

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: P303128

Luminaire Tested: **CTW-F-5050-20L930-UNV-STD-8**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P303128
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1903-181-7)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: CORELITE
Catalog Number: CTW-F-5050-20L930-UNV-STD-8
Description: CORELITE CONTINUA LINEAR WALL LED LUMINAIRE
50% UPLIGHT, 50% DOWNLIGHT, 2000 LUMEN PACKAGE
Light Source: 3000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

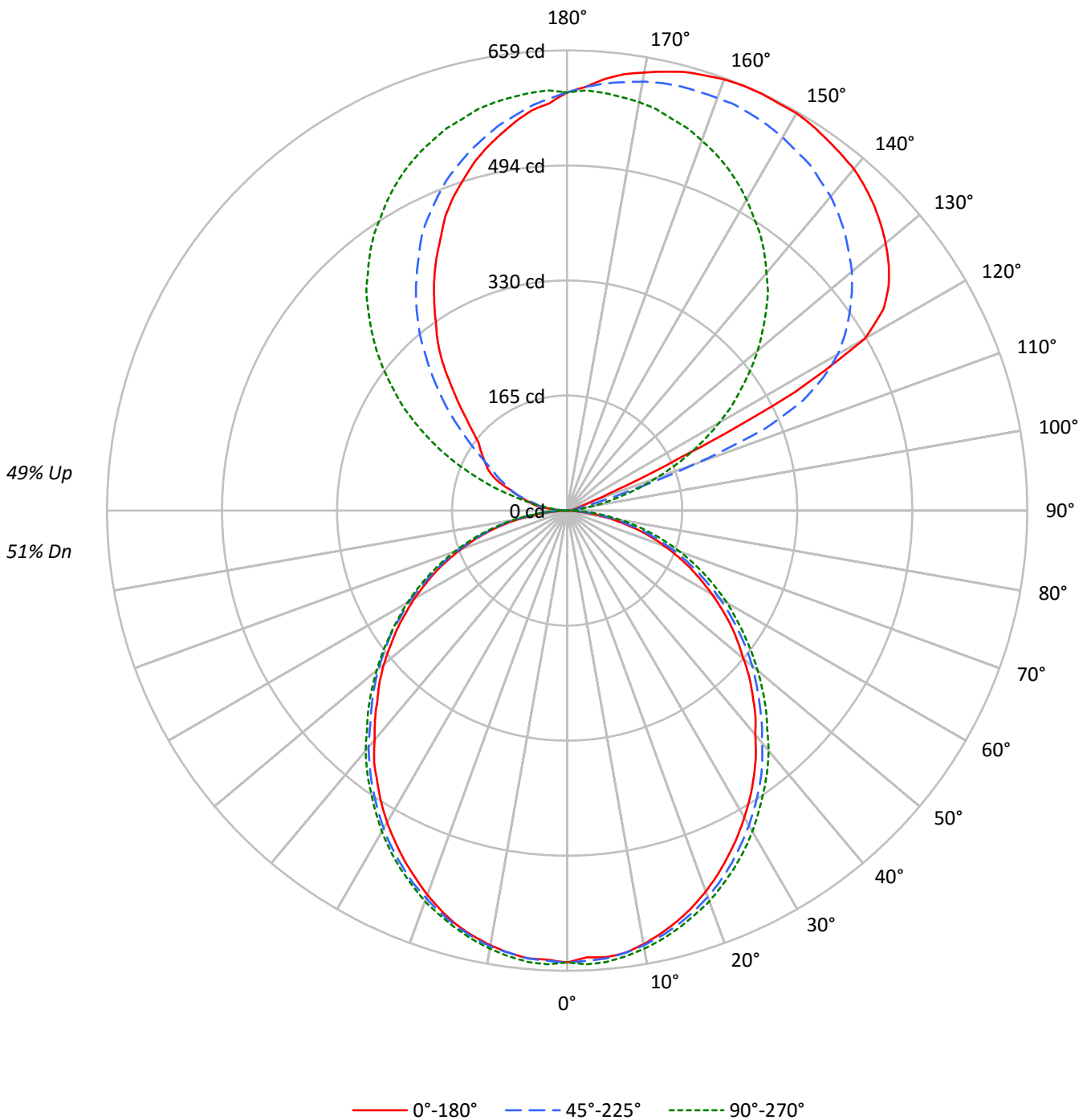
Lumens per Lamp: N/A
Luminaire Lumens: 3406.4 lumens
Efficiency: N/A
Efficacy: 109.5 lumens/watt
Spacing Criteria (0/90/45): 1.18 / 1.22 / 1.31
Luminous Opening: Rectangular (W 8' x L: 0.12' x H: 0')
CIE Type: General Diffuse

Input Watts (W): 31.1
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	107	107	107	107	99	99	99	99	84	84	84	70	70	70	57	57	57	51
1	98	93	89	86	90	86	83	80	73	71	68	61	59	58	50	49	48	42
2	89	81	75	70	82	75	70	65	64	60	57	54	51	48	44	42	40	35
3	81	72	64	58	75	66	60	55	56	51	47	47	44	41	39	36	34	30
4	74	63	55	49	68	59	52	46	50	45	40	42	38	35	35	32	29	26
5	68	56	48	42	63	52	45	40	45	39	35	38	33	30	31	28	25	22
6	63	50	42	36	58	47	40	34	40	35	30	34	30	26	28	25	22	19
7	58	46	38	32	53	42	35	30	37	31	27	31	27	23	26	22	20	17
8	54	41	34	28	50	39	32	27	33	28	24	28	24	21	24	20	18	15
9	50	38	30	25	46	35	28	24	31	25	21	26	22	19	22	18	16	14
10	47	35	27	23	43	32	26	21	28	23	19	24	20	17	20	17	15	13

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	6965	6965	6965
5°	6938	7010	6956
10°	6891	6963	6909
15°	6784	6896	6840
20°	6649	6821	6707
25°	6480	6717	6559
30°	6307	6595	6410
35°	6121	6448	6230
40°	5890	6310	6031
45°	5722	6129	5850
50°	5516	5961	5739
55°	5369	5806	5589
60°	5156	5694	5442
65°	4956	5550	5295
70°	4658	5391	5080
75°	4288	5190	4841
80°	3608	4847	4333
85°	2050	4310	3285



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	61.1	1.8
10°-20°	172.9	5.1
20°-30°	256.2	7.5
30°-40°	300.4	8.8
40°-50°	302.2	8.9
50°-60°	269.5	7.9
60°-70°	206.8	6.1
70°-80°	123.0	3.6
80°-90°	33.3	1.0
90°-100°	15.8	0.5
100°-110°	70.7	2.1
110°-120°	201.4	5.9
120°-130°	296.8	8.7
130°-140°	320.1	9.4
140°-150°	304.7	8.9
150°-160°	250.7	7.4
160°-170°	164.0	4.8
170°-180°	56.9	1.7
0°-30°	490.2	14.4
0°-40°	790.5	23.2
0°-60°	1362.2	40.0
0°-90°	1725.2	50.6
90°-120°	288.0	8.5
90°-150°	1209.5	35.5
90°-180°	1681.0	49.3
0°-180°	3406.4	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	647	647	647	647	647	
5°	642	644	649	644	644	61
15°	609	614	619	616	614	172
25°	546	557	566	561	552	251
35°	466	481	491	486	474	291
45°	376	389	403	396	384	290
55°	286	299	309	308	298	255
65°	195	205	218	213	208	192
75°	103	112	125	120	116	109
85°	17	23	35	32	27	23
90°	2	2	0	2	3	1
95°	3	3	12	22	20	4
105°	17	42	80	60	65	19
115°	176	373	195	106	118	215
125°	562	494	304	171	151	498
135°	620	562	403	273	221	479
145°	649	606	482	378	328	407
155°	659	626	542	467	429	305
165°	650	629	580	534	516	184
175°	620	614	600	582	576	60
180°	599	599	599	599	599	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	647.1	647.1	647.1	647.1	647.1	647.1	647.1	647.1	647.1	647.1	647.1
2.5°	640.4	640.4	642.1	643.8	645.4	645.4	647.1	647.1	647.1	647.1	645.4
5°	642.1	640.4	642.1	642.1	642.1	642.1	643.8	645.4	645.4	645.4	643.8
7.5°	638.8	637.1	638.8	638.8	637.1	637.1	638.8	640.4	640.4	640.4	638.8
10°	630.5	628.8	630.5	630.5	630.5	630.5	632.1	632.1	633.8	633.8	632.1
12.5°	620.5	620.5	620.5	622.1	620.5	622.1	622.1	623.8	625.5	625.5	623.8
15°	608.8	608.8	610.5	612.2	610.5	612.2	612.2	613.8	613.8	615.5	613.8
17.5°	595.5	595.5	597.2	598.8	598.8	598.8	600.5	600.5	602.2	602.2	602.2
20°	580.5	580.5	580.5	583.9	583.9	583.9	583.9	585.5	588.9	588.9	588.9
22.5°	563.9	563.9	563.9	567.2	567.2	567.2	567.2	568.9	572.2	573.9	573.9
25°	545.6	545.6	545.6	548.9	548.9	548.9	548.9	552.3	555.6	555.6	557.3
27.5°	527.3	527.3	529.0	530.6	530.6	530.6	532.3	534.0	537.3	539.0	539.0
30°	507.4	507.4	507.4	510.7	510.7	512.3	512.3	515.7	517.3	520.7	520.7
32.5°	487.4	487.4	489.1	490.7	490.7	490.7	492.4	495.7	497.4	499.0	500.7
35°	465.8	465.8	467.4	469.1	470.8	470.8	470.8	474.1	475.8	479.1	480.7
37.5°	444.1	444.1	445.8	447.5	449.1	449.1	449.1	452.5	454.1	457.5	459.1
40°	419.2	419.2	419.2	422.5	422.5	424.2	424.2	425.8	429.2	432.5	434.2
42.5°	399.2	397.6	397.6	399.2	400.9	402.6	402.6	404.2	407.5	410.9	412.5
45°	375.9	375.9	375.9	377.6	379.3	379.3	380.9	382.6	384.3	389.3	389.3
47.5°	354.3	352.7	352.7	356.0	356.0	357.6	357.6	359.3	362.6	366.0	367.6
50°	329.4	331.0	331.0	332.7	334.4	334.4	336.0	336.0	339.3	342.7	346.0
52.5°	307.7	307.7	307.7	309.4	311.1	312.7	312.7	314.4	316.1	319.4	322.7
55°	286.1	286.1	286.1	287.8	287.8	289.4	289.4	291.1	292.8	296.1	299.4
57.5°	262.8	262.8	262.8	264.5	266.2	266.2	267.8	267.8	269.5	272.8	276.1
60°	239.5	239.5	239.5	241.2	242.9	242.9	244.5	244.5	246.2	249.5	252.8
62.5°	216.3	217.9	216.3	217.9	219.6	219.6	221.2	221.2	224.6	224.6	227.9
65°	194.6	194.6	194.6	194.6	196.3	196.3	196.3	199.6	199.6	202.9	204.6
67.5°	171.3	171.3	171.3	171.3	173.0	174.7	174.7	176.3	178.0	178.0	181.3
70°	148.0	149.7	149.7	148.0	149.7	151.4	151.4	153.0	154.7	154.7	158.0
72.5°	126.4	126.4	126.4	126.4	126.4	128.1	129.8	129.8	131.4	133.1	134.7
75°	103.1	103.1	104.8	103.1	103.1	104.8	106.5	108.1	108.1	109.8	111.5
77.5°	79.8	81.5	81.5	81.5	83.2	83.2	83.2	84.8	86.5	86.5	88.2
80°	58.2	59.9	59.9	59.9	61.5	59.9	61.5	63.2	63.2	64.9	66.5
82.5°	36.6	36.6	38.3	38.3	38.3	38.3	39.9	41.6	41.6	41.6	44.9
85°	16.6	16.6	18.3	18.3	18.3	18.3	20.0	20.0	21.6	21.6	23.3
87.5°	1.7	1.7	1.7	1.7	3.3	1.7	3.3	3.3	3.3	3.3	5.0
90°	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
92.5°	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
95°	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3
97.5°	5.0	5.0	5.0	5.0	5.0	5.0	6.7	6.7	6.7	6.7	8.3
100°	8.3	8.3	8.3	8.3	8.3	8.3	8.3	10.0	10.0	11.6	13.3
102.5°	11.6	11.6	11.6	11.6	13.3	13.3	13.3	15.0	15.0	18.3	21.6
105°	16.6	16.6	16.6	18.3	18.3	18.3	20.0	21.6	25.0	31.6	41.6
107.5°	23.3	25.0	25.0	25.0	28.3	28.3	31.6	36.6	44.9	64.9	91.5
110°	36.6	38.3	38.3	41.6	48.2	51.6	58.2	76.5	103.1	144.7	194.6



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
112.5°	71.5	74.9	78.2	88.2	106.5	119.8	138.1	181.3	229.6	284.5	306.1
115°	176.3	178.0	193.0	212.9	254.5	277.8	299.4	337.7	367.6	374.3	372.6
117.5°	367.6	375.9	384.3	397.6	415.9	424.2	434.2	442.5	435.8	427.5	414.2
120°	492.4	489.1	492.4	494.0	492.4	492.4	490.7	484.1	472.4	460.8	447.5
122.5°	537.3	535.6	534.0	532.3	525.7	524.0	520.7	510.7	499.0	485.7	472.4
125°	562.3	560.6	557.3	553.9	548.9	545.6	542.3	532.3	520.7	507.4	494.0
127.5°	580.5	578.9	575.6	572.2	567.2	563.9	558.9	550.6	539.0	527.3	514.0
130°	595.5	593.9	590.5	588.9	582.2	580.5	575.6	565.6	555.6	545.6	532.3
132.5°	608.8	607.2	603.8	602.2	597.2	593.9	590.5	580.5	568.9	558.9	547.3
135°	620.5	618.8	617.1	615.5	610.5	607.2	602.2	593.9	583.9	573.9	562.3
137.5°	630.5	628.8	627.1	623.8	620.5	617.1	612.2	603.8	597.2	587.2	575.6
140°	638.8	637.1	633.8	632.1	628.8	625.5	622.1	615.5	607.2	598.8	587.2
142.5°	643.8	643.8	640.4	640.4	635.4	632.1	628.8	622.1	617.1	608.8	595.5
145°	648.8	648.8	647.1	645.4	642.1	638.8	635.4	630.5	623.8	617.1	605.5
147.5°	653.7	652.1	652.1	650.4	647.1	643.8	642.1	637.1	630.5	623.8	610.5
150°	657.1	655.4	655.4	653.7	650.4	647.1	645.4	642.1	635.4	628.8	617.1
152.5°	657.1	657.1	658.7	655.4	652.1	650.4	648.8	643.8	640.4	632.1	622.1
155°	658.7	658.7	658.7	657.1	652.1	650.4	648.8	645.4	642.1	635.4	625.5
157.5°	658.7	658.7	658.7	657.1	652.1	650.4	648.8	647.1	643.8	637.1	628.8
160°	657.1	657.1	657.1	657.1	653.7	650.4	648.8	647.1	643.8	637.1	628.8
162.5°	653.7	653.7	653.7	653.7	650.4	648.8	647.1	645.4	643.8	635.4	628.8
165°	650.4	650.4	650.4	648.8	645.4	645.4	643.8	642.1	640.4	633.8	628.8
167.5°	643.8	643.8	643.8	642.1	638.8	638.8	638.8	637.1	635.4	630.5	627.1
170°	637.1	637.1	637.1	635.4	633.8	633.8	633.8	632.1	632.1	627.1	623.8
172.5°	630.5	630.5	630.5	628.8	625.5	625.5	625.5	627.1	625.5	622.1	618.8
175°	620.5	618.8	618.8	618.8	618.8	617.1	618.8	618.8	618.8	615.5	613.8
177.5°	607.2	607.2	607.2	608.8	608.8	608.8	608.8	610.5	610.5	608.8	607.2
180°	598.8	598.8	598.8	598.8	598.8	598.8	598.8	598.8	598.8	598.8	598.8



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CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	647.1	647.1	647.1	647.1	647.1	647.1	647.1	647.1	647.1	647.1	647.1
2.5°	643.8	645.4	643.8	643.8	643.8	643.8	643.8	645.4	648.8	650.4	648.8
5°	642.1	643.8	642.1	642.1	642.1	642.1	642.1	643.8	647.1	648.8	647.1
7.5°	637.1	638.8	637.1	637.1	637.1	637.1	637.1	638.8	643.8	643.8	643.8
10°	630.5	632.1	630.5	630.5	630.5	632.1	632.1	633.8	637.1	637.1	637.1
12.5°	622.1	623.8	622.1	622.1	623.8	623.8	622.1	625.5	628.8	628.8	628.8
15°	612.2	613.8	612.2	612.2	612.2	613.8	613.8	615.5	618.8	618.8	618.8
17.5°	598.8	600.5	600.5	600.5	602.2	602.2	602.2	603.8	607.2	607.2	607.2
20°	587.2	587.2	587.2	587.2	587.2	588.9	588.9	592.2	595.5	595.5	595.5
22.5°	572.2	572.2	573.9	572.2	573.9	575.6	573.9	577.2	580.5	580.5	580.5
25°	555.6	557.3	557.3	557.3	557.3	558.9	558.9	562.3	563.9	565.6	565.6
27.5°	539.0	539.0	540.6	540.6	540.6	542.3	542.3	545.6	548.9	548.9	548.9
30°	520.7	520.7	522.3	524.0	522.3	524.0	524.0	527.3	529.0	530.6	530.6
32.5°	500.7	500.7	504.0	504.0	504.0	505.7	505.7	507.4	510.7	510.7	512.3
35°	480.7	480.7	484.1	484.1	484.1	485.7	485.7	487.4	490.7	490.7	492.4
37.5°	459.1	460.8	462.4	464.1	462.4	464.1	464.1	467.4	469.1	470.8	470.8
40°	437.5	437.5	439.2	440.8	440.8	442.5	444.1	445.8	449.1	449.1	449.1
42.5°	412.5	414.2	415.9	417.5	417.5	419.2	420.9	420.9	422.5	424.2	424.2
45°	390.9	392.6	392.6	395.9	397.6	397.6	397.6	399.2	400.9	402.6	402.6
47.5°	369.3	371.0	372.6	375.9	374.3	374.3	375.9	375.9	377.6	379.3	380.9
50°	346.0	347.7	349.3	351.0	351.0	352.7	352.7	354.3	356.0	356.0	357.6
52.5°	322.7	324.4	327.7	327.7	329.4	329.4	331.0	331.0	332.7	332.7	334.4
55°	299.4	301.1	304.4	306.1	306.1	307.7	307.7	309.4	309.4	309.4	311.1
57.5°	276.1	277.8	281.1	282.8	282.8	284.5	284.5	286.1	286.1	286.1	287.8
60°	252.8	254.5	257.8	259.5	259.5	261.2	261.2	262.8	262.8	264.5	264.5
62.5°	231.2	231.2	234.5	236.2	236.2	236.2	237.9	239.5	239.5	241.2	242.9
65°	206.3	207.9	211.3	212.9	211.3	212.9	214.6	216.3	216.3	217.9	217.9
67.5°	183.0	184.6	188.0	188.0	188.0	189.6	191.3	193.0	193.0	194.6	194.6
70°	159.7	159.7	163.0	164.7	164.7	166.3	168.0	169.7	169.7	171.3	171.3
72.5°	134.7	136.4	139.7	141.4	143.1	143.1	144.7	144.7	148.0	148.0	148.0
75°	113.1	113.1	116.4	118.1	119.8	119.8	121.4	121.4	123.1	124.8	124.8
77.5°	89.8	91.5	93.2	94.8	96.5	96.5	98.1	98.1	99.8	101.5	101.5
80°	68.2	68.2	71.5	71.5	73.2	73.2	74.9	76.5	78.2	78.2	78.2
82.5°	44.9	46.6	49.9	49.9	51.6	51.6	53.2	53.2	54.9	54.9	56.6
85°	25.0	26.6	28.3	28.3	29.9	29.9	31.6	33.3	33.3	34.9	34.9
87.5°	5.0	8.3	8.3	10.0	10.0	11.6	11.6	13.3	15.0	15.0	15.0
90°	1.7	1.7	1.7	1.7	1.7	1.7	1.7	0.0	1.7	0.0	1.7
92.5°	1.7	1.7	1.7	3.3	3.3	3.3	5.0	5.0	5.0	5.0	6.7
95°	5.0	5.0	6.7	8.3	10.0	11.6	15.0	16.6	15.0	11.6	11.6
97.5°	8.3	11.6	15.0	21.6	25.0	28.3	33.3	31.6	28.3	23.3	21.6
100°	16.6	23.3	31.6	44.9	51.6	56.6	58.2	54.9	46.6	38.3	34.9
102.5°	29.9	44.9	64.9	86.5	91.5	93.2	89.8	81.5	69.9	58.2	49.9
105°	61.5	93.2	121.4	138.1	139.7	136.4	128.1	111.5	96.5	79.8	69.9
107.5°	133.1	174.7	191.3	193.0	188.0	179.7	163.0	144.7	126.4	108.1	93.2
110°	236.2	254.5	251.2	236.2	227.9	219.6	198.0	178.0	156.4	134.7	119.8



TEST NUMBER: P303128

CATALOG NUMBER: CTW-F-5050-20L930-UNV-STD-8

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
112.5°	314.4	309.4	294.4	274.5	264.5	254.5	232.9	211.3	184.6	164.7	148.0
115°	364.3	349.3	329.4	307.7	297.8	287.8	266.2	241.2	216.3	194.6	176.3
117.5°	399.2	380.9	361.0	339.3	327.7	317.7	294.4	269.5	246.2	222.9	206.3
120°	427.5	407.5	387.6	366.0	357.6	346.0	322.7	297.8	272.8	251.2	234.5
122.5°	454.1	434.2	412.5	394.2	382.6	372.6	347.7	324.4	301.1	279.5	262.8
125°	479.1	459.1	437.5	417.5	407.5	395.9	371.0	349.3	326.0	304.4	289.4
127.5°	497.4	480.7	462.4	442.5	430.8	419.2	394.2	372.6	351.0	331.0	314.4
130°	515.7	499.0	482.4	464.1	454.1	439.2	417.5	394.2	374.3	356.0	341.0
132.5°	530.6	517.3	499.0	482.4	470.8	459.1	437.5	415.9	397.6	379.3	364.3
135°	547.3	532.3	515.7	499.0	489.1	479.1	459.1	437.5	420.9	402.6	387.6
137.5°	560.6	545.6	530.6	514.0	504.0	494.0	477.4	457.5	440.8	425.8	409.2
140°	572.2	557.3	544.0	527.3	517.3	509.0	492.4	475.8	462.4	444.1	430.8
142.5°	582.2	567.2	555.6	539.0	529.0	522.3	507.4	490.7	479.1	464.1	452.5
145°	590.5	577.2	565.6	550.6	542.3	535.6	520.7	507.4	495.7	482.4	470.8
147.5°	600.5	585.5	575.6	560.6	553.9	547.3	534.0	520.7	510.7	497.4	487.4
150°	607.2	595.5	585.5	570.6	563.9	557.3	545.6	535.6	525.7	514.0	504.0
152.5°	612.2	602.2	592.2	578.9	573.9	568.9	557.3	547.3	539.0	529.0	519.0
155°	617.1	607.2	600.5	587.2	582.2	577.2	567.2	558.9	550.6	542.3	532.3
157.5°	620.5	612.2	605.5	593.9	590.5	585.5	577.2	568.9	562.3	553.9	545.6
160°	622.1	615.5	608.8	598.8	595.5	592.2	583.9	577.2	572.2	563.9	557.3
162.5°	622.1	617.1	610.5	602.2	598.8	595.5	590.5	583.9	580.5	573.9	567.2
165°	622.1	618.8	612.2	605.5	602.2	600.5	595.5	590.5	587.2	580.5	575.6
167.5°	620.5	617.1	612.2	607.2	605.5	602.2	598.8	593.9	592.2	588.9	582.2
170°	618.8	617.1	612.2	608.8	607.2	605.5	602.2	598.8	597.2	593.9	588.9
172.5°	615.5	615.5	612.2	608.8	607.2	605.5	602.2	600.5	600.5	597.2	593.9
175°	612.2	610.5	608.8	605.5	603.8	603.8	602.2	600.5	602.2	600.5	598.8
177.5°	603.8	605.5	602.2	602.2	600.5	600.5	600.5	600.5	602.2	602.2	600.5
180°	598.8	598.8	598.8	598.8	598.8	598.8	598.8	598.8	598.8	598.8	598.8



TEST NUMBER: P303128

CATALOG NUMBER: CTW-F-5050-20L930-UNV-STD-8

CANDELA DISTRIBUTION (continued):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	647.1	647.1	647.1	647.1	647.1	647.1	647.1	647.1	647.1	647.1	647.1
2.5°	648.8	647.1	645.4	645.4	645.4	642.1	642.1	643.8	645.4	648.8	645.4
5°	647.1	645.4	643.8	643.8	643.8	640.4	640.4	642.1	643.8	647.1	643.8
7.5°	642.1	642.1	638.8	638.8	638.8	635.4	635.4	637.1	638.8	642.1	638.8
10°	637.1	635.4	632.1	632.1	632.1	630.5	628.8	630.5	633.8	635.4	632.1
12.5°	628.8	627.1	625.5	623.8	623.8	620.5	620.5	622.1	625.5	627.1	625.5
15°	618.8	617.1	615.5	613.8	613.8	612.2	610.5	612.2	615.5	617.1	613.8
17.5°	607.2	605.5	603.8	602.2	602.2	600.5	598.8	600.5	603.8	603.8	602.2
20°	593.9	592.2	590.5	590.5	590.5	587.2	587.2	587.2	590.5	590.5	587.2
22.5°	580.5	578.9	575.6	575.6	575.6	573.9	572.2	573.9	577.2	573.9	572.2
25°	565.6	562.3	560.6	560.6	558.9	555.6	557.3	557.3	560.6	558.9	555.6
27.5°	548.9	547.3	545.6	544.0	542.3	540.6	540.6	540.6	544.0	540.6	539.0
30°	530.6	529.0	527.3	525.7	525.7	522.3	522.3	524.0	525.7	522.3	520.7
32.5°	510.7	509.0	507.4	507.4	505.7	504.0	504.0	504.0	505.7	502.4	500.7
35°	492.4	489.1	487.4	487.4	485.7	484.1	484.1	485.7	485.7	482.4	480.7
37.5°	470.8	469.1	467.4	465.8	465.8	464.1	464.1	464.1	464.1	460.8	459.1
40°	450.8	447.5	445.8	444.1	444.1	444.1	444.1	444.1	442.5	439.2	435.8
42.5°	424.2	422.5	420.9	420.9	419.2	419.2	419.2	419.2	417.5	415.9	414.2
45°	402.6	400.9	399.2	397.6	399.2	399.2	397.6	397.6	395.9	394.2	392.6
47.5°	380.9	379.3	377.6	375.9	377.6	377.6	375.9	375.9	374.3	374.3	371.0
50°	357.6	356.0	354.3	354.3	356.0	354.3	354.3	352.7	352.7	351.0	347.7
52.5°	336.0	334.4	331.0	331.0	332.7	332.7	331.0	329.4	329.4	329.4	326.0
55°	312.7	311.1	309.4	309.4	311.1	309.4	307.7	306.1	307.7	306.1	302.8
57.5°	289.4	287.8	286.1	286.1	287.8	286.1	284.5	284.5	282.8	282.8	281.1
60°	266.2	264.5	262.8	264.5	264.5	262.8	261.2	261.2	261.2	257.8	257.8
62.5°	242.9	239.5	239.5	239.5	241.2	239.5	237.9	237.9	236.2	234.5	234.5
65°	217.9	216.3	217.9	216.3	216.3	216.3	214.6	214.6	212.9	211.3	211.3
67.5°	194.6	193.0	194.6	193.0	193.0	193.0	193.0	191.3	189.6	189.6	188.0
70°	171.3	169.7	171.3	169.7	169.7	169.7	169.7	168.0	166.3	164.7	164.7
72.5°	148.0	146.4	146.4	146.4	146.4	146.4	144.7	144.7	143.1	143.1	143.1
75°	124.8	123.1	123.1	123.1	123.1	121.4	121.4	121.4	119.8	119.8	119.8
77.5°	101.5	99.8	101.5	101.5	99.8	99.8	99.8	99.8	98.1	96.5	96.5
80°	78.2	78.2	78.2	78.2	78.2	78.2	76.5	76.5	76.5	74.9	74.9
82.5°	56.6	56.6	56.6	56.6	54.9	54.9	54.9	54.9	53.2	51.6	51.6
85°	34.9	34.9	34.9	34.9	33.3	34.9	33.3	31.6	31.6	29.9	28.3
87.5°	16.6	16.6	15.0	13.3	13.3	13.3	11.6	13.3	11.6	10.0	10.0
90°	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
92.5°	8.3	10.0	11.6	11.6	11.6	10.0	10.0	10.0	10.0	10.0	8.3
95°	13.3	16.6	18.3	20.0	21.6	23.3	23.3	23.3	21.6	21.6	21.6
97.5°	21.6	23.3	25.0	25.0	26.6	28.3	31.6	33.3	34.9	36.6	34.9
100°	33.3	31.6	34.9	34.9	34.9	34.9	36.6	38.3	41.6	43.3	44.9
102.5°	46.6	43.3	43.3	44.9	44.9	46.6	46.6	46.6	48.2	49.9	51.6
105°	63.2	58.2	56.6	54.9	54.9	56.6	59.9	59.9	59.9	59.9	59.9
107.5°	83.2	76.5	69.9	68.2	66.5	68.2	69.9	73.2	74.9	74.9	73.2
110°	106.5	96.5	88.2	84.8	81.5	79.8	81.5	81.5	84.8	88.2	89.8



TEST NUMBER: P303128

CATALOG NUMBER: CTW-F-5050-20L930-UNV-STD-8

CANDELA DISTRIBUTION (continued):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
112.5°	133.1	118.1	106.5	104.8	99.8	94.8	93.2	93.2	94.8	96.5	99.8
115°	158.0	143.1	129.8	124.8	119.8	111.5	108.1	104.8	106.5	106.5	109.8
117.5°	188.0	169.7	154.7	148.0	141.4	131.4	123.1	119.8	118.1	118.1	118.1
120°	216.3	199.6	179.7	173.0	166.3	154.7	144.7	136.4	131.4	128.1	128.1
122.5°	242.9	226.2	207.9	199.6	191.3	179.7	168.0	156.4	149.7	143.1	139.7
125°	271.1	254.5	234.5	227.9	217.9	204.6	193.0	181.3	171.3	163.0	156.4
127.5°	297.8	281.1	261.2	252.8	246.2	232.9	217.9	206.3	194.6	186.3	176.3
130°	322.7	306.1	287.8	279.5	272.8	259.5	244.5	232.9	221.2	211.3	199.6
132.5°	347.7	331.0	314.4	306.1	297.8	286.1	271.1	259.5	246.2	236.2	227.9
135°	371.0	354.3	339.3	331.0	324.4	311.1	297.8	286.1	272.8	262.8	254.5
137.5°	394.2	377.6	362.6	354.3	347.7	336.0	324.4	312.7	299.4	289.4	279.5
140°	414.2	399.2	384.3	377.6	371.0	359.3	349.3	339.3	327.7	316.1	306.1
142.5°	435.8	420.9	407.5	399.2	392.6	380.9	371.0	362.6	352.7	341.0	332.7
145°	457.5	440.8	429.2	419.2	414.2	402.6	392.6	385.9	377.6	367.6	359.3
147.5°	474.1	460.8	450.8	444.1	435.8	424.2	414.2	407.5	400.9	390.9	384.3
150°	490.7	479.1	467.4	464.1	457.5	447.5	439.2	430.8	424.2	414.2	407.5
152.5°	509.0	495.7	487.4	480.7	475.8	465.8	457.5	452.5	449.1	437.5	432.5
155°	524.0	512.3	502.4	497.4	494.0	484.1	475.8	472.4	467.4	460.8	454.1
157.5°	537.3	527.3	517.3	512.3	510.7	500.7	494.0	489.1	485.7	480.7	474.1
160°	548.9	540.6	530.6	527.3	524.0	515.7	509.0	505.7	504.0	499.0	494.0
162.5°	560.6	552.3	544.0	540.6	537.3	530.6	524.0	520.7	519.0	515.7	510.7
165°	568.9	562.3	555.6	552.3	550.6	542.3	537.3	535.6	534.0	532.3	527.3
167.5°	578.9	572.2	565.6	563.9	560.6	555.6	550.6	548.9	547.3	547.3	542.3
170°	585.5	580.5	575.6	573.9	572.2	565.6	562.3	560.6	560.6	560.6	555.6
172.5°	592.2	588.9	582.2	582.2	580.5	575.6	572.2	572.2	570.6	572.2	567.2
175°	597.2	593.9	588.9	588.9	587.2	583.9	580.5	580.5	582.2	583.9	578.9
177.5°	600.5	597.2	593.9	593.9	592.2	590.5	587.2	588.9	590.5	592.2	588.9
180°	598.8	598.8	598.8	598.8	598.8	598.8	598.8	598.8	598.8	598.8	598.8



TEST NUMBER: P303128

CATALOG NUMBER: CTW-F-5050-20L930-UNV-STD-8

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	647.1	647.1	647.1	647.1	647.1	647.1	647.1	647.1
2.5°	648.8	647.1	645.4	645.4	643.8	643.8	643.8	643.8
5°	645.4	643.8	643.8	642.1	642.1	642.1	643.8	643.8
7.5°	642.1	638.8	638.8	637.1	637.1	637.1	638.8	638.8
10°	633.8	633.8	632.1	630.5	630.5	630.5	630.5	632.1
12.5°	625.5	623.8	623.8	620.5	620.5	622.1	622.1	623.8
15°	615.5	613.8	612.2	612.2	612.2	612.2	612.2	613.8
17.5°	603.8	602.2	600.5	598.8	598.8	600.5	600.5	600.5
20°	588.9	585.5	585.5	583.9	583.9	583.9	585.5	585.5
22.5°	572.2	568.9	568.9	567.2	567.2	568.9	568.9	568.9
25°	555.6	553.9	552.3	550.6	550.6	550.6	552.3	552.3
27.5°	539.0	535.6	535.6	534.0	534.0	534.0	534.0	534.0
30°	520.7	517.3	515.7	515.7	514.0	514.0	515.7	515.7
32.5°	499.0	497.4	495.7	495.7	494.0	495.7	495.7	495.7
35°	479.1	475.8	475.8	475.8	474.1	475.8	474.1	474.1
37.5°	459.1	454.1	454.1	454.1	454.1	454.1	454.1	454.1
40°	434.2	430.8	430.8	429.2	429.2	429.2	429.2	429.2
42.5°	412.5	409.2	409.2	407.5	407.5	407.5	407.5	407.5
45°	390.9	387.6	387.6	387.6	385.9	385.9	385.9	384.3
47.5°	367.6	366.0	366.0	364.3	364.3	364.3	364.3	364.3
50°	346.0	344.3	344.3	342.7	344.3	342.7	342.7	342.7
52.5°	322.7	322.7	321.0	321.0	321.0	319.4	319.4	319.4
55°	301.1	299.4	299.4	297.8	299.4	297.8	297.8	297.8
57.5°	277.8	277.8	277.8	276.1	276.1	274.5	274.5	274.5
60°	254.5	254.5	254.5	252.8	254.5	252.8	252.8	252.8
62.5°	232.9	232.9	231.2	231.2	231.2	229.6	229.6	229.6
65°	209.6	207.9	207.9	209.6	207.9	207.9	207.9	207.9
67.5°	188.0	188.0	186.3	186.3	186.3	184.6	184.6	184.6
70°	164.7	164.7	163.0	163.0	163.0	161.4	163.0	161.4
72.5°	141.4	141.4	139.7	141.4	139.7	138.1	139.7	139.7
75°	118.1	118.1	118.1	118.1	118.1	116.4	116.4	116.4
77.5°	96.5	96.5	94.8	94.8	94.8	94.8	94.8	93.2
80°	73.2	73.2	71.5	71.5	71.5	71.5	71.5	69.9
82.5°	51.6	49.9	49.9	49.9	49.9	48.2	48.2	48.2
85°	28.3	28.3	28.3	28.3	26.6	28.3	26.6	26.6
87.5°	10.0	10.0	10.0	8.3	8.3	10.0	10.0	8.3
90°	1.7	1.7	3.3	3.3	3.3	3.3	3.3	3.3
92.5°	8.3	8.3	8.3	6.7	6.7	6.7	6.7	6.7
95°	21.6	21.6	21.6	20.0	20.0	21.6	20.0	20.0
97.5°	34.9	34.9	34.9	34.9	33.3	34.9	33.3	33.3
100°	44.9	46.6	46.6	46.6	46.6	46.6	46.6	48.2
102.5°	53.2	53.2	53.2	53.2	54.9	54.9	54.9	54.9
105°	61.5	61.5	61.5	63.2	63.2	64.9	64.9	64.9
107.5°	73.2	73.2	73.2	73.2	74.9	74.9	74.9	74.9
110°	89.8	89.8	88.2	88.2	86.5	86.5	86.5	86.5



TEST NUMBER: P303128

CATALOG NUMBER: CTW-F-5050-20L930-UNV-STD-8

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
112.5°	103.1	104.8	104.8	104.8	104.8	104.8	104.8	104.8
115°	111.5	114.8	114.8	116.4	116.4	118.1	118.1	118.1
117.5°	119.8	123.1	123.1	124.8	124.8	126.4	128.1	128.1
120°	129.8	131.4	131.4	133.1	133.1	134.7	134.7	134.7
122.5°	139.7	139.7	139.7	141.4	141.4	141.4	143.1	143.1
125°	153.0	151.4	151.4	149.7	149.7	149.7	149.7	151.4
127.5°	171.3	166.3	164.7	164.7	163.0	161.4	161.4	159.7
130°	191.3	188.0	184.6	183.0	179.7	178.0	176.3	176.3
132.5°	217.9	211.3	207.9	204.6	201.3	198.0	198.0	196.3
135°	246.2	237.9	236.2	231.2	227.9	224.6	221.2	221.2
137.5°	271.1	264.5	262.8	259.5	256.2	251.2	251.2	247.9
140°	297.8	291.1	287.8	284.5	281.1	277.8	277.8	277.8
142.5°	324.4	317.7	314.4	311.1	307.7	304.4	302.8	304.4
145°	351.0	344.3	341.0	337.7	334.4	331.0	329.4	327.7
147.5°	375.9	369.3	366.0	364.3	361.0	357.6	356.0	354.3
150°	400.9	394.2	392.6	389.3	385.9	382.6	380.9	380.9
152.5°	424.2	419.2	415.9	412.5	410.9	407.5	405.9	405.9
155°	449.1	444.1	440.8	439.2	435.8	432.5	432.5	429.2
157.5°	470.8	465.8	462.4	460.8	457.5	455.8	455.8	455.8
160°	490.7	485.7	484.1	480.7	477.4	477.4	477.4	477.4
162.5°	509.0	505.7	504.0	500.7	497.4	497.4	497.4	495.7
165°	525.7	522.3	520.7	517.3	515.7	515.7	515.7	515.7
167.5°	542.3	537.3	535.6	534.0	532.3	532.3	532.3	532.3
170°	555.6	552.3	550.6	548.9	547.3	547.3	547.3	547.3
172.5°	568.9	567.2	565.6	562.3	562.3	562.3	563.9	562.3
175°	580.5	578.9	577.2	575.6	573.9	575.6	575.6	575.6
177.5°	590.5	588.9	588.9	587.2	585.5	583.9	585.5	583.9
180°	598.8	598.8	598.8	598.8	598.8	598.8	598.8	598.8

(END OF REPORT)