

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: P303131

Luminaire Tested: **CTW-F-5050-30L830-UNV-STD-4**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P303131
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1903-181-8)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: CORELITE
Catalog Number: CTW-F-5050-30L830-UNV-STD-4
Description: CORELITE CONTINUA LINEAR WALL LED LUMINAIRE
50% UPLIGHT, 50% DOWNLIGHT, 3000 LUMEN PACKAGE
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

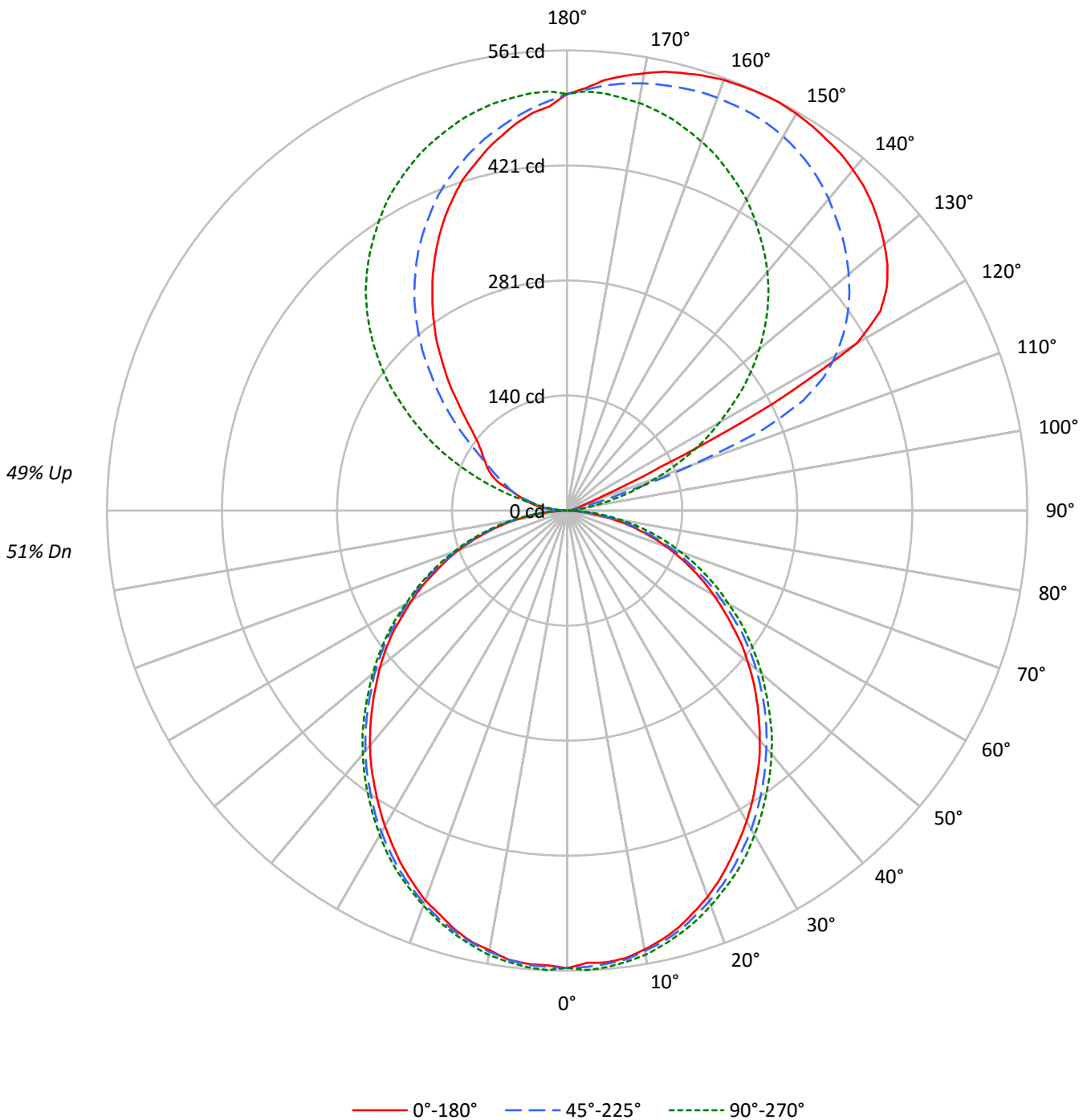
Lumens per Lamp: N/A
Luminaire Lumens: 2915.8 lumens
Efficiency: N/A
Efficacy: 120.0 lumens/watt
Spacing Criteria (0/90/45): 1.18 / 1.22 / 1.32
Luminous Opening: Rectangular (W 4' x L: 0.12' x H: 0')
CIE Type: General Diffuse

Input Watts (W): 24.3
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	94	90	86	90	87	83	80	73	71	69		61	60	58		50	49	48	43
2	89	82	75	70	82	76	70	66	64	60	57		54	51	48		44	42	40	36
3	81	72	64	58	75	66	60	55	57	52	48		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	34	30		31	28	26	22
6	63	51	42	36	58	47	40	34	40	35	30		34	30	26		28	25	22	20
7	58	46	38	32	53	43	35	30	37	31	27		31	27	23		26	23	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	19	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°	12006	12006	12006
5°	11948	12074	11989
10°	11877	12023	11896
15°	11723	11895	11785
20°	11478	11741	11588
25°	11169	11580	11328
30°	10875	11353	11042
35°	10562	11119	10765
40°	10269	10890	10510
45°	9952	10625	10217
50°	9629	10369	9984
55°	9241	10104	9743
60°	8900	9769	9399
65°	8522	9551	9062
70°	8107	9259	8837
75°	7436	8958	8318
80°	6323	8343	7624
85°	3804	7361	5706



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	52.7	1.8
10°-20°	149.1	5.1
20°-30°	220.7	7.6
30°-40°	259.2	8.9
40°-50°	262.8	9.0
50°-60°	233.8	8.0
60°-70°	178.2	6.1
70°-80°	105.9	3.6
80°-90°	28.6	1.0
90°-100°	13.9	0.5
100°-110°	59.4	2.0
110°-120°	168.3	5.8
120°-130°	251.9	8.6
130°-140°	272.3	9.3
140°-150°	259.2	8.9
150°-160°	212.6	7.3
160°-170°	139.0	4.8
170°-180°	48.2	1.7
0°-30°	422.5	14.5
0°-40°	681.7	23.4
0°-60°	1178.3	40.4
0°-90°	1491.0	51.1
90°-120°	241.7	8.3
90°-150°	1025.1	35.2
90°-180°	1425.0	48.9
0°-180°	2915.8	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	558	558	558	558	558	
5°	553	555	559	556	555	52
15°	526	530	534	531	529	148
25°	470	480	488	484	477	217
35°	402	414	423	418	410	252
45°	327	340	349	344	336	252
55°	246	261	269	265	260	221
65°	167	175	188	184	178	166
75°	89	95	108	104	100	94
85°	15	20	30	27	23	20
90°	1	1	1	2	3	1
95°	3	3	11	21	19	3
105°	14	35	68	52	56	16
115°	125	317	166	90	101	165
125°	476	417	262	147	128	420
135°	527	474	345	235	190	407
145°	552	514	410	325	284	346
155°	561	534	460	397	369	259
165°	552	534	494	453	436	157
175°	527	520	511	492	486	51
180°	508	508	508	508	508	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	557.7	557.7	557.7	557.7	557.7	557.7	557.7	557.7	557.7	557.7	557.7
2.5°	551.9	551.9	554.8	555.8	555.8	556.7	557.7	558.7	558.7	558.7	556.7
5°	552.9	552.9	552.9	552.9	552.9	553.8	554.8	555.8	556.7	555.8	554.8
7.5°	550.0	550.0	550.0	550.0	549.0	550.0	550.0	551.9	551.9	551.9	551.9
10°	543.3	543.3	543.3	544.2	543.3	544.2	545.2	546.2	547.1	547.1	545.2
12.5°	535.6	535.6	535.6	536.5	535.6	535.6	537.5	537.5	539.4	538.5	538.5
15°	526.0	526.0	526.0	527.9	526.9	526.9	527.9	528.8	529.8	529.8	529.8
17.5°	513.5	513.5	515.4	516.3	515.4	516.3	516.3	517.3	519.2	519.2	518.3
20°	501.0	501.0	501.0	502.9	501.9	502.9	502.9	504.8	506.7	506.7	506.7
22.5°	486.5	485.6	486.5	487.5	487.5	488.5	488.5	490.4	492.3	493.3	494.2
25°	470.2	470.2	471.2	473.1	473.1	473.1	474.0	476.0	477.9	478.8	479.8
27.5°	453.8	453.8	454.8	456.7	457.7	457.7	457.7	460.6	463.5	464.4	464.4
30°	437.5	437.5	437.5	439.4	440.4	440.4	440.4	443.3	446.2	449.0	449.0
32.5°	420.2	420.2	420.2	423.1	424.0	424.0	424.0	426.0	428.8	430.8	431.7
35°	401.9	401.9	402.9	404.8	405.8	405.8	405.8	407.7	409.6	413.5	414.4
37.5°	384.6	383.7	384.6	386.5	387.5	387.5	386.5	389.4	392.3	395.2	396.2
40°	365.4	364.4	366.3	367.3	368.3	368.3	368.3	371.2	374.0	376.9	377.9
42.5°	346.2	346.2	347.1	348.1	349.0	349.0	350.0	351.9	353.8	357.7	359.6
45°	326.9	326.0	327.9	328.8	330.8	329.8	330.8	331.7	334.6	337.5	340.4
47.5°	307.7	307.7	307.7	308.7	310.6	311.5	311.5	312.5	315.4	318.3	320.2
50°	287.5	287.5	288.5	289.4	291.3	291.3	292.3	293.3	294.2	299.0	301.0
52.5°	268.3	268.3	268.3	269.2	272.1	272.1	272.1	274.0	276.0	277.9	280.8
55°	246.2	247.1	247.1	247.1	250.0	250.0	251.0	251.9	253.8	257.7	260.6
57.5°	226.0	226.9	226.9	227.9	228.8	229.8	230.8	230.8	232.7	234.6	237.5
60°	206.7	207.7	207.7	207.7	209.6	209.6	210.6	211.5	212.5	214.4	217.3
62.5°	187.5	187.5	187.5	187.5	189.4	189.4	190.4	192.3	192.3	194.2	197.1
65°	167.3	168.3	167.3	168.3	169.2	169.2	170.2	172.1	172.1	174.0	175.0
67.5°	148.1	148.1	148.1	149.0	149.0	150.0	150.0	151.9	152.9	153.8	154.8
70°	128.8	128.8	127.9	128.8	129.8	130.8	130.8	131.7	132.7	133.7	135.6
72.5°	108.7	108.7	108.7	109.6	109.6	110.6	110.6	112.5	113.5	114.4	115.4
75°	89.4	89.4	89.4	90.4	90.4	90.4	91.3	92.3	93.3	94.2	95.2
77.5°	70.2	70.2	70.2	71.2	70.2	71.2	71.2	73.1	74.0	75.0	76.0
80°	51.0	51.0	51.0	51.9	52.9	52.9	52.9	53.8	54.8	55.8	56.7
82.5°	32.7	31.7	31.7	32.7	33.7	33.7	34.6	34.6	35.6	36.5	38.5
85°	15.4	15.4	14.4	15.4	16.3	16.3	17.3	17.3	18.3	19.2	20.2
87.5°	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.9	2.9	2.9	3.8
90°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
92.5°	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
95°	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9
97.5°	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	5.8	5.8
100°	6.7	6.7	6.7	6.7	6.7	7.7	7.7	7.7	8.7	9.6	10.6
102.5°	9.6	9.6	9.6	9.6	10.6	10.6	10.6	11.5	12.5	15.4	18.3
105°	13.5	13.5	14.4	14.4	15.4	15.4	16.3	17.3	20.2	25.0	34.6
107.5°	19.2	19.2	20.2	20.2	22.1	23.1	25.0	27.9	35.6	50.0	74.0
110°	27.9	28.8	30.8	31.7	36.5	39.4	43.3	55.8	79.8	117.3	160.6



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
112.5°	51.0	51.9	59.6	64.4	78.8	89.4	100.0	135.6	184.6	229.8	258.7
115°	125.0	130.8	141.3	160.6	191.3	213.5	233.7	273.1	304.8	316.3	317.3
117.5°	283.7	288.5	302.9	318.3	338.5	351.9	357.7	366.3	367.3	360.6	352.9
120°	407.7	407.7	407.7	411.5	411.5	413.5	410.6	406.7	398.1	387.5	377.9
122.5°	452.9	451.0	450.0	447.1	443.3	440.4	437.5	429.8	422.1	410.6	399.0
125°	476.0	473.1	472.1	468.3	462.5	460.6	456.7	449.0	440.4	428.8	417.3
127.5°	492.3	489.4	487.5	484.6	478.8	476.0	472.1	464.4	455.8	445.2	433.7
130°	504.8	501.9	500.0	498.1	491.3	489.4	485.6	477.9	469.2	459.6	448.1
132.5°	516.3	514.4	511.5	508.7	504.8	501.9	498.1	491.3	482.7	473.1	461.5
135°	526.9	524.0	522.1	520.2	514.4	512.5	508.7	501.9	494.2	483.7	474.0
137.5°	535.6	532.7	530.8	527.9	524.0	520.2	517.3	511.5	503.8	495.2	484.6
140°	542.3	539.4	537.5	534.6	530.8	527.9	525.0	520.2	513.5	504.8	496.2
142.5°	548.1	544.2	543.3	540.4	536.5	534.6	531.7	526.9	521.2	512.5	505.8
145°	551.9	549.0	548.1	545.2	542.3	539.4	538.5	534.6	527.9	519.2	514.4
147.5°	555.8	552.9	551.9	550.0	546.2	544.2	543.3	538.5	532.7	525.0	521.2
150°	558.7	555.8	554.8	552.9	549.0	548.1	547.1	543.3	537.5	529.8	526.9
152.5°	560.6	556.7	555.8	553.8	551.0	550.0	549.0	545.2	540.4	533.7	530.8
155°	560.6	557.7	556.7	554.8	551.9	551.0	549.0	546.2	541.3	536.5	533.7
157.5°	559.6	557.7	556.7	554.8	551.0	551.0	549.0	546.2	542.3	538.5	534.6
160°	558.7	555.8	555.8	553.8	551.0	551.0	549.0	547.1	542.3	539.4	535.6
162.5°	555.8	553.8	553.8	551.9	550.0	550.0	548.1	546.2	541.3	540.4	535.6
165°	551.9	550.0	550.0	549.0	546.2	546.2	545.2	542.3	539.4	538.5	533.7
167.5°	548.1	545.2	545.2	544.2	541.3	541.3	541.3	539.4	536.5	537.5	531.7
170°	541.3	538.5	538.5	537.5	536.5	536.5	536.5	534.6	531.7	533.7	528.8
172.5°	534.6	533.7	532.7	531.7	530.8	530.8	530.8	529.8	527.9	529.8	525.0
175°	526.9	525.0	525.0	524.0	524.0	524.0	524.0	524.0	522.1	525.0	520.2
177.5°	515.4	513.5	514.4	515.4	515.4	516.3	516.3	516.3	515.4	518.3	513.5
180°	507.7	507.7	507.7	507.7	507.7	507.7	507.7	507.7	507.7	507.7	507.7



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CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	557.7	557.7	557.7	557.7	557.7	557.7	557.7	557.7	557.7	557.7	557.7
2.5°	554.8	556.7	555.8	555.8	555.8	555.8	555.8	556.7	559.6	560.6	560.6
5°	552.9	554.8	553.8	552.9	552.9	552.9	552.9	554.8	557.7	558.7	557.7
7.5°	549.0	551.0	550.0	549.0	550.0	550.0	550.0	551.9	554.8	554.8	554.8
10°	543.3	545.2	544.2	544.2	544.2	544.2	545.2	546.2	549.0	550.0	549.0
12.5°	536.5	537.5	536.5	537.5	537.5	537.5	537.5	538.5	541.3	542.3	542.3
15°	527.9	528.8	527.9	528.8	527.9	528.8	528.8	530.8	532.7	533.7	534.6
17.5°	517.3	517.3	517.3	518.3	518.3	518.3	518.3	520.2	523.1	524.0	524.0
20°	504.8	505.8	506.7	506.7	506.7	507.7	507.7	508.7	512.5	512.5	513.5
22.5°	493.3	493.3	494.2	494.2	495.2	495.2	495.2	496.2	500.0	500.0	500.0
25°	478.8	478.8	480.8	481.7	481.7	481.7	482.7	483.7	487.5	487.5	487.5
27.5°	463.5	463.5	466.3	465.4	466.3	467.3	468.3	470.2	472.1	473.1	473.1
30°	448.1	448.1	450.0	450.0	451.0	451.0	451.9	453.8	456.7	456.7	457.7
32.5°	432.7	432.7	433.7	434.6	435.6	434.6	435.6	437.5	440.4	440.4	441.3
35°	415.4	414.4	416.3	417.3	417.3	418.3	418.3	420.2	423.1	423.1	424.0
37.5°	398.1	397.1	399.0	400.0	401.0	401.0	401.0	402.9	404.8	405.8	406.7
40°	379.8	378.8	381.7	382.7	382.7	382.7	382.7	384.6	386.5	387.5	388.5
42.5°	359.6	360.6	362.5	364.4	364.4	364.4	365.4	365.4	368.3	369.2	370.2
45°	341.3	342.3	343.3	346.2	345.2	344.2	346.2	346.2	349.0	349.0	350.0
47.5°	322.1	323.1	323.1	326.0	326.0	325.0	326.9	326.9	328.8	328.8	330.8
50°	302.9	303.8	303.8	306.7	306.7	305.8	307.7	307.7	309.6	309.6	311.5
52.5°	281.7	283.7	283.7	286.5	287.5	286.5	287.5	287.5	289.4	289.4	291.3
55°	261.5	263.5	264.4	265.4	267.3	266.3	267.3	268.3	270.2	269.2	271.2
57.5°	240.4	240.4	242.3	243.3	244.2	244.2	247.1	246.2	246.2	249.0	250.0
60°	219.2	220.2	222.1	223.1	224.0	224.0	225.0	226.0	226.9	226.9	228.8
62.5°	199.0	201.0	201.9	202.9	203.8	202.9	205.8	206.7	207.7	207.7	207.7
65°	178.8	179.8	181.7	182.7	182.7	182.7	185.6	186.5	186.5	187.5	187.5
67.5°	157.7	159.6	161.5	161.5	163.5	162.5	165.4	166.3	166.3	167.3	168.3
70°	137.5	138.5	140.4	141.3	143.3	142.3	144.2	145.2	146.2	147.1	148.1
72.5°	117.3	118.3	120.2	121.2	122.1	123.1	124.0	126.0	126.9	127.9	127.9
75°	97.1	98.1	100.0	101.0	101.9	102.9	103.8	105.8	105.8	107.7	107.7
77.5°	77.9	78.8	79.8	80.8	82.7	83.7	84.6	85.6	86.5	87.5	87.5
80°	58.7	58.7	60.6	61.5	63.5	63.5	64.4	65.4	67.3	67.3	67.3
82.5°	39.4	40.4	41.3	42.3	44.2	44.2	45.2	47.1	48.1	48.1	48.1
85°	21.2	22.1	24.0	25.0	26.0	26.0	27.9	28.8	29.8	29.8	29.8
87.5°	4.8	5.8	6.7	7.7	9.6	10.6	10.6	11.5	12.5	12.5	12.5
90°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
92.5°	1.9	1.9	1.9	1.9	1.9	2.9	3.8	4.8	4.8	3.8	4.8
95°	3.8	3.8	4.8	6.7	8.7	9.6	13.5	14.4	12.5	10.6	10.6
97.5°	6.7	8.7	11.5	17.3	21.2	24.0	28.8	26.9	23.1	20.2	18.3
100°	13.5	18.3	25.0	36.5	42.3	47.1	49.0	44.2	38.5	32.7	28.8
102.5°	24.0	36.5	51.9	70.2	76.0	77.9	76.9	67.3	57.7	48.1	42.3
105°	50.0	73.1	100.0	113.5	116.3	114.4	104.8	94.2	80.8	68.3	58.7
107.5°	107.7	140.4	157.7	159.6	156.7	151.0	136.5	122.1	105.8	91.3	77.9
110°	191.3	208.7	208.7	200.0	192.3	185.6	167.3	151.0	132.7	115.4	101.0



TEST NUMBER: P303131

CATALOG NUMBER: CTW-F-5050-30L830-UNV-STD-4

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
112.5°	263.5	260.6	248.1	232.7	224.0	215.4	196.2	178.8	158.7	141.3	124.0
115°	308.7	295.2	279.8	262.5	252.9	242.3	225.0	204.8	183.7	166.3	148.1
117.5°	338.5	323.1	305.8	289.4	279.8	272.1	251.9	228.8	209.6	191.3	173.1
120°	362.5	346.2	329.8	313.5	304.8	296.2	275.0	254.8	232.7	214.4	197.1
122.5°	382.7	367.3	351.0	335.6	326.9	317.3	298.1	277.9	259.6	237.5	221.2
125°	402.9	388.5	371.2	356.7	347.1	336.5	319.2	299.0	280.8	262.5	245.2
127.5°	420.2	405.8	391.3	375.0	365.4	355.8	338.5	319.2	301.9	284.6	268.3
130°	435.6	423.1	407.7	391.3	381.7	373.1	355.8	338.5	322.1	305.8	289.4
132.5°	451.9	437.5	423.1	406.7	398.1	389.4	374.0	357.7	341.3	326.0	310.6
135°	465.4	451.0	435.6	419.2	412.5	404.8	390.4	375.0	359.6	345.2	330.8
137.5°	477.9	461.5	447.1	431.7	426.0	419.2	404.8	390.4	376.9	363.5	349.0
140°	487.5	471.2	457.7	444.2	438.5	431.7	417.3	405.8	393.3	379.8	366.3
142.5°	495.2	479.8	466.3	454.8	449.0	444.2	430.8	419.2	407.7	395.2	382.7
145°	501.9	488.5	476.0	464.4	460.6	454.8	442.3	432.7	422.1	409.6	398.1
147.5°	507.7	496.2	484.6	474.0	469.2	464.4	452.9	444.2	433.7	424.0	412.5
150°	513.5	502.9	492.3	482.7	478.8	474.0	462.5	454.8	447.1	437.5	426.9
152.5°	517.3	507.7	498.1	490.4	486.5	482.7	472.1	466.3	457.7	449.0	439.4
155°	521.2	512.5	503.8	497.1	494.2	490.4	481.7	476.0	468.3	459.6	451.0
157.5°	524.0	516.3	508.7	502.9	500.0	497.1	488.5	484.6	477.9	470.2	461.5
160°	525.0	518.3	512.5	507.7	504.8	501.9	495.2	491.3	485.6	478.8	471.2
162.5°	525.0	520.2	514.4	511.5	508.7	505.8	500.0	497.1	492.3	486.5	479.8
165°	525.0	521.2	516.3	513.5	511.5	509.6	504.8	501.9	497.1	494.2	487.5
167.5°	525.0	521.2	517.3	515.4	513.5	511.5	508.7	506.7	502.9	500.0	494.2
170°	523.1	519.2	517.3	516.3	514.4	513.5	510.6	509.6	506.7	504.8	500.0
172.5°	520.2	517.3	516.3	515.4	514.4	513.5	511.5	510.6	508.7	507.7	504.8
175°	516.3	514.4	513.5	513.5	513.5	512.5	510.6	511.5	510.6	510.6	507.7
177.5°	510.6	509.6	509.6	509.6	510.6	509.6	509.6	510.6	510.6	511.5	509.6
180°	507.7	507.7	507.7	507.7	507.7	507.7	507.7	507.7	507.7	507.7	507.7



TEST NUMBER: P303131

CATALOG NUMBER: CTW-F-5050-30L830-UNV-STD-4

CANDELA DISTRIBUTION (continued):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	557.7	557.7	557.7	557.7	557.7	557.7	557.7	557.7	557.7	557.7	557.7
2.5°	559.6	557.7	556.7	556.7	555.8	553.8	553.8	554.8	556.7	560.6	557.7
5°	557.7	556.7	553.8	553.8	553.8	552.9	551.0	552.9	555.8	558.7	554.8
7.5°	553.8	552.9	551.0	551.0	551.0	549.0	548.1	550.0	551.9	553.8	551.0
10°	549.0	547.1	546.2	545.2	545.2	543.3	542.3	544.2	546.2	548.1	546.2
12.5°	542.3	540.4	538.5	538.5	537.5	536.5	535.6	537.5	539.4	541.3	539.4
15°	533.7	531.7	529.8	529.8	529.8	526.9	526.9	527.9	530.8	531.7	528.8
17.5°	524.0	521.2	519.2	520.2	519.2	516.3	517.3	517.3	521.2	521.2	519.2
20°	512.5	509.6	508.7	508.7	507.7	505.8	505.8	506.7	509.6	508.7	506.7
22.5°	500.0	497.1	497.1	496.2	496.2	493.3	493.3	494.2	497.1	495.2	493.3
25°	486.5	484.6	483.7	483.7	481.7	479.8	479.8	480.8	483.7	480.8	479.8
27.5°	471.2	470.2	469.2	469.2	467.3	465.4	466.3	466.3	468.3	466.3	464.4
30°	456.7	454.8	453.8	453.8	451.9	449.0	450.0	450.0	452.9	450.0	450.0
32.5°	441.3	438.5	438.5	437.5	435.6	433.7	434.6	435.6	436.5	432.7	433.7
35°	424.0	421.2	421.2	420.2	418.3	417.3	417.3	418.3	418.3	415.4	415.4
37.5°	406.7	404.8	403.8	402.9	401.0	400.0	401.0	401.9	401.0	398.1	398.1
40°	388.5	386.5	384.6	384.6	383.7	382.7	382.7	384.6	382.7	379.8	379.8
42.5°	370.2	368.3	366.3	366.3	365.4	365.4	365.4	366.3	363.5	362.5	360.6
45°	351.0	349.0	347.1	347.1	346.2	346.2	346.2	346.2	344.2	343.3	342.3
47.5°	331.7	329.8	327.9	327.9	326.9	327.9	327.9	326.9	324.0	324.0	323.1
50°	312.5	310.6	308.7	308.7	308.7	308.7	308.7	307.7	305.8	304.8	303.8
52.5°	292.3	290.4	288.5	289.4	288.5	289.4	288.5	287.5	285.6	284.6	283.7
55°	272.1	270.2	269.2	270.2	269.2	269.2	268.3	267.3	265.4	265.4	263.5
57.5°	251.0	248.1	248.1	249.0	248.1	248.1	246.2	245.2	243.3	243.3	241.3
60°	228.8	227.9	227.9	227.9	227.9	226.9	226.0	226.0	224.0	223.1	221.2
62.5°	208.7	208.7	207.7	208.7	206.7	206.7	205.8	204.8	203.8	202.9	201.9
65°	188.5	187.5	187.5	186.5	186.5	186.5	185.6	184.6	183.7	182.7	181.7
67.5°	167.3	167.3	167.3	167.3	166.3	166.3	165.4	164.4	162.5	163.5	161.5
70°	147.1	147.1	147.1	147.1	146.2	146.2	145.2	144.2	142.3	143.3	142.3
72.5°	126.9	126.9	126.9	126.9	126.0	126.0	124.0	124.0	124.0	123.1	122.1
75°	106.7	106.7	106.7	105.8	105.8	105.8	103.8	103.8	103.8	103.8	101.9
77.5°	86.5	87.5	86.5	86.5	85.6	85.6	85.6	84.6	84.6	83.7	82.7
80°	66.3	67.3	67.3	67.3	66.3	66.3	66.3	65.4	64.4	64.4	63.5
82.5°	49.0	48.1	48.1	48.1	47.1	47.1	47.1	46.2	46.2	45.2	44.2
85°	29.8	29.8	29.8	29.8	28.8	28.8	27.9	26.9	26.9	25.0	25.0
87.5°	13.5	12.5	12.5	12.5	12.5	11.5	10.6	9.6	9.6	8.7	8.7
90°	1.0	1.0	1.9	1.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9
92.5°	6.7	8.7	9.6	10.6	9.6	10.6	10.6	10.6	9.6	9.6	9.6
95°	11.5	13.5	16.3	17.3	18.3	20.2	21.2	21.2	21.2	20.2	20.2
97.5°	18.3	20.2	21.2	22.1	22.1	25.0	26.9	28.8	30.8	30.8	31.7
100°	27.9	26.9	28.8	30.8	30.8	30.8	31.7	33.7	35.6	36.5	38.5
102.5°	39.4	36.5	36.5	37.5	38.5	41.3	40.4	41.3	42.3	43.3	44.2
105°	52.9	50.0	47.1	47.1	47.1	49.0	51.9	53.8	51.9	51.9	52.9
107.5°	70.2	64.4	59.6	58.7	58.7	57.7	59.6	62.5	64.4	65.4	64.4
110°	89.4	80.8	76.0	71.2	70.2	69.2	69.2	70.2	73.1	76.0	77.9



TEST NUMBER: P303131

CATALOG NUMBER: CTW-F-5050-30L830-UNV-STD-4

CANDELA DISTRIBUTION (continued):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
112.5°	111.5	101.0	92.3	88.5	84.6	80.8	79.8	79.8	80.8	83.7	85.6
115°	134.6	122.1	110.6	105.8	102.9	95.2	91.3	89.4	90.4	91.3	93.3
117.5°	158.7	145.2	131.7	126.0	122.1	113.5	105.8	102.9	101.0	100.0	101.9
120°	182.7	169.2	155.8	148.1	142.3	132.7	124.0	116.3	112.5	110.6	109.6
122.5°	205.8	192.3	178.8	171.2	165.4	152.9	144.2	134.6	127.9	123.1	120.2
125°	228.8	215.4	201.9	194.2	188.5	175.0	164.4	155.8	147.1	139.4	133.7
127.5°	251.9	237.5	224.0	217.3	211.5	197.1	185.6	176.9	168.3	159.6	151.9
130°	275.0	262.5	248.1	239.4	234.6	220.2	208.7	198.1	190.4	181.7	172.1
132.5°	295.2	283.7	270.2	263.5	256.7	242.3	232.7	221.2	212.5	203.8	195.2
135°	316.3	303.8	290.4	284.6	278.8	267.3	255.8	244.2	234.6	226.0	217.3
137.5°	334.6	324.0	310.6	304.8	299.0	288.5	277.9	269.2	259.6	250.0	239.4
140°	352.9	341.3	329.8	324.0	318.3	309.6	299.0	291.3	281.7	274.0	263.5
142.5°	369.2	357.7	348.1	342.3	336.5	327.9	318.3	311.5	303.8	295.2	288.5
145°	385.6	375.0	365.4	359.6	354.8	346.2	336.5	331.7	325.0	316.3	308.7
147.5°	400.0	390.4	380.8	376.0	372.1	363.5	355.8	350.0	344.2	336.5	329.8
150°	414.4	404.8	396.2	392.3	387.5	380.8	374.0	367.3	363.5	355.8	350.0
152.5°	427.9	419.2	410.6	407.7	403.8	396.2	389.4	383.7	380.8	374.0	369.2
155°	441.3	432.7	424.0	422.1	418.3	411.5	404.8	400.0	397.1	390.4	385.6
157.5°	452.9	444.2	437.5	434.6	430.8	425.0	419.2	415.4	413.5	407.7	402.9
160°	463.5	455.8	449.0	446.2	443.3	437.5	433.7	428.8	427.9	423.1	419.2
162.5°	472.1	465.4	459.6	457.7	454.8	450.0	446.2	441.3	440.4	437.5	433.7
165°	480.8	474.0	469.2	467.3	465.4	460.6	457.7	453.8	452.9	451.0	447.1
167.5°	488.5	482.7	477.9	476.9	475.0	471.2	469.2	465.4	464.4	463.5	459.6
170°	494.2	489.4	485.6	484.6	482.7	479.8	477.9	475.0	474.0	475.0	471.2
172.5°	499.0	495.2	492.3	491.3	490.4	488.5	486.5	484.6	483.7	485.6	481.7
175°	503.8	500.0	498.1	497.1	497.1	495.2	494.2	492.3	492.3	494.2	491.3
177.5°	506.7	503.8	501.9	501.9	501.0	500.0	500.0	498.1	500.0	501.9	499.0
180°	507.7	507.7	507.7	507.7	507.7	507.7	507.7	507.7	507.7	507.7	507.7



TEST NUMBER: P303131

CATALOG NUMBER: CTW-F-5050-30L830-UNV-STD-4

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	557.7	557.7	557.7	557.7	557.7	557.7	557.7	557.7
2.5°	559.6	557.7	557.7	556.7	555.8	554.8	554.8	554.8
5°	556.7	555.8	554.8	552.9	552.9	553.8	554.8	554.8
7.5°	551.9	551.9	551.0	550.0	549.0	551.0	551.0	551.9
10°	547.1	546.2	545.2	544.2	543.3	544.2	544.2	544.2
12.5°	539.4	538.5	537.5	535.6	535.6	536.5	536.5	538.5
15°	530.8	529.8	527.9	527.9	526.9	527.9	527.9	528.8
17.5°	520.2	518.3	517.3	516.3	516.3	517.3	517.3	516.3
20°	507.7	505.8	503.8	502.9	502.9	503.8	503.8	505.8
22.5°	493.3	491.3	490.4	489.4	489.4	490.4	490.4	491.3
25°	479.8	477.9	476.9	476.0	476.0	476.0	476.0	476.9
27.5°	465.4	462.5	460.6	460.6	459.6	459.6	459.6	460.6
30°	448.1	445.2	444.2	444.2	443.3	443.3	443.3	444.2
32.5°	430.8	428.8	427.9	426.9	426.0	426.9	426.0	426.9
35°	413.5	410.6	410.6	410.6	409.6	409.6	408.7	409.6
37.5°	396.2	393.3	392.3	392.3	391.3	391.3	391.3	392.3
40°	377.9	375.0	375.0	374.0	373.1	373.1	373.1	374.0
42.5°	358.7	356.7	355.8	355.8	354.8	354.8	354.8	354.8
45°	339.4	336.5	336.5	337.5	335.6	335.6	335.6	335.6
47.5°	320.2	318.3	318.3	318.3	316.3	316.3	316.3	316.3
50°	301.0	300.0	299.0	299.0	299.0	298.1	298.1	298.1
52.5°	281.7	280.8	279.8	280.8	278.8	278.8	278.8	278.8
55°	261.5	260.6	260.6	261.5	259.6	259.6	258.7	259.6
57.5°	239.4	238.5	238.5	238.5	238.5	237.5	237.5	237.5
60°	220.2	219.2	219.2	219.2	218.3	218.3	218.3	218.3
62.5°	200.0	200.0	200.0	199.0	199.0	198.1	198.1	199.0
65°	180.8	179.8	179.8	179.8	178.8	178.8	177.9	177.9
67.5°	160.6	160.6	160.6	159.6	159.6	158.7	158.7	159.6
70°	141.3	141.3	140.4	140.4	140.4	139.4	139.4	140.4
72.5°	122.1	121.2	121.2	120.2	121.2	119.2	119.2	120.2
75°	101.9	101.9	101.0	101.0	101.0	100.0	100.0	100.0
77.5°	82.7	82.7	81.7	81.7	81.7	80.8	80.8	80.8
80°	63.5	62.5	62.5	62.5	62.5	61.5	60.6	61.5
82.5°	43.3	43.3	43.3	43.3	42.3	41.3	40.4	41.3
85°	25.0	24.0	24.0	25.0	24.0	24.0	24.0	23.1
87.5°	8.7	7.7	7.7	7.7	7.7	8.7	7.7	7.7
90°	1.9	1.9	1.9	2.9	2.9	2.9	2.9	2.9
92.5°	9.6	9.6	8.7	8.7	8.7	8.7	7.7	7.7
95°	19.2	19.2	19.2	19.2	19.2	19.2	19.2	19.2
97.5°	31.7	31.7	30.8	30.8	30.8	30.8	30.8	30.8
100°	39.4	40.4	40.4	40.4	41.3	41.3	41.3	41.3
102.5°	46.2	46.2	47.1	47.1	47.1	48.1	48.1	48.1
105°	52.9	53.8	53.8	53.8	54.8	54.8	55.8	55.8
107.5°	63.5	63.5	63.5	63.5	64.4	64.4	64.4	64.4
110°	77.9	77.9	76.9	76.0	76.0	76.0	75.0	75.0



TEST NUMBER: P303131

CATALOG NUMBER: CTW-F-5050-30L830-UNV-STD-4

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
112.5°	87.5	89.4	89.4	90.4	91.3	91.3	91.3	91.3
115°	95.2	97.1	98.1	99.0	100.0	100.0	101.0	101.0
117.5°	102.9	103.8	104.8	105.8	106.7	107.7	107.7	108.7
120°	110.6	111.5	112.5	112.5	113.5	114.4	114.4	114.4
122.5°	119.2	120.2	119.2	119.2	120.2	120.2	120.2	121.2
125°	130.8	129.8	128.8	128.8	127.9	127.9	127.9	127.9
127.5°	146.2	144.2	142.3	140.4	139.4	138.5	137.5	137.5
130°	165.4	161.5	158.7	156.7	154.8	152.9	151.0	151.0
132.5°	187.5	182.7	179.8	176.9	174.0	171.2	168.3	169.2
135°	210.6	206.7	202.9	200.0	196.2	192.3	190.4	190.4
137.5°	232.7	227.9	225.0	223.1	220.2	216.3	213.5	214.4
140°	257.7	249.0	247.1	245.2	242.3	238.5	236.5	236.5
142.5°	279.8	273.1	271.2	270.2	266.3	262.5	260.6	261.5
145°	301.9	295.2	294.2	292.3	289.4	285.6	283.7	283.7
147.5°	323.1	317.3	316.3	314.4	311.5	307.7	305.8	305.8
150°	344.2	338.5	336.5	335.6	332.7	328.8	326.9	327.9
152.5°	363.5	357.7	356.7	355.8	351.9	350.0	348.1	349.0
155°	381.7	376.0	375.0	374.0	372.1	369.2	368.3	369.2
157.5°	399.0	394.2	393.3	392.3	390.4	387.5	386.5	388.5
160°	415.4	411.5	410.6	409.6	408.7	406.7	404.8	405.8
162.5°	430.8	426.9	426.9	426.0	425.0	423.1	422.1	423.1
165°	445.2	442.3	441.3	440.4	439.4	438.5	437.5	436.5
167.5°	458.7	454.8	454.8	452.9	452.9	451.9	451.0	451.0
170°	470.2	467.3	467.3	465.4	465.4	464.4	463.5	463.5
172.5°	480.8	478.8	477.9	477.9	477.9	476.9	476.0	476.0
175°	491.3	489.4	488.5	487.5	487.5	486.5	485.6	486.5
177.5°	500.0	499.0	498.1	497.1	497.1	495.2	494.2	493.3
180°	507.7	507.7	507.7	507.7	507.7	507.7	507.7	507.7

(END OF REPORT)