

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State
Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: CORELITE

Report Number: P303178

Luminaire Tested: **CTW-F-5050-50L840-UNV-STD-8**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P303178
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1903-181-10)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: CORELITE
Catalog Number: CTW-F-5050-50L840-UNV-STD-8
Description: CORELITE CONTINUA LINEAR WALL LED LUMINAIRE
50% UPLIGHT, 50% DOWNLIGHT, 5000 LUMEN PACKAGE
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

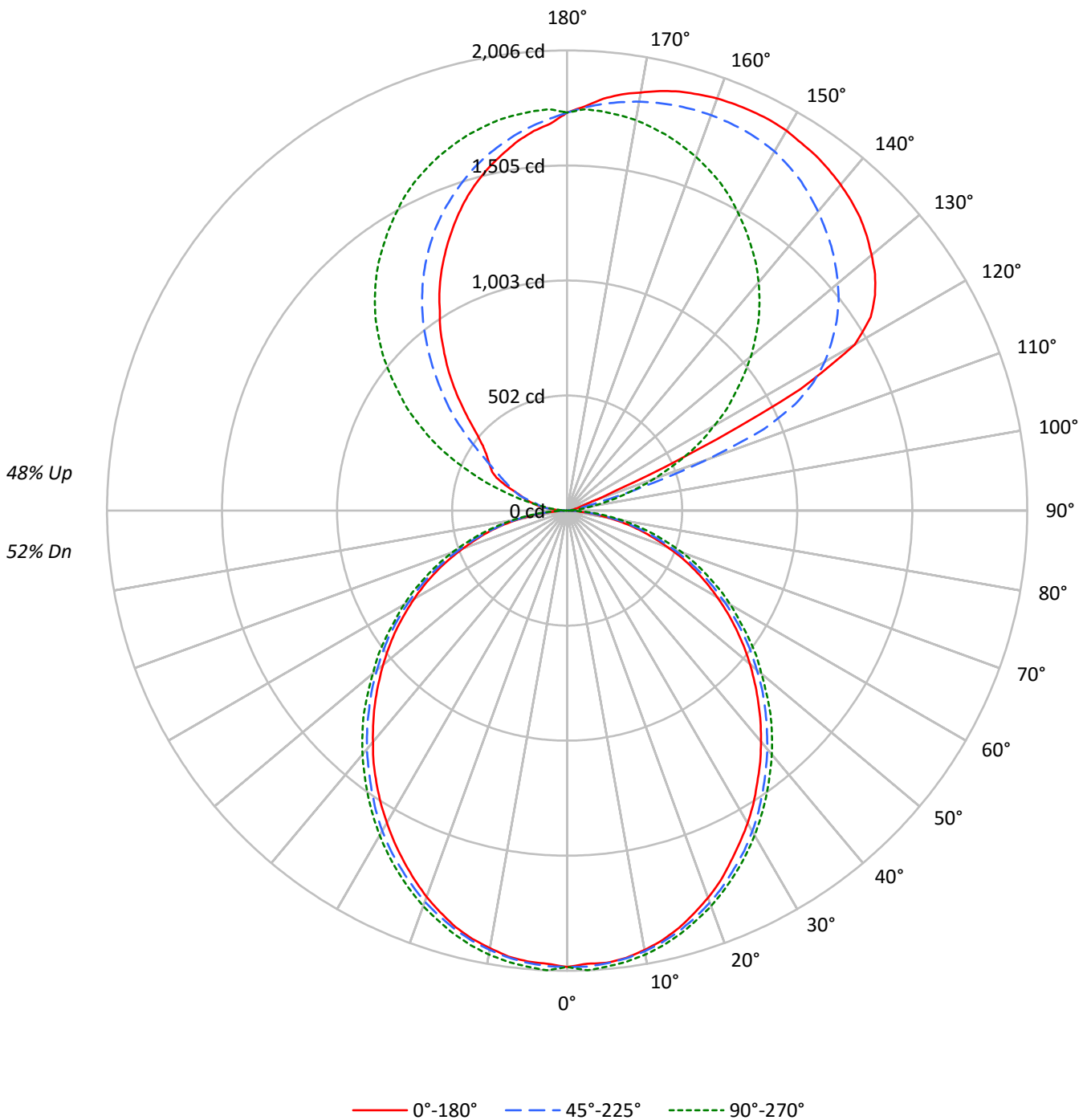
Lumens per Lamp: N/A
Luminaire Lumens: 10236.9 lumens
Efficiency: N/A
Efficacy: 130.2 lumens/watt
Spacing Criteria (0/90/45): 1.18 / 1.22 / 1.32
Luminous Opening: Rectangular (W 8' x L: 0.12' x H: 0')
CIE Type: General Diffuse

Input Watts (W): 78.6
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20	
RC	80				70				50				30				10	0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR																		
0	108	108	108	108	100	100	100	100	84	84	84	71	71	71	58	58	58	52
1	98	94	90	86	91	87	83	80	74	71	69	62	60	59	51	50	49	44
2	89	82	75	70	82	76	70	66	65	61	57	54	51	49	45	43	41	36
3	81	72	64	58	75	67	60	55	57	52	48	48	44	41	40	37	35	31
4	74	63	55	49	68	59	52	46	50	45	41	43	39	35	35	32	30	26
5	68	56	48	42	63	53	45	40	45	39	35	38	34	30	32	29	26	23
6	63	51	42	37	58	47	40	35	41	35	31	35	30	27	29	25	23	20
7	58	46	38	32	54	43	35	30	37	31	27	31	27	24	26	23	20	18
8	54	41	34	28	50	39	32	27	34	28	24	29	24	21	24	21	18	16
9	50	38	30	25	46	35	29	24	31	25	21	26	22	19	22	19	16	14
10	47	35	27	23	43	33	26	21	28	23	19	24	20	17	21	17	15	13

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	21415	21415	21415
5°	21386	21564	21320
10°	21256	21478	21166
15°	20989	21284	20944
20°	20572	21015	20525
25°	20045	20675	20022
30°	19560	20319	19535
35°	18992	19902	19044
40°	18475	19506	18503
45°	17935	19084	18028
50°	17409	18501	17546
55°	16871	18094	17100
60°	16281	17728	16587
65°	15628	17238	16043
70°	14691	16743	15204
75°	13566	16024	14581
80°	11623	14908	13141
85°	7299	13091	9571



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	187.8	1.8
10°-20°	532.0	5.2
20°-30°	787.6	7.7
30°-40°	924.9	9.0
40°-50°	937.8	9.2
50°-60°	836.5	8.2
60°-70°	641.2	6.3
70°-80°	377.5	3.7
80°-90°	101.8	1.0
90°-100°	49.4	0.5
100°-110°	213.1	2.1
110°-120°	597.2	5.8
120°-130°	863.4	8.4
130°-140°	932.0	9.1
140°-150°	886.4	8.7
150°-160°	727.5	7.1
160°-170°	475.6	4.6
170°-180°	164.8	1.6
0°-30°	1507.5	14.7
0°-40°	2432.4	23.8
0°-60°	4206.8	41.1
0°-90°	5327.3	52.0
90°-120°	859.8	8.4
90°-150°	3541.7	34.6
90°-180°	4910.0	48.0
0°-180°	10236.9	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1990	1990	1990	1990	1990	
5°	1979	1981	1996	1979	1973	188
15°	1884	1896	1910	1890	1880	530
25°	1688	1722	1741	1718	1686	778
35°	1445	1488	1515	1486	1449	905
45°	1178	1221	1254	1221	1184	909
55°	899	938	964	944	911	804
65°	614	642	677	652	630	607
75°	326	349	385	359	351	344
85°	59	78	106	88	78	76
90°	2	2	2	10	14	3
95°	12	14	37	67	61	13
105°	53	155	240	167	188	62
115°	618	1097	577	300	340	683
125°	1639	1433	895	495	430	1453
135°	1806	1629	1180	799	650	1393
145°	1890	1765	1400	1103	964	1184
155°	1918	1828	1578	1358	1252	887
165°	1892	1828	1692	1551	1492	536
175°	1802	1780	1747	1686	1661	173
180°	1735	1735	1735	1735	1735	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	1989.5	1989.5	1989.5	1989.5	1989.5	1989.5	1989.5	1989.5	1989.5	1989.5	1989.5
2.5°	1977.3	1975.3	1981.4	1985.5	1985.5	1987.5	1991.6	1993.6	1991.6	1999.7	1989.5
5°	1979.3	1975.3	1977.3	1977.3	1975.3	1977.3	1981.4	1983.4	1983.4	1991.6	1981.4
7.5°	1967.1	1965.1	1967.1	1965.1	1963.0	1965.1	1967.1	1971.2	1969.2	1977.3	1969.2
10°	1944.7	1942.7	1942.7	1942.7	1940.6	1942.7	1946.7	1950.8	1950.8	1956.9	1950.8
12.5°	1918.2	1914.1	1916.2	1918.2	1914.1	1916.2	1920.2	1924.3	1924.3	1932.5	1926.3
15°	1883.5	1881.5	1885.6	1889.7	1885.6	1885.6	1889.7	1891.7	1893.7	1899.8	1895.8
17.5°	1840.7	1840.7	1844.8	1850.9	1846.8	1846.8	1850.9	1855.0	1855.0	1859.1	1859.1
20°	1795.9	1793.8	1797.9	1802.0	1802.0	1800.0	1806.1	1810.2	1812.2	1816.3	1818.3
22.5°	1747.0	1742.9	1744.9	1751.0	1749.0	1749.0	1751.0	1759.2	1763.3	1767.3	1773.5
25°	1687.8	1687.8	1691.9	1696.0	1696.0	1696.0	1698.0	1704.2	1710.3	1716.4	1722.5
27.5°	1630.8	1630.8	1632.8	1641.0	1641.0	1638.9	1643.0	1653.2	1659.3	1663.4	1671.5
30°	1573.7	1567.6	1573.7	1579.8	1583.9	1579.8	1585.9	1594.1	1598.2	1604.3	1614.5
32.5°	1512.5	1510.5	1510.5	1518.7	1522.7	1520.7	1522.7	1532.9	1541.1	1543.1	1553.3
35°	1445.3	1447.3	1447.3	1453.4	1457.5	1455.5	1457.5	1467.7	1475.8	1477.9	1488.1
37.5°	1382.1	1382.1	1382.1	1388.2	1392.3	1392.3	1392.3	1402.5	1410.6	1416.7	1422.8
40°	1314.8	1316.8	1314.8	1320.9	1327.0	1325.0	1327.0	1335.2	1345.4	1351.5	1357.6
42.5°	1247.5	1245.5	1245.5	1251.6	1259.8	1257.7	1259.8	1267.9	1276.1	1284.2	1288.3
45°	1178.2	1174.2	1178.2	1184.3	1190.5	1192.5	1190.5	1198.6	1206.8	1212.9	1221.0
47.5°	1108.9	1106.9	1106.9	1113.0	1119.1	1119.1	1121.2	1127.3	1137.5	1141.5	1151.7
50°	1039.6	1039.6	1037.6	1043.7	1049.8	1051.8	1051.8	1055.9	1066.1	1074.3	1078.3
52.5°	970.3	970.3	970.3	972.3	976.4	982.5	982.5	986.6	992.7	1002.9	1009.0
55°	899.0	901.0	899.0	901.0	907.1	911.2	911.2	915.3	921.4	931.6	937.7
57.5°	827.6	829.7	827.6	829.7	835.8	837.8	839.8	843.9	848.0	856.2	862.3
60°	756.3	758.3	756.3	758.3	764.4	768.5	766.5	772.6	776.7	780.7	788.9
62.5°	684.9	689.0	687.0	691.0	693.1	697.2	695.1	701.2	705.3	709.4	717.5
65°	613.6	617.7	615.6	619.7	619.7	623.8	621.7	627.8	631.9	636.0	642.1
67.5°	542.2	546.3	544.3	546.3	548.3	552.4	548.3	556.5	560.6	562.6	568.7
70°	466.8	470.9	468.8	470.9	472.9	475.0	472.9	479.0	485.2	487.2	491.3
72.5°	395.5	399.5	399.5	401.6	401.6	405.7	405.7	405.7	409.7	415.8	417.9
75°	326.2	330.2	330.2	330.2	330.2	334.3	334.3	338.4	340.4	344.5	348.6
77.5°	256.8	260.9	260.9	260.9	260.9	265.0	265.0	269.1	271.1	275.2	279.3
80°	187.5	191.6	193.7	193.7	193.7	195.7	195.7	199.8	201.8	205.9	210.0
82.5°	122.3	124.3	126.4	124.3	126.4	128.4	132.5	132.5	134.5	138.6	142.7
85°	59.1	61.2	63.2	63.2	63.2	65.2	65.2	69.3	71.3	73.4	77.5
87.5°	8.2	10.2	10.2	10.2	10.2	12.2	12.2	12.2	14.3	14.3	18.3
90°	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
92.5°	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1
95°	12.2	12.2	12.2	12.2	12.2	12.2	12.2	12.2	12.2	12.2	14.3
97.5°	18.3	18.3	20.4	18.3	20.4	20.4	20.4	20.4	22.4	22.4	26.5
100°	28.5	28.5	28.5	28.5	28.5	28.5	30.6	30.6	34.7	36.7	42.8
102.5°	38.7	38.7	38.7	40.8	40.8	42.8	42.8	44.8	51.0	59.1	77.5
105°	53.0	53.0	55.0	55.0	57.1	59.1	61.2	69.3	81.5	106.0	154.9
107.5°	73.4	75.4	77.5	79.5	85.6	91.7	97.8	120.3	157.0	232.4	346.5
110°	116.2	118.2	126.4	134.5	154.9	175.3	195.7	271.1	381.2	519.8	646.2



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
112.5°	242.6	250.7	256.8	305.8	371.0	428.1	481.1	615.6	760.3	878.6	927.5
115°	617.7	631.9	642.1	737.9	839.8	905.1	945.8	1037.6	1096.7	1115.0	1096.7
117.5°	1147.7	1153.8	1168.0	1202.7	1249.6	1272.0	1276.1	1290.3	1276.1	1247.5	1210.8
120°	1447.3	1447.3	1439.2	1441.2	1435.1	1435.1	1426.9	1404.5	1373.9	1339.3	1296.5
122.5°	1569.6	1563.5	1553.3	1545.2	1526.8	1522.7	1510.5	1482.0	1449.3	1414.7	1367.8
125°	1638.9	1632.8	1624.7	1614.5	1594.1	1585.9	1573.7	1545.2	1512.5	1475.8	1433.0
127.5°	1691.9	1685.8	1677.7	1667.5	1649.1	1641.0	1626.7	1598.2	1565.5	1530.9	1492.2
130°	1732.7	1730.7	1720.5	1714.3	1696.0	1687.8	1673.6	1645.0	1614.5	1579.8	1541.1
132.5°	1771.4	1767.3	1757.2	1753.1	1736.8	1726.6	1714.3	1687.8	1657.3	1622.6	1585.9
135°	1806.1	1802.0	1789.8	1785.7	1771.4	1759.2	1749.0	1724.5	1698.0	1663.4	1628.7
137.5°	1832.6	1826.5	1818.3	1814.2	1800.0	1787.7	1779.6	1757.2	1730.7	1698.0	1665.4
140°	1855.0	1848.9	1842.8	1838.7	1826.5	1816.3	1806.1	1783.7	1761.2	1734.7	1702.1
142.5°	1873.3	1869.3	1863.2	1857.0	1844.8	1836.7	1828.5	1810.2	1789.8	1763.3	1734.7
145°	1889.7	1885.6	1879.5	1875.4	1861.1	1855.0	1846.8	1830.5	1812.2	1785.7	1765.3
147.5°	1899.8	1897.8	1893.7	1889.7	1875.4	1869.3	1861.1	1848.9	1830.5	1806.1	1787.7
150°	1912.1	1908.0	1903.9	1901.9	1887.6	1881.5	1877.4	1863.2	1846.8	1824.4	1808.1
152.5°	1918.2	1914.1	1910.0	1908.0	1893.7	1889.7	1885.6	1873.3	1855.0	1834.6	1820.3
155°	1918.2	1916.2	1912.1	1910.0	1895.8	1889.7	1887.6	1875.4	1859.1	1842.8	1828.5
157.5°	1916.2	1912.1	1910.0	1906.0	1893.7	1889.7	1885.6	1875.4	1861.1	1846.8	1832.6
160°	1912.1	1908.0	1906.0	1901.9	1891.7	1887.6	1885.6	1875.4	1865.2	1850.9	1834.6
162.5°	1901.9	1899.8	1897.8	1895.8	1887.6	1883.5	1881.5	1873.3	1861.1	1848.9	1832.6
165°	1891.7	1887.6	1885.6	1881.5	1873.3	1873.3	1871.3	1865.2	1853.0	1846.8	1828.5
167.5°	1873.3	1867.2	1867.2	1861.1	1855.0	1855.0	1853.0	1850.9	1840.7	1836.7	1820.3
170°	1850.9	1848.9	1844.8	1842.8	1838.7	1838.7	1836.7	1834.6	1826.5	1826.5	1810.2
172.5°	1830.5	1828.5	1826.5	1822.4	1816.3	1816.3	1816.3	1816.3	1810.2	1810.2	1795.9
175°	1802.0	1797.9	1797.9	1795.9	1791.8	1793.8	1793.8	1793.8	1789.8	1793.8	1779.6
177.5°	1763.3	1759.2	1763.3	1767.3	1765.3	1767.3	1769.4	1769.4	1765.3	1771.4	1759.2
180°	1734.7	1734.7	1734.7	1734.7	1734.7	1734.7	1734.7	1734.7	1734.7	1734.7	1734.7



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CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	1989.5	1989.5	1989.5	1989.5	1989.5	1989.5	1989.5	1989.5	1989.5	1989.5	1989.5
2.5°	1981.4	1983.4	1981.4	1983.4	1985.5	1983.4	1985.5	1993.6	2001.8	2005.8	2001.8
5°	1973.2	1975.3	1973.2	1975.3	1977.3	1975.3	1977.3	1983.4	1993.6	1995.7	1993.6
7.5°	1961.0	1963.0	1961.0	1963.0	1963.0	1963.0	1963.0	1971.2	1979.3	1983.4	1979.3
10°	1940.6	1942.7	1940.6	1944.7	1944.7	1944.7	1944.7	1952.8	1961.0	1965.1	1959.0
12.5°	1916.2	1918.2	1916.2	1920.2	1918.2	1920.2	1922.3	1928.4	1936.5	1940.6	1936.5
15°	1883.5	1887.6	1885.6	1889.7	1889.7	1889.7	1889.7	1897.8	1906.0	1910.0	1906.0
17.5°	1846.8	1848.9	1848.9	1853.0	1853.0	1853.0	1855.0	1863.2	1869.3	1873.3	1869.3
20°	1806.1	1810.2	1810.2	1812.2	1812.2	1814.2	1816.3	1822.4	1830.5	1834.6	1830.5
22.5°	1761.2	1765.3	1767.3	1767.3	1767.3	1769.4	1771.4	1777.5	1787.7	1789.8	1785.7
25°	1714.3	1714.3	1718.4	1718.4	1720.5	1722.5	1724.5	1728.6	1738.8	1740.8	1738.8
27.5°	1663.4	1661.3	1663.4	1667.5	1667.5	1671.5	1673.6	1677.7	1685.8	1689.9	1685.8
30°	1606.3	1606.3	1610.4	1612.4	1612.4	1614.5	1618.5	1622.6	1630.8	1634.8	1630.8
32.5°	1549.2	1547.2	1553.3	1553.3	1555.3	1557.4	1559.4	1565.5	1571.7	1575.7	1573.7
35°	1490.1	1484.0	1492.2	1492.2	1494.2	1498.3	1498.3	1502.3	1510.5	1514.6	1510.5
37.5°	1429.0	1422.8	1429.0	1433.0	1431.0	1435.1	1437.1	1441.2	1449.3	1451.4	1451.4
40°	1365.8	1359.7	1365.8	1367.8	1367.8	1369.8	1373.9	1376.0	1382.1	1388.2	1384.1
42.5°	1296.5	1294.4	1298.5	1302.6	1302.6	1304.6	1306.7	1308.7	1314.8	1320.9	1316.8
45°	1227.2	1227.2	1231.2	1235.3	1237.3	1237.3	1239.4	1241.4	1245.5	1253.7	1247.5
47.5°	1157.8	1157.8	1161.9	1164.0	1164.0	1166.0	1170.1	1170.1	1178.2	1178.2	1180.3
50°	1084.5	1088.5	1092.6	1098.7	1094.7	1096.7	1100.8	1100.8	1104.8	1104.8	1111.0
52.5°	1013.1	1015.2	1021.3	1027.4	1029.4	1027.4	1029.4	1029.4	1033.5	1039.6	1035.5
55°	941.8	941.8	949.9	956.0	956.0	956.0	956.0	958.1	964.2	964.2	964.2
57.5°	868.4	870.4	876.5	884.7	884.7	884.7	884.7	886.7	890.8	888.8	894.9
60°	797.0	797.0	805.2	809.3	809.3	813.3	813.3	815.4	817.4	823.5	823.5
62.5°	725.7	725.7	731.8	735.9	740.0	737.9	740.0	742.0	746.1	752.2	748.1
65°	652.3	652.3	658.4	660.5	666.6	664.5	666.6	672.7	674.7	676.8	674.7
67.5°	576.9	578.9	585.0	587.1	593.2	595.2	593.2	601.3	603.4	607.5	605.4
70°	497.4	499.4	507.6	509.6	513.7	511.7	515.7	525.9	530.0	532.0	528.0
72.5°	426.0	428.1	436.2	438.3	442.3	440.3	444.4	450.5	454.6	456.6	456.6
75°	352.7	356.7	360.8	364.9	371.0	369.0	373.0	379.2	383.2	385.3	385.3
77.5°	283.3	285.4	291.5	293.5	299.7	297.6	299.7	303.7	309.8	311.9	311.9
80°	214.0	218.1	220.2	224.2	228.3	226.3	230.3	236.5	238.5	240.5	240.5
82.5°	146.8	148.8	152.9	157.0	161.0	163.1	165.1	169.2	171.2	171.2	171.2
85°	81.5	85.6	89.7	91.7	95.8	93.8	99.9	104.0	106.0	106.0	108.0
87.5°	22.4	26.5	28.5	32.6	36.7	36.7	36.7	44.8	44.8	46.9	46.9
90°	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
92.5°	6.1	8.2	8.2	10.2	12.2	14.3	20.4	20.4	16.3	14.3	16.3
95°	16.3	18.3	22.4	34.7	42.8	48.9	57.1	55.0	46.9	36.7	34.7
97.5°	30.6	38.7	55.0	83.6	99.9	108.0	116.2	104.0	87.7	71.3	65.2
100°	57.1	77.5	118.2	167.2	185.5	193.7	191.6	165.1	142.7	116.2	101.9
102.5°	108.0	165.1	234.4	289.5	301.7	291.5	275.2	242.6	210.0	173.3	150.8
105°	234.4	332.3	403.6	424.0	430.1	409.7	371.0	330.2	283.3	240.5	207.9
107.5°	466.8	556.5	583.0	568.7	560.6	525.9	477.0	424.0	369.0	316.0	275.2
110°	740.0	756.3	737.9	693.1	668.6	638.0	583.0	521.8	452.5	399.5	350.6



TEST NUMBER: P303178

CATALOG NUMBER: CTW-F-5050-50L840-UNV-STD-8

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
112.5°	939.7	905.1	858.2	799.1	770.5	737.9	678.8	619.7	544.3	485.2	432.2
115°	1068.2	1017.2	960.1	896.9	866.3	831.7	772.6	707.3	631.9	576.9	515.7
117.5°	1168.0	1104.8	1047.8	986.6	958.1	923.4	864.3	793.0	717.5	662.5	601.3
120°	1245.5	1186.4	1127.3	1070.2	1037.6	1009.0	947.9	876.5	801.1	740.0	682.9
122.5°	1314.8	1259.8	1202.7	1147.7	1117.1	1084.5	1021.3	952.0	882.7	825.6	768.5
125°	1380.0	1329.1	1272.0	1217.0	1186.4	1153.8	1092.6	1025.3	956.0	894.9	846.0
127.5°	1441.2	1392.3	1335.2	1282.2	1251.6	1217.0	1157.8	1092.6	1033.5	970.3	921.4
130°	1496.2	1451.4	1396.3	1343.3	1312.8	1280.2	1221.0	1157.8	1100.8	1045.7	992.7
132.5°	1545.2	1500.3	1447.3	1398.4	1365.8	1337.2	1280.2	1221.0	1164.0	1113.0	1064.1
135°	1592.0	1545.2	1496.2	1445.3	1416.7	1390.2	1335.2	1280.2	1227.2	1180.3	1135.4
137.5°	1634.8	1583.9	1535.0	1486.0	1459.5	1437.1	1384.1	1333.2	1288.3	1241.4	1196.6
140°	1671.5	1618.5	1573.7	1526.8	1502.3	1479.9	1431.0	1382.1	1343.3	1298.5	1255.7
142.5°	1700.1	1647.1	1606.3	1561.5	1539.0	1520.7	1473.8	1431.0	1392.3	1353.5	1310.7
145°	1722.5	1675.6	1636.9	1594.1	1575.7	1555.3	1512.5	1473.8	1439.2	1400.4	1361.7
147.5°	1744.9	1704.2	1665.4	1626.7	1608.3	1590.0	1551.3	1516.6	1484.0	1449.3	1410.6
150°	1763.3	1726.6	1691.9	1657.3	1641.0	1622.6	1588.0	1555.3	1526.8	1494.2	1457.5
152.5°	1775.5	1744.9	1714.3	1683.8	1667.5	1653.2	1620.6	1594.1	1567.6	1539.0	1502.3
155°	1785.7	1761.2	1732.7	1706.2	1691.9	1679.7	1649.1	1624.7	1602.2	1577.8	1545.2
157.5°	1795.9	1771.4	1747.0	1722.5	1710.3	1698.0	1671.5	1653.2	1632.8	1610.4	1579.8
160°	1800.0	1781.6	1757.2	1736.8	1726.6	1716.4	1694.0	1677.7	1661.3	1641.0	1612.4
162.5°	1802.0	1785.7	1765.3	1749.0	1740.8	1732.7	1710.3	1698.0	1683.8	1667.5	1643.0
165°	1802.0	1789.8	1773.5	1759.2	1751.0	1744.9	1726.6	1716.4	1706.2	1691.9	1669.5
167.5°	1800.0	1787.7	1775.5	1763.3	1757.2	1751.0	1736.8	1730.7	1722.5	1710.3	1691.9
170°	1793.8	1785.7	1773.5	1765.3	1761.2	1755.1	1744.9	1740.8	1736.8	1728.6	1710.3
172.5°	1783.7	1777.5	1769.4	1763.3	1761.2	1755.1	1747.0	1744.9	1744.9	1738.8	1724.5
175°	1769.4	1767.3	1761.2	1757.2	1753.1	1751.0	1744.9	1747.0	1749.0	1747.0	1734.7
177.5°	1751.0	1751.0	1747.0	1747.0	1744.9	1742.9	1740.8	1744.9	1751.0	1751.0	1742.9
180°	1734.7	1734.7	1734.7	1734.7	1734.7	1734.7	1734.7	1734.7	1734.7	1734.7	1734.7



TEST NUMBER: P303178

CATALOG NUMBER: CTW-F-5050-50L840-UNV-STD-8

CANDELA DISTRIBUTION (continued):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	1989.5	1989.5	1989.5	1989.5	1989.5	1989.5	1989.5	1989.5	1989.5	1989.5	1989.5
2.5°	1995.7	1987.5	1985.5	1985.5	1983.4	1979.3	1977.3	1979.3	1987.5	1999.7	1987.5
5°	1987.5	1979.3	1975.3	1975.3	1975.3	1969.2	1969.2	1969.2	1979.3	1989.5	1977.3
7.5°	1973.2	1965.1	1963.0	1963.0	1961.0	1956.9	1954.9	1956.9	1965.1	1975.3	1963.0
10°	1954.9	1946.7	1944.7	1942.7	1940.6	1936.5	1934.5	1936.5	1944.7	1952.8	1942.7
12.5°	1930.4	1922.3	1918.2	1920.2	1916.2	1910.0	1910.0	1910.0	1920.2	1926.3	1916.2
15°	1899.8	1889.7	1887.6	1887.6	1885.6	1879.5	1879.5	1879.5	1889.7	1893.7	1881.5
17.5°	1863.2	1855.0	1853.0	1853.0	1848.9	1842.8	1842.8	1840.7	1853.0	1855.0	1846.8
20°	1824.4	1816.3	1812.2	1812.2	1808.1	1802.0	1802.0	1800.0	1814.2	1810.2	1804.0
22.5°	1781.6	1771.4	1767.3	1769.4	1765.3	1757.2	1757.2	1755.1	1767.3	1761.2	1753.1
25°	1734.7	1722.5	1720.5	1718.4	1716.4	1706.2	1706.2	1706.2	1718.4	1708.2	1702.1
27.5°	1679.7	1671.5	1669.5	1663.4	1663.4	1655.2	1655.2	1655.2	1667.5	1653.2	1651.2
30°	1624.7	1616.5	1616.5	1610.4	1608.3	1600.2	1600.2	1600.2	1612.4	1598.2	1594.1
32.5°	1569.6	1559.4	1555.3	1551.3	1551.3	1543.1	1543.1	1543.1	1551.3	1537.0	1532.9
35°	1508.5	1498.3	1498.3	1490.1	1490.1	1482.0	1479.9	1484.0	1486.0	1473.8	1469.7
37.5°	1445.3	1435.1	1435.1	1429.0	1429.0	1420.8	1420.8	1426.9	1420.8	1414.7	1406.5
40°	1382.1	1373.9	1369.8	1363.7	1365.8	1359.7	1357.6	1361.7	1357.6	1351.5	1341.3
42.5°	1314.8	1306.7	1304.6	1300.5	1300.5	1294.4	1292.4	1296.5	1290.3	1282.2	1276.1
45°	1247.5	1241.4	1239.4	1235.3	1235.3	1227.2	1227.2	1229.2	1221.0	1217.0	1208.8
47.5°	1176.2	1172.1	1168.0	1168.0	1166.0	1159.9	1159.9	1159.9	1153.8	1149.7	1139.5
50°	1106.9	1100.8	1098.7	1098.7	1098.7	1092.6	1090.6	1086.5	1082.4	1080.4	1070.2
52.5°	1035.5	1031.5	1029.4	1029.4	1031.5	1021.3	1019.2	1015.2	1013.1	1011.1	998.8
55°	964.2	960.1	956.0	960.1	958.1	949.9	947.9	949.9	943.8	937.7	927.5
57.5°	892.8	886.7	886.7	888.8	886.7	878.6	876.5	878.6	870.4	864.3	856.2
60°	821.5	815.4	813.3	815.4	813.3	805.2	803.2	803.2	797.0	793.0	784.8
62.5°	750.2	744.0	744.0	744.0	742.0	737.9	731.8	731.8	725.7	719.6	713.5
65°	674.7	668.6	670.7	670.7	670.7	666.6	660.5	662.5	652.3	648.2	642.1
67.5°	603.4	597.3	597.3	597.3	597.3	597.3	587.1	585.0	578.9	576.9	570.8
70°	528.0	519.8	521.8	519.8	517.8	515.7	509.6	507.6	501.5	501.5	495.3
72.5°	452.5	448.5	448.5	448.5	446.4	444.4	440.3	438.3	430.1	430.1	426.0
75°	377.1	377.1	375.1	375.1	375.1	373.0	369.0	366.9	358.8	360.8	356.7
77.5°	307.8	307.8	303.7	303.7	303.7	301.7	299.7	293.5	293.5	289.5	287.4
80°	236.5	236.5	234.4	234.4	234.4	232.4	230.3	228.3	224.2	222.2	218.1
82.5°	171.2	169.2	167.2	167.2	165.1	165.1	163.1	161.0	157.0	150.8	148.8
85°	104.0	104.0	101.9	101.9	99.9	99.9	95.8	91.7	87.7	83.6	81.5
87.5°	44.8	44.8	38.7	38.7	36.7	36.7	34.7	32.6	28.5	26.5	24.5
90°	4.1	6.1	6.1	6.1	8.2	8.2	8.2	10.2	10.2	10.2	10.2
92.5°	24.5	30.6	32.6	32.6	32.6	32.6	32.6	32.6	32.6	30.6	30.6
95°	40.8	44.8	55.0	59.1	63.2	67.3	67.3	67.3	67.3	65.2	61.2
97.5°	61.2	65.2	71.3	71.3	73.4	83.6	91.7	95.8	99.9	101.9	101.9
100°	95.8	87.7	95.8	101.9	99.9	99.9	104.0	112.1	120.3	124.3	126.4
102.5°	136.6	122.3	118.2	122.3	126.4	134.5	130.5	132.5	136.6	142.7	148.8
105°	187.5	169.2	154.9	152.9	152.9	161.0	171.2	169.2	167.2	167.2	167.2
107.5°	246.7	220.2	197.7	193.7	189.6	189.6	195.7	207.9	216.1	207.9	203.8
110°	313.9	277.2	254.8	242.6	234.4	226.3	226.3	232.4	242.6	252.8	256.8



TEST NUMBER: P303178

CATALOG NUMBER: CTW-F-5050-50L840-UNV-STD-8

CANDELA DISTRIBUTION (continued):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
112.5°	389.3	344.5	313.9	303.7	287.4	269.1	263.0	263.0	269.1	279.3	287.4
115°	466.8	419.9	377.1	364.9	348.6	320.0	303.7	299.7	299.7	303.7	311.9
117.5°	552.4	495.3	448.5	432.2	413.8	381.2	354.7	340.4	334.3	334.3	338.4
120°	627.8	578.9	530.0	507.6	485.2	448.5	413.8	391.4	377.1	369.0	366.9
122.5°	713.5	662.5	609.5	591.2	566.7	523.9	487.2	452.5	430.1	413.8	401.6
125°	790.9	744.0	689.0	666.6	644.2	601.3	564.7	525.9	495.3	468.8	448.5
127.5°	866.3	819.5	766.5	746.1	723.7	678.8	640.1	603.4	570.8	538.2	509.6
130°	941.8	896.9	843.9	821.5	801.1	758.3	715.5	678.8	650.3	617.7	585.0
132.5°	1015.2	968.3	919.3	894.9	876.5	833.7	795.0	756.3	723.7	695.1	664.5
135°	1084.5	1039.6	990.7	966.2	947.9	909.2	870.4	835.8	799.1	770.5	742.0
137.5°	1149.7	1104.8	1062.0	1035.5	1017.2	982.5	945.8	913.2	876.5	846.0	817.4
140°	1210.8	1168.0	1127.3	1104.8	1084.5	1049.8	1017.2	990.7	952.0	923.4	894.9
142.5°	1267.9	1225.1	1186.4	1168.0	1147.7	1115.0	1084.5	1060.0	1031.5	1000.9	972.3
145°	1318.9	1282.2	1245.5	1227.2	1208.8	1178.2	1149.7	1127.3	1102.8	1072.2	1045.7
147.5°	1371.9	1335.2	1300.5	1284.2	1270.0	1239.4	1212.9	1190.5	1172.1	1143.6	1117.1
150°	1420.8	1386.2	1355.6	1339.3	1327.0	1294.4	1274.0	1251.6	1237.3	1210.8	1188.4
152.5°	1467.7	1437.1	1406.5	1394.3	1380.0	1349.5	1329.1	1306.7	1298.5	1272.0	1253.7
155°	1512.5	1479.9	1455.5	1443.2	1429.0	1400.4	1384.1	1363.7	1357.6	1333.2	1314.8
157.5°	1553.3	1520.7	1498.3	1486.0	1473.8	1449.3	1433.0	1414.7	1410.6	1392.3	1371.9
160°	1588.0	1557.4	1537.0	1528.8	1516.6	1494.2	1477.9	1463.6	1459.5	1447.3	1426.9
162.5°	1618.5	1592.0	1575.7	1565.5	1555.3	1535.0	1522.7	1506.4	1506.4	1496.2	1479.9
165°	1649.1	1624.7	1608.3	1600.2	1592.0	1575.7	1561.5	1551.3	1551.3	1543.1	1526.8
167.5°	1673.6	1651.2	1638.9	1630.8	1624.7	1608.3	1598.2	1588.0	1590.0	1585.9	1569.6
170°	1696.0	1675.6	1665.4	1659.3	1653.2	1638.9	1632.8	1622.6	1624.7	1624.7	1610.4
172.5°	1714.3	1696.0	1687.8	1681.7	1679.7	1665.4	1661.3	1655.2	1657.3	1661.3	1643.0
175°	1726.6	1712.3	1704.2	1702.1	1698.0	1689.9	1683.8	1681.7	1685.8	1691.9	1675.6
177.5°	1736.8	1724.5	1720.5	1720.5	1716.4	1708.2	1704.2	1704.2	1710.3	1718.4	1706.2
180°	1734.7	1734.7	1734.7	1734.7	1734.7	1734.7	1734.7	1734.7	1734.7	1734.7	1734.7



TEST NUMBER: P303178

CATALOG NUMBER: CTW-F-5050-50L840-UNV-STD-8

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	1989.5	1989.5	1989.5	1989.5	1989.5	1989.5	1989.5	1989.5
2.5°	1991.6	1989.5	1987.5	1983.4	1981.4	1977.3	1975.3	1977.3
5°	1979.3	1977.3	1975.3	1973.2	1973.2	1971.2	1971.2	1973.2
7.5°	1965.1	1963.0	1961.0	1959.0	1959.0	1959.0	1959.0	1961.0
10°	1944.7	1940.6	1938.6	1936.5	1934.5	1934.5	1934.5	1936.5
12.5°	1918.2	1914.1	1910.0	1908.0	1908.0	1908.0	1908.0	1912.1
15°	1883.5	1881.5	1879.5	1877.4	1877.4	1875.4	1875.4	1879.5
17.5°	1848.9	1844.8	1840.7	1838.7	1836.7	1836.7	1834.6	1836.7
20°	1802.0	1797.9	1793.8	1791.8	1791.8	1789.8	1789.8	1791.8
22.5°	1751.0	1744.9	1742.9	1740.8	1740.8	1738.8	1738.8	1740.8
25°	1700.1	1691.9	1689.9	1687.8	1687.8	1685.8	1685.8	1685.8
27.5°	1647.1	1638.9	1636.9	1632.8	1634.8	1630.8	1628.7	1630.8
30°	1590.0	1581.8	1579.8	1575.7	1575.7	1571.7	1569.6	1571.7
32.5°	1528.8	1520.7	1518.7	1516.6	1518.7	1510.5	1508.5	1512.5
35°	1465.7	1457.5	1457.5	1453.4	1455.5	1447.3	1447.3	1449.3
37.5°	1400.4	1392.3	1394.3	1390.2	1390.2	1384.1	1384.1	1386.2
40°	1335.2	1329.1	1325.0	1325.0	1327.0	1318.9	1318.9	1316.8
42.5°	1267.9	1261.8	1259.8	1259.8	1257.7	1251.6	1249.6	1251.6
45°	1200.7	1194.5	1194.5	1192.5	1192.5	1184.3	1186.4	1184.3
47.5°	1131.3	1127.3	1125.2	1123.2	1123.2	1115.0	1117.1	1115.0
50°	1062.0	1060.0	1058.0	1055.9	1055.9	1047.8	1051.8	1047.8
52.5°	992.7	990.7	988.7	988.7	986.6	982.5	982.5	978.5
55°	923.4	919.3	919.3	919.3	917.3	911.2	915.3	911.2
57.5°	854.1	850.0	848.0	846.0	846.0	843.9	841.9	839.8
60°	782.8	778.7	778.7	774.6	774.6	774.6	772.6	770.5
62.5°	711.4	707.3	707.3	705.3	705.3	705.3	703.3	701.2
65°	642.1	636.0	636.0	634.0	634.0	634.0	631.9	629.9
67.5°	568.7	564.7	564.7	562.6	564.7	564.7	562.6	558.5
70°	493.3	489.2	489.2	487.2	489.2	489.2	487.2	483.1
72.5°	424.0	419.9	417.9	419.9	419.9	419.9	415.8	413.8
75°	354.7	348.6	348.6	350.6	348.6	350.6	346.5	350.6
77.5°	285.4	279.3	279.3	281.3	279.3	279.3	277.2	281.3
80°	214.0	210.0	210.0	212.0	210.0	210.0	207.9	212.0
82.5°	146.8	144.7	146.8	142.7	138.6	138.6	136.6	140.7
85°	81.5	79.5	77.5	77.5	75.4	75.4	73.4	77.5
87.5°	24.5	26.5	26.5	24.5	24.5	24.5	24.5	26.5
90°	10.2	10.2	10.2	12.2	12.2	14.3	14.3	14.3
92.5°	30.6	30.6	28.5	30.6	28.5	28.5	28.5	28.5
95°	61.2	61.2	61.2	61.2	61.2	61.2	61.2	61.2
97.5°	101.9	104.0	101.9	104.0	101.9	99.9	101.9	99.9
100°	128.4	132.5	132.5	134.5	134.5	134.5	134.5	134.5
102.5°	152.9	157.0	157.0	159.0	159.0	161.0	161.0	159.0
105°	173.3	175.3	177.3	179.4	183.5	187.5	187.5	187.5
107.5°	201.8	205.9	203.8	205.9	207.9	207.9	207.9	207.9
110°	252.8	248.7	246.7	242.6	242.6	242.6	242.6	242.6



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CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
112.5°	295.6	299.7	299.7	299.7	299.7	297.6	293.5	293.5
115°	322.1	330.2	332.3	334.3	338.4	340.4	340.4	340.4
117.5°	342.5	350.6	352.7	356.7	360.8	364.9	366.9	369.0
120°	369.0	375.1	377.1	377.1	381.2	383.2	387.3	387.3
122.5°	399.5	401.6	401.6	401.6	403.6	405.7	407.7	407.7
125°	440.3	434.2	434.2	430.1	430.1	428.1	430.1	430.1
127.5°	491.3	483.1	479.0	472.9	468.8	462.7	462.7	462.7
130°	562.6	548.3	540.2	530.0	521.8	509.6	509.6	509.6
132.5°	640.1	617.7	611.5	601.3	589.1	576.9	574.8	574.8
135°	719.6	695.1	687.0	676.8	662.5	652.3	644.2	650.3
137.5°	795.0	772.6	770.5	762.4	744.0	731.8	729.8	729.8
140°	872.5	848.0	843.9	835.8	825.6	813.3	807.2	809.3
142.5°	947.9	923.4	919.3	913.2	899.0	888.8	882.7	884.7
145°	1025.3	1000.9	996.8	988.7	974.4	966.2	958.1	964.2
147.5°	1098.7	1076.3	1070.2	1060.0	1051.8	1041.7	1035.5	1033.5
150°	1170.1	1147.7	1143.6	1133.4	1125.2	1117.1	1108.9	1113.0
152.5°	1237.3	1221.0	1212.9	1202.7	1196.6	1188.4	1182.3	1184.3
155°	1300.5	1280.2	1276.1	1267.9	1263.8	1255.7	1251.6	1251.6
157.5°	1355.6	1343.3	1337.2	1331.1	1325.0	1320.9	1314.8	1316.8
160°	1414.7	1402.5	1396.3	1392.3	1384.1	1384.1	1378.0	1380.0
162.5°	1469.7	1459.5	1453.4	1449.3	1445.3	1443.2	1437.1	1439.2
165°	1518.7	1508.5	1506.4	1500.3	1498.3	1498.3	1492.2	1492.2
167.5°	1563.5	1555.3	1549.2	1547.2	1543.1	1543.1	1539.0	1541.1
170°	1606.3	1598.2	1594.1	1590.0	1585.9	1585.9	1583.9	1583.9
172.5°	1643.0	1636.9	1634.8	1630.8	1628.7	1628.7	1626.7	1626.7
175°	1677.7	1671.5	1669.5	1665.4	1663.4	1661.3	1661.3	1661.3
177.5°	1708.2	1706.2	1702.1	1702.1	1698.0	1694.0	1689.9	1687.8
180°	1734.7	1734.7	1734.7	1734.7	1734.7	1734.7	1734.7	1734.7

(END OF REPORT)