

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: P1213837

Luminaire Tested: 4SNLED-LD5-60HL-LN-UNV-L940-CD1-U

Issue Date: 3/29/2018

Test Information

Test Method: LM-79-2019
Report Number: P1213837
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-L940-CD1-U
Description: 4FT LINEAR SNLED LED FIXTURE
NARROW LENS
Light Source: -
Ballast/Driver: -

Summary

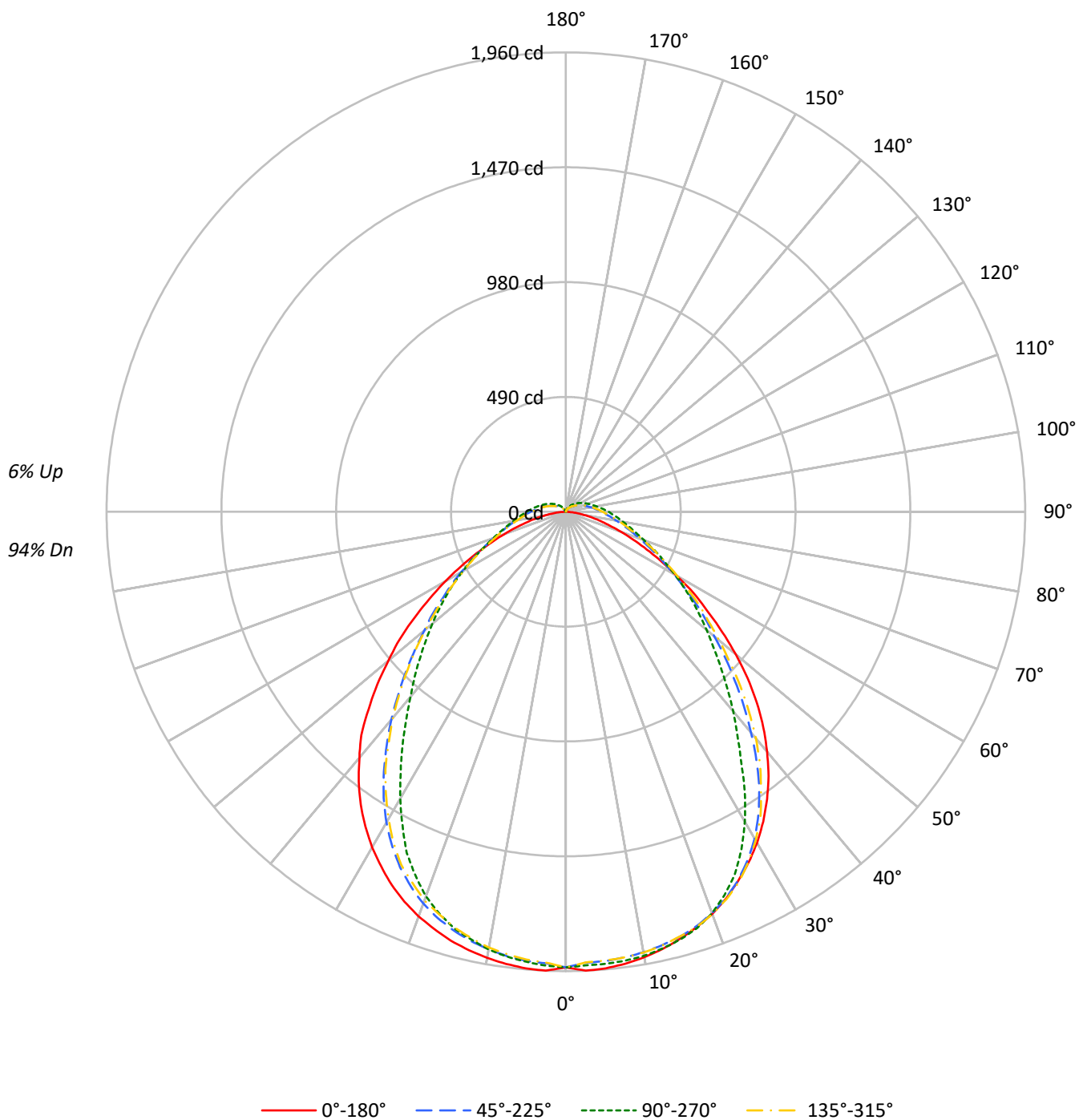
Lumens per Lamp: N/A
Luminaire Lumens: 4919.0 lumens
Efficiency: N/A
Efficacy: 114.4 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.14 / 1.24
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.12')
CIE Type: Direct

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

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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
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°	15707	15707	15707	15707
5°	15820	15207	15820	15140
10°	15749	14803	15775	14598
15°	15647	14361	15718	13987
20°	15527	13792	15618	13209
25°	15278	12948	15447	12186
30°	14954	11708	15150	10839
35°	14450	10190	14729	9487
40°	13727	8911	14089	8268
45°	12772	7747	13188	7302
50°	11468	6807	11974	6463
55°	9921	6011	10641	5707
60°	8344	5277	9098	4973
65°	6840	4666	7530	4326
70°	5444	4141	6095	3830
75°	4275	3823	4812	3518
80°	3083	3689	3633	3372
85°	1899	3710	2555	3410

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 180°

Vertical Angle: 45°

Luminance: 13188 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	184.3	3.7
10°-20°	528.4	10.7
20°-30°	783.1	15.9
30°-40°	870.0	17.7
40°-50°	788.7	16.0
50°-60°	611.1	12.4
60°-70°	415.0	8.4
70°-80°	264.0	5.4
80°-90°	168.8	3.4
90°-100°	113.8	2.3
100°-110°	78.0	1.6
110°-120°	52.0	1.1
120°-130°	32.3	0.7
130°-140°	17.9	0.4
140°-150°	8.4	0.2
150°-160°	3.1	0.1
160°-170°	0.2	0.0
170°-180°	0.0	0.0
0°-30°	1495.8	30.4
0°-40°	2365.8	48.1
0°-60°	3765.5	76.6
0°-90°	4613.4	93.8
90°-120°	243.8	5.0
90°-150°	302.4	6.1
90°-180°	306.0	6.2
0°-180°	4919.0	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	1944	1944	1944	1944	1944	
5°	1956	1936	1956	1928	1956	186
15°	1886	1889	1894	1840	1886	532
25°	1738	1706	1758	1606	1738	801
35°	1497	1304	1526	1214	1497	934
45°	1152	932	1190	879	1152	885
55°	736	655	789	622	736	662
65°	382	440	420	408	382	383
75°	153	294	172	270	153	165
85°	28	212	37	195	28	33
90°	0	183	2	167	0	2
95°	1	156	0	145	1	1
105°	1	114	0	108	1	1
115°	1	87	0	80	1	1
125°	1	64	1	57	1	1
135°	1	45	1	36	1	1
145°	1	29	1	20	1	1
155°	1	16	1	8	1	1
165°	0	0	0	0	0	0
175°	0	0	0	0	0	0
180°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1943.7	1943.7	1943.7	1943.7	1943.7	1943.7	1943.7	1943.7	1943.7	1943.7	1943.7
2.5°	1959.7	1957.6	1955.5	1952.3	1955.5	1964.0	1958.7	1946.9	1944.8	1925.5	1934.1
5°	1955.5	1952.3	1950.1	1946.9	1951.2	1961.9	1956.5	1945.8	1942.6	1924.5	1934.1
7.5°	1944.8	1942.6	1939.4	1939.4	1943.7	1954.4	1950.1	1938.4	1936.2	1918.0	1928.7
10°	1929.8	1928.7	1926.6	1926.6	1930.9	1943.7	1938.4	1927.7	1925.5	1908.4	1920.2
12.5°	1910.6	1911.6	1908.4	1908.4	1914.8	1927.7	1923.4	1911.6	1909.5	1894.5	1906.3
15°	1886.0	1887.0	1884.9	1886.0	1892.4	1907.4	1902.0	1891.3	1889.2	1877.4	1887.0
17.5°	1858.2	1859.2	1859.2	1858.2	1865.7	1880.6	1876.3	1866.7	1863.5	1853.9	1865.7
20°	1826.1	1826.1	1826.1	1826.1	1834.6	1849.6	1844.3	1836.8	1830.4	1822.9	1832.5
22.5°	1786.5	1785.5	1786.5	1789.7	1798.3	1810.1	1806.9	1798.3	1788.7	1784.4	1791.9
25°	1738.4	1741.6	1742.7	1745.9	1756.6	1766.2	1763.0	1754.5	1739.5	1736.3	1738.4
27.5°	1688.2	1690.3	1693.5	1692.5	1707.4	1717.0	1710.6	1703.1	1681.8	1678.6	1676.4
30°	1631.5	1634.7	1636.9	1635.8	1647.5	1658.2	1651.8	1642.2	1613.3	1611.2	1594.1
32.5°	1567.4	1570.6	1572.7	1572.7	1589.8	1594.1	1582.3	1568.4	1537.4	1529.9	1515.0
35°	1496.8	1500.0	1501.1	1501.1	1518.2	1517.1	1502.1	1482.9	1448.7	1439.1	1413.4
37.5°	1420.9	1423.0	1424.1	1430.5	1438.0	1431.6	1412.3	1387.7	1362.1	1335.4	1307.6
40°	1335.4	1338.6	1340.7	1345.0	1352.5	1345.0	1317.2	1287.2	1259.5	1229.5	1201.7
42.5°	1247.7	1257.3	1255.2	1254.1	1258.4	1238.1	1216.7	1182.5	1154.7	1123.7	1095.9
45°	1152.5	1151.5	1156.8	1159.0	1157.9	1140.8	1110.8	1079.8	1052.0	1020.0	996.4
47.5°	1052.0	1051.0	1055.2	1057.4	1051.0	1032.8	1009.3	974.0	950.5	922.7	904.5
50°	946.2	946.2	952.6	946.2	943.0	924.8	905.6	870.3	852.1	827.5	816.8
52.5°	840.3	850.0	843.6	841.4	838.2	820.0	805.1	776.2	761.2	750.5	737.7
55°	735.6	746.3	742.0	738.8	737.7	722.7	708.8	687.5	677.8	670.4	662.9
57.5°	646.8	645.8	643.6	640.4	641.5	629.7	615.8	604.1	599.8	596.6	598.7
60°	544.2	552.7	549.5	550.6	551.7	549.5	537.8	530.3	531.4	532.4	535.6
62.5°	459.7	467.2	472.6	468.3	470.4	473.6	467.2	465.1	469.4	473.6	477.9
65°	381.7	389.2	394.5	393.4	399.9	406.3	405.2	407.3	417.0	422.3	427.7
67.5°	311.1	318.6	326.1	327.2	336.8	346.4	350.7	358.2	368.9	376.3	382.8
70°	250.2	256.6	265.1	270.5	283.3	296.2	303.6	318.6	325.0	335.7	340.0
72.5°	195.7	201.0	212.8	225.6	236.3	252.3	267.3	280.1	289.7	301.5	306.8
75°	152.9	155.0	167.9	182.8	197.8	216.0	232.0	245.9	258.7	270.5	279.0
77.5°	112.3	115.5	127.2	147.5	164.6	183.9	202.1	217.0	230.9	242.7	254.5
80°	78.0	84.5	97.3	117.6	136.9	158.2	175.3	192.4	207.4	219.2	230.9
82.5°	50.2	55.6	73.8	94.1	114.4	135.8	154.0	171.1	187.1	199.9	210.6
85°	27.8	35.3	53.5	74.8	95.2	116.5	135.8	152.9	168.9	180.7	191.4
87.5°	10.7	21.4	38.5	58.8	79.1	99.4	119.7	135.8	151.8	164.6	174.3
90°	0.0	12.8	28.9	49.2	69.5	89.8	109.1	126.2	141.1	152.9	163.6
92.5°	1.1	8.6	22.5	39.6	58.8	78.0	96.2	113.3	128.3	140.1	149.7
95°	1.1	6.4	18.2	34.2	51.3	69.5	86.6	102.6	116.5	128.3	137.9
97.5°	1.1	4.3	15.0	29.9	44.9	63.1	79.1	94.1	106.9	118.7	126.2
100°	1.1	4.3	12.8	25.7	40.6	56.7	71.6	86.6	98.4	108.0	116.5
102.5°	1.1	3.2	10.7	22.5	36.4	50.2	65.2	79.1	89.8	99.4	108.0
105°	1.1	3.2	9.6	19.2	32.1	46.0	58.8	71.6	83.4	91.9	99.4
107.5°	1.1	2.1	8.6	16.0	27.8	41.7	54.5	65.2	75.9	84.5	91.9
110°	1.1	2.1	7.5	15.0	24.6	37.4	49.2	59.9	69.5	78.0	84.5

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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	1.1	2.1	6.4	13.9	22.5	33.1	44.9	54.5	64.1	71.6	78.0
115°	1.1	2.1	6.4	12.8	20.3	28.9	39.6	50.2	57.7	66.3	71.6
117.5°	1.1	2.1	5.3	10.7	19.2	26.7	36.4	44.9	53.5	60.9	66.3
120°	1.1	2.1	5.3	9.6	17.1	24.6	32.1	40.6	49.2	54.5	59.9
122.5°	1.1	2.1	4.3	9.6	15.0	22.5	28.9	36.4	43.8	50.2	55.6
125°	1.1	2.1	4.3	8.6	13.9	20.3	26.7	32.1	39.6	44.9	50.2
127.5°	1.1	2.1	4.3	7.5	12.8	18.2	24.6	29.9	35.3	40.6	44.9
130°	1.1	2.1	3.2	6.4	11.8	16.0	21.4	27.8	32.1	36.4	40.6
132.5°	1.1	2.1	3.2	6.4	9.6	13.9	19.2	24.6	28.9	33.1	36.4
135°	1.1	2.1	3.2	5.3	8.6	12.8	16.0	21.4	25.7	29.9	33.1
137.5°	1.1	2.1	3.2	5.3	7.5	10.7	13.9	18.2	22.5	25.7	29.9
140°	1.1	2.1	3.2	4.3	6.4	9.6	12.8	15.0	19.2	22.5	25.7
142.5°	1.1	2.1	3.2	4.3	6.4	8.6	10.7	12.8	16.0	19.2	22.5
145°	1.1	2.1	3.2	4.3	5.3	7.5	9.6	11.8	12.8	16.0	18.2
147.5°	1.1	2.1	3.2	4.3	4.3	6.4	8.6	9.6	11.8	12.8	15.0
150°	1.1	2.1	3.2	3.2	4.3	5.3	7.5	8.6	9.6	11.8	12.8
152.5°	1.1	2.1	3.2	3.2	4.3	5.3	6.4	7.5	8.6	9.6	10.7
155°	1.1	2.1	3.2	3.2	3.2	4.3	5.3	6.4	7.5	8.6	9.6
157.5°	2.1	2.1	2.1	3.2	3.2	4.3	4.3	5.3	6.4	6.4	7.5
160°	2.1	2.1	2.1	3.2	3.2	3.2	4.3	4.3	5.3	5.3	6.4
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

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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	1943.7	1943.7	1943.7	1943.7	1943.7	1943.7	1943.7	1943.7	1943.7	1943.7	1943.7
2.5°	1931.9	1935.1	1944.8	1944.8	1942.6	1940.5	1940.5	1937.3	1939.4	1943.7	1941.6
5°	1931.9	1935.1	1944.8	1944.8	1942.6	1940.5	1939.4	1936.2	1939.4	1943.7	1941.6
7.5°	1925.5	1929.8	1939.4	1939.4	1937.3	1936.2	1934.1	1931.9	1935.1	1939.4	1937.3
10°	1917.0	1921.3	1930.9	1930.9	1928.7	1928.7	1925.5	1923.4	1927.7	1930.9	1929.8
12.5°	1904.1	1909.5	1918.0	1917.0	1914.8	1915.9	1912.7	1908.4	1912.7	1915.9	1917.0
15°	1886.0	1892.4	1900.9	1898.8	1895.6	1897.7	1892.4	1889.2	1892.4	1898.8	1897.7
17.5°	1862.4	1866.7	1873.1	1873.1	1869.9	1867.8	1865.7	1862.4	1864.6	1868.9	1869.9
20°	1829.3	1834.6	1837.9	1834.6	1833.6	1830.4	1826.1	1822.9	1827.2	1833.6	1834.6
22.5°	1785.5	1786.5	1794.0	1786.5	1781.2	1780.1	1775.8	1769.4	1775.8	1781.2	1782.3
25°	1730.9	1736.3	1733.1	1720.3	1720.3	1711.7	1709.6	1706.4	1707.4	1717.0	1721.3
27.5°	1661.4	1663.6	1655.0	1644.3	1634.7	1629.4	1621.9	1623.0	1623.0	1635.8	1640.1
30°	1585.5	1573.8	1566.3	1549.2	1541.7	1528.9	1526.7	1526.7	1524.6	1531.0	1550.3
32.5°	1494.7	1478.6	1466.9	1450.8	1438.0	1425.2	1418.8	1422.0	1420.9	1436.9	1443.3
35°	1395.2	1385.6	1361.0	1340.7	1333.2	1314.0	1314.0	1304.4	1310.8	1328.9	1336.4
37.5°	1290.5	1275.5	1255.2	1232.7	1227.4	1212.4	1207.1	1201.7	1215.6	1218.8	1226.3
40°	1183.5	1169.6	1150.4	1129.0	1129.0	1110.8	1110.8	1110.8	1111.9	1118.3	1132.2
42.5°	1082.0	1067.0	1049.9	1034.9	1032.8	1018.9	1018.9	1017.8	1020.0	1025.3	1038.1
45°	983.6	971.9	953.7	946.2	947.3	932.3	935.5	932.3	936.6	941.9	946.2
47.5°	892.7	885.3	877.8	867.1	863.9	862.8	857.5	853.2	860.7	860.7	867.1
50°	808.3	804.0	799.7	793.3	794.4	790.1	783.7	783.7	789.0	790.1	794.4
52.5°	734.5	729.2	723.8	724.9	725.9	723.8	720.6	717.4	720.6	722.7	728.1
55°	660.7	656.5	661.8	659.7	661.8	659.7	657.5	655.4	660.7	657.5	662.9
57.5°	594.4	598.7	600.9	596.6	599.8	597.7	598.7	595.5	599.8	601.9	600.9
60°	533.5	539.9	536.7	537.8	542.1	539.9	535.6	538.8	543.1	544.2	543.1
62.5°	477.9	485.4	488.6	486.5	487.5	485.4	488.6	484.3	489.7	491.8	488.6
65°	427.7	436.2	438.3	438.3	438.3	436.2	439.4	440.5	442.6	442.6	440.5
67.5°	384.9	392.4	394.5	396.7	394.5	392.4	392.4	393.4	397.7	399.9	397.7
70°	346.4	353.9	355.0	355.0	356.0	358.2	353.9	356.0	359.2	360.3	359.2
72.5°	313.3	320.7	322.9	321.8	322.9	324.0	324.0	321.8	325.0	327.2	327.2
75°	286.5	290.8	292.9	292.9	294.0	295.1	295.1	294.0	296.2	297.2	298.3
77.5°	261.9	265.1	268.4	268.4	269.4	268.4	270.5	270.5	271.6	272.6	273.7
80°	237.3	241.6	243.8	244.8	247.0	248.0	248.0	248.0	249.1	250.2	250.2
82.5°	218.1	221.3	224.5	227.7	227.7	228.8	228.8	228.8	229.9	229.9	230.9
85°	198.9	203.1	206.3	208.5	209.6	210.6	210.6	211.7	211.7	211.7	212.8
87.5°	181.8	187.1	189.2	191.4	192.4	194.6	194.6	194.6	195.7	195.7	195.7
90°	170.0	175.3	177.5	179.6	180.7	181.8	181.8	182.8	182.8	183.9	183.9
92.5°	156.1	161.4	165.7	165.7	166.8	168.9	167.9	167.9	168.9	170.0	170.0
95°	145.4	149.7	152.9	154.0	155.0	155.0	155.0	156.1	155.0	156.1	156.1
97.5°	132.6	136.9	140.1	142.2	143.3	143.3	143.3	144.3	143.3	144.3	144.3
100°	121.9	126.2	129.4	130.4	132.6	132.6	132.6	132.6	132.6	132.6	133.6
102.5°	113.3	117.6	119.7	120.8	121.9	123.0	123.0	123.0	123.0	124.0	124.0
105°	104.8	109.1	111.2	112.3	113.3	114.4	114.4	114.4	115.5	115.5	114.4
107.5°	97.3	100.5	102.6	104.8	105.8	105.8	106.9	106.9	106.9	106.9	106.9
110°	89.8	93.0	96.2	98.4	98.4	99.4	99.4	100.5	100.5	99.4	100.5

TEST NUMBER: P1213837

CATALOG NUMBER: 4SNLED-LD5-60HL-LN-UNV-L940-CD1-U

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
112.5°	82.3	86.6	88.7	90.9	91.9	93.0	93.0	93.0	93.0	93.0	93.0
115°	75.9	80.2	82.3	84.5	85.5	86.6	86.6	86.6	86.6	86.6	86.6
117.5°	70.6	74.8	77.0	78.0	79.1	80.2	81.3	81.3	81.3	81.3	80.2
120°	65.2	68.4	70.6	72.7	73.8	74.8	74.8	74.8	74.8	74.8	74.8
122.5°	59.9	63.1	65.2	67.4	68.4	69.5	69.5	69.5	69.5	69.5	69.5
125°	54.5	57.7	59.9	62.0	63.1	64.1	64.1	64.1	64.1	64.1	64.1
127.5°	49.2	52.4	55.6	56.7	57.7	58.8	58.8	58.8	59.9	58.8	58.8
130°	43.8	47.0	50.2	51.3	52.4	53.5	54.5	54.5	54.5	54.5	53.5
132.5°	39.6	42.8	44.9	46.0	48.1	48.1	49.2	49.2	49.2	49.2	48.1
135°	36.4	38.5	40.6	41.7	43.8	43.8	43.8	44.9	44.9	43.8	42.8
137.5°	32.1	34.2	36.4	37.4	38.5	39.6	39.6	40.6	39.6	39.6	39.6
140°	29.9	31.0	33.1	34.2	35.3	35.3	35.3	36.4	36.4	35.3	35.3
142.5°	25.7	27.8	29.9	31.0	32.1	32.1	32.1	32.1	32.1	32.1	32.1
145°	21.4	24.6	25.7	27.8	27.8	28.9	28.9	28.9	28.9	28.9	27.8
147.5°	18.2	20.3	23.5	24.6	24.6	25.7	25.7	25.7	25.7	25.7	24.6
150°	13.9	16.0	19.2	21.4	21.4	22.5	22.5	22.5	22.5	21.4	21.4
152.5°	11.8	13.9	15.0	17.1	18.2	18.2	18.2	19.2	18.2	18.2	18.2
155°	10.7	11.8	12.8	13.9	15.0	16.0	16.0	16.0	16.0	15.0	15.0
157.5°	8.6	9.6	10.7	11.8	12.8	13.9	13.9	13.9	13.9	13.9	12.8
160°	6.4	7.5	8.6	8.6	9.6	10.7	11.8	10.7	10.7	10.7	10.7
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: P1213837

CATALOG NUMBER: 4SNLED-LD5-60HL-LN-UNV-L940-CD1-U

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	1943.7	1943.7	1943.7	1943.7	1943.7	1943.7	1943.7	1943.7	1943.7	1943.7	1943.7
2.5°	1939.4	1938.4	1941.6	1936.2	1920.2	1924.5	1922.3	1931.9	1934.1	1936.2	1945.8
5°	1939.4	1938.4	1940.5	1936.2	1919.1	1922.3	1920.2	1929.8	1931.9	1933.0	1942.6
7.5°	1935.1	1934.1	1937.3	1931.9	1913.8	1918.0	1914.8	1924.5	1925.5	1926.6	1935.1
10°	1926.6	1925.5	1927.7	1923.4	1905.2	1909.5	1905.2	1914.8	1914.8	1917.0	1923.4
12.5°	1913.8	1911.6	1915.9	1910.6	1890.2	1895.6	1893.5	1899.9	1900.9	1902.0	1908.4
15°	1895.6	1893.5	1896.7	1893.5	1875.3	1876.3	1873.1	1882.8	1883.8	1881.7	1888.1
17.5°	1868.9	1866.7	1873.1	1871.0	1852.8	1857.1	1856.0	1858.2	1861.4	1856.0	1864.6
20°	1835.7	1837.9	1840.0	1841.1	1827.2	1827.2	1826.1	1830.4	1833.6	1829.3	1835.7
22.5°	1786.5	1791.9	1798.3	1800.4	1790.8	1789.7	1796.2	1794.0	1797.2	1795.1	1799.4
25°	1724.5	1735.2	1741.6	1748.0	1742.7	1744.8	1754.5	1756.6	1756.6	1755.5	1759.8
27.5°	1647.5	1661.4	1673.2	1687.1	1681.8	1686.0	1702.1	1704.2	1708.5	1704.2	1712.8
30°	1555.6	1568.4	1590.9	1611.2	1613.3	1619.8	1642.2	1644.3	1656.1	1651.8	1655.0
32.5°	1463.7	1470.1	1495.7	1516.0	1528.9	1544.9	1569.5	1573.8	1589.8	1593.0	1593.0
35°	1348.2	1366.4	1389.9	1418.8	1434.8	1451.9	1485.0	1491.5	1515.0	1522.5	1531.0
37.5°	1250.9	1268.0	1283.0	1312.9	1341.8	1361.0	1387.7	1403.8	1428.4	1442.3	1453.0
40°	1147.2	1161.1	1177.1	1207.1	1231.7	1260.5	1287.2	1306.5	1337.5	1353.5	1367.4
42.5°	1048.8	1059.5	1076.6	1098.0	1123.7	1155.7	1181.4	1203.9	1237.0	1259.5	1275.5
45°	961.2	967.6	982.5	998.6	1021.0	1054.2	1078.8	1107.6	1134.4	1157.9	1177.1
47.5°	878.8	887.4	894.9	905.6	925.9	946.2	975.1	1002.9	1029.6	1055.2	1074.5
50°	802.9	802.9	814.7	822.2	836.1	854.2	876.7	895.9	929.1	947.3	971.9
52.5°	729.2	733.4	739.8	744.1	754.8	766.6	784.8	800.8	828.6	845.7	869.2
55°	663.9	668.2	671.4	673.6	680.0	693.9	700.3	713.1	732.4	746.3	766.6
57.5°	601.9	604.1	607.3	608.3	609.4	618.0	623.3	626.5	645.8	659.7	676.8
60°	545.3	545.3	548.5	547.4	546.3	550.6	549.5	552.7	564.5	573.1	580.5
62.5°	491.8	491.8	492.9	490.7	489.7	489.7	485.4	488.6	491.8	492.9	498.2
65°	442.6	448.0	443.7	444.8	438.3	436.2	434.1	427.7	426.6	422.3	424.4
67.5°	398.8	403.1	398.8	398.8	393.4	389.2	383.8	373.1	369.9	361.4	359.2
70°	363.5	360.3	362.4	359.2	352.8	347.5	340.0	331.4	320.7	310.1	302.6
72.5°	329.3	329.3	327.2	324.0	320.7	310.1	301.5	291.9	279.0	265.1	254.5
75°	296.2	297.2	297.2	294.0	288.7	279.0	269.4	255.5	241.6	225.6	211.7
77.5°	272.6	272.6	272.6	267.3	261.9	253.4	241.6	226.7	211.7	192.4	176.4
80°	250.2	249.1	249.1	242.7	237.3	227.7	216.0	201.0	185.0	164.6	146.5
82.5°	232.0	230.9	228.8	223.5	216.0	206.3	194.6	178.5	161.4	143.3	120.8
85°	212.8	211.7	209.6	204.2	196.7	188.2	175.3	159.3	142.2	121.9	100.5
87.5°	195.7	194.6	191.4	188.2	179.6	170.0	157.2	142.2	124.0	104.8	83.4
90°	183.9	181.8	179.6	175.3	167.9	157.2	144.3	128.3	110.1	90.9	69.5
92.5°	170.0	168.9	165.7	161.4	155.0	144.3	131.5	116.5	98.4	80.2	59.9
95°	156.1	155.0	152.9	148.6	142.2	132.6	120.8	105.8	88.7	70.6	52.4
97.5°	143.3	143.3	140.1	136.9	129.4	121.9	110.1	96.2	80.2	64.1	47.0
100°	132.6	132.6	129.4	125.1	119.7	112.3	100.5	87.7	72.7	57.7	40.6
102.5°	123.0	121.9	119.7	115.5	110.1	102.6	91.9	80.2	66.3	51.3	36.4
105°	114.4	113.3	111.2	106.9	102.6	94.1	85.5	73.8	59.9	46.0	32.1
107.5°	105.8	104.8	103.7	99.4	94.1	86.6	78.0	66.3	54.5	41.7	28.9
110°	98.4	97.3	95.2	90.9	85.5	79.1	70.6	60.9	49.2	37.4	25.7

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CATALOG NUMBER: 4SNLED-LD5-60HL-LN-UNV-L940-CD1-U

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
112.5°	91.9	90.9	88.7	84.5	80.2	72.7	65.2	54.5	44.9	34.2	22.5
115°	85.5	84.5	82.3	78.0	72.7	66.3	58.8	50.2	39.6	29.9	20.3
117.5°	79.1	78.0	75.9	72.7	67.4	60.9	53.5	44.9	35.3	27.8	18.2
120°	73.8	71.6	69.5	66.3	60.9	55.6	48.1	40.6	32.1	24.6	16.0
122.5°	68.4	66.3	64.1	60.9	55.6	50.2	42.8	36.4	29.9	22.5	15.0
125°	62.0	60.9	58.8	55.6	50.2	44.9	39.6	33.1	26.7	20.3	12.8
127.5°	56.7	55.6	53.5	49.2	44.9	40.6	35.3	29.9	23.5	17.1	11.8
130°	52.4	50.2	48.1	44.9	41.7	37.4	32.1	26.7	21.4	15.0	10.7
132.5°	47.0	44.9	42.8	40.6	37.4	33.1	28.9	23.5	19.2	13.9	9.6
135°	42.8	40.6	38.5	36.4	33.1	29.9	25.7	21.4	17.1	12.8	8.6
137.5°	37.4	36.4	35.3	33.1	29.9	26.7	23.5	18.2	15.0	11.8	7.5
140°	34.2	33.1	32.1	28.9	26.7	23.5	20.3	16.0	12.8	9.6	6.4
142.5°	31.0	29.9	27.8	25.7	23.5	21.4	17.1	15.0	11.8	8.6	6.4
145°	26.7	25.7	24.6	22.5	20.3	17.1	15.0	12.8	10.7	7.5	5.3
147.5°	24.6	23.5	21.4	19.2	17.1	15.0	13.9	11.8	8.6	6.4	4.3
150°	20.3	19.2	18.2	16.0	15.0	13.9	11.8	9.6	7.5	5.3	4.3
152.5°	17.1	16.0	15.0	15.0	12.8	11.8	9.6	8.6	6.4	5.3	3.2
155°	15.0	15.0	13.9	12.8	10.7	9.6	8.6	6.4	5.3	4.3	3.2
157.5°	12.8	11.8	10.7	10.7	9.6	8.6	6.4	5.3	4.3	4.3	3.2
160°	10.7	9.6	9.6	8.6	7.5	6.4	5.3	5.3	4.3	3.2	3.2
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: P1213837

CATALOG NUMBER: 4SNLED-LD5-60HL-LN-UNV-L940-CD1-U

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
0°	1943.7	1943.7	1943.7	1943.7	1943.7	1943.7	1943.7	1943.7	1943.7	1943.7	1943.7
2.5°	1946.9	1935.1	1945.8	1959.7	1959.7	1957.6	1955.5	1959.7	1970.4	1966.2	1953.3
5°	1943.7	1931.9	1941.6	1955.5	1955.5	1952.3	1950.1	1953.3	1965.1	1959.7	1948.0
7.5°	1937.3	1926.6	1933.0	1945.8	1945.8	1942.6	1940.5	1944.8	1954.4	1949.0	1936.2
10°	1925.5	1913.8	1921.3	1933.0	1931.9	1929.8	1926.6	1931.9	1940.5	1933.0	1918.0
12.5°	1910.6	1898.8	1905.2	1915.9	1914.8	1910.6	1908.4	1911.6	1919.1	1914.8	1898.8
15°	1890.2	1878.5	1883.8	1894.5	1891.3	1888.1	1883.8	1884.9	1894.5	1887.0	1869.9
17.5°	1865.7	1852.8	1857.1	1866.7	1863.5	1860.3	1855.0	1856.0	1866.7	1856.0	1837.9
20°	1835.7	1821.8	1825.0	1836.8	1831.4	1826.1	1820.8	1820.8	1831.4	1819.7	1799.4
22.5°	1803.6	1789.7	1791.9	1800.4	1796.2	1786.5	1781.2	1784.4	1789.7	1774.8	1753.4
25°	1764.1	1745.9	1749.1	1757.7	1754.5	1741.6	1736.3	1738.4	1736.3	1724.5	1702.1
27.5°	1718.1	1698.9	1701.0	1706.4	1702.1	1690.3	1683.9	1685.0	1680.7	1665.7	1640.1
30°	1660.4	1650.8	1649.7	1652.9	1646.5	1634.7	1627.2	1625.1	1624.0	1602.6	1571.6
32.5°	1601.6	1593.0	1587.7	1592.0	1584.5	1572.7	1559.9	1559.9	1549.2	1528.9	1502.1
35°	1541.7	1527.8	1522.5	1525.7	1517.1	1502.1	1491.5	1486.1	1470.1	1444.4	1415.5
37.5°	1464.7	1455.1	1448.7	1451.9	1442.3	1431.6	1411.3	1405.9	1388.8	1353.5	1317.2
40°	1381.3	1373.8	1367.4	1370.6	1360.0	1343.9	1325.7	1317.2	1297.9	1258.4	1229.5
42.5°	1291.5	1288.3	1280.8	1292.6	1271.2	1255.2	1237.0	1223.1	1203.9	1161.1	1127.9
45°	1196.4	1203.9	1186.7	1190.0	1176.1	1162.2	1142.9	1122.6	1103.4	1062.7	1025.3
47.5°	1095.9	1101.2	1089.5	1091.6	1076.6	1063.8	1046.7	1021.0	999.6	964.4	931.2
50°	992.2	990.0	990.0	987.9	976.1	960.1	943.0	919.5	898.1	866.0	838.2
52.5°	882.0	886.3	888.5	893.8	878.8	869.2	842.5	822.2	806.1	773.0	749.5
55°	776.2	791.2	786.9	789.0	771.9	764.4	743.1	727.0	703.5	684.3	669.3
57.5°	680.0	683.2	685.3	688.5	681.0	666.1	649.0	636.1	618.0	601.9	591.2
60°	587.0	587.0	588.0	593.4	585.9	573.1	560.2	550.6	537.8	528.2	521.7
62.5°	499.3	506.8	507.8	503.6	493.9	487.5	479.0	473.6	465.1	461.9	459.7
65°	418.0	418.0	418.0	420.2	414.8	410.6	405.2	404.1	407.3	403.1	405.2
67.5°	349.6	346.4	344.3	345.3	343.2	341.1	340.0	343.2	349.6	349.6	355.0
70°	290.8	284.4	280.1	280.1	280.1	281.2	284.4	290.8	301.5	305.8	313.3
72.5°	242.7	228.8	222.4	222.4	223.5	227.7	237.3	249.1	258.7	267.3	276.9
75°	196.7	182.8	173.2	172.1	174.3	180.7	194.6	205.3	221.3	233.1	244.8
77.5°	159.3	142.2	130.4	129.4	132.6	142.2	159.3	173.2	191.4	204.2	217.0
80°	127.2	108.0	98.4	91.9	97.3	109.1	128.3	145.4	162.5	179.6	195.7
82.5°	101.6	83.4	68.4	62.0	68.4	84.5	102.6	123.0	140.1	158.2	174.3
85°	80.2	60.9	43.8	37.4	44.9	62.0	82.3	102.6	121.9	140.1	156.1
87.5°	63.1	43.8	26.7	18.2	27.8	46.0	65.2	85.5	105.8	124.0	140.1
90°	49.2	31.0	15.0	2.1	16.0	33.1	52.4	71.6	91.9	110.1	126.2
92.5°	41.7	23.5	8.6	0.0	9.6	24.6	42.8	62.0	80.2	98.4	114.4
95°	35.3	19.2	6.4	0.0	6.4	19.2	35.3	52.4	70.6	88.7	104.8
97.5°	29.9	15.0	4.3	0.0	4.3	15.0	28.9	46.0	62.0	79.1	94.1
100°	25.7	12.8	3.2	0.0	3.2	11.8	24.6	39.6	55.6	71.6	85.5
102.5°	22.5	10.7	2.1	0.0	2.1	9.6	20.3	34.2	48.1	63.1	77.0
105°	19.2	8.6	2.1	0.0	1.1	7.5	17.1	29.9	42.8	56.7	69.5
107.5°	17.1	7.5	2.1	0.0	1.1	6.4	15.0	25.7	38.5	50.2	62.0
110°	15.0	6.4	2.1	0.0	1.1	4.3	12.8	22.5	33.1	44.9	56.7

TEST NUMBER: P1213837

CATALOG NUMBER: 4SNLED-LD5-60HL-LN-UNV-L940-CD1-U

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
112.5°	12.8	5.3	1.1	0.0	0.0	3.2	10.7	19.2	28.9	40.6	50.2
115°	11.8	5.3	1.1	0.0	0.0	2.1	8.6	17.1	25.7	36.4	44.9
117.5°	10.7	4.3	1.1	0.0	1.1	2.1	7.5	15.0	22.5	31.0	40.6
120°	9.6	4.3	1.1	0.0	1.1	1.1	5.3	12.8	19.2	27.8	35.3
122.5°	8.6	4.3	1.1	0.0	1.1	1.1	4.3	10.7	17.1	24.6	31.0
125°	7.5	3.2	2.1	1.1	1.1	1.1	3.2	8.6	15.0	20.3	27.8
127.5°	7.5	3.2	2.1	1.1	1.1	1.1	2.1	7.5	11.8	18.2	24.6
130°	6.4	3.2	2.1	1.1	1.1	1.1	1.1	5.3	10.7	15.0	20.3
132.5°	5.3	3.2	2.1	1.1	1.1	1.1	1.1	3.2	7.5	12.8	17.1
135°	5.3	3.2	2.1	1.1	1.1	1.1	1.1	2.1	5.3	9.6	13.9
137.5°	4.3	2.1	2.1	1.1	1.1	1.1	1.1	1.1	4.3	7.5	10.7
140°	4.3	2.1	2.1	1.1	1.1	1.1	1.1	1.1	3.2	5.3	8.6
142.5°	3.2	2.1	2.1	1.1	1.1	1.1	1.1	1.1	2.1	4.3	6.4
145°	3.2	2.1	2.1	1.1	1.1	1.1	1.1	1.1	1.1	2.1	4.3
147.5°	3.2	3.2	2.1	1.1	1.1	1.1	1.1	1.1	1.1	2.1	3.2
150°	3.2	2.1	2.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	2.1
152.5°	3.2	2.1	2.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	2.1
155°	3.2	2.1	2.1	1.1	1.1	1.1	1.1	1.1	1.1	2.1	2.1
157.5°	3.2	2.1	2.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	2.1
160°	3.2	2.1	2.1	1.1	2.1	1.1	2.1	2.1	2.1	2.1	2.1
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: P1213837

CATALOG NUMBER: 4SNLED-LD5-60HL-LN-UNV-L940-CD1-U

CANDELA DISTRIBUTION (continued):

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
0°	1943.7	1943.7	1943.7	1943.7	1943.7	1943.7	1943.7	1943.7	1943.7	1943.7	1943.7
2.5°	1949.0	1928.7	1939.4	1936.2	1940.5	1949.0	1948.0	1945.8	1945.8	1942.6	1938.4
5°	1942.6	1923.4	1933.0	1927.7	1933.0	1940.5	1939.4	1936.2	1938.4	1933.0	1927.7
7.5°	1929.8	1912.7	1921.3	1917.0	1921.3	1928.7	1925.5	1924.5	1926.6	1918.0	1914.8
10°	1914.8	1895.6	1905.2	1899.9	1905.2	1910.6	1908.4	1904.1	1908.4	1899.9	1896.7
12.5°	1891.3	1875.3	1881.7	1879.6	1882.8	1888.1	1883.8	1880.6	1882.8	1875.3	1868.9
15°	1865.7	1849.6	1855.0	1851.8	1853.9	1860.3	1852.8	1851.8	1849.6	1842.1	1840.0
17.5°	1832.5	1817.5	1822.9	1817.5	1820.8	1818.6	1817.5	1812.2	1812.2	1803.6	1797.2
20°	1791.9	1779.1	1775.8	1771.6	1775.8	1771.6	1765.2	1760.9	1759.8	1751.3	1745.9
22.5°	1744.8	1729.9	1732.0	1720.3	1721.3	1714.9	1704.2	1699.9	1695.7	1686.0	1678.6
25°	1688.2	1673.2	1662.5	1655.0	1645.4	1644.3	1630.4	1619.8	1618.7	1606.9	1605.9
27.5°	1624.0	1606.9	1598.4	1580.2	1568.4	1558.8	1547.1	1536.4	1531.0	1518.2	1509.6
30°	1550.3	1531.0	1509.6	1496.8	1478.6	1471.1	1450.8	1438.0	1433.7	1419.8	1413.4
32.5°	1466.9	1446.6	1429.4	1404.9	1384.5	1373.8	1353.5	1340.7	1335.4	1320.4	1311.8
35°	1376.0	1353.5	1333.2	1309.7	1293.7	1275.5	1250.9	1238.1	1226.3	1221.0	1214.5
37.5°	1280.8	1256.2	1232.7	1209.2	1195.3	1173.9	1152.5	1144.0	1130.1	1124.7	1118.3
40°	1182.5	1157.9	1135.4	1113.0	1096.9	1077.7	1058.5	1055.2	1040.3	1034.9	1030.7
42.5°	1085.2	1059.5	1033.9	1017.8	1006.1	986.8	974.0	970.8	958.0	954.7	954.7
45°	997.5	965.4	944.1	930.2	920.5	904.5	893.8	891.7	881.0	878.8	878.8
47.5°	903.4	873.5	857.5	848.9	840.3	828.6	822.2	822.2	811.5	809.3	808.3
50°	815.8	788.0	776.2	767.6	766.6	758.0	752.7	750.5	750.5	743.1	744.1
52.5°	732.4	718.5	708.8	703.5	697.1	691.7	687.5	687.5	684.3	678.9	681.0
55°	655.4	639.3	640.4	636.1	632.9	629.7	630.8	624.4	623.3	619.0	622.2
57.5°	578.4	578.4	576.3	573.1	567.7	569.9	569.9	569.9	564.5	561.3	564.5
60°	513.2	516.4	511.1	514.3	512.1	513.2	511.1	511.1	507.8	506.8	507.8
62.5°	455.5	460.8	458.7	462.9	460.8	461.9	464.0	459.7	457.6	455.5	457.6
65°	404.1	410.6	409.5	412.7	413.8	414.8	415.9	413.8	411.6	409.5	408.4
67.5°	359.2	365.6	369.9	371.0	372.1	375.3	374.2	372.1	369.9	366.7	365.6
70°	318.6	327.2	332.5	334.6	338.9	336.8	336.8	335.7	333.6	330.4	329.3
72.5°	284.4	294.0	299.4	301.5	305.8	305.8	304.7	303.6	301.5	298.3	297.2
75°	254.5	263.0	270.5	274.8	278.0	278.0	276.9	275.8	273.7	271.6	270.5
77.5°	230.9	238.4	244.8	250.2	252.3	253.4	252.3	250.2	250.2	249.1	248.0
80°	207.4	216.0	222.4	227.7	230.9	230.9	229.9	230.9	228.8	227.7	226.7
82.5°	187.1	196.7	204.2	209.6	211.7	212.8	211.7	212.8	210.6	210.6	210.6
85°	168.9	178.5	187.1	191.4	194.6	195.7	195.7	195.7	194.6	194.6	194.6
87.5°	154.0	163.6	172.1	176.4	179.6	180.7	180.7	181.8	179.6	179.6	179.6
90°	140.1	149.7	158.2	162.5	165.7	167.9	167.9	168.9	167.9	166.8	166.8
92.5°	127.2	137.9	146.5	150.7	154.0	157.2	157.2	158.2	156.1	156.1	156.1
95°	116.5	127.2	134.7	140.1	143.3	145.4	146.5	146.5	145.4	145.4	145.4
97.5°	106.9	116.5	124.0	129.4	132.6	133.6	134.7	135.8	134.7	134.7	134.7
100°	97.3	106.9	114.4	118.7	123.0	124.0	125.1	126.2	126.2	125.1	125.1
102.5°	88.7	98.4	104.8	110.1	113.3	115.5	116.5	116.5	116.5	116.5	116.5
105°	80.2	89.8	96.2	101.6	104.8	106.9	108.0	109.1	109.1	108.0	108.0
107.5°	72.7	81.3	88.7	93.0	97.3	99.4	100.5	100.5	101.6	100.5	100.5
110°	65.2	74.8	81.3	85.5	89.8	91.9	93.0	94.1	94.1	94.1	94.1



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CATALOG NUMBER: 4SNLED-LD5-60HL-LN-UNV-L940-CD1-U

CANDELA DISTRIBUTION (continued):

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
112.5°	59.9	67.4	73.8	78.0	82.3	84.5	85.5	86.6	87.7	86.6	86.6
115°	53.5	60.9	67.4	71.6	74.8	77.0	79.1	80.2	80.2	81.3	80.2
117.5°	48.1	54.5	60.9	65.2	68.4	71.6	72.7	73.8	74.8	73.8	73.8
120°	42.8	49.2	54.5	58.8	62.0	65.2	66.3	67.4	68.4	67.4	67.4
122.5°	38.5	43.8	49.2	53.5	56.7	58.8	60.9	60.9	62.0	62.0	62.0
125°	34.2	39.6	43.8	48.1	51.3	53.5	54.5	55.6	55.6	56.7	56.7
127.5°	29.9	34.2	39.6	42.8	46.0	48.1	49.2	50.2	50.2	51.3	51.3
130°	25.7	29.9	34.2	37.4	40.6	42.8	43.8	44.9	46.0	46.0	46.0
132.5°	22.5	26.7	29.9	33.1	35.3	37.4	39.6	40.6	40.6	40.6	40.6
135°	18.2	22.5	25.7	28.9	31.0	33.1	34.2	36.4	36.4	36.4	36.4
137.5°	15.0	19.2	22.5	24.6	26.7	28.9	29.9	31.0	32.1	32.1	32.1
140°	11.8	15.0	18.2	21.4	23.5	24.6	26.7	26.7	27.8	27.8	27.8
142.5°	8.6	11.8	13.9	17.1	19.2	21.4	22.5	23.5	23.5	23.5	23.5
145°	6.4	8.6	10.7	12.8	16.0	17.1	18.2	19.2	20.3	20.3	20.3
147.5°	4.3	6.4	7.5	9.6	11.8	13.9	15.0	16.0	17.1	17.1	17.1
150°	3.2	4.3	6.4	7.5	8.6	10.7	12.8	12.8	13.9	13.9	12.8
152.5°	2.1	3.2	4.3	5.3	6.4	7.5	9.6	9.6	10.7	10.7	10.7
155°	2.1	2.1	2.1	3.2	4.3	5.3	6.4	7.5	7.5	7.5	7.5
157.5°	2.1	2.1	2.1	2.1	2.1	3.2	4.3	5.3	5.3	5.3	5.3
160°	2.1	2.1	1.1	1.1	2.1	2.1	2.1	2.1	3.2	3.2	3.2
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: P1213837

CATALOG NUMBER: 4SNLED-LD5-60HL-LN-UNV-L940-CD1-U

CANDELA DISTRIBUTION (continued):

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°
0°	1943.7	1943.7	1943.7	1943.7	1943.7	1943.7	1943.7	1943.7	1943.7	1943.7	1943.7
2.5°	1941.6	1943.7	1943.7	1941.6	1940.5	1944.8	1939.4	1919.1	1925.5	1927.7	1934.1
5°	1931.9	1934.1	1934.1	1934.1	1931.9	1936.2	1930.9	1910.6	1918.0	1921.3	1925.5
7.5°	1918.0	1919.1	1921.3	1920.2	1918.0	1924.5	1919.1	1898.8	1904.1	1909.5	1914.8
10°	1899.9	1899.9	1900.9	1903.1	1900.9	1906.3	1900.9	1882.8	1888.1	1891.3	1897.7
12.5°	1875.3	1877.4	1878.5	1877.4	1876.3	1880.6	1878.5	1861.4	1863.5	1869.9	1876.3
15°	1842.1	1842.1	1847.5	1845.3	1845.3	1849.6	1851.8	1832.5	1835.7	1845.3	1851.8
17.5°	1801.5	1802.6	1806.9	1809.0	1807.9	1815.4	1816.5	1801.5	1800.4	1812.2	1818.6
20°	1749.1	1751.3	1756.6	1760.9	1760.9	1769.4	1772.6	1763.0	1764.1	1776.9	1779.1
22.5°	1685.0	1685.0	1694.6	1701.0	1706.4	1711.7	1721.3	1712.8	1712.8	1729.9	1739.5
25°	1605.9	1613.3	1616.5	1629.4	1636.9	1651.8	1660.4	1661.4	1662.5	1678.6	1685.0
27.5°	1518.2	1520.3	1529.9	1544.9	1553.5	1567.4	1583.4	1586.6	1592.0	1613.3	1623.0
30°	1418.8	1425.2	1429.4	1450.8	1462.6	1480.8	1501.1	1508.6	1512.8	1541.7	1553.5
32.5°	1317.2	1319.3	1337.5	1349.3	1363.2	1382.4	1405.9	1419.8	1428.4	1458.3	1475.4
35°	1215.6	1219.9	1234.9	1249.8	1263.7	1283.0	1307.6	1326.8	1341.8	1368.5	1391.0
37.5°	1122.6	1133.3	1136.5	1151.5	1162.2	1181.4	1198.5	1226.3	1241.3	1269.1	1297.9
40°	1039.2	1042.4	1044.6	1059.5	1067.0	1085.2	1109.8	1127.9	1148.3	1168.6	1202.8
42.5°	956.9	959.0	962.2	970.8	979.3	992.2	1010.3	1028.5	1049.9	1079.8	1102.3
45°	881.0	883.1	885.3	890.6	898.1	909.8	921.6	934.4	955.8	981.5	1005.0
47.5°	810.4	814.7	814.7	815.8	821.1	830.7	839.3	855.3	867.1	881.0	907.7
50°	743.1	746.3	747.3	747.3	750.5	757.0	759.1	769.8	780.5	793.3	812.5
52.5°	680.0	680.0	678.9	683.2	683.2	687.5	688.5	694.9	702.4	716.3	724.9
55°	620.1	620.1	623.3	621.2	621.2	623.3	622.2	623.3	629.7	638.3	645.8
57.5°	562.4	561.3	564.5	562.4	561.3	563.4	565.6	561.3	562.4	570.9	570.9
60°	504.6	505.7	508.9	506.8	506.8	506.8	504.6	502.5	500.4	505.7	507.8
62.5°	458.7	455.5	458.7	455.5	457.6	456.5	454.4	450.1	451.2	449.0	446.9
65°	410.6	410.6	411.6	408.4	410.6	410.6	407.3	406.3	399.9	397.7	392.4
67.5°	368.9	368.9	369.9	367.8	367.8	368.9	365.6	362.4	356.0	352.8	345.3
70°	332.5	332.5	332.5	331.4	331.4	331.4	329.3	325.0	318.6	313.3	303.6
72.5°	299.4	300.4	299.4	299.4	302.6	299.4	296.2	291.9	286.5	275.8	267.3
75°	272.6	273.7	272.6	272.6	272.6	271.6	270.5	264.1	257.7	249.1	236.3
77.5°	249.1	249.1	250.2	249.1	249.1	248.0	244.8	239.5	232.0	224.5	209.6
80°	226.7	227.7	228.8	229.9	227.7	226.7	223.5	219.2	209.6	201.0	186.0
82.5°	210.6	209.6	210.6	211.7	209.6	208.5	205.3	199.9	192.4	180.7	165.7
85°	194.6	193.5	193.5	194.6	193.5	191.4	188.2	182.8	175.3	163.6	148.6
87.5°	178.5	179.6	180.7	179.6	178.5	176.4	173.2	167.9	159.3	149.7	133.6
90°	166.8	166.8	166.8	166.8	165.7	163.6	160.4	154.0	146.5	134.7	120.8
92.5°	156.1	156.1	156.1	156.1	155.0	151.8	148.6	143.3	134.7	123.0	110.1
95°	145.4	146.5	145.4	145.4	143.3	142.2	136.9	131.5	124.0	112.3	98.4
97.5°	133.6	134.7	133.6	133.6	132.6	130.4	127.2	120.8	113.3	102.6	89.8
100°	125.1	125.1	124.0	124.0	123.0	120.8	116.5	111.2	103.7	93.0	80.2
102.5°	115.5	116.5	115.5	115.5	113.3	111.2	108.0	102.6	95.2	84.5	72.7
105°	108.0	108.0	106.9	106.9	104.8	102.6	99.4	93.0	86.6	77.0	65.2
107.5°	100.5	100.5	99.4	99.4	97.3	95.2	90.9	85.5	79.1	69.5	58.8
110°	93.0	93.0	93.0	91.9	89.8	86.6	83.4	78.0	71.6	63.1	52.4

TEST NUMBER: P1213837

CATALOG NUMBER: 4SNLED-LD5-60HL-LN-UNV-L940-CD1-U

CANDELA DISTRIBUTION (continued):

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°
112.5°	87.7	86.6	85.5	84.5	82.3	80.2	75.9	70.6	64.1	56.7	47.0
115°	80.2	80.2	79.1	78.0	75.9	72.7	69.5	65.2	58.8	50.2	41.7
117.5°	73.8	73.8	72.7	71.6	69.5	66.3	63.1	58.8	52.4	44.9	37.4
120°	67.4	67.4	66.3	65.2	63.1	59.9	57.7	52.4	47.0	39.6	33.1
122.5°	62.0	60.9	60.9	58.8	57.7	54.5	51.3	47.0	41.7	35.3	28.9
125°	55.6	55.6	54.5	53.5	52.4	49.2	46.0	41.7	36.4	31.0	25.7
127.5°	50.2	50.2	49.2	48.1	47.0	43.8	40.6	37.4	32.1	26.7	21.4
130°	44.9	44.9	43.8	42.8	41.7	38.5	36.4	32.1	27.8	23.5	18.2
132.5°	40.6	40.6	39.6	38.5	36.4	34.2	32.1	27.8	24.6	20.3	16.0
135°	36.4	35.3	35.3	34.2	32.1	29.9	27.8	24.6	20.3	17.1	12.8
137.5°	32.1	31.0	29.9	28.9	27.8	25.7	23.5	21.4	18.2	13.9	10.7
140°	27.8	26.7	26.7	25.7	23.5	22.5	20.3	17.1	15.0	11.8	8.6
142.5°	23.5	23.5	22.5	21.4	20.3	19.2	17.1	15.0	11.8	9.6	6.4
145°	20.3	19.2	19.2	18.2	17.1	15.0	13.9	11.8	9.6	7.5	5.3
147.5°	16.0	16.0	16.0	15.0	13.9	12.8	11.8	9.6	7.5	5.3	3.2
150°	12.8	12.8	12.8	11.8	10.7	9.6	8.6	7.5	5.3	3.2	2.1
152.5°	10.7	10.7	9.6	9.6	8.6	7.5	6.4	5.3	3.2	2.1	2.1
155°	7.5	7.5	7.5	6.4	6.4	5.3	4.3	3.2	2.1	2.1	2.1
157.5°	5.3	5.3	5.3	4.3	4.3	3.2	3.2	2.1	2.1	2.1	2.1
160°	3.2	3.2	3.2	3.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1
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: P1213837

CATALOG NUMBER: 4SNLED-LD5-60HL-LN-UNV-L940-CD1-U

CANDELA DISTRIBUTION (continued):

	330°	335°	340°	345°	350°	355°	360°
0°	1943.7	1943.7	1943.7	1943.7	1943.7	1943.7	1943.7
2.5°	1930.9	1929.8	1938.4	1938.4	1928.7	1943.7	1959.7
5°	1924.5	1923.4	1931.9	1931.9	1923.4	1938.4	1955.5
7.5°	1911.6	1912.7	1921.3	1923.4	1912.7	1926.6	1944.8
10°	1897.7	1896.7	1906.3	1908.4	1899.9	1912.7	1929.8
12.5°	1875.3	1875.3	1884.9	1888.1	1879.6	1894.5	1910.6
15°	1851.8	1851.8	1858.2	1863.5	1856.0	1869.9	1886.0
17.5°	1821.8	1820.8	1827.2	1833.6	1826.1	1841.1	1858.2
20°	1783.3	1783.3	1790.8	1798.3	1793.0	1806.9	1826.1
22.5°	1742.7	1738.4	1751.3	1756.6	1753.4	1767.3	1786.5
25°	1691.4	1690.3	1703.1	1710.6	1706.4	1721.3	1738.4
27.5°	1635.8	1634.7	1647.5	1657.2	1655.0	1668.9	1688.2
30°	1568.4	1573.8	1585.5	1601.6	1596.2	1611.2	1631.5
32.5°	1497.9	1503.2	1517.1	1534.2	1535.3	1547.1	1567.4
35°	1413.4	1427.3	1436.9	1459.4	1463.7	1475.4	1496.8
37.5°	1324.7	1340.7	1361.0	1378.1	1386.7	1396.3	1420.9
40°	1225.2	1248.8	1271.2	1291.5	1302.2	1311.8	1335.4
42.5°	1135.4	1153.6	1175.0	1195.3	1214.5	1223.1	1247.7
45°	1033.9	1055.2	1074.5	1099.1	1118.3	1127.9	1152.5
47.5°	934.4	955.8	981.5	998.6	1018.9	1028.5	1052.0
50°	839.3	858.5	879.9	900.2	917.3	925.9	946.2
52.5°	745.2	765.5	785.8	798.7	816.8	823.2	840.3
55°	661.8	675.7	693.9	701.4	719.5	723.8	735.6
57.5°	581.6	591.2	597.7	610.5	623.3	632.9	646.8
60°	508.9	513.2	517.5	524.9	535.6	538.8	544.2
62.5°	443.7	442.6	451.2	453.3	454.4	465.1	459.7
65°	386.0	387.0	379.5	376.3	380.6	383.8	381.7
67.5°	337.8	331.4	325.0	317.5	311.1	314.3	311.1
70°	290.8	285.5	274.8	264.1	259.8	253.4	250.2
72.5°	253.4	240.6	229.9	216.0	208.5	201.0	195.7
75°	224.5	206.3	191.4	176.4	165.7	155.0	152.9
77.5°	194.6	177.5	160.4	144.3	128.3	116.5	112.3
80°	171.1	155.0	134.7	115.5	98.4	83.4	78.0
82.5°	149.7	132.6	112.3	91.9	72.7	56.7	50.2
85°	131.5	113.3	93.0	72.7	53.5	36.4	27.8
87.5°	117.6	97.3	77.0	57.7	37.4	20.3	10.7
90°	104.8	85.5	66.3	46.0	26.7	10.7	0.0
92.5°	93.0	74.8	55.6	37.4	20.3	6.4	1.1
95°	82.3	66.3	47.0	29.9	15.0	4.3	1.1
97.5°	73.8	57.7	40.6	24.6	11.8	3.2	1.1
100°	66.3	50.2	35.3	20.3	9.6	2.1	1.1
102.5°	58.8	44.9	29.9	17.1	7.5	1.1	1.1
105°	52.4	39.6	25.7	15.0	6.4	1.1	1.1
107.5°	47.0	35.3	22.5	12.8	4.3	1.1	1.1
110°	41.7	29.9	19.2	10.7	3.2	1.1	1.1



TEST NUMBER: P1213837

CATALOG NUMBER: 4SNLED-LD5-60HL-LN-UNV-L940-CD1-U

CANDELA DISTRIBUTION (continued):

	330°	335°	340°	345°	350°	355°	360°
112.5°	37.4	26.7	17.1	8.6	2.1	1.1	1.1
115°	33.1	23.5	15.0	7.5	2.1	1.1	1.1
117.5°	28.9	20.3	12.8	5.3	1.1	1.1	1.1
120°	25.7	18.2	10.7	4.3	1.1	1.1	1.1
122.5°	22.5	15.0	8.6	3.2	1.1	1.1	1.1
125°	19.2	12.8	7.5	2.1	1.1	1.1	1.1
127.5°	16.0	10.7	5.3	2.1	1.1	1.1	1.1
130°	13.9	8.6	4.3	1.1	1.1	1.1	1.1
132.5°	11.8	6.4	3.2	1.1	1.1	1.1	1.1
135°	9.6	5.3	2.1	1.1	1.1	1.1	1.1
137.5°	7.5	4.3	2.1	1.1	1.1	1.1	1.1
140°	5.3	3.2	1.1	1.1	1.1	1.1	1.1
142.5°	4.3	2.1	1.1	1.1	1.1	1.1	1.1
145°	3.2	2.1	1.1	1.1	1.1	1.1	1.1
147.5°	2.1	2.1	2.1	2.1	1.1	1.1	1.1
150°	2.1	2.1	1.1	1.1	2.1	1.1	1.1
152.5°	2.1	1.1	1.1	1.1	2.1	1.1	1.1
155°	2.1	2.1	2.1	2.1	2.1	2.1	1.1
157.5°	2.1	2.1	2.1	2.1	2.1	2.1	2.1
160°	2.1	2.1	2.1	2.1	2.1	2.1	2.1
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)