

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: P303117

Luminaire Tested: **CTW-F-5050-20L935-UNV-STD-4**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P303117
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-5050-20L935-UNV-STD-4
Description: CORELITE CONTINUA LINEAR WALL LED LUMINAIRE
50% UPLIGHT, 50% DOWNLIGHT, 2000 LUMEN PACKAGE
Light Source: 3500K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

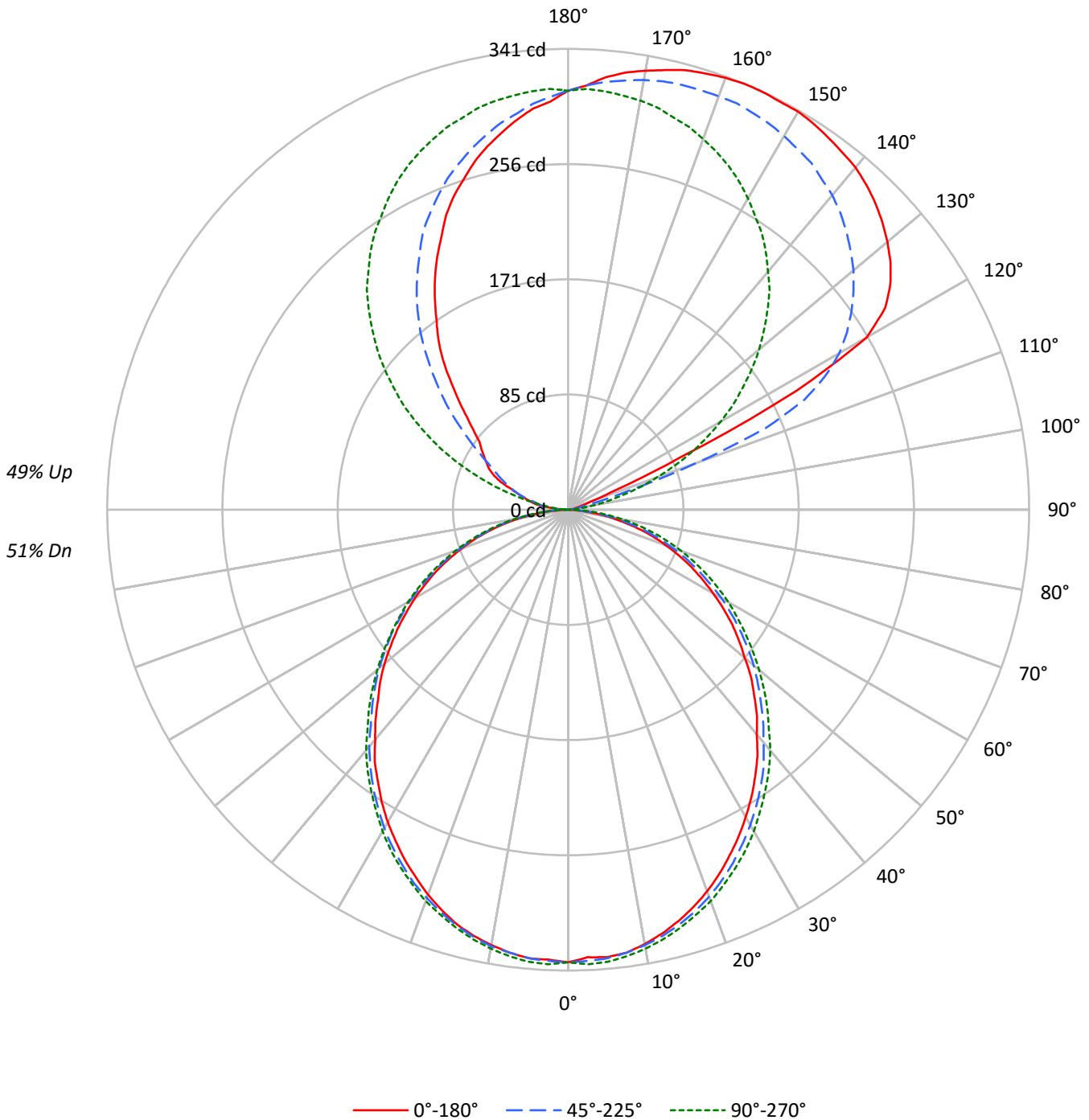
Lumens per Lamp: N/A
Luminaire Lumens: 1763.1 lumens
Efficiency: N/A
Efficacy: 103.1 lumens/watt
Spacing Criteria (0/90/45): 1.18 / 1.22 / 1.31
Luminous Opening: Rectangular (W 4' x L: 0.12' x H: 0')
CIE Type: General Diffuse

Input Watts (W): 17.1
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°	7210	7210	7210
5°	7181	7257	7200
10°	7133	7209	7153
15°	7023	7139	7081
20°	6884	7061	6944
25°	6708	6953	6791
30°	6528	6829	6635
35°	6336	6675	6449
40°	6098	6534	6242
45°	5925	6345	6056
50°	5710	6172	5941
55°	5559	6009	5784
60°	5339	5894	5636
65°	5130	5746	5481
70°	4821	5583	5256
75°	4442	5373	5016
80°	3732	5021	4488
85°	2124	4471	3409



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	31.6	1.8
10°-20°	89.5	5.1
20°-30°	132.6	7.5
30°-40°	155.5	8.8
40°-50°	156.4	8.9
50°-60°	139.5	7.9
60°-70°	107.0	6.1
70°-80°	63.7	3.6
80°-90°	17.2	1.0
90°-100°	8.2	0.5
100°-110°	36.6	2.1
110°-120°	104.3	5.9
120°-130°	153.6	8.7
130°-140°	165.7	9.4
140°-150°	157.7	8.9
150°-160°	129.8	7.4
160°-170°	84.9	4.8
170°-180°	29.4	1.7
0°-30°	253.7	14.4
0°-40°	409.2	23.2
0°-60°	705.0	40.0
0°-90°	893.0	50.6
90°-120°	149.1	8.5
90°-150°	626.0	35.5
90°-180°	870.0	49.3
0°-180°	1763.1	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	335	335	335	335	335	
5°	332	333	336	333	333	32
15°	315	318	320	319	318	89
25°	282	288	293	290	286	130
35°	241	249	254	251	245	151
45°	195	202	208	205	199	150
55°	148	155	160	159	154	132
65°	101	106	113	110	108	99
75°	53	58	65	62	60	56
85°	9	12	18	16	14	12
90°	1	1	0	1	2	0
95°	2	2	6	11	10	2
105°	9	22	41	31	34	10
115°	91	193	101	55	61	111
125°	291	256	158	89	78	258
135°	321	291	208	141	114	248
145°	336	313	250	195	170	211
155°	341	324	281	242	222	158
165°	337	326	300	276	267	95
175°	321	318	311	301	298	31
180°	310	310	310	310	310	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	334.9	334.9	334.9	334.9	334.9	334.9	334.9	334.9	334.9	334.9	334.9
2.5°	331.5	331.5	332.3	333.2	334.1	334.1	334.9	334.9	334.9	334.9	334.1
5°	332.3	331.5	332.3	332.3	332.3	332.3	333.2	334.1	334.1	334.1	333.2
7.5°	330.6	329.8	330.6	330.6	329.8	329.8	330.6	331.5	331.5	331.5	330.6
10°	326.3	325.5	326.3	326.3	326.3	326.3	327.2	327.2	328.0	328.0	327.2
12.5°	321.2	321.2	321.2	322.0	321.2	322.0	322.0	322.9	323.7	323.7	322.9
15°	315.1	315.1	316.0	316.8	316.0	316.8	316.8	317.7	317.7	318.6	317.7
17.5°	308.2	308.2	309.1	310.0	310.0	310.0	310.8	310.8	311.7	311.7	311.7
20°	300.5	300.5	300.5	302.2	302.2	302.2	302.2	303.1	304.8	304.8	304.8
22.5°	291.9	291.9	291.9	293.6	293.6	293.6	293.6	294.5	296.2	297.0	297.0
25°	282.4	282.4	282.4	284.1	284.1	284.1	284.1	285.9	287.6	287.6	288.4
27.5°	272.9	272.9	273.8	274.7	274.7	274.7	275.5	276.4	278.1	279.0	279.0
30°	262.6	262.6	262.6	264.3	264.3	265.2	265.2	266.9	267.8	269.5	269.5
32.5°	252.3	252.3	253.1	254.0	254.0	254.0	254.9	256.6	257.4	258.3	259.2
35°	241.1	241.1	241.9	242.8	243.7	243.7	243.7	245.4	246.2	248.0	248.8
37.5°	229.9	229.9	230.7	231.6	232.5	232.5	232.5	234.2	235.1	236.8	237.6
40°	217.0	217.0	217.0	218.7	218.7	219.6	219.6	220.4	222.1	223.9	224.7
42.5°	206.6	205.8	205.8	206.6	207.5	208.4	208.4	209.2	210.9	212.7	213.5
45°	194.6	194.6	194.6	195.4	196.3	196.3	197.2	198.0	198.9	201.5	201.5
47.5°	183.4	182.5	182.5	184.3	184.3	185.1	185.1	186.0	187.7	189.4	190.3
50°	170.5	171.3	171.3	172.2	173.1	173.1	173.9	173.9	175.6	177.4	179.1
52.5°	159.3	159.3	159.3	160.1	161.0	161.9	161.9	162.7	163.6	165.3	167.0
55°	148.1	148.1	148.1	149.0	149.0	149.8	149.8	150.7	151.5	153.3	155.0
57.5°	136.0	136.0	136.0	136.9	137.8	137.8	138.6	138.6	139.5	141.2	142.9
60°	124.0	124.0	124.0	124.8	125.7	125.7	126.6	126.6	127.4	129.2	130.9
62.5°	111.9	112.8	111.9	112.8	113.7	113.7	114.5	114.5	116.2	116.2	118.0
65°	100.7	100.7	100.7	100.7	101.6	101.6	101.6	103.3	103.3	105.0	105.9
67.5°	88.7	88.7	88.7	88.7	89.5	90.4	90.4	91.3	92.1	92.1	93.8
70°	76.6	77.5	77.5	76.6	77.5	78.4	78.4	79.2	80.1	80.1	81.8
72.5°	65.4	65.4	65.4	65.4	65.4	66.3	67.2	67.2	68.0	68.9	69.7
75°	53.4	53.4	54.2	53.4	53.4	54.2	55.1	56.0	56.0	56.8	57.7
77.5°	41.3	42.2	42.2	42.2	43.1	43.1	43.1	43.9	44.8	44.8	45.6
80°	30.1	31.0	31.0	31.0	31.9	31.0	31.9	32.7	32.7	33.6	34.4
82.5°	18.9	18.9	19.8	19.8	19.8	19.8	20.7	21.5	21.5	21.5	23.2
85°	8.6	8.6	9.5	9.5	9.5	9.5	10.3	10.3	11.2	11.2	12.1
87.5°	0.9	0.9	0.9	0.9	1.7	0.9	1.7	1.7	1.7	1.7	2.6
90°	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
92.5°	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
95°	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
97.5°	2.6	2.6	2.6	2.6	2.6	2.6	3.4	3.4	3.4	3.4	4.3
100°	4.3	4.3	4.3	4.3	4.3	4.3	4.3	5.2	5.2	6.0	6.9
102.5°	6.0	6.0	6.0	6.0	6.9	6.9	6.9	7.7	7.7	9.5	11.2
105°	8.6	8.6	8.6	9.5	9.5	9.5	10.3	11.2	12.9	16.4	21.5
107.5°	12.1	12.9	12.9	12.9	14.6	14.6	16.4	18.9	23.2	33.6	47.4
110°	18.9	19.8	19.8	21.5	25.0	26.7	30.1	39.6	53.4	74.9	100.7



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
112.5°	37.0	38.7	40.5	45.6	55.1	62.0	71.5	93.8	118.8	147.2	158.4
115°	91.3	92.1	99.9	110.2	131.7	143.8	155.0	174.8	190.3	193.7	192.9
117.5°	190.3	194.6	198.9	205.8	215.3	219.6	224.7	229.0	225.6	221.3	214.4
120°	254.9	253.1	254.9	255.7	254.9	254.9	254.0	250.6	244.5	238.5	231.6
122.5°	278.1	277.2	276.4	275.5	272.1	271.2	269.5	264.3	258.3	251.4	244.5
125°	291.0	290.2	288.4	286.7	284.1	282.4	280.7	275.5	269.5	262.6	255.7
127.5°	300.5	299.6	297.9	296.2	293.6	291.9	289.3	285.0	279.0	272.9	266.0
130°	308.2	307.4	305.7	304.8	301.4	300.5	297.9	292.7	287.6	282.4	275.5
132.5°	315.1	314.3	312.5	311.7	309.1	307.4	305.7	300.5	294.5	289.3	283.3
135°	321.2	320.3	319.4	318.6	316.0	314.3	311.7	307.4	302.2	297.0	291.0
137.5°	326.3	325.5	324.6	322.9	321.2	319.4	316.8	312.5	309.1	303.9	297.9
140°	330.6	329.8	328.0	327.2	325.5	323.7	322.0	318.6	314.3	310.0	303.9
142.5°	333.2	333.2	331.5	331.5	328.9	327.2	325.5	322.0	319.4	315.1	308.2
145°	335.8	335.8	334.9	334.1	332.3	330.6	328.9	326.3	322.9	319.4	313.4
147.5°	338.4	337.5	337.5	336.7	334.9	333.2	332.3	329.8	326.3	322.9	316.0
150°	340.1	339.2	339.2	338.4	336.7	334.9	334.1	332.3	328.9	325.5	319.4
152.5°	340.1	340.1	341.0	339.2	337.5	336.7	335.8	333.2	331.5	327.2	322.0
155°	341.0	341.0	341.0	340.1	337.5	336.7	335.8	334.1	332.3	328.9	323.7
157.5°	341.0	341.0	341.0	340.1	337.5	336.7	335.8	334.9	333.2	329.8	325.5
160°	340.1	340.1	340.1	340.1	338.4	336.7	335.8	334.9	333.2	329.8	325.5
162.5°	338.4	338.4	338.4	338.4	336.7	335.8	334.9	334.1	333.2	328.9	325.5
165°	336.7	336.7	336.7	335.8	334.1	334.1	333.2	332.3	331.5	328.0	325.5
167.5°	333.2	333.2	333.2	332.3	330.6	330.6	330.6	329.8	328.9	326.3	324.6
170°	329.8	329.8	329.8	328.9	328.0	328.0	328.0	327.2	327.2	324.6	322.9
172.5°	326.3	326.3	326.3	325.5	323.7	323.7	323.7	324.6	323.7	322.0	320.3
175°	321.2	320.3	320.3	320.3	320.3	319.4	320.3	320.3	320.3	318.6	317.7
177.5°	314.3	314.3	314.3	315.1	315.1	315.1	315.1	316.0	316.0	315.1	314.3
180°	310.0	310.0	310.0	310.0	310.0	310.0	310.0	310.0	310.0	310.0	310.0



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CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	334.9	334.9	334.9	334.9	334.9	334.9	334.9	334.9	334.9	334.9	334.9
2.5°	333.2	334.1	333.2	333.2	333.2	333.2	333.2	334.1	335.8	336.7	335.8
5°	332.3	333.2	332.3	332.3	332.3	332.3	332.3	333.2	334.9	335.8	334.9
7.5°	329.8	330.6	329.8	329.8	329.8	329.8	329.8	330.6	333.2	333.2	333.2
10°	326.3	327.2	326.3	326.3	326.3	327.2	327.2	328.0	329.8	329.8	329.8
12.5°	322.0	322.9	322.0	322.0	322.9	322.9	322.0	323.7	325.5	325.5	325.5
15°	316.8	317.7	316.8	316.8	316.8	317.7	317.7	318.6	320.3	320.3	320.3
17.5°	310.0	310.8	310.8	310.8	311.7	311.7	311.7	312.5	314.3	314.3	314.3
20°	303.9	303.9	303.9	303.9	303.9	304.8	304.8	306.5	308.2	308.2	308.2
22.5°	296.2	296.2	297.0	296.2	297.0	297.9	297.0	298.8	300.5	300.5	300.5
25°	287.6	288.4	288.4	288.4	288.4	289.3	289.3	291.0	291.9	292.7	292.7
27.5°	279.0	279.0	279.8	279.8	279.8	280.7	280.7	282.4	284.1	284.1	284.1
30°	269.5	269.5	270.4	271.2	270.4	271.2	271.2	272.9	273.8	274.7	274.7
32.5°	259.2	259.2	260.9	260.9	260.9	261.7	261.7	262.6	264.3	264.3	265.2
35°	248.8	248.8	250.6	250.6	250.6	251.4	251.4	252.3	254.0	254.0	254.9
37.5°	237.6	238.5	239.4	240.2	239.4	240.2	240.2	241.9	242.8	243.7	243.7
40°	226.4	226.4	227.3	228.2	228.2	229.0	229.9	230.7	232.5	232.5	232.5
42.5°	213.5	214.4	215.3	216.1	216.1	217.0	217.8	217.8	218.7	219.6	219.6
45°	202.3	203.2	203.2	204.9	205.8	205.8	205.8	206.6	207.5	208.4	208.4
47.5°	191.1	192.0	192.9	194.6	193.7	193.7	194.6	194.6	195.4	196.3	197.2
50°	179.1	179.9	180.8	181.7	181.7	182.5	182.5	183.4	184.3	184.3	185.1
52.5°	167.0	167.9	169.6	169.6	170.5	170.5	171.3	171.3	172.2	172.2	173.1
55°	155.0	155.8	157.6	158.4	158.4	159.3	159.3	160.1	160.1	160.1	161.0
57.5°	142.9	143.8	145.5	146.4	146.4	147.2	147.2	148.1	148.1	148.1	149.0
60°	130.9	131.7	133.5	134.3	134.3	135.2	135.2	136.0	136.0	136.9	136.9
62.5°	119.7	119.7	121.4	122.3	122.3	122.3	123.1	124.0	124.0	124.8	125.7
65°	106.8	107.6	109.3	110.2	109.3	110.2	111.1	111.9	111.9	112.8	112.8
67.5°	94.7	95.6	97.3	97.3	97.3	98.2	99.0	99.9	99.9	100.7	100.7
70°	82.7	82.7	84.4	85.2	85.2	86.1	87.0	87.8	87.8	88.7	88.7
72.5°	69.7	70.6	72.3	73.2	74.0	74.0	74.9	74.9	76.6	76.6	76.6
75°	58.5	58.5	60.3	61.1	62.0	62.0	62.9	62.9	63.7	64.6	64.6
77.5°	46.5	47.4	48.2	49.1	49.9	49.9	50.8	50.8	51.7	52.5	52.5
80°	35.3	35.3	37.0	37.0	37.9	37.9	38.7	39.6	40.5	40.5	40.5
82.5°	23.2	24.1	25.8	25.8	26.7	26.7	27.6	27.6	28.4	28.4	29.3
85°	12.9	13.8	14.6	14.6	15.5	15.5	16.4	17.2	17.2	18.1	18.1
87.5°	2.6	4.3	4.3	5.2	5.2	6.0	6.0	6.9	7.7	7.7	7.7
90°	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.0	0.9	0.0	0.9
92.5°	0.9	0.9	0.9	1.7	1.7	1.7	2.6	2.6	2.6	2.6	3.4
95°	2.6	2.6	3.4	4.3	5.2	6.0	7.7	8.6	7.7	6.0	6.0
97.5°	4.3	6.0	7.7	11.2	12.9	14.6	17.2	16.4	14.6	12.1	11.2
100°	8.6	12.1	16.4	23.2	26.7	29.3	30.1	28.4	24.1	19.8	18.1
102.5°	15.5	23.2	33.6	44.8	47.4	48.2	46.5	42.2	36.2	30.1	25.8
105°	31.9	48.2	62.9	71.5	72.3	70.6	66.3	57.7	49.9	41.3	36.2
107.5°	68.9	90.4	99.0	99.9	97.3	93.0	84.4	74.9	65.4	56.0	48.2
110°	122.3	131.7	130.0	122.3	118.0	113.7	102.5	92.1	80.9	69.7	62.0



TEST NUMBER: P303117

CATALOG NUMBER: CTW-F-5050-20L935-UNV-STD-4

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
112.5°	162.7	160.1	152.4	142.1	136.9	131.7	120.5	109.3	95.6	85.2	76.6
115°	188.6	180.8	170.5	159.3	154.1	149.0	137.8	124.8	111.9	100.7	91.3
117.5°	206.6	197.2	186.8	175.6	169.6	164.5	152.4	139.5	127.4	115.4	106.8
120°	221.3	210.9	200.6	189.4	185.1	179.1	167.0	154.1	141.2	130.0	121.4
122.5°	235.1	224.7	213.5	204.1	198.0	192.9	179.9	167.9	155.8	144.6	136.0
125°	248.0	237.6	226.4	216.1	210.9	204.9	192.0	180.8	168.8	157.6	149.8
127.5°	257.4	248.8	239.4	229.0	223.0	217.0	204.1	192.9	181.7	171.3	162.7
130°	266.9	258.3	249.7	240.2	235.1	227.3	216.1	204.1	193.7	184.3	176.5
132.5°	274.7	267.8	258.3	249.7	243.7	237.6	226.4	215.3	205.8	196.3	188.6
135°	283.3	275.5	266.9	258.3	253.1	248.0	237.6	226.4	217.8	208.4	200.6
137.5°	290.2	282.4	274.7	266.0	260.9	255.7	247.1	236.8	228.2	220.4	211.8
140°	296.2	288.4	281.5	272.9	267.8	263.5	254.9	246.2	239.4	229.9	223.0
142.5°	301.4	293.6	287.6	279.0	273.8	270.4	262.6	254.0	248.0	240.2	234.2
145°	305.7	298.8	292.7	285.0	280.7	277.2	269.5	262.6	256.6	249.7	243.7
147.5°	310.8	303.1	297.9	290.2	286.7	283.3	276.4	269.5	264.3	257.4	252.3
150°	314.3	308.2	303.1	295.3	291.9	288.4	282.4	277.2	272.1	266.0	260.9
152.5°	316.8	311.7	306.5	299.6	297.0	294.5	288.4	283.3	279.0	273.8	268.6
155°	319.4	314.3	310.8	303.9	301.4	298.8	293.6	289.3	285.0	280.7	275.5
157.5°	321.2	316.8	313.4	307.4	305.7	303.1	298.8	294.5	291.0	286.7	282.4
160°	322.0	318.6	315.1	310.0	308.2	306.5	302.2	298.8	296.2	291.9	288.4
162.5°	322.0	319.4	316.0	311.7	310.0	308.2	305.7	302.2	300.5	297.0	293.6
165°	322.0	320.3	316.8	313.4	311.7	310.8	308.2	305.7	303.9	300.5	297.9
167.5°	321.2	319.4	316.8	314.3	313.4	311.7	310.0	307.4	306.5	304.8	301.4
170°	320.3	319.4	316.8	315.1	314.3	313.4	311.7	310.0	309.1	307.4	304.8
172.5°	318.6	318.6	316.8	315.1	314.3	313.4	311.7	310.8	310.8	309.1	307.4
175°	316.8	316.0	315.1	313.4	312.5	312.5	311.7	310.8	311.7	310.8	310.0
177.5°	312.5	313.4	311.7	311.7	310.8	310.8	310.8	310.8	311.7	311.7	310.8
180°	310.0	310.0	310.0	310.0	310.0	310.0	310.0	310.0	310.0	310.0	310.0



TEST NUMBER: P303117

CATALOG NUMBER: CTW-F-5050-20L935-UNV-STD-4

CANDELA DISTRIBUTION (continued):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	334.9	334.9	334.9	334.9	334.9	334.9	334.9	334.9	334.9	334.9	334.9
2.5°	335.8	334.9	334.1	334.1	334.1	332.3	332.3	333.2	334.1	335.8	334.1
5°	334.9	334.1	333.2	333.2	333.2	331.5	331.5	332.3	333.2	334.9	333.2
7.5°	332.3	332.3	330.6	330.6	330.6	328.9	328.9	329.8	330.6	332.3	330.6
10°	329.8	328.9	327.2	327.2	327.2	326.3	325.5	326.3	328.0	328.9	327.2
12.5°	325.5	324.6	323.7	322.9	322.9	321.2	321.2	322.0	323.7	324.6	323.7
15°	320.3	319.4	318.6	317.7	317.7	316.8	316.0	316.8	318.6	319.4	317.7
17.5°	314.3	313.4	312.5	311.7	311.7	310.8	310.0	310.8	312.5	312.5	311.7
20°	307.4	306.5	305.7	305.7	305.7	303.9	303.9	303.9	305.7	305.7	303.9
22.5°	300.5	299.6	297.9	297.9	297.9	297.0	296.2	297.0	298.8	297.0	296.2
25°	292.7	291.0	290.2	290.2	289.3	287.6	288.4	288.4	290.2	289.3	287.6
27.5°	284.1	283.3	282.4	281.5	280.7	279.8	279.8	279.8	281.5	279.8	279.0
30°	274.7	273.8	272.9	272.1	272.1	270.4	270.4	271.2	272.1	270.4	269.5
32.5°	264.3	263.5	262.6	262.6	261.7	260.9	260.9	260.9	261.7	260.0	259.2
35°	254.9	253.1	252.3	252.3	251.4	250.6	250.6	251.4	251.4	249.7	248.8
37.5°	243.7	242.8	241.9	241.1	241.1	240.2	240.2	240.2	240.2	238.5	237.6
40°	233.3	231.6	230.7	229.9	229.9	229.9	229.9	229.9	229.0	227.3	225.6
42.5°	219.6	218.7	217.8	217.8	217.0	217.0	217.0	217.0	216.1	215.3	214.4
45°	208.4	207.5	206.6	205.8	206.6	206.6	205.8	205.8	204.9	204.1	203.2
47.5°	197.2	196.3	195.4	194.6	195.4	195.4	194.6	194.6	193.7	193.7	192.0
50°	185.1	184.3	183.4	183.4	184.3	183.4	183.4	182.5	182.5	181.7	179.9
52.5°	173.9	173.1	171.3	171.3	172.2	172.2	171.3	170.5	170.5	170.5	168.8
55°	161.9	161.0	160.1	160.1	161.0	160.1	159.3	158.4	159.3	158.4	156.7
57.5°	149.8	149.0	148.1	148.1	149.0	148.1	147.2	147.2	146.4	146.4	145.5
60°	137.8	136.9	136.0	136.9	136.9	136.0	135.2	135.2	135.2	133.5	133.5
62.5°	125.7	124.0	124.0	124.0	124.8	124.0	123.1	123.1	122.3	121.4	121.4
65°	112.8	111.9	112.8	111.9	111.9	111.9	111.1	111.1	110.2	109.3	109.3
67.5°	100.7	99.9	100.7	99.9	99.9	99.9	99.9	99.0	98.2	98.2	97.3
70°	88.7	87.8	88.7	87.8	87.8	87.8	87.8	87.0	86.1	85.2	85.2
72.5°	76.6	75.8	75.8	75.8	75.8	75.8	74.9	74.9	74.0	74.0	74.0
75°	64.6	63.7	63.7	63.7	63.7	62.9	62.9	62.9	62.0	62.0	62.0
77.5°	52.5	51.7	52.5	52.5	51.7	51.7	51.7	51.7	50.8	49.9	49.9
80°	40.5	40.5	40.5	40.5	40.5	40.5	39.6	39.6	39.6	38.7	38.7
82.5°	29.3	29.3	29.3	29.3	28.4	28.4	28.4	28.4	27.6	26.7	26.7
85°	18.1	18.1	18.1	18.1	17.2	18.1	17.2	16.4	16.4	15.5	14.6
87.5°	8.6	8.6	7.7	6.9	6.9	6.9	6.0	6.9	6.0	5.2	5.2
90°	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
92.5°	4.3	5.2	6.0	6.0	6.0	5.2	5.2	5.2	5.2	5.2	4.3
95°	6.9	8.6	9.5	10.3	11.2	12.1	12.1	12.1	11.2	11.2	11.2
97.5°	11.2	12.1	12.9	12.9	13.8	14.6	16.4	17.2	18.1	18.9	18.1
100°	17.2	16.4	18.1	18.1	18.1	18.1	18.9	19.8	21.5	22.4	23.2
102.5°	24.1	22.4	22.4	23.2	23.2	24.1	24.1	24.1	25.0	25.8	26.7
105°	32.7	30.1	29.3	28.4	28.4	29.3	31.0	31.0	31.0	31.0	31.0
107.5°	43.1	39.6	36.2	35.3	34.4	35.3	36.2	37.9	38.7	38.7	37.9
110°	55.1	49.9	45.6	43.9	42.2	41.3	42.2	42.2	43.9	45.6	46.5



TEST NUMBER: P303117

CATALOG NUMBER: CTW-F-5050-20L935-UNV-STD-4

CANDELA DISTRIBUTION (continued):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
112.5°	68.9	61.1	55.1	54.2	51.7	49.1	48.2	48.2	49.1	49.9	51.7
115°	81.8	74.0	67.2	64.6	62.0	57.7	56.0	54.2	55.1	55.1	56.8
117.5°	97.3	87.8	80.1	76.6	73.2	68.0	63.7	62.0	61.1	61.1	61.1
120°	111.9	103.3	93.0	89.5	86.1	80.1	74.9	70.6	68.0	66.3	66.3
122.5°	125.7	117.1	107.6	103.3	99.0	93.0	87.0	80.9	77.5	74.0	72.3
125°	140.3	131.7	121.4	118.0	112.8	105.9	99.9	93.8	88.7	84.4	80.9
127.5°	154.1	145.5	135.2	130.9	127.4	120.5	112.8	106.8	100.7	96.4	91.3
130°	167.0	158.4	149.0	144.6	141.2	134.3	126.6	120.5	114.5	109.3	103.3
132.5°	179.9	171.3	162.7	158.4	154.1	148.1	140.3	134.3	127.4	122.3	118.0
135°	192.0	183.4	175.6	171.3	167.9	161.0	154.1	148.1	141.2	136.0	131.7
137.5°	204.1	195.4	187.7	183.4	179.9	173.9	167.9	161.9	155.0	149.8	144.6
140°	214.4	206.6	198.9	195.4	192.0	186.0	180.8	175.6	169.6	163.6	158.4
142.5°	225.6	217.8	210.9	206.6	203.2	197.2	192.0	187.7	182.5	176.5	172.2
145°	236.8	228.2	222.1	217.0	214.4	208.4	203.2	199.8	195.4	190.3	186.0
147.5°	245.4	238.5	233.3	229.9	225.6	219.6	214.4	210.9	207.5	202.3	198.9
150°	254.0	248.0	241.9	240.2	236.8	231.6	227.3	223.0	219.6	214.4	210.9
152.5°	263.5	256.6	252.3	248.8	246.2	241.1	236.8	234.2	232.5	226.4	223.9
155°	271.2	265.2	260.0	257.4	255.7	250.6	246.2	244.5	241.9	238.5	235.1
157.5°	278.1	272.9	267.8	265.2	264.3	259.2	255.7	253.1	251.4	248.8	245.4
160°	284.1	279.8	274.7	272.9	271.2	266.9	263.5	261.7	260.9	258.3	255.7
162.5°	290.2	285.9	281.5	279.8	278.1	274.7	271.2	269.5	268.6	266.9	264.3
165°	294.5	291.0	287.6	285.9	285.0	280.7	278.1	277.2	276.4	275.5	272.9
167.5°	299.6	296.2	292.7	291.9	290.2	287.6	285.0	284.1	283.3	283.3	280.7
170°	303.1	300.5	297.9	297.0	296.2	292.7	291.0	290.2	290.2	290.2	287.6
172.5°	306.5	304.8	301.4	301.4	300.5	297.9	296.2	296.2	295.3	296.2	293.6
175°	309.1	307.4	304.8	304.8	303.9	302.2	300.5	300.5	301.4	302.2	299.6
177.5°	310.8	309.1	307.4	307.4	306.5	305.7	303.9	304.8	305.7	306.5	304.8
180°	310.0	310.0	310.0	310.0	310.0	310.0	310.0	310.0	310.0	310.0	310.0



TEST NUMBER: P303117

CATALOG NUMBER: CTW-F-5050-20L935-UNV-STD-4

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	334.9	334.9	334.9	334.9	334.9	334.9	334.9	334.9
2.5°	335.8	334.9	334.1	334.1	333.2	333.2	333.2	333.2
5°	334.1	333.2	333.2	332.3	332.3	332.3	333.2	333.2
7.5°	332.3	330.6	330.6	329.8	329.8	329.8	330.6	330.6
10°	328.0	328.0	327.2	326.3	326.3	326.3	326.3	327.2
12.5°	323.7	322.9	322.9	321.2	321.2	322.0	322.0	322.9
15°	318.6	317.7	316.8	316.8	316.8	316.8	316.8	317.7
17.5°	312.5	311.7	310.8	310.0	310.0	310.8	310.8	310.8
20°	304.8	303.1	303.1	302.2	302.2	302.2	303.1	303.1
22.5°	296.2	294.5	294.5	293.6	293.6	294.5	294.5	294.5
25°	287.6	286.7	285.9	285.0	285.0	285.0	285.9	285.9
27.5°	279.0	277.2	277.2	276.4	276.4	276.4	276.4	276.4
30°	269.5	267.8	266.9	266.9	266.0	266.0	266.9	266.9
32.5°	258.3	257.4	256.6	256.6	255.7	256.6	256.6	256.6
35°	248.0	246.2	246.2	246.2	245.4	246.2	245.4	245.4
37.5°	237.6	235.1	235.1	235.1	235.1	235.1	235.1	235.1
40°	224.7	223.0	223.0	222.1	222.1	222.1	222.1	222.1
42.5°	213.5	211.8	211.8	210.9	210.9	210.9	210.9	210.9
45°	202.3	200.6	200.6	200.6	199.8	199.8	199.8	199.8
47.5°	190.3	189.4	189.4	188.6	188.6	188.6	188.6	188.6
50°	179.1	178.2	178.2	177.4	178.2	177.4	177.4	177.4
52.5°	167.0	167.0	166.2	166.2	166.2	165.3	165.3	165.3
55°	155.8	155.0	155.0	154.1	155.0	154.1	154.1	154.1
57.5°	143.8	143.8	143.8	142.9	142.9	142.1	142.1	142.1
60°	131.7	131.7	131.7	130.9	131.7	130.9	130.9	130.9
62.5°	120.5	120.5	119.7	119.7	119.7	118.8	118.8	118.8
65°	108.5	107.6	107.6	108.5	107.6	107.6	107.6	107.6
67.5°	97.3	97.3	96.4	96.4	96.4	95.6	95.6	95.6
70°	85.2	85.2	84.4	84.4	84.4	83.5	84.4	83.5
72.5°	73.2	73.2	72.3	73.2	72.3	71.5	72.3	72.3
75°	61.1	61.1	61.1	61.1	61.1	60.3	60.3	60.3
77.5°	49.9	49.9	49.1	49.1	49.1	49.1	49.1	48.2
80°	37.9	37.9	37.0	37.0	37.0	37.0	37.0	36.2
82.5°	26.7	25.8	25.8	25.8	25.8	25.0	25.0	25.0
85°	14.6	14.6	14.6	14.6	13.8	14.6	13.8	13.8
87.5°	5.2	5.2	5.2	4.3	4.3	5.2	5.2	4.3
90°	0.9	0.9	1.7	1.7	1.7	1.7	1.7	1.7
92.5°	4.3	4.3	4.3	3.4	3.4	3.4	3.4	3.4
95°	11.2	11.2	11.2	10.3	10.3	11.2	10.3	10.3
97.5°	18.1	18.1	18.1	18.1	17.2	18.1	17.2	17.2
100°	23.2	24.1	24.1	24.1	24.1	24.1	24.1	25.0
102.5°	27.6	27.6	27.6	27.6	28.4	28.4	28.4	28.4
105°	31.9	31.9	31.9	32.7	32.7	33.6	33.6	33.6
107.5°	37.9	37.9	37.9	37.9	38.7	38.7	38.7	38.7
110°	46.5	46.5	45.6	45.6	44.8	44.8	44.8	44.8



TEST NUMBER: P303117

CATALOG NUMBER: CTW-F-5050-20L935-UNV-STD-4

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
112.5°	53.4	54.2	54.2	54.2	54.2	54.2	54.2	54.2
115°	57.7	59.4	59.4	60.3	60.3	61.1	61.1	61.1
117.5°	62.0	63.7	63.7	64.6	64.6	65.4	66.3	66.3
120°	67.2	68.0	68.0	68.9	68.9	69.7	69.7	69.7
122.5°	72.3	72.3	72.3	73.2	73.2	73.2	74.0	74.0
125°	79.2	78.4	78.4	77.5	77.5	77.5	77.5	78.4
127.5°	88.7	86.1	85.2	85.2	84.4	83.5	83.5	82.7
130°	99.0	97.3	95.6	94.7	93.0	92.1	91.3	91.3
132.5°	112.8	109.3	107.6	105.9	104.2	102.5	102.5	101.6
135°	127.4	123.1	122.3	119.7	118.0	116.2	114.5	114.5
137.5°	140.3	136.9	136.0	134.3	132.6	130.0	130.0	128.3
140°	154.1	150.7	149.0	147.2	145.5	143.8	143.8	143.8
142.5°	167.9	164.5	162.7	161.0	159.3	157.6	156.7	157.6
145°	181.7	178.2	176.5	174.8	173.1	171.3	170.5	169.6
147.5°	194.6	191.1	189.4	188.6	186.8	185.1	184.3	183.4
150°	207.5	204.1	203.2	201.5	199.8	198.0	197.2	197.2
152.5°	219.6	217.0	215.3	213.5	212.7	210.9	210.1	210.1
155°	232.5	229.9	228.2	227.3	225.6	223.9	223.9	222.1
157.5°	243.7	241.1	239.4	238.5	236.8	235.9	235.9	235.9
160°	254.0	251.4	250.6	248.8	247.1	247.1	247.1	247.1
162.5°	263.5	261.7	260.9	259.2	257.4	257.4	257.4	256.6
165°	272.1	270.4	269.5	267.8	266.9	266.9	266.9	266.9
167.5°	280.7	278.1	277.2	276.4	275.5	275.5	275.5	275.5
170°	287.6	285.9	285.0	284.1	283.3	283.3	283.3	283.3
172.5°	294.5	293.6	292.7	291.0	291.0	291.0	291.9	291.0
175°	300.5	299.6	298.8	297.9	297.0	297.9	297.9	297.9
177.5°	305.7	304.8	304.8	303.9	303.1	302.2	303.1	302.2
180°	310.0	310.0	310.0	310.0	310.0	310.0	310.0	310.0

(END OF REPORT)