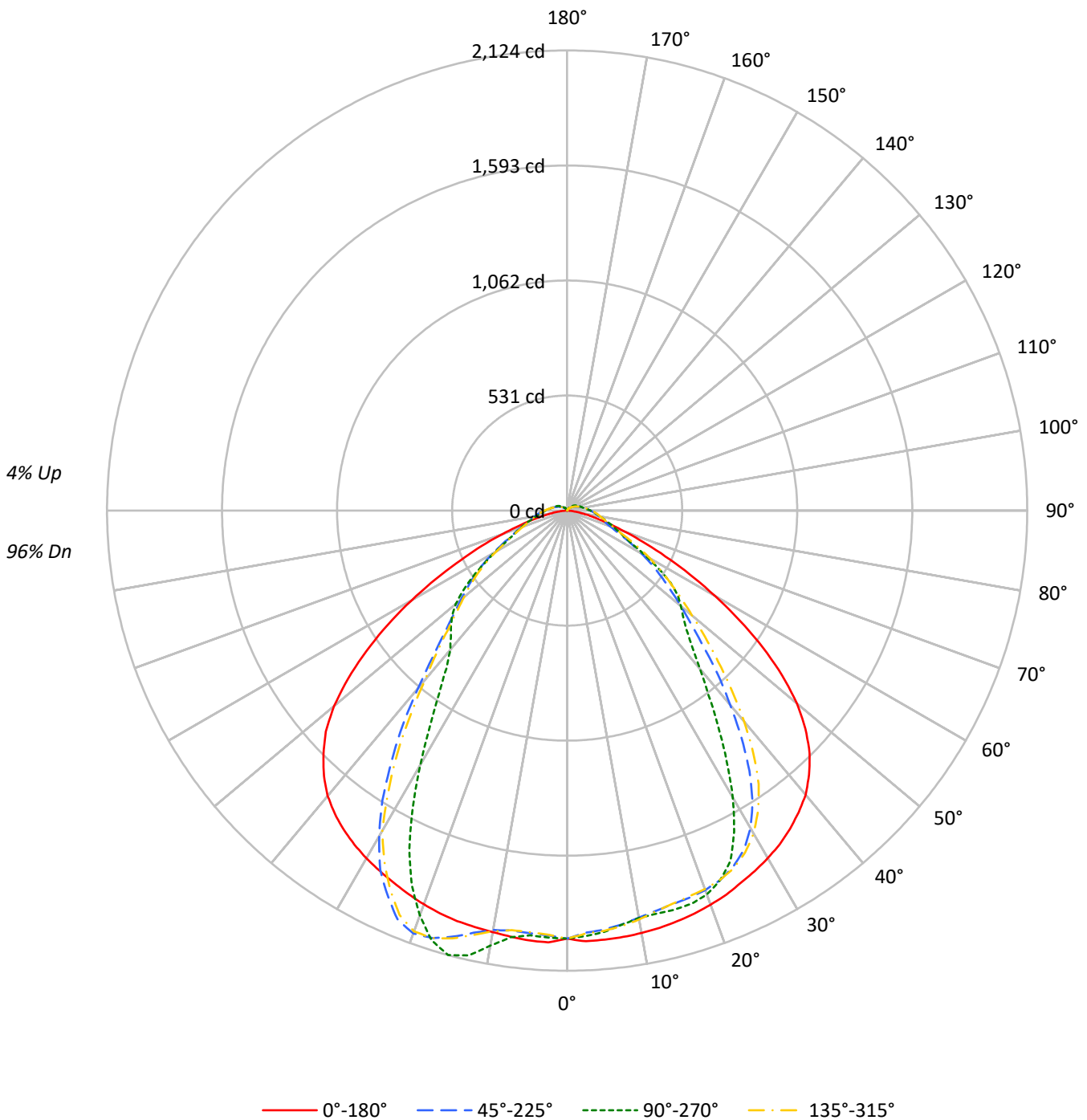
Lumens per Lamp: N/A
Luminaire Lumens: 4710.0 lumens
Efficiency: N/A
Efficacy: 114.9 lumens/watt
Spacing Criteria (0/90/45): 1.4 / 1.12 / 1.19
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.12')
CIE Type: Direct

Input Watts (W): 41
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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CATALOG NUMBER: 4SNLED-LD5-52SL-LC-UNV-L940-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°	15966	15966	15966	15966
5°	16082	15333	16116	15453
10°	16157	14695	16123	15693
15°	16282	14499	16273	16143
20°	16461	14269	16444	15041
25°	16664	13537	16655	13080
30°	16977	11732	16987	10393
35°	17310	9487	17360	8028
40°	17603	7638	17677	6730
45°	17541	6470	17631	6300
50°	16784	5957	17020	5824
55°	14892	5354	15264	4868
60°	12079	4098	12721	3758
65°	8980	3136	9675	2973
70°	6106	2707	6885	2588
75°	3996	2442	4650	2310
80°	2581	2277	3024	2094
85°	1325	2271	1742	2075



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	187.7	4.0
10°-20°	558.4	11.9
20°-30°	848.9	18.0
30°-40°	910.7	19.3
40°-50°	790.4	16.8
50°-60°	585.7	12.4
60°-70°	335.6	7.1
70°-80°	185.8	3.9
80°-90°	113.2	2.4
90°-100°	73.6	1.6
100°-110°	49.3	1.0
110°-120°	33.3	0.7
120°-130°	20.4	0.4
130°-140°	10.7	0.2
140°-150°	4.9	0.1
150°-160°	1.4	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	1595.0	33.9
0°-40°	2505.6	53.2
0°-60°	3881.7	82.4
0°-90°	4516.3	95.9
90°-120°	156.2	3.3
90°-150°	192.2	4.1
90°-180°	194.0	4.1
0°-180°	4710.0	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	1976	1976	1976	1976	1976	
5°	1988	1952	1992	1968	1988	189
15°	1962	1907	1961	2124	1962	555
25°	1896	1784	1895	1724	1896	876
35°	1793	1214	1798	1028	1793	1122
45°	1583	779	1591	758	1583	1212
55°	1104	584	1132	531	1104	979
65°	501	296	540	281	501	505
75°	143	188	166	178	143	163
85°	19	130	26	118	19	26
90°	0	108	2	100	0	1
95°	1	89	0	85	1	1
105°	1	66	1	63	1	1
115°	1	54	1	49	1	1
125°	1	41	1	34	1	1
135°	1	26	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	



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-52SL-LC-UNV-L940-CD1-U

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1975.7	1975.7	1975.7	1975.7	1975.7	1975.7	1975.7	1975.7	1975.7	1975.7	1975.7
2.5°	1990.0	1984.9	1982.9	1978.8	1981.8	1994.1	1985.9	1972.7	1973.7	1950.2	1962.5
5°	1988.0	1981.8	1978.8	1974.7	1976.7	1988.0	1979.8	1966.5	1965.5	1942.0	1953.3
7.5°	1984.9	1978.8	1973.7	1970.6	1971.6	1980.8	1970.6	1955.3	1952.3	1926.7	1936.9
10°	1979.8	1975.7	1968.6	1963.5	1962.5	1972.7	1956.3	1941.0	1933.9	1907.4	1917.6
12.5°	1972.7	1966.5	1959.4	1950.2	1949.2	1955.3	1942.0	1920.6	1913.5	1892.0	1903.3
15°	1962.5	1955.3	1947.2	1936.9	1931.8	1935.9	1919.6	1900.2	1899.2	1880.8	1896.1
17.5°	1951.2	1941.0	1931.8	1917.6	1910.4	1913.5	1900.2	1882.9	1884.9	1873.7	1891.0
20°	1935.9	1924.7	1910.4	1896.1	1885.9	1891.0	1881.8	1868.6	1871.6	1863.5	1878.8
22.5°	1918.6	1903.3	1885.9	1869.6	1861.4	1868.6	1861.4	1850.2	1851.2	1846.1	1855.3
25°	1896.1	1878.8	1858.4	1838.0	1833.9	1839.0	1834.9	1825.7	1821.6	1813.5	1817.5
27.5°	1875.7	1856.3	1830.8	1809.4	1802.2	1812.4	1803.3	1787.9	1776.7	1765.5	1757.3
30°	1852.2	1828.8	1800.2	1775.7	1769.6	1773.7	1760.4	1736.9	1707.3	1693.0	1670.6
32.5°	1826.7	1796.1	1760.4	1732.8	1728.8	1725.7	1701.2	1667.5	1621.6	1593.0	1558.3
35°	1793.1	1759.4	1716.5	1682.8	1676.7	1659.4	1619.6	1574.7	1515.5	1466.5	1407.3
37.5°	1755.3	1715.5	1670.6	1625.7	1608.3	1573.6	1517.5	1470.6	1380.8	1321.6	1250.1
40°	1712.4	1664.5	1609.4	1555.3	1526.7	1470.6	1406.3	1336.9	1250.1	1170.5	1110.3
42.5°	1653.2	1602.2	1536.9	1476.7	1427.7	1353.2	1277.7	1179.7	1100.1	1032.8	971.5
45°	1582.8	1521.6	1446.1	1373.6	1311.4	1222.6	1133.8	1035.8	969.5	890.9	849.1
47.5°	1492.0	1425.7	1345.0	1264.4	1182.8	1084.8	991.9	898.1	831.7	775.6	745.0
50°	1384.8	1323.6	1234.8	1138.9	1049.1	947.0	854.2	783.8	719.5	684.8	661.3
52.5°	1252.2	1195.0	1104.2	1000.1	913.4	813.4	728.7	671.5	625.6	600.1	591.9
55°	1104.2	1054.2	964.4	867.4	778.7	686.8	622.5	572.5	542.9	527.6	528.6
57.5°	946.0	907.2	822.5	735.8	652.1	582.7	524.5	484.7	462.3	461.3	464.3
60°	787.8	759.3	685.8	611.3	537.8	481.7	438.8	411.3	397.0	398.0	397.0
62.5°	636.8	610.3	557.2	496.0	437.8	400.0	361.3	350.0	337.8	336.8	336.8
65°	501.1	480.7	437.8	393.9	350.0	325.5	306.2	292.9	283.7	281.7	282.7
67.5°	376.6	368.4	338.8	309.2	281.7	266.4	250.0	247.0	239.8	239.8	241.9
70°	280.6	274.5	258.2	240.8	229.6	219.4	211.2	211.2	210.2	209.2	214.3
72.5°	203.1	204.1	199.0	185.7	184.7	182.7	180.6	183.7	184.7	187.8	193.9
75°	142.9	145.9	145.9	143.9	148.0	153.1	156.1	161.2	167.4	171.4	178.6
77.5°	101.0	101.0	106.1	112.3	120.4	129.6	137.8	144.9	153.1	158.2	164.3
80°	65.3	68.4	76.5	87.8	99.0	111.2	122.5	131.6	139.8	148.0	152.1
82.5°	38.8	43.9	54.1	68.4	82.7	98.0	109.2	120.4	129.6	137.8	140.8
85°	19.4	26.5	38.8	54.1	69.4	85.7	100.0	110.2	120.4	127.6	131.6
87.5°	6.1	14.3	27.6	41.8	58.2	74.5	89.8	101.0	110.2	116.3	120.4
90°	0.0	7.1	19.4	34.7	50.0	66.3	80.6	92.9	102.1	107.2	110.2
92.5°	0.0	4.1	15.3	28.6	42.9	59.2	73.5	84.7	92.9	98.0	100.0
95°	1.0	3.1	11.2	23.5	37.8	53.1	66.3	76.5	84.7	89.8	90.8
97.5°	1.0	2.0	9.2	19.4	32.7	46.9	60.2	70.4	76.5	81.6	82.7
100°	1.0	2.0	7.1	17.3	28.6	41.8	54.1	63.3	70.4	74.5	75.5
102.5°	1.0	1.0	6.1	14.3	25.5	36.7	48.0	57.1	63.3	67.4	69.4
105°	1.0	1.0	5.1	12.2	22.5	32.7	42.9	52.0	57.1	61.2	63.3
107.5°	1.0	1.0	4.1	10.2	19.4	28.6	38.8	45.9	52.0	56.1	58.2
110°	1.0	1.0	3.1	9.2	16.3	25.5	33.7	40.8	46.9	51.0	53.1



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-52SL-LC-UNV-L940-CD1-U

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	1.0	1.0	3.1	8.2	14.3	22.5	29.6	36.7	41.8	45.9	49.0
115°	1.0	1.0	3.1	7.1	13.3	19.4	26.5	32.7	37.8	41.8	44.9
117.5°	1.0	1.0	3.1	6.1	11.2	17.3	23.5	29.6	33.7	37.8	40.8
120°	1.0	1.0	2.0	5.1	10.2	15.3	20.4	25.5	30.6	34.7	37.8
122.5°	1.0	1.0	2.0	5.1	8.2	13.3	18.4	22.5	27.6	30.6	33.7
125°	1.0	1.0	2.0	4.1	7.1	12.2	16.3	20.4	23.5	27.6	30.6
127.5°	1.0	1.0	2.0	4.1	6.1	10.2	14.3	18.4	21.4	24.5	26.5
130°	1.0	1.0	2.0	3.1	5.1	8.2	12.2	15.3	19.4	21.4	23.5
132.5°	1.0	1.0	1.0	3.1	4.1	6.1	9.2	13.3	16.3	19.4	20.4
135°	1.0	1.0	1.0	2.0	4.1	5.1	7.1	10.2	13.3	16.3	18.4
137.5°	1.0	1.0	1.0	2.0	3.1	5.1	6.1	8.2	11.2	13.3	16.3
140°	1.0	1.0	1.0	2.0	3.1	4.1	5.1	7.1	9.2	11.2	13.3
142.5°	1.0	1.0	1.0	2.0	2.0	3.1	4.1	6.1	7.1	9.2	11.2
145°	1.0	1.0	1.0	2.0	2.0	3.1	4.1	5.1	6.1	7.1	9.2
147.5°	1.0	1.0	1.0	2.0	2.0	2.0	3.1	4.1	5.1	6.1	7.1
150°	2.0	2.0	2.0	2.0	2.0	2.0	3.1	3.1	4.1	5.1	6.1
152.5°	2.0	2.0	2.0	2.0	2.0	2.0	3.1	3.1	3.1	4.1	5.1
155°	2.0	2.0	2.0	2.0	2.0	2.0	2.0	3.1	3.1	4.1	4.1
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#

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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	1975.7	1975.7	1975.7	1975.7	1975.7	1975.7	1975.7	1975.7	1975.7	1975.7	1975.7
2.5°	1958.4	1960.4	1972.7	1971.6	1969.6	1967.6	1967.6	1965.5	1967.6	1972.7	1970.6
5°	1948.2	1951.2	1960.4	1959.4	1957.4	1956.3	1955.3	1952.3	1954.3	1961.4	1959.4
7.5°	1929.8	1932.9	1941.0	1936.9	1933.9	1935.9	1930.8	1927.8	1931.8	1939.0	1938.0
10°	1910.4	1912.5	1922.7	1920.6	1915.5	1916.5	1911.4	1909.4	1914.5	1918.6	1919.6
12.5°	1897.1	1904.3	1913.5	1912.5	1911.4	1912.5	1907.4	1905.3	1908.4	1912.5	1911.4
15°	1894.1	1903.3	1913.5	1913.5	1914.5	1915.5	1910.4	1907.4	1910.4	1913.5	1912.5
17.5°	1891.0	1902.2	1911.4	1910.4	1911.4	1913.5	1905.3	1903.3	1907.4	1911.4	1909.4
20°	1880.8	1891.0	1897.1	1895.1	1895.1	1896.1	1885.9	1885.9	1892.0	1895.1	1896.1
22.5°	1852.2	1864.5	1864.5	1859.4	1859.4	1855.3	1852.2	1846.1	1853.3	1858.4	1862.4
25°	1809.4	1814.5	1808.4	1797.1	1791.0	1785.9	1771.6	1783.9	1783.9	1799.2	1804.3
27.5°	1749.2	1737.9	1720.6	1697.1	1692.0	1675.7	1666.5	1669.6	1674.7	1696.1	1712.4
30°	1650.2	1616.5	1586.9	1576.7	1554.3	1537.9	1521.6	1529.8	1538.9	1551.2	1584.9
32.5°	1519.6	1486.9	1438.9	1421.6	1398.1	1377.7	1358.3	1370.6	1386.9	1395.0	1431.8
35°	1369.5	1330.8	1286.9	1257.3	1232.8	1221.6	1197.1	1214.4	1231.8	1237.9	1269.5
37.5°	1210.3	1170.5	1131.8	1106.2	1082.8	1075.6	1059.3	1071.5	1084.8	1094.0	1120.5
40°	1059.3	1022.6	993.0	975.6	959.3	953.2	947.0	952.1	962.3	969.5	989.9
42.5°	929.7	900.1	879.7	869.5	858.3	850.1	851.1	853.2	858.3	873.6	882.7
45°	816.4	799.1	785.8	783.8	776.6	775.6	774.6	778.7	781.7	790.9	798.0
47.5°	725.6	718.4	715.4	719.5	722.5	718.4	720.5	725.6	731.7	731.7	730.7
50°	654.2	656.2	660.3	669.5	675.6	677.6	679.7	685.8	686.8	688.9	685.8
52.5°	596.0	598.0	609.3	623.5	630.7	633.7	637.8	643.9	643.9	646.0	641.9
55°	536.8	539.9	551.1	565.4	571.5	575.6	579.7	583.7	586.8	590.9	587.8
57.5°	471.5	480.7	487.8	491.9	496.0	499.0	502.1	503.1	509.2	510.3	515.4
60°	402.1	404.1	411.3	410.2	407.2	415.4	411.3	418.4	425.6	434.7	435.8
62.5°	335.8	336.8	341.9	339.8	343.9	342.9	346.0	346.0	351.1	355.1	360.2
65°	283.7	284.7	288.8	288.8	287.8	290.8	293.9	296.0	296.0	299.0	303.1
67.5°	244.9	248.0	252.1	254.1	256.2	256.2	259.2	260.2	262.3	263.3	265.3
70°	218.4	222.5	226.6	228.6	229.6	231.7	232.7	232.7	234.7	235.7	237.8
72.5°	199.0	203.1	206.1	206.1	208.2	209.2	209.2	210.2	211.2	213.3	215.3
75°	182.7	185.7	187.8	186.8	186.8	186.8	187.8	187.8	189.8	191.9	193.9
77.5°	167.4	170.4	170.4	168.4	168.4	168.4	168.4	169.4	170.4	172.5	174.5
80°	156.1	156.1	155.1	155.1	153.1	152.1	152.1	153.1	153.1	155.1	158.2
82.5°	143.9	143.9	142.9	141.9	140.8	139.8	139.8	140.8	141.9	142.9	144.9
85°	132.7	132.7	130.6	130.6	129.6	129.6	129.6	129.6	130.6	131.6	133.7
87.5°	121.4	120.4	119.4	118.4	118.4	118.4	118.4	118.4	119.4	121.4	122.5
90°	110.2	109.2	108.2	108.2	107.2	107.2	108.2	108.2	109.2	110.2	111.2
92.5°	100.0	99.0	98.0	98.0	96.9	96.9	98.0	96.9	99.0	99.0	100.0
95°	90.8	89.8	88.8	88.8	88.8	88.8	88.8	88.8	89.8	89.8	90.8
97.5°	82.7	81.6	80.6	80.6	81.6	80.6	81.6	81.6	81.6	82.7	83.7
100°	75.5	74.5	74.5	75.5	74.5	74.5	75.5	75.5	75.5	75.5	76.5
102.5°	69.4	69.4	69.4	69.4	69.4	69.4	70.4	70.4	70.4	70.4	71.4
105°	63.3	64.3	64.3	64.3	65.3	65.3	65.3	66.3	66.3	66.3	66.3
107.5°	59.2	60.2	60.2	61.2	61.2	62.3	62.3	62.3	62.3	63.3	63.3
110°	55.1	56.1	57.1	58.2	58.2	59.2	59.2	59.2	59.2	59.2	59.2



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-52SL-LC-UNV-L940-CD1-U

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
112.5°	51.0	52.0	53.1	55.1	56.1	56.1	56.1	56.1	57.1	57.1	56.1
115°	46.9	49.0	50.0	52.0	53.1	53.1	54.1	54.1	54.1	54.1	53.1
117.5°	42.9	45.9	46.9	49.0	50.0	50.0	51.0	51.0	51.0	51.0	50.0
120°	39.8	41.8	43.9	44.9	45.9	46.9	46.9	48.0	48.0	48.0	46.9
122.5°	36.7	38.8	40.8	41.8	42.9	43.9	43.9	43.9	43.9	43.9	43.9
125°	32.7	34.7	36.7	37.8	38.8	39.8	39.8	40.8	40.8	40.8	39.8
127.5°	29.6	31.6	32.7	34.7	35.7	35.7	36.7	36.7	36.7	36.7	35.7
130°	25.5	27.6	29.6	30.6	31.6	31.6	32.7	32.7	32.7	32.7	32.7
132.5°	22.5	24.5	25.5	27.6	27.6	28.6	28.6	29.6	29.6	29.6	28.6
135°	20.4	21.4	22.5	24.5	24.5	25.5	25.5	25.5	25.5	25.5	25.5
137.5°	18.4	19.4	20.4	21.4	21.4	22.5	22.5	22.5	22.5	23.5	22.5
140°	15.3	17.3	18.4	18.4	19.4	19.4	19.4	20.4	20.4	20.4	19.4
142.5°	13.3	14.3	15.3	16.3	17.3	17.3	17.3	17.3	18.4	17.3	17.3
145°	10.2	12.2	13.3	14.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3
147.5°	8.2	9.2	11.2	12.2	12.2	13.3	13.3	13.3	13.3	13.3	13.3
150°	7.1	7.1	9.2	10.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2
152.5°	5.1	6.1	7.1	8.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2
155°	5.1	5.1	6.1	6.1	7.1	7.1	7.1	7.1	8.2	7.1	7.1
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-LD5-52SL-LC-UNV-L940-CD1-U

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	1975.7	1975.7	1975.7	1975.7	1975.7	1975.7	1975.7	1975.7	1975.7	1975.7	1975.7
2.5°	1967.6	1966.5	1970.6	1966.5	1946.1	1954.3	1951.2	1962.5	1963.5	1966.5	1976.7
5°	1957.4	1957.4	1962.5	1958.4	1939.0	1947.2	1946.1	1957.4	1959.4	1961.4	1972.7
7.5°	1936.9	1938.0	1945.1	1942.0	1921.6	1933.9	1932.9	1946.1	1950.2	1954.3	1964.5
10°	1917.6	1916.5	1924.7	1921.6	1902.2	1916.5	1915.5	1928.8	1934.9	1942.0	1954.3
12.5°	1907.4	1904.3	1907.4	1904.3	1882.9	1894.1	1895.1	1910.4	1917.6	1926.7	1941.0
15°	1907.4	1902.2	1902.2	1896.1	1871.6	1878.8	1879.8	1890.0	1899.2	1908.4	1925.7
17.5°	1905.3	1900.2	1899.2	1894.1	1867.6	1867.6	1866.5	1873.7	1878.8	1888.0	1906.3
20°	1894.1	1892.0	1891.0	1888.0	1863.5	1859.4	1857.3	1857.3	1860.4	1863.5	1881.8
22.5°	1864.5	1866.5	1868.6	1870.6	1851.2	1844.1	1845.1	1843.1	1840.0	1840.0	1855.3
25°	1809.4	1819.6	1827.8	1836.9	1825.7	1820.6	1826.7	1823.7	1818.6	1814.5	1827.8
27.5°	1721.6	1743.0	1760.4	1782.8	1783.9	1779.8	1796.1	1794.1	1793.1	1786.9	1797.1
30°	1600.2	1633.9	1657.3	1690.0	1717.5	1721.6	1749.2	1753.3	1757.3	1754.3	1764.5
32.5°	1453.2	1499.1	1538.9	1590.0	1616.5	1640.0	1678.8	1695.1	1711.4	1716.5	1727.7
35°	1293.0	1345.0	1392.0	1448.1	1490.0	1541.0	1587.9	1612.4	1649.2	1663.4	1679.8
37.5°	1140.9	1189.9	1235.8	1292.0	1359.3	1412.4	1470.6	1525.7	1575.7	1596.1	1620.6
40°	1006.2	1046.0	1089.9	1138.9	1200.1	1269.5	1332.8	1409.3	1468.5	1509.3	1545.1
42.5°	904.2	923.6	961.3	1005.2	1054.2	1124.6	1188.9	1274.6	1346.1	1404.2	1463.4
45°	813.4	822.5	850.1	873.6	923.6	985.8	1054.2	1137.9	1212.4	1286.9	1358.3
47.5°	735.8	747.0	760.3	774.6	810.3	862.3	921.5	997.0	1071.5	1158.3	1239.9
50°	683.7	686.8	688.9	695.0	716.4	752.1	800.1	864.4	935.8	1028.7	1115.4
52.5°	637.8	637.8	631.7	628.6	636.8	659.3	686.8	732.7	806.2	891.9	983.8
55°	588.8	579.7	577.6	567.4	569.4	579.7	592.9	628.6	688.9	762.3	851.1
57.5°	520.5	516.4	516.4	512.3	504.1	509.2	512.3	537.8	580.7	643.9	721.5
60°	441.9	439.8	444.9	446.0	438.8	441.9	440.9	456.2	486.8	537.8	602.1
62.5°	363.3	372.5	373.5	377.6	373.5	372.5	377.6	390.9	406.2	444.9	495.0
65°	305.1	310.2	311.3	316.4	314.3	314.3	318.4	328.6	337.8	364.3	403.1
67.5°	267.4	265.3	266.4	269.4	266.4	265.3	268.4	274.5	281.7	298.0	325.5
70°	237.8	235.7	235.7	235.7	231.7	228.6	229.6	231.7	234.7	243.9	261.3
72.5°	215.3	215.3	212.3	209.2	206.1	204.1	202.1	200.0	199.0	202.1	211.2
75°	194.9	195.9	194.9	191.9	187.8	183.7	179.6	175.5	170.4	168.4	169.4
77.5°	176.5	177.6	178.6	177.6	173.5	168.4	162.3	156.1	149.0	141.9	137.8
80°	160.2	162.3	163.3	162.3	159.2	155.1	148.0	140.8	130.6	121.4	111.2
82.5°	145.9	149.0	150.0	150.0	148.0	143.9	135.7	127.6	116.3	104.1	90.8
85°	134.7	136.7	138.8	138.8	137.8	133.7	125.5	116.3	105.1	90.8	76.5
87.5°	123.5	124.5	126.5	128.6	126.5	122.5	115.3	105.1	93.9	79.6	63.3
90°	112.3	113.3	115.3	117.4	116.3	112.3	106.1	96.9	84.7	69.4	53.1
92.5°	101.0	103.1	104.1	105.1	106.1	103.1	98.0	88.8	76.5	61.2	45.9
95°	92.9	92.9	94.9	95.9	96.9	93.9	89.8	80.6	69.4	55.1	39.8
97.5°	84.7	84.7	86.7	86.7	87.8	85.7	81.6	73.5	62.3	49.0	33.7
100°	76.5	77.6	78.6	79.6	79.6	78.6	74.5	66.3	56.1	43.9	29.6
102.5°	71.4	71.4	72.5	72.5	73.5	71.4	67.4	60.2	50.0	38.8	25.5
105°	66.3	66.3	67.4	67.4	66.3	64.3	60.2	54.1	44.9	33.7	22.5
107.5°	62.3	62.3	62.3	62.3	61.2	59.2	55.1	48.0	39.8	30.6	20.4
110°	59.2	58.2	58.2	57.1	56.1	53.1	49.0	42.9	35.7	26.5	17.3



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-52SL-LC-UNV-L940-CD1-U

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
112.5°	56.1	55.1	54.1	53.1	51.0	48.0	43.9	38.8	31.6	23.5	15.3
115°	53.1	52.0	51.0	49.0	46.9	43.9	39.8	34.7	27.6	20.4	13.3
117.5°	50.0	49.0	46.9	44.9	42.9	39.8	35.7	30.6	24.5	18.4	12.2
120°	45.9	44.9	43.9	41.8	39.8	35.7	31.6	27.6	21.4	16.3	10.2
122.5°	42.9	41.8	39.8	38.8	35.7	32.7	28.6	24.5	19.4	14.3	9.2
125°	38.8	37.8	36.7	34.7	32.7	28.6	25.5	21.4	17.3	12.2	7.1
127.5°	35.7	34.7	32.7	30.6	28.6	25.5	22.5	19.4	15.3	10.2	7.1
130°	31.6	30.6	29.6	27.6	25.5	22.5	20.4	16.3	13.3	9.2	6.1
132.5°	27.6	27.6	26.5	24.5	22.5	20.4	17.3	14.3	11.2	8.2	5.1
135°	25.5	24.5	23.5	21.4	20.4	17.3	15.3	12.2	9.2	7.1	4.1
137.5°	22.5	21.4	20.4	19.4	17.3	15.3	13.3	10.2	8.2	6.1	4.1
140°	19.4	18.4	18.4	16.3	15.3	13.3	11.2	9.2	7.1	5.1	3.1
142.5°	17.3	16.3	15.3	14.3	13.3	11.2	9.2	7.1	6.1	4.1	3.1
145°	15.3	14.3	13.3	12.2	11.2	9.2	8.2	6.1	5.1	4.1	3.1
147.5°	12.2	12.2	11.2	10.2	9.2	8.2	7.1	6.1	4.1	3.1	2.0
150°	10.2	10.2	9.2	8.2	8.2	7.1	6.1	5.1	4.1	3.1	2.0
152.5°	9.2	8.2	8.2	7.1	7.1	6.1	5.1	4.1	3.1	3.1	2.0
155°	7.1	7.1	7.1	6.1	6.1	5.1	4.1	4.1	3.1	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-LD5-52SL-LC-UNV-L940-CD1-U

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
0°	1975.7	1975.7	1975.7	1975.7	1975.7	1975.7	1975.7	1975.7	1975.7	1975.7	1975.7
2.5°	1978.8	1966.5	1976.7	1995.1	1993.1	1991.0	1989.0	1993.1	2006.3	1999.2	1988.0
5°	1975.7	1963.5	1974.7	1992.1	1991.0	1988.0	1985.9	1990.0	2003.3	1996.1	1983.9
7.5°	1969.6	1958.4	1966.5	1983.9	1983.9	1981.8	1979.8	1983.9	1996.1	1990.0	1977.8
10°	1959.4	1951.2	1959.4	1975.7	1976.7	1972.7	1970.6	1975.7	1988.0	1984.9	1974.7
12.5°	1951.2	1943.1	1952.3	1968.6	1969.6	1965.5	1962.5	1968.6	1984.9	1987.0	1983.9
15°	1940.0	1932.9	1944.1	1961.4	1961.4	1958.4	1958.4	1966.5	1989.0	1998.2	2003.3
17.5°	1923.7	1918.6	1931.8	1949.2	1950.2	1948.2	1949.2	1965.5	1995.1	2017.6	2031.9
20°	1903.3	1901.2	1915.5	1933.9	1936.9	1938.0	1943.1	1967.6	2008.4	2039.0	2053.3
22.5°	1878.8	1879.8	1896.1	1915.5	1919.6	1922.7	1932.9	1967.6	2018.6	2051.2	2057.4
25°	1851.2	1854.3	1871.6	1895.1	1900.2	1906.3	1923.7	1968.6	2021.6	2043.1	2032.9
27.5°	1821.6	1827.8	1850.2	1874.7	1880.8	1891.0	1913.5	1962.5	2007.4	2008.4	1970.6
30°	1791.0	1798.2	1824.7	1853.3	1863.5	1873.7	1901.2	1948.2	1972.7	1940.0	1873.7
32.5°	1756.3	1766.5	1793.1	1827.8	1840.0	1853.3	1880.8	1920.6	1911.4	1841.0	1746.1
35°	1712.4	1726.7	1757.3	1798.2	1809.4	1826.7	1846.1	1855.3	1814.5	1714.5	1607.3
37.5°	1658.3	1679.8	1715.5	1762.4	1774.7	1785.9	1791.0	1765.5	1683.9	1575.7	1464.4
40°	1596.1	1628.7	1667.5	1719.6	1731.8	1731.8	1713.5	1659.4	1556.3	1414.4	1291.0
42.5°	1520.6	1560.4	1609.4	1661.4	1673.7	1659.4	1615.5	1520.6	1403.2	1245.0	1114.4
45°	1428.7	1481.8	1536.9	1591.0	1597.1	1565.5	1486.9	1366.5	1221.6	1074.6	950.1
47.5°	1319.5	1388.9	1449.1	1510.4	1502.2	1449.1	1344.0	1207.3	1054.2	915.4	815.4
50°	1197.1	1278.7	1346.1	1404.2	1386.9	1313.4	1189.9	1047.1	895.0	776.6	694.0
52.5°	1066.4	1160.3	1227.7	1274.6	1251.2	1163.4	1027.7	890.9	766.4	658.2	603.1
55°	930.7	1025.6	1095.0	1131.8	1101.1	1006.2	872.5	748.0	630.7	560.3	527.6
57.5°	799.1	887.9	953.2	982.8	944.0	849.1	725.6	620.5	535.8	476.6	460.3
60°	672.5	745.0	807.2	829.7	787.8	700.1	593.9	510.3	448.0	407.2	399.0
62.5°	555.2	614.4	663.3	680.7	639.9	571.5	479.6	417.4	373.5	353.1	342.9
65°	458.2	492.9	542.9	539.9	515.4	452.1	384.7	340.9	312.3	299.0	292.9
67.5°	360.2	391.9	423.5	427.6	397.0	353.1	309.2	277.6	262.3	255.1	252.1
70°	278.6	302.1	321.5	316.4	300.0	272.5	244.9	227.6	221.5	218.4	218.4
72.5°	216.4	228.6	237.8	231.7	221.5	207.2	193.9	186.8	187.8	189.8	191.9
75°	167.4	170.4	172.5	166.3	164.3	155.1	154.1	155.1	161.2	167.4	170.4
77.5°	128.6	124.5	121.4	115.3	116.3	115.3	120.4	128.6	137.8	147.0	155.1
80°	99.0	89.8	82.7	76.5	79.6	84.7	94.9	107.2	119.4	129.6	139.8
82.5°	76.5	63.3	53.1	46.9	53.1	61.2	74.5	89.8	104.1	115.3	126.5
85°	59.2	43.9	31.6	25.5	31.6	43.9	58.2	75.5	90.8	103.1	114.3
87.5°	45.9	31.6	17.3	10.2	17.3	30.6	46.9	63.3	78.6	92.9	104.1
90°	36.7	21.4	8.2	2.0	9.2	21.4	36.7	53.1	68.4	83.7	94.9
92.5°	29.6	15.3	4.1	0.0	5.1	16.3	30.6	45.9	61.2	75.5	86.7
95°	24.5	12.2	3.1	0.0	4.1	12.2	24.5	39.8	54.1	68.4	77.6
97.5°	20.4	9.2	2.0	0.0	2.0	10.2	20.4	33.7	48.0	61.2	70.4
100°	17.3	8.2	2.0	0.0	2.0	8.2	17.3	29.6	41.8	54.1	63.3
102.5°	14.3	6.1	1.0	1.0	1.0	6.1	15.3	25.5	36.7	48.0	57.1
105°	13.3	5.1	1.0	1.0	1.0	5.1	13.3	22.5	32.7	42.9	51.0
107.5°	11.2	4.1	1.0	1.0	1.0	4.1	11.2	19.4	29.6	38.8	45.9
110°	9.2	4.1	1.0	1.0	1.0	4.1	9.2	17.3	25.5	33.7	40.8



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-52SL-LC-UNV-L940-CD1-U

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
112.5°	8.2	3.1	1.0	1.0	1.0	3.1	8.2	15.3	22.5	30.6	36.7
115°	7.1	3.1	1.0	1.0	1.0	3.1	7.1	13.3	19.4	26.5	32.7
117.5°	6.1	3.1	1.0	1.0	1.0	2.0	6.1	11.2	17.3	23.5	29.6
120°	5.1	2.0	1.0	1.0	1.0	2.0	5.1	10.2	15.3	20.4	25.5
122.5°	5.1	2.0	1.0	1.0	1.0	2.0	4.1	8.2	13.3	17.3	22.5
125°	4.1	2.0	1.0	1.0	1.0	1.0	4.1	7.1	11.2	15.3	19.4
127.5°	4.1	2.0	1.0	1.0	1.0	1.0	3.1	6.1	9.2	13.3	17.3
130°	3.1	2.0	1.0	1.0	1.0	1.0	2.0	5.1	8.2	11.2	14.3
132.5°	3.1	2.0	1.0	1.0	1.0	1.0	2.0	4.1	6.1	9.2	12.2
135°	3.1	1.0	1.0	1.0	1.0	1.0	1.0	3.1	5.1	7.1	9.2
137.5°	2.0	1.0	1.0	1.0	1.0	1.0	1.0	2.0	4.1	5.1	8.2
140°	2.0	1.0	1.0	1.0	1.0	1.0	1.0	2.0	3.1	4.1	6.1
142.5°	2.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	2.0	3.1	5.1
145°	2.0	1.0	1.0	2.0	2.0	1.0	1.0	2.0	2.0	3.1	4.1
147.5°	2.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	2.0	2.0	3.1
150°	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	3.1
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-LD5-52SL-LC-UNV-L940-CD1-U

CANDELA DISTRIBUTION (continued):

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
0°	1975.7	1975.7	1975.7	1975.7	1975.7	1975.7	1975.7	1975.7	1975.7	1975.7	1975.7
2.5°	1985.9	1962.5	1974.7	1970.6	1974.7	1984.9	1983.9	1980.8	1982.9	1977.8	1972.7
5°	1981.8	1958.4	1970.6	1965.5	1970.6	1980.8	1978.8	1975.7	1978.8	1972.7	1967.6
7.5°	1976.7	1955.3	1969.6	1968.6	1977.8	1991.0	1992.1	1992.1	1999.2	1990.0	1985.9
10°	1976.7	1965.5	1984.9	1992.1	2015.5	2032.9	2034.9	2039.0	2051.2	2049.2	2039.0
12.5°	1998.2	1996.1	2024.7	2042.1	2063.5	2088.0	2101.2	2105.3	2113.5	2107.4	2103.3
15°	2025.7	2035.9	2067.6	2087.0	2110.4	2128.8	2131.9	2133.9	2140.0	2130.8	2123.7
17.5°	2062.5	2068.6	2094.1	2102.3	2117.6	2120.6	2116.6	2106.4	2106.4	2085.9	2079.8
20°	2079.8	2076.8	2087.0	2073.7	2067.6	2049.2	2031.9	2012.5	2011.4	1990.0	1988.0
22.5°	2064.5	2044.1	2022.7	1990.0	1975.7	1949.2	1925.7	1914.5	1907.4	1879.8	1872.7
25°	2010.4	1960.4	1928.8	1890.0	1855.3	1824.7	1802.2	1778.8	1756.3	1733.9	1723.7
27.5°	1916.5	1869.6	1818.6	1764.5	1716.5	1669.6	1631.8	1608.3	1586.9	1557.3	1542.0
30°	1801.2	1735.9	1679.8	1627.7	1549.1	1492.0	1460.4	1413.4	1397.1	1383.8	1355.2
32.5°	1665.5	1586.9	1510.4	1440.0	1359.3	1306.3	1264.4	1229.7	1219.5	1184.8	1176.7
35°	1515.5	1412.4	1325.7	1256.3	1198.1	1133.8	1099.1	1075.6	1055.2	1031.7	1027.7
37.5°	1338.9	1246.1	1148.1	1086.9	1040.9	985.8	959.3	943.0	933.8	916.4	913.4
40°	1161.4	1068.5	1001.1	939.9	911.3	881.7	862.3	855.2	851.1	845.0	838.9
42.5°	1000.1	918.5	870.5	829.7	817.4	803.1	798.0	802.1	798.0	796.0	795.0
45°	863.4	801.1	767.4	755.2	752.1	748.0	752.1	759.3	760.3	758.2	758.2
47.5°	738.9	709.3	695.0	697.0	702.1	705.2	712.3	721.5	723.5	718.4	720.5
50°	657.2	639.9	636.8	645.0	656.2	660.3	668.4	675.6	674.6	672.5	670.5
52.5°	580.7	575.6	583.7	591.9	604.1	606.2	609.3	612.3	611.3	607.2	605.2
55°	516.4	520.5	527.6	530.7	539.9	538.8	539.9	539.9	535.8	533.7	530.7
57.5°	458.2	459.2	463.3	464.3	469.4	467.4	466.4	464.3	458.2	457.2	454.1
60°	399.0	397.0	406.2	399.0	403.1	399.0	398.0	392.9	386.8	385.8	383.7
62.5°	342.9	338.8	344.9	341.9	343.9	339.8	337.8	331.7	326.6	325.5	324.5
65°	292.9	290.8	297.0	296.0	298.0	292.9	290.8	286.8	282.7	281.7	280.6
67.5°	251.0	256.2	259.2	259.2	261.3	260.2	255.1	254.1	253.1	249.0	249.0
70°	220.4	223.5	229.6	230.6	229.6	231.7	227.6	226.6	225.5	223.5	222.5
72.5°	195.9	200.0	206.1	207.2	206.1	206.1	204.1	203.1	203.1	200.0	200.0
75°	176.5	181.7	186.8	186.8	186.8	184.7	182.7	182.7	180.6	179.6	177.6
77.5°	160.2	166.3	170.4	169.4	168.4	166.3	166.3	163.3	160.2	160.2	158.2
80°	148.0	152.1	155.1	154.1	153.1	150.0	149.0	145.9	143.9	140.8	140.8
82.5°	134.7	139.8	141.9	140.8	138.8	135.7	134.7	132.7	130.6	129.6	127.6
85°	123.5	128.6	129.6	127.6	125.5	123.5	122.5	121.4	120.4	118.4	118.4
87.5°	112.3	117.4	117.4	116.3	114.3	113.3	112.3	111.2	110.2	109.2	108.2
90°	103.1	107.2	107.2	106.1	105.1	104.1	103.1	102.1	101.0	100.0	100.0
92.5°	93.9	98.0	98.0	96.9	95.9	94.9	94.9	93.9	92.9	91.8	90.8
95°	85.7	89.8	89.8	89.8	88.8	87.8	87.8	86.7	85.7	85.7	84.7
97.5°	77.6	81.6	81.6	81.6	80.6	79.6	79.6	78.6	78.6	78.6	77.6
100°	70.4	73.5	74.5	74.5	73.5	73.5	73.5	72.5	72.5	72.5	71.4
102.5°	63.3	66.3	68.4	68.4	68.4	67.4	67.4	67.4	67.4	67.4	66.3
105°	57.1	60.2	62.3	63.3	63.3	63.3	63.3	63.3	63.3	63.3	63.3
107.5°	52.0	55.1	57.1	58.2	59.2	59.2	60.2	60.2	60.2	60.2	60.2
110°	46.9	50.0	53.1	54.1	55.1	56.1	56.1	57.1	56.1	56.1	56.1



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-52SL-LC-UNV-L940-CD1-U

CANDELA DISTRIBUTION (continued):

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
112.5°	41.8	45.9	48.0	50.0	51.0	52.0	53.1	53.1	53.1	53.1	53.1
115°	37.8	41.8	43.9	45.9	48.0	49.0	49.0	50.0	50.0	50.0	49.0
117.5°	33.7	37.8	39.8	41.8	42.9	44.9	45.9	45.9	45.9	45.9	44.9
120°	30.6	33.7	35.7	37.8	39.8	40.8	41.8	41.8	41.8	41.8	41.8
122.5°	26.5	29.6	32.7	34.7	35.7	36.7	37.8	37.8	37.8	37.8	37.8
125°	23.5	26.5	28.6	30.6	31.6	33.7	33.7	33.7	33.7	33.7	33.7
127.5°	20.4	23.5	25.5	27.6	28.6	29.6	30.6	30.6	30.6	30.6	30.6
130°	17.3	20.4	22.5	24.5	25.5	26.5	26.5	27.6	27.6	27.6	27.6
132.5°	15.3	17.3	19.4	21.4	22.5	23.5	23.5	24.5	24.5	24.5	24.5
135°	12.2	15.3	16.3	18.4	19.4	20.4	20.4	21.4	21.4	21.4	21.4
137.5°	10.2	12.2	14.3	16.3	17.3	17.3	18.4	18.4	19.4	19.4	19.4
140°	8.2	9.2	12.2	13.3	14.3	15.3	16.3	16.3	16.3	16.3	16.3
142.5°	6.1	8.2	9.2	11.2	12.2	13.3	14.3	14.3	14.3	14.3	14.3
145°	5.1	6.1	7.1	9.2	10.2	11.2	12.2	12.2	12.2	12.2	12.2
147.5°	4.1	5.1	6.1	7.1	8.2	9.2	10.2	10.2	10.2	10.2	10.2
150°	3.1	4.1	5.1	5.1	6.1	7.1	8.2	9.2	9.2	9.2	9.2
152.5°	3.1	3.1	4.1	4.1	5.1	6.1	7.1	7.1	7.1	7.1	7.1
155°	2.0	3.1	3.1	3.1	4.1	4.1	5.1	6.1	6.1	6.1	6.1
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-LD5-52SL-LC-UNV-L940-CD1-U

CANDELA DISTRIBUTION (continued):

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°
0°	1975.7	1975.7	1975.7	1975.7	1975.7	1975.7	1975.7	1975.7	1975.7	1975.7	1975.7
2.5°	1975.7	1979.8	1977.8	1974.7	1973.7	1978.8	1973.7	1950.2	1959.4	1960.4	1967.6
5°	1972.7	1975.7	1973.7	1971.6	1968.6	1974.7	1968.6	1944.1	1953.3	1954.3	1961.4
7.5°	1993.1	1994.1	1994.1	1989.0	1980.8	1983.9	1975.7	1948.2	1953.3	1953.3	1958.4
10°	2044.1	2046.1	2049.2	2035.9	2025.7	2017.6	2006.3	1972.7	1971.6	1963.5	1963.5
12.5°	2110.4	2105.3	2100.2	2094.1	2085.9	2075.7	2059.4	2019.6	2006.3	1993.1	1979.8
15°	2129.8	2127.8	2126.8	2123.7	2118.6	2115.5	2103.3	2063.5	2044.1	2027.8	2004.3
17.5°	2078.8	2082.9	2096.1	2097.2	2103.3	2115.5	2113.5	2085.9	2068.6	2061.4	2032.9
20°	1987.0	1988.0	2004.3	2011.4	2038.0	2058.4	2073.7	2070.6	2066.6	2074.7	2053.3
22.5°	1876.7	1883.9	1901.2	1912.5	1938.0	1961.4	1985.9	1999.2	2020.6	2054.3	2050.2
25°	1726.7	1735.9	1760.4	1778.8	1814.5	1850.2	1882.9	1906.3	1931.8	1996.1	2017.6
27.5°	1547.1	1561.4	1593.0	1611.4	1661.4	1698.1	1745.1	1791.0	1826.7	1900.2	1944.1
30°	1358.3	1370.6	1404.2	1429.7	1472.6	1522.6	1581.8	1647.1	1706.3	1780.8	1835.9
32.5°	1181.8	1195.0	1222.6	1245.0	1293.0	1334.8	1400.2	1480.8	1535.9	1639.0	1712.4
35°	1027.7	1039.9	1059.3	1078.7	1118.5	1161.4	1217.5	1296.1	1366.5	1473.6	1566.5
37.5°	919.5	921.5	932.8	944.0	973.6	1006.2	1050.1	1119.5	1184.8	1300.1	1402.2
40°	841.9	841.9	848.1	851.1	864.4	883.8	911.3	965.4	1019.5	1107.3	1231.8
42.5°	794.0	791.9	791.9	792.9	791.9	801.1	817.4	842.9	890.9	963.4	1060.3
45°	758.2	754.2	751.1	744.0	739.9	739.9	740.9	750.1	777.6	824.6	903.2
47.5°	718.4	717.4	712.3	704.2	697.0	691.9	683.7	680.7	688.9	715.4	768.5
50°	672.5	667.4	662.3	656.2	648.0	642.9	627.6	628.6	621.5	633.7	661.3
52.5°	605.2	601.1	599.0	593.9	590.9	588.8	576.6	564.3	561.3	563.3	573.5
55°	530.7	532.7	524.5	528.6	527.6	518.4	513.3	504.1	501.1	500.1	505.2
57.5°	453.1	455.2	450.0	454.1	454.1	449.0	446.0	446.0	438.8	432.7	439.8
60°	382.7	378.6	381.7	386.8	386.8	383.7	381.7	381.7	376.6	374.5	379.6
62.5°	325.5	321.5	324.5	329.6	330.6	328.6	326.6	326.6	320.4	320.4	324.5
65°	281.7	282.7	281.7	285.7	285.7	286.8	284.7	282.7	275.5	278.6	277.6
67.5°	250.0	249.0	249.0	253.1	252.1	254.1	252.1	249.0	243.9	239.8	238.8
70°	223.5	222.5	222.5	224.5	225.5	225.5	224.5	222.5	215.3	211.2	208.2
72.5°	200.0	199.0	200.0	201.0	202.1	203.1	202.1	200.0	193.9	188.8	183.7
75°	178.6	177.6	180.6	180.6	181.7	181.7	182.7	181.7	176.5	170.4	164.3
77.5°	157.2	158.2	161.2	162.3	164.3	165.3	166.3	166.3	161.2	156.1	148.0
80°	139.8	141.9	143.9	144.9	147.0	150.0	151.0	152.1	148.0	142.9	133.7
82.5°	127.6	128.6	130.6	131.6	134.7	135.7	136.7	138.8	136.7	131.6	121.4
85°	117.4	118.4	120.4	120.4	122.5	124.5	125.5	126.5	125.5	120.4	110.2
87.5°	108.2	109.2	110.2	111.2	112.3	113.3	114.3	115.3	114.3	109.2	100.0
90°	100.0	100.0	101.0	101.0	102.1	103.1	105.1	105.1	104.1	100.0	90.8
92.5°	90.8	91.8	91.8	92.9	93.9	94.9	95.9	95.9	94.9	90.8	82.7
95°	84.7	84.7	85.7	85.7	86.7	86.7	87.8	87.8	86.7	82.7	74.5
97.5°	77.6	77.6	77.6	77.6	78.6	78.6	79.6	79.6	78.6	74.5	67.4
100°	71.4	71.4	71.4	71.4	71.4	72.5	72.5	72.5	71.4	67.4	60.2
102.5°	66.3	66.3	66.3	66.3	66.3	66.3	66.3	66.3	64.3	61.2	54.1
105°	63.3	63.3	63.3	62.3	62.3	62.3	61.2	61.2	58.2	55.1	49.0
107.5°	59.2	59.2	59.2	58.2	58.2	57.1	56.1	56.1	53.1	50.0	43.9
110°	56.1	56.1	56.1	55.1	54.1	53.1	52.0	51.0	48.0	43.9	38.8



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-52SL-LC-UNV-L940-CD1-U

CANDELA DISTRIBUTION (continued):

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°
112.5°	53.1	53.1	52.0	52.0	51.0	50.0	48.0	46.9	43.9	39.8	34.7
115°	49.0	49.0	49.0	48.0	46.9	45.9	44.9	42.9	39.8	35.7	30.6
117.5°	44.9	44.9	44.9	43.9	42.9	41.8	40.8	38.8	35.7	31.6	27.6
120°	40.8	40.8	40.8	39.8	38.8	37.8	36.7	34.7	31.6	28.6	23.5
122.5°	37.8	37.8	36.7	35.7	34.7	33.7	32.7	30.6	28.6	24.5	20.4
125°	33.7	33.7	32.7	32.7	31.6	30.6	29.6	27.6	24.5	21.4	18.4
127.5°	30.6	29.6	29.6	29.6	28.6	27.6	25.5	24.5	21.4	18.4	15.3
130°	26.5	26.5	26.5	25.5	25.5	24.5	22.5	20.4	18.4	16.3	13.3
132.5°	23.5	23.5	23.5	23.5	22.5	21.4	19.4	18.4	16.3	13.3	11.2
135°	21.4	21.4	20.4	20.4	19.4	18.4	17.3	15.3	13.3	11.2	9.2
137.5°	18.4	18.4	18.4	17.3	17.3	16.3	14.3	13.3	12.2	10.2	8.2
140°	16.3	16.3	15.3	15.3	14.3	14.3	13.3	11.2	10.2	8.2	7.1
142.5°	14.3	14.3	13.3	13.3	12.2	12.2	11.2	10.2	8.2	7.1	5.1
145°	12.2	12.2	11.2	11.2	11.2	10.2	9.2	8.2	7.1	6.1	5.1
147.5°	10.2	10.2	10.2	9.2	9.2	8.2	8.2	7.1	6.1	5.1	4.1
150°	9.2	9.2	8.2	8.2	8.2	7.1	6.1	6.1	5.1	4.1	3.1
152.5°	7.1	7.1	7.1	7.1	6.1	6.1	5.1	5.1	4.1	3.1	3.1
155°	6.1	6.1	6.1	5.1	5.1	5.1	4.1	4.1	3.1	3.1	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-LD5-52SL-LC-UNV-L940-CD1-U

CANDELA DISTRIBUTION (continued):

	330°	335°	340°	345°	350°	355°	360°
0°	1975.7	1975.7	1975.7	1975.7	1975.7	1975.7	1975.7
2.5°	1964.5	1963.5	1972.7	1971.6	1959.4	1977.8	1990.0
5°	1959.4	1958.4	1966.5	1968.6	1955.3	1974.7	1988.0
7.5°	1955.3	1954.3	1963.5	1966.5	1953.3	1970.6	1984.9
10°	1956.3	1951.2	1959.4	1961.4	1949.2	1967.6	1979.8
12.5°	1963.5	1951.2	1954.3	1954.3	1943.1	1959.4	1972.7
15°	1980.8	1955.3	1951.2	1948.2	1933.9	1949.2	1962.5
17.5°	2000.2	1965.5	1951.2	1941.0	1923.7	1936.9	1951.2
20°	2019.6	1976.7	1953.3	1936.9	1913.5	1925.7	1935.9
22.5°	2028.8	1987.0	1955.3	1930.8	1901.2	1907.4	1918.6
25°	2016.5	1982.9	1951.2	1921.6	1885.9	1886.9	1896.1
27.5°	1971.6	1962.5	1942.0	1912.5	1873.7	1868.6	1875.7
30°	1895.1	1920.6	1921.6	1900.2	1859.4	1849.2	1852.2
32.5°	1787.9	1845.1	1878.8	1874.7	1839.0	1824.7	1826.7
35°	1664.5	1735.9	1809.4	1833.9	1808.4	1797.1	1793.1
37.5°	1516.5	1612.4	1710.4	1770.6	1766.5	1759.4	1755.3
40°	1353.2	1468.5	1584.9	1680.8	1710.4	1710.4	1712.4
42.5°	1178.7	1313.4	1441.0	1562.4	1631.8	1647.1	1653.2
45°	1010.3	1146.0	1284.8	1424.6	1517.5	1565.5	1582.8
47.5°	857.2	994.0	1125.6	1278.7	1402.2	1464.4	1492.0
50°	726.6	828.7	967.5	1119.5	1254.2	1330.8	1384.8
52.5°	618.4	698.0	819.5	961.3	1097.1	1202.2	1252.2
55°	527.6	581.7	684.8	807.2	936.8	1046.0	1104.2
57.5°	451.1	493.9	564.3	666.4	775.6	883.8	946.0
60°	383.7	413.3	461.3	541.9	634.8	727.6	787.8
62.5°	325.5	344.9	376.6	435.8	508.2	580.7	636.8
65°	280.6	288.8	306.2	342.9	398.0	453.1	501.1
67.5°	236.8	241.9	255.1	277.6	305.1	344.9	376.6
70°	204.1	204.1	205.1	218.4	232.7	258.2	280.6
72.5°	177.6	174.5	168.4	171.4	174.5	188.8	203.1
75°	156.1	149.0	138.8	134.7	132.7	134.7	142.9
77.5°	137.8	127.6	115.3	105.1	96.9	93.9	101.0
80°	122.5	110.2	95.9	82.7	69.4	62.3	65.3
82.5°	110.2	94.9	79.6	64.3	49.0	38.8	38.8
85°	96.9	82.7	66.3	50.0	34.7	21.4	19.4
87.5°	87.8	72.5	55.1	39.8	24.5	11.2	6.1
90°	78.6	63.3	46.9	31.6	17.3	5.1	0.0
92.5°	70.4	56.1	40.8	25.5	12.2	3.1	0.0
95°	63.3	50.0	34.7	21.4	10.2	2.0	1.0
97.5°	56.1	43.9	30.6	17.3	7.1	2.0	1.0
100°	51.0	38.8	26.5	14.3	6.1	1.0	1.0
102.5°	44.9	34.7	22.5	12.2	5.1	1.0	1.0
105°	39.8	30.6	19.4	10.2	4.1	1.0	1.0
107.5°	35.7	26.5	17.3	9.2	4.1	1.0	1.0
110°	31.6	23.5	15.3	8.2	3.1	1.0	1.0



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-52SL-LC-UNV-L940-CD1-U

CANDELA DISTRIBUTION (continued):

	330°	335°	340°	345°	350°	355°	360°
112.5°	28.6	20.4	13.3	7.1	2.0	1.0	1.0
115°	24.5	18.4	11.2	6.1	2.0	1.0	1.0
117.5°	21.4	15.3	10.2	5.1	2.0	1.0	1.0
120°	18.4	13.3	8.2	4.1	1.0	1.0	1.0
122.5°	16.3	11.2	7.1	4.1	1.0	1.0	1.0
125°	14.3	10.2	6.1	3.1	1.0	1.0	1.0
127.5°	12.2	8.2	5.1	2.0	1.0	1.0	1.0
130°	10.2	7.1	4.1	2.0	1.0	1.0	1.0
132.5°	8.2	6.1	4.1	2.0	1.0	1.0	1.0
135°	7.1	5.1	3.1	2.0	1.0	1.0	1.0
137.5°	6.1	4.1	2.0	2.0	2.0	1.0	1.0
140°	5.1	3.1	2.0	2.0	2.0	2.0	1.0
142.5°	4.1	3.1	2.0	2.0	2.0	2.0	1.0
145°	3.1	2.0	2.0	2.0	2.0	2.0	1.0
147.5°	3.1	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)