

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: P303125

Luminaire Tested: **CTW-F-5050-20L830-UNV-STD-8**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P303125
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-5050-20L830-UNV-STD-8
Description: CORELITE CONTINUA LINEAR WALL LED LUMINAIRE
50% UPLIGHT, 50% DOWNLIGHT, 2000 LUMEN PACKAGE
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

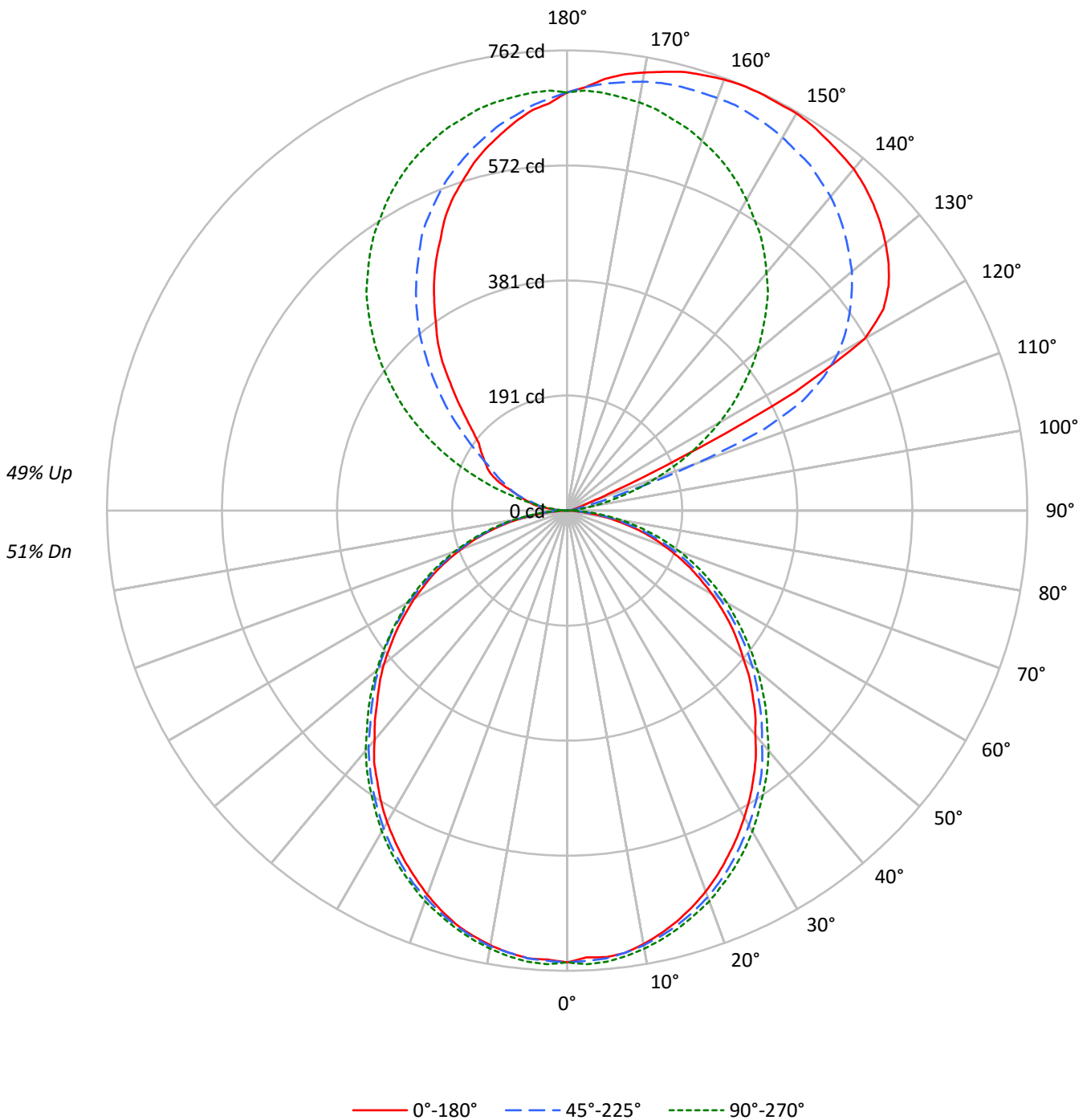
Lumens per Lamp: N/A
Luminaire Lumens: 3938.0 lumens
Efficiency: N/A
Efficacy: 126.6 lumens/watt
Spacing Criteria (0/90/45): 1.18 / 1.22 / 1.31
Luminous Opening: Rectangular (W 8' x L: 0.12' x H: 0')
CIE Type: General Diffuse

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°	8052	8052	8052
5°	8021	8104	8041
10°	7966	8050	7988
15°	7843	7972	7908
20°	7688	7887	7754
25°	7492	7765	7583
30°	7290	7625	7410
35°	7076	7455	7202
40°	6809	7295	6972
45°	6616	7085	6762
50°	6377	6891	6635
55°	6208	6713	6459
60°	5961	6583	6293
65°	5731	6416	6123
70°	5388	6235	5869
75°	4957	5997	5598
80°	4172	5604	5009
85°	2371	4989	3804



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	70.6	1.8
10°-20°	199.9	5.1
20°-30°	296.2	7.5
30°-40°	347.2	8.8
40°-50°	349.3	8.9
50°-60°	311.5	7.9
60°-70°	239.1	6.1
70°-80°	142.2	3.6
80°-90°	38.5	1.0
90°-100°	18.3	0.5
100°-110°	81.7	2.1
110°-120°	232.9	5.9
120°-130°	343.1	8.7
130°-140°	370.0	9.4
140°-150°	352.3	8.9
150°-160°	289.9	7.4
160°-170°	189.6	4.8
170°-180°	65.7	1.7
0°-30°	566.7	14.4
0°-40°	913.9	23.2
0°-60°	1574.7	40.0
0°-90°	1994.5	50.6
90°-120°	332.9	8.5
90°-150°	1398.3	35.5
90°-180°	1944.0	49.4
0°-180°	3938.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	748	748	748	748	748	
5°	742	744	750	744	744	70
15°	704	710	715	712	710	198
25°	631	644	654	648	638	291
35°	538	556	567	562	548	337
45°	435	450	465	458	444	335
55°	331	346	358	356	344	295
65°	225	236	252	246	240	222
75°	119	129	144	138	135	126
85°	19	27	40	36	31	26
90°	2	2	0	2	4	1
95°	4	4	14	25	23	4
105°	19	48	92	69	75	23
115°	204	431	225	123	136	249
125°	650	571	352	198	175	576
135°	717	650	465	315	256	554
145°	750	700	558	436	379	471
155°	762	723	627	540	496	352
165°	752	727	671	617	596	213
175°	717	710	694	673	665	69
180°	692	692	692	692	692	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	748.1	748.1	748.1	748.1	748.1	748.1	748.1	748.1	748.1	748.1	748.1
2.5°	740.4	740.4	742.3	744.2	746.2	746.2	748.1	748.1	748.1	748.1	746.2
5°	742.3	740.4	742.3	742.3	742.3	742.3	744.2	746.2	746.2	746.2	744.2
7.5°	738.5	736.5	738.5	738.5	736.5	736.5	738.5	740.4	740.4	740.4	738.5
10°	728.8	726.9	728.8	728.8	728.8	728.8	730.8	730.8	732.7	732.7	730.8
12.5°	717.3	717.3	717.3	719.2	717.3	719.2	719.2	721.2	723.1	723.1	721.2
15°	703.8	703.8	705.8	707.7	705.8	707.7	707.7	709.6	709.6	711.5	709.6
17.5°	688.5	688.5	690.4	692.3	692.3	692.3	694.2	694.2	696.2	696.2	696.2
20°	671.2	671.2	671.2	675.0	675.0	675.0	675.0	676.9	680.8	680.8	680.8
22.5°	651.9	651.9	651.9	655.8	655.8	655.8	655.8	657.7	661.5	663.5	663.5
25°	630.8	630.8	630.8	634.6	634.6	634.6	634.6	638.5	642.3	642.3	644.2
27.5°	609.6	609.6	611.5	613.5	613.5	613.5	615.4	617.3	621.2	623.1	623.1
30°	586.5	586.5	586.5	590.4	590.4	592.3	592.3	596.2	598.1	601.9	601.9
32.5°	563.5	563.5	565.4	567.3	567.3	567.3	569.2	573.1	575.0	576.9	578.8
35°	538.5	538.5	540.4	542.3	544.2	544.2	544.2	548.1	550.0	553.8	555.8
37.5°	513.5	513.5	515.4	517.3	519.2	519.2	519.2	523.1	525.0	528.8	530.8
40°	484.6	484.6	484.6	488.5	488.5	490.4	490.4	492.3	496.2	500.0	501.9
42.5°	461.5	459.6	459.6	461.5	463.5	465.4	465.4	467.3	471.2	475.0	476.9
45°	434.6	434.6	434.6	436.5	438.5	438.5	440.4	442.3	444.2	450.0	450.0
47.5°	409.6	407.7	407.7	411.5	411.5	413.5	413.5	415.4	419.2	423.1	425.0
50°	380.8	382.7	382.7	384.6	386.5	386.5	388.5	388.5	392.3	396.2	400.0
52.5°	355.8	355.8	355.8	357.7	359.6	361.5	361.5	363.5	365.4	369.2	373.1
55°	330.8	330.8	330.8	332.7	332.7	334.6	334.6	336.5	338.5	342.3	346.2
57.5°	303.8	303.8	303.8	305.8	307.7	307.7	309.6	309.6	311.5	315.4	319.2
60°	276.9	276.9	276.9	278.8	280.8	280.8	282.7	282.7	284.6	288.5	292.3
62.5°	250.0	251.9	250.0	251.9	253.8	253.8	255.8	255.8	259.6	259.6	263.5
65°	225.0	225.0	225.0	225.0	226.9	226.9	226.9	230.8	230.8	234.6	236.5
67.5°	198.1	198.1	198.1	198.1	200.0	201.9	201.9	203.8	205.8	205.8	209.6
70°	171.2	173.1	173.1	171.2	173.1	175.0	175.0	176.9	178.8	178.8	182.7
72.5°	146.2	146.2	146.2	146.2	146.2	148.1	150.0	150.0	151.9	153.8	155.8
75°	119.2	119.2	121.2	119.2	119.2	121.2	123.1	125.0	125.0	126.9	128.8
77.5°	92.3	94.2	94.2	94.2	96.2	96.2	96.2	98.1	100.0	100.0	101.9
80°	67.3	69.2	69.2	69.2	71.2	69.2	71.2	73.1	73.1	75.0	76.9
82.5°	42.3	42.3	44.2	44.2	44.2	44.2	46.2	48.1	48.1	48.1	51.9
85°	19.2	19.2	21.2	21.2	21.2	21.2	23.1	23.1	25.0	25.0	26.9
87.5°	1.9	1.9	1.9	1.9	3.8	1.9	3.8	3.8	3.8	3.8	5.8
90°	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
92.5°	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
95°	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8
97.5°	5.8	5.8	5.8	5.8	5.8	5.8	7.7	7.7	7.7	7.7	9.6
100°	9.6	9.6	9.6	9.6	9.6	9.6	9.6	11.5	11.5	13.5	15.4
102.5°	13.5	13.5	13.5	13.5	15.4	15.4	15.4	17.3	17.3	21.2	25.0
105°	19.2	19.2	19.2	21.2	21.2	21.2	23.1	25.0	28.8	36.5	48.1
107.5°	26.9	28.8	28.8	28.8	32.7	32.7	36.5	42.3	51.9	75.0	105.8
110°	42.3	44.2	44.2	48.1	55.8	59.6	67.3	88.5	119.2	167.3	225.0



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
112.5°	82.7	86.5	90.4	101.9	123.1	138.5	159.6	209.6	265.4	328.8	353.8
115°	203.8	205.8	223.1	246.2	294.2	321.2	346.2	390.4	425.0	432.7	430.8
117.5°	425.0	434.6	444.2	459.6	480.8	490.4	501.9	511.5	503.8	494.2	478.8
120°	569.2	565.4	569.2	571.2	569.2	569.2	567.3	559.6	546.2	532.7	517.3
122.5°	621.2	619.2	617.3	615.4	607.7	605.8	601.9	590.4	576.9	561.5	546.2
125°	650.0	648.1	644.2	640.4	634.6	630.8	626.9	615.4	601.9	586.5	571.2
127.5°	671.2	669.2	665.4	661.5	655.8	651.9	646.2	636.5	623.1	609.6	594.2
130°	688.5	686.5	682.7	680.8	673.1	671.2	665.4	653.8	642.3	630.8	615.4
132.5°	703.8	701.9	698.1	696.2	690.4	686.5	682.7	671.2	657.7	646.2	632.7
135°	717.3	715.4	713.5	711.5	705.8	701.9	696.2	686.5	675.0	663.5	650.0
137.5°	728.8	726.9	725.0	721.2	717.3	713.5	707.7	698.1	690.4	678.8	665.4
140°	738.5	736.5	732.7	730.8	726.9	723.1	719.2	711.5	701.9	692.3	678.8
142.5°	744.2	744.2	740.4	740.4	734.6	730.8	726.9	719.2	713.5	703.8	688.5
145°	750.0	750.0	748.1	746.2	742.3	738.5	734.6	728.8	721.2	713.5	700.0
147.5°	755.8	753.8	753.8	751.9	748.1	744.2	742.3	736.5	728.8	721.2	705.8
150°	759.6	757.7	757.7	755.8	751.9	748.1	746.2	742.3	734.6	726.9	713.5
152.5°	759.6	759.6	761.5	757.7	753.8	751.9	750.0	744.2	740.4	730.8	719.2
155°	761.5	761.5	761.5	759.6	753.8	751.9	750.0	746.2	742.3	734.6	723.1
157.5°	761.5	761.5	761.5	759.6	753.8	751.9	750.0	748.1	744.2	736.5	726.9
160°	759.6	759.6	759.6	759.6	755.8	751.9	750.0	748.1	744.2	736.5	726.9
162.5°	755.8	755.8	755.8	755.8	751.9	750.0	748.1	746.2	744.2	734.6	726.9
165°	751.9	751.9	751.9	750.0	746.2	746.2	744.2	742.3	740.4	732.7	726.9
167.5°	744.2	744.2	744.2	742.3	738.5	738.5	738.5	736.5	734.6	728.8	725.0
170°	736.5	736.5	736.5	734.6	732.7	732.7	732.7	730.8	730.8	725.0	721.2
172.5°	728.8	728.8	728.8	726.9	723.1	723.1	723.1	725.0	723.1	719.2	715.4
175°	717.3	715.4	715.4	715.4	715.4	713.5	715.4	715.4	715.4	711.5	709.6
177.5°	701.9	701.9	701.9	703.8	703.8	703.8	703.8	705.8	705.8	703.8	701.9
180°	692.3	692.3	692.3	692.3	692.3	692.3	692.3	692.3	692.3	692.3	692.3



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CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	748.1	748.1	748.1	748.1	748.1	748.1	748.1	748.1	748.1	748.1	748.1
2.5°	744.2	746.2	744.2	744.2	744.2	744.2	744.2	746.2	750.0	751.9	750.0
5°	742.3	744.2	742.3	742.3	742.3	742.3	742.3	744.2	748.1	750.0	748.1
7.5°	736.5	738.5	736.5	736.5	736.5	736.5	736.5	738.5	744.2	744.2	744.2
10°	728.8	730.8	728.8	728.8	728.8	730.8	730.8	732.7	736.5	736.5	736.5
12.5°	719.2	721.2	719.2	719.2	721.2	721.2	719.2	723.1	726.9	726.9	726.9
15°	707.7	709.6	707.7	707.7	707.7	709.6	709.6	711.5	715.4	715.4	715.4
17.5°	692.3	694.2	694.2	694.2	696.2	696.2	696.2	698.1	701.9	701.9	701.9
20°	678.8	678.8	678.8	678.8	678.8	680.8	680.8	684.6	688.5	688.5	688.5
22.5°	661.5	661.5	663.5	661.5	663.5	665.4	663.5	667.3	671.2	671.2	671.2
25°	642.3	644.2	644.2	644.2	644.2	646.2	646.2	650.0	651.9	653.8	653.8
27.5°	623.1	623.1	625.0	625.0	625.0	626.9	626.9	630.8	634.6	634.6	634.6
30°	601.9	601.9	603.8	605.8	603.8	605.8	605.8	609.6	611.5	613.5	613.5
32.5°	578.8	578.8	582.7	582.7	582.7	584.6	584.6	586.5	590.4	590.4	592.3
35°	555.8	555.8	559.6	559.6	559.6	561.5	561.5	563.5	567.3	567.3	569.2
37.5°	530.8	532.7	534.6	536.5	534.6	536.5	536.5	540.4	542.3	544.2	544.2
40°	505.8	505.8	507.7	509.6	509.6	511.5	513.5	515.4	519.2	519.2	519.2
42.5°	476.9	478.8	480.8	482.7	482.7	484.6	486.5	486.5	488.5	490.4	490.4
45°	451.9	453.8	453.8	457.7	459.6	459.6	459.6	461.5	463.5	465.4	465.4
47.5°	426.9	428.8	430.8	434.6	432.7	432.7	434.6	434.6	436.5	438.5	440.4
50°	400.0	401.9	403.8	405.8	405.8	407.7	407.7	409.6	411.5	411.5	413.5
52.5°	373.1	375.0	378.8	378.8	380.8	380.8	382.7	382.7	384.6	384.6	386.5
55°	346.2	348.1	351.9	353.8	353.8	355.8	355.8	357.7	357.7	357.7	359.6
57.5°	319.2	321.2	325.0	326.9	326.9	328.8	328.8	330.8	330.8	330.8	332.7
60°	292.3	294.2	298.1	300.0	300.0	301.9	301.9	303.8	303.8	305.8	305.8
62.5°	267.3	267.3	271.2	273.1	273.1	273.1	275.0	276.9	276.9	278.8	280.8
65°	238.5	240.4	244.2	246.2	244.2	246.2	248.1	250.0	250.0	251.9	251.9
67.5°	211.5	213.5	217.3	217.3	217.3	219.2	221.2	223.1	223.1	225.0	225.0
70°	184.6	184.6	188.5	190.4	190.4	192.3	194.2	196.2	196.2	198.1	198.1
72.5°	155.8	157.7	161.5	163.5	165.4	165.4	167.3	167.3	171.2	171.2	171.2
75°	130.8	130.8	134.6	136.5	138.5	138.5	140.4	140.4	142.3	144.2	144.2
77.5°	103.8	105.8	107.7	109.6	111.5	111.5	113.5	113.5	115.4	117.3	117.3
80°	78.8	78.8	82.7	82.7	84.6	84.6	86.5	88.5	90.4	90.4	90.4
82.5°	51.9	53.8	57.7	57.7	59.6	59.6	61.5	61.5	63.5	63.5	65.4
85°	28.8	30.8	32.7	32.7	34.6	34.6	36.5	38.5	38.5	40.4	40.4
87.5°	5.8	9.6	9.6	11.5	11.5	13.5	13.5	15.4	17.3	17.3	17.3
90°	1.9	1.9	1.9	1.9	1.9	1.9	1.9	0.0	1.9	0.0	1.9
92.5°	1.9	1.9	1.9	3.8	3.8	3.8	5.8	5.8	5.8	5.8	7.7
95°	5.8	5.8	7.7	9.6	11.5	13.5	17.3	19.2	17.3	13.5	13.5
97.5°	9.6	13.5	17.3	25.0	28.8	32.7	38.5	36.5	32.7	26.9	25.0
100°	19.2	26.9	36.5	51.9	59.6	65.4	67.3	63.5	53.8	44.2	40.4
102.5°	34.6	51.9	75.0	100.0	105.8	107.7	103.8	94.2	80.8	67.3	57.7
105°	71.2	107.7	140.4	159.6	161.5	157.7	148.1	128.8	111.5	92.3	80.8
107.5°	153.8	201.9	221.2	223.1	217.3	207.7	188.5	167.3	146.2	125.0	107.7
110°	273.1	294.2	290.4	273.1	263.5	253.8	228.8	205.8	180.8	155.8	138.5



TEST NUMBER: P303125

CATALOG NUMBER: CTW-F-5050-20L830-UNV-STD-8

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
112.5°	363.5	357.7	340.4	317.3	305.8	294.2	269.2	244.2	213.5	190.4	171.2
115°	421.2	403.8	380.8	355.8	344.2	332.7	307.7	278.8	250.0	225.0	203.8
117.5°	461.5	440.4	417.3	392.3	378.8	367.3	340.4	311.5	284.6	257.7	238.5
120°	494.2	471.2	448.1	423.1	413.5	400.0	373.1	344.2	315.4	290.4	271.2
122.5°	525.0	501.9	476.9	455.8	442.3	430.8	401.9	375.0	348.1	323.1	303.8
125°	553.8	530.8	505.8	482.7	471.2	457.7	428.8	403.8	376.9	351.9	334.6
127.5°	575.0	555.8	534.6	511.5	498.1	484.6	455.8	430.8	405.8	382.7	363.5
130°	596.2	576.9	557.7	536.5	525.0	507.7	482.7	455.8	432.7	411.5	394.2
132.5°	613.5	598.1	576.9	557.7	544.2	530.8	505.8	480.8	459.6	438.5	421.2
135°	632.7	615.4	596.2	576.9	565.4	553.8	530.8	505.8	486.5	465.4	448.1
137.5°	648.1	630.8	613.5	594.2	582.7	571.2	551.9	528.8	509.6	492.3	473.1
140°	661.5	644.2	628.8	609.6	598.1	588.5	569.2	550.0	534.6	513.5	498.1
142.5°	673.1	655.8	642.3	623.1	611.5	603.8	586.5	567.3	553.8	536.5	523.1
145°	682.7	667.3	653.8	636.5	626.9	619.2	601.9	586.5	573.1	557.7	544.2
147.5°	694.2	676.9	665.4	648.1	640.4	632.7	617.3	601.9	590.4	575.0	563.5
150°	701.9	688.5	676.9	659.6	651.9	644.2	630.8	619.2	607.7	594.2	582.7
152.5°	707.7	696.2	684.6	669.2	663.5	657.7	644.2	632.7	623.1	611.5	600.0
155°	713.5	701.9	694.2	678.8	673.1	667.3	655.8	646.2	636.5	626.9	615.4
157.5°	717.3	707.7	700.0	686.5	682.7	676.9	667.3	657.7	650.0	640.4	630.8
160°	719.2	711.5	703.8	692.3	688.5	684.6	675.0	667.3	661.5	651.9	644.2
162.5°	719.2	713.5	705.8	696.2	692.3	688.5	682.7	675.0	671.2	663.5	655.8
165°	719.2	715.4	707.7	700.0	696.2	694.2	688.5	682.7	678.8	671.2	665.4
167.5°	717.3	713.5	707.7	701.9	700.0	696.2	692.3	686.5	684.6	680.8	673.1
170°	715.4	713.5	707.7	703.8	701.9	700.0	696.2	692.3	690.4	686.5	680.8
172.5°	711.5	711.5	707.7	703.8	701.9	700.0	696.2	694.2	694.2	690.4	686.5
175°	707.7	705.8	703.8	700.0	698.1	698.1	696.2	694.2	696.2	694.2	692.3
177.5°	698.1	700.0	696.2	696.2	694.2	694.2	694.2	694.2	696.2	696.2	694.2
180°	692.3	692.3	692.3	692.3	692.3	692.3	692.3	692.3	692.3	692.3	692.3



TEST NUMBER: P303125

CATALOG NUMBER: CTW-F-5050-20L830-UNV-STD-8

CANDELA DISTRIBUTION (continued):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	748.1	748.1	748.1	748.1	748.1	748.1	748.1	748.1	748.1	748.1	748.1
2.5°	750.0	748.1	746.2	746.2	746.2	742.3	742.3	744.2	746.2	750.0	746.2
5°	748.1	746.2	744.2	744.2	744.2	740.4	740.4	742.3	744.2	748.1	744.2
7.5°	742.3	742.3	738.5	738.5	738.5	734.6	734.6	736.5	738.5	742.3	738.5
10°	736.5	734.6	730.8	730.8	730.8	728.8	726.9	728.8	732.7	734.6	730.8
12.5°	726.9	725.0	723.1	721.2	721.2	717.3	717.3	719.2	723.1	725.0	723.1
15°	715.4	713.5	711.5	709.6	709.6	707.7	705.8	707.7	711.5	713.5	709.6
17.5°	701.9	700.0	698.1	696.2	696.2	694.2	692.3	694.2	698.1	698.1	696.2
20°	686.5	684.6	682.7	682.7	682.7	678.8	678.8	678.8	682.7	682.7	678.8
22.5°	671.2	669.2	665.4	665.4	665.4	663.5	661.5	663.5	667.3	663.5	661.5
25°	653.8	650.0	648.1	648.1	646.2	642.3	644.2	644.2	648.1	646.2	642.3
27.5°	634.6	632.7	630.8	628.8	626.9	625.0	625.0	625.0	628.8	625.0	623.1
30°	613.5	611.5	609.6	607.7	607.7	603.8	603.8	605.8	607.7	603.8	601.9
32.5°	590.4	588.5	586.5	586.5	584.6	582.7	582.7	582.7	584.6	580.8	578.8
35°	569.2	565.4	563.5	563.5	561.5	559.6	559.6	561.5	561.5	557.7	555.8
37.5°	544.2	542.3	540.4	538.5	538.5	536.5	536.5	536.5	536.5	532.7	530.8
40°	521.2	517.3	515.4	513.5	513.5	513.5	513.5	513.5	511.5	507.7	503.8
42.5°	490.4	488.5	486.5	486.5	484.6	484.6	484.6	484.6	482.7	480.8	478.8
45°	465.4	463.5	461.5	459.6	461.5	461.5	459.6	459.6	457.7	455.8	453.8
47.5°	440.4	438.5	436.5	434.6	436.5	436.5	434.6	434.6	432.7	432.7	428.8
50°	413.5	411.5	409.6	409.6	411.5	409.6	409.6	407.7	407.7	405.8	401.9
52.5°	388.5	386.5	382.7	382.7	384.6	384.6	382.7	380.8	380.8	380.8	376.9
55°	361.5	359.6	357.7	357.7	359.6	357.7	355.8	353.8	355.8	353.8	350.0
57.5°	334.6	332.7	330.8	330.8	332.7	330.8	328.8	328.8	326.9	326.9	325.0
60°	307.7	305.8	303.8	305.8	305.8	303.8	301.9	301.9	301.9	298.1	298.1
62.5°	280.8	276.9	276.9	276.9	278.8	276.9	275.0	275.0	273.1	271.2	271.2
65°	251.9	250.0	251.9	250.0	250.0	250.0	248.1	248.1	246.2	244.2	244.2
67.5°	225.0	223.1	225.0	223.1	223.1	223.1	223.1	221.2	219.2	219.2	217.3
70°	198.1	196.2	198.1	196.2	196.2	196.2	196.2	194.2	192.3	190.4	190.4
72.5°	171.2	169.2	169.2	169.2	169.2	169.2	167.3	167.3	165.4	165.4	165.4
75°	144.2	142.3	142.3	142.3	142.3	140.4	140.4	140.4	138.5	138.5	138.5
77.5°	117.3	115.4	117.3	117.3	115.4	115.4	115.4	115.4	113.5	111.5	111.5
80°	90.4	90.4	90.4	90.4	90.4	90.4	88.5	88.5	88.5	86.5	86.5
82.5°	65.4	65.4	65.4	65.4	63.5	63.5	63.5	63.5	61.5	59.6	59.6
85°	40.4	40.4	40.4	40.4	38.5	40.4	38.5	36.5	36.5	34.6	32.7
87.5°	19.2	19.2	17.3	15.4	15.4	15.4	13.5	15.4	13.5	11.5	11.5
90°	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
92.5°	9.6	11.5	13.5	13.5	13.5	11.5	11.5	11.5	11.5	11.5	9.6
95°	15.4	19.2	21.2	23.1	25.0	26.9	26.9	26.9	25.0	25.0	25.0
97.5°	25.0	26.9	28.8	28.8	30.8	32.7	36.5	38.5	40.4	42.3	40.4
100°	38.5	36.5	40.4	40.4	40.4	40.4	42.3	44.2	48.1	50.0	51.9
102.5°	53.8	50.0	50.0	51.9	51.9	53.8	53.8	53.8	55.8	57.7	59.6
105°	73.1	67.3	65.4	63.5	63.5	65.4	69.2	69.2	69.2	69.2	69.2
107.5°	96.2	88.5	80.8	78.8	76.9	78.8	80.8	84.6	86.5	86.5	84.6
110°	123.1	111.5	101.9	98.1	94.2	92.3	94.2	94.2	98.1	101.9	103.8



TEST NUMBER: P303125

CATALOG NUMBER: CTW-F-5050-20L830-UNV-STD-8

CANDELA DISTRIBUTION (continued):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
112.5°	153.8	136.5	123.1	121.2	115.4	109.6	107.7	107.7	109.6	111.5	115.4
115°	182.7	165.4	150.0	144.2	138.5	128.8	125.0	121.2	123.1	123.1	126.9
117.5°	217.3	196.2	178.8	171.2	163.5	151.9	142.3	138.5	136.5	136.5	136.5
120°	250.0	230.8	207.7	200.0	192.3	178.8	167.3	157.7	151.9	148.1	148.1
122.5°	280.8	261.5	240.4	230.8	221.2	207.7	194.2	180.8	173.1	165.4	161.5
125°	313.5	294.2	271.2	263.5	251.9	236.5	223.1	209.6	198.1	188.5	180.8
127.5°	344.2	325.0	301.9	292.3	284.6	269.2	251.9	238.5	225.0	215.4	203.8
130°	373.1	353.8	332.7	323.1	315.4	300.0	282.7	269.2	255.8	244.2	230.8
132.5°	401.9	382.7	363.5	353.8	344.2	330.8	313.5	300.0	284.6	273.1	263.5
135°	428.8	409.6	392.3	382.7	375.0	359.6	344.2	330.8	315.4	303.8	294.2
137.5°	455.8	436.5	419.2	409.6	401.9	388.5	375.0	361.5	346.2	334.6	323.1
140°	478.8	461.5	444.2	436.5	428.8	415.4	403.8	392.3	378.8	365.4	353.8
142.5°	503.8	486.5	471.2	461.5	453.8	440.4	428.8	419.2	407.7	394.2	384.6
145°	528.8	509.6	496.2	484.6	478.8	465.4	453.8	446.2	436.5	425.0	415.4
147.5°	548.1	532.7	521.2	513.5	503.8	490.4	478.8	471.2	463.5	451.9	444.2
150°	567.3	553.8	540.4	536.5	528.8	517.3	507.7	498.1	490.4	478.8	471.2
152.5°	588.5	573.1	563.5	555.8	550.0	538.5	528.8	523.1	519.2	505.8	500.0
155°	605.8	592.3	580.8	575.0	571.2	559.6	550.0	546.2	540.4	532.7	525.0
157.5°	621.2	609.6	598.1	592.3	590.4	578.8	571.2	565.4	561.5	555.8	548.1
160°	634.6	625.0	613.5	609.6	605.8	596.2	588.5	584.6	582.7	576.9	571.2
162.5°	648.1	638.5	628.8	625.0	621.2	613.5	605.8	601.9	600.0	596.2	590.4
165°	657.7	650.0	642.3	638.5	636.5	626.9	621.2	619.2	617.3	615.4	609.6
167.5°	669.2	661.5	653.8	651.9	648.1	642.3	636.5	634.6	632.7	632.7	626.9
170°	676.9	671.2	665.4	663.5	661.5	653.8	650.0	648.1	648.1	648.1	642.3
172.5°	684.6	680.8	673.1	673.1	671.2	665.4	661.5	661.5	659.6	661.5	655.8
175°	690.4	686.5	680.8	680.8	678.8	675.0	671.2	671.2	673.1	675.0	669.2
177.5°	694.2	690.4	686.5	686.5	684.6	682.7	678.8	680.8	682.7	684.6	680.8
180°	692.3	692.3	692.3	692.3	692.3	692.3	692.3	692.3	692.3	692.3	692.3



TEST NUMBER: P303125

CATALOG NUMBER: CTW-F-5050-20L830-UNV-STD-8

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	748.1	748.1	748.1	748.1	748.1	748.1	748.1	748.1
2.5°	750.0	748.1	746.2	746.2	744.2	744.2	744.2	744.2
5°	746.2	744.2	744.2	742.3	742.3	742.3	744.2	744.2
7.5°	742.3	738.5	738.5	736.5	736.5	736.5	738.5	738.5
10°	732.7	732.7	730.8	728.8	728.8	728.8	728.8	730.8
12.5°	723.1	721.2	721.2	717.3	717.3	719.2	719.2	721.2
15°	711.5	709.6	707.7	707.7	707.7	707.7	707.7	709.6
17.5°	698.1	696.2	694.2	692.3	692.3	694.2	694.2	694.2
20°	680.8	676.9	676.9	675.0	675.0	675.0	676.9	676.9
22.5°	661.5	657.7	657.7	655.8	655.8	657.7	657.7	657.7
25°	642.3	640.4	638.5	636.5	636.5	636.5	638.5	638.5
27.5°	623.1	619.2	619.2	617.3	617.3	617.3	617.3	617.3
30°	601.9	598.1	596.2	596.2	594.2	594.2	596.2	596.2
32.5°	576.9	575.0	573.1	573.1	571.2	573.1	573.1	573.1
35°	553.8	550.0	550.0	550.0	548.1	550.0	548.1	548.1
37.5°	530.8	525.0	525.0	525.0	525.0	525.0	525.0	525.0
40°	501.9	498.1	498.1	496.2	496.2	496.2	496.2	496.2
42.5°	476.9	473.1	473.1	471.2	471.2	471.2	471.2	471.2
45°	451.9	448.1	448.1	448.1	446.2	446.2	446.2	444.2
47.5°	425.0	423.1	423.1	421.2	421.2	421.2	421.2	421.2
50°	400.0	398.1	398.1	396.2	398.1	396.2	396.2	396.2
52.5°	373.1	373.1	371.2	371.2	371.2	369.2	369.2	369.2
55°	348.1	346.2	346.2	344.2	346.2	344.2	344.2	344.2
57.5°	321.2	321.2	321.2	319.2	319.2	317.3	317.3	317.3
60°	294.2	294.2	294.2	292.3	294.2	292.3	292.3	292.3
62.5°	269.2	269.2	267.3	267.3	267.3	265.4	265.4	265.4
65°	242.3	240.4	240.4	242.3	240.4	240.4	240.4	240.4
67.5°	217.3	217.3	215.4	215.4	215.4	213.5	213.5	213.5
70°	190.4	190.4	188.5	188.5	188.5	186.5	188.5	186.5
72.5°	163.5	163.5	161.5	163.5	161.5	159.6	161.5	161.5
75°	136.5	136.5	136.5	136.5	136.5	134.6	134.6	134.6
77.5°	111.5	111.5	109.6	109.6	109.6	109.6	109.6	107.7
80°	84.6	84.6	82.7	82.7	82.7	82.7	82.7	80.8
82.5°	59.6	57.7	57.7	57.7	57.7	55.8	55.8	55.8
85°	32.7	32.7	32.7	32.7	30.8	32.7	30.8	30.8
87.5°	11.5	11.5	11.5	9.6	9.6	11.5	11.5	9.6
90°	1.9	1.9	3.8	3.8	3.8	3.8	3.8	3.8
92.5°	9.6	9.6	9.6	7.7	7.7	7.7	7.7	7.7
95°	25.0	25.0	25.0	23.1	23.1	25.0	23.1	23.1
97.5°	40.4	40.4	40.4	40.4	38.5	40.4	38.5	38.5
100°	51.9	53.8	53.8	53.8	53.8	53.8	53.8	55.8
102.5°	61.5	61.5	61.5	61.5	63.5	63.5	63.5	63.5
105°	71.2	71.2	71.2	73.1	73.1	75.0	75.0	75.0
107.5°	84.6	84.6	84.6	84.6	86.5	86.5	86.5	86.5
110°	103.8	103.8	101.9	101.9	100.0	100.0	100.0	100.0



TEST NUMBER: P303125

CATALOG NUMBER: CTW-F-5050-20L830-UNV-STD-8

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
112.5°	119.2	121.2	121.2	121.2	121.2	121.2	121.2	121.2
115°	128.8	132.7	132.7	134.6	134.6	136.5	136.5	136.5
117.5°	138.5	142.3	142.3	144.2	144.2	146.2	148.1	148.1
120°	150.0	151.9	151.9	153.8	153.8	155.8	155.8	155.8
122.5°	161.5	161.5	161.5	163.5	163.5	163.5	165.4	165.4
125°	176.9	175.0	175.0	173.1	173.1	173.1	173.1	175.0
127.5°	198.1	192.3	190.4	190.4	188.5	186.5	186.5	184.6
130°	221.2	217.3	213.5	211.5	207.7	205.8	203.8	203.8
132.5°	251.9	244.2	240.4	236.5	232.7	228.8	228.8	226.9
135°	284.6	275.0	273.1	267.3	263.5	259.6	255.8	255.8
137.5°	313.5	305.8	303.8	300.0	296.2	290.4	290.4	286.5
140°	344.2	336.5	332.7	328.8	325.0	321.2	321.2	321.2
142.5°	375.0	367.3	363.5	359.6	355.8	351.9	350.0	351.9
145°	405.8	398.1	394.2	390.4	386.5	382.7	380.8	378.8
147.5°	434.6	426.9	423.1	421.2	417.3	413.5	411.5	409.6
150°	463.5	455.8	453.8	450.0	446.2	442.3	440.4	440.4
152.5°	490.4	484.6	480.8	476.9	475.0	471.2	469.2	469.2
155°	519.2	513.5	509.6	507.7	503.8	500.0	500.0	496.2
157.5°	544.2	538.5	534.6	532.7	528.8	526.9	526.9	526.9
160°	567.3	561.5	559.6	555.8	551.9	551.9	551.9	551.9
162.5°	588.5	584.6	582.7	578.8	575.0	575.0	575.0	573.1
165°	607.7	603.8	601.9	598.1	596.2	596.2	596.2	596.2
167.5°	626.9	621.2	619.2	617.3	615.4	615.4	615.4	615.4
170°	642.3	638.5	636.5	634.6	632.7	632.7	632.7	632.7
172.5°	657.7	655.8	653.8	650.0	650.0	650.0	651.9	650.0
175°	671.2	669.2	667.3	665.4	663.5	665.4	665.4	665.4
177.5°	682.7	680.8	680.8	678.8	676.9	675.0	676.9	675.0
180°	692.3	692.3	692.3	692.3	692.3	692.3	692.3	692.3

(END OF REPORT)