

Scaled data based on original data using
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: METALUX

Report Number: P1214188

Luminaire Tested: 4SNLED-LD5-60HL-LN-UNV-L950-CD1-U

Issue Date: 3/29/2018

Test Information

Test Method: LM-79-2019
Report Number: P1214188
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P33519)
Test Lab: INNOVATIONS CENTER-P3
Issue Date: 3/29/2018
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: METALUX
Catalog Number: 4SNLED-LD5-60HL-LN-UNV-L950-CD1-U
Description: 4FT LINEAR SNLED LED FIXTURE
NARROW LENS
Light Source: -
Ballast/Driver: -

Summary

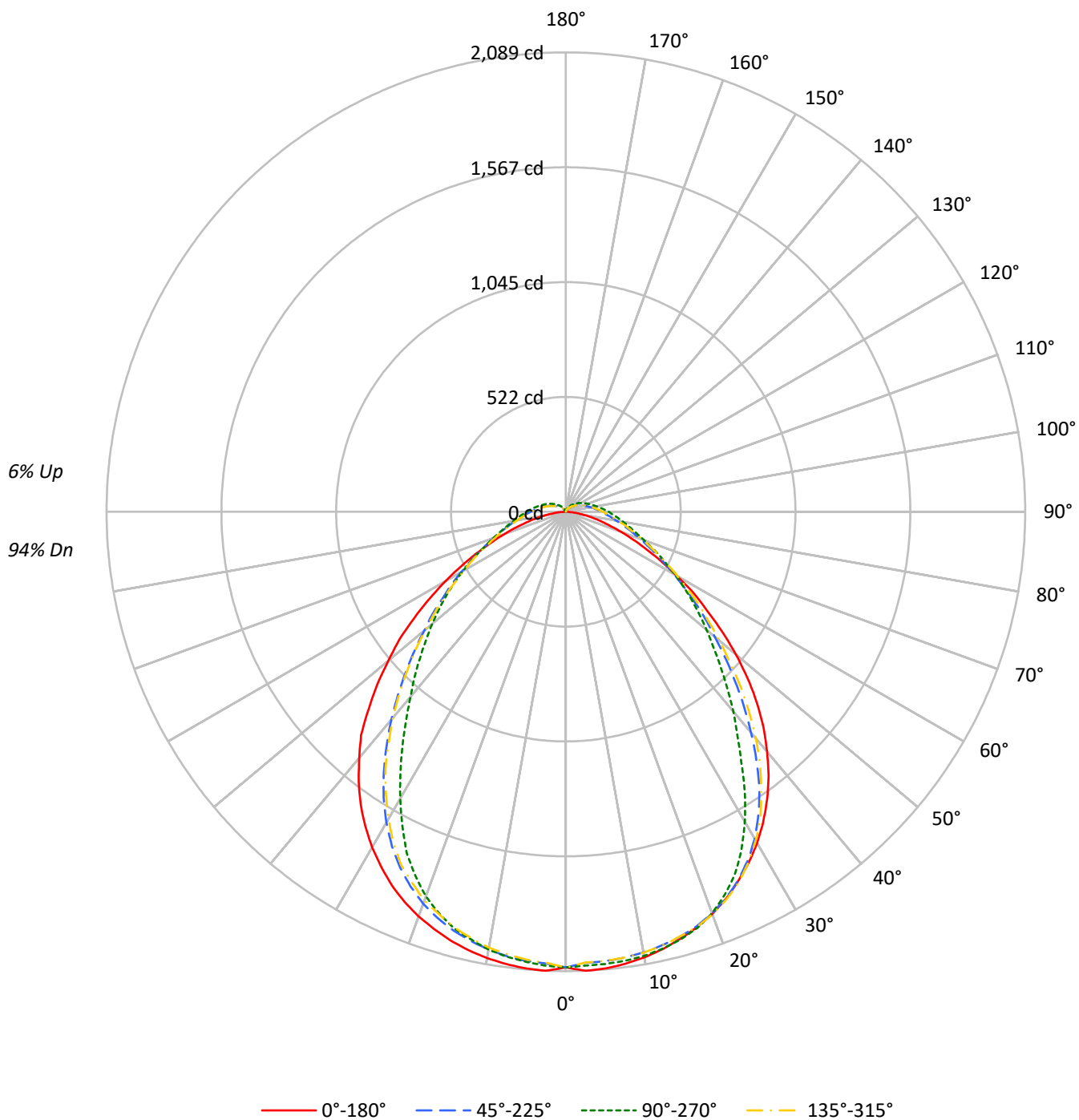
Lumens per Lamp: N/A
Luminaire Lumens: 5244.0 lumens
Efficiency: N/A
Efficacy: 122.0 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.14 / 1.24
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.12')
CIE Type: Direct

Input Watts (W): 43
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: 24 FT

TEST NUMBER: P1214188

CATALOG NUMBER: 4SNLED-LD5-60HL-LN-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
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10
RCR																	
0	118	118	118	118	114	114	114	114	108	108	108	102	102	102	96	96	96
1	107	103	98	95	104	100	96	92	94	91	88	89	87	85	85	83	81
2	98	90	84	78	95	88	82	77	83	78	74	79	75	72	75	72	69
3	90	80	72	66	87	78	71	65	74	68	63	71	66	61	67	63	60
4	83	72	63	57	80	70	62	56	67	60	55	64	58	53	61	56	52
5	77	64	56	50	74	63	55	49	60	53	48	58	52	47	55	50	46
6	71	58	50	44	69	57	49	43	55	48	42	52	46	42	50	45	41
7	66	53	45	39	64	52	44	39	50	43	38	48	42	37	46	41	37
8	62	49	41	35	60	48	40	35	46	39	34	44	38	34	43	37	33
9	58	45	37	32	56	44	37	31	42	36	31	41	35	30	40	34	30
10	54	42	34	29	53	41	34	29	39	33	28	38	32	28	37	31	27

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	16745	16745	16745	16745
5°	16865	16211	16865	16140
10°	16789	15781	16817	15562
15°	16681	15309	16757	14911
20°	16553	14703	16650	14082
25°	16287	13804	16468	12991
30°	15942	12482	16151	11556
35°	15405	10862	15702	10115
40°	14634	9500	15020	8814
45°	13616	8259	14059	7785
50°	12226	7257	12765	6891
55°	10576	6408	11345	6085
60°	8894	5627	9699	5303
65°	7292	4975	8027	4612
70°	5803	4414	6497	4084
75°	4558	4076	5131	3750
80°	3289	3933	3874	3593
85°	2022	3955	2726	3635

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 180°

Vertical Angle: 45°

Luminance: 14059 cd/sqm

TEST NUMBER: P1214188

CATALOG NUMBER: 4SNLED-LD5-60HL-LN-UNV-L950-CD1-U

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	196.5	3.7
10°-20°	563.3	10.7
20°-30°	834.8	15.9
30°-40°	927.5	17.7
40°-50°	840.8	16.0
50°-60°	651.5	12.4
60°-70°	442.4	8.4
70°-80°	281.5	5.4
80°-90°	179.9	3.4
90°-100°	121.3	2.3
100°-110°	83.1	1.6
110°-120°	55.4	1.1
120°-130°	34.5	0.7
130°-140°	19.1	0.4
140°-150°	9.0	0.2
150°-160°	3.3	0.1
160°-170°	0.2	0.0
170°-180°	0.0	0.0
0°-30°	1594.6	30.4
0°-40°	2522.1	48.1
0°-60°	4014.3	76.6
0°-90°	4918.2	93.8
90°-120°	259.9	5.0
90°-150°	322.4	6.1
90°-180°	326.0	6.2
0°-180°	5244.0	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	2072	2072	2072	2072	2072	
5°	2085	2064	2085	2055	2085	198
15°	2011	2014	2020	1962	2011	567
25°	1853	1819	1874	1712	1853	854
35°	1596	1390	1626	1295	1596	995
45°	1229	994	1269	937	1229	944
55°	784	699	841	663	784	706
65°	407	470	448	435	407	408
75°	163	313	184	288	163	176
85°	30	226	40	207	30	35
90°	0	195	2	178	0	2
95°	1	166	0	155	1	1
105°	1	122	0	115	1	1
115°	1	92	0	86	1	1
125°	1	68	1	60	1	1
135°	1	48	1	39	1	1
145°	1	31	1	22	1	1
155°	1	17	1	8	1	1
165°	0	0	0	0	0	0
175°	0	0	0	0	0	0
180°	0	0	0	0	0	

TEST NUMBER: P1214188

CATALOG NUMBER: 4SNLED-LD5-60HL-LN-UNV-L950-CD1-U

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	2072.1	2072.1	2072.1	2072.1	2072.1	2072.1	2072.1	2072.1	2072.1	2072.1	2072.1
2.5°	2089.2	2086.9	2084.7	2081.2	2084.7	2093.8	2088.1	2075.5	2073.3	2052.7	2061.9
5°	2084.7	2081.2	2079.0	2075.5	2080.1	2091.5	2085.8	2074.4	2071.0	2051.6	2061.9
7.5°	2073.3	2071.0	2067.6	2067.6	2072.1	2083.5	2079.0	2066.4	2064.1	2044.8	2056.2
10°	2057.3	2056.2	2053.9	2053.9	2058.4	2072.1	2066.4	2055.0	2052.7	2034.5	2047.0
12.5°	2036.8	2037.9	2034.5	2034.5	2041.3	2055.0	2050.5	2037.9	2035.7	2019.7	2032.2
15°	2010.6	2011.7	2009.4	2010.6	2017.4	2033.4	2027.7	2016.3	2014.0	2001.5	2011.7
17.5°	1980.9	1982.1	1982.1	1980.9	1988.9	2004.9	2000.3	1990.1	1986.6	1976.4	1988.9
20°	1946.7	1946.7	1946.7	1946.7	1955.9	1971.8	1966.1	1958.1	1951.3	1943.3	1953.6
22.5°	1904.6	1903.4	1904.6	1908.0	1917.1	1929.7	1926.2	1917.1	1906.9	1902.3	1910.3
25°	1853.3	1856.7	1857.8	1861.3	1872.7	1882.9	1879.5	1870.4	1854.4	1851.0	1853.3
27.5°	1799.7	1802.0	1805.4	1804.3	1820.2	1830.5	1823.7	1815.7	1792.9	1789.5	1787.2
30°	1739.3	1742.7	1745.0	1743.9	1756.4	1767.8	1761.0	1750.7	1719.9	1717.7	1699.4
32.5°	1670.9	1674.3	1676.6	1676.6	1694.9	1699.4	1686.9	1672.1	1639.0	1631.0	1615.1
35°	1595.7	1599.1	1600.3	1600.3	1618.5	1617.4	1601.4	1580.9	1544.4	1534.1	1506.8
37.5°	1514.8	1517.0	1518.2	1525.0	1533.0	1526.2	1505.7	1479.4	1452.1	1423.6	1394.0
40°	1423.6	1427.0	1429.3	1433.8	1441.8	1433.8	1404.2	1372.3	1342.7	1310.7	1281.1
42.5°	1330.1	1340.4	1338.1	1337.0	1341.5	1319.9	1297.1	1260.6	1231.0	1197.9	1168.3
45°	1228.7	1227.5	1233.2	1235.5	1234.4	1216.1	1184.2	1151.2	1121.5	1087.4	1062.3
47.5°	1121.5	1120.4	1125.0	1127.2	1120.4	1101.0	1076.0	1038.3	1013.3	983.6	964.3
50°	1008.7	1008.7	1015.5	1008.7	1005.3	985.9	965.4	927.8	908.4	882.2	870.8
52.5°	895.9	906.1	899.3	897.0	893.6	874.2	858.3	827.5	811.5	800.1	786.4
55°	784.2	795.6	791.0	787.6	786.4	770.5	755.7	732.9	722.6	714.6	706.7
57.5°	689.6	688.4	686.1	682.7	683.9	671.3	656.5	644.0	639.4	636.0	638.3
60°	580.1	589.3	585.8	587.0	588.1	585.8	573.3	565.3	566.5	567.6	571.0
62.5°	490.1	498.1	503.8	499.2	501.5	504.9	498.1	495.8	500.4	504.9	509.5
65°	406.9	414.9	420.6	419.4	426.3	433.1	432.0	434.3	444.5	450.2	455.9
67.5°	331.7	339.7	347.6	348.8	359.0	369.3	373.8	381.8	393.2	401.2	408.0
70°	266.7	273.5	282.7	288.4	302.0	315.7	323.7	339.7	346.5	357.9	362.5
72.5°	208.6	214.3	226.8	240.5	251.9	269.0	284.9	298.6	308.9	321.4	327.1
75°	163.0	165.3	178.9	194.9	210.9	230.2	247.3	262.1	275.8	288.4	297.5
77.5°	119.7	123.1	135.6	157.3	175.5	196.0	215.4	231.4	246.2	258.7	271.3
80°	83.2	90.0	103.7	125.4	145.9	168.7	186.9	205.2	221.1	233.7	246.2
82.5°	53.6	59.3	78.6	100.3	122.0	144.8	164.1	182.4	199.5	213.1	224.5
85°	29.6	37.6	57.0	79.8	101.4	124.2	144.8	163.0	180.1	192.6	204.0
87.5°	11.4	22.8	41.0	62.7	84.3	106.0	127.7	144.8	161.8	175.5	185.8
90°	0.0	13.7	30.8	52.4	74.1	95.7	116.3	134.5	150.5	163.0	174.4
92.5°	1.1	9.1	23.9	42.2	62.7	83.2	102.6	120.8	136.8	149.3	159.6
95°	1.1	6.8	19.4	36.5	54.7	74.1	92.3	109.4	124.2	136.8	147.0
97.5°	1.1	4.6	16.0	31.9	47.9	67.2	84.3	100.3	114.0	126.5	134.5
100°	1.1	4.6	13.7	27.4	43.3	60.4	76.4	92.3	104.9	115.1	124.2
102.5°	1.1	3.4	11.4	23.9	38.8	53.6	69.5	84.3	95.7	106.0	115.1
105°	1.1	3.4	10.3	20.5	34.2	49.0	62.7	76.4	88.9	98.0	106.0
107.5°	1.1	2.3	9.1	17.1	29.6	44.5	58.1	69.5	80.9	90.0	98.0
110°	1.1	2.3	8.0	16.0	26.2	39.9	52.4	63.8	74.1	83.2	90.0

TEST NUMBER: P1214188

CATALOG NUMBER: 4SNLED-LD5-60HL-LN-UNV-L950-CD1-U

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	1.1	2.3	6.8	14.8	23.9	35.3	47.9	58.1	68.4	76.4	83.2
115°	1.1	2.3	6.8	13.7	21.7	30.8	42.2	53.6	61.5	70.7	76.4
117.5°	1.1	2.3	5.7	11.4	20.5	28.5	38.8	47.9	57.0	65.0	70.7
120°	1.1	2.3	5.7	10.3	18.2	26.2	34.2	43.3	52.4	58.1	63.8
122.5°	1.1	2.3	4.6	10.3	16.0	23.9	30.8	38.8	46.7	53.6	59.3
125°	1.1	2.3	4.6	9.1	14.8	21.7	28.5	34.2	42.2	47.9	53.6
127.5°	1.1	2.3	4.6	8.0	13.7	19.4	26.2	31.9	37.6	43.3	47.9
130°	1.1	2.3	3.4	6.8	12.5	17.1	22.8	29.6	34.2	38.8	43.3
132.5°	1.1	2.3	3.4	6.8	10.3	14.8	20.5	26.2	30.8	35.3	38.8
135°	1.1	2.3	3.4	5.7	9.1	13.7	17.1	22.8	27.4	31.9	35.3
137.5°	1.1	2.3	3.4	5.7	8.0	11.4	14.8	19.4	23.9	27.4	31.9
140°	1.1	2.3	3.4	4.6	6.8	10.3	13.7	16.0	20.5	23.9	27.4
142.5°	1.1	2.3	3.4	4.6	6.8	9.1	11.4	13.7	17.1	20.5	23.9
145°	1.1	2.3	3.4	4.6	5.7	8.0	10.3	12.5	13.7	17.1	19.4
147.5°	1.1	2.3	3.4	4.6	4.6	6.8	9.1	10.3	12.5	13.7	16.0
150°	1.1	2.3	3.4	3.4	4.6	5.7	8.0	9.1	10.3	12.5	13.7
152.5°	1.1	2.3	3.4	3.4	4.6	5.7	6.8	8.0	9.1	10.3	11.4
155°	1.1	2.3	3.4	3.4	3.4	4.6	5.7	6.8	8.0	9.1	10.3
157.5°	2.3	2.3	2.3	3.4	3.4	4.6	4.6	5.7	6.8	6.8	8.0
160°	2.3	2.3	2.3	3.4	3.4	3.4	4.6	4.6	5.7	5.7	6.8
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: P1214188

CATALOG NUMBER: 4SNLED-LD5-60HL-LN-UNV-L950-CD1-U

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	2072.1	2072.1	2072.1	2072.1	2072.1	2072.1	2072.1	2072.1	2072.1	2072.1	2072.1
2.5°	2059.6	2063.0	2073.3	2073.3	2071.0	2068.7	2068.7	2065.3	2067.6	2072.1	2069.8
5°	2059.6	2063.0	2073.3	2073.3	2071.0	2068.7	2067.6	2064.1	2067.6	2072.1	2069.8
7.5°	2052.7	2057.3	2067.6	2067.6	2065.3	2064.1	2061.9	2059.6	2063.0	2067.6	2065.3
10°	2043.6	2048.2	2058.4	2058.4	2056.2	2056.2	2052.7	2050.5	2055.0	2058.4	2057.3
12.5°	2030.0	2035.7	2044.8	2043.6	2041.3	2042.5	2039.1	2034.5	2039.1	2042.5	2043.6
15°	2010.6	2017.4	2026.5	2024.3	2020.8	2023.1	2017.4	2014.0	2017.4	2024.3	2023.1
17.5°	1985.5	1990.1	1996.9	1996.9	1993.5	1991.2	1988.9	1985.5	1987.8	1992.3	1993.5
20°	1950.2	1955.9	1959.3	1955.9	1954.7	1951.3	1946.7	1943.3	1947.9	1954.7	1955.9
22.5°	1903.4	1904.6	1912.6	1904.6	1898.9	1897.7	1893.2	1886.3	1893.2	1898.9	1900.0
25°	1845.3	1851.0	1847.6	1833.9	1833.9	1824.8	1822.5	1819.1	1820.2	1830.5	1835.0
27.5°	1771.2	1773.5	1764.4	1753.0	1742.7	1737.0	1729.0	1730.2	1730.2	1743.9	1748.4
30°	1690.3	1677.8	1669.8	1651.5	1643.6	1629.9	1627.6	1627.6	1625.3	1632.2	1652.7
32.5°	1593.4	1576.3	1563.8	1546.7	1533.0	1519.3	1512.5	1515.9	1514.8	1531.9	1538.7
35°	1487.4	1477.2	1450.9	1429.3	1421.3	1400.8	1400.8	1390.5	1397.4	1416.7	1424.7
37.5°	1375.7	1359.8	1338.1	1314.2	1308.5	1292.5	1286.8	1281.1	1295.9	1299.4	1307.3
40°	1261.7	1246.9	1226.4	1203.6	1203.6	1184.2	1184.2	1184.2	1185.4	1192.2	1207.0
42.5°	1153.5	1137.5	1119.3	1103.3	1101.0	1086.2	1086.2	1085.1	1087.4	1093.1	1106.7
45°	1048.6	1036.1	1016.7	1008.7	1009.8	993.9	997.3	993.9	998.4	1004.1	1008.7
47.5°	951.7	943.7	935.8	924.4	920.9	919.8	914.1	909.5	917.5	917.5	924.4
50°	861.7	857.1	852.6	845.7	846.9	842.3	835.5	835.5	841.2	842.3	846.9
52.5°	783.0	777.3	771.6	772.8	773.9	771.6	768.2	764.8	768.2	770.5	776.2
55°	704.4	699.8	705.5	703.2	705.5	703.2	701.0	698.7	704.4	701.0	706.7
57.5°	633.7	638.3	640.6	636.0	639.4	637.1	638.3	634.9	639.4	641.7	640.6
60°	568.8	575.6	572.2	573.3	577.9	575.6	571.0	574.5	579.0	580.1	579.0
62.5°	509.5	517.5	520.9	518.6	519.7	517.5	520.9	516.3	522.0	524.3	520.9
65°	455.9	465.0	467.3	467.3	467.3	465.0	468.5	469.6	471.9	471.9	469.6
67.5°	410.3	418.3	420.6	422.9	420.6	418.3	418.3	419.4	424.0	426.3	424.0
70°	369.3	377.3	378.4	378.4	379.5	381.8	377.3	379.5	383.0	384.1	383.0
72.5°	334.0	341.9	344.2	343.1	344.2	345.4	345.4	343.1	346.5	348.8	348.8
75°	305.5	310.0	312.3	312.3	313.4	314.6	314.6	313.4	315.7	316.9	318.0
77.5°	279.2	282.7	286.1	286.1	287.2	286.1	288.4	288.4	289.5	290.6	291.8
80°	253.0	257.6	259.9	261.0	263.3	264.4	264.4	264.4	265.6	266.7	266.7
82.5°	232.5	235.9	239.4	242.8	242.8	243.9	243.9	243.9	245.1	245.1	246.2
85°	212.0	216.6	220.0	222.3	223.4	224.5	224.5	225.7	225.7	225.7	226.8
87.5°	193.8	199.5	201.7	204.0	205.2	207.4	207.4	207.4	208.6	208.6	208.6
90°	181.2	186.9	189.2	191.5	192.6	193.8	193.8	194.9	194.9	196.0	196.0
92.5°	166.4	172.1	176.7	176.7	177.8	180.1	178.9	178.9	180.1	181.2	181.2
95°	155.0	159.6	163.0	164.1	165.3	165.3	165.3	166.4	165.3	166.4	166.4
97.5°	141.3	145.9	149.3	151.6	152.7	152.7	152.7	153.9	152.7	153.9	153.9
100°	129.9	134.5	137.9	139.1	141.3	141.3	141.3	141.3	141.3	141.3	142.5
102.5°	120.8	125.4	127.7	128.8	129.9	131.1	131.1	131.1	131.1	132.2	132.2
105°	111.7	116.3	118.5	119.7	120.8	122.0	122.0	122.0	123.1	123.1	122.0
107.5°	103.7	107.1	109.4	111.7	112.8	112.8	114.0	114.0	114.0	114.0	114.0
110°	95.7	99.2	102.6	104.9	104.9	106.0	106.0	107.1	107.1	106.0	107.1

TEST NUMBER: P1214188

CATALOG NUMBER: 4SNLED-LD5-60HL-LN-UNV-L950-CD1-U

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
112.5°	87.8	92.3	94.6	96.9	98.0	99.2	99.2	99.2	99.2	99.2	99.2
115°	80.9	85.5	87.8	90.0	91.2	92.3	92.3	92.3	92.3	92.3	92.3
117.5°	75.2	79.8	82.1	83.2	84.3	85.5	86.6	86.6	86.6	86.6	85.5
120°	69.5	72.9	75.2	77.5	78.6	79.8	79.8	79.8	79.8	79.8	79.8
122.5°	63.8	67.2	69.5	71.8	72.9	74.1	74.1	74.1	74.1	74.1	74.1
125°	58.1	61.5	63.8	66.1	67.2	68.4	68.4	68.4	68.4	68.4	68.4
127.5°	52.4	55.8	59.3	60.4	61.5	62.7	62.7	62.7	63.8	62.7	62.7
130°	46.7	50.2	53.6	54.7	55.8	57.0	58.1	58.1	58.1	58.1	57.0
132.5°	42.2	45.6	47.9	49.0	51.3	51.3	52.4	52.4	52.4	52.4	51.3
135°	38.8	41.0	43.3	44.5	46.7	46.7	46.7	47.9	47.9	46.7	45.6
137.5°	34.2	36.5	38.8	39.9	41.0	42.2	42.2	43.3	42.2	42.2	42.2
140°	31.9	33.1	35.3	36.5	37.6	37.6	37.6	38.8	38.8	37.6	37.6
142.5°	27.4	29.6	31.9	33.1	34.2	34.2	34.2	34.2	34.2	34.2	34.2
145°	22.8	26.2	27.4	29.6	29.6	30.8	30.8	30.8	30.8	30.8	29.6
147.5°	19.4	21.7	25.1	26.2	26.2	27.4	27.4	27.4	27.4	27.4	26.2
150°	14.8	17.1	20.5	22.8	22.8	23.9	23.9	23.9	23.9	22.8	22.8
152.5°	12.5	14.8	16.0	18.2	19.4	19.4	19.4	20.5	19.4	19.4	19.4
155°	11.4	12.5	13.7	14.8	16.0	17.1	17.1	17.1	17.1	16.0	16.0
157.5°	9.1	10.3	11.4	12.5	13.7	14.8	14.8	14.8	14.8	14.8	13.7
160°	6.8	8.0	9.1	9.1	10.3	11.4	12.5	11.4	11.4	11.4	11.4
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: P1214188

CATALOG NUMBER: 4SNLED-LD5-60HL-LN-UNV-L950-CD1-U

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	2072.1	2072.1	2072.1	2072.1	2072.1	2072.1	2072.1	2072.1	2072.1	2072.1	2072.1
2.5°	2067.6	2066.4	2069.8	2064.1	2047.0	2051.6	2049.3	2059.6	2061.9	2064.1	2074.4
5°	2067.6	2066.4	2068.7	2064.1	2045.9	2049.3	2047.0	2057.3	2059.6	2060.7	2071.0
7.5°	2063.0	2061.9	2065.3	2059.6	2040.2	2044.8	2041.3	2051.6	2052.7	2053.9	2063.0
10°	2053.9	2052.7	2055.0	2050.5	2031.1	2035.7	2031.1	2041.3	2041.3	2043.6	2050.5
12.5°	2040.2	2037.9	2042.5	2036.8	2015.1	2020.8	2018.6	2025.4	2026.5	2027.7	2034.5
15°	2020.8	2018.6	2022.0	2018.6	1999.2	2000.3	1996.9	2007.2	2008.3	2006.0	2012.9
17.5°	1992.3	1990.1	1996.9	1994.6	1975.2	1979.8	1978.7	1980.9	1984.4	1978.7	1987.8
20°	1957.0	1959.3	1961.6	1962.7	1947.9	1947.9	1946.7	1951.3	1954.7	1950.2	1957.0
22.5°	1904.6	1910.3	1917.1	1919.4	1909.1	1908.0	1914.8	1912.6	1916.0	1913.7	1918.3
25°	1838.5	1849.9	1856.7	1863.5	1857.8	1860.1	1870.4	1872.7	1872.7	1871.5	1876.1
27.5°	1756.4	1771.2	1783.8	1798.6	1792.9	1797.4	1814.5	1816.8	1821.4	1816.8	1825.9
30°	1658.4	1672.1	1696.0	1717.7	1719.9	1726.8	1750.7	1753.0	1765.5	1761.0	1764.4
32.5°	1560.4	1567.2	1594.6	1616.2	1629.9	1647.0	1673.2	1677.8	1694.9	1698.3	1698.3
35°	1437.3	1456.6	1481.7	1512.5	1529.6	1547.8	1583.2	1590.0	1615.1	1623.0	1632.2
37.5°	1333.5	1351.8	1367.7	1399.7	1430.4	1450.9	1479.4	1496.5	1522.7	1537.6	1549.0
40°	1223.0	1237.8	1254.9	1286.8	1313.0	1343.8	1372.3	1392.8	1425.9	1443.0	1457.8
42.5°	1118.1	1129.5	1147.8	1170.6	1197.9	1232.1	1259.5	1283.4	1318.7	1342.7	1359.8
45°	1024.7	1031.5	1047.5	1064.6	1088.5	1123.8	1150.0	1180.8	1209.3	1234.4	1254.9
47.5°	936.9	946.0	954.0	965.4	987.1	1008.7	1039.5	1069.1	1097.6	1125.0	1145.5
50°	856.0	856.0	868.5	876.5	891.3	910.7	934.6	955.1	990.5	1009.8	1036.1
52.5°	777.3	781.9	788.7	793.3	804.7	817.2	836.6	853.7	883.3	901.6	926.6
55°	707.8	712.4	715.8	718.1	724.9	739.7	746.6	760.2	780.8	795.6	817.2
57.5°	641.7	644.0	647.4	648.5	649.7	658.8	664.5	667.9	688.4	703.2	721.5
60°	581.3	581.3	584.7	583.6	582.4	587.0	585.8	589.3	601.8	610.9	618.9
62.5°	524.3	524.3	525.4	523.2	522.0	522.0	517.5	520.9	524.3	525.4	531.1
65°	471.9	477.6	473.0	474.1	467.3	465.0	462.8	455.9	454.8	450.2	452.5
67.5°	425.1	429.7	425.1	425.1	419.4	414.9	409.2	397.8	394.4	385.2	383.0
70°	387.5	384.1	386.4	383.0	376.1	370.4	362.5	353.3	341.9	330.5	322.6
72.5°	351.1	351.1	348.8	345.4	341.9	330.5	321.4	311.2	297.5	282.7	271.3
75°	315.7	316.9	316.9	313.4	307.7	297.5	287.2	272.4	257.6	240.5	225.7
77.5°	290.6	290.6	290.6	284.9	279.2	270.1	257.6	241.6	225.7	205.2	188.1
80°	266.7	265.6	265.6	258.7	253.0	242.8	230.2	214.3	197.2	175.5	156.2
82.5°	247.3	246.2	243.9	238.2	230.2	220.0	207.4	190.3	172.1	152.7	128.8
85°	226.8	225.7	223.4	217.7	209.7	200.6	186.9	169.8	151.6	129.9	107.1
87.5°	208.6	207.4	204.0	200.6	191.5	181.2	167.5	151.6	132.2	111.7	88.9
90°	196.0	193.8	191.5	186.9	178.9	167.5	153.9	136.8	117.4	96.9	74.1
92.5°	181.2	180.1	176.7	172.1	165.3	153.9	140.2	124.2	104.9	85.5	63.8
95°	166.4	165.3	163.0	158.4	151.6	141.3	128.8	112.8	94.6	75.2	55.8
97.5°	152.7	152.7	149.3	145.9	137.9	129.9	117.4	102.6	85.5	68.4	50.2
100°	141.3	141.3	137.9	133.4	127.7	119.7	107.1	93.5	77.5	61.5	43.3
102.5°	131.1	129.9	127.7	123.1	117.4	109.4	98.0	85.5	70.7	54.7	38.8
105°	122.0	120.8	118.5	114.0	109.4	100.3	91.2	78.6	63.8	49.0	34.2
107.5°	112.8	111.7	110.6	106.0	100.3	92.3	83.2	70.7	58.1	44.5	30.8
110°	104.9	103.7	101.4	96.9	91.2	84.3	75.2	65.0	52.4	39.9	27.4

TEST NUMBER: P1214188

CATALOG NUMBER: 4SNLED-LD5-60HL-LN-UNV-L950-CD1-U

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
112.5°	98.0	96.9	94.6	90.0	85.5	77.5	69.5	58.1	47.9	36.5	23.9
115°	91.2	90.0	87.8	83.2	77.5	70.7	62.7	53.6	42.2	31.9	21.7
117.5°	84.3	83.2	80.9	77.5	71.8	65.0	57.0	47.9	37.6	29.6	19.4
120°	78.6	76.4	74.1	70.7	65.0	59.3	51.3	43.3	34.2	26.2	17.1
122.5°	72.9	70.7	68.4	65.0	59.3	53.6	45.6	38.8	31.9	23.9	16.0
125°	66.1	65.0	62.7	59.3	53.6	47.9	42.2	35.3	28.5	21.7	13.7
127.5°	60.4	59.3	57.0	52.4	47.9	43.3	37.6	31.9	25.1	18.2	12.5
130°	55.8	53.6	51.3	47.9	44.5	39.9	34.2	28.5	22.8	16.0	11.4
132.5°	50.2	47.9	45.6	43.3	39.9	35.3	30.8	25.1	20.5	14.8	10.3
135°	45.6	43.3	41.0	38.8	35.3	31.9	27.4	22.8	18.2	13.7	9.1
137.5°	39.9	38.8	37.6	35.3	31.9	28.5	25.1	19.4	16.0	12.5	8.0
140°	36.5	35.3	34.2	30.8	28.5	25.1	21.7	17.1	13.7	10.3	6.8
142.5°	33.1	31.9	29.6	27.4	25.1	22.8	18.2	16.0	12.5	9.1	6.8
145°	28.5	27.4	26.2	23.9	21.7	18.2	16.0	13.7	11.4	8.0	5.7
147.5°	26.2	25.1	22.8	20.5	18.2	16.0	14.8	12.5	9.1	6.8	4.6
150°	21.7	20.5	19.4	17.1	16.0	14.8	12.5	10.3	8.0	5.7	4.6
152.5°	18.2	17.1	16.0	16.0	13.7	12.5	10.3	9.1	6.8	5.7	3.4
155°	16.0	16.0	14.8	13.7	11.4	10.3	9.1	6.8	5.7	4.6	3.4
157.5°	13.7	12.5	11.4	11.4	10.3	9.1	6.8	5.7	4.6	4.6	3.4
160°	11.4	10.3	10.3	9.1	8.0	6.8	5.7	5.7	4.6	3.4	3.4
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: P1214188

CATALOG NUMBER: 4SNLED-LD5-60HL-LN-UNV-L950-CD1-U

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
0°	2072.1	2072.1	2072.1	2072.1	2072.1	2072.1	2072.1	2072.1	2072.1	2072.1	2072.1
2.5°	2075.5	2063.0	2074.4	2089.2	2089.2	2086.9	2084.7	2089.2	2100.6	2096.1	2082.4
5°	2072.1	2059.6	2069.8	2084.7	2084.7	2081.2	2079.0	2082.4	2094.9	2089.2	2076.7
7.5°	2065.3	2053.9	2060.7	2074.4	2074.4	2071.0	2068.7	2073.3	2083.5	2077.8	2064.1
10°	2052.7	2040.2	2048.2	2060.7	2059.6	2057.3	2053.9	2059.6	2068.7	2060.7	2044.8
12.5°	2036.8	2024.3	2031.1	2042.5	2041.3	2036.8	2034.5	2037.9	2045.9	2041.3	2024.3
15°	2015.1	2002.6	2008.3	2019.7	2016.3	2012.9	2008.3	2009.4	2019.7	2011.7	1993.5
17.5°	1988.9	1975.2	1979.8	1990.1	1986.6	1983.2	1977.5	1978.7	1990.1	1978.7	1959.3
20°	1957.0	1942.2	1945.6	1958.1	1952.4	1946.7	1941.0	1941.0	1952.4	1939.9	1918.3
22.5°	1922.8	1908.0	1910.3	1919.4	1914.8	1904.6	1898.9	1902.3	1908.0	1892.0	1869.2
25°	1880.6	1861.3	1864.7	1873.8	1870.4	1856.7	1851.0	1853.3	1851.0	1838.5	1814.5
27.5°	1831.6	1811.1	1813.4	1819.1	1814.5	1802.0	1795.2	1796.3	1791.7	1775.8	1748.4
30°	1770.1	1759.8	1758.7	1762.1	1755.3	1742.7	1734.7	1732.5	1731.3	1708.5	1675.5
32.5°	1707.4	1698.3	1692.6	1697.1	1689.2	1676.6	1662.9	1662.9	1651.5	1629.9	1601.4
35°	1643.6	1628.7	1623.0	1626.5	1617.4	1601.4	1590.0	1584.3	1567.2	1539.8	1509.1
37.5°	1561.5	1551.2	1544.4	1547.8	1537.6	1526.2	1504.5	1498.8	1480.6	1443.0	1404.2
40°	1472.6	1464.6	1457.8	1461.2	1449.8	1432.7	1413.3	1404.2	1383.7	1341.5	1310.7
42.5°	1376.9	1373.4	1365.5	1378.0	1355.2	1338.1	1318.7	1303.9	1283.4	1237.8	1202.5
45°	1275.4	1283.4	1265.2	1268.6	1253.8	1238.9	1218.4	1196.8	1176.3	1132.9	1093.1
47.5°	1168.3	1174.0	1161.4	1163.7	1147.8	1134.1	1115.8	1088.5	1065.7	1028.1	992.8
50°	1057.7	1055.4	1055.4	1053.2	1040.6	1023.5	1005.3	980.2	957.4	923.2	893.6
52.5°	940.3	944.9	947.2	952.9	936.9	926.6	898.1	876.5	859.4	824.1	799.0
55°	827.5	843.4	838.9	841.2	822.9	814.9	792.1	775.1	750.0	729.5	713.5
57.5°	724.9	728.3	730.6	734.0	726.0	710.1	691.8	678.2	658.8	641.7	630.3
60°	625.7	625.7	626.9	632.6	624.6	610.9	597.2	587.0	573.3	563.1	556.2
62.5°	532.3	540.3	541.4	536.8	526.6	519.7	510.6	504.9	495.8	492.4	490.1
65°	445.7	445.7	445.7	447.9	442.2	437.7	432.0	430.8	434.3	429.7	432.0
67.5°	372.7	369.3	367.0	368.1	365.9	363.6	362.5	365.9	372.7	372.7	378.4
70°	310.0	303.2	298.6	298.6	298.6	299.8	303.2	310.0	321.4	326.0	334.0
72.5°	258.7	243.9	237.1	237.1	238.2	242.8	253.0	265.6	275.8	284.9	295.2
75°	209.7	194.9	184.6	183.5	185.8	192.6	207.4	218.8	235.9	248.5	261.0
77.5°	169.8	151.6	139.1	137.9	141.3	151.6	169.8	184.6	204.0	217.7	231.4
80°	135.6	115.1	104.9	98.0	103.7	116.3	136.8	155.0	173.2	191.5	208.6
82.5°	108.3	88.9	72.9	66.1	72.9	90.0	109.4	131.1	149.3	168.7	185.8
85°	85.5	65.0	46.7	39.9	47.9	66.1	87.8	109.4	129.9	149.3	166.4
87.5°	67.2	46.7	28.5	19.4	29.6	49.0	69.5	91.2	112.8	132.2	149.3
90°	52.4	33.1	16.0	2.3	17.1	35.3	55.8	76.4	98.0	117.4	134.5
92.5°	44.5	25.1	9.1	0.0	10.3	26.2	45.6	66.1	85.5	104.9	122.0
95°	37.6	20.5	6.8	0.0	6.8	20.5	37.6	55.8	75.2	94.6	111.7
97.5°	31.9	16.0	4.6	0.0	4.6	16.0	30.8	49.0	66.1	84.3	100.3
100°	27.4	13.7	3.4	0.0	3.4	12.5	26.2	42.2	59.3	76.4	91.2
102.5°	23.9	11.4	2.3	0.0	2.3	10.3	21.7	36.5	51.3	67.2	82.1
105°	20.5	9.1	2.3	0.0	1.1	8.0	18.2	31.9	45.6	60.4	74.1
107.5°	18.2	8.0	2.3	0.0	1.1	6.8	16.0	27.4	41.0	53.6	66.1
110°	16.0	6.8	2.3	0.0	1.1	4.6	13.7	23.9	35.3	47.9	60.4

TEST NUMBER: P1214188

CATALOG NUMBER: 4SNLED-LD5-60HL-LN-UNV-L950-CD1-U

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
112.5°	13.7	5.7	1.1	0.0	0.0	3.4	11.4	20.5	30.8	43.3	53.6
115°	12.5	5.7	1.1	0.0	0.0	2.3	9.1	18.2	27.4	38.8	47.9
117.5°	11.4	4.6	1.1	0.0	1.1	2.3	8.0	16.0	23.9	33.1	43.3
120°	10.3	4.6	1.1	0.0	1.1	1.1	5.7	13.7	20.5	29.6	37.6
122.5°	9.1	4.6	1.1	0.0	1.1	1.1	4.6	11.4	18.2	26.2	33.1
125°	8.0	3.4	2.3	1.1	1.1	1.1	3.4	9.1	16.0	21.7	29.6
127.5°	8.0	3.4	2.3	1.1	1.1	1.1	2.3	8.0	12.5	19.4	26.2
130°	6.8	3.4	2.3	1.1	1.1	1.1	1.1	5.7	11.4	16.0	21.7
132.5°	5.7	3.4	2.3	1.1	1.1	1.1	1.1	3.4	8.0	13.7	18.2
135°	5.7	3.4	2.3	1.1	1.1	1.1	1.1	2.3	5.7	10.3	14.8
137.5°	4.6	2.3	2.3	1.1	1.1	1.1	1.1	1.1	4.6	8.0	11.4
140°	4.6	2.3	2.3	1.1	1.1	1.1	1.1	1.1	3.4	5.7	9.1
142.5°	3.4	2.3	2.3	1.1	1.1	1.1	1.1	1.1	2.3	4.6	6.8
145°	3.4	2.3	2.3	1.1	1.1	1.1	1.1	1.1	1.1	2.3	4.6
147.5°	3.4	3.4	2.3	1.1	1.1	1.1	1.1	1.1	1.1	2.3	3.4
150°	3.4	2.3	2.3	1.1	1.1	1.1	1.1	1.1	1.1	1.1	2.3
152.5°	3.4	2.3	2.3	1.1	1.1	1.1	1.1	1.1	1.1	1.1	2.3
155°	3.4	2.3	2.3	1.1	1.1	1.1	1.1	1.1	1.1	2.3	2.3
157.5°	3.4	2.3	2.3	1.1	1.1	1.1	1.1	1.1	1.1	1.1	2.3
160°	3.4	2.3	2.3	1.1	2.3	1.1	2.3	2.3	2.3	2.3	2.3
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: P1214188

CATALOG NUMBER: 4SNLED-LD5-60HL-LN-UNV-L950-CD1-U

CANDELA DISTRIBUTION (continued):

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
0°	2072.1	2072.1	2072.1	2072.1	2072.1	2072.1	2072.1	2072.1	2072.1	2072.1	2072.1
2.5°	2077.8	2056.2	2067.6	2064.1	2068.7	2077.8	2076.7	2074.4	2074.4	2071.0	2066.4
5°	2071.0	2050.5	2060.7	2055.0	2060.7	2068.7	2067.6	2064.1	2066.4	2060.7	2055.0
7.5°	2057.3	2039.1	2048.2	2043.6	2048.2	2056.2	2052.7	2051.6	2053.9	2044.8	2041.3
10°	2041.3	2020.8	2031.1	2025.4	2031.1	2036.8	2034.5	2030.0	2034.5	2025.4	2022.0
12.5°	2016.3	1999.2	2006.0	2003.7	2007.2	2012.9	2008.3	2004.9	2007.2	1999.2	1992.3
15°	1988.9	1971.8	1977.5	1974.1	1976.4	1983.2	1975.2	1974.1	1971.8	1963.8	1961.6
17.5°	1953.6	1937.6	1943.3	1937.6	1941.0	1938.8	1937.6	1931.9	1931.9	1922.8	1916.0
20°	1910.3	1896.6	1893.2	1888.6	1893.2	1888.6	1881.8	1877.2	1876.1	1867.0	1861.3
22.5°	1860.1	1844.2	1846.4	1833.9	1835.0	1828.2	1816.8	1812.3	1807.7	1797.4	1789.5
25°	1799.7	1783.8	1772.4	1764.4	1754.1	1753.0	1738.2	1726.8	1725.6	1713.1	1712.0
27.5°	1731.3	1713.1	1704.0	1684.6	1672.1	1661.8	1649.3	1637.9	1632.2	1618.5	1609.4
30°	1652.7	1632.2	1609.4	1595.7	1576.3	1568.3	1546.7	1533.0	1528.4	1513.6	1506.8
32.5°	1563.8	1542.1	1523.9	1497.7	1476.0	1464.6	1443.0	1429.3	1423.6	1407.6	1398.5
35°	1466.9	1443.0	1421.3	1396.2	1379.1	1359.8	1333.5	1319.9	1307.3	1301.6	1294.8
37.5°	1365.5	1339.2	1314.2	1289.1	1274.3	1251.5	1228.7	1219.6	1204.7	1199.1	1192.2
40°	1260.6	1234.4	1210.4	1186.5	1169.4	1148.9	1128.4	1125.0	1109.0	1103.3	1098.7
42.5°	1156.9	1129.5	1102.2	1085.1	1072.5	1052.0	1038.3	1034.9	1021.2	1017.8	1017.8
45°	1063.4	1029.2	1006.4	991.6	981.4	964.3	952.9	950.6	939.2	936.9	936.9
47.5°	963.1	931.2	914.1	905.0	895.9	883.3	876.5	876.5	865.1	862.8	861.7
50°	869.7	840.0	827.5	818.4	817.2	808.1	802.4	800.1	800.1	792.1	793.3
52.5°	780.8	765.9	755.7	750.0	743.1	737.4	732.9	732.9	729.5	723.8	726.0
55°	698.7	681.6	682.7	678.2	674.8	671.3	672.5	665.6	664.5	659.9	663.4
57.5°	616.6	616.6	614.3	610.9	605.2	607.5	607.5	607.5	601.8	598.4	601.8
60°	547.1	550.5	544.8	548.2	546.0	547.1	544.8	544.8	541.4	540.3	541.4
62.5°	485.5	491.2	489.0	493.5	491.2	492.4	494.7	490.1	487.8	485.5	487.8
65°	430.8	437.7	436.5	440.0	441.1	442.2	443.4	441.1	438.8	436.5	435.4
67.5°	383.0	389.8	394.4	395.5	396.6	400.1	398.9	396.6	394.4	390.9	389.8
70°	339.7	348.8	354.5	356.8	361.3	359.0	359.0	357.9	355.6	352.2	351.1
72.5°	303.2	313.4	319.1	321.4	326.0	326.0	324.8	323.7	321.4	318.0	316.9
75°	271.3	280.4	288.4	292.9	296.3	296.3	295.2	294.1	291.8	289.5	288.4
77.5°	246.2	254.2	261.0	266.7	269.0	270.1	269.0	266.7	266.7	265.6	264.4
80°	221.1	230.2	237.1	242.8	246.2	246.2	245.1	246.2	243.9	242.8	241.6
82.5°	199.5	209.7	217.7	223.4	225.7	226.8	225.7	226.8	224.5	224.5	224.5
85°	180.1	190.3	199.5	204.0	207.4	208.6	208.6	208.6	207.4	207.4	207.4
87.5°	164.1	174.4	183.5	188.1	191.5	192.6	192.6	193.8	191.5	191.5	191.5
90°	149.3	159.6	168.7	173.2	176.7	178.9	178.9	180.1	178.9	177.8	177.8
92.5°	135.6	147.0	156.2	160.7	164.1	167.5	167.5	168.7	166.4	166.4	166.4
95°	124.2	135.6	143.6	149.3	152.7	155.0	156.2	156.2	155.0	155.0	155.0
97.5°	114.0	124.2	132.2	137.9	141.3	142.5	143.6	144.8	143.6	143.6	143.6
100°	103.7	114.0	122.0	126.5	131.1	132.2	133.4	134.5	134.5	133.4	133.4
102.5°	94.6	104.9	111.7	117.4	120.8	123.1	124.2	124.2	124.2	124.2	124.2
105°	85.5	95.7	102.6	108.3	111.7	114.0	115.1	116.3	116.3	115.1	115.1
107.5°	77.5	86.6	94.6	99.2	103.7	106.0	107.1	107.1	108.3	107.1	107.1
110°	69.5	79.8	86.6	91.2	95.7	98.0	99.2	100.3	100.3	100.3	100.3

TEST NUMBER: P1214188

CATALOG NUMBER: 4SNLED-LD5-60HL-LN-UNV-L950-CD1-U

CANDELA DISTRIBUTION (continued):

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
112.5°	63.8	71.8	78.6	83.2	87.8	90.0	91.2	92.3	93.5	92.3	92.3
115°	57.0	65.0	71.8	76.4	79.8	82.1	84.3	85.5	85.5	86.6	85.5
117.5°	51.3	58.1	65.0	69.5	72.9	76.4	77.5	78.6	79.8	78.6	78.6
120°	45.6	52.4	58.1	62.7	66.1	69.5	70.7	71.8	72.9	71.8	71.8
122.5°	41.0	46.7	52.4	57.0	60.4	62.7	65.0	65.0	66.1	66.1	66.1
125°	36.5	42.2	46.7	51.3	54.7	57.0	58.1	59.3	59.3	60.4	60.4
127.5°	31.9	36.5	42.2	45.6	49.0	51.3	52.4	53.6	53.6	54.7	54.7
130°	27.4	31.9	36.5	39.9	43.3	45.6	46.7	47.9	49.0	49.0	49.0
132.5°	23.9	28.5	31.9	35.3	37.6	39.9	42.2	43.3	43.3	43.3	43.3
135°	19.4	23.9	27.4	30.8	33.1	35.3	36.5	38.8	38.8	38.8	38.8
137.5°	16.0	20.5	23.9	26.2	28.5	30.8	31.9	33.1	34.2	34.2	34.2
140°	12.5	16.0	19.4	22.8	25.1	26.2	28.5	28.5	29.6	29.6	29.6
142.5°	9.1	12.5	14.8	18.2	20.5	22.8	23.9	25.1	25.1	25.1	25.1
145°	6.8	9.1	11.4	13.7	17.1	18.2	19.4	20.5	21.7	21.7	21.7
147.5°	4.6	6.8	8.0	10.3	12.5	14.8	16.0	17.1	18.2	18.2	18.2
150°	3.4	4.6	6.8	8.0	9.1	11.4	13.7	13.7	14.8	14.8	13.7
152.5°	2.3	3.4	4.6	5.7	6.8	8.0	10.3	10.3	11.4	11.4	11.4
155°	2.3	2.3	2.3	3.4	4.6	5.7	6.8	8.0	8.0	8.0	8.0
157.5°	2.3	2.3	2.3	2.3	2.3	3.4	4.6	5.7	5.7	5.7	5.7
160°	2.3	2.3	1.1	1.1	2.3	2.3	2.3	2.3	3.4	3.4	3.4
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: P1214188

CATALOG NUMBER: 4SNLED-LD5-60HL-LN-UNV-L950-CD1-U

CANDELA DISTRIBUTION (continued):

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°
0°	2072.1	2072.1	2072.1	2072.1	2072.1	2072.1	2072.1	2072.1	2072.1	2072.1	2072.1
2.5°	2069.8	2072.1	2072.1	2069.8	2068.7	2073.3	2067.6	2045.9	2052.7	2055.0	2061.9
5°	2059.6	2061.9	2061.9	2061.9	2059.6	2064.1	2058.4	2036.8	2044.8	2048.2	2052.7
7.5°	2044.8	2045.9	2048.2	2047.0	2044.8	2051.6	2045.9	2024.3	2030.0	2035.7	2041.3
10°	2025.4	2025.4	2026.5	2028.8	2026.5	2032.2	2026.5	2007.2	2012.9	2016.3	2023.1
12.5°	1999.2	2001.5	2002.6	2001.5	2000.3	2004.9	2002.6	1984.4	1986.6	1993.5	2000.3
15°	1963.8	1963.8	1969.5	1967.3	1967.3	1971.8	1974.1	1953.6	1957.0	1967.3	1974.1
17.5°	1920.5	1921.7	1926.2	1928.5	1927.4	1935.3	1936.5	1920.5	1919.4	1931.9	1938.8
20°	1864.7	1867.0	1872.7	1877.2	1877.2	1886.3	1889.8	1879.5	1880.6	1894.3	1896.6
22.5°	1796.3	1796.3	1806.6	1813.4	1819.1	1824.8	1835.0	1825.9	1825.9	1844.2	1854.4
25°	1712.0	1719.9	1723.4	1737.0	1745.0	1761.0	1770.1	1771.2	1772.4	1789.5	1796.3
27.5°	1618.5	1620.8	1631.0	1647.0	1656.1	1670.9	1688.0	1691.4	1697.1	1719.9	1730.2
30°	1512.5	1519.3	1523.9	1546.7	1559.2	1578.6	1600.3	1608.2	1612.8	1643.6	1656.1
32.5°	1404.2	1406.5	1425.9	1438.4	1453.2	1473.7	1498.8	1513.6	1522.7	1554.7	1572.9
35°	1295.9	1300.5	1316.4	1332.4	1347.2	1367.7	1394.0	1414.5	1430.4	1458.9	1482.9
37.5°	1196.8	1208.2	1211.6	1227.5	1238.9	1259.5	1277.7	1307.3	1323.3	1352.9	1383.7
40°	1107.9	1111.3	1113.6	1129.5	1137.5	1156.9	1183.1	1202.5	1224.1	1245.8	1282.3
42.5°	1020.1	1022.4	1025.8	1034.9	1044.0	1057.7	1077.1	1096.5	1119.3	1151.2	1175.1
45°	939.2	941.5	943.7	949.4	957.4	970.0	982.5	996.2	1019.0	1046.3	1071.4
47.5°	864.0	868.5	868.5	869.7	875.4	885.6	894.7	911.8	924.4	939.2	967.7
50°	792.1	795.6	796.7	796.7	800.1	807.0	809.2	820.6	832.0	845.7	866.2
52.5°	724.9	724.9	723.8	728.3	728.3	732.9	734.0	740.9	748.8	763.7	772.8
55°	661.1	661.1	664.5	662.2	662.2	664.5	663.4	664.5	671.3	680.4	688.4
57.5°	599.5	598.4	601.8	599.5	598.4	600.7	602.9	598.4	599.5	608.6	608.6
60°	538.0	539.1	542.5	540.3	540.3	540.3	538.0	535.7	533.4	539.1	541.4
62.5°	489.0	485.5	489.0	485.5	487.8	486.7	484.4	479.8	481.0	478.7	476.4
65°	437.7	437.7	438.8	435.4	437.7	437.7	434.3	433.1	426.3	424.0	418.3
67.5°	393.2	393.2	394.4	392.1	392.1	393.2	389.8	386.4	379.5	376.1	368.1
70°	354.5	354.5	354.5	353.3	353.3	353.3	351.1	346.5	339.7	334.0	323.7
72.5°	319.1	320.3	319.1	319.1	322.6	319.1	315.7	311.2	305.5	294.1	284.9
75°	290.6	291.8	290.6	290.6	290.6	289.5	288.4	281.5	274.7	265.6	251.9
77.5°	265.6	265.6	266.7	265.6	265.6	264.4	261.0	255.3	247.3	239.4	223.4
80°	241.6	242.8	243.9	245.1	242.8	241.6	238.2	233.7	223.4	214.3	198.3
82.5°	224.5	223.4	224.5	225.7	223.4	222.3	218.8	213.1	205.2	192.6	176.7
85°	207.4	206.3	206.3	207.4	206.3	204.0	200.6	194.9	186.9	174.4	158.4
87.5°	190.3	191.5	192.6	191.5	190.3	188.1	184.6	178.9	169.8	159.6	142.5
90°	177.8	177.8	177.8	177.8	176.7	174.4	171.0	164.1	156.2	143.6	128.8
92.5°	166.4	166.4	166.4	166.4	165.3	161.8	158.4	152.7	143.6	131.1	117.4
95°	155.0	156.2	155.0	155.0	152.7	151.6	145.9	140.2	132.2	119.7	104.9
97.5°	142.5	143.6	142.5	142.5	141.3	139.1	135.6	128.8	120.8	109.4	95.7
100°	133.4	133.4	132.2	132.2	131.1	128.8	124.2	118.5	110.6	99.2	85.5
102.5°	123.1	124.2	123.1	123.1	120.8	118.5	115.1	109.4	101.4	90.0	77.5
105°	115.1	115.1	114.0	114.0	111.7	109.4	106.0	99.2	92.3	82.1	69.5
107.5°	107.1	107.1	106.0	106.0	103.7	101.4	96.9	91.2	84.3	74.1	62.7
110°	99.2	99.2	99.2	98.0	95.7	92.3	88.9	83.2	76.4	67.2	55.8

TEST NUMBER: P1214188

CATALOG NUMBER: 4SNLED-LD5-60HL-LN-UNV-L950-CD1-U

CANDELA DISTRIBUTION (continued):

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°
112.5°	93.5	92.3	91.2	90.0	87.8	85.5	80.9	75.2	68.4	60.4	50.2
115°	85.5	85.5	84.3	83.2	80.9	77.5	74.1	69.5	62.7	53.6	44.5
117.5°	78.6	78.6	77.5	76.4	74.1	70.7	67.2	62.7	55.8	47.9	39.9
120°	71.8	71.8	70.7	69.5	67.2	63.8	61.5	55.8	50.2	42.2	35.3
122.5°	66.1	65.0	65.0	62.7	61.5	58.1	54.7	50.2	44.5	37.6	30.8
125°	59.3	59.3	58.1	57.0	55.8	52.4	49.0	44.5	38.8	33.1	27.4
127.5°	53.6	53.6	52.4	51.3	50.2	46.7	43.3	39.9	34.2	28.5	22.8
130°	47.9	47.9	46.7	45.6	44.5	41.0	38.8	34.2	29.6	25.1	19.4
132.5°	43.3	43.3	42.2	41.0	38.8	36.5	34.2	29.6	26.2	21.7	17.1
135°	38.8	37.6	37.6	36.5	34.2	31.9	29.6	26.2	21.7	18.2	13.7
137.5°	34.2	33.1	31.9	30.8	29.6	27.4	25.1	22.8	19.4	14.8	11.4
140°	29.6	28.5	28.5	27.4	25.1	23.9	21.7	18.2	16.0	12.5	9.1
142.5°	25.1	25.1	23.9	22.8	21.7	20.5	18.2	16.0	12.5	10.3	6.8
145°	21.7	20.5	20.5	19.4	18.2	16.0	14.8	12.5	10.3	8.0	5.7
147.5°	17.1	17.1	17.1	16.0	14.8	13.7	12.5	10.3	8.0	5.7	3.4
150°	13.7	13.7	13.7	12.5	11.4	10.3	9.1	8.0	5.7	3.4	2.3
152.5°	11.4	11.4	10.3	10.3	9.1	8.0	6.8	5.7	3.4	2.3	2.3
155°	8.0	8.0	8.0	6.8	6.8	5.7	4.6	3.4	2.3	2.3	2.3
157.5°	5.7	5.7	5.7	4.6	4.6	3.4	3.4	2.3	2.3	2.3	2.3
160°	3.4	3.4	3.4	3.4	2.3	2.3	2.3	2.3	2.3	2.3	2.3
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: P1214188

CATALOG NUMBER: 4SNLED-LD5-60HL-LN-UNV-L950-CD1-U

CANDELA DISTRIBUTION (continued):

	330°	335°	340°	345°	350°	355°	360°
0°	2072.1	2072.1	2072.1	2072.1	2072.1	2072.1	2072.1
2.5°	2058.4	2057.3	2066.4	2066.4	2056.2	2072.1	2089.2
5°	2051.6	2050.5	2059.6	2059.6	2050.5	2066.4	2084.7
7.5°	2037.9	2039.1	2048.2	2050.5	2039.1	2053.9	2073.3
10°	2023.1	2022.0	2032.2	2034.5	2025.4	2039.1	2057.3
12.5°	1999.2	1999.2	2009.4	2012.9	2003.7	2019.7	2036.8
15°	1974.1	1974.1	1980.9	1986.6	1978.7	1993.5	2010.6
17.5°	1942.2	1941.0	1947.9	1954.7	1946.7	1962.7	1980.9
20°	1901.2	1901.2	1909.1	1917.1	1911.4	1926.2	1946.7
22.5°	1857.8	1853.3	1867.0	1872.7	1869.2	1884.1	1904.6
25°	1803.1	1802.0	1815.7	1823.7	1819.1	1835.0	1853.3
27.5°	1743.9	1742.7	1756.4	1766.7	1764.4	1779.2	1799.7
30°	1672.1	1677.8	1690.3	1707.4	1701.7	1717.7	1739.3
32.5°	1596.8	1602.5	1617.4	1635.6	1636.7	1649.3	1670.9
35°	1506.8	1521.6	1531.9	1555.8	1560.4	1572.9	1595.7
37.5°	1412.2	1429.3	1450.9	1469.2	1478.3	1488.6	1514.8
40°	1306.2	1331.3	1355.2	1376.9	1388.3	1398.5	1423.6
42.5°	1210.4	1229.8	1252.6	1274.3	1294.8	1303.9	1330.1
45°	1102.2	1125.0	1145.5	1171.7	1192.2	1202.5	1228.7
47.5°	996.2	1019.0	1046.3	1064.6	1086.2	1096.5	1121.5
50°	894.7	915.2	938.0	959.7	977.9	987.1	1008.7
52.5°	794.4	816.1	837.7	851.4	870.8	877.6	895.9
55°	705.5	720.3	739.7	747.7	767.1	771.6	784.2
57.5°	620.0	630.3	637.1	650.8	664.5	674.8	689.6
60°	542.5	547.1	551.7	559.6	571.0	574.5	580.1
62.5°	473.0	471.9	481.0	483.3	484.4	495.8	490.1
65°	411.5	412.6	404.6	401.2	405.8	409.2	406.9
67.5°	360.2	353.3	346.5	338.5	331.7	335.1	331.7
70°	310.0	304.3	292.9	281.5	277.0	270.1	266.7
72.5°	270.1	256.5	245.1	230.2	222.3	214.3	208.6
75°	239.4	220.0	204.0	188.1	176.7	165.3	163.0
77.5°	207.4	189.2	171.0	153.9	136.8	124.2	119.7
80°	182.4	165.3	143.6	123.1	104.9	88.9	83.2
82.5°	159.6	141.3	119.7	98.0	77.5	60.4	53.6
85°	140.2	120.8	99.2	77.5	57.0	38.8	29.6
87.5°	125.4	103.7	82.1	61.5	39.9	21.7	11.4
90°	111.7	91.2	70.7	49.0	28.5	11.4	0.0
92.5°	99.2	79.8	59.3	39.9	21.7	6.8	1.1
95°	87.8	70.7	50.2	31.9	16.0	4.6	1.1
97.5°	78.6	61.5	43.3	26.2	12.5	3.4	1.1
100°	70.7	53.6	37.6	21.7	10.3	2.3	1.1
102.5°	62.7	47.9	31.9	18.2	8.0	1.1	1.1
105°	55.8	42.2	27.4	16.0	6.8	1.1	1.1
107.5°	50.2	37.6	23.9	13.7	4.6	1.1	1.1
110°	44.5	31.9	20.5	11.4	3.4	1.1	1.1

TEST NUMBER: P1214188

CATALOG NUMBER: 4SNLED-LD5-60HL-LN-UNV-L950-CD1-U

CANDELA DISTRIBUTION (continued):

	330°	335°	340°	345°	350°	355°	360°
112.5°	39.9	28.5	18.2	9.1	2.3	1.1	1.1
115°	35.3	25.1	16.0	8.0	2.3	1.1	1.1
117.5°	30.8	21.7	13.7	5.7	1.1	1.1	1.1
120°	27.4	19.4	11.4	4.6	1.1	1.1	1.1
122.5°	23.9	16.0	9.1	3.4	1.1	1.1	1.1
125°	20.5	13.7	8.0	2.3	1.1	1.1	1.1
127.5°	17.1	11.4	5.7	2.3	1.1	1.1	1.1
130°	14.8	9.1	4.6	1.1	1.1	1.1	1.1
132.5°	12.5	6.8	3.4	1.1	1.1	1.1	1.1
135°	10.3	5.7	2.3	1.1	1.1	1.1	1.1
137.5°	8.0	4.6	2.3	1.1	1.1	1.1	1.1
140°	5.7	3.4	1.1	1.1	1.1	1.1	1.1
142.5°	4.6	2.3	1.1	1.1	1.1	1.1	1.1
145°	3.4	2.3	1.1	1.1	1.1	1.1	1.1
147.5°	2.3	2.3	2.3	2.3	1.1	1.1	1.1
150°	2.3	2.3	1.1	1.1	2.3	1.1	1.1
152.5°	2.3	1.1	1.1	1.1	2.3	1.1	1.1
155°	2.3	2.3	2.3	2.3	2.3	2.3	1.1
157.5°	2.3	2.3	2.3	2.3	2.3	2.3	2.3
160°	2.3	2.3	2.3	2.3	2.3	2.3	2.3
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)