

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: P303176

Luminaire Tested: **CTW-F-5050-50L830-UNV-STD-8**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P303176
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-5050-50L830-UNV-STD-8
Description: CORELITE CONTINUA LINEAR WALL LED LUMINAIRE
50% UPLIGHT, 50% DOWNLIGHT, 5000 LUMEN PACKAGE
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

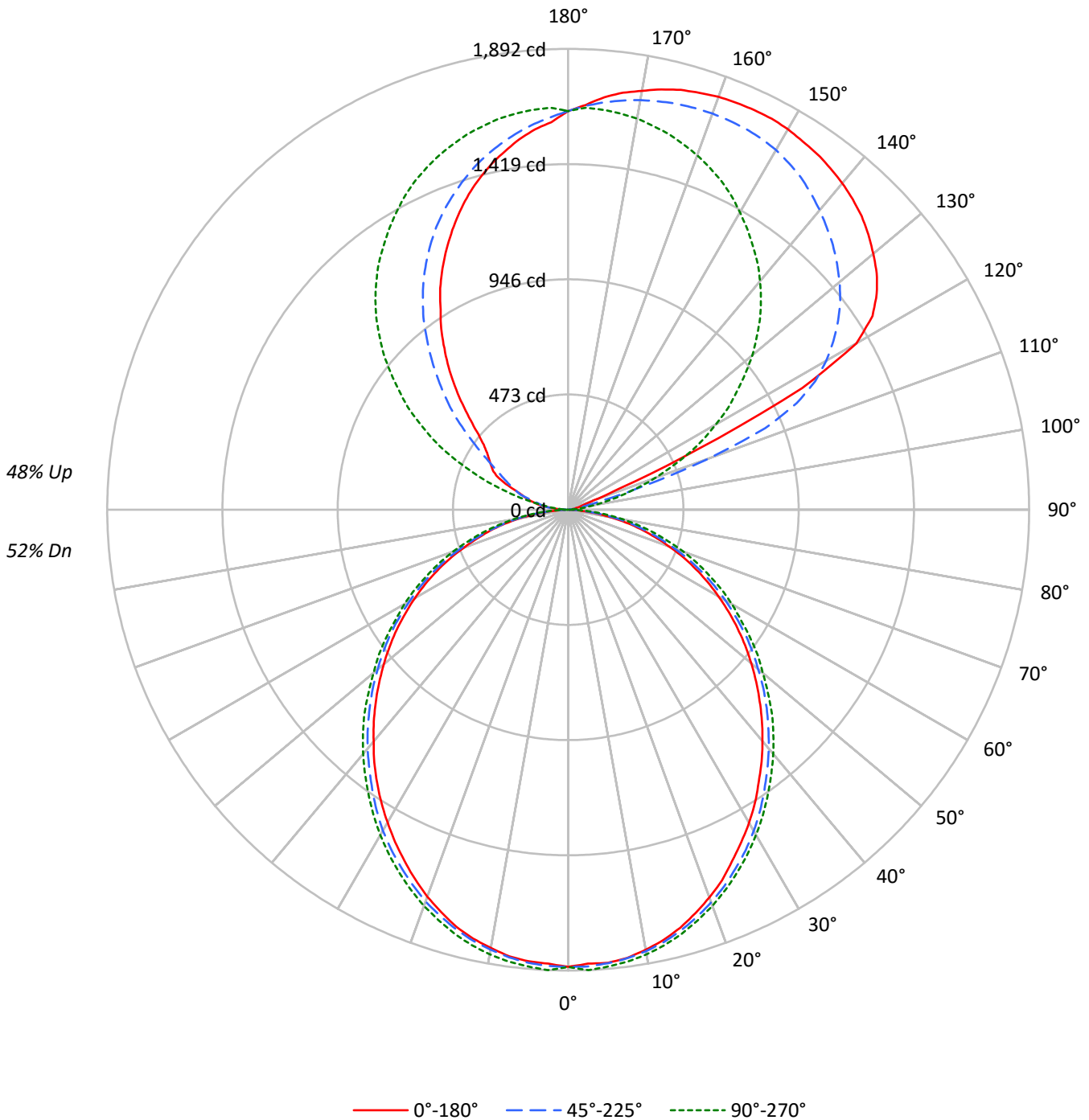
Lumens per Lamp: N/A
Luminaire Lumens: 9657.4 lumens
Efficiency: N/A
Efficacy: 122.9 lumens/watt
Spacing Criteria (0/90/45): 1.18 / 1.22 / 1.32
Luminous Opening: Rectangular (W 8' x L: 0.12' x H: 0')
CIE Type: General Diffuse

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°	20203	20203	20203
5°	20176	20343	20114
10°	20052	20262	19968
15°	19801	20080	19759
20°	19407	19826	19363
25°	18911	19505	18889
30°	18452	19169	18429
35°	17917	18775	17967
40°	17429	18402	17456
45°	16920	18004	17008
50°	16424	17454	16553
55°	15916	17070	16132
60°	15360	16725	15649
65°	14742	16262	15134
70°	13860	15796	14345
75°	12797	15117	13758
80°	10965	14065	12397
85°	6891	12350	9028



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	177.2	1.8
10°-20°	501.9	5.2
20°-30°	743.0	7.7
30°-40°	872.6	9.0
40°-50°	884.8	9.2
50°-60°	789.2	8.2
60°-70°	604.9	6.3
70°-80°	356.1	3.7
80°-90°	96.0	1.0
90°-100°	46.6	0.5
100°-110°	201.1	2.1
110°-120°	563.4	5.8
120°-130°	814.6	8.4
130°-140°	879.3	9.1
140°-150°	836.2	8.7
150°-160°	686.3	7.1
160°-170°	448.7	4.6
170°-180°	155.5	1.6
0°-30°	1422.1	14.7
0°-40°	2294.7	23.8
0°-60°	3968.7	41.1
0°-90°	5025.8	52.0
90°-120°	811.1	8.4
90°-150°	3341.2	34.6
90°-180°	4632.0	48.0
0°-180°	9657.4	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1877	1877	1877	1877	1877	
5°	1867	1869	1883	1867	1862	177
15°	1777	1788	1802	1783	1773	500
25°	1592	1625	1642	1621	1590	734
35°	1364	1404	1429	1402	1367	854
45°	1112	1152	1183	1152	1117	858
55°	848	885	910	890	860	758
65°	579	606	638	615	594	572
75°	308	329	364	338	331	325
85°	56	73	100	83	73	72
90°	2	2	2	10	14	2
95°	12	14	35	64	58	12
105°	50	146	227	158	177	59
115°	583	1035	544	283	321	644
125°	1546	1352	844	467	406	1371
135°	1704	1536	1114	754	614	1315
145°	1783	1665	1321	1040	910	1117
155°	1810	1725	1488	1281	1181	837
165°	1785	1725	1596	1464	1408	505
175°	1700	1679	1648	1590	1567	164
180°	1636	1636	1636	1636	1636	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	1876.9	1876.9	1876.9	1876.9	1876.9	1876.9	1876.9	1876.9	1876.9	1876.9	1876.9
2.5°	1865.4	1863.5	1869.2	1873.1	1873.1	1875.0	1878.8	1880.8	1878.8	1886.5	1876.9
5°	1867.3	1863.5	1865.4	1865.4	1863.5	1865.4	1869.2	1871.2	1871.2	1878.8	1869.2
7.5°	1855.8	1853.8	1855.8	1853.8	1851.9	1853.8	1855.8	1859.6	1857.7	1865.4	1857.7
10°	1834.6	1832.7	1832.7	1832.7	1830.8	1832.7	1836.5	1840.4	1840.4	1846.2	1840.4
12.5°	1809.6	1805.8	1807.7	1809.6	1805.8	1807.7	1811.5	1815.4	1815.4	1823.1	1817.3
15°	1776.9	1775.0	1778.8	1782.7	1778.8	1778.8	1782.7	1784.6	1786.5	1792.3	1788.5
17.5°	1736.5	1736.5	1740.4	1746.2	1742.3	1742.3	1746.2	1750.0	1750.0	1753.8	1753.8
20°	1694.2	1692.3	1696.2	1700.0	1700.0	1698.1	1703.8	1707.7	1709.6	1713.5	1715.4
22.5°	1648.1	1644.2	1646.2	1651.9	1650.0	1650.0	1651.9	1659.6	1663.5	1667.3	1673.1
25°	1592.3	1592.3	1596.2	1600.0	1600.0	1600.0	1601.9	1607.7	1613.5	1619.2	1625.0
27.5°	1538.5	1538.5	1540.4	1548.1	1548.1	1546.2	1550.0	1559.6	1565.4	1569.2	1576.9
30°	1484.6	1478.8	1484.6	1490.4	1494.2	1490.4	1496.2	1503.8	1507.7	1513.5	1523.1
32.5°	1426.9	1425.0	1425.0	1432.7	1436.5	1434.6	1436.5	1446.2	1453.8	1455.8	1465.4
35°	1363.5	1365.4	1365.4	1371.2	1375.0	1373.1	1375.0	1384.6	1392.3	1394.2	1403.8
37.5°	1303.8	1303.8	1303.8	1309.6	1313.5	1313.5	1313.5	1323.1	1330.8	1336.5	1342.3
40°	1240.4	1242.3	1240.4	1246.2	1251.9	1250.0	1251.9	1259.6	1269.2	1275.0	1280.8
42.5°	1176.9	1175.0	1175.0	1180.8	1188.5	1186.5	1188.5	1196.2	1203.8	1211.5	1215.4
45°	1111.5	1107.7	1111.5	1117.3	1123.1	1125.0	1123.1	1130.8	1138.5	1144.2	1151.9
47.5°	1046.2	1044.2	1044.2	1050.0	1055.8	1055.8	1057.7	1063.5	1073.1	1076.9	1086.5
50°	980.8	980.8	978.8	984.6	990.4	992.3	992.3	996.2	1005.8	1013.5	1017.3
52.5°	915.4	915.4	915.4	917.3	921.2	926.9	926.9	930.8	936.5	946.2	951.9
55°	848.1	850.0	848.1	850.0	855.8	859.6	859.6	863.5	869.2	878.8	884.6
57.5°	780.8	782.7	780.8	782.7	788.5	790.4	792.3	796.2	800.0	807.7	813.5
60°	713.5	715.4	713.5	715.4	721.2	725.0	723.1	728.8	732.7	736.5	744.2
62.5°	646.2	650.0	648.1	651.9	653.8	657.7	655.8	661.5	665.4	669.2	676.9
65°	578.8	582.7	580.8	584.6	584.6	588.5	586.5	592.3	596.2	600.0	605.8
67.5°	511.5	515.4	513.5	515.4	517.3	521.2	517.3	525.0	528.8	530.8	536.5
70°	440.4	444.2	442.3	444.2	446.2	448.1	446.2	451.9	457.7	459.6	463.5
72.5°	373.1	376.9	376.9	378.8	378.8	382.7	382.7	382.7	386.5	392.3	394.2
75°	307.7	311.5	311.5	311.5	311.5	315.4	315.4	319.2	321.2	325.0	328.8
77.5°	242.3	246.2	246.2	246.2	246.2	250.0	250.0	253.8	255.8	259.6	263.5
80°	176.9	180.8	182.7	182.7	182.7	184.6	184.6	188.5	190.4	194.2	198.1
82.5°	115.4	117.3	119.2	117.3	119.2	121.2	125.0	125.0	126.9	130.8	134.6
85°	55.8	57.7	59.6	59.6	59.6	61.5	61.5	65.4	67.3	69.2	73.1
87.5°	7.7	9.6	9.6	9.6	9.6	11.5	11.5	11.5	13.5	13.5	17.3
90°	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
92.5°	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8
95°	11.5	11.5	11.5	11.5	11.5	11.5	11.5	11.5	11.5	11.5	13.5
97.5°	17.3	17.3	19.2	17.3	19.2	19.2	19.2	19.2	21.2	21.2	25.0
100°	26.9	26.9	26.9	26.9	26.9	26.9	28.8	28.8	32.7	34.6	40.4
102.5°	36.5	36.5	36.5	38.5	38.5	40.4	40.4	42.3	48.1	55.8	73.1
105°	50.0	50.0	51.9	51.9	53.8	55.8	57.7	65.4	76.9	100.0	146.2
107.5°	69.2	71.2	73.1	75.0	80.8	86.5	92.3	113.5	148.1	219.2	326.9
110°	109.6	111.5	119.2	126.9	146.2	165.4	184.6	255.8	359.6	490.4	609.6



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
112.5°	228.8	236.5	242.3	288.5	350.0	403.8	453.8	580.8	717.3	828.8	875.0
115°	582.7	596.2	605.8	696.2	792.3	853.8	892.3	978.8	1034.6	1051.9	1034.6
117.5°	1082.7	1088.5	1101.9	1134.6	1178.8	1200.0	1203.8	1217.3	1203.8	1176.9	1142.3
120°	1365.4	1365.4	1357.7	1359.6	1353.8	1353.8	1346.2	1325.0	1296.2	1263.5	1223.1
122.5°	1480.8	1475.0	1465.4	1457.7	1440.4	1436.5	1425.0	1398.1	1367.3	1334.6	1290.4
125°	1546.2	1540.4	1532.7	1523.1	1503.8	1496.2	1484.6	1457.7	1426.9	1392.3	1351.9
127.5°	1596.2	1590.4	1582.7	1573.1	1555.8	1548.1	1534.6	1507.7	1476.9	1444.2	1407.7
130°	1634.6	1632.7	1623.1	1617.3	1600.0	1592.3	1578.8	1551.9	1523.1	1490.4	1453.8
132.5°	1671.2	1667.3	1657.7	1653.8	1638.5	1628.8	1617.3	1592.3	1563.5	1530.8	1496.2
135°	1703.8	1700.0	1688.5	1684.6	1671.2	1659.6	1650.0	1626.9	1601.9	1569.2	1536.5
137.5°	1728.8	1723.1	1715.4	1711.5	1698.1	1686.5	1678.8	1657.7	1632.7	1601.9	1571.2
140°	1750.0	1744.2	1738.5	1734.6	1723.1	1713.5	1703.8	1682.7	1661.5	1636.5	1605.8
142.5°	1767.3	1763.5	1757.7	1751.9	1740.4	1732.7	1725.0	1707.7	1688.5	1663.5	1636.5
145°	1782.7	1778.8	1773.1	1769.2	1755.8	1750.0	1742.3	1726.9	1709.6	1684.6	1665.4
147.5°	1792.3	1790.4	1786.5	1782.7	1769.2	1763.5	1755.8	1744.2	1726.9	1703.8	1686.5
150°	1803.8	1800.0	1796.2	1794.2	1780.8	1775.0	1771.2	1757.7	1742.3	1721.2	1705.8
152.5°	1809.6	1805.8	1801.9	1800.0	1786.5	1782.7	1778.8	1767.3	1750.0	1730.8	1717.3
155°	1809.6	1807.7	1803.8	1801.9	1788.5	1782.7	1780.8	1769.2	1753.8	1738.5	1725.0
157.5°	1807.7	1803.8	1801.9	1798.1	1786.5	1782.7	1778.8	1769.2	1755.8	1742.3	1728.8
160°	1803.8	1800.0	1798.1	1794.2	1784.6	1780.8	1778.8	1769.2	1759.6	1746.2	1730.8
162.5°	1794.2	1792.3	1790.4	1788.5	1780.8	1776.9	1775.0	1767.3	1755.8	1744.2	1728.8
165°	1784.6	1780.8	1778.8	1775.0	1767.3	1767.3	1765.4	1759.6	1748.1	1742.3	1725.0
167.5°	1767.3	1761.5	1761.5	1755.8	1750.0	1750.0	1748.1	1746.2	1736.5	1732.7	1717.3
170°	1746.2	1744.2	1740.4	1738.5	1734.6	1734.6	1732.7	1730.8	1723.1	1723.1	1707.7
172.5°	1726.9	1725.0	1723.1	1719.2	1713.5	1713.5	1713.5	1713.5	1707.7	1707.7	1694.2
175°	1700.0	1696.2	1696.2	1694.2	1690.4	1692.3	1692.3	1692.3	1688.5	1692.3	1678.8
177.5°	1663.5	1659.6	1663.5	1667.3	1665.4	1667.3	1669.2	1669.2	1665.4	1671.2	1659.6
180°	1636.5	1636.5	1636.5	1636.5	1636.5	1636.5	1636.5	1636.5	1636.5	1636.5	1636.5



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CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	1876.9	1876.9	1876.9	1876.9	1876.9	1876.9	1876.9	1876.9	1876.9	1876.9	1876.9
2.5°	1869.2	1871.2	1869.2	1871.2	1873.1	1871.2	1873.1	1880.8	1888.5	1892.3	1888.5
5°	1861.5	1863.5	1861.5	1863.5	1865.4	1863.5	1865.4	1871.2	1880.8	1882.7	1880.8
7.5°	1850.0	1851.9	1850.0	1851.9	1851.9	1851.9	1851.9	1859.6	1867.3	1871.2	1867.3
10°	1830.8	1832.7	1830.8	1834.6	1834.6	1834.6	1834.6	1842.3	1850.0	1853.8	1848.1
12.5°	1807.7	1809.6	1807.7	1811.5	1809.6	1811.5	1813.5	1819.2	1826.9	1830.8	1826.9
15°	1776.9	1780.8	1778.8	1782.7	1782.7	1782.7	1782.7	1790.4	1798.1	1801.9	1798.1
17.5°	1742.3	1744.2	1744.2	1748.1	1748.1	1748.1	1750.0	1757.7	1763.5	1767.3	1763.5
20°	1703.8	1707.7	1707.7	1709.6	1709.6	1711.5	1713.5	1719.2	1726.9	1730.8	1726.9
22.5°	1661.5	1665.4	1667.3	1667.3	1667.3	1669.2	1671.2	1676.9	1686.5	1688.5	1684.6
25°	1617.3	1617.3	1621.2	1621.2	1623.1	1625.0	1626.9	1630.8	1640.4	1642.3	1640.4
27.5°	1569.2	1567.3	1569.2	1573.1	1573.1	1576.9	1578.8	1582.7	1590.4	1594.2	1590.4
30°	1515.4	1515.4	1519.2	1521.2	1521.2	1523.1	1526.9	1530.8	1538.5	1542.3	1538.5
32.5°	1461.5	1459.6	1465.4	1465.4	1467.3	1469.2	1471.2	1476.9	1482.7	1486.5	1484.6
35°	1405.8	1400.0	1407.7	1407.7	1409.6	1413.5	1413.5	1417.3	1425.0	1428.8	1425.0
37.5°	1348.1	1342.3	1348.1	1351.9	1350.0	1353.8	1355.8	1359.6	1367.3	1369.2	1369.2
40°	1288.5	1282.7	1288.5	1290.4	1290.4	1292.3	1296.2	1298.1	1303.8	1309.6	1305.8
42.5°	1223.1	1221.2	1225.0	1228.8	1228.8	1230.8	1232.7	1234.6	1240.4	1246.2	1242.3
45°	1157.7	1157.7	1161.5	1165.4	1167.3	1167.3	1169.2	1171.2	1175.0	1182.7	1176.9
47.5°	1092.3	1092.3	1096.2	1098.1	1098.1	1100.0	1103.8	1103.8	1111.5	1111.5	1113.5
50°	1023.1	1026.9	1030.8	1036.5	1032.7	1034.6	1038.5	1038.5	1042.3	1042.3	1048.1
52.5°	955.8	957.7	963.5	969.2	971.2	969.2	971.2	971.2	975.0	980.8	976.9
55°	888.5	888.5	896.2	901.9	901.9	901.9	901.9	903.8	909.6	909.6	909.6
57.5°	819.2	821.2	826.9	834.6	834.6	834.6	834.6	836.5	840.4	838.5	844.2
60°	751.9	751.9	759.6	763.5	763.5	767.3	767.3	769.2	771.2	776.9	776.9
62.5°	684.6	684.6	690.4	694.2	698.1	696.2	698.1	700.0	703.8	709.6	705.8
65°	615.4	615.4	621.2	623.1	628.8	626.9	628.8	634.6	636.5	638.5	636.5
67.5°	544.2	546.2	551.9	553.8	559.6	561.5	559.6	567.3	569.2	573.1	571.2
70°	469.2	471.2	478.8	480.8	484.6	482.7	486.5	496.2	500.0	501.9	498.1
72.5°	401.9	403.8	411.5	413.5	417.3	415.4	419.2	425.0	428.8	430.8	430.8
75°	332.7	336.5	340.4	344.2	350.0	348.1	351.9	357.7	361.5	363.5	363.5
77.5°	267.3	269.2	275.0	276.9	282.7	280.8	282.7	286.5	292.3	294.2	294.2
80°	201.9	205.8	207.7	211.5	215.4	213.5	217.3	223.1	225.0	226.9	226.9
82.5°	138.5	140.4	144.2	148.1	151.9	153.8	155.8	159.6	161.5	161.5	161.5
85°	76.9	80.8	84.6	86.5	90.4	88.5	94.2	98.1	100.0	100.0	101.9
87.5°	21.2	25.0	26.9	30.8	34.6	34.6	34.6	42.3	42.3	44.2	44.2
90°	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
92.5°	5.8	7.7	7.7	9.6	11.5	13.5	19.2	19.2	15.4	13.5	15.4
95°	15.4	17.3	21.2	32.7	40.4	46.2	53.8	51.9	44.2	34.6	32.7
97.5°	28.8	36.5	51.9	78.8	94.2	101.9	109.6	98.1	82.7	67.3	61.5
100°	53.8	73.1	111.5	157.7	175.0	182.7	180.8	155.8	134.6	109.6	96.2
102.5°	101.9	155.8	221.2	273.1	284.6	275.0	259.6	228.8	198.1	163.5	142.3
105°	221.2	313.5	380.8	400.0	405.8	386.5	350.0	311.5	267.3	226.9	196.2
107.5°	440.4	525.0	550.0	536.5	528.8	496.2	450.0	400.0	348.1	298.1	259.6
110°	698.1	713.5	696.2	653.8	630.8	601.9	550.0	492.3	426.9	376.9	330.8



TEST NUMBER: P303176

CATALOG NUMBER: CTW-F-5050-50L830-UNV-STD-8

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
112.5°	886.5	853.8	809.6	753.8	726.9	696.2	640.4	584.6	513.5	457.7	407.7
115°	1007.7	959.6	905.8	846.2	817.3	784.6	728.8	667.3	596.2	544.2	486.5
117.5°	1101.9	1042.3	988.5	930.8	903.8	871.2	815.4	748.1	676.9	625.0	567.3
120°	1175.0	1119.2	1063.5	1009.6	978.8	951.9	894.2	826.9	755.8	698.1	644.2
122.5°	1240.4	1188.5	1134.6	1082.7	1053.8	1023.1	963.5	898.1	832.7	778.8	725.0
125°	1301.9	1253.8	1200.0	1148.1	1119.2	1088.5	1030.8	967.3	901.9	844.2	798.1
127.5°	1359.6	1313.5	1259.6	1209.6	1180.8	1148.1	1092.3	1030.8	975.0	915.4	869.2
130°	1411.5	1369.2	1317.3	1267.3	1238.5	1207.7	1151.9	1092.3	1038.5	986.5	936.5
132.5°	1457.7	1415.4	1365.4	1319.2	1288.5	1261.5	1207.7	1151.9	1098.1	1050.0	1003.8
135°	1501.9	1457.7	1411.5	1363.5	1336.5	1311.5	1259.6	1207.7	1157.7	1113.5	1071.2
137.5°	1542.3	1494.2	1448.1	1401.9	1376.9	1355.8	1305.8	1257.7	1215.4	1171.2	1128.8
140°	1576.9	1526.9	1484.6	1440.4	1417.3	1396.2	1350.0	1303.8	1267.3	1225.0	1184.6
142.5°	1603.8	1553.8	1515.4	1473.1	1451.9	1434.6	1390.4	1350.0	1313.5	1276.9	1236.5
145°	1625.0	1580.8	1544.2	1503.8	1486.5	1467.3	1426.9	1390.4	1357.7	1321.2	1284.6
147.5°	1646.2	1607.7	1571.2	1534.6	1517.3	1500.0	1463.5	1430.8	1400.0	1367.3	1330.8
150°	1663.5	1628.8	1596.2	1563.5	1548.1	1530.8	1498.1	1467.3	1440.4	1409.6	1375.0
152.5°	1675.0	1646.2	1617.3	1588.5	1573.1	1559.6	1528.8	1503.8	1478.8	1451.9	1417.3
155°	1684.6	1661.5	1634.6	1609.6	1596.2	1584.6	1555.8	1532.7	1511.5	1488.5	1457.7
157.5°	1694.2	1671.2	1648.1	1625.0	1613.5	1601.9	1576.9	1559.6	1540.4	1519.2	1490.4
160°	1698.1	1680.8	1657.7	1638.5	1628.8	1619.2	1598.1	1582.7	1567.3	1548.1	1521.2
162.5°	1700.0	1684.6	1665.4	1650.0	1642.3	1634.6	1613.5	1601.9	1588.5	1573.1	1550.0
165°	1700.0	1688.5	1673.1	1659.6	1651.9	1646.2	1628.8	1619.2	1609.6	1596.2	1575.0
167.5°	1698.1	1686.5	1675.0	1663.5	1657.7	1651.9	1638.5	1632.7	1625.0	1613.5	1596.2
170°	1692.3	1684.6	1673.1	1665.4	1661.5	1655.8	1646.2	1642.3	1638.5	1630.8	1613.5
172.5°	1682.7	1676.9	1669.2	1663.5	1661.5	1655.8	1648.1	1646.2	1646.2	1640.4	1626.9
175°	1669.2	1667.3	1661.5	1657.7	1653.8	1651.9	1646.2	1648.1	1650.0	1648.1	1636.5
177.5°	1651.9	1651.9	1648.1	1648.1	1646.2	1644.2	1642.3	1646.2	1651.9	1651.9	1644.2
180°	1636.5	1636.5	1636.5	1636.5	1636.5	1636.5	1636.5	1636.5	1636.5	1636.5	1636.5



TEST NUMBER: P303176

CATALOG NUMBER: CTW-F-5050-50L830-UNV-STD-8

CANDELA DISTRIBUTION (continued):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	1876.9	1876.9	1876.9	1876.9	1876.9	1876.9	1876.9	1876.9	1876.9	1876.9	1876.9
2.5°	1882.7	1875.0	1873.1	1873.1	1871.2	1867.3	1865.4	1867.3	1875.0	1886.5	1875.0
5°	1875.0	1867.3	1863.5	1863.5	1863.5	1857.7	1857.7	1857.7	1867.3	1876.9	1865.4
7.5°	1861.5	1853.8	1851.9	1851.9	1850.0	1846.2	1844.2	1846.2	1853.8	1863.5	1851.9
10°	1844.2	1836.5	1834.6	1832.7	1830.8	1826.9	1825.0	1826.9	1834.6	1842.3	1832.7
12.5°	1821.2	1813.5	1809.6	1811.5	1807.7	1801.9	1801.9	1801.9	1811.5	1817.3	1807.7
15°	1792.3	1782.7	1780.8	1780.8	1778.8	1773.1	1773.1	1773.1	1782.7	1786.5	1775.0
17.5°	1757.7	1750.0	1748.1	1748.1	1744.2	1738.5	1738.5	1736.5	1748.1	1750.0	1742.3
20°	1721.2	1713.5	1709.6	1709.6	1705.8	1700.0	1700.0	1698.1	1711.5	1707.7	1701.9
22.5°	1680.8	1671.2	1667.3	1669.2	1665.4	1657.7	1657.7	1655.8	1667.3	1661.5	1653.8
25°	1636.5	1625.0	1623.1	1621.2	1619.2	1609.6	1609.6	1609.6	1621.2	1611.5	1605.8
27.5°	1584.6	1576.9	1575.0	1569.2	1569.2	1561.5	1561.5	1561.5	1573.1	1559.6	1557.7
30°	1532.7	1525.0	1525.0	1519.2	1517.3	1509.6	1509.6	1509.6	1521.2	1507.7	1503.8
32.5°	1480.8	1471.2	1467.3	1463.5	1463.5	1455.8	1455.8	1455.8	1463.5	1450.0	1446.2
35°	1423.1	1413.5	1413.5	1405.8	1405.8	1398.1	1396.2	1400.0	1401.9	1390.4	1386.5
37.5°	1363.5	1353.8	1353.8	1348.1	1348.1	1340.4	1340.4	1346.2	1340.4	1334.6	1326.9
40°	1303.8	1296.2	1292.3	1286.5	1288.5	1282.7	1280.8	1284.6	1280.8	1275.0	1265.4
42.5°	1240.4	1232.7	1230.8	1226.9	1226.9	1221.2	1219.2	1223.1	1217.3	1209.6	1203.8
45°	1176.9	1171.2	1169.2	1165.4	1165.4	1157.7	1157.7	1159.6	1151.9	1148.1	1140.4
47.5°	1109.6	1105.8	1101.9	1101.9	1100.0	1094.2	1094.2	1094.2	1088.5	1084.6	1075.0
50°	1044.2	1038.5	1036.5	1036.5	1036.5	1030.8	1028.8	1025.0	1021.2	1019.2	1009.6
52.5°	976.9	973.1	971.2	971.2	973.1	963.5	961.5	957.7	955.8	953.8	942.3
55°	909.6	905.8	901.9	905.8	903.8	896.2	894.2	896.2	890.4	884.6	875.0
57.5°	842.3	836.5	836.5	838.5	836.5	828.8	826.9	828.8	821.2	815.4	807.7
60°	775.0	769.2	767.3	769.2	767.3	759.6	757.7	757.7	751.9	748.1	740.4
62.5°	707.7	701.9	701.9	701.9	700.0	696.2	690.4	690.4	684.6	678.8	673.1
65°	636.5	630.8	632.7	632.7	632.7	628.8	623.1	625.0	615.4	611.5	605.8
67.5°	569.2	563.5	563.5	563.5	563.5	563.5	553.8	551.9	546.2	544.2	538.5
70°	498.1	490.4	492.3	490.4	488.5	486.5	480.8	478.8	473.1	473.1	467.3
72.5°	426.9	423.1	423.1	423.1	421.2	419.2	415.4	413.5	405.8	405.8	401.9
75°	355.8	355.8	353.8	353.8	353.8	351.9	348.1	346.2	338.5	340.4	336.5
77.5°	290.4	290.4	286.5	286.5	286.5	284.6	282.7	276.9	276.9	273.1	271.2
80°	223.1	223.1	221.2	221.2	221.2	219.2	217.3	215.4	211.5	209.6	205.8
82.5°	161.5	159.6	157.7	157.7	155.8	155.8	153.8	151.9	148.1	142.3	140.4
85°	98.1	98.1	96.2	96.2	94.2	94.2	90.4	86.5	82.7	78.8	76.9
87.5°	42.3	42.3	36.5	36.5	34.6	34.6	32.7	30.8	26.9	25.0	23.1
90°	3.8	5.8	5.8	5.8	7.7	7.7	7.7	9.6	9.6	9.6	9.6
92.5°	23.1	28.8	30.8	30.8	30.8	30.8	30.8	30.8	30.8	28.8	28.8
95°	38.5	42.3	51.9	55.8	59.6	63.5	63.5	63.5	63.5	61.5	57.7
97.5°	57.7	61.5	67.3	67.3	69.2	78.8	86.5	90.4	94.2	96.2	96.2
100°	90.4	82.7	90.4	96.2	94.2	94.2	98.1	105.8	113.5	117.3	119.2
102.5°	128.8	115.4	111.5	115.4	119.2	126.9	123.1	125.0	128.8	134.6	140.4
105°	176.9	159.6	146.2	144.2	144.2	151.9	161.5	159.6	157.7	157.7	157.7
107.5°	232.7	207.7	186.5	182.7	178.8	178.8	184.6	196.2	203.8	196.2	192.3
110°	296.2	261.5	240.4	228.8	221.2	213.5	213.5	219.2	228.8	238.5	242.3



TEST NUMBER: P303176

CATALOG NUMBER: CTW-F-5050-50L830-UNV-STD-8

CANDELA DISTRIBUTION (continued):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
112.5°	367.3	325.0	296.2	286.5	271.2	253.8	248.1	248.1	253.8	263.5	271.2
115°	440.4	396.2	355.8	344.2	328.8	301.9	286.5	282.7	282.7	286.5	294.2
117.5°	521.2	467.3	423.1	407.7	390.4	359.6	334.6	321.2	315.4	315.4	319.2
120°	592.3	546.2	500.0	478.8	457.7	423.1	390.4	369.2	355.8	348.1	346.2
122.5°	673.1	625.0	575.0	557.7	534.6	494.2	459.6	426.9	405.8	390.4	378.8
125°	746.2	701.9	650.0	628.8	607.7	567.3	532.7	496.2	467.3	442.3	423.1
127.5°	817.3	773.1	723.1	703.8	682.7	640.4	603.8	569.2	538.5	507.7	480.8
130°	888.5	846.2	796.2	775.0	755.8	715.4	675.0	640.4	613.5	582.7	551.9
132.5°	957.7	913.5	867.3	844.2	826.9	786.5	750.0	713.5	682.7	655.8	626.9
135°	1023.1	980.8	934.6	911.5	894.2	857.7	821.2	788.5	753.8	726.9	700.0
137.5°	1084.6	1042.3	1001.9	976.9	959.6	926.9	892.3	861.5	826.9	798.1	771.2
140°	1142.3	1101.9	1063.5	1042.3	1023.1	990.4	959.6	934.6	898.1	871.2	844.2
142.5°	1196.2	1155.8	1119.2	1101.9	1082.7	1051.9	1023.1	1000.0	973.1	944.2	917.3
145°	1244.2	1209.6	1175.0	1157.7	1140.4	1111.5	1084.6	1063.5	1040.4	1011.5	986.5
147.5°	1294.2	1259.6	1226.9	1211.5	1198.1	1169.2	1144.2	1123.1	1105.8	1078.8	1053.8
150°	1340.4	1307.7	1278.8	1263.5	1251.9	1221.2	1201.9	1180.8	1167.3	1142.3	1121.2
152.5°	1384.6	1355.8	1326.9	1315.4	1301.9	1273.1	1253.8	1232.7	1225.0	1200.0	1182.7
155°	1426.9	1396.2	1373.1	1361.5	1348.1	1321.2	1305.8	1286.5	1280.8	1257.7	1240.4
157.5°	1465.4	1434.6	1413.5	1401.9	1390.4	1367.3	1351.9	1334.6	1330.8	1313.5	1294.2
160°	1498.1	1469.2	1450.0	1442.3	1430.8	1409.6	1394.2	1380.8	1376.9	1365.4	1346.2
162.5°	1526.9	1501.9	1486.5	1476.9	1467.3	1448.1	1436.5	1421.2	1421.2	1411.5	1396.2
165°	1555.8	1532.7	1517.3	1509.6	1501.9	1486.5	1473.1	1463.5	1463.5	1455.8	1440.4
167.5°	1578.8	1557.7	1546.2	1538.5	1532.7	1517.3	1507.7	1498.1	1500.0	1496.2	1480.8
170°	1600.0	1580.8	1571.2	1565.4	1559.6	1546.2	1540.4	1530.8	1532.7	1532.7	1519.2
172.5°	1617.3	1600.0	1592.3	1586.5	1584.6	1571.2	1567.3	1561.5	1563.5	1567.3	1550.0
175°	1628.8	1615.4	1607.7	1605.8	1601.9	1594.2	1588.5	1586.5	1590.4	1596.2	1580.8
177.5°	1638.5	1626.9	1623.1	1623.1	1619.2	1611.5	1607.7	1607.7	1613.5	1621.2	1609.6
180°	1636.5	1636.5	1636.5	1636.5	1636.5	1636.5	1636.5	1636.5	1636.5	1636.5	1636.5



TEST NUMBER: P303176

CATALOG NUMBER: CTW-F-5050-50L830-UNV-STD-8

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	1876.9	1876.9	1876.9	1876.9	1876.9	1876.9	1876.9	1876.9
2.5°	1878.8	1876.9	1875.0	1871.2	1869.2	1865.4	1863.5	1865.4
5°	1867.3	1865.4	1863.5	1861.5	1861.5	1859.6	1859.6	1861.5
7.5°	1853.8	1851.9	1850.0	1848.1	1848.1	1848.1	1848.1	1850.0
10°	1834.6	1830.8	1828.8	1826.9	1825.0	1825.0	1825.0	1826.9
12.5°	1809.6	1805.8	1801.9	1800.0	1800.0	1800.0	1800.0	1803.8
15°	1776.9	1775.0	1773.1	1771.2	1771.2	1769.2	1769.2	1773.1
17.5°	1744.2	1740.4	1736.5	1734.6	1732.7	1732.7	1730.8	1732.7
20°	1700.0	1696.2	1692.3	1690.4	1690.4	1688.5	1688.5	1690.4
22.5°	1651.9	1646.2	1644.2	1642.3	1642.3	1640.4	1640.4	1642.3
25°	1603.8	1596.2	1594.2	1592.3	1592.3	1590.4	1590.4	1590.4
27.5°	1553.8	1546.2	1544.2	1540.4	1542.3	1538.5	1536.5	1538.5
30°	1500.0	1492.3	1490.4	1486.5	1486.5	1482.7	1480.8	1482.7
32.5°	1442.3	1434.6	1432.7	1430.8	1432.7	1425.0	1423.1	1426.9
35°	1382.7	1375.0	1375.0	1371.2	1373.1	1365.4	1365.4	1367.3
37.5°	1321.2	1313.5	1315.4	1311.5	1311.5	1305.8	1305.8	1307.7
40°	1259.6	1253.8	1250.0	1250.0	1251.9	1244.2	1244.2	1242.3
42.5°	1196.2	1190.4	1188.5	1188.5	1186.5	1180.8	1178.8	1180.8
45°	1132.7	1126.9	1126.9	1125.0	1125.0	1117.3	1119.2	1117.3
47.5°	1067.3	1063.5	1061.5	1059.6	1059.6	1051.9	1053.8	1051.9
50°	1001.9	1000.0	998.1	996.2	996.2	988.5	992.3	988.5
52.5°	936.5	934.6	932.7	932.7	930.8	926.9	926.9	923.1
55°	871.2	867.3	867.3	867.3	865.4	859.6	863.5	859.6
57.5°	805.8	801.9	800.0	798.1	798.1	796.2	794.2	792.3
60°	738.5	734.6	734.6	730.8	730.8	730.8	728.8	726.9
62.5°	671.2	667.3	667.3	665.4	665.4	665.4	663.5	661.5
65°	605.8	600.0	600.0	598.1	598.1	598.1	596.2	594.2
67.5°	536.5	532.7	532.7	530.8	532.7	532.7	530.8	526.9
70°	465.4	461.5	461.5	459.6	461.5	461.5	459.6	455.8
72.5°	400.0	396.2	394.2	396.2	396.2	396.2	392.3	390.4
75°	334.6	328.8	328.8	330.8	328.8	330.8	326.9	330.8
77.5°	269.2	263.5	263.5	265.4	263.5	263.5	261.5	265.4
80°	201.9	198.1	198.1	200.0	198.1	198.1	196.2	200.0
82.5°	138.5	136.5	138.5	134.6	130.8	130.8	128.8	132.7
85°	76.9	75.0	73.1	73.1	71.2	71.2	69.2	73.1
87.5°	23.1	25.0	25.0	23.1	23.1	23.1	23.1	25.0
90°	9.6	9.6	9.6	11.5	11.5	13.5	13.5	13.5
92.5°	28.8	28.8	26.9	28.8	26.9	26.9	26.9	26.9
95°	57.7	57.7	57.7	57.7	57.7	57.7	57.7	57.7
97.5°	96.2	98.1	96.2	98.1	96.2	94.2	96.2	94.2
100°	121.2	125.0	125.0	126.9	126.9	126.9	126.9	126.9
102.5°	144.2	148.1	148.1	150.0	150.0	151.9	151.9	150.0
105°	163.5	165.4	167.3	169.2	173.1	176.9	176.9	176.9
107.5°	190.4	194.2	192.3	194.2	196.2	196.2	196.2	196.2
110°	238.5	234.6	232.7	228.8	228.8	228.8	228.8	228.8



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CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
112.5°	278.8	282.7	282.7	282.7	282.7	280.8	276.9	276.9
115°	303.8	311.5	313.5	315.4	319.2	321.2	321.2	321.2
117.5°	323.1	330.8	332.7	336.5	340.4	344.2	346.2	348.1
120°	348.1	353.8	355.8	355.8	359.6	361.5	365.4	365.4
122.5°	376.9	378.8	378.8	378.8	380.8	382.7	384.6	384.6
125°	415.4	409.6	409.6	405.8	405.8	403.8	405.8	405.8
127.5°	463.5	455.8	451.9	446.2	442.3	436.5	436.5	436.5
130°	530.8	517.3	509.6	500.0	492.3	480.8	480.8	480.8
132.5°	603.8	582.7	576.9	567.3	555.8	544.2	542.3	542.3
135°	678.8	655.8	648.1	638.5	625.0	615.4	607.7	613.5
137.5°	750.0	728.8	726.9	719.2	701.9	690.4	688.5	688.5
140°	823.1	800.0	796.2	788.5	778.8	767.3	761.5	763.5
142.5°	894.2	871.2	867.3	861.5	848.1	838.5	832.7	834.6
145°	967.3	944.2	940.4	932.7	919.2	911.5	903.8	909.6
147.5°	1036.5	1015.4	1009.6	1000.0	992.3	982.7	976.9	975.0
150°	1103.8	1082.7	1078.8	1069.2	1061.5	1053.8	1046.2	1050.0
152.5°	1167.3	1151.9	1144.2	1134.6	1128.8	1121.2	1115.4	1117.3
155°	1226.9	1207.7	1203.8	1196.2	1192.3	1184.6	1180.8	1180.8
157.5°	1278.8	1267.3	1261.5	1255.8	1250.0	1246.2	1240.4	1242.3
160°	1334.6	1323.1	1317.3	1313.5	1305.8	1305.8	1300.0	1301.9
162.5°	1386.5	1376.9	1371.2	1367.3	1363.5	1361.5	1355.8	1357.7
165°	1432.7	1423.1	1421.2	1415.4	1413.5	1413.5	1407.7	1407.7
167.5°	1475.0	1467.3	1461.5	1459.6	1455.8	1455.8	1451.9	1453.8
170°	1515.4	1507.7	1503.8	1500.0	1496.2	1496.2	1494.2	1494.2
172.5°	1550.0	1544.2	1542.3	1538.5	1536.5	1536.5	1534.6	1534.6
175°	1582.7	1576.9	1575.0	1571.2	1569.2	1567.3	1567.3	1567.3
177.5°	1611.5	1609.6	1605.8	1605.8	1601.9	1598.1	1594.2	1592.3
180°	1636.5	1636.5	1636.5	1636.5	1636.5	1636.5	1636.5	1636.5

(END OF REPORT)