

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: P303165

Luminaire Tested: **CTW-F-5050-50L830-UNV-STD-4**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P303165
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1903-181-10)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: CORELITE
Catalog Number: CTW-F-5050-50L830-UNV-STD-4
Description: CORELITE CONTINUA LINEAR WALL LED LUMINAIRE
50% UPLIGHT, 50% DOWNLIGHT, 5000 LUMEN PACKAGE
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

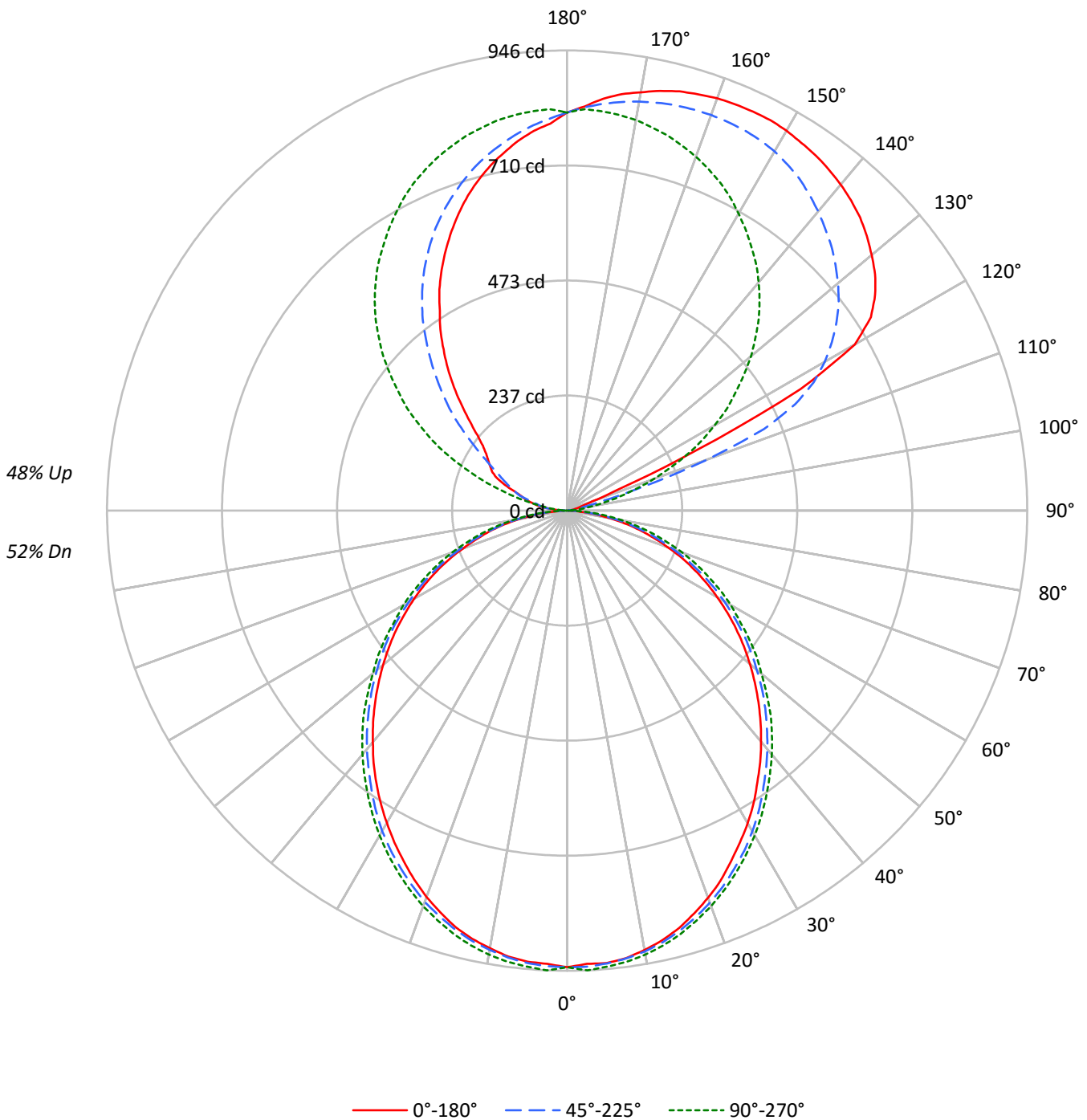
Lumens per Lamp: N/A
Luminaire Lumens: 4828.7 lumens
Efficiency: N/A
Efficacy: 120.7 lumens/watt
Spacing Criteria (0/90/45): 1.18 / 1.22 / 1.32
Luminous Opening: Rectangular (W 4' x L: 0.12' x H: 0')
CIE Type: General Diffuse

Input Watts (W): 40
Input Voltage (V): 120
Input Current (A_{in}): 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	108	108	108	108	100	100	100	100	84	84	84	71	71	71	58	58	58	52
1	98	94	90	86	91	87	83	80	74	71	69	62	60	59	51	50	49	44
2	89	82	75	70	82	76	70	66	65	61	57	54	51	49	45	43	41	36
3	81	72	64	58	75	67	60	55	57	52	48	48	44	41	40	37	35	31
4	74	63	55	49	68	59	52	46	50	45	41	43	39	35	35	32	30	26
5	68	56	48	42	63	53	45	40	45	39	35	38	34	30	32	29	26	23
6	63	51	42	37	58	47	40	35	41	35	31	35	30	27	29	25	23	20
7	58	46	38	32	54	43	35	30	37	31	27	31	27	24	26	23	20	18
8	54	41	34	28	50	39	32	27	34	28	24	29	24	21	24	21	18	16
9	50	38	30	25	46	35	29	24	31	25	21	26	22	19	22	19	16	14
10	47	35	27	23	43	33	26	21	28	23	19	24	20	17	21	17	15	13

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	20204	20204	20204
5°	20177	20342	20115
10°	20052	20262	19969
15°	19802	20081	19758
20°	19407	19826	19363
25°	18912	19506	18889
30°	18452	19171	18427
35°	17916	18775	17968
40°	17429	18402	17457
45°	16921	18002	17010
50°	16424	17456	16551
55°	15914	17070	16132
60°	15358	16727	15651
65°	14742	16260	15134
70°	13860	15799	14345
75°	12793	15113	13758
80°	10972	14071	12397
85°	6891	12350	9016



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	88.6	1.8
10°-20°	250.9	5.2
20°-30°	371.5	7.7
30°-40°	436.3	9.0
40°-50°	442.4	9.2
50°-60°	394.6	8.2
60°-70°	302.5	6.3
70°-80°	178.1	3.7
80°-90°	48.0	1.0
90°-100°	23.3	0.5
100°-110°	100.5	2.1
110°-120°	281.7	5.8
120°-130°	407.3	8.4
130°-140°	439.6	9.1
140°-150°	418.1	8.7
150°-160°	343.2	7.1
160°-170°	224.3	4.6
170°-180°	77.7	1.6
0°-30°	711.1	14.7
0°-40°	1147.4	23.8
0°-60°	1984.3	41.1
0°-90°	2512.9	52.0
90°-120°	405.6	8.4
90°-150°	1670.6	34.6
90°-180°	2316.0	48.0
0°-180°	4828.7	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	938	938	938	938	938	
5°	934	935	941	934	931	89
15°	888	894	901	891	886	250
25°	796	812	821	811	795	367
35°	682	702	714	701	684	427
45°	556	576	591	576	559	429
55°	424	442	455	445	430	379
65°	289	303	319	308	297	286
75°	154	164	182	169	165	162
85°	28	36	50	41	36	36
90°	1	1	1	5	7	1
95°	6	7	17	32	29	6
105°	25	73	114	79	88	29
115°	291	517	272	141	161	322
125°	773	676	422	234	203	686
135°	852	768	557	377	307	657
145°	891	833	661	520	455	559
155°	905	862	744	640	590	418
165°	892	862	798	732	704	253
175°	850	839	824	795	784	82
180°	818	818	818	818	818	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	938.5	938.5	938.5	938.5	938.5	938.5	938.5	938.5	938.5	938.5	938.5
2.5°	932.7	931.7	934.6	936.5	936.5	937.5	939.4	940.4	939.4	943.3	938.5
5°	933.7	931.7	932.7	932.7	931.7	932.7	934.6	935.6	935.6	939.4	934.6
7.5°	927.9	926.9	927.9	926.9	926.0	926.9	927.9	929.8	928.8	932.7	928.8
10°	917.3	916.3	916.3	916.3	915.4	916.3	918.3	920.2	920.2	923.1	920.2
12.5°	904.8	902.9	903.8	904.8	902.9	903.8	905.8	907.7	907.7	911.5	908.7
15°	888.5	887.5	889.4	891.3	889.4	889.4	891.3	892.3	893.3	896.2	894.2
17.5°	868.3	868.3	870.2	873.1	871.2	871.2	873.1	875.0	875.0	876.9	876.9
20°	847.1	846.2	848.1	850.0	850.0	849.0	851.9	853.8	854.8	856.7	857.7
22.5°	824.0	822.1	823.1	826.0	825.0	825.0	826.0	829.8	831.7	833.7	836.5
25°	796.2	796.2	798.1	800.0	800.0	800.0	801.0	803.8	806.7	809.6	812.5
27.5°	769.2	769.2	770.2	774.0	774.0	773.1	775.0	779.8	782.7	784.6	788.5
30°	742.3	739.4	742.3	745.2	747.1	745.2	748.1	751.9	753.8	756.7	761.5
32.5°	713.5	712.5	712.5	716.3	718.3	717.3	718.3	723.1	726.9	727.9	732.7
35°	681.7	682.7	682.7	685.6	687.5	686.5	687.5	692.3	696.2	697.1	701.9
37.5°	651.9	651.9	651.9	654.8	656.7	656.7	656.7	661.5	665.4	668.3	671.2
40°	620.2	621.2	620.2	623.1	626.0	625.0	626.0	629.8	634.6	637.5	640.4
42.5°	588.5	587.5	587.5	590.4	594.2	593.3	594.2	598.1	601.9	605.8	607.7
45°	555.8	553.8	555.8	558.7	561.5	562.5	561.5	565.4	569.2	572.1	576.0
47.5°	523.1	522.1	522.1	525.0	527.9	527.9	528.8	531.7	536.5	538.5	543.3
50°	490.4	490.4	489.4	492.3	495.2	496.2	496.2	498.1	502.9	506.7	508.7
52.5°	457.7	457.7	457.7	458.7	460.6	463.5	463.5	465.4	468.3	473.1	476.0
55°	424.0	425.0	424.0	425.0	427.9	429.8	429.8	431.7	434.6	439.4	442.3
57.5°	390.4	391.3	390.4	391.3	394.2	395.2	396.2	398.1	400.0	403.8	406.7
60°	356.7	357.7	356.7	357.7	360.6	362.5	361.5	364.4	366.3	368.3	372.1
62.5°	323.1	325.0	324.0	326.0	326.9	328.8	327.9	330.8	332.7	334.6	338.5
65°	289.4	291.3	290.4	292.3	292.3	294.2	293.3	296.2	298.1	300.0	302.9
67.5°	255.8	257.7	256.7	257.7	258.7	260.6	258.7	262.5	264.4	265.4	268.3
70°	220.2	222.1	221.2	222.1	223.1	224.0	223.1	226.0	228.8	229.8	231.7
72.5°	186.5	188.5	188.5	189.4	189.4	191.3	191.3	191.3	193.3	196.2	197.1
75°	153.8	155.8	155.8	155.8	155.8	157.7	157.7	159.6	160.6	162.5	164.4
77.5°	121.2	123.1	123.1	123.1	123.1	125.0	125.0	126.9	127.9	129.8	131.7
80°	88.5	90.4	91.3	91.3	91.3	92.3	92.3	94.2	95.2	97.1	99.0
82.5°	57.7	58.7	59.6	58.7	59.6	60.6	62.5	62.5	63.5	65.4	67.3
85°	27.9	28.8	29.8	29.8	29.8	30.8	30.8	32.7	33.7	34.6	36.5
87.5°	3.8	4.8	4.8	4.8	4.8	5.8	5.8	5.8	6.7	6.7	8.7
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°	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9
95°	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8	6.7
97.5°	8.7	8.7	9.6	8.7	9.6	9.6	9.6	9.6	10.6	10.6	12.5
100°	13.5	13.5	13.5	13.5	13.5	13.5	14.4	14.4	16.3	17.3	20.2
102.5°	18.3	18.3	18.3	19.2	19.2	20.2	20.2	21.2	24.0	27.9	36.5
105°	25.0	25.0	26.0	26.0	26.9	27.9	28.8	32.7	38.5	50.0	73.1
107.5°	34.6	35.6	36.5	37.5	40.4	43.3	46.2	56.7	74.0	109.6	163.5
110°	54.8	55.8	59.6	63.5	73.1	82.7	92.3	127.9	179.8	245.2	304.8



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
112.5°	114.4	118.3	121.2	144.2	175.0	201.9	226.9	290.4	358.7	414.4	437.5
115°	291.3	298.1	302.9	348.1	396.2	426.9	446.2	489.4	517.3	526.0	517.3
117.5°	541.3	544.2	551.0	567.3	589.4	600.0	601.9	608.7	601.9	588.5	571.2
120°	682.7	682.7	678.8	679.8	676.9	676.9	673.1	662.5	648.1	631.7	611.5
122.5°	740.4	737.5	732.7	728.8	720.2	718.3	712.5	699.0	683.7	667.3	645.2
125°	773.1	770.2	766.3	761.5	751.9	748.1	742.3	728.8	713.5	696.2	676.0
127.5°	798.1	795.2	791.3	786.5	777.9	774.0	767.3	753.8	738.5	722.1	703.8
130°	817.3	816.3	811.5	808.7	800.0	796.2	789.4	776.0	761.5	745.2	726.9
132.5°	835.6	833.7	828.8	826.9	819.2	814.4	808.7	796.2	781.7	765.4	748.1
135°	851.9	850.0	844.2	842.3	835.6	829.8	825.0	813.5	801.0	784.6	768.3
137.5°	864.4	861.5	857.7	855.8	849.0	843.3	839.4	828.8	816.3	801.0	785.6
140°	875.0	872.1	869.2	867.3	861.5	856.7	851.9	841.3	830.8	818.3	802.9
142.5°	883.7	881.7	878.8	876.0	870.2	866.3	862.5	853.8	844.2	831.7	818.3
145°	891.3	889.4	886.5	884.6	877.9	875.0	871.2	863.5	854.8	842.3	832.7
147.5°	896.2	895.2	893.3	891.3	884.6	881.7	877.9	872.1	863.5	851.9	843.3
150°	901.9	900.0	898.1	897.1	890.4	887.5	885.6	878.8	871.2	860.6	852.9
152.5°	904.8	902.9	901.0	900.0	893.3	891.3	889.4	883.7	875.0	865.4	858.7
155°	904.8	903.8	901.9	901.0	894.2	891.3	890.4	884.6	876.9	869.2	862.5
157.5°	903.8	901.9	901.0	899.0	893.3	891.3	889.4	884.6	877.9	871.2	864.4
160°	901.9	900.0	899.0	897.1	892.3	890.4	889.4	884.6	879.8	873.1	865.4
162.5°	897.1	896.2	895.2	894.2	890.4	888.5	887.5	883.7	877.9	872.1	864.4
165°	892.3	890.4	889.4	887.5	883.7	883.7	882.7	879.8	874.0	871.2	862.5
167.5°	883.7	880.8	880.8	877.9	875.0	875.0	874.0	873.1	868.3	866.3	858.7
170°	873.1	872.1	870.2	869.2	867.3	867.3	866.3	865.4	861.5	861.5	853.8
172.5°	863.5	862.5	861.5	859.6	856.7	856.7	856.7	856.7	853.8	853.8	847.1
175°	850.0	848.1	848.1	847.1	845.2	846.2	846.2	846.2	844.2	846.2	839.4
177.5°	831.7	829.8	831.7	833.7	832.7	833.7	834.6	834.6	832.7	835.6	829.8
180°	818.3	818.3	818.3	818.3	818.3	818.3	818.3	818.3	818.3	818.3	818.3



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CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	938.5	938.5	938.5	938.5	938.5	938.5	938.5	938.5	938.5	938.5	938.5
2.5°	934.6	935.6	934.6	935.6	936.5	935.6	936.5	940.4	944.2	946.2	944.2
5°	930.8	931.7	930.8	931.7	932.7	931.7	932.7	935.6	940.4	941.3	940.4
7.5°	925.0	926.0	925.0	926.0	926.0	926.0	926.0	929.8	933.7	935.6	933.7
10°	915.4	916.3	915.4	917.3	917.3	917.3	917.3	921.2	925.0	926.9	924.0
12.5°	903.8	904.8	903.8	905.8	904.8	905.8	906.7	909.6	913.5	915.4	913.5
15°	888.5	890.4	889.4	891.3	891.3	891.3	891.3	895.2	899.0	901.0	899.0
17.5°	871.2	872.1	872.1	874.0	874.0	874.0	875.0	878.8	881.7	883.7	881.7
20°	851.9	853.8	853.8	854.8	854.8	855.8	856.7	859.6	863.5	865.4	863.5
22.5°	830.8	832.7	833.7	833.7	833.7	834.6	835.6	838.5	843.3	844.2	842.3
25°	808.7	808.7	810.6	810.6	811.5	812.5	813.5	815.4	820.2	821.2	820.2
27.5°	784.6	783.7	784.6	786.5	786.5	788.5	789.4	791.3	795.2	797.1	795.2
30°	757.7	757.7	759.6	760.6	760.6	761.5	763.5	765.4	769.2	771.2	769.2
32.5°	730.8	729.8	732.7	732.7	733.7	734.6	735.6	738.5	741.3	743.3	742.3
35°	702.9	700.0	703.8	703.8	704.8	706.7	706.7	708.7	712.5	714.4	712.5
37.5°	674.0	671.2	674.0	676.0	675.0	676.9	677.9	679.8	683.7	684.6	684.6
40°	644.2	641.3	644.2	645.2	645.2	646.2	648.1	649.0	651.9	654.8	652.9
42.5°	611.5	610.6	612.5	614.4	614.4	615.4	616.3	617.3	620.2	623.1	621.2
45°	578.8	578.8	580.8	582.7	583.7	583.7	584.6	585.6	587.5	591.3	588.5
47.5°	546.2	546.2	548.1	549.0	549.0	550.0	551.9	551.9	555.8	555.8	556.7
50°	511.5	513.5	515.4	518.3	516.3	517.3	519.2	519.2	521.2	521.2	524.0
52.5°	477.9	478.8	481.7	484.6	485.6	484.6	485.6	485.6	487.5	490.4	488.5
55°	444.2	444.2	448.1	451.0	451.0	451.0	451.0	451.9	454.8	454.8	454.8
57.5°	409.6	410.6	413.5	417.3	417.3	417.3	417.3	418.3	420.2	419.2	422.1
60°	376.0	376.0	379.8	381.7	381.7	383.7	383.7	384.6	385.6	388.5	388.5
62.5°	342.3	342.3	345.2	347.1	349.0	348.1	349.0	350.0	351.9	354.8	352.9
65°	307.7	307.7	310.6	311.5	314.4	313.5	314.4	317.3	318.3	319.2	318.3
67.5°	272.1	273.1	276.0	276.9	279.8	280.8	279.8	283.7	284.6	286.5	285.6
70°	234.6	235.6	239.4	240.4	242.3	241.3	243.3	248.1	250.0	251.0	249.0
72.5°	201.0	201.9	205.8	206.7	208.7	207.7	209.6	212.5	214.4	215.4	215.4
75°	166.3	168.3	170.2	172.1	175.0	174.0	176.0	178.8	180.8	181.7	181.7
77.5°	133.7	134.6	137.5	138.5	141.3	140.4	141.3	143.3	146.2	147.1	147.1
80°	101.0	102.9	103.8	105.8	107.7	106.7	108.7	111.5	112.5	113.5	113.5
82.5°	69.2	70.2	72.1	74.0	76.0	76.9	77.9	79.8	80.8	80.8	80.8
85°	38.5	40.4	42.3	43.3	45.2	44.2	47.1	49.0	50.0	50.0	51.0
87.5°	10.6	12.5	13.5	15.4	17.3	17.3	17.3	21.2	21.2	22.1	22.1
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°	2.9	3.8	3.8	4.8	5.8	6.7	9.6	9.6	7.7	6.7	7.7
95°	7.7	8.7	10.6	16.3	20.2	23.1	26.9	26.0	22.1	17.3	16.3
97.5°	14.4	18.3	26.0	39.4	47.1	51.0	54.8	49.0	41.3	33.7	30.8
100°	26.9	36.5	55.8	78.8	87.5	91.3	90.4	77.9	67.3	54.8	48.1
102.5°	51.0	77.9	110.6	136.5	142.3	137.5	129.8	114.4	99.0	81.7	71.2
105°	110.6	156.7	190.4	200.0	202.9	193.3	175.0	155.8	133.7	113.5	98.1
107.5°	220.2	262.5	275.0	268.3	264.4	248.1	225.0	200.0	174.0	149.0	129.8
110°	349.0	356.7	348.1	326.9	315.4	301.0	275.0	246.2	213.5	188.5	165.4



TEST NUMBER: P303165

CATALOG NUMBER: CTW-F-5050-50L830-UNV-STD-4

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
112.5°	443.3	426.9	404.8	376.9	363.5	348.1	320.2	292.3	256.7	228.8	203.8
115°	503.8	479.8	452.9	423.1	408.7	392.3	364.4	333.7	298.1	272.1	243.3
117.5°	551.0	521.2	494.2	465.4	451.9	435.6	407.7	374.0	338.5	312.5	283.7
120°	587.5	559.6	531.7	504.8	489.4	476.0	447.1	413.5	377.9	349.0	322.1
122.5°	620.2	594.2	567.3	541.3	526.9	511.5	481.7	449.0	416.3	389.4	362.5
125°	651.0	626.9	600.0	574.0	559.6	544.2	515.4	483.7	451.0	422.1	399.0
127.5°	679.8	656.7	629.8	604.8	590.4	574.0	546.2	515.4	487.5	457.7	434.6
130°	705.8	684.6	658.7	633.7	619.2	603.8	576.0	546.2	519.2	493.3	468.3
132.5°	728.8	707.7	682.7	659.6	644.2	630.8	603.8	576.0	549.0	525.0	501.9
135°	751.0	728.8	705.8	681.7	668.3	655.8	629.8	603.8	578.8	556.7	535.6
137.5°	771.2	747.1	724.0	701.0	688.5	677.9	652.9	628.8	607.7	585.6	564.4
140°	788.5	763.5	742.3	720.2	708.7	698.1	675.0	651.9	633.7	612.5	592.3
142.5°	801.9	776.9	757.7	736.5	726.0	717.3	695.2	675.0	656.7	638.5	618.3
145°	812.5	790.4	772.1	751.9	743.3	733.7	713.5	695.2	678.8	660.6	642.3
147.5°	823.1	803.8	785.6	767.3	758.7	750.0	731.7	715.4	700.0	683.7	665.4
150°	831.7	814.4	798.1	781.7	774.0	765.4	749.0	733.7	720.2	704.8	687.5
152.5°	837.5	823.1	808.7	794.2	786.5	779.8	764.4	751.9	739.4	726.0	708.7
155°	842.3	830.8	817.3	804.8	798.1	792.3	777.9	766.3	755.8	744.2	728.8
157.5°	847.1	835.6	824.0	812.5	806.7	801.0	788.5	779.8	770.2	759.6	745.2
160°	849.0	840.4	828.8	819.2	814.4	809.6	799.0	791.3	783.7	774.0	760.6
162.5°	850.0	842.3	832.7	825.0	821.2	817.3	806.7	801.0	794.2	786.5	775.0
165°	850.0	844.2	836.5	829.8	826.0	823.1	814.4	809.6	804.8	798.1	787.5
167.5°	849.0	843.3	837.5	831.7	828.8	826.0	819.2	816.3	812.5	806.7	798.1
170°	846.2	842.3	836.5	832.7	830.8	827.9	823.1	821.2	819.2	815.4	806.7
172.5°	841.3	838.5	834.6	831.7	830.8	827.9	824.0	823.1	823.1	820.2	813.5
175°	834.6	833.7	830.8	828.8	826.9	826.0	823.1	824.0	825.0	824.0	818.3
177.5°	826.0	826.0	824.0	824.0	823.1	822.1	821.2	823.1	826.0	826.0	822.1
180°	818.3	818.3	818.3	818.3	818.3	818.3	818.3	818.3	818.3	818.3	818.3



TEST NUMBER: P303165

CATALOG NUMBER: CTW-F-5050-50L830-UNV-STD-4

CANDELA DISTRIBUTION (continued):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	938.5	938.5	938.5	938.5	938.5	938.5	938.5	938.5	938.5	938.5	938.5
2.5°	941.3	937.5	936.5	936.5	935.6	933.7	932.7	933.7	937.5	943.3	937.5
5°	937.5	933.7	931.7	931.7	931.7	928.8	928.8	928.8	933.7	938.5	932.7
7.5°	930.8	926.9	926.0	926.0	925.0	923.1	922.1	923.1	926.9	931.7	926.0
10°	922.1	918.3	917.3	916.3	915.4	913.5	912.5	913.5	917.3	921.2	916.3
12.5°	910.6	906.7	904.8	905.8	903.8	901.0	901.0	901.0	905.8	908.7	903.8
15°	896.2	891.3	890.4	890.4	889.4	886.5	886.5	886.5	891.3	893.3	887.5
17.5°	878.8	875.0	874.0	874.0	872.1	869.2	869.2	868.3	874.0	875.0	871.2
20°	860.6	856.7	854.8	854.8	852.9	850.0	850.0	849.0	855.8	853.8	851.0
22.5°	840.4	835.6	833.7	834.6	832.7	828.8	828.8	827.9	833.7	830.8	826.9
25°	818.3	812.5	811.5	810.6	809.6	804.8	804.8	804.8	810.6	805.8	802.9
27.5°	792.3	788.5	787.5	784.6	784.6	780.8	780.8	780.8	786.5	779.8	778.8
30°	766.3	762.5	762.5	759.6	758.7	754.8	754.8	754.8	760.6	753.8	751.9
32.5°	740.4	735.6	733.7	731.7	731.7	727.9	727.9	727.9	731.7	725.0	723.1
35°	711.5	706.7	706.7	702.9	702.9	699.0	698.1	700.0	701.0	695.2	693.3
37.5°	681.7	676.9	676.9	674.0	674.0	670.2	670.2	673.1	670.2	667.3	663.5
40°	651.9	648.1	646.2	643.3	644.2	641.3	640.4	642.3	640.4	637.5	632.7
42.5°	620.2	616.3	615.4	613.5	613.5	610.6	609.6	611.5	608.7	604.8	601.9
45°	588.5	585.6	584.6	582.7	582.7	578.8	578.8	579.8	576.0	574.0	570.2
47.5°	554.8	552.9	551.0	551.0	550.0	547.1	547.1	547.1	544.2	542.3	537.5
50°	522.1	519.2	518.3	518.3	518.3	515.4	514.4	512.5	510.6	509.6	504.8
52.5°	488.5	486.5	485.6	485.6	486.5	481.7	480.8	478.8	477.9	476.9	471.2
55°	454.8	452.9	451.0	452.9	451.9	448.1	447.1	448.1	445.2	442.3	437.5
57.5°	421.2	418.3	418.3	419.2	418.3	414.4	413.5	414.4	410.6	407.7	403.8
60°	387.5	384.6	383.7	384.6	383.7	379.8	378.8	378.8	376.0	374.0	370.2
62.5°	353.8	351.0	351.0	351.0	350.0	348.1	345.2	345.2	342.3	339.4	336.5
65°	318.3	315.4	316.3	316.3	316.3	314.4	311.5	312.5	307.7	305.8	302.9
67.5°	284.6	281.7	281.7	281.7	281.7	281.7	276.9	276.0	273.1	272.1	269.2
70°	249.0	245.2	246.2	245.2	244.2	243.3	240.4	239.4	236.5	236.5	233.7
72.5°	213.5	211.5	211.5	211.5	210.6	209.6	207.7	206.7	202.9	202.9	201.0
75°	177.9	177.9	176.9	176.9	176.9	176.0	174.0	173.1	169.2	170.2	168.3
77.5°	145.2	145.2	143.3	143.3	143.3	142.3	141.3	138.5	138.5	136.5	135.6
80°	111.5	111.5	110.6	110.6	110.6	109.6	108.7	107.7	105.8	104.8	102.9
82.5°	80.8	79.8	78.8	78.8	77.9	77.9	76.9	76.0	74.0	71.2	70.2
85°	49.0	49.0	48.1	48.1	47.1	47.1	45.2	43.3	41.3	39.4	38.5
87.5°	21.2	21.2	18.3	18.3	17.3	17.3	16.3	15.4	13.5	12.5	11.5
90°	1.9	2.9	2.9	2.9	3.8	3.8	3.8	4.8	4.8	4.8	4.8
92.5°	11.5	14.4	15.4	15.4	15.4	15.4	15.4	15.4	15.4	14.4	14.4
95°	19.2	21.2	26.0	27.9	29.8	31.7	31.7	31.7	31.7	30.8	28.8
97.5°	28.8	30.8	33.7	33.7	34.6	39.4	43.3	45.2	47.1	48.1	48.1
100°	45.2	41.3	45.2	48.1	47.1	47.1	49.0	52.9	56.7	58.7	59.6
102.5°	64.4	57.7	55.8	57.7	59.6	63.5	61.5	62.5	64.4	67.3	70.2
105°	88.5	79.8	73.1	72.1	72.1	76.0	80.8	79.8	78.8	78.8	78.8
107.5°	116.3	103.8	93.3	91.3	89.4	89.4	92.3	98.1	101.9	98.1	96.2
110°	148.1	130.8	120.2	114.4	110.6	106.7	106.7	109.6	114.4	119.2	121.2



TEST NUMBER: P303165

CATALOG NUMBER: CTW-F-5050-50L830-UNV-STD-4

CANDELA DISTRIBUTION (continued):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
112.5°	183.7	162.5	148.1	143.3	135.6	126.9	124.0	124.0	126.9	131.7	135.6
115°	220.2	198.1	177.9	172.1	164.4	151.0	143.3	141.3	141.3	143.3	147.1
117.5°	260.6	233.7	211.5	203.8	195.2	179.8	167.3	160.6	157.7	157.7	159.6
120°	296.2	273.1	250.0	239.4	228.8	211.5	195.2	184.6	177.9	174.0	173.1
122.5°	336.5	312.5	287.5	278.8	267.3	247.1	229.8	213.5	202.9	195.2	189.4
125°	373.1	351.0	325.0	314.4	303.8	283.7	266.3	248.1	233.7	221.2	211.5
127.5°	408.7	386.5	361.5	351.9	341.3	320.2	301.9	284.6	269.2	253.8	240.4
130°	444.2	423.1	398.1	387.5	377.9	357.7	337.5	320.2	306.7	291.3	276.0
132.5°	478.8	456.7	433.7	422.1	413.5	393.3	375.0	356.7	341.3	327.9	313.5
135°	511.5	490.4	467.3	455.8	447.1	428.8	410.6	394.2	376.9	363.5	350.0
137.5°	542.3	521.2	501.0	488.5	479.8	463.5	446.2	430.8	413.5	399.0	385.6
140°	571.2	551.0	531.7	521.2	511.5	495.2	479.8	467.3	449.0	435.6	422.1
142.5°	598.1	577.9	559.6	551.0	541.3	526.0	511.5	500.0	486.5	472.1	458.7
145°	622.1	604.8	587.5	578.8	570.2	555.8	542.3	531.7	520.2	505.8	493.3
147.5°	647.1	629.8	613.5	605.8	599.0	584.6	572.1	561.5	552.9	539.4	526.9
150°	670.2	653.8	639.4	631.7	626.0	610.6	601.0	590.4	583.7	571.2	560.6
152.5°	692.3	677.9	663.5	657.7	651.0	636.5	626.9	616.3	612.5	600.0	591.3
155°	713.5	698.1	686.5	680.8	674.0	660.6	652.9	643.3	640.4	628.8	620.2
157.5°	732.7	717.3	706.7	701.0	695.2	683.7	676.0	667.3	665.4	656.7	647.1
160°	749.0	734.6	725.0	721.2	715.4	704.8	697.1	690.4	688.5	682.7	673.1
162.5°	763.5	751.0	743.3	738.5	733.7	724.0	718.3	710.6	710.6	705.8	698.1
165°	777.9	766.3	758.7	754.8	751.0	743.3	736.5	731.7	731.7	727.9	720.2
167.5°	789.4	778.8	773.1	769.2	766.3	758.7	753.8	749.0	750.0	748.1	740.4
170°	800.0	790.4	785.6	782.7	779.8	773.1	770.2	765.4	766.3	766.3	759.6
172.5°	808.7	800.0	796.2	793.3	792.3	785.6	783.7	780.8	781.7	783.7	775.0
175°	814.4	807.7	803.8	802.9	801.0	797.1	794.2	793.3	795.2	798.1	790.4
177.5°	819.2	813.5	811.5	811.5	809.6	805.8	803.8	803.8	806.7	810.6	804.8
180°	818.3	818.3	818.3	818.3	818.3	818.3	818.3	818.3	818.3	818.3	818.3



TEST NUMBER: P303165

CATALOG NUMBER: CTW-F-5050-50L830-UNV-STD-4

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	938.5	938.5	938.5	938.5	938.5	938.5	938.5	938.5
2.5°	939.4	938.5	937.5	935.6	934.6	932.7	931.7	932.7
5°	933.7	932.7	931.7	930.8	930.8	929.8	929.8	930.8
7.5°	926.9	926.0	925.0	924.0	924.0	924.0	924.0	925.0
10°	917.3	915.4	914.4	913.5	912.5	912.5	912.5	913.5
12.5°	904.8	902.9	901.0	900.0	900.0	900.0	900.0	901.9
15°	888.5	887.5	886.5	885.6	885.6	884.6	884.6	886.5
17.5°	872.1	870.2	868.3	867.3	866.3	866.3	865.4	866.3
20°	850.0	848.1	846.2	845.2	845.2	844.2	844.2	845.2
22.5°	826.0	823.1	822.1	821.2	821.2	820.2	820.2	821.2
25°	801.9	798.1	797.1	796.2	796.2	795.2	795.2	795.2
27.5°	776.9	773.1	772.1	770.2	771.2	769.2	768.3	769.2
30°	750.0	746.2	745.2	743.3	743.3	741.3	740.4	741.3
32.5°	721.2	717.3	716.3	715.4	716.3	712.5	711.5	713.5
35°	691.3	687.5	687.5	685.6	686.5	682.7	682.7	683.7
37.5°	660.6	656.7	657.7	655.8	655.8	652.9	652.9	653.8
40°	629.8	626.9	625.0	625.0	626.0	622.1	622.1	621.2
42.5°	598.1	595.2	594.2	594.2	593.3	590.4	589.4	590.4
45°	566.3	563.5	563.5	562.5	562.5	558.7	559.6	558.7
47.5°	533.7	531.7	530.8	529.8	529.8	526.0	526.9	526.0
50°	501.0	500.0	499.0	498.1	498.1	494.2	496.2	494.2
52.5°	468.3	467.3	466.3	466.3	465.4	463.5	463.5	461.5
55°	435.6	433.7	433.7	433.7	432.7	429.8	431.7	429.8
57.5°	402.9	401.0	400.0	399.0	399.0	398.1	397.1	396.2
60°	369.2	367.3	367.3	365.4	365.4	365.4	364.4	363.5
62.5°	335.6	333.7	333.7	332.7	332.7	332.7	331.7	330.8
65°	302.9	300.0	300.0	299.0	299.0	299.0	298.1	297.1
67.5°	268.3	266.3	266.3	265.4	266.3	266.3	265.4	263.5
70°	232.7	230.8	230.8	229.8	230.8	230.8	229.8	227.9
72.5°	200.0	198.1	197.1	198.1	198.1	198.1	196.2	195.2
75°	167.3	164.4	164.4	165.4	164.4	165.4	163.5	165.4
77.5°	134.6	131.7	131.7	132.7	131.7	131.7	130.8	132.7
80°	101.0	99.0	99.0	100.0	99.0	99.0	98.1	100.0
82.5°	69.2	68.3	69.2	67.3	65.4	65.4	64.4	66.3
85°	38.5	37.5	36.5	36.5	35.6	35.6	34.6	36.5
87.5°	11.5	12.5	12.5	11.5	11.5	11.5	11.5	12.5
90°	4.8	4.8	4.8	5.8	5.8	6.7	6.7	6.7
92.5°	14.4	14.4	13.5	14.4	13.5	13.5	13.5	13.5
95°	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8
97.5°	48.1	49.0	48.1	49.0	48.1	47.1	48.1	47.1
100°	60.6	62.5	62.5	63.5	63.5	63.5	63.5	63.5
102.5°	72.1	74.0	74.0	75.0	75.0	76.0	76.0	75.0
105°	81.7	82.7	83.7	84.6	86.5	88.5	88.5	88.5
107.5°	95.2	97.1	96.2	97.1	98.1	98.1	98.1	98.1
110°	119.2	117.3	116.3	114.4	114.4	114.4	114.4	114.4



TEST NUMBER: P303165

CATALOG NUMBER: CTW-F-5050-50L830-UNV-STD-4

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
112.5°	139.4	141.3	141.3	141.3	141.3	140.4	138.5	138.5
115°	151.9	155.8	156.7	157.7	159.6	160.6	160.6	160.6
117.5°	161.5	165.4	166.3	168.3	170.2	172.1	173.1	174.0
120°	174.0	176.9	177.9	177.9	179.8	180.8	182.7	182.7
122.5°	188.5	189.4	189.4	189.4	190.4	191.3	192.3	192.3
125°	207.7	204.8	204.8	202.9	202.9	201.9	202.9	202.9
127.5°	231.7	227.9	226.0	223.1	221.2	218.3	218.3	218.3
130°	265.4	258.7	254.8	250.0	246.2	240.4	240.4	240.4
132.5°	301.9	291.3	288.5	283.7	277.9	272.1	271.2	271.2
135°	339.4	327.9	324.0	319.2	312.5	307.7	303.8	306.7
137.5°	375.0	364.4	363.5	359.6	351.0	345.2	344.2	344.2
140°	411.5	400.0	398.1	394.2	389.4	383.7	380.8	381.7
142.5°	447.1	435.6	433.7	430.8	424.0	419.2	416.3	417.3
145°	483.7	472.1	470.2	466.3	459.6	455.8	451.9	454.8
147.5°	518.3	507.7	504.8	500.0	496.2	491.3	488.5	487.5
150°	551.9	541.3	539.4	534.6	530.8	526.9	523.1	525.0
152.5°	583.7	576.0	572.1	567.3	564.4	560.6	557.7	558.7
155°	613.5	603.8	601.9	598.1	596.2	592.3	590.4	590.4
157.5°	639.4	633.7	630.8	627.9	625.0	623.1	620.2	621.2
160°	667.3	661.5	658.7	656.7	652.9	652.9	650.0	651.0
162.5°	693.3	688.5	685.6	683.7	681.7	680.8	677.9	678.8
165°	716.3	711.5	710.6	707.7	706.7	706.7	703.8	703.8
167.5°	737.5	733.7	730.8	729.8	727.9	727.9	726.0	726.9
170°	757.7	753.8	751.9	750.0	748.1	748.1	747.1	747.1
172.5°	775.0	772.1	771.2	769.2	768.3	768.3	767.3	767.3
175°	791.3	788.5	787.5	785.6	784.6	783.7	783.7	783.7
177.5°	805.8	804.8	802.9	802.9	801.0	799.0	797.1	796.2
180°	818.3	818.3	818.3	818.3	818.3	818.3	818.3	818.3

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