

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: P303181

Luminaire Tested: **CTW-F-5050-50L940-UNV-STD-8**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P303181
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-5050-50L940-UNV-STD-8
Description: CORELITE CONTINUA LINEAR WALL LED LUMINAIRE
50% UPLIGHT, 50% DOWNLIGHT, 5000 LUMEN PACKAGE
Light Source: 4000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

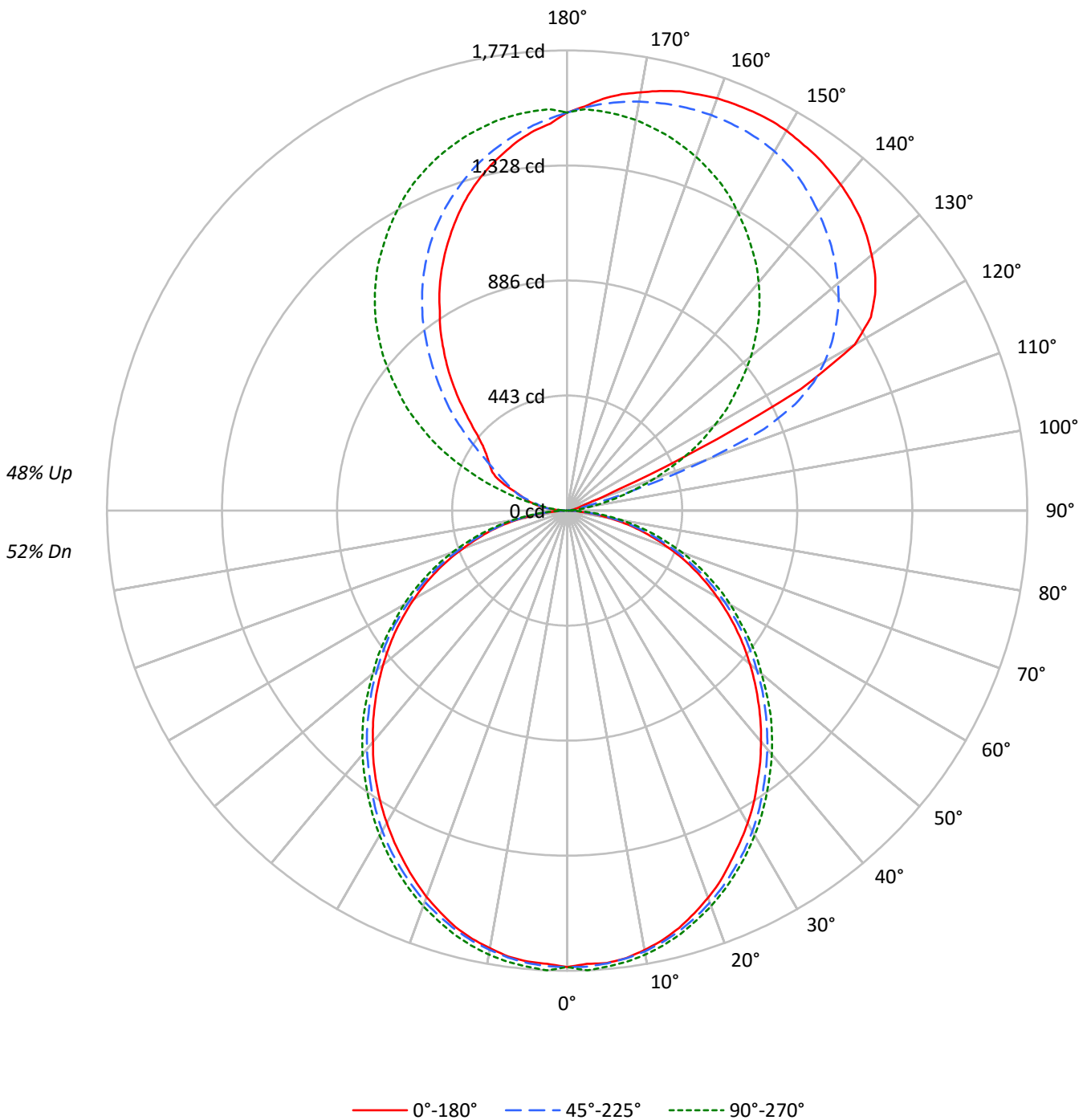
Lumens per Lamp: N/A
Luminaire Lumens: 9039.4 lumens
Efficiency: N/A
Efficacy: 115.0 lumens/watt
Spacing Criteria (0/90/45): 1.18 / 1.22 / 1.32
Luminous Opening: Rectangular (W 8' x L: 0.12' x H: 0')
CIE Type: General Diffuse

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°	18910	18910	18910
5°	18885	19041	18827
10°	18769	18966	18690
15°	18534	18795	18494
20°	18165	18557	18124
25°	17701	18257	17680
30°	17271	17943	17249
35°	16770	17574	16817
40°	16314	17224	16339
45°	15837	16851	15920
50°	15373	16337	15493
55°	14897	15978	15099
60°	14376	15655	14648
65°	13799	15221	14166
70°	12973	14785	13426
75°	11978	14148	12876
80°	10265	13166	11604
85°	6447	11560	8448



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	165.9	1.8
10°-20°	469.8	5.2
20°-30°	695.5	7.7
30°-40°	816.7	9.0
40°-50°	828.1	9.2
50°-60°	738.7	8.2
60°-70°	566.2	6.3
70°-80°	333.3	3.7
80°-90°	89.9	1.0
90°-100°	43.6	0.5
100°-110°	188.2	2.1
110°-120°	527.4	5.8
120°-130°	762.4	8.4
130°-140°	823.0	9.1
140°-150°	782.7	8.7
150°-160°	642.4	7.1
160°-170°	419.9	4.6
170°-180°	145.5	1.6
0°-30°	1331.1	14.7
0°-40°	2147.9	23.8
0°-60°	3714.7	41.1
0°-90°	4704.1	52.0
90°-120°	759.2	8.4
90°-150°	3127.4	34.6
90°-180°	4335.0	48.0
0°-180°	9039.4	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1757	1757	1757	1757	1757	
5°	1748	1750	1762	1748	1742	166
15°	1663	1674	1687	1669	1660	468
25°	1490	1521	1537	1517	1489	687
35°	1276	1314	1337	1312	1280	799
45°	1040	1078	1107	1078	1046	803
55°	794	828	851	833	805	710
65°	542	567	598	576	556	536
75°	288	308	340	317	310	304
85°	52	68	94	77	68	67
90°	2	2	2	9	13	2
95°	11	13	32	59	54	12
105°	47	137	212	148	166	55
115°	545	968	509	265	301	603
125°	1447	1265	790	437	380	1283
135°	1595	1438	1042	706	574	1230
145°	1669	1559	1237	974	851	1046
155°	1694	1615	1393	1199	1105	783
165°	1670	1615	1494	1370	1318	473
175°	1591	1571	1543	1489	1467	153
180°	1532	1532	1532	1532	1532	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	1756.8	1756.8	1756.8	1756.8	1756.8	1756.8	1756.8	1756.8	1756.8	1756.8	1756.8
2.5°	1746.0	1744.2	1749.6	1753.2	1753.2	1755.0	1758.6	1760.4	1758.6	1765.8	1756.8
5°	1747.8	1744.2	1746.0	1746.0	1744.2	1746.0	1749.6	1751.4	1751.4	1758.6	1749.6
7.5°	1737.0	1735.2	1737.0	1735.2	1733.4	1735.2	1737.0	1740.6	1738.8	1746.0	1738.8
10°	1717.2	1715.4	1715.4	1715.4	1713.6	1715.4	1719.0	1722.6	1722.6	1728.0	1722.6
12.5°	1693.8	1690.2	1692.0	1693.8	1690.2	1692.0	1695.6	1699.2	1699.2	1706.4	1701.0
15°	1663.2	1661.4	1665.0	1668.6	1665.0	1665.0	1668.6	1670.4	1672.2	1677.6	1674.0
17.5°	1625.4	1625.4	1629.0	1634.4	1630.8	1630.8	1634.4	1638.0	1638.0	1641.6	1641.6
20°	1585.8	1584.0	1587.6	1591.2	1591.2	1589.4	1594.8	1598.4	1600.2	1603.8	1605.6
22.5°	1542.6	1539.0	1540.8	1546.2	1544.4	1544.4	1546.2	1553.4	1557.0	1560.6	1566.0
25°	1490.4	1490.4	1494.0	1497.6	1497.6	1497.6	1499.4	1504.8	1510.2	1515.6	1521.0
27.5°	1440.0	1440.0	1441.8	1449.0	1449.0	1447.2	1450.8	1459.8	1465.2	1468.8	1476.0
30°	1389.6	1384.2	1389.6	1395.0	1398.6	1395.0	1400.4	1407.6	1411.2	1416.6	1425.6
32.5°	1335.6	1333.8	1333.8	1341.0	1344.6	1342.8	1344.6	1353.6	1360.8	1362.6	1371.6
35°	1276.2	1278.0	1278.0	1283.4	1287.0	1285.2	1287.0	1296.0	1303.2	1305.0	1314.0
37.5°	1220.4	1220.4	1220.4	1225.8	1229.4	1229.4	1229.4	1238.4	1245.6	1251.0	1256.4
40°	1161.0	1162.8	1161.0	1166.4	1171.8	1170.0	1171.8	1179.0	1188.0	1193.4	1198.8
42.5°	1101.6	1099.8	1099.8	1105.2	1112.4	1110.6	1112.4	1119.6	1126.8	1134.0	1137.6
45°	1040.4	1036.8	1040.4	1045.8	1051.2	1053.0	1051.2	1058.4	1065.6	1071.0	1078.2
47.5°	979.2	977.4	977.4	982.8	988.2	988.2	990.0	995.4	1004.4	1008.0	1017.0
50°	918.0	918.0	916.2	921.6	927.0	928.8	928.8	932.4	941.4	948.6	952.2
52.5°	856.8	856.8	856.8	858.6	862.2	867.6	867.6	871.2	876.6	885.6	891.0
55°	793.8	795.6	793.8	795.6	801.0	804.6	804.6	808.2	813.6	822.6	828.0
57.5°	730.8	732.6	730.8	732.6	738.0	739.8	741.6	745.2	748.8	756.0	761.4
60°	667.8	669.6	667.8	669.6	675.0	678.6	676.8	682.2	685.8	689.4	696.6
62.5°	604.8	608.4	606.6	610.2	612.0	615.6	613.8	619.2	622.8	626.4	633.6
65°	541.8	545.4	543.6	547.2	547.2	550.8	549.0	554.4	558.0	561.6	567.0
67.5°	478.8	482.4	480.6	482.4	484.2	487.8	484.2	491.4	495.0	496.8	502.2
70°	412.2	415.8	414.0	415.8	417.6	419.4	417.6	423.0	428.4	430.2	433.8
72.5°	349.2	352.8	352.8	354.6	354.6	358.2	358.2	358.2	361.8	367.2	369.0
75°	288.0	291.6	291.6	291.6	291.6	295.2	295.2	298.8	300.6	304.2	307.8
77.5°	226.8	230.4	230.4	230.4	230.4	234.0	234.0	237.6	239.4	243.0	246.6
80°	165.6	169.2	171.0	171.0	171.0	172.8	172.8	176.4	178.2	181.8	185.4
82.5°	108.0	109.8	111.6	109.8	111.6	113.4	117.0	117.0	118.8	122.4	126.0
85°	52.2	54.0	55.8	55.8	55.8	57.6	57.6	61.2	63.0	64.8	68.4
87.5°	7.2	9.0	9.0	9.0	9.0	10.8	10.8	10.8	12.6	12.6	16.2
90°	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8
92.5°	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4
95°	10.8	10.8	10.8	10.8	10.8	10.8	10.8	10.8	10.8	10.8	12.6
97.5°	16.2	16.2	18.0	16.2	18.0	18.0	18.0	18.0	19.8	19.8	23.4
100°	25.2	25.2	25.2	25.2	25.2	25.2	27.0	27.0	30.6	32.4	37.8
102.5°	34.2	34.2	34.2	36.0	36.0	37.8	37.8	39.6	45.0	52.2	68.4
105°	46.8	46.8	48.6	48.6	50.4	52.2	54.0	61.2	72.0	93.6	136.8
107.5°	64.8	66.6	68.4	70.2	75.6	81.0	86.4	106.2	138.6	205.2	306.0
110°	102.6	104.4	111.6	118.8	136.8	154.8	172.8	239.4	336.6	459.0	570.6



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
112.5°	214.2	221.4	226.8	270.0	327.6	378.0	424.8	543.6	671.4	775.8	819.0
115°	545.4	558.0	567.0	651.6	741.6	799.2	835.2	916.2	968.4	984.6	968.4
117.5°	1013.4	1018.8	1031.4	1062.0	1103.4	1123.2	1126.8	1139.4	1126.8	1101.6	1069.2
120°	1278.0	1278.0	1270.8	1272.6	1267.2	1267.2	1260.0	1240.2	1213.2	1182.6	1144.8
122.5°	1386.0	1380.6	1371.6	1364.4	1348.2	1344.6	1333.8	1308.6	1279.8	1249.2	1207.8
125°	1447.2	1441.8	1434.6	1425.6	1407.6	1400.4	1389.6	1364.4	1335.6	1303.2	1265.4
127.5°	1494.0	1488.6	1481.4	1472.4	1456.2	1449.0	1436.4	1411.2	1382.4	1351.8	1317.6
130°	1530.0	1528.2	1519.2	1513.8	1497.6	1490.4	1477.8	1452.6	1425.6	1395.0	1360.8
132.5°	1564.2	1560.6	1551.6	1548.0	1533.6	1524.6	1513.8	1490.4	1463.4	1432.8	1400.4
135°	1594.8	1591.2	1580.4	1576.8	1564.2	1553.4	1544.4	1522.8	1499.4	1468.8	1438.2
137.5°	1618.2	1612.8	1605.6	1602.0	1589.4	1578.6	1571.4	1551.6	1528.2	1499.4	1470.6
140°	1638.0	1632.6	1627.2	1623.6	1612.8	1603.8	1594.8	1575.0	1555.2	1531.8	1503.0
142.5°	1654.2	1650.6	1645.2	1639.8	1629.0	1621.8	1614.6	1598.4	1580.4	1557.0	1531.8
145°	1668.6	1665.0	1659.6	1656.0	1643.4	1638.0	1630.8	1616.4	1600.2	1576.8	1558.8
147.5°	1677.6	1675.8	1672.2	1668.6	1656.0	1650.6	1643.4	1632.6	1616.4	1594.8	1578.6
150°	1688.4	1684.8	1681.2	1679.4	1666.8	1661.4	1657.8	1645.2	1630.8	1611.0	1596.6
152.5°	1693.8	1690.2	1686.6	1684.8	1672.2	1668.6	1665.0	1654.2	1638.0	1620.0	1607.4
155°	1693.8	1692.0	1688.4	1686.6	1674.0	1668.6	1666.8	1656.0	1641.6	1627.2	1614.6
157.5°	1692.0	1688.4	1686.6	1683.0	1672.2	1668.6	1665.0	1656.0	1643.4	1630.8	1618.2
160°	1688.4	1684.8	1683.0	1679.4	1670.4	1666.8	1665.0	1656.0	1647.0	1634.4	1620.0
162.5°	1679.4	1677.6	1675.8	1674.0	1666.8	1663.2	1661.4	1654.2	1643.4	1632.6	1618.2
165°	1670.4	1666.8	1665.0	1661.4	1654.2	1654.2	1652.4	1647.0	1636.2	1630.8	1614.6
167.5°	1654.2	1648.8	1648.8	1643.4	1638.0	1638.0	1636.2	1634.4	1625.4	1621.8	1607.4
170°	1634.4	1632.6	1629.0	1627.2	1623.6	1623.6	1621.8	1620.0	1612.8	1612.8	1598.4
172.5°	1616.4	1614.6	1612.8	1609.2	1603.8	1603.8	1603.8	1603.8	1598.4	1598.4	1585.8
175°	1591.2	1587.6	1587.6	1585.8	1582.2	1584.0	1584.0	1584.0	1580.4	1584.0	1571.4
177.5°	1557.0	1553.4	1557.0	1560.6	1558.8	1560.6	1562.4	1562.4	1558.8	1564.2	1553.4
180°	1531.8	1531.8	1531.8	1531.8	1531.8	1531.8	1531.8	1531.8	1531.8	1531.8	1531.8



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CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	1756.8	1756.8	1756.8	1756.8	1756.8	1756.8	1756.8	1756.8	1756.8	1756.8	1756.8
2.5°	1749.6	1751.4	1749.6	1751.4	1753.2	1751.4	1753.2	1760.4	1767.6	1771.2	1767.6
5°	1742.4	1744.2	1742.4	1744.2	1746.0	1744.2	1746.0	1751.4	1760.4	1762.2	1760.4
7.5°	1731.6	1733.4	1731.6	1733.4	1733.4	1733.4	1733.4	1740.6	1747.8	1751.4	1747.8
10°	1713.6	1715.4	1713.6	1717.2	1717.2	1717.2	1717.2	1724.4	1731.6	1735.2	1729.8
12.5°	1692.0	1693.8	1692.0	1695.6	1693.8	1695.6	1697.4	1702.8	1710.0	1713.6	1710.0
15°	1663.2	1666.8	1665.0	1668.6	1668.6	1668.6	1668.6	1675.8	1683.0	1686.6	1683.0
17.5°	1630.8	1632.6	1632.6	1636.2	1636.2	1636.2	1638.0	1645.2	1650.6	1654.2	1650.6
20°	1594.8	1598.4	1598.4	1600.2	1600.2	1602.0	1603.8	1609.2	1616.4	1620.0	1616.4
22.5°	1555.2	1558.8	1560.6	1560.6	1560.6	1562.4	1564.2	1569.6	1578.6	1580.4	1576.8
25°	1513.8	1513.8	1517.4	1517.4	1519.2	1521.0	1522.8	1526.4	1535.4	1537.2	1535.4
27.5°	1468.8	1467.0	1468.8	1472.4	1472.4	1476.0	1477.8	1481.4	1488.6	1492.2	1488.6
30°	1418.4	1418.4	1422.0	1423.8	1423.8	1425.6	1429.2	1432.8	1440.0	1443.6	1440.0
32.5°	1368.0	1366.2	1371.6	1371.6	1373.4	1375.2	1377.0	1382.4	1387.8	1391.4	1389.6
35°	1315.8	1310.4	1317.6	1317.6	1319.4	1323.0	1323.0	1326.6	1333.8	1337.4	1333.8
37.5°	1261.8	1256.4	1261.8	1265.4	1263.6	1267.2	1269.0	1272.6	1279.8	1281.6	1281.6
40°	1206.0	1200.6	1206.0	1207.8	1207.8	1209.6	1213.2	1215.0	1220.4	1225.8	1222.2
42.5°	1144.8	1143.0	1146.6	1150.2	1150.2	1152.0	1153.8	1155.6	1161.0	1166.4	1162.8
45°	1083.6	1083.6	1087.2	1090.8	1092.6	1092.6	1094.4	1096.2	1099.8	1107.0	1101.6
47.5°	1022.4	1022.4	1026.0	1027.8	1027.8	1029.6	1033.2	1033.2	1040.4	1040.4	1042.2
50°	957.6	961.2	964.8	970.2	966.6	968.4	972.0	972.0	975.6	975.6	981.0
52.5°	894.6	896.4	901.8	907.2	909.0	907.2	909.0	909.0	912.6	918.0	914.4
55°	831.6	831.6	838.8	844.2	844.2	844.2	844.2	846.0	851.4	851.4	851.4
57.5°	766.8	768.6	774.0	781.2	781.2	781.2	781.2	783.0	786.6	784.8	790.2
60°	703.8	703.8	711.0	714.6	714.6	718.2	718.2	720.0	721.8	727.2	727.2
62.5°	640.8	640.8	646.2	649.8	653.4	651.6	653.4	655.2	658.8	664.2	660.6
65°	576.0	576.0	581.4	583.2	588.6	586.8	588.6	594.0	595.8	597.6	595.8
67.5°	509.4	511.2	516.6	518.4	523.8	525.6	523.8	531.0	532.8	536.4	534.6
70°	439.2	441.0	448.2	450.0	453.6	451.8	455.4	464.4	468.0	469.8	466.2
72.5°	376.2	378.0	385.2	387.0	390.6	388.8	392.4	397.8	401.4	403.2	403.2
75°	311.4	315.0	318.6	322.2	327.6	325.8	329.4	334.8	338.4	340.2	340.2
77.5°	250.2	252.0	257.4	259.2	264.6	262.8	264.6	268.2	273.6	275.4	275.4
80°	189.0	192.6	194.4	198.0	201.6	199.8	203.4	208.8	210.6	212.4	212.4
82.5°	129.6	131.4	135.0	138.6	142.2	144.0	145.8	149.4	151.2	151.2	151.2
85°	72.0	75.6	79.2	81.0	84.6	82.8	88.2	91.8	93.6	93.6	95.4
87.5°	19.8	23.4	25.2	28.8	32.4	32.4	32.4	39.6	39.6	41.4	41.4
90°	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8
92.5°	5.4	7.2	7.2	9.0	10.8	12.6	18.0	18.0	14.4	12.6	14.4
95°	14.4	16.2	19.8	30.6	37.8	43.2	50.4	48.6	41.4	32.4	30.6
97.5°	27.0	34.2	48.6	73.8	88.2	95.4	102.6	91.8	77.4	63.0	57.6
100°	50.4	68.4	104.4	147.6	163.8	171.0	169.2	145.8	126.0	102.6	90.0
102.5°	95.4	145.8	207.0	255.6	266.4	257.4	243.0	214.2	185.4	153.0	133.2
105°	207.0	293.4	356.4	374.4	379.8	361.8	327.6	291.6	250.2	212.4	183.6
107.5°	412.2	491.4	514.8	502.2	495.0	464.4	421.2	374.4	325.8	279.0	243.0
110°	653.4	667.8	651.6	612.0	590.4	563.4	514.8	460.8	399.6	352.8	309.6



TEST NUMBER: P303181

CATALOG NUMBER: CTW-F-5050-50L940-UNV-STD-8

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
112.5°	829.8	799.2	757.8	705.6	680.4	651.6	599.4	547.2	480.6	428.4	381.6
115°	943.2	898.2	847.8	792.0	765.0	734.4	682.2	624.6	558.0	509.4	455.4
117.5°	1031.4	975.6	925.2	871.2	846.0	815.4	763.2	700.2	633.6	585.0	531.0
120°	1099.8	1047.6	995.4	945.0	916.2	891.0	837.0	774.0	707.4	653.4	603.0
122.5°	1161.0	1112.4	1062.0	1013.4	986.4	957.6	901.8	840.6	779.4	729.0	678.6
125°	1218.6	1173.6	1123.2	1074.6	1047.6	1018.8	964.8	905.4	844.2	790.2	747.0
127.5°	1272.6	1229.4	1179.0	1132.2	1105.2	1074.6	1022.4	964.8	912.6	856.8	813.6
130°	1321.2	1281.6	1233.0	1186.2	1159.2	1130.4	1078.2	1022.4	972.0	923.4	876.6
132.5°	1364.4	1324.8	1278.0	1234.8	1206.0	1180.8	1130.4	1078.2	1027.8	982.8	939.6
135°	1405.8	1364.4	1321.2	1276.2	1251.0	1227.6	1179.0	1130.4	1083.6	1042.2	1002.6
137.5°	1443.6	1398.6	1355.4	1312.2	1288.8	1269.0	1222.2	1177.2	1137.6	1096.2	1056.6
140°	1476.0	1429.2	1389.6	1348.2	1326.6	1306.8	1263.6	1220.4	1186.2	1146.6	1108.8
142.5°	1501.2	1454.4	1418.4	1378.8	1359.0	1342.8	1301.4	1263.6	1229.4	1195.2	1157.4
145°	1521.0	1479.6	1445.4	1407.6	1391.4	1373.4	1335.6	1301.4	1270.8	1236.6	1202.4
147.5°	1540.8	1504.8	1470.6	1436.4	1420.2	1404.0	1369.8	1339.2	1310.4	1279.8	1245.6
150°	1557.0	1524.6	1494.0	1463.4	1449.0	1432.8	1402.2	1373.4	1348.2	1319.4	1287.0
152.5°	1567.8	1540.8	1513.8	1486.8	1472.4	1459.8	1431.0	1407.6	1384.2	1359.0	1326.6
155°	1576.8	1555.2	1530.0	1506.6	1494.0	1483.2	1456.2	1434.6	1414.8	1393.2	1364.4
157.5°	1585.8	1564.2	1542.6	1521.0	1510.2	1499.4	1476.0	1459.8	1441.8	1422.0	1395.0
160°	1589.4	1573.2	1551.6	1533.6	1524.6	1515.6	1495.8	1481.4	1467.0	1449.0	1423.8
162.5°	1591.2	1576.8	1558.8	1544.4	1537.2	1530.0	1510.2	1499.4	1486.8	1472.4	1450.8
165°	1591.2	1580.4	1566.0	1553.4	1546.2	1540.8	1524.6	1515.6	1506.6	1494.0	1474.2
167.5°	1589.4	1578.6	1567.8	1557.0	1551.6	1546.2	1533.6	1528.2	1521.0	1510.2	1494.0
170°	1584.0	1576.8	1566.0	1558.8	1555.2	1549.8	1540.8	1537.2	1533.6	1526.4	1510.2
172.5°	1575.0	1569.6	1562.4	1557.0	1555.2	1549.8	1542.6	1540.8	1540.8	1535.4	1522.8
175°	1562.4	1560.6	1555.2	1551.6	1548.0	1546.2	1540.8	1542.6	1544.4	1542.6	1531.8
177.5°	1546.2	1546.2	1542.6	1542.6	1540.8	1539.0	1537.2	1540.8	1546.2	1546.2	1539.0
180°	1531.8	1531.8	1531.8	1531.8	1531.8	1531.8	1531.8	1531.8	1531.8	1531.8	1531.8



TEST NUMBER: P303181

CATALOG NUMBER: CTW-F-5050-50L940-UNV-STD-8

CANDELA DISTRIBUTION (continued):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	1756.8	1756.8	1756.8	1756.8	1756.8	1756.8	1756.8	1756.8	1756.8	1756.8	1756.8
2.5°	1762.2	1755.0	1753.2	1753.2	1751.4	1747.8	1746.0	1747.8	1755.0	1765.8	1755.0
5°	1755.0	1747.8	1744.2	1744.2	1744.2	1738.8	1738.8	1738.8	1747.8	1756.8	1746.0
7.5°	1742.4	1735.2	1733.4	1733.4	1731.6	1728.0	1726.2	1728.0	1735.2	1744.2	1733.4
10°	1726.2	1719.0	1717.2	1715.4	1713.6	1710.0	1708.2	1710.0	1717.2	1724.4	1715.4
12.5°	1704.6	1697.4	1693.8	1695.6	1692.0	1686.6	1686.6	1686.6	1695.6	1701.0	1692.0
15°	1677.6	1668.6	1666.8	1666.8	1665.0	1659.6	1659.6	1659.6	1668.6	1672.2	1661.4
17.5°	1645.2	1638.0	1636.2	1636.2	1632.6	1627.2	1627.2	1625.4	1636.2	1638.0	1630.8
20°	1611.0	1603.8	1600.2	1600.2	1596.6	1591.2	1591.2	1589.4	1602.0	1598.4	1593.0
22.5°	1573.2	1564.2	1560.6	1562.4	1558.8	1551.6	1551.6	1549.8	1560.6	1555.2	1548.0
25°	1531.8	1521.0	1519.2	1517.4	1515.6	1506.6	1506.6	1506.6	1517.4	1508.4	1503.0
27.5°	1483.2	1476.0	1474.2	1468.8	1468.8	1461.6	1461.6	1461.6	1472.4	1459.8	1458.0
30°	1434.6	1427.4	1427.4	1422.0	1420.2	1413.0	1413.0	1413.0	1423.8	1411.2	1407.6
32.5°	1386.0	1377.0	1373.4	1369.8	1369.8	1362.6	1362.6	1362.6	1369.8	1357.2	1353.6
35°	1332.0	1323.0	1323.0	1315.8	1315.8	1308.6	1306.8	1310.4	1312.2	1301.4	1297.8
37.5°	1276.2	1267.2	1267.2	1261.8	1261.8	1254.6	1254.6	1260.0	1254.6	1249.2	1242.0
40°	1220.4	1213.2	1209.6	1204.2	1206.0	1200.6	1198.8	1202.4	1198.8	1193.4	1184.4
42.5°	1161.0	1153.8	1152.0	1148.4	1148.4	1143.0	1141.2	1144.8	1139.4	1132.2	1126.8
45°	1101.6	1096.2	1094.4	1090.8	1090.8	1083.6	1083.6	1085.4	1078.2	1074.6	1067.4
47.5°	1038.6	1035.0	1031.4	1031.4	1029.6	1024.2	1024.2	1024.2	1018.8	1015.2	1006.2
50°	977.4	972.0	970.2	970.2	970.2	964.8	963.0	959.4	955.8	954.0	945.0
52.5°	914.4	910.8	909.0	909.0	910.8	901.8	900.0	896.4	894.6	892.8	882.0
55°	851.4	847.8	844.2	847.8	846.0	838.8	837.0	838.8	833.4	828.0	819.0
57.5°	788.4	783.0	783.0	784.8	783.0	775.8	774.0	775.8	768.6	763.2	756.0
60°	725.4	720.0	718.2	720.0	718.2	711.0	709.2	709.2	703.8	700.2	693.0
62.5°	662.4	657.0	657.0	657.0	655.2	651.6	646.2	646.2	640.8	635.4	630.0
65°	595.8	590.4	592.2	592.2	592.2	588.6	583.2	585.0	576.0	572.4	567.0
67.5°	532.8	527.4	527.4	527.4	527.4	527.4	518.4	516.6	511.2	509.4	504.0
70°	466.2	459.0	460.8	459.0	457.2	455.4	450.0	448.2	442.8	442.8	437.4
72.5°	399.6	396.0	396.0	396.0	394.2	392.4	388.8	387.0	379.8	379.8	376.2
75°	333.0	333.0	331.2	331.2	331.2	329.4	325.8	324.0	316.8	318.6	315.0
77.5°	271.8	271.8	268.2	268.2	268.2	266.4	264.6	259.2	259.2	255.6	253.8
80°	208.8	208.8	207.0	207.0	207.0	205.2	203.4	201.6	198.0	196.2	192.6
82.5°	151.2	149.4	147.6	147.6	145.8	145.8	144.0	142.2	138.6	133.2	131.4
85°	91.8	91.8	90.0	90.0	88.2	88.2	84.6	81.0	77.4	73.8	72.0
87.5°	39.6	39.6	34.2	34.2	32.4	32.4	30.6	28.8	25.2	23.4	21.6
90°	3.6	5.4	5.4	5.4	7.2	7.2	7.2	9.0	9.0	9.0	9.0
92.5°	21.6	27.0	28.8	28.8	28.8	28.8	28.8	28.8	28.8	27.0	27.0
95°	36.0	39.6	48.6	52.2	55.8	59.4	59.4	59.4	59.4	57.6	54.0
97.5°	54.0	57.6	63.0	63.0	64.8	73.8	81.0	84.6	88.2	90.0	90.0
100°	84.6	77.4	84.6	90.0	88.2	88.2	91.8	99.0	106.2	109.8	111.6
102.5°	120.6	108.0	104.4	108.0	111.6	118.8	115.2	117.0	120.6	126.0	131.4
105°	165.6	149.4	136.8	135.0	135.0	142.2	151.2	149.4	147.6	147.6	147.6
107.5°	217.8	194.4	174.6	171.0	167.4	167.4	172.8	183.6	190.8	183.6	180.0
110°	277.2	244.8	225.0	214.2	207.0	199.8	199.8	205.2	214.2	223.2	226.8



TEST NUMBER: P303181

CATALOG NUMBER: CTW-F-5050-50L940-UNV-STD-8

CANDELA DISTRIBUTION (continued):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
112.5°	343.8	304.2	277.2	268.2	253.8	237.6	232.2	232.2	237.6	246.6	253.8
115°	412.2	370.8	333.0	322.2	307.8	282.6	268.2	264.6	264.6	268.2	275.4
117.5°	487.8	437.4	396.0	381.6	365.4	336.6	313.2	300.6	295.2	295.2	298.8
120°	554.4	511.2	468.0	448.2	428.4	396.0	365.4	345.6	333.0	325.8	324.0
122.5°	630.0	585.0	538.2	522.0	500.4	462.6	430.2	399.6	379.8	365.4	354.6
125°	698.4	657.0	608.4	588.6	568.8	531.0	498.6	464.4	437.4	414.0	396.0
127.5°	765.0	723.6	676.8	658.8	639.0	599.4	565.2	532.8	504.0	475.2	450.0
130°	831.6	792.0	745.2	725.4	707.4	669.6	631.8	599.4	574.2	545.4	516.6
132.5°	896.4	855.0	811.8	790.2	774.0	736.2	702.0	667.8	639.0	613.8	586.8
135°	957.6	918.0	874.8	853.2	837.0	802.8	768.6	738.0	705.6	680.4	655.2
137.5°	1015.2	975.6	937.8	914.4	898.2	867.6	835.2	806.4	774.0	747.0	721.8
140°	1069.2	1031.4	995.4	975.6	957.6	927.0	898.2	874.8	840.6	815.4	790.2
142.5°	1119.6	1081.8	1047.6	1031.4	1013.4	984.6	957.6	936.0	910.8	883.8	858.6
145°	1164.6	1132.2	1099.8	1083.6	1067.4	1040.4	1015.2	995.4	973.8	946.8	923.4
147.5°	1211.4	1179.0	1148.4	1134.0	1121.4	1094.4	1071.0	1051.2	1035.0	1009.8	986.4
150°	1254.6	1224.0	1197.0	1182.6	1171.8	1143.0	1125.0	1105.2	1092.6	1069.2	1049.4
152.5°	1296.0	1269.0	1242.0	1231.2	1218.6	1191.6	1173.6	1153.8	1146.6	1123.2	1107.0
155°	1335.6	1306.8	1285.2	1274.4	1261.8	1236.6	1222.2	1204.2	1198.8	1177.2	1161.0
157.5°	1371.6	1342.8	1323.0	1312.2	1301.4	1279.8	1265.4	1249.2	1245.6	1229.4	1211.4
160°	1402.2	1375.2	1357.2	1350.0	1339.2	1319.4	1305.0	1292.4	1288.8	1278.0	1260.0
162.5°	1429.2	1405.8	1391.4	1382.4	1373.4	1355.4	1344.6	1330.2	1330.2	1321.2	1306.8
165°	1456.2	1434.6	1420.2	1413.0	1405.8	1391.4	1378.8	1369.8	1369.8	1362.6	1348.2
167.5°	1477.8	1458.0	1447.2	1440.0	1434.6	1420.2	1411.2	1402.2	1404.0	1400.4	1386.0
170°	1497.6	1479.6	1470.6	1465.2	1459.8	1447.2	1441.8	1432.8	1434.6	1434.6	1422.0
172.5°	1513.8	1497.6	1490.4	1485.0	1483.2	1470.6	1467.0	1461.6	1463.4	1467.0	1450.8
175°	1524.6	1512.0	1504.8	1503.0	1499.4	1492.2	1486.8	1485.0	1488.6	1494.0	1479.6
177.5°	1533.6	1522.8	1519.2	1519.2	1515.6	1508.4	1504.8	1504.8	1510.2	1517.4	1506.6
180°	1531.8	1531.8	1531.8	1531.8	1531.8	1531.8	1531.8	1531.8	1531.8	1531.8	1531.8



TEST NUMBER: P303181

CATALOG NUMBER: CTW-F-5050-50L940-UNV-STD-8

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	1756.8	1756.8	1756.8	1756.8	1756.8	1756.8	1756.8	1756.8
2.5°	1758.6	1756.8	1755.0	1751.4	1749.6	1746.0	1744.2	1746.0
5°	1747.8	1746.0	1744.2	1742.4	1742.4	1740.6	1740.6	1742.4
7.5°	1735.2	1733.4	1731.6	1729.8	1729.8	1729.8	1729.8	1731.6
10°	1717.2	1713.6	1711.8	1710.0	1708.2	1708.2	1708.2	1710.0
12.5°	1693.8	1690.2	1686.6	1684.8	1684.8	1684.8	1684.8	1688.4
15°	1663.2	1661.4	1659.6	1657.8	1657.8	1656.0	1656.0	1659.6
17.5°	1632.6	1629.0	1625.4	1623.6	1621.8	1621.8	1620.0	1621.8
20°	1591.2	1587.6	1584.0	1582.2	1582.2	1580.4	1580.4	1582.2
22.5°	1546.2	1540.8	1539.0	1537.2	1537.2	1535.4	1535.4	1537.2
25°	1501.2	1494.0	1492.2	1490.4	1490.4	1488.6	1488.6	1488.6
27.5°	1454.4	1447.2	1445.4	1441.8	1443.6	1440.0	1438.2	1440.0
30°	1404.0	1396.8	1395.0	1391.4	1391.4	1387.8	1386.0	1387.8
32.5°	1350.0	1342.8	1341.0	1339.2	1341.0	1333.8	1332.0	1335.6
35°	1294.2	1287.0	1287.0	1283.4	1285.2	1278.0	1278.0	1279.8
37.5°	1236.6	1229.4	1231.2	1227.6	1227.6	1222.2	1222.2	1224.0
40°	1179.0	1173.6	1170.0	1170.0	1171.8	1164.6	1164.6	1162.8
42.5°	1119.6	1114.2	1112.4	1112.4	1110.6	1105.2	1103.4	1105.2
45°	1060.2	1054.8	1054.8	1053.0	1053.0	1045.8	1047.6	1045.8
47.5°	999.0	995.4	993.6	991.8	991.8	984.6	986.4	984.6
50°	937.8	936.0	934.2	932.4	932.4	925.2	928.8	925.2
52.5°	876.6	874.8	873.0	873.0	871.2	867.6	867.6	864.0
55°	815.4	811.8	811.8	811.8	810.0	804.6	808.2	804.6
57.5°	754.2	750.6	748.8	747.0	747.0	745.2	743.4	741.6
60°	691.2	687.6	687.6	684.0	684.0	684.0	682.2	680.4
62.5°	628.2	624.6	624.6	622.8	622.8	622.8	621.0	619.2
65°	567.0	561.6	561.6	559.8	559.8	559.8	558.0	556.2
67.5°	502.2	498.6	498.6	496.8	498.6	498.6	496.8	493.2
70°	435.6	432.0	432.0	430.2	432.0	432.0	430.2	426.6
72.5°	374.4	370.8	369.0	370.8	370.8	370.8	367.2	365.4
75°	313.2	307.8	307.8	309.6	307.8	309.6	306.0	309.6
77.5°	252.0	246.6	246.6	248.4	246.6	246.6	244.8	248.4
80°	189.0	185.4	185.4	187.2	185.4	185.4	183.6	187.2
82.5°	129.6	127.8	129.6	126.0	122.4	122.4	120.6	124.2
85°	72.0	70.2	68.4	68.4	66.6	66.6	64.8	68.4
87.5°	21.6	23.4	23.4	21.6	21.6	21.6	21.6	23.4
90°	9.0	9.0	9.0	10.8	10.8	12.6	12.6	12.6
92.5°	27.0	27.0	25.2	27.0	25.2	25.2	25.2	25.2
95°	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0
97.5°	90.0	91.8	90.0	91.8	90.0	88.2	90.0	88.2
100°	113.4	117.0	117.0	118.8	118.8	118.8	118.8	118.8
102.5°	135.0	138.6	138.6	140.4	140.4	142.2	142.2	140.4
105°	153.0	154.8	156.6	158.4	162.0	165.6	165.6	165.6
107.5°	178.2	181.8	180.0	181.8	183.6	183.6	183.6	183.6
110°	223.2	219.6	217.8	214.2	214.2	214.2	214.2	214.2



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CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
112.5°	261.0	264.6	264.6	264.6	264.6	262.8	259.2	259.2
115°	284.4	291.6	293.4	295.2	298.8	300.6	300.6	300.6
117.5°	302.4	309.6	311.4	315.0	318.6	322.2	324.0	325.8
120°	325.8	331.2	333.0	333.0	336.6	338.4	342.0	342.0
122.5°	352.8	354.6	354.6	354.6	356.4	358.2	360.0	360.0
125°	388.8	383.4	383.4	379.8	379.8	378.0	379.8	379.8
127.5°	433.8	426.6	423.0	417.6	414.0	408.6	408.6	408.6
130°	496.8	484.2	477.0	468.0	460.8	450.0	450.0	450.0
132.5°	565.2	545.4	540.0	531.0	520.2	509.4	507.6	507.6
135°	635.4	613.8	606.6	597.6	585.0	576.0	568.8	574.2
137.5°	702.0	682.2	680.4	673.2	657.0	646.2	644.4	644.4
140°	770.4	748.8	745.2	738.0	729.0	718.2	712.8	714.6
142.5°	837.0	815.4	811.8	806.4	793.8	784.8	779.4	781.2
145°	905.4	883.8	880.2	873.0	860.4	853.2	846.0	851.4
147.5°	970.2	950.4	945.0	936.0	928.8	919.8	914.4	912.6
150°	1033.2	1013.4	1009.8	1000.8	993.6	986.4	979.2	982.8
152.5°	1092.6	1078.2	1071.0	1062.0	1056.6	1049.4	1044.0	1045.8
155°	1148.4	1130.4	1126.8	1119.6	1116.0	1108.8	1105.2	1105.2
157.5°	1197.0	1186.2	1180.8	1175.4	1170.0	1166.4	1161.0	1162.8
160°	1249.2	1238.4	1233.0	1229.4	1222.2	1222.2	1216.8	1218.6
162.5°	1297.8	1288.8	1283.4	1279.8	1276.2	1274.4	1269.0	1270.8
165°	1341.0	1332.0	1330.2	1324.8	1323.0	1323.0	1317.6	1317.6
167.5°	1380.6	1373.4	1368.0	1366.2	1362.6	1362.6	1359.0	1360.8
170°	1418.4	1411.2	1407.6	1404.0	1400.4	1400.4	1398.6	1398.6
172.5°	1450.8	1445.4	1443.6	1440.0	1438.2	1438.2	1436.4	1436.4
175°	1481.4	1476.0	1474.2	1470.6	1468.8	1467.0	1467.0	1467.0
177.5°	1508.4	1506.6	1503.0	1503.0	1499.4	1495.8	1492.2	1490.4
180°	1531.8	1531.8	1531.8	1531.8	1531.8	1531.8	1531.8	1531.8

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