

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: P303161

Luminaire Tested: **CTW-F-5050-40L840-UNV-STD-8**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P303161
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1903-181-9)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: CORELITE
Catalog Number: CTW-F-5050-40L840-UNV-STD-8
Description: CORELITE CONTINUA LINEAR WALL LED LUMINAIRE
50% UPLIGHT, 50% DOWNLIGHT, 4000 LUMEN PACKAGE
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

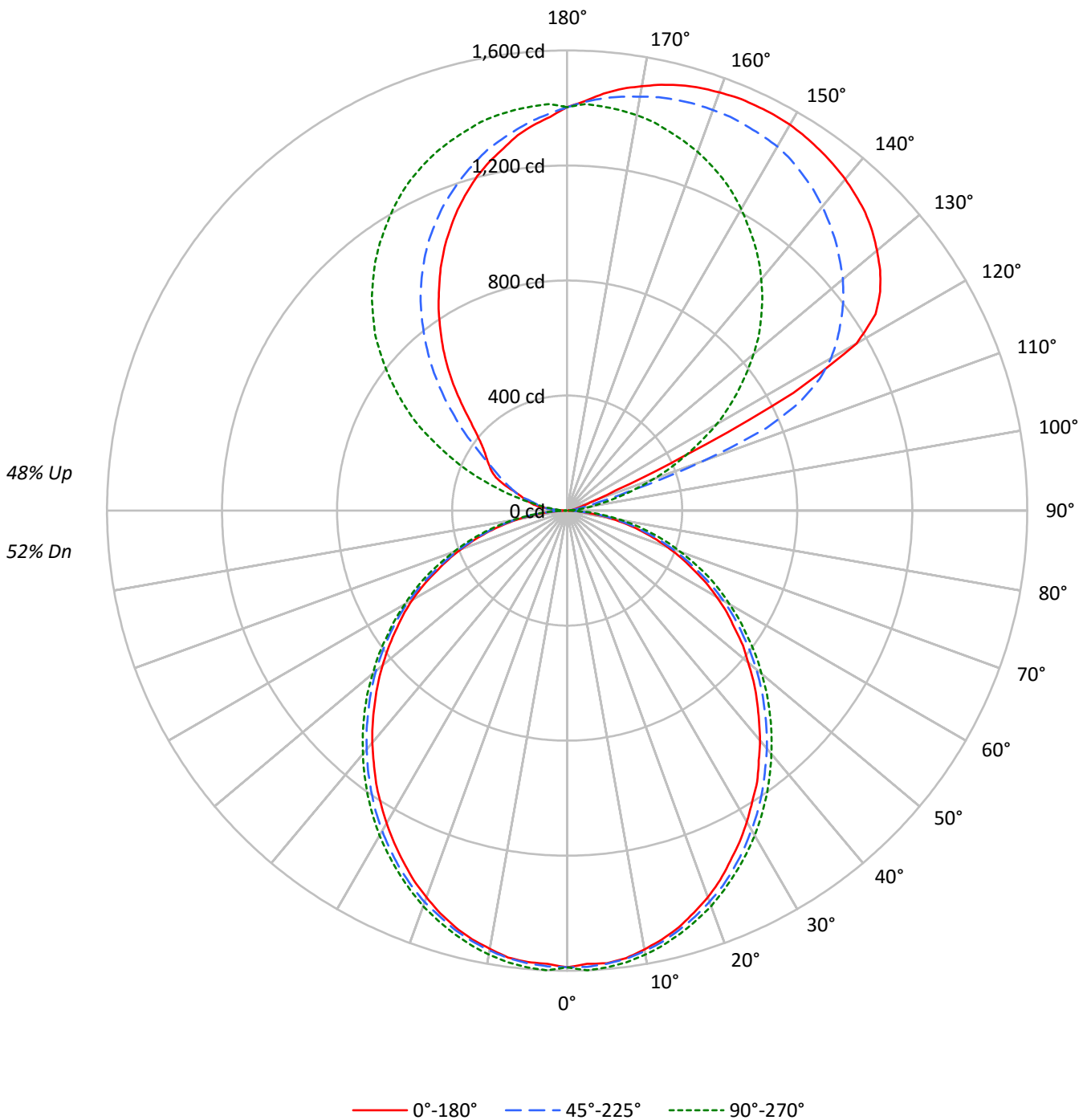
Lumens per Lamp: N/A
Luminaire Lumens: 8208.4 lumens
Efficiency: N/A
Efficacy: 132.6 lumens/watt
Spacing Criteria (0/90/45): 1.18 / 1.22 / 1.32
Luminous Opening: Rectangular (W 8' x L: 0.12' x H: 0')
CIE Type: General Diffuse

Input Watts (W): 61.9
Input Voltage (V): 120
Input Current (A_{in}): 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	99	99	99	99	84	84	84	70	70	70	58	58	58	52
1	98	94	90	86	90	87	83	80	74	71	69	62	60	58	51	50	48	43
2	89	82	75	70	82	76	70	66	64	60	57	54	51	49	45	42	41	36
3	81	72	64	58	75	67	60	55	57	52	48	48	44	41	39	37	34	30
4	74	63	55	49	68	59	52	46	50	45	41	42	38	35	35	32	30	26
5	68	56	48	42	63	52	45	40	45	39	35	38	34	30	32	28	26	23
6	63	51	42	37	58	47	40	34	41	35	30	34	30	27	29	25	23	20
7	58	46	38	32	54	43	35	30	37	31	27	31	27	23	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°	17093	17093	17093
5°	17070	17224	17025
10°	16933	17134	16911
15°	16719	16968	16719
20°	16392	16765	16392
25°	15954	16487	16003
30°	15531	16215	15607
35°	15134	15884	15214
40°	14665	15524	14809
45°	14212	15174	14397
50°	13757	14781	14030
55°	13313	14384	13656
60°	12945	14043	13384
65°	12304	13759	12824
70°	11676	13215	12381
75°	10767	12718	11699
80°	9224	11877	10612
85°	5792	10325	8052



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	149.9	1.8
10°-20°	424.3	5.2
20°-30°	628.1	7.7
30°-40°	737.4	9.0
40°-50°	747.5	9.1
50°-60°	666.7	8.1
60°-70°	508.7	6.2
70°-80°	300.5	3.7
80°-90°	81.0	1.0
90°-100°	40.9	0.5
100°-110°	170.0	2.1
110°-120°	479.5	5.8
120°-130°	699.0	8.5
130°-140°	752.9	9.2
140°-150°	716.3	8.7
150°-160°	587.9	7.2
160°-170°	384.4	4.7
170°-180°	133.2	1.6
0°-30°	1202.3	14.6
0°-40°	1939.7	23.6
0°-60°	3353.9	40.9
0°-90°	4244.3	51.7
90°-120°	690.4	8.4
90°-150°	2858.6	34.8
90°-180°	3964.0	48.3
0°-180°	8208.4	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1588	1588	1588	1588	1588	
5°	1580	1582	1594	1580	1576	150
15°	1500	1508	1523	1508	1500	422
25°	1343	1372	1388	1374	1347	619
35°	1152	1184	1209	1188	1158	719
45°	934	970	997	976	946	720
55°	709	742	766	754	728	637
65°	483	506	540	518	504	480
75°	259	275	306	290	281	273
85°	47	59	84	73	65	60
90°	2	2	2	8	12	2
95°	10	12	31	57	53	11
105°	45	114	188	134	153	53
115°	444	893	457	245	273	525
125°	1329	1164	726	393	349	1177
135°	1466	1321	954	640	512	1131
145°	1531	1427	1135	889	768	960
155°	1553	1476	1276	1093	1009	718
165°	1531	1478	1366	1250	1205	434
175°	1456	1439	1411	1362	1345	140
180°	1402	1402	1402	1402	1402	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	1588.0	1588.0	1588.0	1588.0	1588.0	1588.0	1588.0	1588.0	1588.0	1588.0	1588.0
2.5°	1577.8	1575.7	1579.8	1583.9	1583.9	1585.9	1588.0	1590.0	1590.0	1594.1	1588.0
5°	1579.8	1575.7	1577.8	1577.8	1575.7	1577.8	1579.8	1583.9	1583.9	1588.0	1581.8
7.5°	1569.6	1567.6	1569.6	1567.6	1565.5	1567.6	1569.6	1571.7	1571.7	1575.7	1571.7
10°	1549.2	1549.2	1549.2	1549.2	1549.2	1551.3	1553.3	1555.3	1555.3	1559.4	1555.3
12.5°	1526.8	1526.8	1526.8	1528.8	1524.8	1526.8	1530.9	1535.0	1535.0	1539.0	1535.0
15°	1500.3	1500.3	1502.3	1504.4	1502.3	1502.3	1504.4	1508.5	1508.5	1512.5	1508.5
17.5°	1465.7	1465.7	1467.7	1471.8	1469.7	1471.8	1473.8	1477.9	1479.9	1479.9	1479.9
20°	1431.0	1429.0	1431.0	1433.0	1433.0	1435.1	1435.1	1441.2	1445.3	1445.3	1447.3
22.5°	1390.2	1386.2	1390.2	1392.3	1392.3	1394.3	1394.3	1400.4	1404.5	1406.5	1412.7
25°	1343.3	1343.3	1345.4	1349.5	1349.5	1351.5	1353.5	1359.7	1363.7	1363.7	1371.9
27.5°	1298.5	1296.5	1298.5	1302.6	1306.7	1308.7	1308.7	1314.8	1320.9	1325.0	1329.1
30°	1249.6	1249.6	1251.6	1255.7	1259.8	1257.7	1259.8	1267.9	1274.0	1278.1	1282.2
32.5°	1198.6	1198.6	1200.7	1204.7	1210.8	1210.8	1212.9	1219.0	1223.1	1227.2	1235.3
35°	1151.7	1147.7	1149.7	1153.8	1161.9	1159.9	1161.9	1168.0	1172.1	1178.2	1184.3
37.5°	1094.7	1094.7	1096.7	1100.8	1108.9	1106.9	1111.0	1115.0	1121.2	1127.3	1131.3
40°	1043.7	1045.7	1043.7	1047.8	1053.9	1055.9	1055.9	1060.0	1068.2	1074.3	1080.4
42.5°	986.6	988.7	990.7	994.8	1000.9	1000.9	1002.9	1007.0	1013.1	1019.2	1025.3
45°	933.6	933.6	933.6	937.7	945.8	945.8	949.9	949.9	956.0	964.2	970.3
47.5°	878.6	878.6	878.6	884.7	890.8	890.8	894.9	894.9	903.0	909.2	915.3
50°	821.5	825.6	823.5	827.6	835.8	833.7	837.8	837.8	843.9	852.1	858.2
52.5°	770.5	770.5	766.5	772.6	778.7	778.7	780.7	780.7	788.9	795.0	801.1
55°	709.4	713.5	709.4	715.5	721.6	721.6	725.7	725.7	727.7	735.9	742.0
57.5°	658.4	658.4	654.3	658.4	664.5	664.5	668.6	668.6	672.7	676.8	687.0
60°	601.3	599.3	597.3	603.4	607.5	607.5	611.5	611.5	615.6	617.7	627.8
62.5°	544.3	542.2	542.2	546.3	550.4	548.3	554.5	554.5	558.5	562.6	568.7
65°	483.1	481.1	481.1	485.2	487.2	487.2	491.3	493.3	495.3	501.5	505.5
67.5°	428.1	426.0	424.0	428.1	430.1	430.1	434.2	436.2	440.3	442.3	446.4
70°	371.0	369.0	366.9	371.0	375.1	373.0	377.1	379.2	381.2	385.3	389.3
72.5°	313.9	313.9	313.9	316.0	318.0	318.0	320.0	322.1	326.2	330.2	332.3
75°	258.9	256.8	256.8	260.9	260.9	260.9	265.0	267.0	267.0	273.2	275.2
77.5°	203.8	205.9	203.8	203.8	203.8	205.9	207.9	210.0	214.0	218.1	220.2
80°	148.8	150.8	148.8	150.8	148.8	150.8	154.9	154.9	159.0	163.1	165.1
82.5°	95.8	97.8	95.8	97.8	97.8	97.8	99.9	101.9	106.0	108.0	112.1
85°	46.9	44.8	46.9	46.9	46.9	46.9	51.0	51.0	55.0	57.1	59.1
87.5°	6.1	6.1	6.1	6.1	8.2	6.1	8.2	10.2	10.2	12.2	12.2
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°	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2	12.2	12.2
97.5°	16.3	16.3	16.3	16.3	16.3	16.3	16.3	18.3	18.3	20.4	22.4
100°	22.4	22.4	24.5	24.5	24.5	24.5	24.5	26.5	28.5	32.6	36.7
102.5°	32.6	32.6	32.6	34.7	34.7	36.7	36.7	40.8	44.8	51.0	63.2
105°	44.8	46.9	46.9	46.9	51.0	51.0	53.0	59.1	69.3	85.6	114.2
107.5°	63.2	65.2	65.2	69.3	73.4	77.5	81.5	99.9	124.3	173.3	244.6
110°	97.8	99.9	101.9	112.1	126.4	138.6	154.9	201.8	275.2	383.2	501.5



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
112.5°	183.5	193.7	205.9	234.4	283.3	313.9	348.6	470.9	589.1	693.1	750.2
115°	444.4	470.9	497.4	560.6	644.2	693.1	727.7	833.7	884.7	905.1	892.8
117.5°	886.7	909.2	927.5	962.2	1002.9	1017.2	1023.3	1045.7	1035.5	1019.2	988.7
120°	1161.9	1170.1	1168.0	1168.0	1168.0	1161.9	1157.8	1143.6	1119.1	1094.7	1060.0
122.5°	1272.0	1274.0	1265.9	1255.7	1243.5	1237.3	1229.2	1206.8	1180.3	1151.7	1115.0
125°	1329.1	1329.1	1320.9	1310.7	1296.5	1288.3	1276.1	1255.7	1229.2	1200.7	1164.0
127.5°	1371.9	1369.8	1363.7	1355.6	1339.3	1333.2	1320.9	1298.5	1272.0	1247.5	1210.8
130°	1406.5	1404.5	1396.3	1392.3	1378.0	1367.8	1357.6	1335.2	1308.7	1284.2	1251.6
132.5°	1439.2	1435.1	1426.9	1422.8	1408.6	1400.4	1390.2	1369.8	1343.3	1320.9	1286.3
135°	1465.7	1459.5	1453.4	1449.3	1437.1	1426.9	1418.8	1398.4	1376.0	1351.5	1320.9
137.5°	1486.0	1482.0	1473.8	1469.7	1457.5	1449.3	1441.2	1424.9	1404.5	1380.0	1351.5
140°	1504.4	1498.3	1494.2	1488.1	1477.9	1469.7	1461.6	1447.3	1426.9	1406.5	1380.0
142.5°	1518.7	1514.6	1510.5	1506.4	1494.2	1488.1	1479.9	1467.7	1451.4	1431.0	1406.5
145°	1530.9	1526.8	1522.7	1518.7	1508.5	1502.3	1496.2	1484.0	1469.7	1449.3	1426.9
147.5°	1541.1	1537.0	1532.9	1530.9	1520.7	1514.6	1508.5	1500.3	1484.0	1463.6	1447.3
150°	1549.2	1545.2	1541.1	1537.0	1528.8	1522.7	1520.7	1510.5	1494.2	1477.9	1461.6
152.5°	1553.3	1549.2	1547.2	1543.1	1535.0	1528.8	1526.8	1516.6	1502.3	1484.0	1469.7
155°	1553.3	1551.3	1547.2	1545.2	1535.0	1528.8	1526.8	1516.6	1504.4	1488.1	1475.8
157.5°	1553.3	1549.2	1547.2	1543.1	1532.9	1528.8	1526.8	1518.7	1508.5	1494.2	1482.0
160°	1547.2	1545.2	1543.1	1539.0	1530.9	1526.8	1526.8	1518.7	1508.5	1496.2	1482.0
162.5°	1541.1	1537.0	1535.0	1532.9	1526.8	1524.8	1522.7	1516.6	1506.4	1496.2	1482.0
165°	1530.9	1528.8	1524.8	1522.7	1516.6	1514.6	1512.5	1508.5	1498.3	1492.2	1477.9
167.5°	1516.6	1512.5	1510.5	1506.4	1500.3	1500.3	1500.3	1496.2	1490.1	1486.0	1471.8
170°	1498.3	1494.2	1492.2	1490.1	1486.0	1486.0	1486.0	1484.0	1477.9	1475.8	1461.6
172.5°	1479.9	1477.9	1475.8	1473.8	1467.7	1467.7	1467.7	1467.7	1463.6	1463.6	1451.4
175°	1455.5	1453.4	1451.4	1451.4	1447.3	1449.3	1449.3	1449.3	1447.3	1451.4	1439.2
177.5°	1424.9	1420.8	1424.9	1429.0	1426.9	1429.0	1431.0	1431.0	1429.0	1433.0	1422.8
180°	1402.5	1402.5	1402.5	1402.5	1402.5	1402.5	1402.5	1402.5	1402.5	1402.5	1402.5



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CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	1588.0	1588.0	1588.0	1588.0	1588.0	1588.0	1588.0	1588.0	1588.0	1588.0	1588.0
2.5°	1581.8	1583.9	1581.8	1583.9	1583.9	1583.9	1583.9	1590.0	1596.1	1600.2	1598.2
5°	1575.7	1577.8	1575.7	1577.8	1577.8	1577.8	1577.8	1583.9	1592.0	1594.1	1590.0
7.5°	1563.5	1565.5	1565.5	1565.5	1565.5	1565.5	1565.5	1573.7	1579.8	1583.9	1579.8
10°	1547.2	1549.2	1549.2	1549.2	1551.3	1551.3	1551.3	1557.4	1565.5	1567.6	1563.5
12.5°	1526.8	1528.8	1528.8	1528.8	1530.9	1530.9	1530.9	1537.0	1545.2	1547.2	1545.2
15°	1502.3	1504.4	1504.4	1504.4	1506.4	1506.4	1506.4	1512.5	1520.7	1522.7	1520.7
17.5°	1473.8	1473.8	1473.8	1473.8	1477.9	1479.9	1477.9	1484.0	1492.2	1494.2	1492.2
20°	1439.2	1441.2	1441.2	1443.2	1445.3	1447.3	1447.3	1453.4	1461.6	1463.6	1459.5
22.5°	1404.5	1404.5	1406.5	1408.6	1408.6	1410.6	1410.6	1416.7	1424.9	1426.9	1424.9
25°	1365.8	1365.8	1367.8	1371.9	1371.9	1373.9	1373.9	1380.0	1386.2	1388.2	1386.2
27.5°	1323.0	1320.9	1325.0	1327.0	1329.1	1333.2	1331.1	1339.3	1345.4	1347.4	1345.4
30°	1280.2	1278.1	1282.2	1284.2	1286.3	1288.3	1288.3	1296.5	1302.6	1304.6	1302.6
32.5°	1233.3	1231.2	1235.3	1239.4	1239.4	1241.4	1241.4	1249.6	1253.7	1257.7	1253.7
35°	1184.3	1180.3	1186.4	1190.5	1188.4	1192.5	1192.5	1200.7	1204.7	1208.8	1204.7
37.5°	1135.4	1133.4	1135.4	1139.5	1139.5	1141.5	1141.5	1149.7	1155.8	1157.8	1155.8
40°	1084.5	1082.4	1084.5	1090.6	1088.5	1090.6	1092.6	1098.7	1102.8	1104.8	1102.8
42.5°	1029.4	1029.4	1031.5	1037.6	1035.5	1037.6	1039.6	1045.7	1049.8	1051.8	1049.8
45°	974.4	976.4	974.4	984.6	980.5	982.5	986.6	988.7	994.8	996.8	992.7
47.5°	919.3	923.4	921.4	929.5	927.5	927.5	929.5	935.7	939.7	941.8	939.7
50°	862.3	866.3	864.3	874.5	870.4	872.5	874.5	878.6	880.6	882.7	882.7
52.5°	805.2	807.2	811.3	817.4	815.4	817.4	819.5	821.5	823.5	827.6	823.5
55°	748.1	750.2	754.2	758.3	760.3	760.3	762.4	766.5	764.4	766.5	768.5
57.5°	691.0	695.1	695.1	703.3	703.3	703.3	703.3	709.4	707.3	711.4	711.4
60°	631.9	631.9	636.0	642.1	644.2	644.2	646.2	650.3	648.2	652.3	654.3
62.5°	572.8	576.9	581.0	585.0	589.1	585.0	591.2	593.2	595.2	597.3	595.2
65°	509.6	513.7	517.8	521.8	521.8	521.8	523.9	532.0	532.0	540.2	538.2
67.5°	450.5	454.6	458.7	462.7	464.8	464.8	466.8	470.9	475.0	477.0	475.0
70°	391.4	395.5	403.6	405.7	409.7	405.7	411.8	413.8	417.9	419.9	417.9
72.5°	334.3	338.4	344.5	346.5	350.6	352.7	354.7	354.7	360.8	362.8	362.8
75°	277.2	281.3	287.4	289.5	293.5	295.6	297.6	297.6	303.7	305.8	303.7
77.5°	222.2	224.2	230.3	232.4	236.5	238.5	240.5	240.5	246.7	248.7	246.7
80°	167.2	169.2	175.3	177.3	181.4	181.4	183.5	185.5	189.6	191.6	189.6
82.5°	114.2	116.2	120.3	124.3	126.4	128.4	130.5	132.5	134.5	136.6	134.5
85°	61.2	63.2	69.3	71.3	75.4	77.5	77.5	79.5	83.6	83.6	83.6
87.5°	14.3	18.3	22.4	24.5	28.5	28.5	30.6	30.6	34.7	36.7	34.7
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	8.2	8.2	10.2	10.2	14.3	16.3	14.3	12.2	12.2
95°	14.3	16.3	20.4	26.5	28.5	32.6	40.8	42.8	34.7	30.6	28.5
97.5°	26.5	32.6	42.8	59.1	65.2	73.4	83.6	79.5	65.2	55.0	51.0
100°	46.9	61.2	85.6	116.2	128.4	138.6	140.7	130.5	108.0	89.7	79.5
102.5°	83.6	118.2	169.2	212.0	220.2	226.3	216.1	193.7	161.0	132.5	116.2
105°	167.2	238.5	307.8	334.3	334.3	328.2	297.6	267.0	224.2	187.5	161.0
107.5°	344.5	426.0	466.8	458.7	444.4	424.0	383.2	344.5	293.5	248.7	216.1
110°	581.0	611.5	599.3	568.7	542.2	517.8	466.8	419.9	364.9	318.0	279.3



TEST NUMBER: P303161

CATALOG NUMBER: CTW-F-5050-40L840-UNV-STD-8

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
112.5°	758.3	735.9	703.3	652.3	627.8	603.4	550.4	497.4	436.2	389.3	344.5
115°	870.4	829.7	784.8	733.8	707.3	680.8	629.9	572.8	507.6	456.6	411.8
117.5°	952.0	903.0	856.2	807.2	778.7	752.2	703.3	642.1	581.0	525.9	481.1
120°	1017.2	966.2	919.3	870.4	846.0	821.5	770.5	709.4	650.3	601.3	552.4
122.5°	1074.3	1023.3	978.5	931.6	909.2	882.7	829.7	770.5	711.4	664.5	619.7
125°	1125.2	1078.3	1033.5	990.7	966.2	937.7	884.7	827.6	772.6	725.7	682.9
127.5°	1172.1	1129.3	1086.5	1043.7	1021.3	988.7	939.7	884.7	833.7	786.8	746.1
130°	1214.9	1176.2	1133.4	1090.6	1066.1	1037.6	988.7	937.7	890.8	846.0	805.2
132.5°	1255.7	1217.0	1176.2	1131.3	1108.9	1082.4	1037.6	988.7	943.8	905.1	864.3
135°	1292.4	1253.7	1212.9	1170.1	1145.6	1123.2	1080.4	1035.5	992.7	954.0	913.2
137.5°	1325.0	1284.2	1245.5	1204.7	1182.3	1161.9	1121.2	1078.3	1041.7	1005.0	964.2
140°	1353.5	1310.7	1274.0	1233.3	1214.9	1198.6	1155.8	1121.2	1086.5	1049.8	1015.2
142.5°	1376.0	1335.2	1300.5	1263.8	1247.5	1229.2	1192.5	1159.9	1127.3	1094.7	1060.0
145°	1396.3	1355.6	1325.0	1290.3	1274.0	1259.8	1225.1	1192.5	1166.0	1135.4	1100.8
147.5°	1414.7	1378.0	1347.4	1316.8	1302.6	1288.3	1255.7	1227.2	1202.7	1172.1	1141.5
150°	1426.9	1396.3	1369.8	1339.3	1329.1	1314.8	1284.2	1259.8	1235.3	1210.8	1180.3
152.5°	1437.1	1410.6	1386.2	1361.7	1351.5	1337.2	1310.7	1290.3	1270.0	1245.5	1217.0
155°	1443.2	1422.8	1400.4	1378.0	1367.8	1357.6	1335.2	1314.8	1296.5	1276.1	1247.5
157.5°	1451.4	1433.0	1412.7	1392.3	1384.1	1373.9	1353.5	1337.2	1320.9	1302.6	1278.1
160°	1455.5	1439.2	1420.8	1404.5	1396.3	1390.2	1367.8	1357.6	1343.3	1327.0	1304.6
162.5°	1457.5	1443.2	1429.0	1414.7	1408.6	1400.4	1384.1	1373.9	1361.7	1347.4	1329.1
165°	1457.5	1447.3	1433.0	1422.8	1416.7	1408.6	1396.3	1388.2	1378.0	1365.8	1349.5
167.5°	1455.5	1447.3	1435.1	1426.9	1422.8	1416.7	1404.5	1398.4	1392.3	1384.1	1367.8
170°	1449.3	1443.2	1435.1	1429.0	1422.8	1418.8	1410.6	1406.5	1402.5	1396.3	1382.1
172.5°	1441.2	1437.1	1429.0	1426.9	1422.8	1418.8	1412.7	1412.7	1408.6	1404.5	1394.3
175°	1431.0	1429.0	1422.8	1420.8	1420.8	1416.7	1412.7	1412.7	1414.7	1410.6	1402.5
177.5°	1416.7	1416.7	1412.7	1412.7	1412.7	1410.6	1408.6	1412.7	1414.7	1414.7	1408.6
180°	1402.5	1402.5	1402.5	1402.5	1402.5	1402.5	1402.5	1402.5	1402.5	1402.5	1402.5



TEST NUMBER: P303161

CATALOG NUMBER: CTW-F-5050-40L840-UNV-STD-8

CANDELA DISTRIBUTION (continued):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	1588.0	1588.0	1588.0	1588.0	1588.0	1588.0	1588.0	1588.0	1588.0	1588.0	1588.0
2.5°	1594.1	1588.0	1583.9	1583.9	1583.9	1579.8	1577.8	1579.8	1585.9	1596.1	1585.9
5°	1585.9	1579.8	1577.8	1577.8	1577.8	1573.7	1571.7	1573.7	1579.8	1590.0	1579.8
7.5°	1575.7	1569.6	1567.6	1567.6	1565.5	1561.5	1561.5	1561.5	1569.6	1575.7	1567.6
10°	1559.4	1553.3	1551.3	1551.3	1549.2	1545.2	1545.2	1545.2	1553.3	1559.4	1551.3
12.5°	1539.0	1532.9	1530.9	1530.9	1528.8	1524.8	1524.8	1524.8	1532.9	1537.0	1530.9
15°	1514.6	1508.5	1506.4	1506.4	1504.4	1500.3	1500.3	1500.3	1508.5	1510.5	1504.4
17.5°	1486.0	1479.9	1477.9	1477.9	1473.8	1471.8	1469.7	1469.7	1477.9	1479.9	1473.8
20°	1455.5	1447.3	1447.3	1445.3	1441.2	1439.2	1439.2	1437.1	1449.3	1445.3	1441.2
22.5°	1418.8	1412.7	1412.7	1410.6	1406.5	1404.5	1402.5	1402.5	1412.7	1404.5	1400.4
25°	1382.1	1373.9	1376.0	1371.9	1369.8	1365.8	1363.7	1363.7	1373.9	1363.7	1361.7
27.5°	1343.3	1335.2	1331.1	1331.1	1329.1	1323.0	1320.9	1320.9	1331.1	1320.9	1318.9
30°	1296.5	1292.4	1288.3	1288.3	1282.2	1280.2	1278.1	1278.1	1286.3	1276.1	1274.0
32.5°	1251.6	1245.5	1243.5	1241.4	1239.4	1233.3	1231.2	1233.3	1239.4	1227.2	1225.1
35°	1202.7	1198.6	1196.6	1192.5	1190.5	1186.4	1184.3	1186.4	1188.4	1178.2	1174.2
37.5°	1149.7	1147.7	1145.6	1141.5	1139.5	1137.5	1135.4	1137.5	1137.5	1127.3	1123.2
40°	1098.7	1094.7	1092.6	1090.6	1090.6	1086.5	1084.5	1088.5	1084.5	1080.4	1072.2
42.5°	1047.8	1041.7	1041.7	1037.6	1037.6	1033.5	1033.5	1035.5	1031.5	1027.4	1019.2
45°	992.7	990.7	988.7	984.6	984.6	980.5	980.5	982.5	976.4	972.3	966.2
47.5°	937.7	937.7	933.6	929.5	931.6	929.5	927.5	927.5	923.4	919.3	913.2
50°	882.7	880.6	874.5	876.5	878.6	872.5	874.5	868.4	868.4	864.3	856.2
52.5°	825.6	823.5	821.5	819.5	821.5	817.4	817.4	813.3	811.3	807.2	801.1
55°	770.5	768.5	764.4	764.4	766.5	760.3	760.3	756.3	754.2	750.2	744.0
57.5°	713.5	711.4	709.4	707.3	709.4	705.3	703.3	701.2	697.2	693.1	689.0
60°	656.4	654.3	650.3	648.2	650.3	646.2	644.2	642.1	640.1	634.0	629.9
62.5°	597.3	593.2	593.2	591.2	593.2	589.1	587.1	585.0	581.0	576.9	576.9
65°	538.2	536.1	536.1	530.0	534.1	530.0	521.8	521.8	517.8	513.7	513.7
67.5°	475.0	472.9	472.9	470.9	470.9	470.9	468.8	464.8	458.7	458.7	458.7
70°	417.9	415.8	415.8	411.8	413.8	411.8	409.7	405.7	401.6	401.6	401.6
72.5°	358.8	356.7	356.7	354.7	356.7	354.7	352.7	348.6	344.5	346.5	344.5
75°	301.7	299.7	301.7	297.6	299.7	297.6	295.6	291.5	289.5	291.5	289.5
77.5°	244.6	244.6	244.6	244.6	242.6	240.5	238.5	236.5	236.5	236.5	232.4
80°	189.6	187.5	187.5	187.5	187.5	185.5	183.5	181.4	181.4	181.4	177.3
82.5°	134.5	134.5	134.5	134.5	132.5	134.5	128.4	126.4	126.4	126.4	122.3
85°	81.5	81.5	83.6	81.5	81.5	79.5	75.4	73.4	73.4	71.3	69.3
87.5°	36.7	32.6	32.6	32.6	30.6	30.6	30.6	26.5	26.5	26.5	22.4
90°	4.1	6.1	6.1	6.1	6.1	8.2	8.2	8.2	8.2	8.2	10.2
92.5°	18.3	24.5	26.5	26.5	26.5	26.5	26.5	26.5	26.5	26.5	26.5
95°	32.6	36.7	44.8	48.9	53.0	57.1	57.1	59.1	57.1	55.0	55.0
97.5°	48.9	55.0	57.1	59.1	63.2	71.3	77.5	83.6	87.7	89.7	89.7
100°	75.4	73.4	77.5	83.6	83.6	81.5	87.7	93.8	99.9	106.0	108.0
102.5°	108.0	99.9	97.8	99.9	104.0	112.1	108.0	110.1	112.1	116.2	122.3
105°	146.8	134.5	126.4	124.3	126.4	130.5	138.6	140.7	134.5	136.6	138.6
107.5°	191.6	173.3	161.0	157.0	154.9	154.9	159.0	167.2	173.3	171.2	167.2
110°	246.7	218.1	201.8	193.7	189.6	185.5	185.5	189.6	195.7	203.8	210.0



TEST NUMBER: P303161

CATALOG NUMBER: CTW-F-5050-40L840-UNV-STD-8

CANDELA DISTRIBUTION (continued):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
112.5°	307.8	273.2	248.7	236.5	230.3	216.1	214.0	216.1	218.1	224.2	232.4
115°	373.0	330.2	299.7	285.4	277.2	254.8	244.6	242.6	244.6	246.7	250.7
117.5°	438.3	395.5	356.7	340.4	328.2	301.7	283.3	277.2	271.1	273.2	273.2
120°	509.6	458.7	422.0	399.5	387.3	354.7	330.2	316.0	303.7	299.7	297.6
122.5°	574.8	530.0	485.2	468.8	448.5	411.8	385.3	362.8	344.5	332.3	326.2
125°	636.0	593.2	552.4	534.1	513.7	472.9	444.4	417.9	393.4	377.1	360.8
127.5°	703.3	658.4	617.7	601.3	581.0	540.2	505.5	481.1	454.6	430.1	407.7
130°	758.3	719.6	680.8	664.5	646.2	607.5	572.8	544.3	511.7	489.2	464.8
132.5°	819.5	778.7	742.0	723.7	705.3	668.6	636.0	607.5	576.9	556.5	530.0
135°	874.5	835.8	797.0	782.8	762.4	729.8	699.2	668.6	640.1	615.6	593.2
137.5°	927.5	888.8	854.1	837.8	819.5	788.9	760.3	737.9	705.3	680.8	656.4
140°	976.4	939.7	907.1	890.8	876.5	843.9	819.5	797.0	766.5	744.0	717.5
142.5°	1023.3	988.7	960.1	943.8	927.5	896.9	872.5	852.1	827.6	803.2	780.7
145°	1068.2	1033.5	1007.0	992.7	976.4	947.9	925.5	905.1	888.8	862.3	839.8
147.5°	1111.0	1076.3	1051.8	1039.6	1025.3	998.8	978.5	958.1	943.8	919.3	899.0
150°	1149.7	1119.1	1096.7	1084.5	1070.2	1045.7	1027.4	1009.0	996.8	972.3	958.1
152.5°	1188.4	1159.9	1139.5	1127.3	1115.0	1090.6	1072.2	1053.9	1047.8	1023.3	1011.1
155°	1223.1	1194.5	1176.2	1166.0	1155.8	1131.3	1115.0	1096.7	1092.6	1072.2	1058.0
157.5°	1255.7	1229.2	1210.8	1202.7	1192.5	1170.1	1155.8	1139.5	1137.5	1119.1	1106.9
160°	1284.2	1259.8	1243.5	1233.3	1225.1	1206.8	1192.5	1180.3	1176.2	1164.0	1151.7
162.5°	1310.7	1290.3	1274.0	1265.9	1259.8	1241.4	1229.2	1217.0	1214.9	1206.8	1192.5
165°	1333.2	1312.8	1300.5	1294.4	1288.3	1272.0	1261.8	1251.6	1249.6	1245.5	1231.2
167.5°	1353.5	1335.2	1325.0	1318.9	1312.8	1300.5	1292.4	1284.2	1284.2	1280.2	1267.9
170°	1369.8	1353.5	1345.4	1341.3	1337.2	1325.0	1316.8	1310.7	1310.7	1312.8	1298.5
172.5°	1384.1	1371.9	1363.7	1357.6	1355.6	1347.4	1341.3	1335.2	1337.2	1341.3	1329.1
175°	1396.3	1384.1	1378.0	1376.0	1373.9	1365.8	1361.7	1359.7	1361.7	1367.8	1357.6
177.5°	1404.5	1396.3	1392.3	1390.2	1390.2	1382.1	1380.0	1380.0	1382.1	1392.3	1380.0
180°	1402.5	1402.5	1402.5	1402.5	1402.5	1402.5	1402.5	1402.5	1402.5	1402.5	1402.5



TEST NUMBER: P303161

CATALOG NUMBER: CTW-F-5050-40L840-UNV-STD-8

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	1588.0	1588.0	1588.0	1588.0	1588.0	1588.0	1588.0	1588.0
2.5°	1590.0	1588.0	1585.9	1583.9	1581.8	1579.8	1575.7	1577.8
5°	1581.8	1579.8	1577.8	1575.7	1575.7	1575.7	1573.7	1575.7
7.5°	1569.6	1567.6	1565.5	1563.5	1563.5	1565.5	1563.5	1567.6
10°	1553.3	1549.2	1549.2	1545.2	1545.2	1545.2	1545.2	1547.2
12.5°	1530.9	1526.8	1526.8	1522.7	1522.7	1522.7	1524.8	1526.8
15°	1504.4	1502.3	1500.3	1498.3	1498.3	1500.3	1498.3	1500.3
17.5°	1473.8	1469.7	1469.7	1467.7	1467.7	1465.7	1465.7	1467.7
20°	1437.1	1433.0	1433.0	1431.0	1429.0	1429.0	1429.0	1431.0
22.5°	1396.3	1394.3	1392.3	1388.2	1390.2	1390.2	1388.2	1392.3
25°	1355.6	1353.5	1351.5	1349.5	1349.5	1347.4	1345.4	1347.4
27.5°	1314.8	1310.7	1308.7	1306.7	1304.6	1302.6	1300.5	1302.6
30°	1270.0	1261.8	1263.8	1261.8	1257.7	1255.7	1253.7	1255.7
32.5°	1221.0	1217.0	1212.9	1212.9	1208.8	1206.8	1204.7	1206.8
35°	1172.1	1166.0	1164.0	1164.0	1159.9	1157.8	1155.8	1157.8
37.5°	1121.2	1115.0	1113.0	1113.0	1108.9	1104.8	1104.8	1104.8
40°	1068.2	1062.0	1062.0	1062.0	1058.0	1053.9	1053.9	1053.9
42.5°	1015.2	1011.1	1009.0	1009.0	1005.0	998.8	998.8	1000.9
45°	962.2	958.1	956.0	954.0	952.0	945.8	945.8	945.8
47.5°	905.1	905.1	901.0	901.0	896.9	894.9	892.8	892.8
50°	854.1	850.0	846.0	846.0	843.9	837.8	837.8	837.8
52.5°	797.0	795.0	790.9	790.9	786.8	782.8	782.8	782.8
55°	742.0	740.0	735.9	735.9	731.8	729.8	727.7	727.7
57.5°	684.9	684.9	680.8	680.8	674.7	674.7	672.7	676.8
60°	625.8	627.8	623.8	621.7	617.7	617.7	617.7	621.7
62.5°	572.8	570.8	566.7	566.7	564.7	562.6	564.7	564.7
65°	511.7	507.6	505.5	505.5	503.5	501.5	499.4	503.5
67.5°	454.6	452.5	448.5	448.5	448.5	446.4	446.4	448.5
70°	397.5	395.5	393.4	393.4	391.4	391.4	391.4	393.4
72.5°	340.4	340.4	340.4	338.4	336.3	334.3	338.4	336.3
75°	285.4	283.3	283.3	283.3	281.3	279.3	277.2	281.3
77.5°	230.3	228.3	228.3	228.3	226.3	224.2	224.2	226.3
80°	175.3	173.3	173.3	173.3	171.2	171.2	169.2	171.2
82.5°	118.2	118.2	118.2	118.2	114.2	116.2	116.2	114.2
85°	67.3	65.2	65.2	65.2	65.2	65.2	63.2	65.2
87.5°	20.4	20.4	20.4	22.4	20.4	22.4	22.4	22.4
90°	10.2	10.2	10.2	10.2	10.2	10.2	12.2	12.2
92.5°	26.5	26.5	26.5	26.5	26.5	26.5	26.5	26.5
95°	53.0	55.0	53.0	53.0	53.0	53.0	53.0	53.0
97.5°	89.7	89.7	89.7	89.7	87.7	85.6	85.6	85.6
100°	112.1	114.2	116.2	116.2	118.2	118.2	118.2	118.2
102.5°	126.4	128.4	128.4	130.5	132.5	132.5	132.5	132.5
105°	140.7	140.7	142.7	144.7	148.8	150.8	152.9	152.9
107.5°	165.1	165.1	167.2	167.2	167.2	169.2	169.2	169.2
110°	207.9	199.8	199.8	197.7	195.7	195.7	195.7	195.7



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CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
112.5°	238.5	240.5	242.6	244.6	242.6	238.5	238.5	238.5
115°	258.9	263.0	267.0	269.1	271.1	271.1	273.2	273.2
117.5°	279.3	283.3	285.4	287.4	291.5	291.5	295.6	295.6
120°	299.7	303.7	303.7	305.8	307.8	309.8	311.9	311.9
122.5°	324.1	326.2	326.2	326.2	328.2	328.2	330.2	330.2
125°	354.7	350.6	348.6	350.6	348.6	348.6	348.6	348.6
127.5°	393.4	385.3	383.2	381.2	377.1	373.0	373.0	373.0
130°	444.4	432.2	426.0	424.0	417.9	409.7	409.7	407.7
132.5°	503.5	489.2	481.1	479.0	468.8	458.7	454.6	452.5
135°	572.8	556.5	546.3	544.3	528.0	517.8	513.7	511.7
137.5°	634.0	617.7	611.5	607.5	597.3	587.1	581.0	578.9
140°	697.2	682.9	672.7	668.6	656.4	650.3	644.2	644.2
142.5°	760.3	746.1	735.9	731.8	721.6	713.5	707.3	707.3
145°	821.5	807.2	797.0	793.0	782.8	774.6	770.5	768.5
147.5°	882.7	868.4	860.2	856.2	846.0	837.8	831.7	831.7
150°	941.8	927.5	919.3	911.2	905.1	896.9	892.8	890.8
152.5°	996.8	984.6	976.4	968.3	962.2	958.1	952.0	952.0
155°	1045.7	1035.5	1027.4	1021.3	1017.2	1011.1	1009.0	1009.0
157.5°	1096.7	1084.5	1078.3	1072.2	1068.2	1066.1	1062.0	1062.0
160°	1143.6	1131.3	1127.3	1121.2	1117.1	1113.0	1111.0	1113.0
162.5°	1188.4	1180.3	1174.2	1168.0	1166.0	1161.9	1159.9	1159.9
165°	1227.2	1219.0	1214.9	1210.8	1206.8	1204.7	1202.7	1204.7
167.5°	1263.8	1255.7	1251.6	1247.5	1245.5	1245.5	1243.5	1243.5
170°	1296.5	1290.3	1288.3	1282.2	1280.2	1280.2	1278.1	1278.1
172.5°	1327.0	1323.0	1320.9	1316.8	1316.8	1316.8	1314.8	1316.8
175°	1357.6	1353.5	1351.5	1347.4	1347.4	1345.4	1343.3	1345.4
177.5°	1384.1	1382.1	1378.0	1376.0	1373.9	1371.9	1367.8	1369.8
180°	1402.5	1402.5	1402.5	1402.5	1402.5	1402.5	1402.5	1402.5

(END OF REPORT)