

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: P1213486

Luminaire Tested: 4SNLED-LD5-60HL-LN-UNV-L935-CD1-U

Issue Date: 3/29/2018

Test Information

Test Method: LM-79-2019
Report Number: P1213486
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-L935-CD1-U
Description: 4FT LINEAR SNLED LED FIXTURE
NARROW LENS
Light Source: -
Ballast/Driver: -

Summary

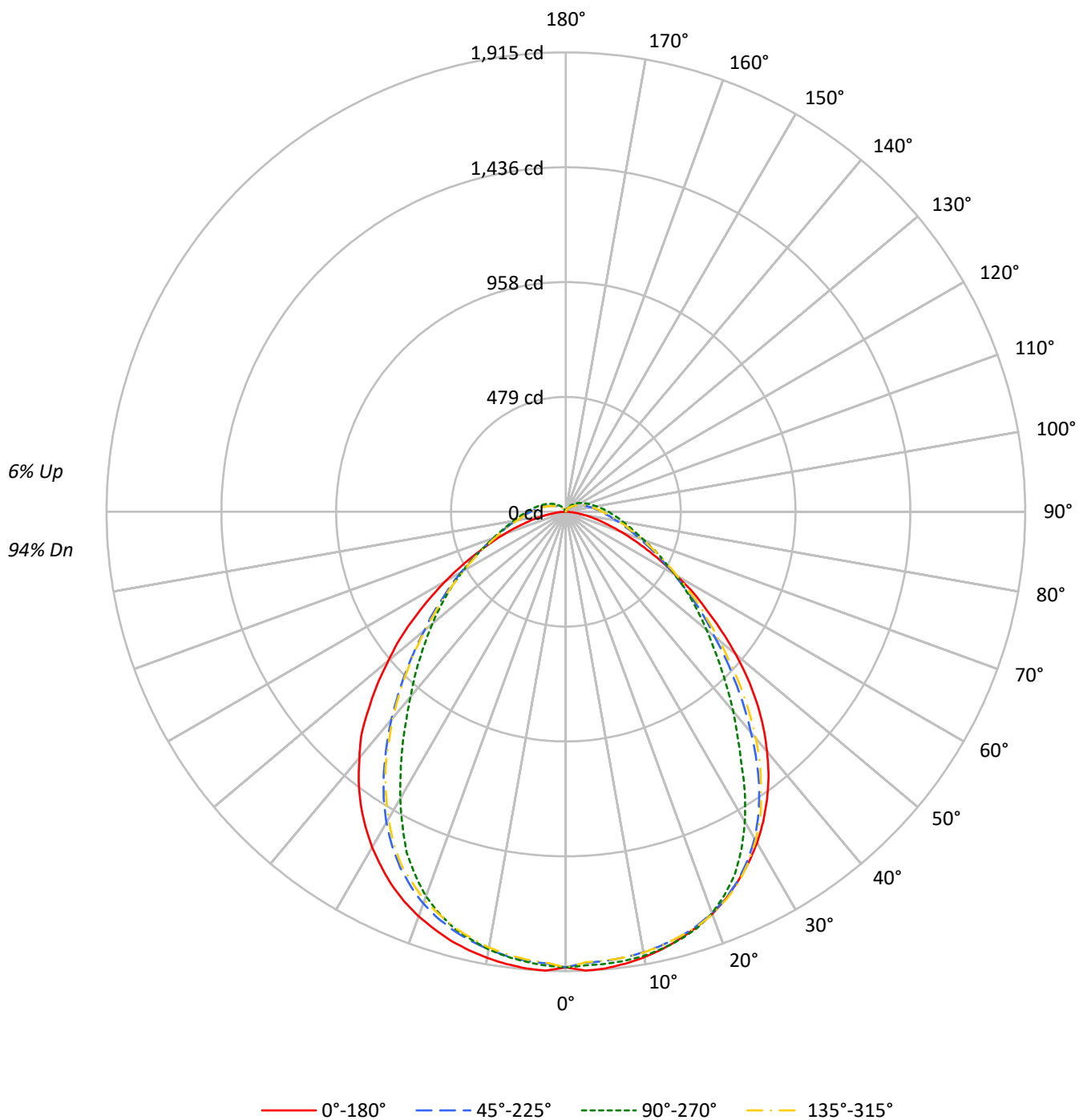
Lumens per Lamp: N/A
Luminaire Lumens: 4806.0 lumens
Efficiency: N/A
Efficacy: 111.8 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.14 / 1.24
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.12')
CIE Type: Direct

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°	15347	15347	15347	15347
5°	15456	14857	15456	14792
10°	15387	14463	15412	14262
15°	15287	14031	15357	13665
20°	15170	13475	15259	12906
25°	14927	12651	15092	11906
30°	14610	11440	14802	10590
35°	14118	9955	14390	9270
40°	13412	8707	13766	8078
45°	12479	7569	12884	7134
50°	11205	6651	11699	6315
55°	9693	5873	10397	5576
60°	8152	5157	8888	4860
65°	6683	4559	7356	4227
70°	5318	4045	5955	3742
75°	4177	3736	4703	3437
80°	3016	3604	3550	3294
85°	1858	3624	2500	3332

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 180°

Vertical Angle: 45°

Luminance: 12884 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	180.0	3.7
10°-20°	516.2	10.7
20°-30°	765.1	15.9
30°-40°	850.0	17.7
40°-50°	770.5	16.0
50°-60°	597.1	12.4
60°-70°	405.5	8.4
70°-80°	258.0	5.4
80°-90°	164.9	3.4
90°-100°	111.2	2.3
100°-110°	76.2	1.6
110°-120°	50.8	1.1
120°-130°	31.6	0.7
130°-140°	17.5	0.4
140°-150°	8.2	0.2
150°-160°	3.0	0.1
160°-170°	0.2	0.0
170°-180°	0.0	0.0
0°-30°	1461.4	30.4
0°-40°	2311.4	48.1
0°-60°	3679.0	76.6
0°-90°	4507.4	93.8
90°-120°	238.1	5.0
90°-150°	295.4	6.1
90°-180°	299.0	6.2
0°-180°	4806.0	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	1899	1899	1899	1899	1899	
5°	1910	1892	1910	1883	1910	181
15°	1843	1846	1851	1798	1843	520
25°	1698	1667	1717	1569	1698	782
35°	1462	1274	1491	1187	1462	912
45°	1126	911	1163	859	1126	865
55°	719	640	771	608	719	647
65°	373	430	410	399	373	374
75°	149	287	168	264	149	161
85°	27	207	37	190	27	33
90°	0	179	2	163	0	2
95°	1	152	0	142	1	1
105°	1	112	0	106	1	1
115°	1	85	0	78	1	1
125°	1	63	1	55	1	1
135°	1	44	1	36	1	1
145°	1	28	1	20	1	1
155°	1	16	1	7	1	1
165°	0	0	0	0	0	0
175°	0	0	0	0	0	0
180°	0	0	0	0	0	0

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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1899.1	1899.1	1899.1	1899.1	1899.1	1899.1	1899.1	1899.1	1899.1	1899.1	1899.1
2.5°	1914.7	1912.6	1910.5	1907.4	1910.5	1918.9	1913.7	1902.2	1900.1	1881.3	1889.7
5°	1910.5	1907.4	1905.3	1902.2	1906.4	1916.8	1911.6	1901.1	1898.0	1880.2	1889.7
7.5°	1900.1	1898.0	1894.9	1894.9	1899.1	1909.5	1905.3	1893.8	1891.7	1874.0	1884.4
10°	1885.5	1884.4	1882.3	1882.3	1886.5	1899.1	1893.8	1883.4	1881.3	1864.6	1876.1
12.5°	1866.7	1867.7	1864.6	1864.6	1870.8	1883.4	1879.2	1867.7	1865.6	1851.0	1862.5
15°	1842.6	1843.7	1841.6	1842.6	1848.9	1863.5	1858.3	1847.9	1845.8	1834.3	1843.7
17.5°	1815.5	1816.5	1816.5	1815.5	1822.8	1837.4	1833.2	1823.8	1820.7	1811.3	1822.8
20°	1784.1	1784.1	1784.1	1784.1	1792.5	1807.1	1801.9	1794.6	1788.3	1781.0	1790.4
22.5°	1745.5	1744.5	1745.5	1748.6	1757.0	1768.5	1765.3	1757.0	1747.6	1743.4	1750.7
25°	1698.5	1701.6	1702.7	1705.8	1716.2	1725.7	1722.5	1714.2	1699.5	1696.4	1698.5
27.5°	1649.4	1651.5	1654.6	1653.6	1668.2	1677.6	1671.3	1664.0	1643.1	1640.0	1637.9
30°	1594.0	1597.2	1599.3	1598.2	1609.7	1620.1	1613.9	1604.5	1576.3	1574.2	1557.5
32.5°	1531.4	1534.5	1536.6	1536.6	1553.3	1557.5	1546.0	1532.4	1502.1	1494.8	1480.2
35°	1462.4	1465.5	1466.6	1466.6	1483.3	1482.3	1467.6	1448.8	1415.4	1406.0	1380.9
37.5°	1388.3	1390.3	1391.4	1397.7	1405.0	1398.7	1379.9	1355.9	1330.8	1304.7	1277.5
40°	1304.7	1307.8	1309.9	1314.1	1321.4	1314.1	1286.9	1257.7	1230.5	1201.3	1174.1
42.5°	1219.0	1228.4	1226.3	1225.3	1229.5	1209.6	1188.7	1155.3	1128.1	1097.9	1070.7
45°	1126.1	1125.0	1130.2	1132.3	1131.3	1114.6	1085.3	1055.0	1027.9	996.5	973.6
47.5°	1027.9	1026.8	1031.0	1033.1	1026.8	1009.1	986.1	951.6	928.6	901.5	883.7
50°	924.5	924.5	930.7	924.5	921.3	903.6	884.8	850.3	832.5	808.5	798.1
52.5°	821.0	830.4	824.2	822.1	819.0	801.2	786.6	758.4	743.7	733.3	720.8
55°	718.7	729.1	724.9	721.8	720.8	706.1	692.6	671.7	662.3	655.0	647.6
57.5°	632.0	630.9	628.8	625.7	626.7	615.3	601.7	590.2	586.0	582.9	585.0
60°	531.7	540.0	536.9	538.0	539.0	536.9	525.4	518.1	519.2	520.2	523.3
62.5°	449.2	456.5	461.7	457.5	459.6	462.8	456.5	454.4	458.6	462.8	466.9
65°	372.9	380.2	385.5	384.4	390.7	396.9	395.9	398.0	407.4	412.6	417.8
67.5°	304.0	311.3	318.6	319.6	329.0	338.4	342.6	349.9	360.4	367.7	374.0
70°	244.4	250.7	259.1	264.3	276.8	289.3	296.7	311.3	317.6	328.0	332.2
72.5°	191.2	196.4	207.9	220.4	230.9	246.5	261.1	273.7	283.1	294.6	299.8
75°	149.4	151.5	164.0	178.6	193.2	211.0	226.7	240.3	252.8	264.3	272.6
77.5°	109.7	112.8	124.3	144.2	160.9	179.7	197.4	212.1	225.6	237.1	248.6
80°	76.3	82.5	95.1	114.9	133.7	154.6	171.3	188.0	202.6	214.1	225.6
82.5°	49.1	54.3	72.1	91.9	111.8	132.7	150.4	167.1	182.8	195.3	205.8
85°	27.2	34.5	52.2	73.1	93.0	113.9	132.7	149.4	165.0	176.5	187.0
87.5°	10.4	20.9	37.6	57.5	77.3	97.1	117.0	132.7	148.3	160.9	170.3
90°	0.0	12.5	28.2	48.1	67.9	87.7	106.5	123.3	137.9	149.4	159.8
92.5°	1.0	8.4	21.9	38.6	57.5	76.3	94.0	110.7	125.3	136.8	146.2
95°	1.0	6.3	17.8	33.4	50.1	67.9	84.6	100.3	113.9	125.3	134.8
97.5°	1.0	4.2	14.6	29.2	43.9	61.6	77.3	91.9	104.5	115.9	123.3
100°	1.0	4.2	12.5	25.1	39.7	55.4	70.0	84.6	96.1	105.5	113.9
102.5°	1.0	3.1	10.4	21.9	35.5	49.1	63.7	77.3	87.7	97.1	105.5
105°	1.0	3.1	9.4	18.8	31.3	44.9	57.5	70.0	81.5	89.8	97.1
107.5°	1.0	2.1	8.4	15.7	27.2	40.7	53.3	63.7	74.2	82.5	89.8
110°	1.0	2.1	7.3	14.6	24.0	36.6	48.1	58.5	67.9	76.3	82.5

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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	1.0	2.1	6.3	13.6	21.9	32.4	43.9	53.3	62.7	70.0	76.3
115°	1.0	2.1	6.3	12.5	19.8	28.2	38.6	49.1	56.4	64.8	70.0
117.5°	1.0	2.1	5.2	10.4	18.8	26.1	35.5	43.9	52.2	59.5	64.8
120°	1.0	2.1	5.2	9.4	16.7	24.0	31.3	39.7	48.1	53.3	58.5
122.5°	1.0	2.1	4.2	9.4	14.6	21.9	28.2	35.5	42.8	49.1	54.3
125°	1.0	2.1	4.2	8.4	13.6	19.8	26.1	31.3	38.6	43.9	49.1
127.5°	1.0	2.1	4.2	7.3	12.5	17.8	24.0	29.2	34.5	39.7	43.9
130°	1.0	2.1	3.1	6.3	11.5	15.7	20.9	27.2	31.3	35.5	39.7
132.5°	1.0	2.1	3.1	6.3	9.4	13.6	18.8	24.0	28.2	32.4	35.5
135°	1.0	2.1	3.1	5.2	8.4	12.5	15.7	20.9	25.1	29.2	32.4
137.5°	1.0	2.1	3.1	5.2	7.3	10.4	13.6	17.8	21.9	25.1	29.2
140°	1.0	2.1	3.1	4.2	6.3	9.4	12.5	14.6	18.8	21.9	25.1
142.5°	1.0	2.1	3.1	4.2	6.3	8.4	10.4	12.5	15.7	18.8	21.9
145°	1.0	2.1	3.1	4.2	5.2	7.3	9.4	11.5	12.5	15.7	17.8
147.5°	1.0	2.1	3.1	4.2	4.2	6.3	8.4	9.4	11.5	12.5	14.6
150°	1.0	2.1	3.1	3.1	4.2	5.2	7.3	8.4	9.4	11.5	12.5
152.5°	1.0	2.1	3.1	3.1	4.2	5.2	6.3	7.3	8.4	9.4	10.4
155°	1.0	2.1	3.1	3.1	3.1	4.2	5.2	6.3	7.3	8.4	9.4
157.5°	2.1	2.1	2.1	3.1	3.1	4.2	4.2	5.2	6.3	6.3	7.3
160°	2.1	2.1	2.1	3.1	3.1	3.1	4.2	4.2	5.2	5.2	6.3
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

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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	1899.1	1899.1	1899.1	1899.1	1899.1	1899.1	1899.1	1899.1	1899.1	1899.1	1899.1
2.5°	1887.6	1890.7	1900.1	1900.1	1898.0	1895.9	1895.9	1892.8	1894.9	1899.1	1897.0
5°	1887.6	1890.7	1900.1	1900.1	1898.0	1895.9	1894.9	1891.7	1894.9	1899.1	1897.0
7.5°	1881.3	1885.5	1894.9	1894.9	1892.8	1891.7	1889.7	1887.6	1890.7	1894.9	1892.8
10°	1872.9	1877.1	1886.5	1886.5	1884.4	1884.4	1881.3	1879.2	1883.4	1886.5	1885.5
12.5°	1860.4	1865.6	1874.0	1872.9	1870.8	1871.9	1868.8	1864.6	1868.8	1871.9	1872.9
15°	1842.6	1848.9	1857.3	1855.2	1852.0	1854.1	1848.9	1845.8	1848.9	1855.2	1854.1
17.5°	1819.7	1823.8	1830.1	1830.1	1827.0	1824.9	1822.8	1819.7	1821.8	1825.9	1827.0
20°	1787.3	1792.5	1795.6	1792.5	1791.5	1788.3	1784.1	1781.0	1785.2	1791.5	1792.5
22.5°	1744.5	1745.5	1752.8	1745.5	1740.3	1739.2	1735.1	1728.8	1735.1	1740.3	1741.3
25°	1691.2	1696.4	1693.3	1680.7	1680.7	1672.4	1670.3	1667.2	1668.2	1677.6	1681.8
27.5°	1623.3	1625.4	1617.0	1606.6	1597.2	1591.9	1584.6	1585.7	1585.7	1598.2	1602.4
30°	1549.1	1537.6	1530.3	1513.6	1506.3	1493.8	1491.7	1491.7	1489.6	1495.8	1514.6
32.5°	1460.3	1444.7	1433.2	1417.5	1405.0	1392.4	1386.2	1389.3	1388.3	1403.9	1410.2
35°	1363.2	1353.8	1329.8	1309.9	1302.6	1283.8	1283.8	1274.4	1280.7	1298.4	1305.7
37.5°	1260.8	1246.2	1226.3	1204.4	1199.2	1184.6	1179.3	1174.1	1187.7	1190.8	1198.1
40°	1156.4	1142.8	1124.0	1103.1	1103.1	1085.3	1085.3	1085.3	1086.4	1092.6	1106.2
42.5°	1057.1	1042.5	1025.8	1011.2	1009.1	995.5	995.5	994.4	996.5	1001.8	1014.3
45°	961.0	949.5	931.8	924.5	925.5	910.9	914.0	910.9	915.1	920.3	924.5
47.5°	872.2	864.9	857.6	847.2	844.0	843.0	837.8	833.6	840.9	840.9	847.2
50°	789.7	785.5	781.3	775.1	776.1	771.9	765.7	765.7	770.9	771.9	776.1
52.5°	717.6	712.4	707.2	708.2	709.3	707.2	704.0	700.9	704.0	706.1	711.4
55°	645.6	641.4	646.6	644.5	646.6	644.5	642.4	640.3	645.6	642.4	647.6
57.5°	580.8	585.0	587.1	582.9	586.0	583.9	585.0	581.8	586.0	588.1	587.1
60°	521.2	527.5	524.4	525.4	529.6	527.5	523.3	526.5	530.6	531.7	530.6
62.5°	466.9	474.2	477.4	475.3	476.3	474.2	477.4	473.2	478.4	480.5	477.4
65°	417.8	426.2	428.3	428.3	428.3	426.2	429.3	430.4	432.5	432.5	430.4
67.5°	376.0	383.4	385.5	387.5	385.5	383.4	383.4	384.4	388.6	390.7	388.6
70°	338.4	345.8	346.8	346.8	347.8	349.9	345.8	347.8	351.0	352.0	351.0
72.5°	306.1	313.4	315.5	314.4	315.5	316.5	316.5	314.4	317.6	319.6	319.6
75°	279.9	284.1	286.2	286.2	287.3	288.3	288.3	287.3	289.3	290.4	291.4
77.5°	255.9	259.1	262.2	262.2	263.2	262.2	264.3	264.3	265.3	266.4	267.4
80°	231.9	236.1	238.2	239.2	241.3	242.3	242.3	242.3	243.4	244.4	244.4
82.5°	213.1	216.2	219.4	222.5	222.5	223.5	223.5	223.5	224.6	224.6	225.6
85°	194.3	198.5	201.6	203.7	204.7	205.8	205.8	206.8	206.8	206.8	207.9
87.5°	177.6	182.8	184.9	187.0	188.0	190.1	190.1	190.1	191.2	191.2	191.2
90°	166.1	171.3	173.4	175.5	176.5	177.6	177.6	178.6	178.6	179.7	179.7
92.5°	152.5	157.7	161.9	161.9	163.0	165.0	164.0	164.0	165.0	166.1	166.1
95°	142.1	146.2	149.4	150.4	151.5	151.5	151.5	152.5	151.5	152.5	152.5
97.5°	129.5	133.7	136.8	138.9	140.0	140.0	140.0	141.0	140.0	141.0	141.0
100°	119.1	123.3	126.4	127.4	129.5	129.5	129.5	129.5	129.5	129.5	130.6
102.5°	110.7	114.9	117.0	118.0	119.1	120.1	120.1	120.1	120.1	121.2	121.2
105°	102.4	106.5	108.6	109.7	110.7	111.8	111.8	111.8	112.8	112.8	111.8
107.5°	95.1	98.2	100.3	102.4	103.4	103.4	104.5	104.5	104.5	104.5	104.5
110°	87.7	90.9	94.0	96.1	96.1	97.1	97.1	98.2	98.2	97.1	98.2

TEST NUMBER: P1213486

CATALOG NUMBER: 4SNLED-LD5-60HL-LN-UNV-L935-CD1-U

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
112.5°	80.4	84.6	86.7	88.8	89.8	90.9	90.9	90.9	90.9	90.9	90.9
115°	74.2	78.3	80.4	82.5	83.6	84.6	84.6	84.6	84.6	84.6	84.6
117.5°	68.9	73.1	75.2	76.3	77.3	78.3	79.4	79.4	79.4	79.4	78.3
120°	63.7	66.9	68.9	71.0	72.1	73.1	73.1	73.1	73.1	73.1	73.1
122.5°	58.5	61.6	63.7	65.8	66.9	67.9	67.9	67.9	67.9	67.9	67.9
125°	53.3	56.4	58.5	60.6	61.6	62.7	62.7	62.7	62.7	62.7	62.7
127.5°	48.1	51.2	54.3	55.4	56.4	57.5	57.5	57.5	58.5	57.5	57.5
130°	42.8	46.0	49.1	50.1	51.2	52.2	53.3	53.3	53.3	53.3	52.2
132.5°	38.6	41.8	43.9	44.9	47.0	47.0	48.1	48.1	48.1	48.1	47.0
135°	35.5	37.6	39.7	40.7	42.8	42.8	42.8	43.9	43.9	42.8	41.8
137.5°	31.3	33.4	35.5	36.6	37.6	38.6	38.6	39.7	38.6	38.6	38.6
140°	29.2	30.3	32.4	33.4	34.5	34.5	34.5	35.5	35.5	34.5	34.5
142.5°	25.1	27.2	29.2	30.3	31.3	31.3	31.3	31.3	31.3	31.3	31.3
145°	20.9	24.0	25.1	27.2	27.2	28.2	28.2	28.2	28.2	28.2	27.2
147.5°	17.8	19.8	23.0	24.0	24.0	25.1	25.1	25.1	25.1	25.1	24.0
150°	13.6	15.7	18.8	20.9	20.9	21.9	21.9	21.9	21.9	20.9	20.9
152.5°	11.5	13.6	14.6	16.7	17.8	17.8	17.8	18.8	17.8	17.8	17.8
155°	10.4	11.5	12.5	13.6	14.6	15.7	15.7	15.7	15.7	14.6	14.6
157.5°	8.4	9.4	10.4	11.5	12.5	13.6	13.6	13.6	13.6	13.6	12.5
160°	6.3	7.3	8.4	8.4	9.4	10.4	11.5	10.4	10.4	10.4	10.4
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: P1213486

CATALOG NUMBER: 4SNLED-LD5-60HL-LN-UNV-L935-CD1-U

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	1899.1	1899.1	1899.1	1899.1	1899.1	1899.1	1899.1	1899.1	1899.1	1899.1	1899.1
2.5°	1894.9	1893.8	1897.0	1891.7	1876.1	1880.2	1878.2	1887.6	1889.7	1891.7	1901.1
5°	1894.9	1893.8	1895.9	1891.7	1875.0	1878.2	1876.1	1885.5	1887.6	1888.6	1898.0
7.5°	1890.7	1889.7	1892.8	1887.6	1869.8	1874.0	1870.8	1880.2	1881.3	1882.3	1890.7
10°	1882.3	1881.3	1883.4	1879.2	1861.4	1865.6	1861.4	1870.8	1870.8	1872.9	1879.2
12.5°	1869.8	1867.7	1871.9	1866.7	1846.8	1852.0	1850.0	1856.2	1857.3	1858.3	1864.6
15°	1852.0	1850.0	1853.1	1850.0	1832.2	1833.2	1830.1	1839.5	1840.6	1838.5	1844.7
17.5°	1825.9	1823.8	1830.1	1828.0	1810.3	1814.4	1813.4	1815.5	1818.6	1813.4	1821.8
20°	1793.5	1795.6	1797.7	1798.8	1785.2	1785.2	1784.1	1788.3	1791.5	1787.3	1793.5
22.5°	1745.5	1750.7	1757.0	1759.1	1749.7	1748.6	1754.9	1752.8	1755.9	1753.9	1758.0
25°	1684.9	1695.4	1701.6	1707.9	1702.7	1704.8	1714.2	1716.2	1716.2	1715.2	1719.4
27.5°	1609.7	1623.3	1634.8	1648.4	1643.1	1647.3	1663.0	1665.1	1669.2	1665.1	1673.4
30°	1519.9	1532.4	1554.3	1574.2	1576.3	1582.5	1604.5	1606.6	1618.1	1613.9	1617.0
32.5°	1430.0	1436.3	1461.4	1481.2	1493.8	1509.4	1533.4	1537.6	1553.3	1556.4	1556.4
35°	1317.2	1335.0	1358.0	1386.2	1401.8	1418.5	1450.9	1457.2	1480.2	1487.5	1495.8
37.5°	1222.2	1238.9	1253.5	1282.7	1311.0	1329.8	1355.9	1371.5	1395.6	1409.1	1419.6
40°	1120.8	1134.4	1150.1	1179.3	1203.4	1231.6	1257.7	1276.5	1306.8	1322.4	1336.0
42.5°	1024.7	1035.2	1051.9	1072.8	1097.9	1129.2	1154.3	1176.2	1208.6	1230.5	1246.2
45°	939.1	945.3	960.0	975.6	997.6	1030.0	1054.0	1082.2	1108.3	1131.3	1150.1
47.5°	858.6	867.0	874.3	884.8	904.6	924.5	952.7	979.8	1005.9	1031.0	1049.8
50°	784.5	784.5	796.0	803.3	816.9	834.6	856.6	875.4	907.7	925.5	949.5
52.5°	712.4	716.6	722.9	727.0	737.5	749.0	766.7	782.4	809.6	826.3	849.2
55°	648.7	652.9	656.0	658.1	664.4	677.9	684.2	696.7	715.5	729.1	749.0
57.5°	588.1	590.2	593.3	594.4	595.4	603.8	609.0	612.1	630.9	644.5	661.2
60°	532.7	532.7	535.9	534.8	533.8	538.0	536.9	540.0	551.5	559.9	567.2
62.5°	480.5	480.5	481.6	479.5	478.4	478.4	474.2	477.4	480.5	481.6	486.8
65°	432.5	437.7	433.5	434.5	428.3	426.2	424.1	417.8	416.8	412.6	414.7
67.5°	389.6	393.8	389.6	389.6	384.4	380.2	375.0	364.6	361.4	353.1	351.0
70°	355.2	352.0	354.1	351.0	344.7	339.5	332.2	323.8	313.4	302.9	295.6
72.5°	321.7	321.7	319.6	316.5	313.4	302.9	294.6	285.2	272.6	259.1	248.6
75°	289.3	290.4	290.4	287.3	282.0	272.6	263.2	249.7	236.1	220.4	206.8
77.5°	266.4	266.4	266.4	261.1	255.9	247.6	236.1	221.5	206.8	188.0	172.4
80°	244.4	243.4	243.4	237.1	231.9	222.5	211.0	196.4	180.7	160.9	143.1
82.5°	226.7	225.6	223.5	218.3	211.0	201.6	190.1	174.4	157.7	140.0	118.0
85°	207.9	206.8	204.7	199.5	192.2	183.8	171.3	155.6	138.9	119.1	98.2
87.5°	191.2	190.1	187.0	183.8	175.5	166.1	153.6	138.9	121.2	102.4	81.5
90°	179.7	177.6	175.5	171.3	164.0	153.6	141.0	125.3	107.6	88.8	67.9
92.5°	166.1	165.0	161.9	157.7	151.5	141.0	128.5	113.9	96.1	78.3	58.5
95°	152.5	151.5	149.4	145.2	138.9	129.5	118.0	103.4	86.7	68.9	51.2
97.5°	140.0	140.0	136.8	133.7	126.4	119.1	107.6	94.0	78.3	62.7	46.0
100°	129.5	129.5	126.4	122.2	117.0	109.7	98.2	85.7	71.0	56.4	39.7
102.5°	120.1	119.1	117.0	112.8	107.6	100.3	89.8	78.3	64.8	50.1	35.5
105°	111.8	110.7	108.6	104.5	100.3	91.9	83.6	72.1	58.5	44.9	31.3
107.5°	103.4	102.4	101.3	97.1	91.9	84.6	76.3	64.8	53.3	40.7	28.2
110°	96.1	95.1	93.0	88.8	83.6	77.3	68.9	59.5	48.1	36.6	25.1



TEST NUMBER: P1213486

CATALOG NUMBER: 4SNLED-LD5-60HL-LN-UNV-L935-CD1-U

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
112.5°	89.8	88.8	86.7	82.5	78.3	71.0	63.7	53.3	43.9	33.4	21.9
115°	83.6	82.5	80.4	76.3	71.0	64.8	57.5	49.1	38.6	29.2	19.8
117.5°	77.3	76.3	74.2	71.0	65.8	59.5	52.2	43.9	34.5	27.2	17.8
120°	72.1	70.0	67.9	64.8	59.5	54.3	47.0	39.7	31.3	24.0	15.7
122.5°	66.9	64.8	62.7	59.5	54.3	49.1	41.8	35.5	29.2	21.9	14.6
125°	60.6	59.5	57.5	54.3	49.1	43.9	38.6	32.4	26.1	19.8	12.5
127.5°	55.4	54.3	52.2	48.1	43.9	39.7	34.5	29.2	23.0	16.7	11.5
130°	51.2	49.1	47.0	43.9	40.7	36.6	31.3	26.1	20.9	14.6	10.4
132.5°	46.0	43.9	41.8	39.7	36.6	32.4	28.2	23.0	18.8	13.6	9.4
135°	41.8	39.7	37.6	35.5	32.4	29.2	25.1	20.9	16.7	12.5	8.4
137.5°	36.6	35.5	34.5	32.4	29.2	26.1	23.0	17.8	14.6	11.5	7.3
140°	33.4	32.4	31.3	28.2	26.1	23.0	19.8	15.7	12.5	9.4	6.3
142.5°	30.3	29.2	27.2	25.1	23.0	20.9	16.7	14.6	11.5	8.4	6.3
145°	26.1	25.1	24.0	21.9	19.8	16.7	14.6	12.5	10.4	7.3	5.2
147.5°	24.0	23.0	20.9	18.8	16.7	14.6	13.6	11.5	8.4	6.3	4.2
150°	19.8	18.8	17.8	15.7	14.6	13.6	11.5	9.4	7.3	5.2	4.2
152.5°	16.7	15.7	14.6	14.6	12.5	11.5	9.4	8.4	6.3	5.2	3.1
155°	14.6	14.6	13.6	12.5	10.4	9.4	8.4	6.3	5.2	4.2	3.1
157.5°	12.5	11.5	10.4	10.4	9.4	8.4	6.3	5.2	4.2	4.2	3.1
160°	10.4	9.4	9.4	8.4	7.3	6.3	5.2	5.2	4.2	3.1	3.1
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: P1213486

CATALOG NUMBER: 4SNLED-LD5-60HL-LN-UNV-L935-CD1-U

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
0°	1899.1	1899.1	1899.1	1899.1	1899.1	1899.1	1899.1	1899.1	1899.1	1899.1	1899.1
2.5°	1902.2	1890.7	1901.1	1914.7	1914.7	1912.6	1910.5	1914.7	1925.2	1921.0	1908.5
5°	1899.1	1887.6	1897.0	1910.5	1910.5	1907.4	1905.3	1908.5	1919.9	1914.7	1903.2
7.5°	1892.8	1882.3	1888.6	1901.1	1901.1	1898.0	1895.9	1900.1	1909.5	1904.3	1891.7
10°	1881.3	1869.8	1877.1	1888.6	1887.6	1885.5	1882.3	1887.6	1895.9	1888.6	1874.0
12.5°	1866.7	1855.2	1861.4	1871.9	1870.8	1866.7	1864.6	1867.7	1875.0	1870.8	1855.2
15°	1846.8	1835.3	1840.6	1851.0	1847.9	1844.7	1840.6	1841.6	1851.0	1843.7	1827.0
17.5°	1822.8	1810.3	1814.4	1823.8	1820.7	1817.6	1812.4	1813.4	1823.8	1813.4	1795.6
20°	1793.5	1780.0	1783.1	1794.6	1789.4	1784.1	1778.9	1778.9	1789.4	1777.9	1758.0
22.5°	1762.2	1748.6	1750.7	1759.1	1754.9	1745.5	1740.3	1743.4	1748.6	1734.0	1713.1
25°	1723.6	1705.8	1708.9	1717.3	1714.2	1701.6	1696.4	1698.5	1696.4	1684.9	1663.0
27.5°	1678.6	1659.8	1661.9	1667.2	1663.0	1651.5	1645.2	1646.3	1642.1	1627.5	1602.4
30°	1622.2	1612.8	1611.8	1614.9	1608.7	1597.2	1589.9	1587.8	1586.7	1565.8	1535.5
32.5°	1564.8	1556.4	1551.2	1555.4	1548.1	1536.6	1524.0	1524.0	1513.6	1493.8	1467.6
35°	1506.3	1492.7	1487.5	1490.6	1482.3	1467.6	1457.2	1452.0	1436.3	1411.2	1383.0
37.5°	1431.1	1421.7	1415.4	1418.5	1409.1	1398.7	1378.8	1373.6	1356.9	1322.4	1286.9
40°	1349.6	1342.3	1336.0	1339.2	1328.7	1313.0	1295.3	1286.9	1268.1	1229.5	1201.3
42.5°	1261.9	1258.7	1251.4	1262.9	1242.0	1226.3	1208.6	1195.0	1176.2	1134.4	1102.0
45°	1168.9	1176.2	1159.5	1162.6	1149.0	1135.5	1116.7	1096.8	1078.0	1038.3	1001.8
47.5°	1070.7	1075.9	1064.4	1066.5	1051.9	1039.4	1022.6	997.6	976.7	942.2	909.8
50°	969.4	967.3	967.3	965.2	953.7	938.0	921.3	898.3	877.4	846.1	819.0
52.5°	861.8	866.0	868.0	873.3	858.6	849.2	823.1	803.3	787.6	755.2	732.3
55°	758.4	773.0	768.8	770.9	754.2	746.9	726.0	710.3	687.3	668.5	653.9
57.5°	664.4	667.5	669.6	672.7	665.4	650.8	634.1	621.5	603.8	588.1	577.7
60°	573.5	573.5	574.5	579.7	572.4	559.9	547.4	538.0	525.4	516.0	509.8
62.5°	487.8	495.1	496.2	492.0	482.6	476.3	468.0	462.8	454.4	451.3	449.2
65°	408.4	408.4	408.4	410.5	405.3	401.1	395.9	394.9	398.0	393.8	395.9
67.5°	341.6	338.4	336.4	337.4	335.3	333.2	332.2	335.3	341.6	341.6	346.8
70°	284.1	277.9	273.7	273.7	273.7	274.7	277.9	284.1	294.6	298.8	306.1
72.5°	237.1	223.5	217.3	217.3	218.3	222.5	231.9	243.4	252.8	261.1	270.5
75°	192.2	178.6	169.2	168.2	170.3	176.5	190.1	200.6	216.2	227.7	239.2
77.5°	155.6	138.9	127.4	126.4	129.5	138.9	155.6	169.2	187.0	199.5	212.1
80°	124.3	105.5	96.1	89.8	95.1	106.5	125.3	142.1	158.8	175.5	191.2
82.5°	99.2	81.5	66.9	60.6	66.9	82.5	100.3	120.1	136.8	154.6	170.3
85°	78.3	59.5	42.8	36.6	43.9	60.6	80.4	100.3	119.1	136.8	152.5
87.5°	61.6	42.8	26.1	17.8	27.2	44.9	63.7	83.6	103.4	121.2	136.8
90°	48.1	30.3	14.6	2.1	15.7	32.4	51.2	70.0	89.8	107.6	123.3
92.5°	40.7	23.0	8.4	0.0	9.4	24.0	41.8	60.6	78.3	96.1	111.8
95°	34.5	18.8	6.3	0.0	6.3	18.8	34.5	51.2	68.9	86.7	102.4
97.5°	29.2	14.6	4.2	0.0	4.2	14.6	28.2	44.9	60.6	77.3	91.9
100°	25.1	12.5	3.1	0.0	3.1	11.5	24.0	38.6	54.3	70.0	83.6
102.5°	21.9	10.4	2.1	0.0	2.1	9.4	19.8	33.4	47.0	61.6	75.2
105°	18.8	8.4	2.1	0.0	1.0	7.3	16.7	29.2	41.8	55.4	67.9
107.5°	16.7	7.3	2.1	0.0	1.0	6.3	14.6	25.1	37.6	49.1	60.6
110°	14.6	6.3	2.1	0.0	1.0	4.2	12.5	21.9	32.4	43.9	55.4

TEST NUMBER: P1213486

CATALOG NUMBER: 4SNLED-LD5-60HL-LN-UNV-L935-CD1-U

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
112.5°	12.5	5.2	1.0	0.0	0.0	3.1	10.4	18.8	28.2	39.7	49.1
115°	11.5	5.2	1.0	0.0	0.0	2.1	8.4	16.7	25.1	35.5	43.9
117.5°	10.4	4.2	1.0	0.0	1.0	2.1	7.3	14.6	21.9	30.3	39.7
120°	9.4	4.2	1.0	0.0	1.0	1.0	5.2	12.5	18.8	27.2	34.5
122.5°	8.4	4.2	1.0	0.0	1.0	1.0	4.2	10.4	16.7	24.0	30.3
125°	7.3	3.1	2.1	1.0	1.0	1.0	3.1	8.4	14.6	19.8	27.2
127.5°	7.3	3.1	2.1	1.0	1.0	1.0	2.1	7.3	11.5	17.8	24.0
130°	6.3	3.1	2.1	1.0	1.0	1.0	1.0	5.2	10.4	14.6	19.8
132.5°	5.2	3.1	2.1	1.0	1.0	1.0	1.0	3.1	7.3	12.5	16.7
135°	5.2	3.1	2.1	1.0	1.0	1.0	1.0	2.1	5.2	9.4	13.6
137.5°	4.2	2.1	2.1	1.0	1.0	1.0	1.0	1.0	4.2	7.3	10.4
140°	4.2	2.1	2.1	1.0	1.0	1.0	1.0	1.0	3.1	5.2	8.4
142.5°	3.1	2.1	2.1	1.0	1.0	1.0	1.0	1.0	2.1	4.2	6.3
145°	3.1	2.1	2.1	1.0	1.0	1.0	1.0	1.0	1.0	2.1	4.2
147.5°	3.1	3.1	2.1	1.0	1.0	1.0	1.0	1.0	1.0	2.1	3.1
150°	3.1	2.1	2.1	1.0	1.0	1.0	1.0	1.0	1.0	1.0	2.1
152.5°	3.1	2.1	2.1	1.0	1.0	1.0	1.0	1.0	1.0	1.0	2.1
155°	3.1	2.1	2.1	1.0	1.0	1.0	1.0	1.0	1.0	2.1	2.1
157.5°	3.1	2.1	2.1	1.0	1.0	1.0	1.0	1.0	1.0	1.0	2.1
160°	3.1	2.1	2.1	1.0	2.1	1.0	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: P1213486

CATALOG NUMBER: 4SNLED-LD5-60HL-LN-UNV-L935-CD1-U

CANDELA DISTRIBUTION (continued):

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
0°	1899.1	1899.1	1899.1	1899.1	1899.1	1899.1	1899.1	1899.1	1899.1	1899.1	1899.1
2.5°	1904.3	1884.4	1894.9	1891.7	1895.9	1904.3	1903.2	1901.1	1901.1	1898.0	1893.8
5°	1898.0	1879.2	1888.6	1883.4	1888.6	1895.9	1894.9	1891.7	1893.8	1888.6	1883.4
7.5°	1885.5	1868.8	1877.1	1872.9	1877.1	1884.4	1881.3	1880.2	1882.3	1874.0	1870.8
10°	1870.8	1852.0	1861.4	1856.2	1861.4	1866.7	1864.6	1860.4	1864.6	1856.2	1853.1
12.5°	1847.9	1832.2	1838.5	1836.4	1839.5	1844.7	1840.6	1837.4	1839.5	1832.2	1825.9
15°	1822.8	1807.1	1812.4	1809.2	1811.3	1817.6	1810.3	1809.2	1807.1	1799.8	1797.7
17.5°	1790.4	1775.8	1781.0	1775.8	1778.9	1776.8	1775.8	1770.6	1770.6	1762.2	1755.9
20°	1750.7	1738.2	1735.1	1730.9	1735.1	1730.9	1724.6	1720.4	1719.4	1711.0	1705.8
22.5°	1704.8	1690.1	1692.2	1680.7	1681.8	1675.5	1665.1	1660.9	1656.7	1647.3	1640.0
25°	1649.4	1634.8	1624.3	1617.0	1607.6	1606.6	1593.0	1582.5	1581.5	1570.0	1569.0
27.5°	1586.7	1570.0	1561.7	1543.9	1532.4	1523.0	1511.5	1501.1	1495.8	1483.3	1475.0
30°	1514.6	1495.8	1475.0	1462.4	1444.7	1437.3	1417.5	1405.0	1400.8	1387.2	1380.9
32.5°	1433.2	1413.3	1396.6	1372.6	1352.7	1342.3	1322.4	1309.9	1304.7	1290.1	1281.7
35°	1344.4	1322.4	1302.6	1279.6	1263.9	1246.2	1222.2	1209.6	1198.1	1192.9	1186.6
37.5°	1251.4	1227.4	1204.4	1181.4	1167.8	1147.0	1126.1	1117.7	1104.1	1098.9	1092.6
40°	1155.3	1131.3	1109.3	1087.4	1071.7	1052.9	1034.1	1031.0	1016.4	1011.2	1007.0
42.5°	1060.3	1035.2	1010.1	994.4	983.0	964.1	951.6	948.5	935.9	932.8	932.8
45°	974.6	943.3	922.4	908.8	899.4	883.7	873.3	871.2	860.7	858.6	858.6
47.5°	882.7	853.4	837.8	829.4	821.0	809.6	803.3	803.3	792.8	790.7	789.7
50°	797.0	769.9	758.4	750.0	749.0	740.6	735.4	733.3	733.3	726.0	727.0
52.5°	715.5	702.0	692.6	687.3	681.1	675.8	671.7	671.7	668.5	663.3	665.4
55°	640.3	624.7	625.7	621.5	618.4	615.3	616.3	610.0	609.0	604.8	607.9
57.5°	565.1	565.1	563.0	559.9	554.7	556.8	556.8	556.8	551.5	548.4	551.5
60°	501.4	504.5	499.3	502.4	500.4	501.4	499.3	499.3	496.2	495.1	496.2
62.5°	445.0	450.2	448.1	452.3	450.2	451.3	453.3	449.2	447.1	445.0	447.1
65°	394.9	401.1	400.1	403.2	404.3	405.3	406.3	404.3	402.2	400.1	399.0
67.5°	351.0	357.2	361.4	362.5	363.5	366.6	365.6	363.5	361.4	358.3	357.2
70°	311.3	319.6	324.9	327.0	331.1	329.0	329.0	328.0	325.9	322.8	321.7
72.5°	277.9	287.3	292.5	294.6	298.8	298.8	297.7	296.7	294.6	291.4	290.4
75°	248.6	257.0	264.3	268.5	271.6	271.6	270.5	269.5	267.4	265.3	264.3
77.5°	225.6	232.9	239.2	244.4	246.5	247.6	246.5	244.4	244.4	243.4	242.3
80°	202.6	211.0	217.3	222.5	225.6	225.6	224.6	225.6	223.5	222.5	221.5
82.5°	182.8	192.2	199.5	204.7	206.8	207.9	206.8	207.9	205.8	205.8	205.8
85°	165.0	174.4	182.8	187.0	190.1	191.2	191.2	191.2	190.1	190.1	190.1
87.5°	150.4	159.8	168.2	172.4	175.5	176.5	176.5	177.6	175.5	175.5	175.5
90°	136.8	146.2	154.6	158.8	161.9	164.0	164.0	165.0	164.0	163.0	163.0
92.5°	124.3	134.8	143.1	147.3	150.4	153.6	153.6	154.6	152.5	152.5	152.5
95°	113.9	124.3	131.6	136.8	140.0	142.1	143.1	143.1	142.1	142.1	142.1
97.5°	104.5	113.9	121.2	126.4	129.5	130.6	131.6	132.7	131.6	131.6	131.6
100°	95.1	104.5	111.8	115.9	120.1	121.2	122.2	123.3	123.3	122.2	122.2
102.5°	86.7	96.1	102.4	107.6	110.7	112.8	113.9	113.9	113.9	113.9	113.9
105°	78.3	87.7	94.0	99.2	102.4	104.5	105.5	106.5	106.5	105.5	105.5
107.5°	71.0	79.4	86.7	90.9	95.1	97.1	98.2	98.2	99.2	98.2	98.2
110°	63.7	73.1	79.4	83.6	87.7	89.8	90.9	91.9	91.9	91.9	91.9



TEST NUMBER: P1213486

CATALOG NUMBER: 4SNLED-LD5-60HL-LN-UNV-L935-CD1-U

CANDELA DISTRIBUTION (continued):

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
112.5°	58.5	65.8	72.1	76.3	80.4	82.5	83.6	84.6	85.7	84.6	84.6
115°	52.2	59.5	65.8	70.0	73.1	75.2	77.3	78.3	78.3	79.4	78.3
117.5°	47.0	53.3	59.5	63.7	66.9	70.0	71.0	72.1	73.1	72.1	72.1
120°	41.8	48.1	53.3	57.5	60.6	63.7	64.8	65.8	66.9	65.8	65.8
122.5°	37.6	42.8	48.1	52.2	55.4	57.5	59.5	59.5	60.6	60.6	60.6
125°	33.4	38.6	42.8	47.0	50.1	52.2	53.3	54.3	54.3	55.4	55.4
127.5°	29.2	33.4	38.6	41.8	44.9	47.0	48.1	49.1	49.1	50.1	50.1
130°	25.1	29.2	33.4	36.6	39.7	41.8	42.8	43.9	44.9	44.9	44.9
132.5°	21.9	26.1	29.2	32.4	34.5	36.6	38.6	39.7	39.7	39.7	39.7
135°	17.8	21.9	25.1	28.2	30.3	32.4	33.4	35.5	35.5	35.5	35.5
137.5°	14.6	18.8	21.9	24.0	26.1	28.2	29.2	30.3	31.3	31.3	31.3
140°	11.5	14.6	17.8	20.9	23.0	24.0	26.1	26.1	27.2	27.2	27.2
142.5°	8.4	11.5	13.6	16.7	18.8	20.9	21.9	23.0	23.0	23.0	23.0
145°	6.3	8.4	10.4	12.5	15.7	16.7	17.8	18.8	19.8	19.8	19.8
147.5°	4.2	6.3	7.3	9.4	11.5	13.6	14.6	15.7	16.7	16.7	16.7
150°	3.1	4.2	6.3	7.3	8.4	10.4	12.5	12.5	13.6	13.6	12.5
152.5°	2.1	3.1	4.2	5.2	6.3	7.3	9.4	9.4	10.4	10.4	10.4
155°	2.1	2.1	2.1	3.1	4.2	5.2	6.3	7.3	7.3	7.3	7.3
157.5°	2.1	2.1	2.1	2.1	2.1	3.1	4.2	5.2	5.2	5.2	5.2
160°	2.1	2.1	1.0	1.0	2.1	2.1	2.1	2.1	3.1	3.1	3.1
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: P1213486

CATALOG NUMBER: 4SNLED-LD5-60HL-LN-UNV-L935-CD1-U

CANDELA DISTRIBUTION (continued):

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°
0°	1899.1	1899.1	1899.1	1899.1	1899.1	1899.1	1899.1	1899.1	1899.1	1899.1	1899.1
2.5°	1897.0	1899.1	1899.1	1897.0	1895.9	1900.1	1894.9	1875.0	1881.3	1883.4	1889.7
5°	1887.6	1889.7	1889.7	1889.7	1887.6	1891.7	1886.5	1866.7	1874.0	1877.1	1881.3
7.5°	1874.0	1875.0	1877.1	1876.1	1874.0	1880.2	1875.0	1855.2	1860.4	1865.6	1870.8
10°	1856.2	1856.2	1857.3	1859.4	1857.3	1862.5	1857.3	1839.5	1844.7	1847.9	1854.1
12.5°	1832.2	1834.3	1835.3	1834.3	1833.2	1837.4	1835.3	1818.6	1820.7	1827.0	1833.2
15°	1799.8	1799.8	1805.0	1802.9	1802.9	1807.1	1809.2	1790.4	1793.5	1802.9	1809.2
17.5°	1760.1	1761.2	1765.3	1767.4	1766.4	1773.7	1774.7	1760.1	1759.1	1770.6	1776.8
20°	1708.9	1711.0	1716.2	1720.4	1720.4	1728.8	1731.9	1722.5	1723.6	1736.1	1738.2
22.5°	1646.3	1646.3	1655.7	1661.9	1667.2	1672.4	1681.8	1673.4	1673.4	1690.1	1699.5
25°	1569.0	1576.3	1579.4	1591.9	1599.3	1613.9	1622.2	1623.3	1624.3	1640.0	1646.3
27.5°	1483.3	1485.4	1494.8	1509.4	1517.8	1531.4	1547.0	1550.2	1555.4	1576.3	1585.7
30°	1386.2	1392.4	1396.6	1417.5	1429.0	1446.7	1466.6	1473.9	1478.1	1506.3	1517.8
32.5°	1286.9	1289.0	1306.8	1318.3	1331.8	1350.6	1373.6	1387.2	1395.6	1424.8	1441.5
35°	1187.7	1191.9	1206.5	1221.1	1234.7	1253.5	1277.5	1296.3	1311.0	1337.1	1359.0
37.5°	1096.8	1107.3	1110.4	1125.0	1135.5	1154.3	1171.0	1198.1	1212.8	1239.9	1268.1
40°	1015.3	1018.5	1020.6	1035.2	1042.5	1060.3	1084.3	1102.0	1121.9	1141.7	1175.2
42.5°	934.9	937.0	940.1	948.5	956.8	969.4	987.1	1004.9	1025.8	1055.0	1077.0
45°	860.7	862.8	864.9	870.1	877.4	888.9	900.4	913.0	933.9	958.9	981.9
47.5°	791.8	796.0	796.0	797.0	802.2	811.6	820.0	835.7	847.2	860.7	886.9
50°	726.0	729.1	730.2	730.2	733.3	739.6	741.7	752.1	762.5	775.1	793.9
52.5°	664.4	664.4	663.3	667.5	667.5	671.7	672.7	679.0	686.3	699.9	708.2
55°	605.9	605.9	609.0	606.9	606.9	609.0	607.9	609.0	615.3	623.6	630.9
57.5°	549.5	548.4	551.5	549.5	548.4	550.5	552.6	548.4	549.5	557.8	557.8
60°	493.0	494.1	497.2	495.1	495.1	495.1	493.0	491.0	488.9	494.1	496.2
62.5°	448.1	445.0	448.1	445.0	447.1	446.0	443.9	439.8	440.8	438.7	436.6
65°	401.1	401.1	402.2	399.0	401.1	401.1	398.0	396.9	390.7	388.6	383.4
67.5°	360.4	360.4	361.4	359.3	359.3	360.4	357.2	354.1	347.8	344.7	337.4
70°	324.9	324.9	324.9	323.8	323.8	323.8	321.7	317.6	311.3	306.1	296.7
72.5°	292.5	293.5	292.5	292.5	295.6	292.5	289.3	285.2	279.9	269.5	261.1
75°	266.4	267.4	266.4	266.4	266.4	265.3	264.3	258.0	251.7	243.4	230.9
77.5°	243.4	243.4	244.4	243.4	243.4	242.3	239.2	234.0	226.7	219.4	204.7
80°	221.5	222.5	223.5	224.6	222.5	221.5	218.3	214.1	204.7	196.4	181.8
82.5°	205.8	204.7	205.8	206.8	204.7	203.7	200.6	195.3	188.0	176.5	161.9
85°	190.1	189.1	189.1	190.1	189.1	187.0	183.8	178.6	171.3	159.8	145.2
87.5°	174.4	175.5	176.5	175.5	174.4	172.4	169.2	164.0	155.6	146.2	130.6
90°	163.0	163.0	163.0	163.0	161.9	159.8	156.7	150.4	143.1	131.6	118.0
92.5°	152.5	152.5	152.5	152.5	151.5	148.3	145.2	140.0	131.6	120.1	107.6
95°	142.1	143.1	142.1	142.1	140.0	138.9	133.7	128.5	121.2	109.7	96.1
97.5°	130.6	131.6	130.6	130.6	129.5	127.4	124.3	118.0	110.7	100.3	87.7
100°	122.2	122.2	121.2	121.2	120.1	118.0	113.9	108.6	101.3	90.9	78.3
102.5°	112.8	113.9	112.8	112.8	110.7	108.6	105.5	100.3	93.0	82.5	71.0
105°	105.5	105.5	104.5	104.5	102.4	100.3	97.1	90.9	84.6	75.2	63.7
107.5°	98.2	98.2	97.1	97.1	95.1	93.0	88.8	83.6	77.3	67.9	57.5
110°	90.9	90.9	90.9	89.8	87.7	84.6	81.5	76.3	70.0	61.6	51.2

TEST NUMBER: P1213486

CATALOG NUMBER: 4SNLED-LD5-60HL-LN-UNV-L935-CD1-U

CANDELA DISTRIBUTION (continued):

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°
112.5°	85.7	84.6	83.6	82.5	80.4	78.3	74.2	68.9	62.7	55.4	46.0
115°	78.3	78.3	77.3	76.3	74.2	71.0	67.9	63.7	57.5	49.1	40.7
117.5°	72.1	72.1	71.0	70.0	67.9	64.8	61.6	57.5	51.2	43.9	36.6
120°	65.8	65.8	64.8	63.7	61.6	58.5	56.4	51.2	46.0	38.6	32.4
122.5°	60.6	59.5	59.5	57.5	56.4	53.3	50.1	46.0	40.7	34.5	28.2
125°	54.3	54.3	53.3	52.2	51.2	48.1	44.9	40.7	35.5	30.3	25.1
127.5°	49.1	49.1	48.1	47.0	46.0	42.8	39.7	36.6	31.3	26.1	20.9
130°	43.9	43.9	42.8	41.8	40.7	37.6	35.5	31.3	27.2	23.0	17.8
132.5°	39.7	39.7	38.6	37.6	35.5	33.4	31.3	27.2	24.0	19.8	15.7
135°	35.5	34.5	34.5	33.4	31.3	29.2	27.2	24.0	19.8	16.7	12.5
137.5°	31.3	30.3	29.2	28.2	27.2	25.1	23.0	20.9	17.8	13.6	10.4
140°	27.2	26.1	26.1	25.1	23.0	21.9	19.8	16.7	14.6	11.5	8.4
142.5°	23.0	23.0	21.9	20.9	19.8	18.8	16.7	14.6	11.5	9.4	6.3
145°	19.8	18.8	18.8	17.8	16.7	14.6	13.6	11.5	9.4	7.3	5.2
147.5°	15.7	15.7	15.7	14.6	13.6	12.5	11.5	9.4	7.3	5.2	3.1
150°	12.5	12.5	12.5	11.5	10.4	9.4	8.4	7.3	5.2	3.1	2.1
152.5°	10.4	10.4	9.4	9.4	8.4	7.3	6.3	5.2	3.1	2.1	2.1
155°	7.3	7.3	7.3	6.3	6.3	5.2	4.2	3.1	2.1	2.1	2.1
157.5°	5.2	5.2	5.2	4.2	4.2	3.1	3.1	2.1	2.1	2.1	2.1
160°	3.1	3.1	3.1	3.1	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: P1213486

CATALOG NUMBER: 4SNLED-LD5-60HL-LN-UNV-L935-CD1-U

CANDELA DISTRIBUTION (continued):

	330°	335°	340°	345°	350°	355°	360°
0°	1899.1	1899.1	1899.1	1899.1	1899.1	1899.1	1899.1
2.5°	1886.5	1885.5	1893.8	1893.8	1884.4	1899.1	1914.7
5°	1880.2	1879.2	1887.6	1887.6	1879.2	1893.8	1910.5
7.5°	1867.7	1868.8	1877.1	1879.2	1868.8	1882.3	1900.1
10°	1854.1	1853.1	1862.5	1864.6	1856.2	1868.8	1885.5
12.5°	1832.2	1832.2	1841.6	1844.7	1836.4	1851.0	1866.7
15°	1809.2	1809.2	1815.5	1820.7	1813.4	1827.0	1842.6
17.5°	1780.0	1778.9	1785.2	1791.5	1784.1	1798.8	1815.5
20°	1742.4	1742.4	1749.7	1757.0	1751.8	1765.3	1784.1
22.5°	1702.7	1698.5	1711.0	1716.2	1713.1	1726.7	1745.5
25°	1652.5	1651.5	1664.0	1671.3	1667.2	1681.8	1698.5
27.5°	1598.2	1597.2	1609.7	1619.1	1617.0	1630.6	1649.4
30°	1532.4	1537.6	1549.1	1564.8	1559.6	1574.2	1594.0
32.5°	1463.5	1468.7	1482.3	1499.0	1500.0	1511.5	1531.4
35°	1380.9	1394.5	1403.9	1425.9	1430.0	1441.5	1462.4
37.5°	1294.2	1309.9	1329.8	1346.5	1354.8	1364.2	1388.3
40°	1197.1	1220.1	1242.0	1261.9	1272.3	1281.7	1304.7
42.5°	1109.3	1127.1	1148.0	1167.8	1186.6	1195.0	1219.0
45°	1010.1	1031.0	1049.8	1073.8	1092.6	1102.0	1126.1
47.5°	913.0	933.9	958.9	975.6	995.5	1004.9	1027.9
50°	820.0	838.8	859.7	879.5	896.3	904.6	924.5
52.5°	728.1	747.9	767.8	780.3	798.1	804.3	821.0
55°	646.6	660.2	677.9	685.2	703.0	707.2	718.7
57.5°	568.3	577.7	583.9	596.5	609.0	618.4	632.0
60°	497.2	501.4	505.6	512.9	523.3	526.5	531.7
62.5°	433.5	432.5	440.8	442.9	443.9	454.4	449.2
65°	377.1	378.1	370.8	367.7	371.9	375.0	372.9
67.5°	330.1	323.8	317.6	310.2	304.0	307.1	304.0
70°	284.1	278.9	268.5	258.0	253.8	247.6	244.4
72.5°	247.6	235.0	224.6	211.0	203.7	196.4	191.2
75°	219.4	201.6	187.0	172.4	161.9	151.5	149.4
77.5°	190.1	173.4	156.7	141.0	125.3	113.9	109.7
80°	167.1	151.5	131.6	112.8	96.1	81.5	76.3
82.5°	146.2	129.5	109.7	89.8	71.0	55.4	49.1
85°	128.5	110.7	90.9	71.0	52.2	35.5	27.2
87.5°	114.9	95.1	75.2	56.4	36.6	19.8	10.4
90°	102.4	83.6	64.8	44.9	26.1	10.4	0.0
92.5°	90.9	73.1	54.3	36.6	19.8	6.3	1.0
95°	80.4	64.8	46.0	29.2	14.6	4.2	1.0
97.5°	72.1	56.4	39.7	24.0	11.5	3.1	1.0
100°	64.8	49.1	34.5	19.8	9.4	2.1	1.0
102.5°	57.5	43.9	29.2	16.7	7.3	1.0	1.0
105°	51.2	38.6	25.1	14.6	6.3	1.0	1.0
107.5°	46.0	34.5	21.9	12.5	4.2	1.0	1.0
110°	40.7	29.2	18.8	10.4	3.1	1.0	1.0



TEST NUMBER: P1213486

CATALOG NUMBER: 4SNLED-LD5-60HL-LN-UNV-L935-CD1-U

CANDELA DISTRIBUTION (continued):

	330°	335°	340°	345°	350°	355°	360°
112.5°	36.6	26.1	16.7	8.4	2.1	1.0	1.0
115°	32.4	23.0	14.6	7.3	2.1	1.0	1.0
117.5°	28.2	19.8	12.5	5.2	1.0	1.0	1.0
120°	25.1	17.8	10.4	4.2	1.0	1.0	1.0
122.5°	21.9	14.6	8.4	3.1	1.0	1.0	1.0
125°	18.8	12.5	7.3	2.1	1.0	1.0	1.0
127.5°	15.7	10.4	5.2	2.1	1.0	1.0	1.0
130°	13.6	8.4	4.2	1.0	1.0	1.0	1.0
132.5°	11.5	6.3	3.1	1.0	1.0	1.0	1.0
135°	9.4	5.2	2.1	1.0	1.0	1.0	1.0
137.5°	7.3	4.2	2.1	1.0	1.0	1.0	1.0
140°	5.2	3.1	1.0	1.0	1.0	1.0	1.0
142.5°	4.2	2.1	1.0	1.0	1.0	1.0	1.0
145°	3.1	2.1	1.0	1.0	1.0	1.0	1.0
147.5°	2.1	2.1	2.1	2.1	1.0	1.0	1.0
150°	2.1	2.1	1.0	1.0	2.1	1.0	1.0
152.5°	2.1	1.0	1.0	1.0	2.1	1.0	1.0
155°	2.1	2.1	2.1	2.1	2.1	2.1	1.0
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)