

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-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-LD5-52SL-LC-UNV-L950-CD1-U  
Description: 4FT LINEAR SNLED LED FIXTURE  
CLEAR LENSED  
Light Source: -  
Ballast/Driver: -

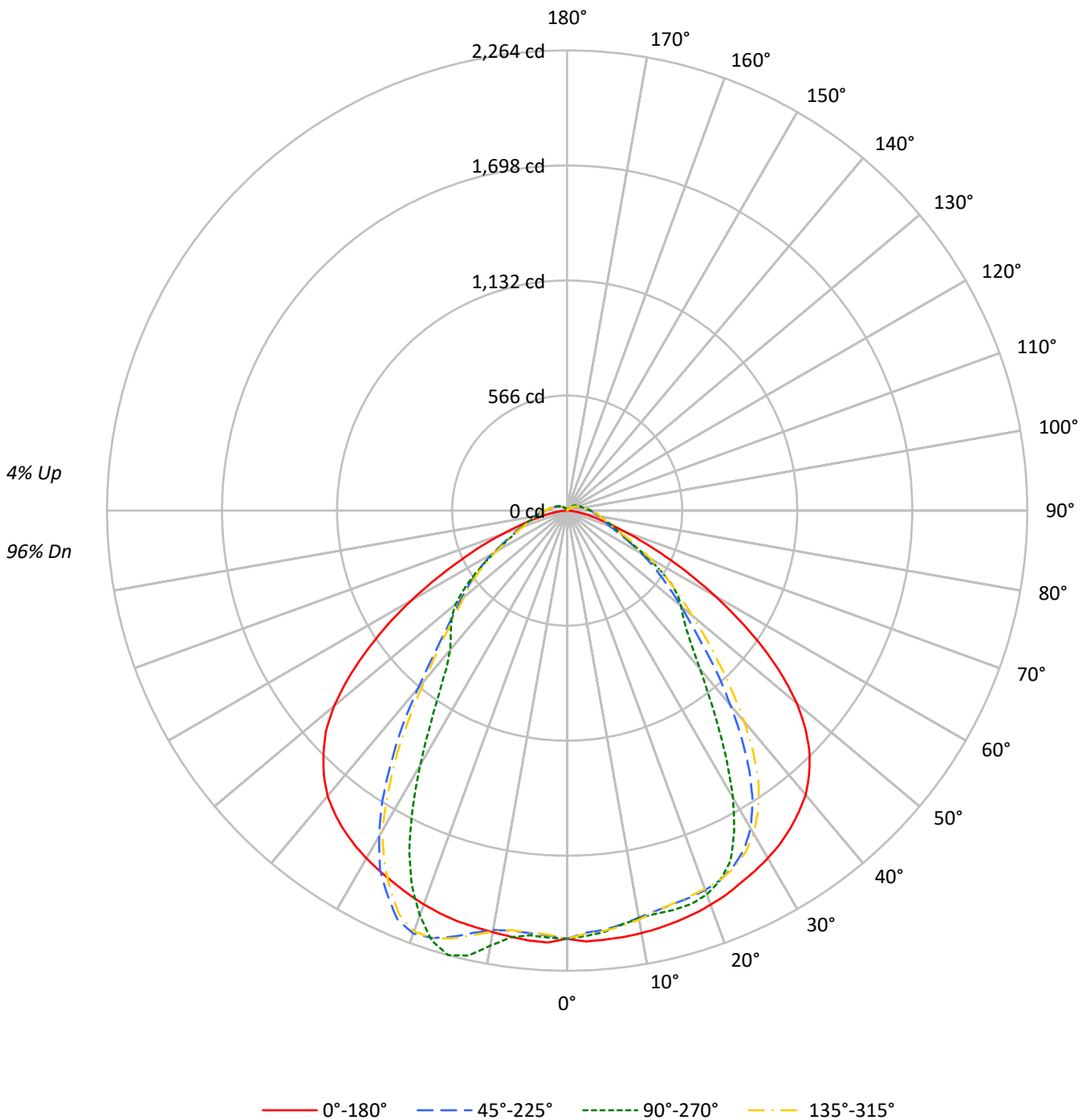
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5021.0 lumens  
Efficiency: N/A  
Efficacy: 122.5 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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### 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°	17020	17020	17020	17020
5°	17144	16346	17179	16474
10°	17223	15666	17188	16729
15°	17357	15456	17348	17209
20°	17548	15211	17530	16034
25°	17764	14430	17754	13943
30°	18098	12507	18108	11080
35°	18452	10113	18505	8558
40°	18765	8143	18843	7174
45°	18699	6897	18795	6716
50°	17893	6350	18144	6209
55°	15875	5708	16272	5189
60°	12877	4368	13561	4007
65°	9573	3342	10313	3170
70°	6510	2885	7339	2759
75°	4259	2603	4958	2462
80°	2751	2427	3226	2232
85°	1414	2422	1858	2212



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	200.1	4.0
10°-20°	595.3	11.9
20°-30°	905.0	18.0
30°-40°	970.8	19.3
40°-50°	842.6	16.8
50°-60°	624.4	12.4
60°-70°	357.8	7.1
70°-80°	198.1	3.9
80°-90°	120.6	2.4
90°-100°	78.5	1.6
100°-110°	52.5	1.0
110°-120°	35.5	0.7
120°-130°	21.8	0.4
130°-140°	11.5	0.2
140°-150°	5.2	0.1
150°-160°	1.5	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	1700.3	33.9
0°-40°	2671.1	53.2
0°-60°	4138.0	82.4
0°-90°	4814.6	95.9
90°-120°	166.5	3.3
90°-150°	204.9	4.1
90°-180°	206.0	4.1
0°-180°	5021.0	100.0

**CANDELA DISTRIBUTION:**

	0°	90°	180°	270°	360°	Flux
0°	2106	2106	2106	2106	2106	
5°	2119	2081	2124	2098	2119	202
15°	2092	2033	2091	2264	2092	592
25°	2021	1902	2020	1838	2021	934
35°	1911	1295	1917	1096	1911	1196
45°	1687	830	1696	808	1687	1292
55°	1177	622	1206	566	1177	1044
65°	534	316	576	299	534	539
75°	152	200	177	189	152	174
85°	21	138	27	126	21	27
90°	0	115	2	107	0	1
95°	1	95	0	90	1	1
105°	1	71	1	68	1	1
115°	1	58	1	52	1	1
125°	1	44	1	36	1	1
135°	1	27	1	23	1	1
145°	1	16	2	13	1	1
155°	2	8	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-L950-CD1-U

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	2106.2	2106.2	2106.2	2106.2	2106.2	2106.2	2106.2	2106.2	2106.2	2106.2	2106.2
2.5°	2121.4	2116.0	2113.8	2109.4	2112.7	2125.8	2117.1	2102.9	2104.0	2079.0	2092.0
5°	2119.2	2112.7	2109.4	2105.1	2107.3	2119.2	2110.5	2096.4	2095.3	2070.3	2082.2
7.5°	2116.0	2109.4	2104.0	2100.7	2101.8	2111.6	2100.7	2084.4	2081.2	2054.0	2064.8
10°	2110.5	2106.2	2098.6	2093.1	2092.0	2102.9	2085.5	2069.2	2061.6	2033.3	2044.2
12.5°	2102.9	2096.4	2088.8	2079.0	2077.9	2084.4	2070.3	2047.4	2039.8	2017.0	2028.9
15°	2092.0	2084.4	2075.7	2064.8	2059.4	2063.8	2046.3	2025.7	2024.6	2005.0	2021.3
17.5°	2080.1	2069.2	2059.4	2044.2	2036.6	2039.8	2025.7	2007.2	2009.4	1997.4	2015.9
20°	2063.8	2051.8	2036.6	2021.3	2010.4	2015.9	2006.1	1992.0	1995.2	1986.5	2002.8
22.5°	2045.3	2028.9	2010.4	1993.0	1984.3	1992.0	1984.3	1972.4	1973.5	1968.0	1977.8
25°	2021.3	2002.8	1981.1	1959.3	1955.0	1960.4	1956.1	1946.3	1941.9	1933.2	1937.6
27.5°	1999.6	1978.9	1951.7	1928.9	1921.2	1932.1	1922.3	1906.0	1894.0	1882.1	1873.4
30°	1974.5	1949.5	1919.1	1893.0	1886.4	1890.8	1876.6	1851.6	1820.1	1804.8	1780.9
32.5°	1947.3	1914.7	1876.6	1847.3	1842.9	1839.6	1813.5	1777.6	1728.7	1698.2	1661.2
35°	1911.4	1875.5	1829.9	1794.0	1787.4	1768.9	1726.5	1678.6	1615.5	1563.3	1500.2
37.5°	1871.2	1828.8	1780.9	1733.0	1714.5	1677.5	1617.7	1567.7	1471.9	1408.8	1332.7
40°	1825.5	1774.4	1715.6	1658.0	1627.5	1567.7	1499.1	1425.2	1332.7	1247.8	1183.6
42.5°	1762.4	1708.0	1638.4	1574.2	1522.0	1442.6	1362.1	1257.6	1172.8	1101.0	1035.7
45°	1687.3	1622.1	1541.6	1464.3	1398.0	1303.3	1208.7	1104.2	1033.5	949.7	905.1
47.5°	1590.5	1519.8	1433.9	1347.9	1260.9	1156.4	1057.4	957.4	886.6	826.8	794.2
50°	1476.3	1411.0	1316.4	1214.1	1118.4	1009.6	910.6	835.5	767.0	730.0	705.0
52.5°	1334.9	1273.9	1177.1	1066.1	973.7	867.1	776.8	715.8	666.9	639.7	631.0
55°	1177.1	1123.8	1028.1	924.7	830.1	732.2	663.6	610.3	578.8	562.4	563.5
57.5°	1008.5	967.1	876.9	784.4	695.2	621.2	559.2	516.8	492.8	491.7	495.0
60°	839.9	809.4	731.1	651.7	573.3	513.5	467.8	438.4	423.2	424.3	423.2
62.5°	678.9	650.6	594.0	528.7	466.7	426.5	385.1	373.2	360.1	359.0	359.0
65°	534.2	512.4	466.7	419.9	373.2	347.0	326.4	312.2	302.4	300.3	301.3
67.5°	401.4	392.7	361.2	329.6	300.3	283.9	266.5	263.3	255.7	255.7	257.8
70°	299.2	292.6	275.2	256.7	244.8	233.9	225.2	225.2	224.1	223.0	228.5
72.5°	216.5	217.6	212.1	198.0	196.9	194.7	192.6	195.8	196.9	200.2	206.7
75°	152.3	155.6	155.6	153.4	157.7	163.2	166.4	171.9	178.4	182.8	190.4
77.5°	107.7	107.7	113.1	119.7	128.4	138.2	146.9	154.5	163.2	168.6	175.2
80°	69.6	72.9	81.6	93.6	105.5	118.6	130.5	140.3	149.0	157.7	162.1
82.5°	41.3	46.8	57.7	72.9	88.1	104.4	116.4	128.4	138.2	146.9	150.1
85°	20.7	28.3	41.3	57.7	74.0	91.4	106.6	117.5	128.4	136.0	140.3
87.5°	6.5	15.2	29.4	44.6	62.0	79.4	95.7	107.7	117.5	124.0	128.4
90°	0.0	7.6	20.7	37.0	53.3	70.7	85.9	99.0	108.8	114.2	117.5
92.5°	0.0	4.4	16.3	30.5	45.7	63.1	78.3	90.3	99.0	104.4	106.6
95°	1.1	3.3	12.0	25.0	40.3	56.6	70.7	81.6	90.3	95.7	96.8
97.5°	1.1	2.2	9.8	20.7	34.8	50.0	64.2	75.1	81.6	87.0	88.1
100°	1.1	2.2	7.6	18.5	30.5	44.6	57.7	67.5	75.1	79.4	80.5
102.5°	1.1	1.1	6.5	15.2	27.2	39.2	51.1	60.9	67.5	71.8	74.0
105°	1.1	1.1	5.4	13.1	23.9	34.8	45.7	55.5	60.9	65.3	67.5
107.5°	1.1	1.1	4.4	10.9	20.7	30.5	41.3	49.0	55.5	59.8	62.0
110°	1.1	1.1	3.3	9.8	17.4	27.2	35.9	43.5	50.0	54.4	56.6



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CATALOG NUMBER: 4SNLED-LD5-52SL-LC-UNV-L950-CD1-U

**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	1.1	1.1	3.3	8.7	15.2	23.9	31.5	39.2	44.6	49.0	52.2
115°	1.1	1.1	3.3	7.6	14.1	20.7	28.3	34.8	40.3	44.6	47.9
117.5°	1.1	1.1	3.3	6.5	12.0	18.5	25.0	31.5	35.9	40.3	43.5
120°	1.1	1.1	2.2	5.4	10.9	16.3	21.8	27.2	32.6	37.0	40.3
122.5°	1.1	1.1	2.2	5.4	8.7	14.1	19.6	23.9	29.4	32.6	35.9
125°	1.1	1.1	2.2	4.4	7.6	13.1	17.4	21.8	25.0	29.4	32.6
127.5°	1.1	1.1	2.2	4.4	6.5	10.9	15.2	19.6	22.8	26.1	28.3
130°	1.1	1.1	2.2	3.3	5.4	8.7	13.1	16.3	20.7	22.8	25.0
132.5°	1.1	1.1	1.1	3.3	4.4	6.5	9.8	14.1	17.4	20.7	21.8
135°	1.1	1.1	1.1	2.2	4.4	5.4	7.6	10.9	14.1	17.4	19.6
137.5°	1.1	1.1	1.1	2.2	3.3	5.4	6.5	8.7	12.0	14.1	17.4
140°	1.1	1.1	1.1	2.2	3.3	4.4	5.4	7.6	9.8	12.0	14.1
142.5°	1.1	1.1	1.1	2.2	2.2	3.3	4.4	6.5	7.6	9.8	12.0
145°	1.1	1.1	1.1	2.2	2.2	3.3	4.4	5.4	6.5	7.6	9.8
147.5°	1.1	1.1	1.1	2.2	2.2	2.2	3.3	4.4	5.4	6.5	7.6
150°	2.2	2.2	2.2	2.2	2.2	2.2	3.3	3.3	4.4	5.4	6.5
152.5°	2.2	2.2	2.2	2.2	2.2	2.2	3.3	3.3	3.3	4.4	5.4
155°	2.2	2.2	2.2	2.2	2.2	2.2	2.2	3.3	3.3	4.4	4.4
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



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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	2106.2	2106.2	2106.2	2106.2	2106.2	2106.2	2106.2	2106.2	2106.2	2106.2	2106.2
2.5°	2087.7	2089.9	2102.9	2101.8	2099.7	2097.5	2097.5	2095.3	2097.5	2102.9	2100.7
5°	2076.8	2080.1	2089.9	2088.8	2086.6	2085.5	2084.4	2081.2	2083.3	2091.0	2088.8
7.5°	2057.2	2060.5	2069.2	2064.8	2061.6	2063.8	2058.3	2055.1	2059.4	2067.0	2065.9
10°	2036.6	2038.7	2049.6	2047.4	2042.0	2043.1	2037.6	2035.5	2040.9	2045.3	2046.3
12.5°	2022.4	2030.0	2039.8	2038.7	2037.6	2038.7	2033.3	2031.1	2034.4	2038.7	2037.6
15°	2019.1	2028.9	2039.8	2039.8	2040.9	2042.0	2036.6	2033.3	2036.6	2039.8	2038.7
17.5°	2015.9	2027.9	2037.6	2036.6	2037.6	2039.8	2031.1	2028.9	2033.3	2037.6	2035.5
20°	2005.0	2015.9	2022.4	2020.2	2020.2	2021.3	2010.4	2010.4	2017.0	2020.2	2021.3
22.5°	1974.5	1987.6	1987.6	1982.2	1982.2	1977.8	1974.5	1968.0	1975.6	1981.1	1985.4
25°	1928.9	1934.3	1927.8	1915.8	1909.3	1903.8	1888.6	1901.7	1901.7	1918.0	1923.4
27.5°	1864.7	1852.7	1834.2	1809.2	1803.7	1786.3	1776.5	1779.8	1785.3	1808.1	1825.5
30°	1759.1	1723.2	1691.7	1680.8	1656.9	1639.5	1622.1	1630.8	1640.6	1653.6	1689.5
32.5°	1619.9	1585.1	1533.9	1515.5	1490.4	1468.7	1448.0	1461.1	1478.5	1487.2	1526.3
35°	1460.0	1418.6	1371.8	1340.3	1314.2	1302.2	1276.1	1294.6	1313.1	1319.6	1353.4
37.5°	1290.3	1247.8	1206.5	1179.3	1154.3	1146.7	1129.2	1142.3	1156.4	1166.2	1194.5
40°	1129.2	1090.1	1058.5	1040.0	1022.6	1016.1	1009.6	1015.0	1025.9	1033.5	1055.3
42.5°	991.1	959.5	937.8	926.9	914.9	906.2	907.3	909.5	914.9	931.2	941.0
45°	870.3	851.8	837.7	835.5	827.9	826.8	825.7	830.1	833.3	843.1	850.7
47.5°	773.5	765.9	762.6	767.0	770.2	765.9	768.1	773.5	780.0	780.0	778.9
50°	697.3	699.5	703.9	713.7	720.2	722.4	724.5	731.1	732.2	734.3	731.1
52.5°	635.3	637.5	649.5	664.7	672.3	675.6	679.9	686.5	686.5	688.6	684.3
55°	572.2	575.5	587.5	602.7	609.2	613.6	617.9	622.3	625.5	629.9	626.6
57.5°	502.6	512.4	520.0	524.4	528.7	532.0	535.2	536.3	542.9	544.0	549.4
60°	428.6	430.8	438.4	437.3	434.1	442.8	438.4	446.0	453.7	463.4	464.5
62.5°	357.9	359.0	364.4	362.3	366.6	365.5	368.8	368.8	374.2	378.6	384.0
65°	302.4	303.5	307.9	307.9	306.8	310.1	313.3	315.5	315.5	318.8	323.1
67.5°	261.1	264.4	268.7	270.9	273.1	273.1	276.3	277.4	279.6	280.7	282.9
70°	232.8	237.2	241.5	243.7	244.8	247.0	248.0	248.0	250.2	251.3	253.5
72.5°	212.1	216.5	219.8	219.8	221.9	223.0	223.0	224.1	225.2	227.4	229.5
75°	194.7	198.0	200.2	199.1	199.1	199.1	200.2	200.2	202.4	204.5	206.7
77.5°	178.4	181.7	181.7	179.5	179.5	179.5	179.5	180.6	181.7	183.9	186.0
80°	166.4	166.4	165.4	165.4	163.2	162.1	162.1	163.2	163.2	165.4	168.6
82.5°	153.4	153.4	152.3	151.2	150.1	149.0	149.0	150.1	151.2	152.3	154.5
85°	141.4	141.4	139.3	139.3	138.2	138.2	138.2	138.2	139.3	140.3	142.5
87.5°	129.5	128.4	127.3	126.2	126.2	126.2	126.2	126.2	127.3	129.5	130.5
90°	117.5	116.4	115.3	115.3	114.2	114.2	115.3	115.3	116.4	117.5	118.6
92.5°	106.6	105.5	104.4	104.4	103.4	103.4	104.4	103.4	105.5	105.5	106.6
95°	96.8	95.7	94.6	94.6	94.6	94.6	94.6	94.6	95.7	95.7	96.8
97.5°	88.1	87.0	85.9	85.9	87.0	85.9	87.0	87.0	87.0	88.1	89.2
100°	80.5	79.4	79.4	80.5	79.4	79.4	80.5	80.5	80.5	80.5	81.6
102.5°	74.0	74.0	74.0	74.0	74.0	74.0	75.1	75.1	75.1	75.1	76.2
105°	67.5	68.5	68.5	68.5	69.6	69.6	69.6	70.7	70.7	70.7	70.7
107.5°	63.1	64.2	64.2	65.3	65.3	66.4	66.4	66.4	66.4	67.5	67.5
110°	58.7	59.8	60.9	62.0	62.0	63.1	63.1	63.1	63.1	63.1	63.1





TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-52SL-LC-UNV-L950-CD1-U

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
112.5°	54.4	55.5	56.6	58.7	59.8	59.8	59.8	59.8	60.9	60.9	59.8
115°	50.0	52.2	53.3	55.5	56.6	56.6	57.7	57.7	57.7	57.7	56.6
117.5°	45.7	49.0	50.0	52.2	53.3	53.3	54.4	54.4	54.4	54.4	53.3
120°	42.4	44.6	46.8	47.9	49.0	50.0	50.0	51.1	51.1	51.1	50.0
122.5°	39.2	41.3	43.5	44.6	45.7	46.8	46.8	46.8	46.8	46.8	46.8
125°	34.8	37.0	39.2	40.3	41.3	42.4	42.4	43.5	43.5	43.5	42.4
127.5°	31.5	33.7	34.8	37.0	38.1	38.1	39.2	39.2	39.2	39.2	38.1
130°	27.2	29.4	31.5	32.6	33.7	33.7	34.8	34.8	34.8	34.8	34.8
132.5°	23.9	26.1	27.2	29.4	29.4	30.5	30.5	31.5	31.5	31.5	30.5
135°	21.8	22.8	23.9	26.1	26.1	27.2	27.2	27.2	27.2	27.2	27.2
137.5°	19.6	20.7	21.8	22.8	22.8	23.9	23.9	23.9	23.9	25.0	23.9
140°	16.3	18.5	19.6	19.6	20.7	20.7	20.7	21.8	21.8	21.8	20.7
142.5°	14.1	15.2	16.3	17.4	18.5	18.5	18.5	18.5	19.6	18.5	18.5
145°	10.9	13.1	14.1	15.2	16.3	16.3	16.3	16.3	16.3	16.3	16.3
147.5°	8.7	9.8	12.0	13.1	13.1	14.1	14.1	14.1	14.1	14.1	14.1
150°	7.6	7.6	9.8	10.9	12.0	12.0	12.0	12.0	12.0	12.0	12.0
152.5°	5.4	6.5	7.6	8.7	9.8	9.8	9.8	9.8	9.8	9.8	9.8
155°	5.4	5.4	6.5	6.5	7.6	7.6	7.6	7.6	8.7	7.6	7.6
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-L950-CD1-U

**CANDELA DISTRIBUTION (continued):**

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	2106.2	2106.2	2106.2	2106.2	2106.2	2106.2	2106.2	2106.2	2106.2	2106.2	2106.2
2.5°	2097.5	2096.4	2100.7	2096.4	2074.6	2083.3	2080.1	2092.0	2093.1	2096.4	2107.3
5°	2086.6	2086.6	2092.0	2087.7	2067.0	2075.7	2074.6	2086.6	2088.8	2091.0	2102.9
7.5°	2064.8	2065.9	2073.5	2070.3	2048.5	2061.6	2060.5	2074.6	2079.0	2083.3	2094.2
10°	2044.2	2043.1	2051.8	2048.5	2027.9	2043.1	2042.0	2056.1	2062.7	2070.3	2083.3
12.5°	2033.3	2030.0	2033.3	2030.0	2007.2	2019.1	2020.2	2036.6	2044.2	2054.0	2069.2
15°	2033.3	2027.9	2027.9	2021.3	1995.2	2002.8	2003.9	2014.8	2024.6	2034.4	2052.9
17.5°	2031.1	2025.7	2024.6	2019.1	1990.9	1990.9	1989.8	1997.4	2002.8	2012.6	2032.2
20°	2019.1	2017.0	2015.9	2012.6	1986.5	1982.2	1980.0	1980.0	1983.2	1986.5	2006.1
22.5°	1987.6	1989.8	1992.0	1994.1	1973.5	1965.8	1966.9	1964.8	1961.5	1961.5	1977.8
25°	1928.9	1939.7	1948.4	1958.2	1946.3	1940.8	1947.3	1944.1	1938.6	1934.3	1948.4
27.5°	1835.3	1858.1	1876.6	1900.6	1901.7	1897.3	1914.7	1912.5	1911.4	1904.9	1915.8
30°	1705.8	1741.7	1766.8	1801.6	1830.9	1835.3	1864.7	1869.0	1873.4	1870.1	1881.0
32.5°	1549.2	1598.1	1640.6	1695.0	1723.2	1748.3	1789.6	1807.0	1824.4	1829.9	1841.8
35°	1378.4	1433.9	1483.9	1543.7	1588.3	1642.7	1692.8	1718.9	1758.1	1773.3	1790.7
37.5°	1216.3	1268.5	1317.5	1377.3	1449.1	1505.7	1567.7	1626.4	1679.7	1701.5	1727.6
40°	1072.7	1115.1	1161.9	1214.1	1279.4	1353.4	1420.8	1502.4	1565.5	1609.0	1647.1
42.5°	963.9	984.6	1024.8	1071.6	1123.8	1198.9	1267.4	1358.8	1434.9	1497.0	1560.1
45°	867.1	876.9	906.2	931.2	984.6	1050.9	1123.8	1213.0	1292.4	1371.8	1448.0
47.5°	784.4	796.3	810.5	825.7	863.8	919.3	982.4	1062.9	1142.3	1234.8	1321.8
50°	728.9	732.2	734.3	740.9	763.7	801.8	852.9	921.5	997.6	1096.6	1189.1
52.5°	679.9	679.9	673.4	670.1	678.9	702.8	732.2	781.1	859.4	950.8	1048.7
55°	627.7	617.9	615.8	604.9	607.1	617.9	632.1	670.1	734.3	812.7	907.3
57.5°	554.8	550.5	550.5	546.1	537.4	542.9	546.1	573.3	619.0	686.5	769.1
60°	471.1	468.9	474.3	475.4	467.8	471.1	470.0	486.3	518.9	573.3	641.9
62.5°	387.3	397.1	398.2	402.5	398.2	397.1	402.5	416.7	433.0	474.3	527.6
65°	325.3	330.7	331.8	337.3	335.1	335.1	339.4	350.3	360.1	388.4	429.7
67.5°	285.0	282.9	283.9	287.2	283.9	282.9	286.1	292.6	300.3	317.7	347.0
70°	253.5	251.3	251.3	251.3	247.0	243.7	244.8	247.0	250.2	260.0	278.5
72.5°	229.5	229.5	226.3	223.0	219.8	217.6	215.4	213.2	212.1	215.4	225.2
75°	207.8	208.9	207.8	204.5	200.2	195.8	191.5	187.1	181.7	179.5	180.6
77.5°	188.2	189.3	190.4	189.3	184.9	179.5	173.0	166.4	158.8	151.2	146.9
80°	170.8	173.0	174.1	173.0	169.7	165.4	157.7	150.1	139.3	129.5	118.6
82.5°	155.6	158.8	159.9	159.9	157.7	153.4	144.7	136.0	124.0	111.0	96.8
85°	143.6	145.8	148.0	148.0	146.9	142.5	133.8	124.0	112.1	96.8	81.6
87.5°	131.6	132.7	134.9	137.1	134.9	130.5	122.9	112.1	100.1	84.9	67.5
90°	119.7	120.8	122.9	125.1	124.0	119.7	113.1	103.4	90.3	74.0	56.6
92.5°	107.7	109.9	111.0	112.1	113.1	109.9	104.4	94.6	81.6	65.3	49.0
95°	99.0	99.0	101.2	102.3	103.4	100.1	95.7	85.9	74.0	58.7	42.4
97.5°	90.3	90.3	92.5	92.5	93.6	91.4	87.0	78.3	66.4	52.2	35.9
100°	81.6	82.7	83.8	84.9	84.9	83.8	79.4	70.7	59.8	46.8	31.5
102.5°	76.2	76.2	77.2	77.2	78.3	76.2	71.8	64.2	53.3	41.3	27.2
105°	70.7	70.7	71.8	71.8	70.7	68.5	64.2	57.7	47.9	35.9	23.9
107.5°	66.4	66.4	66.4	66.4	65.3	63.1	58.7	51.1	42.4	32.6	21.8
110°	63.1	62.0	62.0	60.9	59.8	56.6	52.2	45.7	38.1	28.3	18.5



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-52SL-LC-UNV-L950-CD1-U

**CANDELA DISTRIBUTION (continued):**

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
112.5°	59.8	58.7	57.7	56.6	54.4	51.1	46.8	41.3	33.7	25.0	16.3
115°	56.6	55.5	54.4	52.2	50.0	46.8	42.4	37.0	29.4	21.8	14.1
117.5°	53.3	52.2	50.0	47.9	45.7	42.4	38.1	32.6	26.1	19.6	13.1
120°	49.0	47.9	46.8	44.6	42.4	38.1	33.7	29.4	22.8	17.4	10.9
122.5°	45.7	44.6	42.4	41.3	38.1	34.8	30.5	26.1	20.7	15.2	9.8
125°	41.3	40.3	39.2	37.0	34.8	30.5	27.2	22.8	18.5	13.1	7.6
127.5°	38.1	37.0	34.8	32.6	30.5	27.2	23.9	20.7	16.3	10.9	7.6
130°	33.7	32.6	31.5	29.4	27.2	23.9	21.8	17.4	14.1	9.8	6.5
132.5°	29.4	29.4	28.3	26.1	23.9	21.8	18.5	15.2	12.0	8.7	5.4
135°	27.2	26.1	25.0	22.8	21.8	18.5	16.3	13.1	9.8	7.6	4.4
137.5°	23.9	22.8	21.8	20.7	18.5	16.3	14.1	10.9	8.7	6.5	4.4
140°	20.7	19.6	19.6	17.4	16.3	14.1	12.0	9.8	7.6	5.4	3.3
142.5°	18.5	17.4	16.3	15.2	14.1	12.0	9.8	7.6	6.5	4.4	3.3
145°	16.3	15.2	14.1	13.1	12.0	9.8	8.7	6.5	5.4	4.4	3.3
147.5°	13.1	13.1	12.0	10.9	9.8	8.7	7.6	6.5	4.4	3.3	2.2
150°	10.9	10.9	9.8	8.7	8.7	7.6	6.5	5.4	4.4	3.3	2.2
152.5°	9.8	8.7	8.7	7.6	7.6	6.5	5.4	4.4	3.3	3.3	2.2
155°	7.6	7.6	7.6	6.5	6.5	5.4	4.4	4.4	3.3	2.2	2.2
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-L950-CD1-U

**CANDELA DISTRIBUTION (continued):**

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
0°	2106.2	2106.2	2106.2	2106.2	2106.2	2106.2	2106.2	2106.2	2106.2	2106.2	2106.2
2.5°	2109.4	2096.4	2107.3	2126.9	2124.7	2122.5	2120.3	2124.7	2138.8	2131.2	2119.2
5°	2106.2	2093.1	2105.1	2123.6	2122.5	2119.2	2117.1	2121.4	2135.6	2127.9	2114.9
7.5°	2099.7	2087.7	2096.4	2114.9	2114.9	2112.7	2110.5	2114.9	2127.9	2121.4	2108.4
10°	2088.8	2080.1	2088.8	2106.2	2107.3	2102.9	2100.7	2106.2	2119.2	2116.0	2105.1
12.5°	2080.1	2071.4	2081.2	2098.6	2099.7	2095.3	2092.0	2098.6	2116.0	2118.1	2114.9
15°	2068.1	2060.5	2072.5	2091.0	2091.0	2087.7	2087.7	2096.4	2120.3	2130.1	2135.6
17.5°	2050.7	2045.3	2059.4	2077.9	2079.0	2076.8	2077.9	2095.3	2126.9	2150.8	2166.0
20°	2028.9	2026.8	2042.0	2061.6	2064.8	2065.9	2071.4	2097.5	2141.0	2173.6	2188.9
22.5°	2002.8	2003.9	2021.3	2042.0	2046.3	2049.6	2060.5	2097.5	2151.9	2186.7	2193.2
25°	1973.5	1976.7	1995.2	2020.2	2025.7	2032.2	2050.7	2098.6	2155.1	2178.0	2167.1
27.5°	1941.9	1948.4	1972.4	1998.5	2005.0	2015.9	2039.8	2092.0	2139.9	2141.0	2100.7
30°	1909.3	1916.9	1945.2	1975.6	1986.5	1997.4	2026.8	2076.8	2102.9	2068.1	1997.4
32.5°	1872.3	1883.2	1911.4	1948.4	1961.5	1975.6	2005.0	2047.4	2037.6	1962.6	1861.4
35°	1825.5	1840.7	1873.4	1916.9	1928.9	1947.3	1968.0	1977.8	1934.3	1827.7	1713.4
37.5°	1767.8	1790.7	1828.8	1878.8	1891.9	1903.8	1909.3	1882.1	1795.0	1679.7	1561.1
40°	1701.5	1736.3	1777.6	1833.1	1846.2	1846.2	1826.6	1768.9	1659.1	1507.8	1376.2
42.5°	1621.0	1663.4	1715.6	1771.1	1784.2	1768.9	1722.2	1621.0	1495.9	1327.2	1188.0
45°	1523.1	1579.6	1638.4	1696.0	1702.6	1668.8	1585.1	1456.7	1302.2	1145.6	1012.8
47.5°	1406.7	1480.6	1544.8	1610.1	1601.4	1544.8	1432.8	1287.0	1123.8	975.8	869.2
50°	1276.1	1363.1	1434.9	1497.0	1478.5	1400.1	1268.5	1116.2	954.1	827.9	739.8
52.5°	1136.9	1236.9	1308.7	1358.8	1333.8	1240.2	1095.5	949.7	817.0	701.7	643.0
55°	992.2	1093.3	1167.3	1206.5	1173.8	1072.7	930.2	797.4	672.3	597.3	562.4
57.5°	851.8	946.5	1016.1	1047.7	1006.3	905.1	773.5	661.4	571.1	508.1	490.6
60°	716.9	794.2	860.5	884.5	839.9	746.3	633.2	544.0	477.6	434.1	425.4
62.5°	591.8	654.9	707.1	725.6	682.1	609.2	511.3	445.0	398.2	376.4	365.5
65°	488.5	525.5	578.8	575.5	549.4	481.9	410.1	363.4	332.9	318.8	312.2
67.5°	384.0	417.8	451.5	455.8	423.2	376.4	329.6	295.9	279.6	272.0	268.7
70°	297.0	322.0	342.7	337.3	319.8	290.5	261.1	242.6	236.1	232.8	232.8
72.5°	230.6	243.7	253.5	247.0	236.1	220.8	206.7	199.1	200.2	202.4	204.5
75°	178.4	181.7	183.9	177.3	175.2	165.4	164.3	165.4	171.9	178.4	181.7
77.5°	137.1	132.7	129.5	122.9	124.0	122.9	128.4	137.1	146.9	156.7	165.4
80°	105.5	95.7	88.1	81.6	84.9	90.3	101.2	114.2	127.3	138.2	149.0
82.5°	81.6	67.5	56.6	50.0	56.6	65.3	79.4	95.7	111.0	122.9	134.9
85°	63.1	46.8	33.7	27.2	33.7	46.8	62.0	80.5	96.8	109.9	121.8
87.5°	49.0	33.7	18.5	10.9	18.5	32.6	50.0	67.5	83.8	99.0	111.0
90°	39.2	22.8	8.7	2.2	9.8	22.8	39.2	56.6	72.9	89.2	101.2
92.5°	31.5	16.3	4.4	0.0	5.4	17.4	32.6	49.0	65.3	80.5	92.5
95°	26.1	13.1	3.3	0.0	4.4	13.1	26.1	42.4	57.7	72.9	82.7
97.5°	21.8	9.8	2.2	0.0	2.2	10.9	21.8	35.9	51.1	65.3	75.1
100°	18.5	8.7	2.2	0.0	2.2	8.7	18.5	31.5	44.6	57.7	67.5
102.5°	15.2	6.5	1.1	1.1	1.1	6.5	16.3	27.2	39.2	51.1	60.9
105°	14.1	5.4	1.1	1.1	1.1	5.4	14.1	23.9	34.8	45.7	54.4
107.5°	12.0	4.4	1.1	1.1	1.1	4.4	12.0	20.7	31.5	41.3	49.0
110°	9.8	4.4	1.1	1.1	1.1	4.4	9.8	18.5	27.2	35.9	43.5



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-52SL-LC-UNV-L950-CD1-U

**CANDELA DISTRIBUTION (continued):**

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
112.5°	8.7	3.3	1.1	1.1	1.1	3.3	8.7	16.3	23.9	32.6	39.2
115°	7.6	3.3	1.1	1.1	1.1	3.3	7.6	14.1	20.7	28.3	34.8
117.5°	6.5	3.3	1.1	1.1	1.1	2.2	6.5	12.0	18.5	25.0	31.5
120°	5.4	2.2	1.1	1.1	1.1	2.2	5.4	10.9	16.3	21.8	27.2
122.5°	5.4	2.2	1.1	1.1	1.1	2.2	4.4	8.7	14.1	18.5	23.9
125°	4.4	2.2	1.1	1.1	1.1	1.1	4.4	7.6	12.0	16.3	20.7
127.5°	4.4	2.2	1.1	1.1	1.1	1.1	3.3	6.5	9.8	14.1	18.5
130°	3.3	2.2	1.1	1.1	1.1	1.1	2.2	5.4	8.7	12.0	15.2
132.5°	3.3	2.2	1.1	1.1	1.1	1.1	2.2	4.4	6.5	9.8	13.1
135°	3.3	1.1	1.1	1.1	1.1	1.1	1.1	3.3	5.4	7.6	9.8
137.5°	2.2	1.1	1.1	1.1	1.1	1.1	1.1	2.2	4.4	5.4	8.7
140°	2.2	1.1	1.1	1.1	1.1	1.1	1.1	2.2	3.3	4.4	6.5
142.5°	2.2	1.1	1.1	1.1	1.1	1.1	1.1	1.1	2.2	3.3	5.4
145°	2.2	1.1	1.1	2.2	2.2	1.1	1.1	2.2	2.2	3.3	4.4
147.5°	2.2	1.1	1.1	1.1	1.1	1.1	1.1	1.1	2.2	2.2	3.3
150°	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	3.3
152.5°	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
155°	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
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-L950-CD1-U

**CANDELA DISTRIBUTION (continued):**

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
0°	2106.2	2106.2	2106.2	2106.2	2106.2	2106.2	2106.2	2106.2	2106.2	2106.2	2106.2
2.5°	2117.1	2092.0	2105.1	2100.7	2105.1	2116.0	2114.9	2111.6	2113.8	2108.4	2102.9
5°	2112.7	2087.7	2100.7	2095.3	2100.7	2111.6	2109.4	2106.2	2109.4	2102.9	2097.5
7.5°	2107.3	2084.4	2099.7	2098.6	2108.4	2122.5	2123.6	2123.6	2131.2	2121.4	2117.1
10°	2107.3	2095.3	2116.0	2123.6	2148.6	2167.1	2169.3	2173.6	2186.7	2184.5	2173.6
12.5°	2130.1	2127.9	2158.4	2176.9	2199.7	2225.9	2240.0	2244.3	2253.0	2246.5	2242.2
15°	2159.5	2170.4	2204.1	2224.8	2249.8	2269.4	2272.6	2274.8	2281.3	2271.5	2263.9
17.5°	2198.7	2205.2	2232.4	2241.1	2257.4	2260.7	2256.3	2245.4	2245.4	2223.7	2217.1
20°	2217.1	2213.9	2224.8	2210.6	2204.1	2184.5	2166.0	2145.3	2144.3	2121.4	2119.2
22.5°	2200.8	2179.1	2156.2	2121.4	2106.2	2077.9	2052.9	2040.9	2033.3	2003.9	1996.3
25°	2143.2	2089.9	2056.1	2014.8	1977.8	1945.2	1921.2	1896.2	1872.3	1848.3	1837.5
27.5°	2043.1	1993.0	1938.6	1881.0	1829.9	1779.8	1739.6	1714.5	1691.7	1660.1	1643.8
30°	1920.2	1850.5	1790.7	1735.2	1651.4	1590.5	1556.8	1506.7	1489.3	1475.2	1444.7
32.5°	1775.5	1691.7	1610.1	1535.0	1449.1	1392.5	1347.9	1310.9	1300.0	1263.1	1254.4
35°	1615.5	1505.7	1413.2	1339.2	1277.2	1208.7	1171.7	1146.7	1124.9	1099.9	1095.5
37.5°	1427.3	1328.3	1223.9	1158.6	1109.7	1050.9	1022.6	1005.2	995.4	976.9	973.7
40°	1238.0	1139.0	1067.2	1002.0	971.5	939.9	919.3	911.7	907.3	900.8	894.3
42.5°	1066.1	979.1	928.0	884.5	871.4	856.2	850.7	855.1	850.7	848.6	847.5
45°	920.4	854.0	818.1	805.0	801.8	797.4	801.8	809.4	810.5	808.3	808.3
47.5°	787.6	756.1	740.9	743.0	748.5	751.7	759.4	769.1	771.3	765.9	768.1
50°	700.6	682.1	678.9	687.6	699.5	703.9	712.6	720.2	719.1	716.9	714.8
52.5°	619.0	613.6	622.3	631.0	644.0	646.2	649.5	652.7	651.7	647.3	645.1
55°	550.5	554.8	562.4	565.7	575.5	574.4	575.5	575.5	571.1	569.0	565.7
57.5°	488.5	489.6	493.9	495.0	500.4	498.3	497.2	495.0	488.5	487.4	484.1
60°	425.4	423.2	433.0	425.4	429.7	425.4	424.3	418.8	412.3	411.2	409.1
62.5°	365.5	361.2	367.7	364.4	366.6	362.3	360.1	353.6	348.1	347.0	346.0
65°	312.2	310.1	316.6	315.5	317.7	312.2	310.1	305.7	301.3	300.3	299.2
67.5°	267.6	273.1	276.3	276.3	278.5	277.4	272.0	270.9	269.8	265.4	265.4
70°	235.0	238.3	244.8	245.9	244.8	247.0	242.6	241.5	240.4	238.3	237.2
72.5°	208.9	213.2	219.8	220.8	219.8	219.8	217.6	216.5	216.5	213.2	213.2
75°	188.2	193.6	199.1	199.1	199.1	196.9	194.7	194.7	192.6	191.5	189.3
77.5°	170.8	177.3	181.7	180.6	179.5	177.3	177.3	174.1	170.8	170.8	168.6
80°	157.7	162.1	165.4	164.3	163.2	159.9	158.8	155.6	153.4	150.1	150.1
82.5°	143.6	149.0	151.2	150.1	148.0	144.7	143.6	141.4	139.3	138.2	136.0
85°	131.6	137.1	138.2	136.0	133.8	131.6	130.5	129.5	128.4	126.2	126.2
87.5°	119.7	125.1	125.1	124.0	121.8	120.8	119.7	118.6	117.5	116.4	115.3
90°	109.9	114.2	114.2	113.1	112.1	111.0	109.9	108.8	107.7	106.6	106.6
92.5°	100.1	104.4	104.4	103.4	102.3	101.2	101.2	100.1	99.0	97.9	96.8
95°	91.4	95.7	95.7	95.7	94.6	93.6	93.6	92.5	91.4	91.4	90.3
97.5°	82.7	87.0	87.0	87.0	85.9	84.9	84.9	83.8	83.8	83.8	82.7
100°	75.1	78.3	79.4	79.4	78.3	78.3	78.3	77.2	77.2	77.2	76.2
102.5°	67.5	70.7	72.9	72.9	72.9	71.8	71.8	71.8	71.8	71.8	70.7
105°	60.9	64.2	66.4	67.5	67.5	67.5	67.5	67.5	67.5	67.5	67.5
107.5°	55.5	58.7	60.9	62.0	63.1	63.1	64.2	64.2	64.2	64.2	64.2
110°	50.0	53.3	56.6	57.7	58.7	59.8	59.8	60.9	59.8	59.8	59.8



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-52SL-LC-UNV-L950-CD1-U

**CANDELA DISTRIBUTION (continued):**

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
112.5°	44.6	49.0	51.1	53.3	54.4	55.5	56.6	56.6	56.6	56.6	56.6
115°	40.3	44.6	46.8	49.0	51.1	52.2	52.2	53.3	53.3	53.3	52.2
117.5°	35.9	40.3	42.4	44.6	45.7	47.9	49.0	49.0	49.0	49.0	47.9
120°	32.6	35.9	38.1	40.3	42.4	43.5	44.6	44.6	44.6	44.6	44.6
122.5°	28.3	31.5	34.8	37.0	38.1	39.2	40.3	40.3	40.3	40.3	40.3
125°	25.0	28.3	30.5	32.6	33.7	35.9	35.9	35.9	35.9	35.9	35.9
127.5°	21.8	25.0	27.2	29.4	30.5	31.5	32.6	32.6	32.6	32.6	32.6
130°	18.5	21.8	23.9	26.1	27.2	28.3	28.3	29.4	29.4	29.4	29.4
132.5°	16.3	18.5	20.7	22.8	23.9	25.0	25.0	26.1	26.1	26.1	26.1
135°	13.1	16.3	17.4	19.6	20.7	21.8	21.8	22.8	22.8	22.8	22.8
137.5°	10.9	13.1	15.2	17.4	18.5	18.5	19.6	19.6	20.7	20.7	20.7
140°	8.7	9.8	13.1	14.1	15.2	16.3	17.4	17.4	17.4	17.4	17.4
142.5°	6.5	8.7	9.8	12.0	13.1	14.1	15.2	15.2	15.2	15.2	15.2
145°	5.4	6.5	7.6	9.8	10.9	12.0	13.1	13.1	13.1	13.1	13.1
147.5°	4.4	5.4	6.5	7.6	8.7	9.8	10.9	10.9	10.9	10.9	10.9
150°	3.3	4.4	5.4	5.4	6.5	7.6	8.7	9.8	9.8	9.8	9.8
152.5°	3.3	3.3	4.4	4.4	5.4	6.5	7.6	7.6	7.6	7.6	7.6
155°	2.2	3.3	3.3	3.3	4.4	4.4	5.4	6.5	6.5	6.5	6.5
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-L950-CD1-U

**CANDELA DISTRIBUTION (continued):**

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°
0°	2106.2	2106.2	2106.2	2106.2	2106.2	2106.2	2106.2	2106.2	2106.2	2106.2	2106.2
2.5°	2106.2	2110.5	2108.4	2105.1	2104.0	2109.4	2104.0	2079.0	2088.8	2089.9	2097.5
5°	2102.9	2106.2	2104.0	2101.8	2098.6	2105.1	2098.6	2072.5	2082.2	2083.3	2091.0
7.5°	2124.7	2125.8	2125.8	2120.3	2111.6	2114.9	2106.2	2076.8	2082.2	2082.2	2087.7
10°	2179.1	2181.2	2184.5	2170.4	2159.5	2150.8	2138.8	2102.9	2101.8	2093.1	2093.1
12.5°	2249.8	2244.3	2238.9	2232.4	2223.7	2212.8	2195.4	2153.0	2138.8	2124.7	2110.5
15°	2270.5	2268.3	2267.2	2263.9	2258.5	2255.2	2242.2	2199.7	2179.1	2161.7	2136.6
17.5°	2216.1	2220.4	2234.6	2235.6	2242.2	2255.2	2253.0	2223.7	2205.2	2197.6	2167.1
20°	2118.1	2119.2	2136.6	2144.3	2172.5	2194.3	2210.6	2207.4	2203.0	2211.7	2188.9
22.5°	2000.7	2008.3	2026.8	2038.7	2065.9	2091.0	2117.1	2131.2	2154.0	2190.0	2185.6
25°	1840.7	1850.5	1876.6	1896.2	1934.3	1972.4	2007.2	2032.2	2059.4	2127.9	2150.8
27.5°	1649.3	1664.5	1698.2	1717.8	1771.1	1810.3	1860.3	1909.3	1947.3	2025.7	2072.5
30°	1448.0	1461.1	1497.0	1524.2	1569.8	1623.2	1686.3	1755.9	1819.0	1898.4	1957.1
32.5°	1259.8	1273.9	1303.3	1327.2	1378.4	1423.0	1492.6	1578.5	1637.3	1747.2	1825.5
35°	1095.5	1108.6	1129.2	1149.9	1192.3	1238.0	1297.9	1381.6	1456.7	1570.9	1669.9
37.5°	980.2	982.4	994.3	1006.3	1037.9	1072.7	1119.5	1193.4	1263.1	1386.0	1494.8
40°	897.5	897.5	904.0	907.3	921.5	942.1	971.5	1029.2	1086.8	1180.4	1313.1
42.5°	846.4	844.2	844.2	845.3	844.2	854.0	871.4	898.6	949.7	1027.0	1130.3
45°	808.3	804.0	800.7	793.1	788.7	788.7	789.8	799.6	829.0	879.0	962.8
47.5°	765.9	764.8	759.4	750.7	743.0	737.6	728.9	725.6	734.3	762.6	819.2
50°	716.9	711.5	706.0	699.5	690.8	685.4	669.1	670.1	662.5	675.6	705.0
52.5°	645.1	640.8	638.6	633.2	629.9	627.7	614.7	601.6	598.3	600.5	611.4
55°	565.7	567.9	559.2	563.5	562.4	552.7	547.2	537.4	534.2	533.1	538.5
57.5°	483.0	485.2	479.8	484.1	484.1	478.7	475.4	475.4	467.8	461.3	468.9
60°	408.0	403.6	406.9	412.3	412.3	409.1	406.9	406.9	401.4	399.3	404.7
62.5°	347.0	342.7	346.0	351.4	352.5	350.3	348.1	348.1	341.6	341.6	346.0
65°	300.3	301.3	300.3	304.6	304.6	305.7	303.5	301.3	293.7	297.0	295.9
67.5°	266.5	265.4	265.4	269.8	268.7	270.9	268.7	265.4	260.0	255.7	254.6
70°	238.3	237.2	237.2	239.3	240.4	240.4	239.3	237.2	229.5	225.2	221.9
72.5°	213.2	212.1	213.2	214.3	215.4	216.5	215.4	213.2	206.7	201.3	195.8
75°	190.4	189.3	192.6	192.6	193.6	193.6	194.7	193.6	188.2	181.7	175.2
77.5°	167.5	168.6	171.9	173.0	175.2	176.2	177.3	177.3	171.9	166.4	157.7
80°	149.0	151.2	153.4	154.5	156.7	159.9	161.0	162.1	157.7	152.3	142.5
82.5°	136.0	137.1	139.3	140.3	143.6	144.7	145.8	148.0	145.8	140.3	129.5
85°	125.1	126.2	128.4	128.4	130.5	132.7	133.8	134.9	133.8	128.4	117.5
87.5°	115.3	116.4	117.5	118.6	119.7	120.8	121.8	122.9	121.8	116.4	106.6
90°	106.6	106.6	107.7	107.7	108.8	109.9	112.1	112.1	111.0	106.6	96.8
92.5°	96.8	97.9	97.9	99.0	100.1	101.2	102.3	102.3	101.2	96.8	88.1
95°	90.3	90.3	91.4	91.4	92.5	92.5	93.6	93.6	92.5	88.1	79.4
97.5°	82.7	82.7	82.7	82.7	83.8	83.8	84.9	84.9	83.8	79.4	71.8
100°	76.2	76.2	76.2	76.2	76.2	77.2	77.2	77.2	76.2	71.8	64.2
102.5°	70.7	70.7	70.7	70.7	70.7	70.7	70.7	70.7	68.5	65.3	57.7
105°	67.5	67.5	67.5	66.4	66.4	66.4	65.3	65.3	62.0	58.7	52.2
107.5°	63.1	63.1	63.1	62.0	62.0	60.9	59.8	59.8	56.6	53.3	46.8
110°	59.8	59.8	59.8	58.7	57.7	56.6	55.5	54.4	51.1	46.8	41.3





TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-52SL-LC-UNV-L950-CD1-U

**CANDELA DISTRIBUTION (continued):**

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°
112.5°	56.6	56.6	55.5	55.5	54.4	53.3	51.1	50.0	46.8	42.4	37.0
115°	52.2	52.2	52.2	51.1	50.0	49.0	47.9	45.7	42.4	38.1	32.6
117.5°	47.9	47.9	47.9	46.8	45.7	44.6	43.5	41.3	38.1	33.7	29.4
120°	43.5	43.5	43.5	42.4	41.3	40.3	39.2	37.0	33.7	30.5	25.0
122.5°	40.3	40.3	39.2	38.1	37.0	35.9	34.8	32.6	30.5	26.1	21.8
125°	35.9	35.9	34.8	34.8	33.7	32.6	31.5	29.4	26.1	22.8	19.6
127.5°	32.6	31.5	31.5	31.5	30.5	29.4	27.2	26.1	22.8	19.6	16.3
130°	28.3	28.3	28.3	27.2	27.2	26.1	23.9	21.8	19.6	17.4	14.1
132.5°	25.0	25.0	25.0	25.0	23.9	22.8	20.7	19.6	17.4	14.1	12.0
135°	22.8	22.8	21.8	21.8	20.7	19.6	18.5	16.3	14.1	12.0	9.8
137.5°	19.6	19.6	19.6	18.5	18.5	17.4	15.2	14.1	13.1	10.9	8.7
140°	17.4	17.4	16.3	16.3	15.2	15.2	14.1	12.0	10.9	8.7	7.6
142.5°	15.2	15.2	14.1	14.1	13.1	13.1	12.0	10.9	8.7	7.6	5.4
145°	13.1	13.1	12.0	12.0	12.0	10.9	9.8	8.7	7.6	6.5	5.4
147.5°	10.9	10.9	10.9	9.8	9.8	8.7	8.7	7.6	6.5	5.4	4.4
150°	9.8	9.8	8.7	8.7	8.7	7.6	6.5	6.5	5.4	4.4	3.3
152.5°	7.6	7.6	7.6	7.6	6.5	6.5	5.4	5.4	4.4	3.3	3.3
155°	6.5	6.5	6.5	5.4	5.4	5.4	4.4	4.4	3.3	3.3	2.2
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-L950-CD1-U

**CANDELA DISTRIBUTION (continued):**

	330°	335°	340°	345°	350°	355°	360°
0°	2106.2	2106.2	2106.2	2106.2	2106.2	2106.2	2106.2
2.5°	2094.2	2093.1	2102.9	2101.8	2088.8	2108.4	2121.4
5°	2088.8	2087.7	2096.4	2098.6	2084.4	2105.1	2119.2
7.5°	2084.4	2083.3	2093.1	2096.4	2082.2	2100.7	2116.0
10°	2085.5	2080.1	2088.8	2091.0	2077.9	2097.5	2110.5
12.5°	2093.1	2080.1	2083.3	2083.3	2071.4	2088.8	2102.9
15°	2111.6	2084.4	2080.1	2076.8	2061.6	2077.9	2092.0
17.5°	2132.3	2095.3	2080.1	2069.2	2050.7	2064.8	2080.1
20°	2153.0	2107.3	2082.2	2064.8	2039.8	2052.9	2063.8
22.5°	2162.8	2118.1	2084.4	2058.3	2026.8	2033.3	2045.3
25°	2149.7	2113.8	2080.1	2048.5	2010.4	2011.5	2021.3
27.5°	2101.8	2092.0	2070.3	2038.7	1997.4	1992.0	1999.6
30°	2020.2	2047.4	2048.5	2025.7	1982.2	1971.3	1974.5
32.5°	1906.0	1966.9	2002.8	1998.5	1960.4	1945.2	1947.3
35°	1774.4	1850.5	1928.9	1955.0	1927.8	1915.8	1911.4
37.5°	1616.6	1718.9	1823.3	1887.5	1883.2	1875.5	1871.2
40°	1442.6	1565.5	1689.5	1791.8	1823.3	1823.3	1825.5
42.5°	1256.5	1400.1	1536.1	1665.6	1739.6	1755.9	1762.4
45°	1077.0	1221.7	1369.7	1518.7	1617.7	1668.8	1687.3
47.5°	913.8	1059.6	1200.0	1363.1	1494.8	1561.1	1590.5
50°	774.6	883.4	1031.3	1193.4	1337.0	1418.6	1476.3
52.5°	659.3	744.1	873.6	1024.8	1169.5	1281.6	1334.9
55°	562.4	620.1	730.0	860.5	998.7	1115.1	1177.1
57.5°	480.9	526.5	601.6	710.4	826.8	942.1	1008.5
60°	409.1	440.6	491.7	577.7	676.7	775.7	839.9
62.5°	347.0	367.7	401.4	464.5	541.8	619.0	678.9
65°	299.2	307.9	326.4	365.5	424.3	483.0	534.2
67.5°	252.4	257.8	272.0	295.9	325.3	367.7	401.4
70°	217.6	217.6	218.7	232.8	248.0	275.2	299.2
72.5°	189.3	186.0	179.5	182.8	186.0	201.3	216.5
75°	166.4	158.8	148.0	143.6	141.4	143.6	152.3
77.5°	146.9	136.0	122.9	112.1	103.4	100.1	107.7
80°	130.5	117.5	102.3	88.1	74.0	66.4	69.6
82.5°	117.5	101.2	84.9	68.5	52.2	41.3	41.3
85°	103.4	88.1	70.7	53.3	37.0	22.8	20.7
87.5°	93.6	77.2	58.7	42.4	26.1	12.0	6.5
90°	83.8	67.5	50.0	33.7	18.5	5.4	0.0
92.5°	75.1	59.8	43.5	27.2	13.1	3.3	0.0
95°	67.5	53.3	37.0	22.8	10.9	2.2	1.1
97.5°	59.8	46.8	32.6	18.5	7.6	2.2	1.1
100°	54.4	41.3	28.3	15.2	6.5	1.1	1.1
102.5°	47.9	37.0	23.9	13.1	5.4	1.1	1.1
105°	42.4	32.6	20.7	10.9	4.4	1.1	1.1
107.5°	38.1	28.3	18.5	9.8	4.4	1.1	1.1
110°	33.7	25.0	16.3	8.7	3.3	1.1	1.1



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-52SL-LC-UNV-L950-CD1-U

**CANDELA DISTRIBUTION (continued):**

	330°	335°	340°	345°	350°	355°	360°
112.5°	30.5	21.8	14.1	7.6	2.2	1.1	1.1
115°	26.1	19.6	12.0	6.5	2.2	1.1	1.1
117.5°	22.8	16.3	10.9	5.4	2.2	1.1	1.1
120°	19.6	14.1	8.7	4.4	1.1	1.1	1.1
122.5°	17.4	12.0	7.6	4.4	1.1	1.1	1.1
125°	15.2	10.9	6.5	3.3	1.1	1.1	1.1
127.5°	13.1	8.7	5.4	2.2	1.1	1.1	1.1
130°	10.9	7.6	4.4	2.2	1.1	1.1	1.1
132.5°	8.7	6.5	4.4	2.2	1.1	1.1	1.1
135°	7.6	5.4	3.3	2.2	1.1	1.1	1.1
137.5°	6.5	4.4	2.2	2.2	2.2	1.1	1.1
140°	5.4	3.3	2.2	2.2	2.2	2.2	1.1
142.5°	4.4	3.3	2.2	2.2	2.2	2.2	1.1
145°	3.3	2.2	2.2	2.2	2.2	2.2	1.1
147.5°	3.3	2.2	2.2	2.2	2.2	2.2	1.1
150°	2.2	2.2	2.2	2.2	2.2	2.2	2.2
152.5°	2.2	2.2	2.2	2.2	2.2	2.2	2.2
155°	2.2	2.2	2.2	2.2	2.2	2.2	2.2
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)