

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: P303127

Luminaire Tested: **CTW-F-5050-20L840-UNV-STD-8**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P303127
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-5050-20L840-UNV-STD-8
Description: CORELITE CONTINUA LINEAR WALL LED LUMINAIRE
50% UPLIGHT, 50% DOWNLIGHT, 2000 LUMEN PACKAGE
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

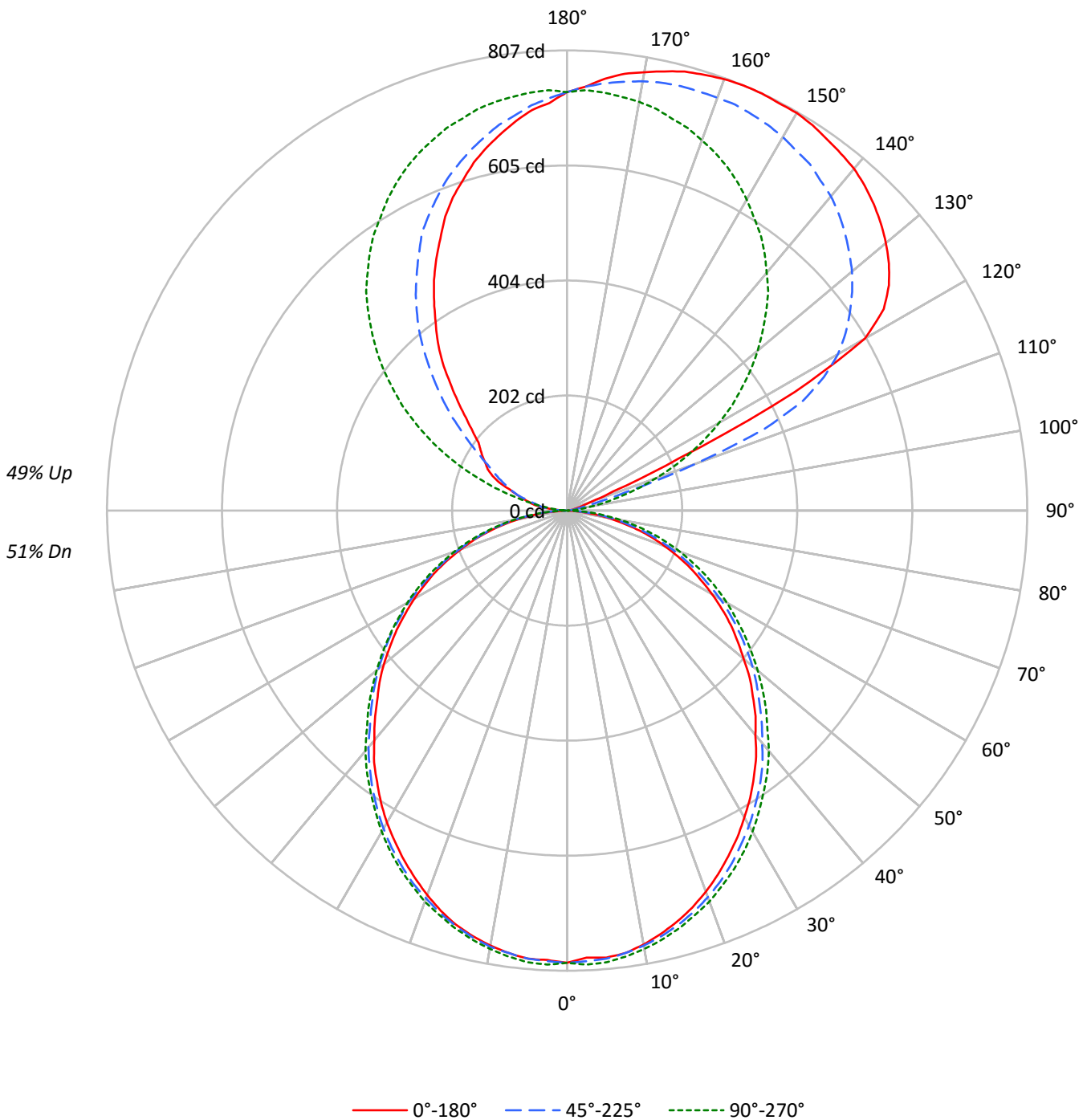
Lumens per Lamp: N/A
Luminaire Lumens: 4174.3 lumens
Efficiency: N/A
Efficacy: 134.2 lumens/watt
Spacing Criteria (0/90/45): 1.18 / 1.22 / 1.31
Luminous Opening: Rectangular (W 8' x L: 0.12' x H: 0')
CIE Type: General Diffuse

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°	8536	8536	8536
5°	8501	8590	8524
10°	8444	8533	8466
15°	8314	8450	8382
20°	8149	8360	8219
25°	7941	8232	8038
30°	7727	8083	7854
35°	7500	7901	7635
40°	7218	7734	7390
45°	7013	7509	7168
50°	6759	7304	7032
55°	6579	7116	6848
60°	6318	6977	6669
65°	6074	6800	6490
70°	5709	6609	6222
75°	5257	6359	5935
80°	4420	5938	5306
85°	2519	5286	4026



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	74.8	1.8
10°-20°	211.9	5.1
20°-30°	313.9	7.5
30°-40°	368.1	8.8
40°-50°	370.3	8.9
50°-60°	330.2	7.9
60°-70°	253.4	6.1
70°-80°	150.7	3.6
80°-90°	40.8	1.0
90°-100°	19.4	0.5
100°-110°	86.6	2.1
110°-120°	246.9	5.9
120°-130°	363.7	8.7
130°-140°	392.2	9.4
140°-150°	373.4	8.9
150°-160°	307.3	7.4
160°-170°	201.0	4.8
170°-180°	69.7	1.7
0°-30°	600.7	14.4
0°-40°	968.7	23.2
0°-60°	1669.2	40.0
0°-90°	2114.2	50.6
90°-120°	352.9	8.5
90°-150°	1482.2	35.5
90°-180°	2060.0	49.3
0°-180°	4174.3	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	793	793	793	793	793	
5°	787	789	795	789	789	75
15°	746	752	758	754	752	210
25°	669	683	693	687	677	308
35°	571	589	601	595	581	357
45°	461	477	493	485	471	356
55°	351	367	379	377	365	313
65°	238	251	267	261	255	235
75°	126	137	153	147	143	133
85°	20	28	43	39	33	28
90°	2	2	0	2	4	1
95°	4	4	14	26	24	4
105°	20	51	98	73	80	24
115°	216	457	238	130	145	264
125°	689	605	373	210	186	610
135°	760	689	493	334	271	587
145°	795	742	591	463	402	499
155°	807	766	664	573	526	373
165°	797	770	711	654	632	226
175°	760	752	736	714	705	73
180°	734	734	734	734	734	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	793.0	793.0	793.0	793.0	793.0	793.0	793.0	793.0	793.0	793.0	793.0
2.5°	784.8	784.8	786.8	788.9	790.9	790.9	793.0	793.0	793.0	793.0	790.9
5°	786.8	784.8	786.8	786.8	786.8	786.8	788.9	790.9	790.9	790.9	788.9
7.5°	782.8	780.7	782.8	782.8	780.7	780.7	782.8	784.8	784.8	784.8	782.8
10°	772.6	770.5	772.6	772.6	772.6	772.6	774.6	774.6	776.7	776.7	774.6
12.5°	760.3	760.3	760.3	762.4	760.3	762.4	762.4	764.4	766.5	766.5	764.4
15°	746.1	746.1	748.1	750.2	748.1	750.2	750.2	752.2	752.2	754.2	752.2
17.5°	729.8	729.8	731.8	733.8	733.8	733.8	735.9	735.9	737.9	737.9	737.9
20°	711.4	711.4	711.4	715.5	715.5	715.5	715.5	717.5	721.6	721.6	721.6
22.5°	691.0	691.0	691.0	695.1	695.1	695.1	695.1	697.2	701.2	703.3	703.3
25°	668.6	668.6	668.6	672.7	672.7	672.7	672.7	676.8	680.8	680.8	682.9
27.5°	646.2	646.2	648.2	650.3	650.3	650.3	652.3	654.3	658.4	660.5	660.5
30°	621.7	621.7	621.7	625.8	625.8	627.8	627.8	631.9	634.0	638.0	638.0
32.5°	597.3	597.3	599.3	601.3	601.3	601.3	603.4	607.5	609.5	611.5	613.6
35°	570.8	570.8	572.8	574.8	576.9	576.9	576.9	581.0	583.0	587.1	589.1
37.5°	544.3	544.3	546.3	548.3	550.4	550.4	550.4	554.5	556.5	560.6	562.6
40°	513.7	513.7	513.7	517.8	517.8	519.8	519.8	521.8	525.9	530.0	532.0
42.5°	489.2	487.2	487.2	489.2	491.3	493.3	493.3	495.3	499.4	503.5	505.5
45°	460.7	460.7	460.7	462.7	464.8	464.8	466.8	468.8	470.9	477.0	477.0
47.5°	434.2	432.2	432.2	436.2	436.2	438.3	438.3	440.3	444.4	448.5	450.5
50°	403.6	405.7	405.7	407.7	409.7	409.7	411.8	411.8	415.8	419.9	424.0
52.5°	377.1	377.1	377.1	379.2	381.2	383.2	383.2	385.3	387.3	391.4	395.5
55°	350.6	350.6	350.6	352.7	352.7	354.7	354.7	356.7	358.8	362.8	366.9
57.5°	322.1	322.1	322.1	324.1	326.2	326.2	328.2	328.2	330.2	334.3	338.4
60°	293.5	293.5	293.5	295.6	297.6	297.6	299.7	299.7	301.7	305.8	309.8
62.5°	265.0	267.0	265.0	267.0	269.1	269.1	271.1	271.1	275.2	275.2	279.3
65°	238.5	238.5	238.5	238.5	240.5	240.5	240.5	244.6	244.6	248.7	250.7
67.5°	210.0	210.0	210.0	210.0	212.0	214.0	214.0	216.1	218.1	218.1	222.2
70°	181.4	183.5	183.5	181.4	183.5	185.5	185.5	187.5	189.6	189.6	193.7
72.5°	154.9	154.9	154.9	154.9	154.9	157.0	159.0	159.0	161.0	163.1	165.1
75°	126.4	126.4	128.4	126.4	126.4	128.4	130.5	132.5	132.5	134.5	136.6
77.5°	97.8	99.9	99.9	99.9	101.9	101.9	101.9	104.0	106.0	106.0	108.0
80°	71.3	73.4	73.4	73.4	75.4	73.4	75.4	77.5	77.5	79.5	81.5
82.5°	44.8	44.8	46.9	46.9	46.9	46.9	48.9	51.0	51.0	51.0	55.0
85°	20.4	20.4	22.4	22.4	22.4	22.4	24.5	24.5	26.5	26.5	28.5
87.5°	2.0	2.0	2.0	2.0	4.1	2.0	4.1	4.1	4.1	4.1	6.1
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°	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
95°	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1
97.5°	6.1	6.1	6.1	6.1	6.1	6.1	8.2	8.2	8.2	8.2	10.2
100°	10.2	10.2	10.2	10.2	10.2	10.2	10.2	12.2	12.2	14.3	16.3
102.5°	14.3	14.3	14.3	14.3	16.3	16.3	16.3	18.3	18.3	22.4	26.5
105°	20.4	20.4	20.4	22.4	22.4	22.4	24.5	26.5	30.6	38.7	51.0
107.5°	28.5	30.6	30.6	30.6	34.7	34.7	38.7	44.8	55.0	79.5	112.1
110°	44.8	46.9	46.9	51.0	59.1	63.2	71.3	93.8	126.4	177.3	238.5



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
112.5°	87.7	91.7	95.8	108.0	130.5	146.8	169.2	222.2	281.3	348.6	375.1
115°	216.1	218.1	236.5	260.9	311.9	340.4	366.9	413.8	450.5	458.7	456.6
117.5°	450.5	460.7	470.9	487.2	509.6	519.8	532.0	542.2	534.1	523.9	507.6
120°	603.4	599.3	603.4	605.4	603.4	603.4	601.3	593.2	578.9	564.7	548.3
122.5°	658.4	656.4	654.3	652.3	644.2	642.1	638.0	625.8	611.5	595.2	578.9
125°	689.0	687.0	682.9	678.8	672.7	668.6	664.5	652.3	638.0	621.7	605.4
127.5°	711.4	709.4	705.3	701.2	695.1	691.0	684.9	674.7	660.5	646.2	629.9
130°	729.8	727.7	723.7	721.6	713.5	711.4	705.3	693.1	680.8	668.6	652.3
132.5°	746.1	744.0	740.0	737.9	731.8	727.7	723.7	711.4	697.2	684.9	670.7
135°	760.3	758.3	756.3	754.2	748.1	744.0	737.9	727.7	715.5	703.3	689.0
137.5°	772.6	770.5	768.5	764.4	760.3	756.3	750.2	740.0	731.8	719.6	705.3
140°	782.8	780.7	776.7	774.6	770.5	766.5	762.4	754.2	744.0	733.8	719.6
142.5°	788.9	788.9	784.8	784.8	778.7	774.6	770.5	762.4	756.3	746.1	729.8
145°	795.0	795.0	793.0	790.9	786.8	782.8	778.7	772.6	764.4	756.3	742.0
147.5°	801.1	799.1	799.1	797.0	793.0	788.9	786.8	780.7	772.6	764.4	748.1
150°	805.2	803.2	803.2	801.1	797.0	793.0	790.9	786.8	778.7	770.5	756.3
152.5°	805.2	805.2	807.2	803.2	799.1	797.0	795.0	788.9	784.8	774.6	762.4
155°	807.2	807.2	807.2	805.2	799.1	797.0	795.0	790.9	786.8	778.7	766.5
157.5°	807.2	807.2	807.2	805.2	799.1	797.0	795.0	793.0	788.9	780.7	770.5
160°	805.2	805.2	805.2	805.2	801.1	797.0	795.0	793.0	788.9	780.7	770.5
162.5°	801.1	801.1	801.1	801.1	797.0	795.0	793.0	790.9	788.9	778.7	770.5
165°	797.0	797.0	797.0	795.0	790.9	790.9	788.9	786.8	784.8	776.7	770.5
167.5°	788.9	788.9	788.9	786.8	782.8	782.8	782.8	780.7	778.7	772.6	768.5
170°	780.7	780.7	780.7	778.7	776.7	776.7	776.7	774.6	774.6	768.5	764.4
172.5°	772.6	772.6	772.6	770.5	766.5	766.5	766.5	768.5	766.5	762.4	758.3
175°	760.3	758.3	758.3	758.3	758.3	756.3	758.3	758.3	758.3	754.2	752.2
177.5°	744.0	744.0	744.0	746.1	746.1	746.1	746.1	748.1	748.1	746.1	744.0
180°	733.8	733.8	733.8	733.8	733.8	733.8	733.8	733.8	733.8	733.8	733.8



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CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	793.0	793.0	793.0	793.0	793.0	793.0	793.0	793.0	793.0	793.0	793.0
2.5°	788.9	790.9	788.9	788.9	788.9	788.9	788.9	790.9	795.0	797.0	795.0
5°	786.8	788.9	786.8	786.8	786.8	786.8	786.8	788.9	793.0	795.0	793.0
7.5°	780.7	782.8	780.7	780.7	780.7	780.7	780.7	782.8	788.9	788.9	788.9
10°	772.6	774.6	772.6	772.6	772.6	774.6	774.6	776.7	780.7	780.7	780.7
12.5°	762.4	764.4	762.4	762.4	764.4	764.4	762.4	766.5	770.5	770.5	770.5
15°	750.2	752.2	750.2	750.2	750.2	752.2	752.2	754.2	758.3	758.3	758.3
17.5°	733.8	735.9	735.9	735.9	737.9	737.9	737.9	740.0	744.0	744.0	744.0
20°	719.6	719.6	719.6	719.6	719.6	721.6	721.6	725.7	729.8	729.8	729.8
22.5°	701.2	701.2	703.3	701.2	703.3	705.3	703.3	707.3	711.4	711.4	711.4
25°	680.8	682.9	682.9	682.9	682.9	684.9	684.9	689.0	691.0	693.1	693.1
27.5°	660.5	660.5	662.5	662.5	662.5	664.5	664.5	668.6	672.7	672.7	672.7
30°	638.0	638.0	640.1	642.1	640.1	642.1	642.1	646.2	648.2	650.3	650.3
32.5°	613.6	613.6	617.7	617.7	617.7	619.7	619.7	621.7	625.8	625.8	627.8
35°	589.1	589.1	593.2	593.2	593.2	595.2	595.2	597.3	601.3	601.3	603.4
37.5°	562.6	564.7	566.7	568.7	566.7	568.7	568.7	572.8	574.8	576.9	576.9
40°	536.1	536.1	538.2	540.2	540.2	542.2	544.3	546.3	550.4	550.4	550.4
42.5°	505.5	507.6	509.6	511.7	511.7	513.7	515.7	515.7	517.8	519.8	519.8
45°	479.0	481.1	481.1	485.2	487.2	487.2	487.2	489.2	491.3	493.3	493.3
47.5°	452.5	454.6	456.6	460.7	458.7	458.7	460.7	460.7	462.7	464.8	466.8
50°	424.0	426.0	428.1	430.1	430.1	432.2	432.2	434.2	436.2	436.2	438.3
52.5°	395.5	397.5	401.6	401.6	403.6	403.6	405.7	405.7	407.7	407.7	409.7
55°	366.9	369.0	373.0	375.1	375.1	377.1	377.1	379.2	379.2	379.2	381.2
57.5°	338.4	340.4	344.5	346.5	346.5	348.6	348.6	350.6	350.6	350.6	352.7
60°	309.8	311.9	316.0	318.0	318.0	320.0	320.0	322.1	322.1	324.1	324.1
62.5°	283.3	283.3	287.4	289.5	289.5	289.5	291.5	293.5	293.5	295.6	297.6
65°	252.8	254.8	258.9	260.9	258.9	260.9	263.0	265.0	265.0	267.0	267.0
67.5°	224.2	226.3	230.3	230.3	230.3	232.4	234.4	236.5	236.5	238.5	238.5
70°	195.7	195.7	199.8	201.8	201.8	203.8	205.9	207.9	207.9	210.0	210.0
72.5°	165.1	167.2	171.2	173.3	175.3	175.3	177.3	177.3	181.4	181.4	181.4
75°	138.6	138.6	142.7	144.7	146.8	146.8	148.8	148.8	150.8	152.9	152.9
77.5°	110.1	112.1	114.2	116.2	118.2	118.2	120.3	120.3	122.3	124.3	124.3
80°	83.6	83.6	87.7	87.7	89.7	89.7	91.7	93.8	95.8	95.8	95.8
82.5°	55.0	57.1	61.2	61.2	63.2	63.2	65.2	65.2	67.3	67.3	69.3
85°	30.6	32.6	34.7	34.7	36.7	36.7	38.7	40.8	40.8	42.8	42.8
87.5°	6.1	10.2	10.2	12.2	12.2	14.3	14.3	16.3	18.3	18.3	18.3
90°	2.0	2.0	2.0	2.0	2.0	2.0	2.0	0.0	2.0	0.0	2.0
92.5°	2.0	2.0	2.0	4.1	4.1	4.1	6.1	6.1	6.1	6.1	8.2
95°	6.1	6.1	8.2	10.2	12.2	14.3	18.3	20.4	18.3	14.3	14.3
97.5°	10.2	14.3	18.3	26.5	30.6	34.7	40.8	38.7	34.7	28.5	26.5
100°	20.4	28.5	38.7	55.0	63.2	69.3	71.3	67.3	57.1	46.9	42.8
102.5°	36.7	55.0	79.5	106.0	112.1	114.2	110.1	99.9	85.6	71.3	61.2
105°	75.4	114.2	148.8	169.2	171.2	167.2	157.0	136.6	118.2	97.8	85.6
107.5°	163.1	214.0	234.4	236.5	230.3	220.2	199.8	177.3	154.9	132.5	114.2
110°	289.5	311.9	307.8	289.5	279.3	269.1	242.6	218.1	191.6	165.1	146.8



TEST NUMBER: P303127

CATALOG NUMBER: CTW-F-5050-20L840-UNV-STD-8

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
112.5°	385.3	379.2	360.8	336.3	324.1	311.9	285.4	258.9	226.3	201.8	181.4
115°	446.4	428.1	403.6	377.1	364.9	352.7	326.2	295.6	265.0	238.5	216.1
117.5°	489.2	466.8	442.3	415.8	401.6	389.3	360.8	330.2	301.7	273.2	252.8
120°	523.9	499.4	475.0	448.5	438.3	424.0	395.5	364.9	334.3	307.8	287.4
122.5°	556.5	532.0	505.5	483.1	468.8	456.6	426.0	397.5	369.0	342.5	322.1
125°	587.1	562.6	536.1	511.7	499.4	485.2	454.6	428.1	399.5	373.0	354.7
127.5°	609.5	589.1	566.7	542.2	528.0	513.7	483.1	456.6	430.1	405.7	385.3
130°	631.9	611.5	591.2	568.7	556.5	538.2	511.7	483.1	458.7	436.2	417.9
132.5°	650.3	634.0	611.5	591.2	576.9	562.6	536.1	509.6	487.2	464.8	446.4
135°	670.7	652.3	631.9	611.5	599.3	587.1	562.6	536.1	515.7	493.3	475.0
137.5°	687.0	668.6	650.3	629.9	617.7	605.4	585.0	560.6	540.2	521.8	501.5
140°	701.2	682.9	666.6	646.2	634.0	623.8	603.4	583.0	566.7	544.3	528.0
142.5°	713.5	695.1	680.8	660.5	648.2	640.1	621.7	601.3	587.1	568.7	554.5
145°	723.7	707.3	693.1	674.7	664.5	656.4	638.0	621.7	607.5	591.2	576.9
147.5°	735.9	717.5	705.3	687.0	678.8	670.7	654.3	638.0	625.8	609.5	597.3
150°	744.0	729.8	717.5	699.2	691.0	682.9	668.6	656.4	644.2	629.9	617.7
152.5°	750.2	737.9	725.7	709.4	703.3	697.2	682.9	670.7	660.5	648.2	636.0
155°	756.3	744.0	735.9	719.6	713.5	707.3	695.1	684.9	674.7	664.5	652.3
157.5°	760.3	750.2	742.0	727.7	723.7	717.5	707.3	697.2	689.0	678.8	668.6
160°	762.4	754.2	746.1	733.8	729.8	725.7	715.5	707.3	701.2	691.0	682.9
162.5°	762.4	756.3	748.1	737.9	733.8	729.8	723.7	715.5	711.4	703.3	695.1
165°	762.4	758.3	750.2	742.0	737.9	735.9	729.8	723.7	719.6	711.4	705.3
167.5°	760.3	756.3	750.2	744.0	742.0	737.9	733.8	727.7	725.7	721.6	713.5
170°	758.3	756.3	750.2	746.1	744.0	742.0	737.9	733.8	731.8	727.7	721.6
172.5°	754.2	754.2	750.2	746.1	744.0	742.0	737.9	735.9	735.9	731.8	727.7
175°	750.2	748.1	746.1	742.0	740.0	740.0	737.9	735.9	737.9	735.9	733.8
177.5°	740.0	742.0	737.9	737.9	735.9	735.9	735.9	735.9	737.9	737.9	735.9
180°	733.8	733.8	733.8	733.8	733.8	733.8	733.8	733.8	733.8	733.8	733.8



TEST NUMBER: P303127

CATALOG NUMBER: CTW-F-5050-20L840-UNV-STD-8

CANDELA DISTRIBUTION (continued):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	793.0	793.0	793.0	793.0	793.0	793.0	793.0	793.0	793.0	793.0	793.0
2.5°	795.0	793.0	790.9	790.9	790.9	786.8	786.8	788.9	790.9	795.0	790.9
5°	793.0	790.9	788.9	788.9	788.9	784.8	784.8	786.8	788.9	793.0	788.9
7.5°	786.8	786.8	782.8	782.8	782.8	778.7	778.7	780.7	782.8	786.8	782.8
10°	780.7	778.7	774.6	774.6	774.6	772.6	770.5	772.6	776.7	778.7	774.6
12.5°	770.5	768.5	766.5	764.4	764.4	760.3	760.3	762.4	766.5	768.5	766.5
15°	758.3	756.3	754.2	752.2	752.2	750.2	748.1	750.2	754.2	756.3	752.2
17.5°	744.0	742.0	740.0	737.9	737.9	735.9	733.8	735.9	740.0	740.0	737.9
20°	727.7	725.7	723.7	723.7	723.7	719.6	719.6	719.6	723.7	723.7	719.6
22.5°	711.4	709.4	705.3	705.3	705.3	703.3	701.2	703.3	707.3	703.3	701.2
25°	693.1	689.0	687.0	687.0	684.9	680.8	682.9	682.9	687.0	684.9	680.8
27.5°	672.7	670.7	668.6	666.6	664.5	662.5	662.5	662.5	666.6	662.5	660.5
30°	650.3	648.2	646.2	644.2	644.2	640.1	640.1	642.1	644.2	640.1	638.0
32.5°	625.8	623.8	621.7	621.7	619.7	617.7	617.7	617.7	619.7	615.6	613.6
35°	603.4	599.3	597.3	597.3	595.2	593.2	593.2	595.2	595.2	591.2	589.1
37.5°	576.9	574.8	572.8	570.8	570.8	568.7	568.7	568.7	568.7	564.7	562.6
40°	552.4	548.3	546.3	544.3	544.3	544.3	544.3	544.3	542.2	538.2	534.1
42.5°	519.8	517.8	515.7	515.7	513.7	513.7	513.7	513.7	511.7	509.6	507.6
45°	493.3	491.3	489.2	487.2	489.2	489.2	487.2	487.2	485.2	483.1	481.1
47.5°	466.8	464.8	462.7	460.7	462.7	462.7	460.7	460.7	458.7	458.7	454.6
50°	438.3	436.2	434.2	434.2	436.2	434.2	434.2	432.2	432.2	430.1	426.0
52.5°	411.8	409.7	405.7	405.7	407.7	407.7	405.7	403.6	403.6	403.6	399.5
55°	383.2	381.2	379.2	379.2	381.2	379.2	377.1	375.1	377.1	375.1	371.0
57.5°	354.7	352.7	350.6	350.6	352.7	350.6	348.6	348.6	346.5	346.5	344.5
60°	326.2	324.1	322.1	324.1	324.1	322.1	320.0	320.0	320.0	316.0	316.0
62.5°	297.6	293.5	293.5	293.5	295.6	293.5	291.5	291.5	289.5	287.4	287.4
65°	267.0	265.0	267.0	265.0	265.0	265.0	263.0	263.0	260.9	258.9	258.9
67.5°	238.5	236.5	238.5	236.5	236.5	236.5	236.5	234.4	232.4	232.4	230.3
70°	210.0	207.9	210.0	207.9	207.9	207.9	207.9	205.9	203.8	201.8	201.8
72.5°	181.4	179.4	179.4	179.4	179.4	179.4	177.3	177.3	175.3	175.3	175.3
75°	152.9	150.8	150.8	150.8	150.8	148.8	148.8	148.8	146.8	146.8	146.8
77.5°	124.3	122.3	124.3	124.3	122.3	122.3	122.3	122.3	120.3	118.2	118.2
80°	95.8	95.8	95.8	95.8	95.8	95.8	93.8	93.8	93.8	91.7	91.7
82.5°	69.3	69.3	69.3	69.3	67.3	67.3	67.3	67.3	65.2	63.2	63.2
85°	42.8	42.8	42.8	42.8	40.8	42.8	40.8	38.7	38.7	36.7	34.7
87.5°	20.4	20.4	18.3	16.3	16.3	16.3	14.3	16.3	14.3	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°	10.2	12.2	14.3	14.3	14.3	12.2	12.2	12.2	12.2	12.2	10.2
95°	16.3	20.4	22.4	24.5	26.5	28.5	28.5	28.5	26.5	26.5	26.5
97.5°	26.5	28.5	30.6	30.6	32.6	34.7	38.7	40.8	42.8	44.8	42.8
100°	40.8	38.7	42.8	42.8	42.8	42.8	44.8	46.9	51.0	53.0	55.0
102.5°	57.1	53.0	53.0	55.0	55.0	57.1	57.1	57.1	59.1	61.2	63.2
105°	77.5	71.3	69.3	67.3	67.3	69.3	73.4	73.4	73.4	73.4	73.4
107.5°	101.9	93.8	85.6	83.6	81.5	83.6	85.6	89.7	91.7	91.7	89.7
110°	130.5	118.2	108.0	104.0	99.9	97.8	99.9	99.9	104.0	108.0	110.1



TEST NUMBER: P303127

CATALOG NUMBER: CTW-F-5050-20L840-UNV-STD-8

CANDELA DISTRIBUTION (continued):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
112.5°	163.1	144.7	130.5	128.4	122.3	116.2	114.2	114.2	116.2	118.2	122.3
115°	193.7	175.3	159.0	152.9	146.8	136.6	132.5	128.4	130.5	130.5	134.5
117.5°	230.3	207.9	189.6	181.4	173.3	161.0	150.8	146.8	144.7	144.7	144.7
120°	265.0	244.6	220.2	212.0	203.8	189.6	177.3	167.2	161.0	157.0	157.0
122.5°	297.6	277.2	254.8	244.6	234.4	220.2	205.9	191.6	183.5	175.3	171.2
125°	332.3	311.9	287.4	279.3	267.0	250.7	236.5	222.2	210.0	199.8	191.6
127.5°	364.9	344.5	320.0	309.8	301.7	285.4	267.0	252.8	238.5	228.3	216.1
130°	395.5	375.1	352.7	342.5	334.3	318.0	299.7	285.4	271.1	258.9	244.6
132.5°	426.0	405.7	385.3	375.1	364.9	350.6	332.3	318.0	301.7	289.5	279.3
135°	454.6	434.2	415.8	405.7	397.5	381.2	364.9	350.6	334.3	322.1	311.9
137.5°	483.1	462.7	444.4	434.2	426.0	411.8	397.5	383.2	366.9	354.7	342.5
140°	507.6	489.2	470.9	462.7	454.6	440.3	428.1	415.8	401.6	387.3	375.1
142.5°	534.1	515.7	499.4	489.2	481.1	466.8	454.6	444.4	432.2	417.9	407.7
145°	560.6	540.2	525.9	513.7	507.6	493.3	481.1	472.9	462.7	450.5	440.3
147.5°	581.0	564.7	552.4	544.3	534.1	519.8	507.6	499.4	491.3	479.0	470.9
150°	601.3	587.1	572.8	568.7	560.6	548.3	538.2	528.0	519.8	507.6	499.4
152.5°	623.8	607.5	597.3	589.1	583.0	570.8	560.6	554.5	550.4	536.1	530.0
155°	642.1	627.8	615.6	609.5	605.4	593.2	583.0	578.9	572.8	564.7	556.5
157.5°	658.4	646.2	634.0	627.8	625.8	613.6	605.4	599.3	595.2	589.1	581.0
160°	672.7	662.5	650.3	646.2	642.1	631.9	623.8	619.7	617.7	611.5	605.4
162.5°	687.0	676.8	666.6	662.5	658.4	650.3	642.1	638.0	636.0	631.9	625.8
165°	697.2	689.0	680.8	676.8	674.7	664.5	658.4	656.4	654.3	652.3	646.2
167.5°	709.4	701.2	693.1	691.0	687.0	680.8	674.7	672.7	670.7	670.7	664.5
170°	717.5	711.4	705.3	703.3	701.2	693.1	689.0	687.0	687.0	687.0	680.8
172.5°	725.7	721.6	713.5	713.5	711.4	705.3	701.2	701.2	699.2	701.2	695.1
175°	731.8	727.7	721.6	721.6	719.6	715.5	711.4	711.4	713.5	715.5	709.4
177.5°	735.9	731.8	727.7	727.7	725.7	723.7	719.6	721.6	723.7	725.7	721.6
180°	733.8	733.8	733.8	733.8	733.8	733.8	733.8	733.8	733.8	733.8	733.8



TEST NUMBER: P303127

CATALOG NUMBER: CTW-F-5050-20L840-UNV-STD-8

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	793.0	793.0	793.0	793.0	793.0	793.0	793.0	793.0
2.5°	795.0	793.0	790.9	790.9	788.9	788.9	788.9	788.9
5°	790.9	788.9	788.9	786.8	786.8	786.8	788.9	788.9
7.5°	786.8	782.8	782.8	780.7	780.7	780.7	782.8	782.8
10°	776.7	776.7	774.6	772.6	772.6	772.6	772.6	774.6
12.5°	766.5	764.4	764.4	760.3	760.3	762.4	762.4	764.4
15°	754.2	752.2	750.2	750.2	750.2	750.2	750.2	752.2
17.5°	740.0	737.9	735.9	733.8	733.8	735.9	735.9	735.9
20°	721.6	717.5	717.5	715.5	715.5	715.5	717.5	717.5
22.5°	701.2	697.2	697.2	695.1	695.1	697.2	697.2	697.2
25°	680.8	678.8	676.8	674.7	674.7	674.7	676.8	676.8
27.5°	660.5	656.4	656.4	654.3	654.3	654.3	654.3	654.3
30°	638.0	634.0	631.9	631.9	629.9	629.9	631.9	631.9
32.5°	611.5	609.5	607.5	607.5	605.4	607.5	607.5	607.5
35°	587.1	583.0	583.0	583.0	581.0	583.0	581.0	581.0
37.5°	562.6	556.5	556.5	556.5	556.5	556.5	556.5	556.5
40°	532.0	528.0	528.0	525.9	525.9	525.9	525.9	525.9
42.5°	505.5	501.5	501.5	499.4	499.4	499.4	499.4	499.4
45°	479.0	475.0	475.0	475.0	472.9	472.9	472.9	470.9
47.5°	450.5	448.5	448.5	446.4	446.4	446.4	446.4	446.4
50°	424.0	422.0	422.0	419.9	422.0	419.9	419.9	419.9
52.5°	395.5	395.5	393.4	393.4	393.4	391.4	391.4	391.4
55°	369.0	366.9	366.9	364.9	366.9	364.9	364.9	364.9
57.5°	340.4	340.4	340.4	338.4	338.4	336.3	336.3	336.3
60°	311.9	311.9	311.9	309.8	311.9	309.8	309.8	309.8
62.5°	285.4	285.4	283.3	283.3	283.3	281.3	281.3	281.3
65°	256.8	254.8	254.8	256.8	254.8	254.8	254.8	254.8
67.5°	230.3	230.3	228.3	228.3	228.3	226.3	226.3	226.3
70°	201.8	201.8	199.8	199.8	199.8	197.7	199.8	197.7
72.5°	173.3	173.3	171.2	173.3	171.2	169.2	171.2	171.2
75°	144.7	144.7	144.7	144.7	144.7	142.7	142.7	142.7
77.5°	118.2	118.2	116.2	116.2	116.2	116.2	116.2	114.2
80°	89.7	89.7	87.7	87.7	87.7	87.7	87.7	85.6
82.5°	63.2	61.2	61.2	61.2	61.2	59.1	59.1	59.1
85°	34.7	34.7	34.7	34.7	32.6	34.7	32.6	32.6
87.5°	12.2	12.2	12.2	10.2	10.2	12.2	12.2	10.2
90°	2.0	2.0	4.1	4.1	4.1	4.1	4.1	4.1
92.5°	10.2	10.2	10.2	8.2	8.2	8.2	8.2	8.2
95°	26.5	26.5	26.5	24.5	24.5	26.5	24.5	24.5
97.5°	42.8	42.8	42.8	42.8	40.8	42.8	40.8	40.8
100°	55.0	57.1	57.1	57.1	57.1	57.1	57.1	59.1
102.5°	65.2	65.2	65.2	65.2	67.3	67.3	67.3	67.3
105°	75.4	75.4	75.4	77.5	77.5	79.5	79.5	79.5
107.5°	89.7	89.7	89.7	89.7	91.7	91.7	91.7	91.7
110°	110.1	110.1	108.0	108.0	106.0	106.0	106.0	106.0



TEST NUMBER: P303127

CATALOG NUMBER: CTW-F-5050-20L840-UNV-STD-8

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
112.5°	126.4	128.4	128.4	128.4	128.4	128.4	128.4	128.4
115°	136.6	140.7	140.7	142.7	142.7	144.7	144.7	144.7
117.5°	146.8	150.8	150.8	152.9	152.9	154.9	157.0	157.0
120°	159.0	161.0	161.0	163.1	163.1	165.1	165.1	165.1
122.5°	171.2	171.2	171.2	173.3	173.3	173.3	175.3	175.3
125°	187.5	185.5	185.5	183.5	183.5	183.5	183.5	185.5
127.5°	210.0	203.8	201.8	201.8	199.8	197.7	197.7	195.7
130°	234.4	230.3	226.3	224.2	220.2	218.1	216.1	216.1
132.5°	267.0	258.9	254.8	250.7	246.7	242.6	242.6	240.5
135°	301.7	291.5	289.5	283.3	279.3	275.2	271.1	271.1
137.5°	332.3	324.1	322.1	318.0	313.9	307.8	307.8	303.7
140°	364.9	356.7	352.7	348.6	344.5	340.4	340.4	340.4
142.5°	397.5	389.3	385.3	381.2	377.1	373.0	371.0	373.0
145°	430.1	422.0	417.9	413.8	409.7	405.7	403.6	401.6
147.5°	460.7	452.5	448.5	446.4	442.3	438.3	436.2	434.2
150°	491.3	483.1	481.1	477.0	472.9	468.8	466.8	466.8
152.5°	519.8	513.7	509.6	505.5	503.5	499.4	497.4	497.4
155°	550.4	544.3	540.2	538.2	534.1	530.0	530.0	525.9
157.5°	576.9	570.8	566.7	564.7	560.6	558.5	558.5	558.5
160°	601.3	595.2	593.2	589.1	585.0	585.0	585.0	585.0
162.5°	623.8	619.7	617.7	613.6	609.5	609.5	609.5	607.5
165°	644.2	640.1	638.0	634.0	631.9	631.9	631.9	631.9
167.5°	664.5	658.4	656.4	654.3	652.3	652.3	652.3	652.3
170°	680.8	676.8	674.7	672.7	670.7	670.7	670.7	670.7
172.5°	697.2	695.1	693.1	689.0	689.0	689.0	691.0	689.0
175°	711.4	709.4	707.3	705.3	703.3	705.3	705.3	705.3
177.5°	723.7	721.6	721.6	719.6	717.5	715.5	717.5	715.5
180°	733.8	733.8	733.8	733.8	733.8	733.8	733.8	733.8

(END OF REPORT)