

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: P303148

Luminaire Tested: **CTW-F-5050-40L830-UNV-STD-4**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P303148
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-5050-40L830-UNV-STD-4
Description: CORELITE CONTINUA LINEAR WALL LED LUMINAIRE
50% UPLIGHT, 50% DOWNLIGHT, 4000 LUMEN PACKAGE
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3871.9 lumens
Efficiency: N/A
Efficacy: 120.6 lumens/watt
Spacing Criteria (0/90/45): 1.18 / 1.22 / 1.32
Luminous Opening: Rectangular (W 4' x L: 0.12' x H: 0')
CIE Type: General Diffuse

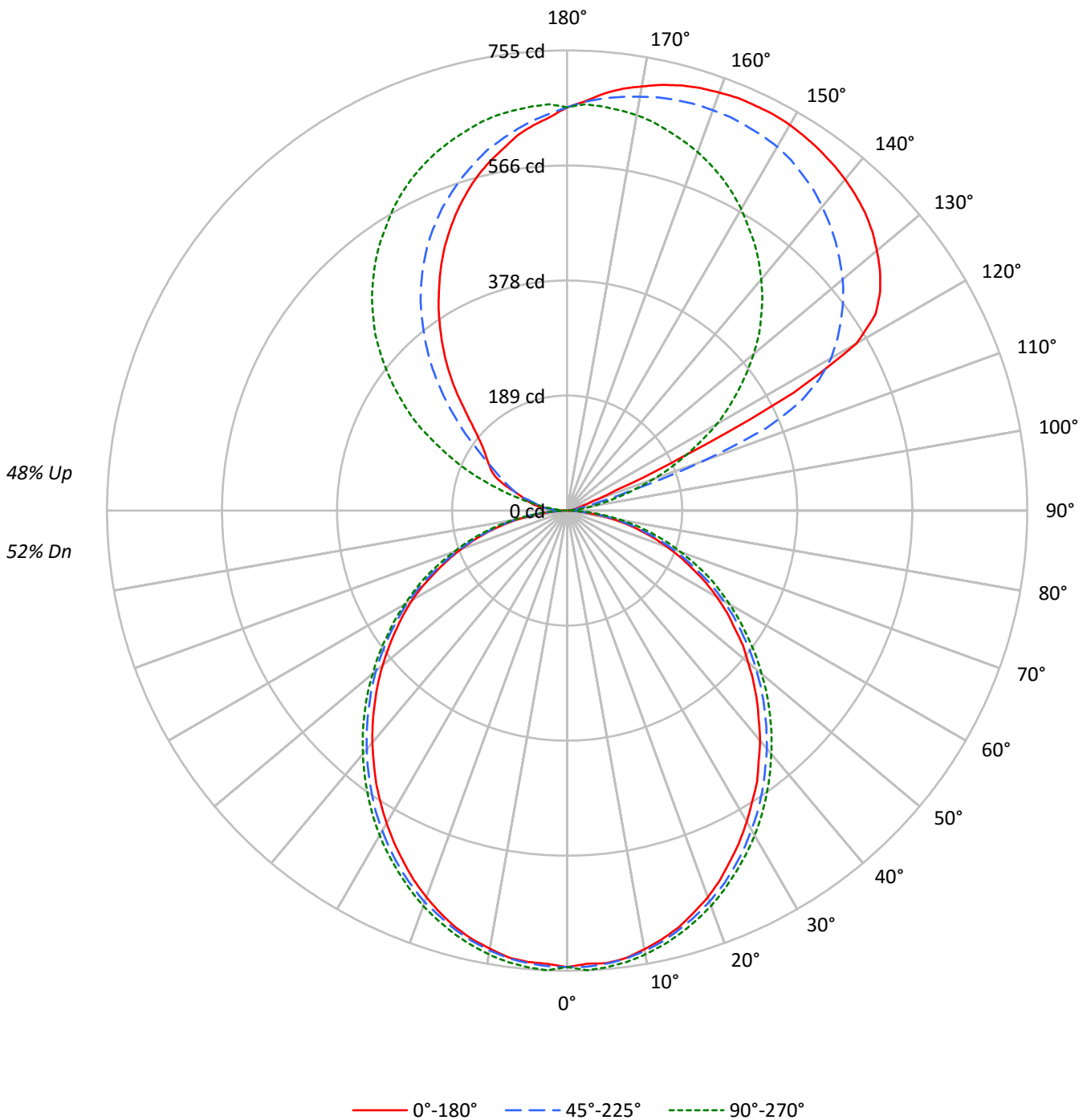
Input Watts (W): 32.1
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	16124	16124	16124
5°	16104	16249	16063
10°	15975	16163	15953
15°	15773	16009	15773
20°	15464	15817	15464
25°	15052	15554	15098
30°	14651	15298	14724
35°	14278	14985	14354
40°	13835	14647	13970
45°	13408	14315	13585
50°	12978	13942	13236
55°	12558	13568	12885
60°	12215	13248	12628
65°	11609	12979	12098
70°	11015	12469	11682
75°	10156	11994	11038
80°	8703	11207	10017
85°	5459	9732	7608



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	70.7	1.8
10°-20°	200.1	5.2
20°-30°	296.3	7.7
30°-40°	347.8	9.0
40°-50°	352.6	9.1
50°-60°	314.5	8.1
60°-70°	240.0	6.2
70°-80°	141.8	3.7
80°-90°	38.2	1.0
90°-100°	19.3	0.5
100°-110°	80.2	2.1
110°-120°	226.2	5.8
120°-130°	329.7	8.5
130°-140°	355.1	9.2
140°-150°	337.9	8.7
150°-160°	277.3	7.2
160°-170°	181.3	4.7
170°-180°	62.8	1.6
0°-30°	567.1	14.6
0°-40°	914.9	23.6
0°-60°	1582.0	40.9
0°-90°	2002.0	51.7
90°-120°	325.7	8.4
90°-150°	1348.4	34.8
90°-180°	1870.0	48.3
0°-180°	3871.9	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	749	749	749	749	749	
5°	745	746	752	745	743	71
15°	708	712	718	712	708	199
25°	634	647	655	648	636	292
35°	543	559	570	561	546	339
45°	440	458	470	461	446	340
55°	335	350	362	356	343	301
65°	228	238	255	244	238	227
75°	122	130	144	136	133	129
85°	22	28	39	35	31	28
90°	1	1	1	4	6	1
95°	5	6	14	27	25	5
105°	21	54	88	64	72	25
115°	210	421	215	115	129	247
125°	627	549	342	186	164	555
135°	691	623	450	302	241	533
145°	722	673	536	419	362	453
155°	733	696	602	515	476	339
165°	722	697	644	589	568	205
175°	686	679	665	642	635	66
180°	662	662	662	662	662	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	749.0	749.0	749.0	749.0	749.0	749.0	749.0	749.0	749.0	749.0	749.0
2.5°	744.2	743.3	745.2	747.1	747.1	748.1	749.0	750.0	750.0	751.9	749.0
5°	745.2	743.3	744.2	744.2	743.3	744.2	745.2	747.1	747.1	749.0	746.2
7.5°	740.4	739.4	740.4	739.4	738.5	739.4	740.4	741.3	741.3	743.3	741.3
10°	730.8	730.8	730.8	730.8	730.8	731.7	732.7	733.7	733.7	735.6	733.7
12.5°	720.2	720.2	720.2	721.2	719.2	720.2	722.1	724.0	724.0	726.0	724.0
15°	707.7	707.7	708.7	709.6	708.7	708.7	709.6	711.5	711.5	713.5	711.5
17.5°	691.3	691.3	692.3	694.2	693.3	694.2	695.2	697.1	698.1	698.1	698.1
20°	675.0	674.0	675.0	676.0	676.0	676.9	676.9	679.8	681.7	681.7	682.7
22.5°	655.8	653.8	655.8	656.7	656.7	657.7	657.7	660.6	662.5	663.5	666.3
25°	633.7	633.7	634.6	636.5	636.5	637.5	638.5	641.3	643.3	643.3	647.1
27.5°	612.5	611.5	612.5	614.4	616.3	617.3	617.3	620.2	623.1	625.0	626.9
30°	589.4	589.4	590.4	592.3	594.2	593.3	594.2	598.1	601.0	602.9	604.8
32.5°	565.4	565.4	566.3	568.3	571.2	571.2	572.1	575.0	576.9	578.8	582.7
35°	543.3	541.3	542.3	544.2	548.1	547.1	548.1	551.0	552.9	555.8	558.7
37.5°	516.3	516.3	517.3	519.2	523.1	522.1	524.0	526.0	528.8	531.7	533.7
40°	492.3	493.3	492.3	494.2	497.1	498.1	498.1	500.0	503.8	506.7	509.6
42.5°	465.4	466.3	467.3	469.2	472.1	472.1	473.1	475.0	477.9	480.8	483.7
45°	440.4	440.4	440.4	442.3	446.2	446.2	448.1	448.1	451.0	454.8	457.7
47.5°	414.4	414.4	414.4	417.3	420.2	420.2	422.1	422.1	426.0	428.8	431.7
50°	387.5	389.4	388.5	390.4	394.2	393.3	395.2	395.2	398.1	401.9	404.8
52.5°	363.5	363.5	361.5	364.4	367.3	367.3	368.3	368.3	372.1	375.0	377.9
55°	334.6	336.5	334.6	337.5	340.4	340.4	342.3	342.3	343.3	347.1	350.0
57.5°	310.6	310.6	308.7	310.6	313.5	313.5	315.4	315.4	317.3	319.2	324.0
60°	283.7	282.7	281.7	284.6	286.5	286.5	288.5	288.5	290.4	291.3	296.2
62.5°	256.7	255.8	255.8	257.7	259.6	258.7	261.5	261.5	263.5	265.4	268.3
65°	227.9	226.9	226.9	228.8	229.8	229.8	231.7	232.7	233.7	236.5	238.5
67.5°	201.9	201.0	200.0	201.9	202.9	202.9	204.8	205.8	207.7	208.7	210.6
70°	175.0	174.0	173.1	175.0	176.9	176.0	177.9	178.8	179.8	181.7	183.7
72.5°	148.1	148.1	148.1	149.0	150.0	150.0	151.0	151.9	153.8	155.8	156.7
75°	122.1	121.2	121.2	123.1	123.1	123.1	125.0	126.0	126.0	128.8	129.8
77.5°	96.2	97.1	96.2	96.2	96.2	97.1	98.1	99.0	101.0	102.9	103.8
80°	70.2	71.2	70.2	71.2	70.2	71.2	73.1	73.1	75.0	76.9	77.9
82.5°	45.2	46.2	45.2	46.2	46.2	46.2	47.1	48.1	50.0	51.0	52.9
85°	22.1	21.2	22.1	22.1	22.1	22.1	24.0	24.0	26.0	26.9	27.9
87.5°	2.9	2.9	2.9	2.9	3.8	2.9	3.8	4.8	4.8	5.8	5.8
90°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
92.5°	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9
95°	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	5.8	5.8
97.5°	7.7	7.7	7.7	7.7	7.7	7.7	7.7	8.7	8.7	9.6	10.6
100°	10.6	10.6	11.5	11.5	11.5	11.5	11.5	12.5	13.5	15.4	17.3
102.5°	15.4	15.4	15.4	16.3	16.3	17.3	17.3	19.2	21.2	24.0	29.8
105°	21.2	22.1	22.1	22.1	24.0	24.0	25.0	27.9	32.7	40.4	53.8
107.5°	29.8	30.8	30.8	32.7	34.6	36.5	38.5	47.1	58.7	81.7	115.4
110°	46.2	47.1	48.1	52.9	59.6	65.4	73.1	95.2	129.8	180.8	236.5



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
112.5°	86.5	91.3	97.1	110.6	133.7	148.1	164.4	222.1	277.9	326.9	353.8
115°	209.6	222.1	234.6	264.4	303.8	326.9	343.3	393.3	417.3	426.9	421.2
117.5°	418.3	428.8	437.5	453.8	473.1	479.8	482.7	493.3	488.5	480.8	466.3
120°	548.1	551.9	551.0	551.0	551.0	548.1	546.2	539.4	527.9	516.3	500.0
122.5°	600.0	601.0	597.1	592.3	586.5	583.7	579.8	569.2	556.7	543.3	526.0
125°	626.9	626.9	623.1	618.3	611.5	607.7	601.9	592.3	579.8	566.3	549.0
127.5°	647.1	646.2	643.3	639.4	631.7	628.8	623.1	612.5	600.0	588.5	571.2
130°	663.5	662.5	658.7	656.7	650.0	645.2	640.4	629.8	617.3	605.8	590.4
132.5°	678.8	676.9	673.1	671.2	664.4	660.6	655.8	646.2	633.7	623.1	606.7
135°	691.3	688.5	685.6	683.7	677.9	673.1	669.2	659.6	649.0	637.5	623.1
137.5°	701.0	699.0	695.2	693.3	687.5	683.7	679.8	672.1	662.5	651.0	637.5
140°	709.6	706.7	704.8	701.9	697.1	693.3	689.4	682.7	673.1	663.5	651.0
142.5°	716.3	714.4	712.5	710.6	704.8	701.9	698.1	692.3	684.6	675.0	663.5
145°	722.1	720.2	718.3	716.3	711.5	708.7	705.8	700.0	693.3	683.7	673.1
147.5°	726.9	725.0	723.1	722.1	717.3	714.4	711.5	707.7	700.0	690.4	682.7
150°	730.8	728.8	726.9	725.0	721.2	718.3	717.3	712.5	704.8	697.1	689.4
152.5°	732.7	730.8	729.8	727.9	724.0	721.2	720.2	715.4	708.7	700.0	693.3
155°	732.7	731.7	729.8	728.8	724.0	721.2	720.2	715.4	709.6	701.9	696.2
157.5°	732.7	730.8	729.8	727.9	723.1	721.2	720.2	716.3	711.5	704.8	699.0
160°	729.8	728.8	727.9	726.0	722.1	720.2	720.2	716.3	711.5	705.8	699.0
162.5°	726.9	725.0	724.0	723.1	720.2	719.2	718.3	715.4	710.6	705.8	699.0
165°	722.1	721.2	719.2	718.3	715.4	714.4	713.5	711.5	706.7	703.8	697.1
167.5°	715.4	713.5	712.5	710.6	707.7	707.7	707.7	705.8	702.9	701.0	694.2
170°	706.7	704.8	703.8	702.9	701.0	701.0	701.0	700.0	697.1	696.2	689.4
172.5°	698.1	697.1	696.2	695.2	692.3	692.3	692.3	692.3	690.4	690.4	684.6
175°	686.5	685.6	684.6	684.6	682.7	683.7	683.7	683.7	682.7	684.6	678.8
177.5°	672.1	670.2	672.1	674.0	673.1	674.0	675.0	675.0	674.0	676.0	671.2
180°	661.5	661.5	661.5	661.5	661.5	661.5	661.5	661.5	661.5	661.5	661.5



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CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	749.0	749.0	749.0	749.0	749.0	749.0	749.0	749.0	749.0	749.0	749.0
2.5°	746.2	747.1	746.2	747.1	747.1	747.1	747.1	750.0	752.9	754.8	753.8
5°	743.3	744.2	743.3	744.2	744.2	744.2	744.2	747.1	751.0	751.9	750.0
7.5°	737.5	738.5	738.5	738.5	738.5	738.5	738.5	742.3	745.2	747.1	745.2
10°	729.8	730.8	730.8	730.8	731.7	731.7	731.7	734.6	738.5	739.4	737.5
12.5°	720.2	721.2	721.2	721.2	722.1	722.1	722.1	725.0	728.8	729.8	728.8
15°	708.7	709.6	709.6	709.6	710.6	710.6	710.6	713.5	717.3	718.3	717.3
17.5°	695.2	695.2	695.2	695.2	697.1	698.1	697.1	700.0	703.8	704.8	703.8
20°	678.8	679.8	679.8	680.8	681.7	682.7	682.7	685.6	689.4	690.4	688.5
22.5°	662.5	662.5	663.5	664.4	664.4	665.4	665.4	668.3	672.1	673.1	672.1
25°	644.2	644.2	645.2	647.1	647.1	648.1	648.1	651.0	653.8	654.8	653.8
27.5°	624.0	623.1	625.0	626.0	626.9	628.8	627.9	631.7	634.6	635.6	634.6
30°	603.8	602.9	604.8	605.8	606.7	607.7	607.7	611.5	614.4	615.4	614.4
32.5°	581.7	580.8	582.7	584.6	584.6	585.6	585.6	589.4	591.3	593.3	591.3
35°	558.7	556.7	559.6	561.5	560.6	562.5	562.5	566.3	568.3	570.2	568.3
37.5°	535.6	534.6	535.6	537.5	537.5	538.5	538.5	542.3	545.2	546.2	545.2
40°	511.5	510.6	511.5	514.4	513.5	514.4	515.4	518.3	520.2	521.2	520.2
42.5°	485.6	485.6	486.5	489.4	488.5	489.4	490.4	493.3	495.2	496.2	495.2
45°	459.6	460.6	459.6	464.4	462.5	463.5	465.4	466.3	469.2	470.2	468.3
47.5°	433.7	435.6	434.6	438.5	437.5	437.5	438.5	441.3	443.3	444.2	443.3
50°	406.7	408.7	407.7	412.5	410.6	411.5	412.5	414.4	415.4	416.3	416.3
52.5°	379.8	380.8	382.7	385.6	384.6	385.6	386.5	387.5	388.5	390.4	388.5
55°	352.9	353.8	355.8	357.7	358.7	358.7	359.6	361.5	360.6	361.5	362.5
57.5°	326.0	327.9	327.9	331.7	331.7	331.7	331.7	334.6	333.7	335.6	335.6
60°	298.1	298.1	300.0	302.9	303.8	303.8	304.8	306.7	305.8	307.7	308.7
62.5°	270.2	272.1	274.0	276.0	277.9	276.0	278.8	279.8	280.8	281.7	280.8
65°	240.4	242.3	244.2	246.2	246.2	246.2	247.1	251.0	251.0	254.8	253.8
67.5°	212.5	214.4	216.3	218.3	219.2	219.2	220.2	222.1	224.0	225.0	224.0
70°	184.6	186.5	190.4	191.3	193.3	191.3	194.2	195.2	197.1	198.1	197.1
72.5°	157.7	159.6	162.5	163.5	165.4	166.3	167.3	167.3	170.2	171.2	171.2
75°	130.8	132.7	135.6	136.5	138.5	139.4	140.4	140.4	143.3	144.2	143.3
77.5°	104.8	105.8	108.7	109.6	111.5	112.5	113.5	113.5	116.3	117.3	116.3
80°	78.8	79.8	82.7	83.7	85.6	85.6	86.5	87.5	89.4	90.4	89.4
82.5°	53.8	54.8	56.7	58.7	59.6	60.6	61.5	62.5	63.5	64.4	63.5
85°	28.8	29.8	32.7	33.7	35.6	36.5	36.5	37.5	39.4	39.4	39.4
87.5°	6.7	8.7	10.6	11.5	13.5	13.5	14.4	14.4	16.3	17.3	16.3
90°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
92.5°	2.9	2.9	3.8	3.8	4.8	4.8	6.7	7.7	6.7	5.8	5.8
95°	6.7	7.7	9.6	12.5	13.5	15.4	19.2	20.2	16.3	14.4	13.5
97.5°	12.5	15.4	20.2	27.9	30.8	34.6	39.4	37.5	30.8	26.0	24.0
100°	22.1	28.8	40.4	54.8	60.6	65.4	66.3	61.5	51.0	42.3	37.5
102.5°	39.4	55.8	79.8	100.0	103.8	106.7	101.9	91.3	76.0	62.5	54.8
105°	78.8	112.5	145.2	157.7	157.7	154.8	140.4	126.0	105.8	88.5	76.0
107.5°	162.5	201.0	220.2	216.3	209.6	200.0	180.8	162.5	138.5	117.3	101.9
110°	274.0	288.5	282.7	268.3	255.8	244.2	220.2	198.1	172.1	150.0	131.7



TEST NUMBER: P303148

CATALOG NUMBER: CTW-F-5050-40L830-UNV-STD-4

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
112.5°	357.7	347.1	331.7	307.7	296.2	284.6	259.6	234.6	205.8	183.7	162.5
115°	410.6	391.3	370.2	346.2	333.7	321.2	297.1	270.2	239.4	215.4	194.2
117.5°	449.0	426.0	403.8	380.8	367.3	354.8	331.7	302.9	274.0	248.1	226.9
120°	479.8	455.8	433.7	410.6	399.0	387.5	363.5	334.6	306.7	283.7	260.6
122.5°	506.7	482.7	461.5	439.4	428.8	416.3	391.3	363.5	335.6	313.5	292.3
125°	530.8	508.7	487.5	467.3	455.8	442.3	417.3	390.4	364.4	342.3	322.1
127.5°	552.9	532.7	512.5	492.3	481.7	466.3	443.3	417.3	393.3	371.2	351.9
130°	573.1	554.8	534.6	514.4	502.9	489.4	466.3	442.3	420.2	399.0	379.8
132.5°	592.3	574.0	554.8	533.7	523.1	510.6	489.4	466.3	445.2	426.9	407.7
135°	609.6	591.3	572.1	551.9	540.4	529.8	509.6	488.5	468.3	450.0	430.8
137.5°	625.0	605.8	587.5	568.3	557.7	548.1	528.8	508.7	491.3	474.0	454.8
140°	638.5	618.3	601.0	581.7	573.1	565.4	545.2	528.8	512.5	495.2	478.8
142.5°	649.0	629.8	613.5	596.2	588.5	579.8	562.5	547.1	531.7	516.3	500.0
145°	658.7	639.4	625.0	608.7	601.0	594.2	577.9	562.5	550.0	535.6	519.2
147.5°	667.3	650.0	635.6	621.2	614.4	607.7	592.3	578.8	567.3	552.9	538.5
150°	673.1	658.7	646.2	631.7	626.9	620.2	605.8	594.2	582.7	571.2	556.7
152.5°	677.9	665.4	653.8	642.3	637.5	630.8	618.3	608.7	599.0	587.5	574.0
155°	680.8	671.2	660.6	650.0	645.2	640.4	629.8	620.2	611.5	601.9	588.5
157.5°	684.6	676.0	666.3	656.7	652.9	648.1	638.5	630.8	623.1	614.4	602.9
160°	686.5	678.8	670.2	662.5	658.7	655.8	645.2	640.4	633.7	626.0	615.4
162.5°	687.5	680.8	674.0	667.3	664.4	660.6	652.9	648.1	642.3	635.6	626.9
165°	687.5	682.7	676.0	671.2	668.3	664.4	658.7	654.8	650.0	644.2	636.5
167.5°	686.5	682.7	676.9	673.1	671.2	668.3	662.5	659.6	656.7	652.9	645.2
170°	683.7	680.8	676.9	674.0	671.2	669.2	665.4	663.5	661.5	658.7	651.9
172.5°	679.8	677.9	674.0	673.1	671.2	669.2	666.3	666.3	664.4	662.5	657.7
175°	675.0	674.0	671.2	670.2	670.2	668.3	666.3	666.3	667.3	665.4	661.5
177.5°	668.3	668.3	666.3	666.3	666.3	665.4	664.4	666.3	667.3	667.3	664.4
180°	661.5	661.5	661.5	661.5	661.5	661.5	661.5	661.5	661.5	661.5	661.5



TEST NUMBER: P303148

CATALOG NUMBER: CTW-F-5050-40L830-UNV-STD-4

CANDELA DISTRIBUTION (continued):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	749.0	749.0	749.0	749.0	749.0	749.0	749.0	749.0	749.0	749.0	749.0
2.5°	751.9	749.0	747.1	747.1	747.1	745.2	744.2	745.2	748.1	752.9	748.1
5°	748.1	745.2	744.2	744.2	744.2	742.3	741.3	742.3	745.2	750.0	745.2
7.5°	743.3	740.4	739.4	739.4	738.5	736.5	736.5	736.5	740.4	743.3	739.4
10°	735.6	732.7	731.7	731.7	730.8	728.8	728.8	728.8	732.7	735.6	731.7
12.5°	726.0	723.1	722.1	722.1	721.2	719.2	719.2	719.2	723.1	725.0	722.1
15°	714.4	711.5	710.6	710.6	709.6	707.7	707.7	707.7	711.5	712.5	709.6
17.5°	701.0	698.1	697.1	697.1	695.2	694.2	693.3	693.3	697.1	698.1	695.2
20°	686.5	682.7	682.7	681.7	679.8	678.8	678.8	677.9	683.7	681.7	679.8
22.5°	669.2	666.3	666.3	665.4	663.5	662.5	661.5	661.5	666.3	662.5	660.6
25°	651.9	648.1	649.0	647.1	646.2	644.2	643.3	643.3	648.1	643.3	642.3
27.5°	633.7	629.8	627.9	627.9	626.9	624.0	623.1	623.1	627.9	623.1	622.1
30°	611.5	609.6	607.7	607.7	604.8	603.8	602.9	602.9	606.7	601.9	601.0
32.5°	590.4	587.5	586.5	585.6	584.6	581.7	580.8	581.7	584.6	578.8	577.9
35°	567.3	565.4	564.4	562.5	561.5	559.6	558.7	559.6	560.6	555.8	553.8
37.5°	542.3	541.3	540.4	538.5	537.5	536.5	535.6	536.5	536.5	531.7	529.8
40°	518.3	516.3	515.4	514.4	514.4	512.5	511.5	513.5	511.5	509.6	505.8
42.5°	494.2	491.3	491.3	489.4	489.4	487.5	487.5	488.5	486.5	484.6	480.8
45°	468.3	467.3	466.3	464.4	464.4	462.5	462.5	463.5	460.6	458.7	455.8
47.5°	442.3	442.3	440.4	438.5	439.4	438.5	437.5	437.5	435.6	433.7	430.8
50°	416.3	415.4	412.5	413.5	414.4	411.5	412.5	409.6	409.6	407.7	403.8
52.5°	389.4	388.5	387.5	386.5	387.5	385.6	385.6	383.7	382.7	380.8	377.9
55°	363.5	362.5	360.6	360.6	361.5	358.7	358.7	356.7	355.8	353.8	351.0
57.5°	336.5	335.6	334.6	333.7	334.6	332.7	331.7	330.8	328.8	326.9	325.0
60°	309.6	308.7	306.7	305.8	306.7	304.8	303.8	302.9	301.9	299.0	297.1
62.5°	281.7	279.8	279.8	278.8	279.8	277.9	276.9	276.0	274.0	272.1	272.1
65°	253.8	252.9	252.9	250.0	251.9	250.0	246.2	246.2	244.2	242.3	242.3
67.5°	224.0	223.1	223.1	222.1	222.1	222.1	221.2	219.2	216.3	216.3	216.3
70°	197.1	196.2	196.2	194.2	195.2	194.2	193.3	191.3	189.4	189.4	189.4
72.5°	169.2	168.3	168.3	167.3	168.3	167.3	166.3	164.4	162.5	163.5	162.5
75°	142.3	141.3	142.3	140.4	141.3	140.4	139.4	137.5	136.5	137.5	136.5
77.5°	115.4	115.4	115.4	115.4	114.4	113.5	112.5	111.5	111.5	111.5	109.6
80°	89.4	88.5	88.5	88.5	88.5	87.5	86.5	85.6	85.6	85.6	83.7
82.5°	63.5	63.5	63.5	63.5	62.5	63.5	60.6	59.6	59.6	59.6	57.7
85°	38.5	38.5	39.4	38.5	38.5	37.5	35.6	34.6	34.6	33.7	32.7
87.5°	17.3	15.4	15.4	15.4	14.4	14.4	14.4	12.5	12.5	12.5	10.6
90°	1.9	2.9	2.9	2.9	2.9	3.8	3.8	3.8	3.8	3.8	4.8
92.5°	8.7	11.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5
95°	15.4	17.3	21.2	23.1	25.0	26.9	26.9	27.9	26.9	26.0	26.0
97.5°	23.1	26.0	26.9	27.9	29.8	33.7	36.5	39.4	41.3	42.3	42.3
100°	35.6	34.6	36.5	39.4	39.4	38.5	41.3	44.2	47.1	50.0	51.0
102.5°	51.0	47.1	46.2	47.1	49.0	52.9	51.0	51.9	52.9	54.8	57.7
105°	69.2	63.5	59.6	58.7	59.6	61.5	65.4	66.3	63.5	64.4	65.4
107.5°	90.4	81.7	76.0	74.0	73.1	73.1	75.0	78.8	81.7	80.8	78.8
110°	116.3	102.9	95.2	91.3	89.4	87.5	87.5	89.4	92.3	96.2	99.0



TEST NUMBER: P303148

CATALOG NUMBER: CTW-F-5050-40L830-UNV-STD-4

CANDELA DISTRIBUTION (continued):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
112.5°	145.2	128.8	117.3	111.5	108.7	101.9	101.0	101.9	102.9	105.8	109.6
115°	176.0	155.8	141.3	134.6	130.8	120.2	115.4	114.4	115.4	116.3	118.3
117.5°	206.7	186.5	168.3	160.6	154.8	142.3	133.7	130.8	127.9	128.8	128.8
120°	240.4	216.3	199.0	188.5	182.7	167.3	155.8	149.0	143.3	141.3	140.4
122.5°	271.2	250.0	228.8	221.2	211.5	194.2	181.7	171.2	162.5	156.7	153.8
125°	300.0	279.8	260.6	251.9	242.3	223.1	209.6	197.1	185.6	177.9	170.2
127.5°	331.7	310.6	291.3	283.7	274.0	254.8	238.5	226.9	214.4	202.9	192.3
130°	357.7	339.4	321.2	313.5	304.8	286.5	270.2	256.7	241.3	230.8	219.2
132.5°	386.5	367.3	350.0	341.3	332.7	315.4	300.0	286.5	272.1	262.5	250.0
135°	412.5	394.2	376.0	369.2	359.6	344.2	329.8	315.4	301.9	290.4	279.8
137.5°	437.5	419.2	402.9	395.2	386.5	372.1	358.7	348.1	332.7	321.2	309.6
140°	460.6	443.3	427.9	420.2	413.5	398.1	386.5	376.0	361.5	351.0	338.5
142.5°	482.7	466.3	452.9	445.2	437.5	423.1	411.5	401.9	390.4	378.8	368.3
145°	503.8	487.5	475.0	468.3	460.6	447.1	436.5	426.9	419.2	406.7	396.2
147.5°	524.0	507.7	496.2	490.4	483.7	471.2	461.5	451.9	445.2	433.7	424.0
150°	542.3	527.9	517.3	511.5	504.8	493.3	484.6	476.0	470.2	458.7	451.9
152.5°	560.6	547.1	537.5	531.7	526.0	514.4	505.8	497.1	494.2	482.7	476.9
155°	576.9	563.5	554.8	550.0	545.2	533.7	526.0	517.3	515.4	505.8	499.0
157.5°	592.3	579.8	571.2	567.3	562.5	551.9	545.2	537.5	536.5	527.9	522.1
160°	605.8	594.2	586.5	581.7	577.9	569.2	562.5	556.7	554.8	549.0	543.3
162.5°	618.3	608.7	601.0	597.1	594.2	585.6	579.8	574.0	573.1	569.2	562.5
165°	628.8	619.2	613.5	610.6	607.7	600.0	595.2	590.4	589.4	587.5	580.8
167.5°	638.5	629.8	625.0	622.1	619.2	613.5	609.6	605.8	605.8	603.8	598.1
170°	646.2	638.5	634.6	632.7	630.8	625.0	621.2	618.3	618.3	619.2	612.5
172.5°	652.9	647.1	643.3	640.4	639.4	635.6	632.7	629.8	630.8	632.7	626.9
175°	658.7	652.9	650.0	649.0	648.1	644.2	642.3	641.3	642.3	645.2	640.4
177.5°	662.5	658.7	656.7	655.8	655.8	651.9	651.0	651.0	651.9	656.7	651.0
180°	661.5	661.5	661.5	661.5	661.5	661.5	661.5	661.5	661.5	661.5	661.5



TEST NUMBER: P303148

CATALOG NUMBER: CTW-F-5050-40L830-UNV-STD-4

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	749.0	749.0	749.0	749.0	749.0	749.0	749.0	749.0
2.5°	750.0	749.0	748.1	747.1	746.2	745.2	743.3	744.2
5°	746.2	745.2	744.2	743.3	743.3	743.3	742.3	743.3
7.5°	740.4	739.4	738.5	737.5	737.5	738.5	737.5	739.4
10°	732.7	730.8	730.8	728.8	728.8	728.8	728.8	729.8
12.5°	722.1	720.2	720.2	718.3	718.3	718.3	719.2	720.2
15°	709.6	708.7	707.7	706.7	706.7	707.7	706.7	707.7
17.5°	695.2	693.3	693.3	692.3	692.3	691.3	691.3	692.3
20°	677.9	676.0	676.0	675.0	674.0	674.0	674.0	675.0
22.5°	658.7	657.7	656.7	654.8	655.8	655.8	654.8	656.7
25°	639.4	638.5	637.5	636.5	636.5	635.6	634.6	635.6
27.5°	620.2	618.3	617.3	616.3	615.4	614.4	613.5	614.4
30°	599.0	595.2	596.2	595.2	593.3	592.3	591.3	592.3
32.5°	576.0	574.0	572.1	572.1	570.2	569.2	568.3	569.2
35°	552.9	550.0	549.0	549.0	547.1	546.2	545.2	546.2
37.5°	528.8	526.0	525.0	525.0	523.1	521.2	521.2	521.2
40°	503.8	501.0	501.0	501.0	499.0	497.1	497.1	497.1
42.5°	478.8	476.9	476.0	476.0	474.0	471.2	471.2	472.1
45°	453.8	451.9	451.0	450.0	449.0	446.2	446.2	446.2
47.5°	426.9	426.9	425.0	425.0	423.1	422.1	421.2	421.2
50°	402.9	401.0	399.0	399.0	398.1	395.2	395.2	395.2
52.5°	376.0	375.0	373.1	373.1	371.2	369.2	369.2	369.2
55°	350.0	349.0	347.1	347.1	345.2	344.2	343.3	343.3
57.5°	323.1	323.1	321.2	321.2	318.3	318.3	317.3	319.2
60°	295.2	296.2	294.2	293.3	291.3	291.3	291.3	293.3
62.5°	270.2	269.2	267.3	267.3	266.3	265.4	266.3	266.3
65°	241.3	239.4	238.5	238.5	237.5	236.5	235.6	237.5
67.5°	214.4	213.5	211.5	211.5	211.5	210.6	210.6	211.5
70°	187.5	186.5	185.6	185.6	184.6	184.6	184.6	185.6
72.5°	160.6	160.6	160.6	159.6	158.7	157.7	159.6	158.7
75°	134.6	133.7	133.7	133.7	132.7	131.7	130.8	132.7
77.5°	108.7	107.7	107.7	107.7	106.7	105.8	105.8	106.7
80°	82.7	81.7	81.7	81.7	80.8	80.8	79.8	80.8
82.5°	55.8	55.8	55.8	55.8	53.8	54.8	54.8	53.8
85°	31.7	30.8	30.8	30.8	30.8	30.8	29.8	30.8
87.5°	9.6	9.6	9.6	10.6	9.6	10.6	10.6	10.6
90°	4.8	4.8	4.8	4.8	4.8	4.8	5.8	5.8
92.5°	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5
95°	25.0	26.0	25.0	25.0	25.0	25.0	25.0	25.0
97.5°	42.3	42.3	42.3	42.3	41.3	40.4	40.4	40.4
100°	52.9	53.8	54.8	54.8	55.8	55.8	55.8	55.8
102.5°	59.6	60.6	60.6	61.5	62.5	62.5	62.5	62.5
105°	66.3	66.3	67.3	68.3	70.2	71.2	72.1	72.1
107.5°	77.9	77.9	78.8	78.8	78.8	79.8	79.8	79.8
110°	98.1	94.2	94.2	93.3	92.3	92.3	92.3	92.3



TEST NUMBER: P303148

CATALOG NUMBER: CTW-F-5050-40L830-UNV-STD-4

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
112.5°	112.5	113.5	114.4	115.4	114.4	112.5	112.5	112.5
115°	122.1	124.0	126.0	126.9	127.9	127.9	128.8	128.8
117.5°	131.7	133.7	134.6	135.6	137.5	137.5	139.4	139.4
120°	141.3	143.3	143.3	144.2	145.2	146.2	147.1	147.1
122.5°	152.9	153.8	153.8	153.8	154.8	154.8	155.8	155.8
125°	167.3	165.4	164.4	165.4	164.4	164.4	164.4	164.4
127.5°	185.6	181.7	180.8	179.8	177.9	176.0	176.0	176.0
130°	209.6	203.8	201.0	200.0	197.1	193.3	193.3	192.3
132.5°	237.5	230.8	226.9	226.0	221.2	216.3	214.4	213.5
135°	270.2	262.5	257.7	256.7	249.0	244.2	242.3	241.3
137.5°	299.0	291.3	288.5	286.5	281.7	276.9	274.0	273.1
140°	328.8	322.1	317.3	315.4	309.6	306.7	303.8	303.8
142.5°	358.7	351.9	347.1	345.2	340.4	336.5	333.7	333.7
145°	387.5	380.8	376.0	374.0	369.2	365.4	363.5	362.5
147.5°	416.3	409.6	405.8	403.8	399.0	395.2	392.3	392.3
150°	444.2	437.5	433.7	429.8	426.9	423.1	421.2	420.2
152.5°	470.2	464.4	460.6	456.7	453.8	451.9	449.0	449.0
155°	493.3	488.5	484.6	481.7	479.8	476.9	476.0	476.0
157.5°	517.3	511.5	508.7	505.8	503.8	502.9	501.0	501.0
160°	539.4	533.7	531.7	528.8	526.9	525.0	524.0	525.0
162.5°	560.6	556.7	553.8	551.0	550.0	548.1	547.1	547.1
165°	578.8	575.0	573.1	571.2	569.2	568.3	567.3	568.3
167.5°	596.2	592.3	590.4	588.5	587.5	587.5	586.5	586.5
170°	611.5	608.7	607.7	604.8	603.8	603.8	602.9	602.9
172.5°	626.0	624.0	623.1	621.2	621.2	621.2	620.2	621.2
175°	640.4	638.5	637.5	635.6	635.6	634.6	633.7	634.6
177.5°	652.9	651.9	650.0	649.0	648.1	647.1	645.2	646.2
180°	661.5	661.5	661.5	661.5	661.5	661.5	661.5	661.5

(END OF REPORT)