

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: P303116

Luminaire Tested: **CTW-F-5050-20L930-UNV-STD-4**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P303116
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-4
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

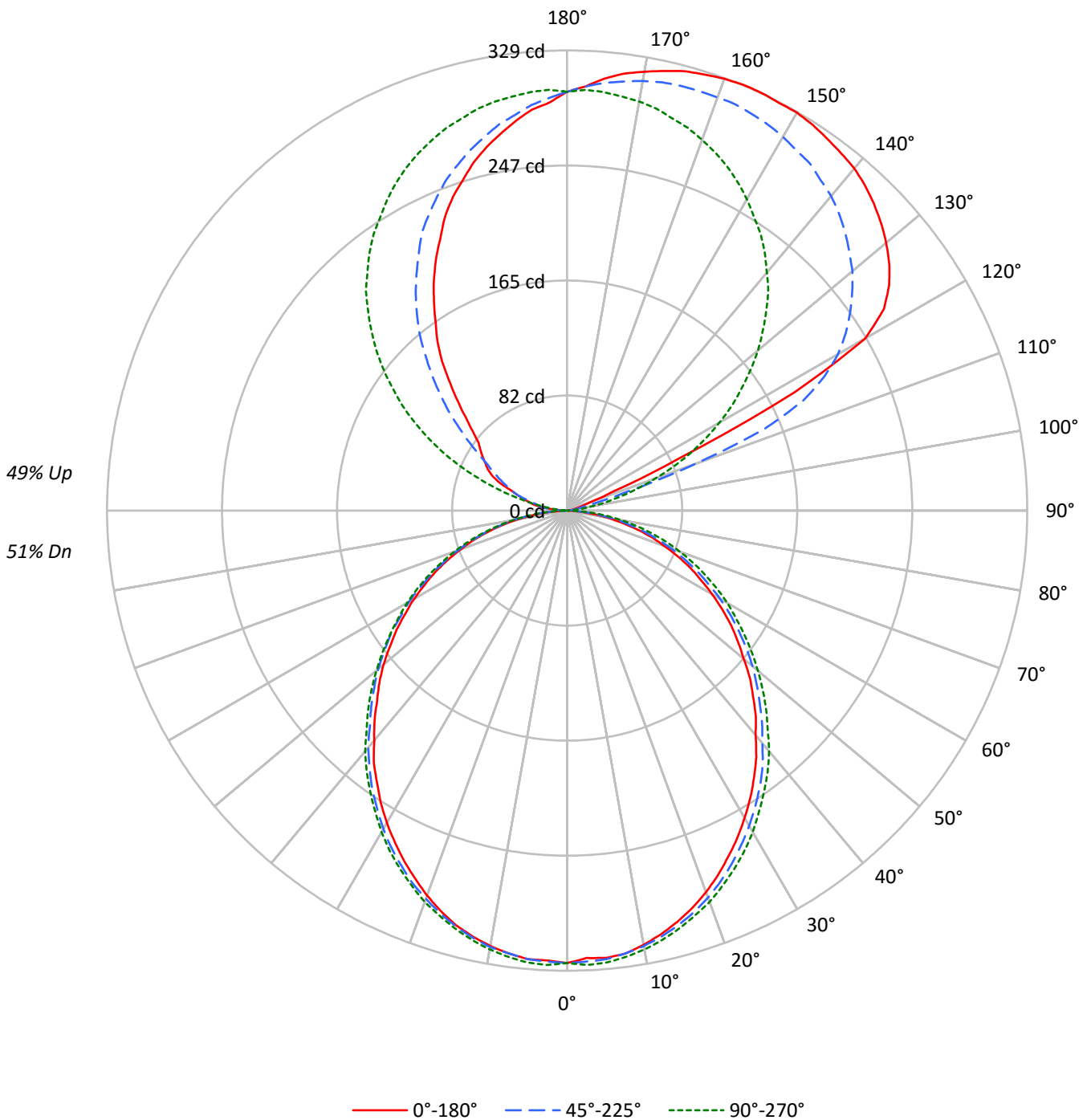
Lumens per Lamp: N/A
Luminaire Lumens: 1703.2 lumens
Efficiency: N/A
Efficacy: 99.6 lumens/watt
Spacing Criteria (0/90/45): 1.18 / 1.22 / 1.31
Luminous Opening: Rectangular (W 4' x L: 0.12' x H: 0')
CIE Type: General Diffuse

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°	6964	6964	6964
5°	6937	7010	6956
10°	6890	6965	6910
15°	6784	6896	6840
20°	6651	6822	6708
25°	6480	6717	6558
30°	6307	6595	6408
35°	6121	6449	6229
40°	5890	6312	6031
45°	5724	6129	5848
50°	5516	5961	5737
55°	5371	5806	5589
60°	5158	5692	5442
65°	4956	5552	5298
70°	4658	5394	5080
75°	4292	5190	4841
80°	3608	4847	4327
85°	2050	4323	3285



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	30.5	1.8
10°-20°	86.5	5.1
20°-30°	128.1	7.5
30°-40°	150.2	8.8
40°-50°	151.1	8.9
50°-60°	134.7	7.9
60°-70°	103.4	6.1
70°-80°	61.5	3.6
80°-90°	16.7	1.0
90°-100°	7.9	0.5
100°-110°	35.3	2.1
110°-120°	100.7	5.9
120°-130°	148.4	8.7
130°-140°	160.0	9.4
140°-150°	152.4	8.9
150°-160°	125.4	7.4
160°-170°	82.0	4.8
170°-180°	28.4	1.7
0°-30°	245.1	14.4
0°-40°	395.3	23.2
0°-60°	681.1	40.0
0°-90°	862.6	50.6
90°-120°	144.0	8.5
90°-150°	604.8	35.5
90°-180°	841.0	49.4
0°-180°	1703.2	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	324	324	324	324	324	
5°	321	322	324	322	322	30
15°	304	307	309	308	307	86
25°	273	279	283	280	276	126
35°	233	240	245	243	237	146
45°	188	195	201	198	192	145
55°	143	150	155	154	149	128
65°	97	102	109	106	104	96
75°	52	56	62	60	58	54
85°	8	12	18	16	13	11
90°	1	1	0	1	2	0
95°	2	2	6	11	10	2
105°	8	21	40	30	32	10
115°	88	186	97	53	59	108
125°	281	247	152	86	76	249
135°	310	281	201	136	111	240
145°	324	303	241	189	164	204
155°	329	313	271	234	215	152
165°	325	314	290	267	258	92
175°	310	307	300	291	288	30
180°	299	299	299	299	299	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	323.5	323.5	323.5	323.5	323.5	323.5	323.5	323.5	323.5	323.5	323.5
2.5°	320.2	320.2	321.0	321.9	322.7	322.7	323.5	323.5	323.5	323.5	322.7
5°	321.0	320.2	321.0	321.0	321.0	321.0	321.9	322.7	322.7	322.7	321.9
7.5°	319.4	318.6	319.4	319.4	318.6	318.6	319.4	320.2	320.2	320.2	319.4
10°	315.2	314.4	315.2	315.2	315.2	315.2	316.1	316.1	316.9	316.9	316.1
12.5°	310.2	310.2	310.2	311.1	310.2	311.1	311.1	311.9	312.7	312.7	311.9
15°	304.4	304.4	305.2	306.1	305.2	306.1	306.1	306.9	306.9	307.7	306.9
17.5°	297.8	297.8	298.6	299.4	299.4	299.4	300.3	300.3	301.1	301.1	301.1
20°	290.3	290.3	290.3	291.9	291.9	291.9	291.9	292.8	294.4	294.4	294.4
22.5°	282.0	282.0	282.0	283.6	283.6	283.6	283.6	284.5	286.1	286.9	286.9
25°	272.8	272.8	272.8	274.5	274.5	274.5	274.5	276.1	277.8	277.8	278.6
27.5°	263.7	263.7	264.5	265.3	265.3	265.3	266.2	267.0	268.6	269.5	269.5
30°	253.7	253.7	253.7	255.3	255.3	256.2	256.2	257.8	258.7	260.3	260.3
32.5°	243.7	243.7	244.5	245.4	245.4	245.4	246.2	247.9	248.7	249.5	250.4
35°	232.9	232.9	233.7	234.5	235.4	235.4	235.4	237.0	237.9	239.5	240.4
37.5°	222.1	222.1	222.9	223.7	224.6	224.6	224.6	226.2	227.1	228.7	229.6
40°	209.6	209.6	209.6	211.3	211.3	212.1	212.1	212.9	214.6	216.3	217.1
42.5°	199.6	198.8	198.8	199.6	200.4	201.3	201.3	202.1	203.8	205.4	206.3
45°	188.0	188.0	188.0	188.8	189.6	189.6	190.5	191.3	192.1	194.6	194.6
47.5°	177.2	176.3	176.3	178.0	178.0	178.8	178.8	179.7	181.3	183.0	183.8
50°	164.7	165.5	165.5	166.3	167.2	167.2	168.0	168.0	169.7	171.3	173.0
52.5°	153.9	153.9	153.9	154.7	155.5	156.4	156.4	157.2	158.0	159.7	161.4
55°	143.1	143.1	143.1	143.9	143.9	144.7	144.7	145.6	146.4	148.0	149.7
57.5°	131.4	131.4	131.4	132.2	133.1	133.1	133.9	133.9	134.7	136.4	138.1
60°	119.8	119.8	119.8	120.6	121.4	121.4	122.3	122.3	123.1	124.8	126.4
62.5°	108.1	109.0	108.1	109.0	109.8	109.8	110.6	110.6	112.3	112.3	113.9
65°	97.3	97.3	97.3	97.3	98.1	98.1	98.1	99.8	99.8	101.5	102.3
67.5°	85.7	85.7	85.7	85.7	86.5	87.3	87.3	88.2	89.0	89.0	90.7
70°	74.0	74.9	74.9	74.0	74.9	75.7	75.7	76.5	77.4	77.4	79.0
72.5°	63.2	63.2	63.2	63.2	63.2	64.0	64.9	64.9	65.7	66.5	67.4
75°	51.6	51.6	52.4	51.6	51.6	52.4	53.2	54.1	54.1	54.9	55.7
77.5°	39.9	40.8	40.8	40.8	41.6	41.6	41.6	42.4	43.3	43.3	44.1
80°	29.1	29.9	29.9	29.9	30.8	29.9	30.8	31.6	31.6	32.4	33.3
82.5°	18.3	18.3	19.1	19.1	19.1	19.1	20.0	20.8	20.8	20.8	22.5
85°	8.3	8.3	9.1	9.1	9.1	9.1	10.0	10.0	10.8	10.8	11.6
87.5°	0.8	0.8	0.8	0.8	1.7	0.8	1.7	1.7	1.7	1.7	2.5
90°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
92.5°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
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°	2.5	2.5	2.5	2.5	2.5	2.5	3.3	3.3	3.3	3.3	4.2
100°	4.2	4.2	4.2	4.2	4.2	4.2	4.2	5.0	5.0	5.8	6.7
102.5°	5.8	5.8	5.8	5.8	6.7	6.7	6.7	7.5	7.5	9.1	10.8
105°	8.3	8.3	8.3	9.1	9.1	9.1	10.0	10.8	12.5	15.8	20.8
107.5°	11.6	12.5	12.5	12.5	14.1	14.1	15.8	18.3	22.5	32.4	45.7
110°	18.3	19.1	19.1	20.8	24.1	25.8	29.1	38.3	51.6	72.4	97.3



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
112.5°	35.8	37.4	39.1	44.1	53.2	59.9	69.0	90.7	114.8	142.2	153.0
115°	88.2	89.0	96.5	106.5	127.3	138.9	149.7	168.8	183.8	187.1	186.3
117.5°	183.8	188.0	192.1	198.8	207.9	212.1	217.1	221.2	217.9	213.8	207.1
120°	246.2	244.5	246.2	247.0	246.2	246.2	245.4	242.0	236.2	230.4	223.7
122.5°	268.6	267.8	267.0	266.2	262.8	262.0	260.3	255.3	249.5	242.9	236.2
125°	281.1	280.3	278.6	277.0	274.5	272.8	271.1	266.2	260.3	253.7	247.0
127.5°	290.3	289.4	287.8	286.1	283.6	282.0	279.5	275.3	269.5	263.7	257.0
130°	297.8	296.9	295.3	294.4	291.1	290.3	287.8	282.8	277.8	272.8	266.2
132.5°	304.4	303.6	301.9	301.1	298.6	296.9	295.3	290.3	284.5	279.5	273.6
135°	310.2	309.4	308.6	307.7	305.2	303.6	301.1	296.9	291.9	286.9	281.1
137.5°	315.2	314.4	313.6	311.9	310.2	308.6	306.1	301.9	298.6	293.6	287.8
140°	319.4	318.6	316.9	316.1	314.4	312.7	311.1	307.7	303.6	299.4	293.6
142.5°	321.9	321.9	320.2	320.2	317.7	316.1	314.4	311.1	308.6	304.4	297.8
145°	324.4	324.4	323.5	322.7	321.0	319.4	317.7	315.2	311.9	308.6	302.8
147.5°	326.9	326.0	326.0	325.2	323.5	321.9	321.0	318.6	315.2	311.9	305.2
150°	328.5	327.7	327.7	326.9	325.2	323.5	322.7	321.0	317.7	314.4	308.6
152.5°	328.5	328.5	329.4	327.7	326.0	325.2	324.4	321.9	320.2	316.1	311.1
155°	329.4	329.4	329.4	328.5	326.0	325.2	324.4	322.7	321.0	317.7	312.7
157.5°	329.4	329.4	329.4	328.5	326.0	325.2	324.4	323.5	321.9	318.6	314.4
160°	328.5	328.5	328.5	328.5	326.9	325.2	324.4	323.5	321.9	318.6	314.4
162.5°	326.9	326.9	326.9	326.9	325.2	324.4	323.5	322.7	321.9	317.7	314.4
165°	325.2	325.2	325.2	324.4	322.7	322.7	321.9	321.0	320.2	316.9	314.4
167.5°	321.9	321.9	321.9	321.0	319.4	319.4	319.4	318.6	317.7	315.2	313.6
170°	318.6	318.6	318.6	317.7	316.9	316.9	316.9	316.1	316.1	313.6	311.9
172.5°	315.2	315.2	315.2	314.4	312.7	312.7	312.7	313.6	312.7	311.1	309.4
175°	310.2	309.4	309.4	309.4	309.4	308.6	309.4	309.4	309.4	307.7	306.9
177.5°	303.6	303.6	303.6	304.4	304.4	304.4	304.4	305.2	305.2	304.4	303.6
180°	299.4	299.4	299.4	299.4	299.4	299.4	299.4	299.4	299.4	299.4	299.4



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CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	323.5	323.5	323.5	323.5	323.5	323.5	323.5	323.5	323.5	323.5	323.5
2.5°	321.9	322.7	321.9	321.9	321.9	321.9	321.9	322.7	324.4	325.2	324.4
5°	321.0	321.9	321.0	321.0	321.0	321.0	321.0	321.9	323.5	324.4	323.5
7.5°	318.6	319.4	318.6	318.6	318.6	318.6	318.6	319.4	321.9	321.9	321.9
10°	315.2	316.1	315.2	315.2	315.2	316.1	316.1	316.9	318.6	318.6	318.6
12.5°	311.1	311.9	311.1	311.1	311.9	311.9	311.1	312.7	314.4	314.4	314.4
15°	306.1	306.9	306.1	306.1	306.1	306.9	306.9	307.7	309.4	309.4	309.4
17.5°	299.4	300.3	300.3	300.3	301.1	301.1	301.1	301.9	303.6	303.6	303.6
20°	293.6	293.6	293.6	293.6	293.6	294.4	294.4	296.1	297.8	297.8	297.8
22.5°	286.1	286.1	286.9	286.1	286.9	287.8	286.9	288.6	290.3	290.3	290.3
25°	277.8	278.6	278.6	278.6	278.6	279.5	279.5	281.1	282.0	282.8	282.8
27.5°	269.5	269.5	270.3	270.3	270.3	271.1	271.1	272.8	274.5	274.5	274.5
30°	260.3	260.3	261.2	262.0	261.2	262.0	262.0	263.7	264.5	265.3	265.3
32.5°	250.4	250.4	252.0	252.0	252.0	252.8	252.8	253.7	255.3	255.3	256.2
35°	240.4	240.4	242.0	242.0	242.0	242.9	242.9	243.7	245.4	245.4	246.2
37.5°	229.6	230.4	231.2	232.1	231.2	232.1	232.1	233.7	234.5	235.4	235.4
40°	218.7	218.7	219.6	220.4	220.4	221.2	222.1	222.9	224.6	224.6	224.6
42.5°	206.3	207.1	207.9	208.8	208.8	209.6	210.4	210.4	211.3	212.1	212.1
45°	195.5	196.3	196.3	198.0	198.8	198.8	198.8	199.6	200.4	201.3	201.3
47.5°	184.6	185.5	186.3	188.0	187.1	187.1	188.0	188.0	188.8	189.6	190.5
50°	173.0	173.8	174.7	175.5	175.5	176.3	176.3	177.2	178.0	178.0	178.8
52.5°	161.4	162.2	163.9	163.9	164.7	164.7	165.5	165.5	166.3	166.3	167.2
55°	149.7	150.5	152.2	153.0	153.0	153.9	153.9	154.7	154.7	154.7	155.5
57.5°	138.1	138.9	140.6	141.4	141.4	142.2	142.2	143.1	143.1	143.1	143.9
60°	126.4	127.3	128.9	129.8	129.8	130.6	130.6	131.4	131.4	132.2	132.2
62.5°	115.6	115.6	117.3	118.1	118.1	118.1	118.9	119.8	119.8	120.6	121.4
65°	103.1	104.0	105.6	106.5	105.6	106.5	107.3	108.1	108.1	109.0	109.0
67.5°	91.5	92.3	94.0	94.0	94.0	94.8	95.6	96.5	96.5	97.3	97.3
70°	79.8	79.8	81.5	82.3	82.3	83.2	84.0	84.8	84.8	85.7	85.7
72.5°	67.4	68.2	69.9	70.7	71.5	71.5	72.4	72.4	74.0	74.0	74.0
75°	56.6	56.6	58.2	59.1	59.9	59.9	60.7	60.7	61.5	62.4	62.4
77.5°	44.9	45.7	46.6	47.4	48.2	48.2	49.1	49.1	49.9	50.7	50.7
80°	34.1	34.1	35.8	35.8	36.6	36.6	37.4	38.3	39.1	39.1	39.1
82.5°	22.5	23.3	25.0	25.0	25.8	25.8	26.6	26.6	27.4	27.4	28.3
85°	12.5	13.3	14.1	14.1	15.0	15.0	15.8	16.6	16.6	17.5	17.5
87.5°	2.5	4.2	4.2	5.0	5.0	5.8	5.8	6.7	7.5	7.5	7.5
90°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.0	0.8	0.0	0.8
92.5°	0.8	0.8	0.8	1.7	1.7	1.7	2.5	2.5	2.5	2.5	3.3
95°	2.5	2.5	3.3	4.2	5.0	5.8	7.5	8.3	7.5	5.8	5.8
97.5°	4.2	5.8	7.5	10.8	12.5	14.1	16.6	15.8	14.1	11.6	10.8
100°	8.3	11.6	15.8	22.5	25.8	28.3	29.1	27.4	23.3	19.1	17.5
102.5°	15.0	22.5	32.4	43.3	45.7	46.6	44.9	40.8	34.9	29.1	25.0
105°	30.8	46.6	60.7	69.0	69.9	68.2	64.0	55.7	48.2	39.9	34.9
107.5°	66.5	87.3	95.6	96.5	94.0	89.8	81.5	72.4	63.2	54.1	46.6
110°	118.1	127.3	125.6	118.1	113.9	109.8	99.0	89.0	78.2	67.4	59.9



TEST NUMBER: P303116

CATALOG NUMBER: CTW-F-5050-20L930-UNV-STD-4

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
112.5°	157.2	154.7	147.2	137.2	132.2	127.3	116.4	105.6	92.3	82.3	74.0
115°	182.1	174.7	164.7	153.9	148.9	143.9	133.1	120.6	108.1	97.3	88.2
117.5°	199.6	190.5	180.5	169.7	163.9	158.9	147.2	134.7	123.1	111.5	103.1
120°	213.8	203.8	193.8	183.0	178.8	173.0	161.4	148.9	136.4	125.6	117.3
122.5°	227.1	217.1	206.3	197.1	191.3	186.3	173.8	162.2	150.5	139.7	131.4
125°	239.5	229.6	218.7	208.8	203.8	198.0	185.5	174.7	163.0	152.2	144.7
127.5°	248.7	240.4	231.2	221.2	215.4	209.6	197.1	186.3	175.5	165.5	157.2
130°	257.8	249.5	241.2	232.1	227.1	219.6	208.8	197.1	187.1	178.0	170.5
132.5°	265.3	258.7	249.5	241.2	235.4	229.6	218.7	207.9	198.8	189.6	182.1
135°	273.6	266.2	257.8	249.5	244.5	239.5	229.6	218.7	210.4	201.3	193.8
137.5°	280.3	272.8	265.3	257.0	252.0	247.0	238.7	228.7	220.4	212.9	204.6
140°	286.1	278.6	272.0	263.7	258.7	254.5	246.2	237.9	231.2	222.1	215.4
142.5°	291.1	283.6	277.8	269.5	264.5	261.2	253.7	245.4	239.5	232.1	226.2
145°	295.3	288.6	282.8	275.3	271.1	267.8	260.3	253.7	247.9	241.2	235.4
147.5°	300.3	292.8	287.8	280.3	277.0	273.6	267.0	260.3	255.3	248.7	243.7
150°	303.6	297.8	292.8	285.3	282.0	278.6	272.8	267.8	262.8	257.0	252.0
152.5°	306.1	301.1	296.1	289.4	286.9	284.5	278.6	273.6	269.5	264.5	259.5
155°	308.6	303.6	300.3	293.6	291.1	288.6	283.6	279.5	275.3	271.1	266.2
157.5°	310.2	306.1	302.8	296.9	295.3	292.8	288.6	284.5	281.1	277.0	272.8
160°	311.1	307.7	304.4	299.4	297.8	296.1	291.9	288.6	286.1	282.0	278.6
162.5°	311.1	308.6	305.2	301.1	299.4	297.8	295.3	291.9	290.3	286.9	283.6
165°	311.1	309.4	306.1	302.8	301.1	300.3	297.8	295.3	293.6	290.3	287.8
167.5°	310.2	308.6	306.1	303.6	302.8	301.1	299.4	296.9	296.1	294.4	291.1
170°	309.4	308.6	306.1	304.4	303.6	302.8	301.1	299.4	298.6	296.9	294.4
172.5°	307.7	307.7	306.1	304.4	303.6	302.8	301.1	300.3	300.3	298.6	296.9
175°	306.1	305.2	304.4	302.8	301.9	301.9	301.1	300.3	301.1	300.3	299.4
177.5°	301.9	302.8	301.1	301.1	300.3	300.3	300.3	300.3	301.1	301.1	300.3
180°	299.4	299.4	299.4	299.4	299.4	299.4	299.4	299.4	299.4	299.4	299.4



TEST NUMBER: P303116

CATALOG NUMBER: CTW-F-5050-20L930-UNV-STD-4

CANDELA DISTRIBUTION (continued):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	323.5	323.5	323.5	323.5	323.5	323.5	323.5	323.5	323.5	323.5	323.5
2.5°	324.4	323.5	322.7	322.7	322.7	321.0	321.0	321.9	322.7	324.4	322.7
5°	323.5	322.7	321.9	321.9	321.9	320.2	320.2	321.0	321.9	323.5	321.9
7.5°	321.0	321.0	319.4	319.4	319.4	317.7	317.7	318.6	319.4	321.0	319.4
10°	318.6	317.7	316.1	316.1	316.1	315.2	314.4	315.2	316.9	317.7	316.1
12.5°	314.4	313.6	312.7	311.9	311.9	310.2	310.2	311.1	312.7	313.6	312.7
15°	309.4	308.6	307.7	306.9	306.9	306.1	305.2	306.1	307.7	308.6	306.9
17.5°	303.6	302.8	301.9	301.1	301.1	300.3	299.4	300.3	301.9	301.9	301.1
20°	296.9	296.1	295.3	295.3	295.3	293.6	293.6	293.6	295.3	295.3	293.6
22.5°	290.3	289.4	287.8	287.8	287.8	286.9	286.1	286.9	288.6	286.9	286.1
25°	282.8	281.1	280.3	280.3	279.5	277.8	278.6	278.6	280.3	279.5	277.8
27.5°	274.5	273.6	272.8	272.0	271.1	270.3	270.3	270.3	272.0	270.3	269.5
30°	265.3	264.5	263.7	262.8	262.8	261.2	261.2	262.0	262.8	261.2	260.3
32.5°	255.3	254.5	253.7	253.7	252.8	252.0	252.0	252.0	252.8	251.2	250.4
35°	246.2	244.5	243.7	243.7	242.9	242.0	242.0	242.9	242.9	241.2	240.4
37.5°	235.4	234.5	233.7	232.9	232.9	232.1	232.1	232.1	232.1	230.4	229.6
40°	225.4	223.7	222.9	222.1	222.1	222.1	222.1	222.1	221.2	219.6	217.9
42.5°	212.1	211.3	210.4	210.4	209.6	209.6	209.6	209.6	208.8	207.9	207.1
45°	201.3	200.4	199.6	198.8	199.6	199.6	198.8	198.8	198.0	197.1	196.3
47.5°	190.5	189.6	188.8	188.0	188.8	188.8	188.0	188.0	187.1	187.1	185.5
50°	178.8	178.0	177.2	177.2	178.0	177.2	177.2	176.3	176.3	175.5	173.8
52.5°	168.0	167.2	165.5	165.5	166.3	166.3	165.5	164.7	164.7	164.7	163.0
55°	156.4	155.5	154.7	154.7	155.5	154.7	153.9	153.0	153.9	153.0	151.4
57.5°	144.7	143.9	143.1	143.1	143.9	143.1	142.2	142.2	141.4	141.4	140.6
60°	133.1	132.2	131.4	132.2	132.2	131.4	130.6	130.6	130.6	128.9	128.9
62.5°	121.4	119.8	119.8	119.8	120.6	119.8	118.9	118.9	118.1	117.3	117.3
65°	109.0	108.1	109.0	108.1	108.1	108.1	107.3	107.3	106.5	105.6	105.6
67.5°	97.3	96.5	97.3	96.5	96.5	96.5	96.5	95.6	94.8	94.8	94.0
70°	85.7	84.8	85.7	84.8	84.8	84.8	84.8	84.0	83.2	82.3	82.3
72.5°	74.0	73.2	73.2	73.2	73.2	73.2	72.4	72.4	71.5	71.5	71.5
75°	62.4	61.5	61.5	61.5	61.5	60.7	60.7	60.7	59.9	59.9	59.9
77.5°	50.7	49.9	50.7	50.7	49.9	49.9	49.9	49.9	49.1	48.2	48.2
80°	39.1	39.1	39.1	39.1	39.1	39.1	38.3	38.3	38.3	37.4	37.4
82.5°	28.3	28.3	28.3	28.3	27.4	27.4	27.4	27.4	26.6	25.8	25.8
85°	17.5	17.5	17.5	17.5	16.6	17.5	16.6	15.8	15.8	15.0	14.1
87.5°	8.3	8.3	7.5	6.7	6.7	6.7	5.8	6.7	5.8	5.0	5.0
90°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
92.5°	4.2	5.0	5.8	5.8	5.8	5.0	5.0	5.0	5.0	5.0	4.2
95°	6.7	8.3	9.1	10.0	10.8	11.6	11.6	11.6	10.8	10.8	10.8
97.5°	10.8	11.6	12.5	12.5	13.3	14.1	15.8	16.6	17.5	18.3	17.5
100°	16.6	15.8	17.5	17.5	17.5	17.5	18.3	19.1	20.8	21.6	22.5
102.5°	23.3	21.6	21.6	22.5	22.5	23.3	23.3	23.3	24.1	25.0	25.8
105°	31.6	29.1	28.3	27.4	27.4	28.3	29.9	29.9	29.9	29.9	29.9
107.5°	41.6	38.3	34.9	34.1	33.3	34.1	34.9	36.6	37.4	37.4	36.6
110°	53.2	48.2	44.1	42.4	40.8	39.9	40.8	40.8	42.4	44.1	44.9



TEST NUMBER: P303116

CATALOG NUMBER: CTW-F-5050-20L930-UNV-STD-4

CANDELA DISTRIBUTION (continued):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
112.5°	66.5	59.1	53.2	52.4	49.9	47.4	46.6	46.6	47.4	48.2	49.9
115°	79.0	71.5	64.9	62.4	59.9	55.7	54.1	52.4	53.2	53.2	54.9
117.5°	94.0	84.8	77.4	74.0	70.7	65.7	61.5	59.9	59.1	59.1	59.1
120°	108.1	99.8	89.8	86.5	83.2	77.4	72.4	68.2	65.7	64.0	64.0
122.5°	121.4	113.1	104.0	99.8	95.6	89.8	84.0	78.2	74.9	71.5	69.9
125°	135.6	127.3	117.3	113.9	109.0	102.3	96.5	90.7	85.7	81.5	78.2
127.5°	148.9	140.6	130.6	126.4	123.1	116.4	109.0	103.1	97.3	93.2	88.2
130°	161.4	153.0	143.9	139.7	136.4	129.8	122.3	116.4	110.6	105.6	99.8
132.5°	173.8	165.5	157.2	153.0	148.9	143.1	135.6	129.8	123.1	118.1	113.9
135°	185.5	177.2	169.7	165.5	162.2	155.5	148.9	143.1	136.4	131.4	127.3
137.5°	197.1	188.8	181.3	177.2	173.8	168.0	162.2	156.4	149.7	144.7	139.7
140°	207.1	199.6	192.1	188.8	185.5	179.7	174.7	169.7	163.9	158.0	153.0
142.5°	217.9	210.4	203.8	199.6	196.3	190.5	185.5	181.3	176.3	170.5	166.3
145°	228.7	220.4	214.6	209.6	207.1	201.3	196.3	193.0	188.8	183.8	179.7
147.5°	237.0	230.4	225.4	222.1	217.9	212.1	207.1	203.8	200.4	195.5	192.1
150°	245.4	239.5	233.7	232.1	228.7	223.7	219.6	215.4	212.1	207.1	203.8
152.5°	254.5	247.9	243.7	240.4	237.9	232.9	228.7	226.2	224.6	218.7	216.3
155°	262.0	256.2	251.2	248.7	247.0	242.0	237.9	236.2	233.7	230.4	227.1
157.5°	268.6	263.7	258.7	256.2	255.3	250.4	247.0	244.5	242.9	240.4	237.0
160°	274.5	270.3	265.3	263.7	262.0	257.8	254.5	252.8	252.0	249.5	247.0
162.5°	280.3	276.1	272.0	270.3	268.6	265.3	262.0	260.3	259.5	257.8	255.3
165°	284.5	281.1	277.8	276.1	275.3	271.1	268.6	267.8	267.0	266.2	263.7
167.5°	289.4	286.1	282.8	282.0	280.3	277.8	275.3	274.5	273.6	273.6	271.1
170°	292.8	290.3	287.8	286.9	286.1	282.8	281.1	280.3	280.3	280.3	277.8
172.5°	296.1	294.4	291.1	291.1	290.3	287.8	286.1	286.1	285.3	286.1	283.6
175°	298.6	296.9	294.4	294.4	293.6	291.9	290.3	290.3	291.1	291.9	289.4
177.5°	300.3	298.6	296.9	296.9	296.1	295.3	293.6	294.4	295.3	296.1	294.4
180°	299.4	299.4	299.4	299.4	299.4	299.4	299.4	299.4	299.4	299.4	299.4



TEST NUMBER: P303116

CATALOG NUMBER: CTW-F-5050-20L930-UNV-STD-4

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	323.5	323.5	323.5	323.5	323.5	323.5	323.5	323.5
2.5°	324.4	323.5	322.7	322.7	321.9	321.9	321.9	321.9
5°	322.7	321.9	321.9	321.0	321.0	321.0	321.9	321.9
7.5°	321.0	319.4	319.4	318.6	318.6	318.6	319.4	319.4
10°	316.9	316.9	316.1	315.2	315.2	315.2	315.2	316.1
12.5°	312.7	311.9	311.9	310.2	310.2	311.1	311.1	311.9
15°	307.7	306.9	306.1	306.1	306.1	306.1	306.1	306.9
17.5°	301.9	301.1	300.3	299.4	299.4	300.3	300.3	300.3
20°	294.4	292.8	292.8	291.9	291.9	291.9	292.8	292.8
22.5°	286.1	284.5	284.5	283.6	283.6	284.5	284.5	284.5
25°	277.8	277.0	276.1	275.3	275.3	275.3	276.1	276.1
27.5°	269.5	267.8	267.8	267.0	267.0	267.0	267.0	267.0
30°	260.3	258.7	257.8	257.8	257.0	257.0	257.8	257.8
32.5°	249.5	248.7	247.9	247.9	247.0	247.9	247.9	247.9
35°	239.5	237.9	237.9	237.9	237.0	237.9	237.0	237.0
37.5°	229.6	227.1	227.1	227.1	227.1	227.1	227.1	227.1
40°	217.1	215.4	215.4	214.6	214.6	214.6	214.6	214.6
42.5°	206.3	204.6	204.6	203.8	203.8	203.8	203.8	203.8
45°	195.5	193.8	193.8	193.8	193.0	193.0	193.0	192.1
47.5°	183.8	183.0	183.0	182.1	182.1	182.1	182.1	182.1
50°	173.0	172.2	172.2	171.3	172.2	171.3	171.3	171.3
52.5°	161.4	161.4	160.5	160.5	160.5	159.7	159.7	159.7
55°	150.5	149.7	149.7	148.9	149.7	148.9	148.9	148.9
57.5°	138.9	138.9	138.9	138.1	138.1	137.2	137.2	137.2
60°	127.3	127.3	127.3	126.4	127.3	126.4	126.4	126.4
62.5°	116.4	116.4	115.6	115.6	115.6	114.8	114.8	114.8
65°	104.8	104.0	104.0	104.8	104.0	104.0	104.0	104.0
67.5°	94.0	94.0	93.2	93.2	93.2	92.3	92.3	92.3
70°	82.3	82.3	81.5	81.5	81.5	80.7	81.5	80.7
72.5°	70.7	70.7	69.9	70.7	69.9	69.0	69.9	69.9
75°	59.1	59.1	59.1	59.1	59.1	58.2	58.2	58.2
77.5°	48.2	48.2	47.4	47.4	47.4	47.4	47.4	46.6
80°	36.6	36.6	35.8	35.8	35.8	35.8	35.8	34.9
82.5°	25.8	25.0	25.0	25.0	25.0	24.1	24.1	24.1
85°	14.1	14.1	14.1	14.1	13.3	14.1	13.3	13.3
87.5°	5.0	5.0	5.0	4.2	4.2	5.0	5.0	4.2
90°	0.8	0.8	1.7	1.7	1.7	1.7	1.7	1.7
92.5°	4.2	4.2	4.2	3.3	3.3	3.3	3.3	3.3
95°	10.8	10.8	10.8	10.0	10.0	10.8	10.0	10.0
97.5°	17.5	17.5	17.5	17.5	16.6	17.5	16.6	16.6
100°	22.5	23.3	23.3	23.3	23.3	23.3	23.3	24.1
102.5°	26.6	26.6	26.6	26.6	27.4	27.4	27.4	27.4
105°	30.8	30.8	30.8	31.6	31.6	32.4	32.4	32.4
107.5°	36.6	36.6	36.6	36.6	37.4	37.4	37.4	37.4
110°	44.9	44.9	44.1	44.1	43.3	43.3	43.3	43.3



TEST NUMBER: P303116

CATALOG NUMBER: CTW-F-5050-20L930-UNV-STD-4

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
112.5°	51.6	52.4	52.4	52.4	52.4	52.4	52.4	52.4
115°	55.7	57.4	57.4	58.2	58.2	59.1	59.1	59.1
117.5°	59.9	61.5	61.5	62.4	62.4	63.2	64.0	64.0
120°	64.9	65.7	65.7	66.5	66.5	67.4	67.4	67.4
122.5°	69.9	69.9	69.9	70.7	70.7	70.7	71.5	71.5
125°	76.5	75.7	75.7	74.9	74.9	74.9	74.9	75.7
127.5°	85.7	83.2	82.3	82.3	81.5	80.7	80.7	79.8
130°	95.6	94.0	92.3	91.5	89.8	89.0	88.2	88.2
132.5°	109.0	105.6	104.0	102.3	100.6	99.0	99.0	98.1
135°	123.1	118.9	118.1	115.6	113.9	112.3	110.6	110.6
137.5°	135.6	132.2	131.4	129.8	128.1	125.6	125.6	123.9
140°	148.9	145.6	143.9	142.2	140.6	138.9	138.9	138.9
142.5°	162.2	158.9	157.2	155.5	153.9	152.2	151.4	152.2
145°	175.5	172.2	170.5	168.8	167.2	165.5	164.7	163.9
147.5°	188.0	184.6	183.0	182.1	180.5	178.8	178.0	177.2
150°	200.4	197.1	196.3	194.6	193.0	191.3	190.5	190.5
152.5°	212.1	209.6	207.9	206.3	205.4	203.8	202.9	202.9
155°	224.6	222.1	220.4	219.6	217.9	216.3	216.3	214.6
157.5°	235.4	232.9	231.2	230.4	228.7	227.9	227.9	227.9
160°	245.4	242.9	242.0	240.4	238.7	238.7	238.7	238.7
162.5°	254.5	252.8	252.0	250.4	248.7	248.7	248.7	247.9
165°	262.8	261.2	260.3	258.7	257.8	257.8	257.8	257.8
167.5°	271.1	268.6	267.8	267.0	266.2	266.2	266.2	266.2
170°	277.8	276.1	275.3	274.5	273.6	273.6	273.6	273.6
172.5°	284.5	283.6	282.8	281.1	281.1	281.1	282.0	281.1
175°	290.3	289.4	288.6	287.8	286.9	287.8	287.8	287.8
177.5°	295.3	294.4	294.4	293.6	292.8	291.9	292.8	291.9
180°	299.4	299.4	299.4	299.4	299.4	299.4	299.4	299.4

(END OF REPORT)