

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: P303119

Luminaire Tested: **CTW-F-5050-20L830-UNV-STD-6**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P303119
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-6
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

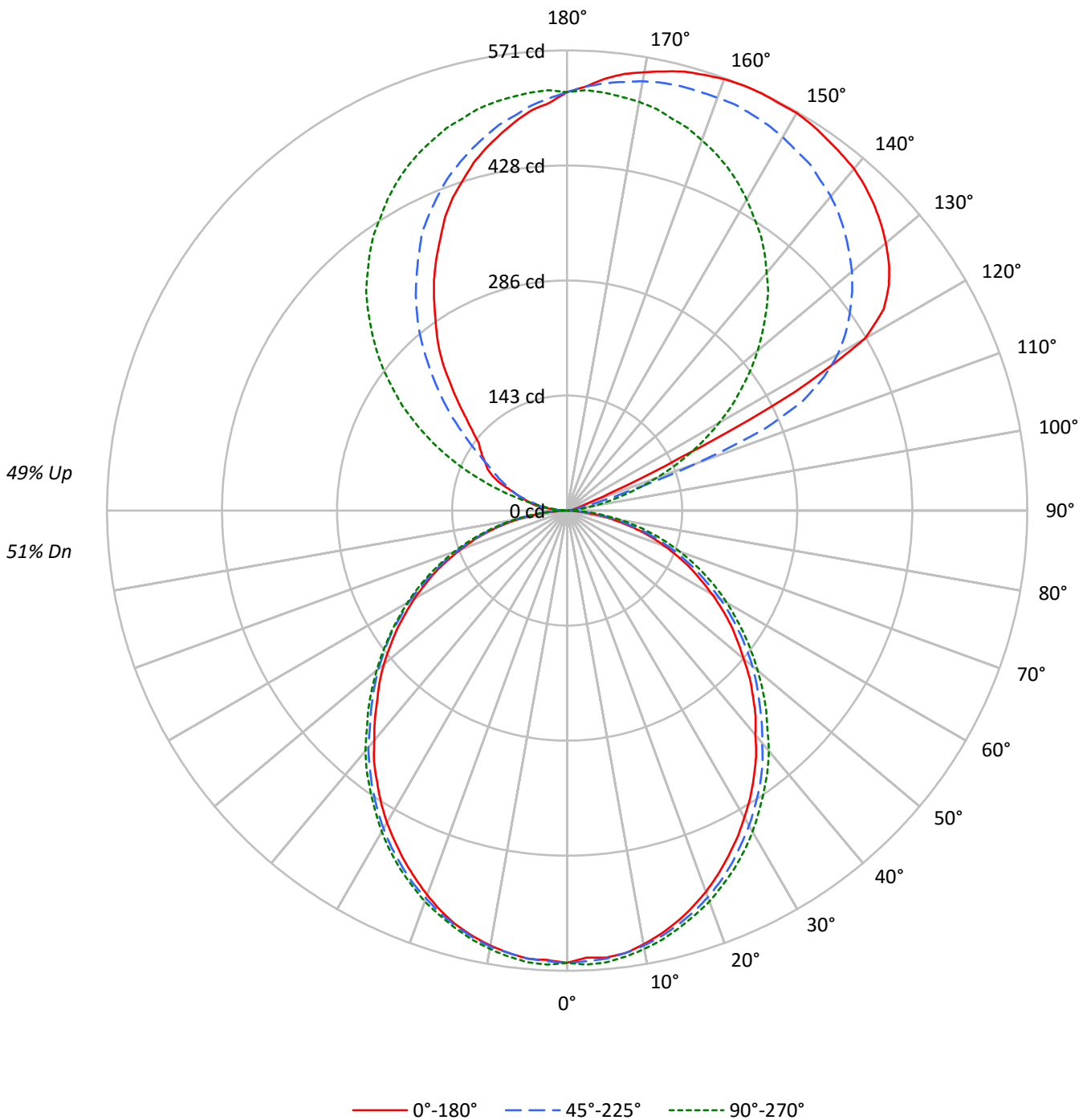
Lumens per Lamp: N/A
Luminaire Lumens: 2953.5 lumens
Efficiency: N/A
Efficacy: 123.1 lumens/watt
Spacing Criteria (0/90/45): 1.18 / 1.22 / 1.31
Luminous Opening: Rectangular (W 6' x L: 0.12' x H: 0')
CIE Type: General Diffuse

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

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	8053	8053	8053
5°	8020	8104	8042
10°	7966	8050	7988
15°	7844	7971	7908
20°	7688	7885	7754
25°	7492	7766	7582
30°	7290	7625	7409
35°	7075	7455	7203
40°	6810	7295	6971
45°	6617	7084	6763
50°	6377	6893	6634
55°	6208	6713	6461
60°	5962	6582	6292
65°	5732	6415	6123
70°	5388	6236	5870
75°	4957	6000	5601
80°	4174	5604	5009
85°	2371	4989	3804



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	52.9	1.8
10°-20°	149.9	5.1
20°-30°	222.1	7.5
30°-40°	260.4	8.8
40°-50°	262.0	8.9
50°-60°	233.6	7.9
60°-70°	179.3	6.1
70°-80°	106.6	3.6
80°-90°	28.9	1.0
90°-100°	13.7	0.5
100°-110°	61.3	2.1
110°-120°	174.7	5.9
120°-130°	257.3	8.7
130°-140°	277.5	9.4
140°-150°	264.2	8.9
150°-160°	217.4	7.4
160°-170°	142.2	4.8
170°-180°	49.3	1.7
0°-30°	425.0	14.4
0°-40°	685.4	23.2
0°-60°	1181.1	40.0
0°-90°	1495.9	50.6
90°-120°	249.7	8.5
90°-150°	1048.7	35.5
90°-180°	1458.0	49.4
0°-180°	2953.5	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	561	561	561	561	561	
5°	557	558	562	558	558	53
15°	528	532	536	534	532	149
25°	473	483	490	486	479	218
35°	404	417	426	421	411	252
45°	326	338	349	343	333	252
55°	248	260	268	267	258	221
65°	169	177	189	185	180	166
75°	89	97	108	104	101	94
85°	14	20	30	27	23	20
90°	1	1	0	1	3	1
95°	3	3	10	19	17	3
105°	14	36	69	52	56	17
115°	153	323	169	92	102	187
125°	488	428	264	149	131	432
135°	538	488	349	236	192	415
145°	562	525	418	327	284	353
155°	571	542	470	405	372	264
165°	564	545	503	463	447	160
175°	538	532	521	505	499	52
180°	519	519	519	519	519	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	561.1	561.1	561.1	561.1	561.1	561.1	561.1	561.1	561.1	561.1	561.1
2.5°	555.3	555.3	556.7	558.2	559.6	559.6	561.1	561.1	561.1	561.1	559.6
5°	556.7	555.3	556.7	556.7	556.7	556.7	558.2	559.6	559.6	559.6	558.2
7.5°	553.8	552.4	553.8	553.8	552.4	552.4	553.8	555.3	555.3	555.3	553.8
10°	546.6	545.2	546.6	546.6	546.6	546.6	548.1	548.1	549.5	549.5	548.1
12.5°	538.0	538.0	538.0	539.4	538.0	539.4	539.4	540.9	542.3	542.3	540.9
15°	527.9	527.9	529.3	530.8	529.3	530.8	530.8	532.2	532.2	533.7	532.2
17.5°	516.3	516.3	517.8	519.2	519.2	519.2	520.7	520.7	522.1	522.1	522.1
20°	503.4	503.4	503.4	506.3	506.3	506.3	506.3	507.7	510.6	510.6	510.6
22.5°	488.9	488.9	488.9	491.8	491.8	491.8	491.8	493.3	496.2	497.6	497.6
25°	473.1	473.1	473.1	476.0	476.0	476.0	476.0	478.8	481.7	481.7	483.2
27.5°	457.2	457.2	458.7	460.1	460.1	460.1	461.5	463.0	465.9	467.3	467.3
30°	439.9	439.9	439.9	442.8	442.8	444.2	444.2	447.1	448.6	451.4	451.4
32.5°	422.6	422.6	424.0	425.5	425.5	425.5	426.9	429.8	431.3	432.7	434.1
35°	403.8	403.8	405.3	406.7	408.2	408.2	408.2	411.1	412.5	415.4	416.8
37.5°	385.1	385.1	386.5	388.0	389.4	389.4	389.4	392.3	393.8	396.6	398.1
40°	363.5	363.5	363.5	366.3	366.3	367.8	367.8	369.2	372.1	375.0	376.4
42.5°	346.2	344.7	344.7	346.2	347.6	349.0	349.0	350.5	353.4	356.3	357.7
45°	326.0	326.0	326.0	327.4	328.8	328.8	330.3	331.7	333.2	337.5	337.5
47.5°	307.2	305.8	305.8	308.7	308.7	310.1	310.1	311.5	314.4	317.3	318.8
50°	285.6	287.0	287.0	288.5	289.9	289.9	291.3	291.3	294.2	297.1	300.0
52.5°	266.8	266.8	266.8	268.3	269.7	271.2	271.2	272.6	274.0	276.9	279.8
55°	248.1	248.1	248.1	249.5	249.5	251.0	251.0	252.4	253.8	256.7	259.6
57.5°	227.9	227.9	227.9	229.3	230.8	230.8	232.2	232.2	233.7	236.5	239.4
60°	207.7	207.7	207.7	209.1	210.6	210.6	212.0	212.0	213.5	216.3	219.2
62.5°	187.5	188.9	187.5	188.9	190.4	190.4	191.8	191.8	194.7	194.7	197.6
65°	168.8	168.8	168.8	168.8	170.2	170.2	170.2	173.1	173.1	176.0	177.4
67.5°	148.6	148.6	148.6	148.6	150.0	151.4	151.4	152.9	154.3	154.3	157.2
70°	128.4	129.8	129.8	128.4	129.8	131.3	131.3	132.7	134.1	134.1	137.0
72.5°	109.6	109.6	109.6	109.6	109.6	111.1	112.5	112.5	113.9	115.4	116.8
75°	89.4	89.4	90.9	89.4	89.4	90.9	92.3	93.8	93.8	95.2	96.6
77.5°	69.2	70.7	70.7	70.7	72.1	72.1	72.1	73.6	75.0	75.0	76.4
80°	50.5	51.9	51.9	51.9	53.4	51.9	53.4	54.8	54.8	56.3	57.7
82.5°	31.7	31.7	33.2	33.2	33.2	33.2	34.6	36.1	36.1	36.1	38.9
85°	14.4	14.4	15.9	15.9	15.9	15.9	17.3	17.3	18.8	18.8	20.2
87.5°	1.4	1.4	1.4	1.4	2.9	1.4	2.9	2.9	2.9	2.9	4.3
90°	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
92.5°	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
95°	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9
97.5°	4.3	4.3	4.3	4.3	4.3	4.3	5.8	5.8	5.8	5.8	7.2
100°	7.2	7.2	7.2	7.2	7.2	7.2	7.2	8.7	8.7	10.1	11.5
102.5°	10.1	10.1	10.1	10.1	11.5	11.5	11.5	13.0	13.0	15.9	18.8
105°	14.4	14.4	14.4	15.9	15.9	15.9	17.3	18.8	21.6	27.4	36.1
107.5°	20.2	21.6	21.6	21.6	24.5	24.5	27.4	31.7	38.9	56.3	79.3
110°	31.7	33.2	33.2	36.1	41.8	44.7	50.5	66.3	89.4	125.5	168.8



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
112.5°	62.0	64.9	67.8	76.4	92.3	103.8	119.7	157.2	199.0	246.6	265.4
115°	152.9	154.3	167.3	184.6	220.7	240.9	259.6	292.8	318.8	324.5	323.1
117.5°	318.8	326.0	333.2	344.7	360.6	367.8	376.4	383.7	377.9	370.7	359.1
120°	426.9	424.0	426.9	428.4	426.9	426.9	425.5	419.7	409.6	399.5	388.0
122.5°	465.9	464.4	463.0	461.5	455.8	454.3	451.4	442.8	432.7	421.2	409.6
125°	487.5	486.1	483.2	480.3	476.0	473.1	470.2	461.5	451.4	439.9	428.4
127.5°	503.4	501.9	499.0	496.2	491.8	488.9	484.6	477.4	467.3	457.2	445.7
130°	516.3	514.9	512.0	510.6	504.8	503.4	499.0	490.4	481.7	473.1	461.5
132.5°	527.9	526.4	523.6	522.1	517.8	514.9	512.0	503.4	493.3	484.6	474.5
135°	538.0	536.5	535.1	533.7	529.3	526.4	522.1	514.9	506.3	497.6	487.5
137.5°	546.6	545.2	543.8	540.9	538.0	535.1	530.8	523.6	517.8	509.1	499.0
140°	553.8	552.4	549.5	548.1	545.2	542.3	539.4	533.7	526.4	519.2	509.1
142.5°	558.2	558.2	555.3	555.3	551.0	548.1	545.2	539.4	535.1	527.9	516.3
145°	562.5	562.5	561.1	559.6	556.7	553.8	551.0	546.6	540.9	535.1	525.0
147.5°	566.8	565.4	565.4	563.9	561.1	558.2	556.7	552.4	546.6	540.9	529.3
150°	569.7	568.3	568.3	566.8	563.9	561.1	559.6	556.7	551.0	545.2	535.1
152.5°	569.7	569.7	571.2	568.3	565.4	563.9	562.5	558.2	555.3	548.1	539.4
155°	571.2	571.2	571.2	569.7	565.4	563.9	562.5	559.6	556.7	551.0	542.3
157.5°	571.2	571.2	571.2	569.7	565.4	563.9	562.5	561.1	558.2	552.4	545.2
160°	569.7	569.7	569.7	569.7	566.8	563.9	562.5	561.1	558.2	552.4	545.2
162.5°	566.8	566.8	566.8	566.8	563.9	562.5	561.1	559.6	558.2	551.0	545.2
165°	563.9	563.9	563.9	562.5	559.6	559.6	558.2	556.7	555.3	549.5	545.2
167.5°	558.2	558.2	558.2	556.7	553.8	553.8	553.8	552.4	551.0	546.6	543.8
170°	552.4	552.4	552.4	551.0	549.5	549.5	549.5	548.1	548.1	543.8	540.9
172.5°	546.6	546.6	546.6	545.2	542.3	542.3	542.3	543.8	542.3	539.4	536.5
175°	538.0	536.5	536.5	536.5	536.5	535.1	536.5	536.5	536.5	533.7	532.2
177.5°	526.4	526.4	526.4	527.9	527.9	527.9	527.9	529.3	529.3	527.9	526.4
180°	519.2	519.2	519.2	519.2	519.2	519.2	519.2	519.2	519.2	519.2	519.2



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CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	561.1	561.1	561.1	561.1	561.1	561.1	561.1	561.1	561.1	561.1	561.1
2.5°	558.2	559.6	558.2	558.2	558.2	558.2	558.2	559.6	562.5	563.9	562.5
5°	556.7	558.2	556.7	556.7	556.7	556.7	556.7	558.2	561.1	562.5	561.1
7.5°	552.4	553.8	552.4	552.4	552.4	552.4	552.4	553.8	558.2	558.2	558.2
10°	546.6	548.1	546.6	546.6	546.6	548.1	548.1	549.5	552.4	552.4	552.4
12.5°	539.4	540.9	539.4	539.4	540.9	540.9	539.4	542.3	545.2	545.2	545.2
15°	530.8	532.2	530.8	530.8	530.8	532.2	532.2	533.7	536.5	536.5	536.5
17.5°	519.2	520.7	520.7	520.7	522.1	522.1	522.1	523.6	526.4	526.4	526.4
20°	509.1	509.1	509.1	509.1	509.1	510.6	510.6	513.5	516.3	516.3	516.3
22.5°	496.2	496.2	497.6	496.2	497.6	499.0	497.6	500.5	503.4	503.4	503.4
25°	481.7	483.2	483.2	483.2	483.2	484.6	484.6	487.5	488.9	490.4	490.4
27.5°	467.3	467.3	468.8	468.8	468.8	470.2	470.2	473.1	476.0	476.0	476.0
30°	451.4	451.4	452.9	454.3	452.9	454.3	454.3	457.2	458.7	460.1	460.1
32.5°	434.1	434.1	437.0	437.0	437.0	438.5	438.5	439.9	442.8	442.8	444.2
35°	416.8	416.8	419.7	419.7	419.7	421.2	421.2	422.6	425.5	425.5	426.9
37.5°	398.1	399.5	401.0	402.4	401.0	402.4	402.4	405.3	406.7	408.2	408.2
40°	379.3	379.3	380.8	382.2	382.2	383.7	385.1	386.5	389.4	389.4	389.4
42.5°	357.7	359.1	360.6	362.0	362.0	363.5	364.9	364.9	366.3	367.8	367.8
45°	338.9	340.4	340.4	343.3	344.7	344.7	344.7	346.2	347.6	349.0	349.0
47.5°	320.2	321.6	323.1	326.0	324.5	324.5	326.0	326.0	327.4	328.8	330.3
50°	300.0	301.4	302.9	304.3	304.3	305.8	305.8	307.2	308.7	308.7	310.1
52.5°	279.8	281.3	284.1	284.1	285.6	285.6	287.0	287.0	288.5	288.5	289.9
55°	259.6	261.1	263.9	265.4	265.4	266.8	266.8	268.3	268.3	268.3	269.7
57.5°	239.4	240.9	243.8	245.2	245.2	246.6	246.6	248.1	248.1	248.1	249.5
60°	219.2	220.7	223.6	225.0	225.0	226.4	226.4	227.9	227.9	229.3	229.3
62.5°	200.5	200.5	203.4	204.8	204.8	204.8	206.3	207.7	207.7	209.1	210.6
65°	178.8	180.3	183.2	184.6	183.2	184.6	186.1	187.5	187.5	188.9	188.9
67.5°	158.7	160.1	163.0	163.0	163.0	164.4	165.9	167.3	167.3	168.8	168.8
70°	138.5	138.5	141.3	142.8	142.8	144.2	145.7	147.1	147.1	148.6	148.6
72.5°	116.8	118.3	121.2	122.6	124.0	124.0	125.5	125.5	128.4	128.4	128.4
75°	98.1	98.1	101.0	102.4	103.8	103.8	105.3	105.3	106.7	108.2	108.2
77.5°	77.9	79.3	80.8	82.2	83.7	83.7	85.1	85.1	86.5	88.0	88.0
80°	59.1	59.1	62.0	62.0	63.5	63.5	64.9	66.3	67.8	67.8	67.8
82.5°	38.9	40.4	43.3	43.3	44.7	44.7	46.2	46.2	47.6	47.6	49.0
85°	21.6	23.1	24.5	24.5	26.0	26.0	27.4	28.8	28.8	30.3	30.3
87.5°	4.3	7.2	7.2	8.7	8.7	10.1	10.1	11.5	13.0	13.0	13.0
90°	1.4	1.4	1.4	1.4	1.4	1.4	1.4	0.0	1.4	0.0	1.4
92.5°	1.4	1.4	1.4	2.9	2.9	2.9	4.3	4.3	4.3	4.3	5.8
95°	4.3	4.3	5.8	7.2	8.7	10.1	13.0	14.4	13.0	10.1	10.1
97.5°	7.2	10.1	13.0	18.8	21.6	24.5	28.8	27.4	24.5	20.2	18.8
100°	14.4	20.2	27.4	38.9	44.7	49.0	50.5	47.6	40.4	33.2	30.3
102.5°	26.0	38.9	56.3	75.0	79.3	80.8	77.9	70.7	60.6	50.5	43.3
105°	53.4	80.8	105.3	119.7	121.2	118.3	111.1	96.6	83.7	69.2	60.6
107.5°	115.4	151.4	165.9	167.3	163.0	155.8	141.3	125.5	109.6	93.8	80.8
110°	204.8	220.7	217.8	204.8	197.6	190.4	171.6	154.3	135.6	116.8	103.8



TEST NUMBER: P303119

CATALOG NUMBER: CTW-F-5050-20L830-UNV-STD-6

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
112.5°	272.6	268.3	255.3	238.0	229.3	220.7	201.9	183.2	160.1	142.8	128.4
115°	315.9	302.9	285.6	266.8	258.2	249.5	230.8	209.1	187.5	168.8	152.9
117.5°	346.2	330.3	313.0	294.2	284.1	275.5	255.3	233.7	213.5	193.3	178.8
120°	370.7	353.4	336.1	317.3	310.1	300.0	279.8	258.2	236.5	217.8	203.4
122.5°	393.8	376.4	357.7	341.8	331.7	323.1	301.4	281.3	261.1	242.3	227.9
125°	415.4	398.1	379.3	362.0	353.4	343.3	321.6	302.9	282.7	263.9	251.0
127.5°	431.3	416.8	401.0	383.7	373.6	363.5	341.8	323.1	304.3	287.0	272.6
130°	447.1	432.7	418.3	402.4	393.8	380.8	362.0	341.8	324.5	308.7	295.7
132.5°	460.1	448.6	432.7	418.3	408.2	398.1	379.3	360.6	344.7	328.8	315.9
135°	474.5	461.5	447.1	432.7	424.0	415.4	398.1	379.3	364.9	349.0	336.1
137.5°	486.1	473.1	460.1	445.7	437.0	428.4	413.9	396.6	382.2	369.2	354.8
140°	496.2	483.2	471.6	457.2	448.6	441.3	426.9	412.5	401.0	385.1	373.6
142.5°	504.8	491.8	481.7	467.3	458.7	452.9	439.9	425.5	415.4	402.4	392.3
145°	512.0	500.5	490.4	477.4	470.2	464.4	451.4	439.9	429.8	418.3	408.2
147.5°	520.7	507.7	499.0	486.1	480.3	474.5	463.0	451.4	442.8	431.3	422.6
150°	526.4	516.3	507.7	494.7	488.9	483.2	473.1	464.4	455.8	445.7	437.0
152.5°	530.8	522.1	513.5	501.9	497.6	493.3	483.2	474.5	467.3	458.7	450.0
155°	535.1	526.4	520.7	509.1	504.8	500.5	491.8	484.6	477.4	470.2	461.5
157.5°	538.0	530.8	525.0	514.9	512.0	507.7	500.5	493.3	487.5	480.3	473.1
160°	539.4	533.7	527.9	519.2	516.3	513.5	506.3	500.5	496.2	488.9	483.2
162.5°	539.4	535.1	529.3	522.1	519.2	516.3	512.0	506.3	503.4	497.6	491.8
165°	539.4	536.5	530.8	525.0	522.1	520.7	516.3	512.0	509.1	503.4	499.0
167.5°	538.0	535.1	530.8	526.4	525.0	522.1	519.2	514.9	513.5	510.6	504.8
170°	536.5	535.1	530.8	527.9	526.4	525.0	522.1	519.2	517.8	514.9	510.6
172.5°	533.7	533.7	530.8	527.9	526.4	525.0	522.1	520.7	520.7	517.8	514.9
175°	530.8	529.3	527.9	525.0	523.6	523.6	522.1	520.7	522.1	520.7	519.2
177.5°	523.6	525.0	522.1	522.1	520.7	520.7	520.7	520.7	522.1	522.1	520.7
180°	519.2	519.2	519.2	519.2	519.2	519.2	519.2	519.2	519.2	519.2	519.2



TEST NUMBER: P303119

CATALOG NUMBER: CTW-F-5050-20L830-UNV-STD-6

CANDELA DISTRIBUTION (continued):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	561.1	561.1	561.1	561.1	561.1	561.1	561.1	561.1	561.1	561.1	561.1
2.5°	562.5	561.1	559.6	559.6	559.6	556.7	556.7	558.2	559.6	562.5	559.6
5°	561.1	559.6	558.2	558.2	558.2	555.3	555.3	556.7	558.2	561.1	558.2
7.5°	556.7	556.7	553.8	553.8	553.8	551.0	551.0	552.4	553.8	556.7	553.8
10°	552.4	551.0	548.1	548.1	548.1	546.6	545.2	546.6	549.5	551.0	548.1
12.5°	545.2	543.8	542.3	540.9	540.9	538.0	538.0	539.4	542.3	543.8	542.3
15°	536.5	535.1	533.7	532.2	532.2	530.8	529.3	530.8	533.7	535.1	532.2
17.5°	526.4	525.0	523.6	522.1	522.1	520.7	519.2	520.7	523.6	523.6	522.1
20°	514.9	513.5	512.0	512.0	512.0	509.1	509.1	509.1	512.0	512.0	509.1
22.5°	503.4	501.9	499.0	499.0	499.0	497.6	496.2	497.6	500.5	497.6	496.2
25°	490.4	487.5	486.1	486.1	484.6	481.7	483.2	483.2	486.1	484.6	481.7
27.5°	476.0	474.5	473.1	471.6	470.2	468.8	468.8	468.8	471.6	468.8	467.3
30°	460.1	458.7	457.2	455.8	455.8	452.9	452.9	454.3	455.8	452.9	451.4
32.5°	442.8	441.3	439.9	439.9	438.5	437.0	437.0	437.0	438.5	435.6	434.1
35°	426.9	424.0	422.6	422.6	421.2	419.7	419.7	421.2	421.2	418.3	416.8
37.5°	408.2	406.7	405.3	403.8	403.8	402.4	402.4	402.4	402.4	399.5	398.1
40°	390.9	388.0	386.5	385.1	385.1	385.1	385.1	385.1	383.7	380.8	377.9
42.5°	367.8	366.3	364.9	364.9	363.5	363.5	363.5	363.5	362.0	360.6	359.1
45°	349.0	347.6	346.2	344.7	346.2	346.2	344.7	344.7	343.3	341.8	340.4
47.5°	330.3	328.8	327.4	326.0	327.4	327.4	326.0	326.0	324.5	324.5	321.6
50°	310.1	308.7	307.2	307.2	308.7	307.2	307.2	305.8	305.8	304.3	301.4
52.5°	291.3	289.9	287.0	287.0	288.5	288.5	287.0	285.6	285.6	285.6	282.7
55°	271.2	269.7	268.3	268.3	269.7	268.3	266.8	265.4	266.8	265.4	262.5
57.5°	251.0	249.5	248.1	248.1	249.5	248.1	246.6	246.6	245.2	245.2	243.8
60°	230.8	229.3	227.9	229.3	229.3	227.9	226.4	226.4	226.4	223.6	223.6
62.5°	210.6	207.7	207.7	207.7	209.1	207.7	206.3	206.3	204.8	203.4	203.4
65°	188.9	187.5	188.9	187.5	187.5	187.5	186.1	186.1	184.6	183.2	183.2
67.5°	168.8	167.3	168.8	167.3	167.3	167.3	167.3	165.9	164.4	164.4	163.0
70°	148.6	147.1	148.6	147.1	147.1	147.1	147.1	145.7	144.2	142.8	142.8
72.5°	128.4	126.9	126.9	126.9	126.9	126.9	125.5	125.5	124.0	124.0	124.0
75°	108.2	106.7	106.7	106.7	106.7	105.3	105.3	105.3	103.8	103.8	103.8
77.5°	88.0	86.5	88.0	88.0	86.5	86.5	86.5	86.5	85.1	83.7	83.7
80°	67.8	67.8	67.8	67.8	67.8	67.8	66.3	66.3	66.3	64.9	64.9
82.5°	49.0	49.0	49.0	49.0	47.6	47.6	47.6	47.6	46.2	44.7	44.7
85°	30.3	30.3	30.3	30.3	28.8	30.3	28.8	27.4	27.4	26.0	24.5
87.5°	14.4	14.4	13.0	11.5	11.5	11.5	10.1	11.5	10.1	8.7	8.7
90°	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
92.5°	7.2	8.7	10.1	10.1	10.1	8.7	8.7	8.7	8.7	8.7	7.2
95°	11.5	14.4	15.9	17.3	18.8	20.2	20.2	20.2	18.8	18.8	18.8
97.5°	18.8	20.2	21.6	21.6	23.1	24.5	27.4	28.8	30.3	31.7	30.3
100°	28.8	27.4	30.3	30.3	30.3	30.3	31.7	33.2	36.1	37.5	38.9
102.5°	40.4	37.5	37.5	38.9	38.9	40.4	40.4	40.4	41.8	43.3	44.7
105°	54.8	50.5	49.0	47.6	47.6	49.0	51.9	51.9	51.9	51.9	51.9
107.5°	72.1	66.3	60.6	59.1	57.7	59.1	60.6	63.5	64.9	64.9	63.5
110°	92.3	83.7	76.4	73.6	70.7	69.2	70.7	70.7	73.6	76.4	77.9



TEST NUMBER: P303119

CATALOG NUMBER: CTW-F-5050-20L830-UNV-STD-6

CANDELA DISTRIBUTION (continued):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
112.5°	115.4	102.4	92.3	90.9	86.5	82.2	80.8	80.8	82.2	83.7	86.5
115°	137.0	124.0	112.5	108.2	103.8	96.6	93.8	90.9	92.3	92.3	95.2
117.5°	163.0	147.1	134.1	128.4	122.6	113.9	106.7	103.8	102.4	102.4	102.4
120°	187.5	173.1	155.8	150.0	144.2	134.1	125.5	118.3	113.9	111.1	111.1
122.5°	210.6	196.2	180.3	173.1	165.9	155.8	145.7	135.6	129.8	124.0	121.2
125°	235.1	220.7	203.4	197.6	188.9	177.4	167.3	157.2	148.6	141.3	135.6
127.5°	258.2	243.8	226.4	219.2	213.5	201.9	188.9	178.8	168.8	161.5	152.9
130°	279.8	265.4	249.5	242.3	236.5	225.0	212.0	201.9	191.8	183.2	173.1
132.5°	301.4	287.0	272.6	265.4	258.2	248.1	235.1	225.0	213.5	204.8	197.6
135°	321.6	307.2	294.2	287.0	281.3	269.7	258.2	248.1	236.5	227.9	220.7
137.5°	341.8	327.4	314.4	307.2	301.4	291.3	281.3	271.2	259.6	251.0	242.3
140°	359.1	346.2	333.2	327.4	321.6	311.5	302.9	294.2	284.1	274.0	265.4
142.5°	377.9	364.9	353.4	346.2	340.4	330.3	321.6	314.4	305.8	295.7	288.5
145°	396.6	382.2	372.1	363.5	359.1	349.0	340.4	334.6	327.4	318.8	311.5
147.5°	411.1	399.5	390.9	385.1	377.9	367.8	359.1	353.4	347.6	338.9	333.2
150°	425.5	415.4	405.3	402.4	396.6	388.0	380.8	373.6	367.8	359.1	353.4
152.5°	441.3	429.8	422.6	416.8	412.5	403.8	396.6	392.3	389.4	379.3	375.0
155°	454.3	444.2	435.6	431.3	428.4	419.7	412.5	409.6	405.3	399.5	393.8
157.5°	465.9	457.2	448.6	444.2	442.8	434.1	428.4	424.0	421.2	416.8	411.1
160°	476.0	468.8	460.1	457.2	454.3	447.1	441.3	438.5	437.0	432.7	428.4
162.5°	486.1	478.8	471.6	468.8	465.9	460.1	454.3	451.4	450.0	447.1	442.8
165°	493.3	487.5	481.7	478.8	477.4	470.2	465.9	464.4	463.0	461.5	457.2
167.5°	501.9	496.2	490.4	488.9	486.1	481.7	477.4	476.0	474.5	474.5	470.2
170°	507.7	503.4	499.0	497.6	496.2	490.4	487.5	486.1	486.1	486.1	481.7
172.5°	513.5	510.6	504.8	504.8	503.4	499.0	496.2	496.2	494.7	496.2	491.8
175°	517.8	514.9	510.6	510.6	509.1	506.3	503.4	503.4	504.8	506.3	501.9
177.5°	520.7	517.8	514.9	514.9	513.5	512.0	509.1	510.6	512.0	513.5	510.6
180°	519.2	519.2	519.2	519.2	519.2	519.2	519.2	519.2	519.2	519.2	519.2



TEST NUMBER: P303119

CATALOG NUMBER: CTW-F-5050-20L830-UNV-STD-6

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	561.1	561.1	561.1	561.1	561.1	561.1	561.1	561.1
2.5°	562.5	561.1	559.6	559.6	558.2	558.2	558.2	558.2
5°	559.6	558.2	558.2	556.7	556.7	556.7	558.2	558.2
7.5°	556.7	553.8	553.8	552.4	552.4	552.4	553.8	553.8
10°	549.5	549.5	548.1	546.6	546.6	546.6	546.6	548.1
12.5°	542.3	540.9	540.9	538.0	538.0	539.4	539.4	540.9
15°	533.7	532.2	530.8	530.8	530.8	530.8	530.8	532.2
17.5°	523.6	522.1	520.7	519.2	519.2	520.7	520.7	520.7
20°	510.6	507.7	507.7	506.3	506.3	506.3	507.7	507.7
22.5°	496.2	493.3	493.3	491.8	491.8	493.3	493.3	493.3
25°	481.7	480.3	478.8	477.4	477.4	477.4	478.8	478.8
27.5°	467.3	464.4	464.4	463.0	463.0	463.0	463.0	463.0
30°	451.4	448.6	447.1	447.1	445.7	445.7	447.1	447.1
32.5°	432.7	431.3	429.8	429.8	428.4	429.8	429.8	429.8
35°	415.4	412.5	412.5	412.5	411.1	412.5	411.1	411.1
37.5°	398.1	393.8	393.8	393.8	393.8	393.8	393.8	393.8
40°	376.4	373.6	373.6	372.1	372.1	372.1	372.1	372.1
42.5°	357.7	354.8	354.8	353.4	353.4	353.4	353.4	353.4
45°	338.9	336.1	336.1	336.1	334.6	334.6	334.6	333.2
47.5°	318.8	317.3	317.3	315.9	315.9	315.9	315.9	315.9
50°	300.0	298.6	298.6	297.1	298.6	297.1	297.1	297.1
52.5°	279.8	279.8	278.4	278.4	278.4	276.9	276.9	276.9
55°	261.1	259.6	259.6	258.2	259.6	258.2	258.2	258.2
57.5°	240.9	240.9	240.9	239.4	239.4	238.0	238.0	238.0
60°	220.7	220.7	220.7	219.2	220.7	219.2	219.2	219.2
62.5°	201.9	201.9	200.5	200.5	200.5	199.0	199.0	199.0
65°	181.7	180.3	180.3	181.7	180.3	180.3	180.3	180.3
67.5°	163.0	163.0	161.5	161.5	161.5	160.1	160.1	160.1
70°	142.8	142.8	141.3	141.3	141.3	139.9	141.3	139.9
72.5°	122.6	122.6	121.2	122.6	121.2	119.7	121.2	121.2
75°	102.4	102.4	102.4	102.4	102.4	101.0	101.0	101.0
77.5°	83.7	83.7	82.2	82.2	82.2	82.2	82.2	80.8
80°	63.5	63.5	62.0	62.0	62.0	62.0	62.0	60.6
82.5°	44.7	43.3	43.3	43.3	43.3	41.8	41.8	41.8
85°	24.5	24.5	24.5	24.5	23.1	24.5	23.1	23.1
87.5°	8.7	8.7	8.7	7.2	7.2	8.7	8.7	7.2
90°	1.4	1.4	2.9	2.9	2.9	2.9	2.9	2.9
92.5°	7.2	7.2	7.2	5.8	5.8	5.8	5.8	5.8
95°	18.8	18.8	18.8	17.3	17.3	18.8	17.3	17.3
97.5°	30.3	30.3	30.3	30.3	28.8	30.3	28.8	28.8
100°	38.9	40.4	40.4	40.4	40.4	40.4	40.4	41.8
102.5°	46.2	46.2	46.2	46.2	47.6	47.6	47.6	47.6
105°	53.4	53.4	53.4	54.8	54.8	56.3	56.3	56.3
107.5°	63.5	63.5	63.5	63.5	64.9	64.9	64.9	64.9
110°	77.9	77.9	76.4	76.4	75.0	75.0	75.0	75.0



TEST NUMBER: P303119

CATALOG NUMBER: CTW-F-5050-20L830-UNV-STD-6

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
112.5°	89.4	90.9	90.9	90.9	90.9	90.9	90.9	90.9
115°	96.6	99.5	99.5	101.0	101.0	102.4	102.4	102.4
117.5°	103.8	106.7	106.7	108.2	108.2	109.6	111.1	111.1
120°	112.5	113.9	113.9	115.4	115.4	116.8	116.8	116.8
122.5°	121.2	121.2	121.2	122.6	122.6	122.6	124.0	124.0
125°	132.7	131.3	131.3	129.8	129.8	129.8	129.8	131.3
127.5°	148.6	144.2	142.8	142.8	141.3	139.9	139.9	138.5
130°	165.9	163.0	160.1	158.7	155.8	154.3	152.9	152.9
132.5°	188.9	183.2	180.3	177.4	174.5	171.6	171.6	170.2
135°	213.5	206.3	204.8	200.5	197.6	194.7	191.8	191.8
137.5°	235.1	229.3	227.9	225.0	222.1	217.8	217.8	214.9
140°	258.2	252.4	249.5	246.6	243.8	240.9	240.9	240.9
142.5°	281.3	275.5	272.6	269.7	266.8	263.9	262.5	263.9
145°	304.3	298.6	295.7	292.8	289.9	287.0	285.6	284.1
147.5°	326.0	320.2	317.3	315.9	313.0	310.1	308.7	307.2
150°	347.6	341.8	340.4	337.5	334.6	331.7	330.3	330.3
152.5°	367.8	363.5	360.6	357.7	356.3	353.4	351.9	351.9
155°	389.4	385.1	382.2	380.8	377.9	375.0	375.0	372.1
157.5°	408.2	403.8	401.0	399.5	396.6	395.2	395.2	395.2
160°	425.5	421.2	419.7	416.8	413.9	413.9	413.9	413.9
162.5°	441.3	438.5	437.0	434.1	431.3	431.3	431.3	429.8
165°	455.8	452.9	451.4	448.6	447.1	447.1	447.1	447.1
167.5°	470.2	465.9	464.4	463.0	461.5	461.5	461.5	461.5
170°	481.7	478.8	477.4	476.0	474.5	474.5	474.5	474.5
172.5°	493.3	491.8	490.4	487.5	487.5	487.5	488.9	487.5
175°	503.4	501.9	500.5	499.0	497.6	499.0	499.0	499.0
177.5°	512.0	510.6	510.6	509.1	507.7	506.3	507.7	506.3
180°	519.2	519.2	519.2	519.2	519.2	519.2	519.2	519.2

(END OF REPORT)