

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: P303120

Luminaire Tested: **CTW-F-5050-20L835-UNV-STD-6**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P303120
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-5050-20L835-UNV-STD-6
Description: CORELITE CONTINUA LINEAR WALL LED LUMINAIRE
50% UPLIGHT, 50% DOWNLIGHT, 2000 LUMEN PACKAGE
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

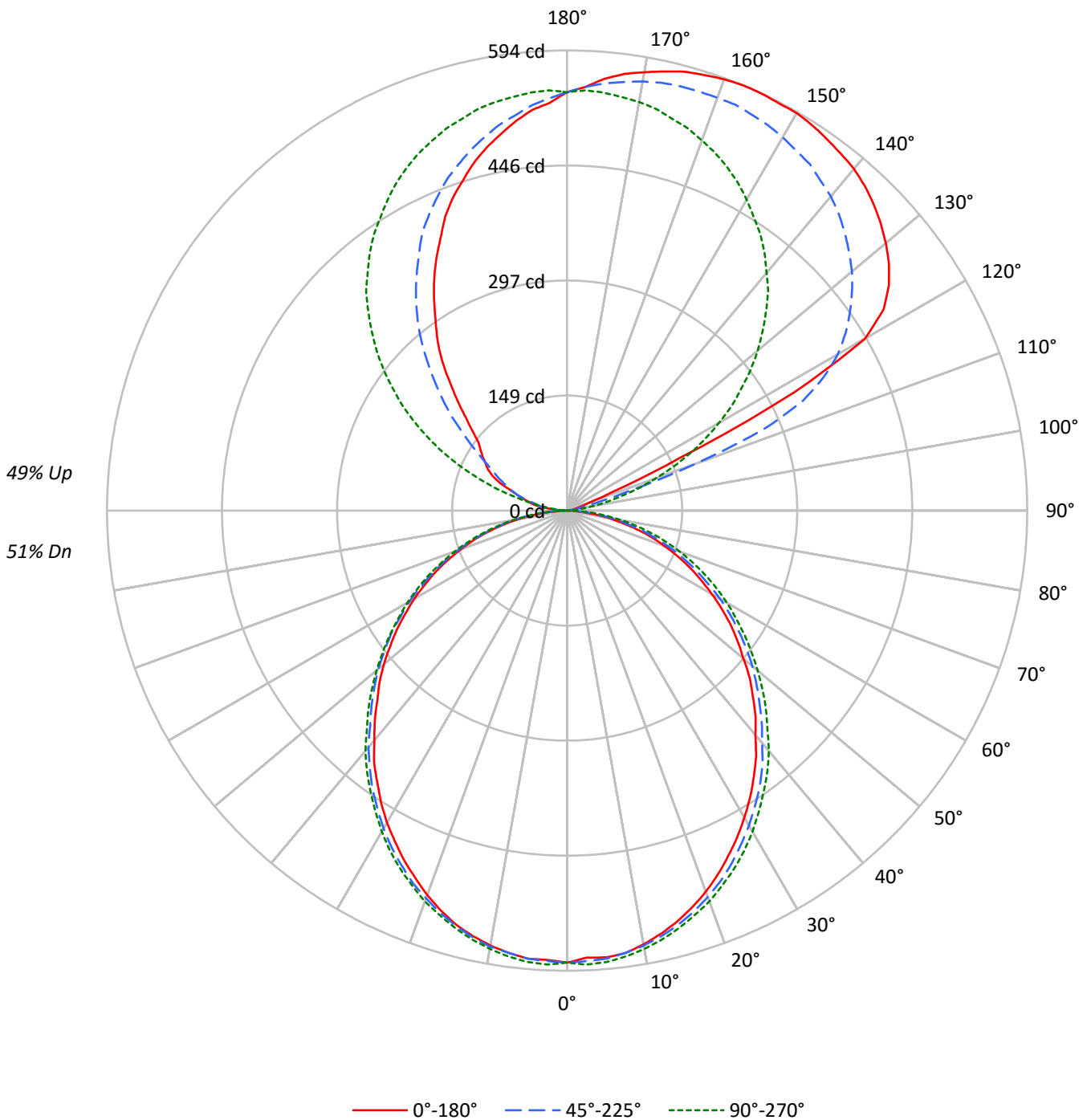
Lumens per Lamp: N/A
Luminaire Lumens: 3071.7 lumens
Efficiency: N/A
Efficacy: 128.0 lumens/watt
Spacing Criteria (0/90/45): 1.18 / 1.22 / 1.31
Luminous Opening: Rectangular (W 6' x L: 0.12' x H: 0')
CIE Type: General Diffuse

Input Watts (W): 24
Input Voltage (V): 120
Input Current (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	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°	8374	8374	8374
5°	8341	8428	8363
10°	8285	8372	8307
15°	8157	8291	8224
20°	7995	8202	8064
25°	7791	8076	7886
30°	7582	7930	7706
35°	7359	7753	7490
40°	7082	7588	7250
45°	6881	7368	7033
50°	6631	7167	6899
55°	6456	6981	6718
60°	6200	6846	6544
65°	5960	6673	6367
70°	5602	6483	6105
75°	5157	6238	5822
80°	4339	5827	5207
85°	2470	5187	3952



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	55.1	1.8
10°-20°	155.9	5.1
20°-30°	231.0	7.5
30°-40°	270.8	8.8
40°-50°	272.5	8.9
50°-60°	243.0	7.9
60°-70°	186.5	6.1
70°-80°	110.9	3.6
80°-90°	30.0	1.0
90°-100°	14.3	0.5
100°-110°	63.8	2.1
110°-120°	181.6	5.9
120°-130°	267.6	8.7
130°-140°	288.6	9.4
140°-150°	274.8	8.9
150°-160°	226.1	7.4
160°-170°	147.9	4.8
170°-180°	51.3	1.7
0°-30°	442.0	14.4
0°-40°	712.8	23.2
0°-60°	1228.3	40.0
0°-90°	1555.7	50.6
90°-120°	259.7	8.5
90°-150°	1090.7	35.5
90°-180°	1516.0	49.4
0°-180°	3071.7	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	584	584	584	584	584	
5°	579	580	585	580	580	55
15°	549	554	558	555	554	155
25°	492	502	510	506	498	227
35°	420	434	442	438	428	263
45°	339	351	363	357	346	262
55°	258	270	279	278	268	230
65°	176	184	196	192	188	173
75°	93	100	112	108	105	98
85°	15	21	32	28	24	20
90°	2	2	0	2	3	1
95°	3	3	10	20	18	3
105°	15	38	72	54	58	18
115°	159	336	176	96	106	194
125°	507	446	274	154	136	449
135°	560	507	363	246	200	432
145°	585	546	435	340	296	367
155°	594	564	489	422	387	275
165°	586	567	524	482	465	166
175°	560	554	542	525	519	54
180°	540	540	540	540	540	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	583.5	583.5	583.5	583.5	583.5	583.5	583.5	583.5	583.5	583.5	583.5
2.5°	577.5	577.5	579.0	580.5	582.0	582.0	583.5	583.5	583.5	583.5	582.0
5°	579.0	577.5	579.0	579.0	579.0	579.0	580.5	582.0	582.0	582.0	580.5
7.5°	576.0	574.5	576.0	576.0	574.5	574.5	576.0	577.5	577.5	577.5	576.0
10°	568.5	567.0	568.5	568.5	568.5	568.5	570.0	570.0	571.5	571.5	570.0
12.5°	559.5	559.5	559.5	561.0	559.5	561.0	561.0	562.5	564.0	564.0	562.5
15°	549.0	549.0	550.5	552.0	550.5	552.0	552.0	553.5	553.5	555.0	553.5
17.5°	537.0	537.0	538.5	540.0	540.0	540.0	541.5	541.5	543.0	543.0	543.0
20°	523.5	523.5	523.5	526.5	526.5	526.5	526.5	528.0	531.0	531.0	531.0
22.5°	508.5	508.5	508.5	511.5	511.5	511.5	511.5	513.0	516.0	517.5	517.5
25°	492.0	492.0	492.0	495.0	495.0	495.0	495.0	498.0	501.0	501.0	502.5
27.5°	475.5	475.5	477.0	478.5	478.5	478.5	480.0	481.5	484.5	486.0	486.0
30°	457.5	457.5	457.5	460.5	460.5	462.0	462.0	465.0	466.5	469.5	469.5
32.5°	439.5	439.5	441.0	442.5	442.5	442.5	444.0	447.0	448.5	450.0	451.5
35°	420.0	420.0	421.5	423.0	424.5	424.5	424.5	427.5	429.0	432.0	433.5
37.5°	400.5	400.5	402.0	403.5	405.0	405.0	405.0	408.0	409.5	412.5	414.0
40°	378.0	378.0	378.0	381.0	381.0	382.5	382.5	384.0	387.0	390.0	391.5
42.5°	360.0	358.5	358.5	360.0	361.5	363.0	363.0	364.5	367.5	370.5	372.0
45°	339.0	339.0	339.0	340.5	342.0	342.0	343.5	345.0	346.5	351.0	351.0
47.5°	319.5	318.0	318.0	321.0	321.0	322.5	322.5	324.0	327.0	330.0	331.5
50°	297.0	298.5	298.5	300.0	301.5	301.5	303.0	303.0	306.0	309.0	312.0
52.5°	277.5	277.5	277.5	279.0	280.5	282.0	282.0	283.5	285.0	288.0	291.0
55°	258.0	258.0	258.0	259.5	259.5	261.0	261.0	262.5	264.0	267.0	270.0
57.5°	237.0	237.0	237.0	238.5	240.0	240.0	241.5	241.5	243.0	246.0	249.0
60°	216.0	216.0	216.0	217.5	219.0	219.0	220.5	220.5	222.0	225.0	228.0
62.5°	195.0	196.5	195.0	196.5	198.0	198.0	199.5	199.5	202.5	202.5	205.5
65°	175.5	175.5	175.5	175.5	177.0	177.0	177.0	180.0	180.0	183.0	184.5
67.5°	154.5	154.5	154.5	154.5	156.0	157.5	157.5	159.0	160.5	160.5	163.5
70°	133.5	135.0	135.0	133.5	135.0	136.5	136.5	138.0	139.5	139.5	142.5
72.5°	114.0	114.0	114.0	114.0	114.0	115.5	117.0	117.0	118.5	120.0	121.5
75°	93.0	93.0	94.5	93.0	93.0	94.5	96.0	97.5	97.5	99.0	100.5
77.5°	72.0	73.5	73.5	73.5	75.0	75.0	75.0	76.5	78.0	78.0	79.5
80°	52.5	54.0	54.0	54.0	55.5	54.0	55.5	57.0	57.0	58.5	60.0
82.5°	33.0	33.0	34.5	34.5	34.5	34.5	36.0	37.5	37.5	37.5	40.5
85°	15.0	15.0	16.5	16.5	16.5	16.5	18.0	18.0	19.5	19.5	21.0
87.5°	1.5	1.5	1.5	1.5	3.0	1.5	3.0	3.0	3.0	3.0	4.5
90°	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
92.5°	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
95°	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
97.5°	4.5	4.5	4.5	4.5	4.5	4.5	6.0	6.0	6.0	6.0	7.5
100°	7.5	7.5	7.5	7.5	7.5	7.5	7.5	9.0	9.0	10.5	12.0
102.5°	10.5	10.5	10.5	10.5	12.0	12.0	12.0	13.5	13.5	16.5	19.5
105°	15.0	15.0	15.0	16.5	16.5	16.5	18.0	19.5	22.5	28.5	37.5
107.5°	21.0	22.5	22.5	22.5	25.5	25.5	28.5	33.0	40.5	58.5	82.5
110°	33.0	34.5	34.5	37.5	43.5	46.5	52.5	69.0	93.0	130.5	175.5



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
112.5°	64.5	67.5	70.5	79.5	96.0	108.0	124.5	163.5	207.0	256.5	276.0
115°	159.0	160.5	174.0	192.0	229.5	250.5	270.0	304.5	331.5	337.5	336.0
117.5°	331.5	339.0	346.5	358.5	375.0	382.5	391.5	399.0	393.0	385.5	373.5
120°	444.0	441.0	444.0	445.5	444.0	444.0	442.5	436.5	426.0	415.5	403.5
122.5°	484.5	483.0	481.5	480.0	474.0	472.5	469.5	460.5	450.0	438.0	426.0
125°	507.0	505.5	502.5	499.5	495.0	492.0	489.0	480.0	469.5	457.5	445.5
127.5°	523.5	522.0	519.0	516.0	511.5	508.5	504.0	496.5	486.0	475.5	463.5
130°	537.0	535.5	532.5	531.0	525.0	523.5	519.0	510.0	501.0	492.0	480.0
132.5°	549.0	547.5	544.5	543.0	538.5	535.5	532.5	523.5	513.0	504.0	493.5
135°	559.5	558.0	556.5	555.0	550.5	547.5	543.0	535.5	526.5	517.5	507.0
137.5°	568.5	567.0	565.5	562.5	559.5	556.5	552.0	544.5	538.5	529.5	519.0
140°	576.0	574.5	571.5	570.0	567.0	564.0	561.0	555.0	547.5	540.0	529.5
142.5°	580.5	580.5	577.5	577.5	573.0	570.0	567.0	561.0	556.5	549.0	537.0
145°	585.0	585.0	583.5	582.0	579.0	576.0	573.0	568.5	562.5	556.5	546.0
147.5°	589.5	588.0	588.0	586.5	583.5	580.5	579.0	574.5	568.5	562.5	550.5
150°	592.5	591.0	591.0	589.5	586.5	583.5	582.0	579.0	573.0	567.0	556.5
152.5°	592.5	592.5	594.0	591.0	588.0	586.5	585.0	580.5	577.5	570.0	561.0
155°	594.0	594.0	594.0	592.5	588.0	586.5	585.0	582.0	579.0	573.0	564.0
157.5°	594.0	594.0	594.0	592.5	588.0	586.5	585.0	583.5	580.5	574.5	567.0
160°	592.5	592.5	592.5	592.5	589.5	586.5	585.0	583.5	580.5	574.5	567.0
162.5°	589.5	589.5	589.5	589.5	586.5	585.0	583.5	582.0	580.5	573.0	567.0
165°	586.5	586.5	586.5	585.0	582.0	582.0	580.5	579.0	577.5	571.5	567.0
167.5°	580.5	580.5	580.5	579.0	576.0	576.0	576.0	574.5	573.0	568.5	565.5
170°	574.5	574.5	574.5	573.0	571.5	571.5	571.5	570.0	570.0	565.5	562.5
172.5°	568.5	568.5	568.5	567.0	564.0	564.0	564.0	565.5	564.0	561.0	558.0
175°	559.5	558.0	558.0	558.0	558.0	556.5	558.0	558.0	558.0	555.0	553.5
177.5°	547.5	547.5	547.5	549.0	549.0	549.0	549.0	550.5	550.5	549.0	547.5
180°	540.0	540.0	540.0	540.0	540.0	540.0	540.0	540.0	540.0	540.0	540.0



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CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	583.5	583.5	583.5	583.5	583.5	583.5	583.5	583.5	583.5	583.5	583.5
2.5°	580.5	582.0	580.5	580.5	580.5	580.5	580.5	582.0	585.0	586.5	585.0
5°	579.0	580.5	579.0	579.0	579.0	579.0	579.0	580.5	583.5	585.0	583.5
7.5°	574.5	576.0	574.5	574.5	574.5	574.5	574.5	576.0	580.5	580.5	580.5
10°	568.5	570.0	568.5	568.5	568.5	570.0	570.0	571.5	574.5	574.5	574.5
12.5°	561.0	562.5	561.0	561.0	562.5	562.5	561.0	564.0	567.0	567.0	567.0
15°	552.0	553.5	552.0	552.0	552.0	553.5	553.5	555.0	558.0	558.0	558.0
17.5°	540.0	541.5	541.5	541.5	543.0	543.0	543.0	544.5	547.5	547.5	547.5
20°	529.5	529.5	529.5	529.5	529.5	531.0	531.0	534.0	537.0	537.0	537.0
22.5°	516.0	516.0	517.5	516.0	517.5	519.0	517.5	520.5	523.5	523.5	523.5
25°	501.0	502.5	502.5	502.5	502.5	504.0	504.0	507.0	508.5	510.0	510.0
27.5°	486.0	486.0	487.5	487.5	487.5	489.0	489.0	492.0	495.0	495.0	495.0
30°	469.5	469.5	471.0	472.5	471.0	472.5	472.5	475.5	477.0	478.5	478.5
32.5°	451.5	451.5	454.5	454.5	454.5	456.0	456.0	457.5	460.5	460.5	462.0
35°	433.5	433.5	436.5	436.5	436.5	438.0	438.0	439.5	442.5	442.5	444.0
37.5°	414.0	415.5	417.0	418.5	417.0	418.5	418.5	421.5	423.0	424.5	424.5
40°	394.5	394.5	396.0	397.5	397.5	399.0	400.5	402.0	405.0	405.0	405.0
42.5°	372.0	373.5	375.0	376.5	376.5	378.0	379.5	379.5	381.0	382.5	382.5
45°	352.5	354.0	354.0	357.0	358.5	358.5	358.5	360.0	361.5	363.0	363.0
47.5°	333.0	334.5	336.0	339.0	337.5	337.5	339.0	339.0	340.5	342.0	343.5
50°	312.0	313.5	315.0	316.5	316.5	318.0	318.0	319.5	321.0	321.0	322.5
52.5°	291.0	292.5	295.5	295.5	297.0	297.0	298.5	298.5	300.0	300.0	301.5
55°	270.0	271.5	274.5	276.0	276.0	277.5	277.5	279.0	279.0	279.0	280.5
57.5°	249.0	250.5	253.5	255.0	255.0	256.5	256.5	258.0	258.0	258.0	259.5
60°	228.0	229.5	232.5	234.0	234.0	235.5	235.5	237.0	237.0	238.5	238.5
62.5°	208.5	208.5	211.5	213.0	213.0	213.0	214.5	216.0	216.0	217.5	219.0
65°	186.0	187.5	190.5	192.0	190.5	192.0	193.5	195.0	195.0	196.5	196.5
67.5°	165.0	166.5	169.5	169.5	169.5	171.0	172.5	174.0	174.0	175.5	175.5
70°	144.0	144.0	147.0	148.5	148.5	150.0	151.5	153.0	153.0	154.5	154.5
72.5°	121.5	123.0	126.0	127.5	129.0	129.0	130.5	130.5	133.5	133.5	133.5
75°	102.0	102.0	105.0	106.5	108.0	108.0	109.5	109.5	111.0	112.5	112.5
77.5°	81.0	82.5	84.0	85.5	87.0	87.0	88.5	88.5	90.0	91.5	91.5
80°	61.5	61.5	64.5	64.5	66.0	66.0	67.5	69.0	70.5	70.5	70.5
82.5°	40.5	42.0	45.0	45.0	46.5	46.5	48.0	48.0	49.5	49.5	51.0
85°	22.5	24.0	25.5	25.5	27.0	27.0	28.5	30.0	30.0	31.5	31.5
87.5°	4.5	7.5	7.5	9.0	9.0	10.5	10.5	12.0	13.5	13.5	13.5
90°	1.5	1.5	1.5	1.5	1.5	1.5	1.5	0.0	1.5	0.0	1.5
92.5°	1.5	1.5	1.5	3.0	3.0	3.0	4.5	4.5	4.5	4.5	6.0
95°	4.5	4.5	6.0	7.5	9.0	10.5	13.5	15.0	13.5	10.5	10.5
97.5°	7.5	10.5	13.5	19.5	22.5	25.5	30.0	28.5	25.5	21.0	19.5
100°	15.0	21.0	28.5	40.5	46.5	51.0	52.5	49.5	42.0	34.5	31.5
102.5°	27.0	40.5	58.5	78.0	82.5	84.0	81.0	73.5	63.0	52.5	45.0
105°	55.5	84.0	109.5	124.5	126.0	123.0	115.5	100.5	87.0	72.0	63.0
107.5°	120.0	157.5	172.5	174.0	169.5	162.0	147.0	130.5	114.0	97.5	84.0
110°	213.0	229.5	226.5	213.0	205.5	198.0	178.5	160.5	141.0	121.5	108.0



TEST NUMBER: P303120

CATALOG NUMBER: CTW-F-5050-20L835-UNV-STD-6

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
112.5°	283.5	279.0	265.5	247.5	238.5	229.5	210.0	190.5	166.5	148.5	133.5
115°	328.5	315.0	297.0	277.5	268.5	259.5	240.0	217.5	195.0	175.5	159.0
117.5°	360.0	343.5	325.5	306.0	295.5	286.5	265.5	243.0	222.0	201.0	186.0
120°	385.5	367.5	349.5	330.0	322.5	312.0	291.0	268.5	246.0	226.5	211.5
122.5°	409.5	391.5	372.0	355.5	345.0	336.0	313.5	292.5	271.5	252.0	237.0
125°	432.0	414.0	394.5	376.5	367.5	357.0	334.5	315.0	294.0	274.5	261.0
127.5°	448.5	433.5	417.0	399.0	388.5	378.0	355.5	336.0	316.5	298.5	283.5
130°	465.0	450.0	435.0	418.5	409.5	396.0	376.5	355.5	337.5	321.0	307.5
132.5°	478.5	466.5	450.0	435.0	424.5	414.0	394.5	375.0	358.5	342.0	328.5
135°	493.5	480.0	465.0	450.0	441.0	432.0	414.0	394.5	379.5	363.0	349.5
137.5°	505.5	492.0	478.5	463.5	454.5	445.5	430.5	412.5	397.5	384.0	369.0
140°	516.0	502.5	490.5	475.5	466.5	459.0	444.0	429.0	417.0	400.5	388.5
142.5°	525.0	511.5	501.0	486.0	477.0	471.0	457.5	442.5	432.0	418.5	408.0
145°	532.5	520.5	510.0	496.5	489.0	483.0	469.5	457.5	447.0	435.0	424.5
147.5°	541.5	528.0	519.0	505.5	499.5	493.5	481.5	469.5	460.5	448.5	439.5
150°	547.5	537.0	528.0	514.5	508.5	502.5	492.0	483.0	474.0	463.5	454.5
152.5°	552.0	543.0	534.0	522.0	517.5	513.0	502.5	493.5	486.0	477.0	468.0
155°	556.5	547.5	541.5	529.5	525.0	520.5	511.5	504.0	496.5	489.0	480.0
157.5°	559.5	552.0	546.0	535.5	532.5	528.0	520.5	513.0	507.0	499.5	492.0
160°	561.0	555.0	549.0	540.0	537.0	534.0	526.5	520.5	516.0	508.5	502.5
162.5°	561.0	556.5	550.5	543.0	540.0	537.0	532.5	526.5	523.5	517.5	511.5
165°	561.0	558.0	552.0	546.0	543.0	541.5	537.0	532.5	529.5	523.5	519.0
167.5°	559.5	556.5	552.0	547.5	546.0	543.0	540.0	535.5	534.0	531.0	525.0
170°	558.0	556.5	552.0	549.0	547.5	546.0	543.0	540.0	538.5	535.5	531.0
172.5°	555.0	555.0	552.0	549.0	547.5	546.0	543.0	541.5	541.5	538.5	535.5
175°	552.0	550.5	549.0	546.0	544.5	544.5	543.0	541.5	543.0	541.5	540.0
177.5°	544.5	546.0	543.0	543.0	541.5	541.5	541.5	541.5	543.0	543.0	541.5
180°	540.0	540.0	540.0	540.0	540.0	540.0	540.0	540.0	540.0	540.0	540.0



TEST NUMBER: P303120

CATALOG NUMBER: CTW-F-5050-20L835-UNV-STD-6

CANDELA DISTRIBUTION (continued):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	583.5	583.5	583.5	583.5	583.5	583.5	583.5	583.5	583.5	583.5	583.5
2.5°	585.0	583.5	582.0	582.0	582.0	579.0	579.0	580.5	582.0	585.0	582.0
5°	583.5	582.0	580.5	580.5	580.5	577.5	577.5	579.0	580.5	583.5	580.5
7.5°	579.0	579.0	576.0	576.0	576.0	573.0	573.0	574.5	576.0	579.0	576.0
10°	574.5	573.0	570.0	570.0	570.0	568.5	567.0	568.5	571.5	573.0	570.0
12.5°	567.0	565.5	564.0	562.5	562.5	559.5	559.5	561.0	564.0	565.5	564.0
15°	558.0	556.5	555.0	553.5	553.5	552.0	550.5	552.0	555.0	556.5	553.5
17.5°	547.5	546.0	544.5	543.0	543.0	541.5	540.0	541.5	544.5	544.5	543.0
20°	535.5	534.0	532.5	532.5	532.5	529.5	529.5	529.5	532.5	532.5	529.5
22.5°	523.5	522.0	519.0	519.0	519.0	517.5	516.0	517.5	520.5	517.5	516.0
25°	510.0	507.0	505.5	505.5	504.0	501.0	502.5	502.5	505.5	504.0	501.0
27.5°	495.0	493.5	492.0	490.5	489.0	487.5	487.5	487.5	490.5	487.5	486.0
30°	478.5	477.0	475.5	474.0	474.0	471.0	471.0	472.5	474.0	471.0	469.5
32.5°	460.5	459.0	457.5	457.5	456.0	454.5	454.5	454.5	456.0	453.0	451.5
35°	444.0	441.0	439.5	439.5	438.0	436.5	436.5	438.0	438.0	435.0	433.5
37.5°	424.5	423.0	421.5	420.0	420.0	418.5	418.5	418.5	418.5	415.5	414.0
40°	406.5	403.5	402.0	400.5	400.5	400.5	400.5	400.5	399.0	396.0	393.0
42.5°	382.5	381.0	379.5	379.5	378.0	378.0	378.0	378.0	376.5	375.0	373.5
45°	363.0	361.5	360.0	358.5	360.0	360.0	358.5	358.5	357.0	355.5	354.0
47.5°	343.5	342.0	340.5	339.0	340.5	340.5	339.0	339.0	337.5	337.5	334.5
50°	322.5	321.0	319.5	319.5	321.0	319.5	319.5	318.0	318.0	316.5	313.5
52.5°	303.0	301.5	298.5	298.5	300.0	300.0	298.5	297.0	297.0	297.0	294.0
55°	282.0	280.5	279.0	279.0	280.5	279.0	277.5	276.0	277.5	276.0	273.0
57.5°	261.0	259.5	258.0	258.0	259.5	258.0	256.5	256.5	255.0	255.0	253.5
60°	240.0	238.5	237.0	238.5	238.5	237.0	235.5	235.5	235.5	232.5	232.5
62.5°	219.0	216.0	216.0	216.0	217.5	216.0	214.5	214.5	213.0	211.5	211.5
65°	196.5	195.0	196.5	195.0	195.0	195.0	193.5	193.5	192.0	190.5	190.5
67.5°	175.5	174.0	175.5	174.0	174.0	174.0	174.0	172.5	171.0	171.0	169.5
70°	154.5	153.0	154.5	153.0	153.0	153.0	153.0	151.5	150.0	148.5	148.5
72.5°	133.5	132.0	132.0	132.0	132.0	132.0	130.5	130.5	129.0	129.0	129.0
75°	112.5	111.0	111.0	111.0	111.0	109.5	109.5	109.5	108.0	108.0	108.0
77.5°	91.5	90.0	91.5	91.5	90.0	90.0	90.0	90.0	88.5	87.0	87.0
80°	70.5	70.5	70.5	70.5	70.5	70.5	69.0	69.0	69.0	67.5	67.5
82.5°	51.0	51.0	51.0	51.0	49.5	49.5	49.5	49.5	48.0	46.5	46.5
85°	31.5	31.5	31.5	31.5	30.0	31.5	30.0	28.5	28.5	27.0	25.5
87.5°	15.0	15.0	13.5	12.0	12.0	12.0	10.5	12.0	10.5	9.0	9.0
90°	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
92.5°	7.5	9.0	10.5	10.5	10.5	9.0	9.0	9.0	9.0	9.0	7.5
95°	12.0	15.0	16.5	18.0	19.5	21.0	21.0	21.0	19.5	19.5	19.5
97.5°	19.5	21.0	22.5	22.5	24.0	25.5	28.5	30.0	31.5	33.0	31.5
100°	30.0	28.5	31.5	31.5	31.5	31.5	33.0	34.5	37.5	39.0	40.5
102.5°	42.0	39.0	39.0	40.5	40.5	42.0	42.0	42.0	43.5	45.0	46.5
105°	57.0	52.5	51.0	49.5	49.5	51.0	54.0	54.0	54.0	54.0	54.0
107.5°	75.0	69.0	63.0	61.5	60.0	61.5	63.0	66.0	67.5	67.5	66.0
110°	96.0	87.0	79.5	76.5	73.5	72.0	73.5	73.5	76.5	79.5	81.0



TEST NUMBER: P303120

CATALOG NUMBER: CTW-F-5050-20L835-UNV-STD-6

CANDELA DISTRIBUTION (continued):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
112.5°	120.0	106.5	96.0	94.5	90.0	85.5	84.0	84.0	85.5	87.0	90.0
115°	142.5	129.0	117.0	112.5	108.0	100.5	97.5	94.5	96.0	96.0	99.0
117.5°	169.5	153.0	139.5	133.5	127.5	118.5	111.0	108.0	106.5	106.5	106.5
120°	195.0	180.0	162.0	156.0	150.0	139.5	130.5	123.0	118.5	115.5	115.5
122.5°	219.0	204.0	187.5	180.0	172.5	162.0	151.5	141.0	135.0	129.0	126.0
125°	244.5	229.5	211.5	205.5	196.5	184.5	174.0	163.5	154.5	147.0	141.0
127.5°	268.5	253.5	235.5	228.0	222.0	210.0	196.5	186.0	175.5	168.0	159.0
130°	291.0	276.0	259.5	252.0	246.0	234.0	220.5	210.0	199.5	190.5	180.0
132.5°	313.5	298.5	283.5	276.0	268.5	258.0	244.5	234.0	222.0	213.0	205.5
135°	334.5	319.5	306.0	298.5	292.5	280.5	268.5	258.0	246.0	237.0	229.5
137.5°	355.5	340.5	327.0	319.5	313.5	303.0	292.5	282.0	270.0	261.0	252.0
140°	373.5	360.0	346.5	340.5	334.5	324.0	315.0	306.0	295.5	285.0	276.0
142.5°	393.0	379.5	367.5	360.0	354.0	343.5	334.5	327.0	318.0	307.5	300.0
145°	412.5	397.5	387.0	378.0	373.5	363.0	354.0	348.0	340.5	331.5	324.0
147.5°	427.5	415.5	406.5	400.5	393.0	382.5	373.5	367.5	361.5	352.5	346.5
150°	442.5	432.0	421.5	418.5	412.5	403.5	396.0	388.5	382.5	373.5	367.5
152.5°	459.0	447.0	439.5	433.5	429.0	420.0	412.5	408.0	405.0	394.5	390.0
155°	472.5	462.0	453.0	448.5	445.5	436.5	429.0	426.0	421.5	415.5	409.5
157.5°	484.5	475.5	466.5	462.0	460.5	451.5	445.5	441.0	438.0	433.5	427.5
160°	495.0	487.5	478.5	475.5	472.5	465.0	459.0	456.0	454.5	450.0	445.5
162.5°	505.5	498.0	490.5	487.5	484.5	478.5	472.5	469.5	468.0	465.0	460.5
165°	513.0	507.0	501.0	498.0	496.5	489.0	484.5	483.0	481.5	480.0	475.5
167.5°	522.0	516.0	510.0	508.5	505.5	501.0	496.5	495.0	493.5	493.5	489.0
170°	528.0	523.5	519.0	517.5	516.0	510.0	507.0	505.5	505.5	505.5	501.0
172.5°	534.0	531.0	525.0	525.0	523.5	519.0	516.0	516.0	514.5	516.0	511.5
175°	538.5	535.5	531.0	531.0	529.5	526.5	523.5	523.5	525.0	526.5	522.0
177.5°	541.5	538.5	535.5	535.5	534.0	532.5	529.5	531.0	532.5	534.0	531.0
180°	540.0	540.0	540.0	540.0	540.0	540.0	540.0	540.0	540.0	540.0	540.0



TEST NUMBER: P303120

CATALOG NUMBER: CTW-F-5050-20L835-UNV-STD-6

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	583.5	583.5	583.5	583.5	583.5	583.5	583.5	583.5
2.5°	585.0	583.5	582.0	582.0	580.5	580.5	580.5	580.5
5°	582.0	580.5	580.5	579.0	579.0	579.0	580.5	580.5
7.5°	579.0	576.0	576.0	574.5	574.5	574.5	576.0	576.0
10°	571.5	571.5	570.0	568.5	568.5	568.5	568.5	570.0
12.5°	564.0	562.5	562.5	559.5	559.5	561.0	561.0	562.5
15°	555.0	553.5	552.0	552.0	552.0	552.0	552.0	553.5
17.5°	544.5	543.0	541.5	540.0	540.0	541.5	541.5	541.5
20°	531.0	528.0	528.0	526.5	526.5	526.5	528.0	528.0
22.5°	516.0	513.0	513.0	511.5	511.5	513.0	513.0	513.0
25°	501.0	499.5	498.0	496.5	496.5	496.5	498.0	498.0
27.5°	486.0	483.0	483.0	481.5	481.5	481.5	481.5	481.5
30°	469.5	466.5	465.0	465.0	463.5	463.5	465.0	465.0
32.5°	450.0	448.5	447.0	447.0	445.5	447.0	447.0	447.0
35°	432.0	429.0	429.0	429.0	427.5	429.0	427.5	427.5
37.5°	414.0	409.5	409.5	409.5	409.5	409.5	409.5	409.5
40°	391.5	388.5	388.5	387.0	387.0	387.0	387.0	387.0
42.5°	372.0	369.0	369.0	367.5	367.5	367.5	367.5	367.5
45°	352.5	349.5	349.5	349.5	348.0	348.0	348.0	346.5
47.5°	331.5	330.0	330.0	328.5	328.5	328.5	328.5	328.5
50°	312.0	310.5	310.5	309.0	310.5	309.0	309.0	309.0
52.5°	291.0	291.0	289.5	289.5	289.5	288.0	288.0	288.0
55°	271.5	270.0	270.0	268.5	270.0	268.5	268.5	268.5
57.5°	250.5	250.5	250.5	249.0	249.0	247.5	247.5	247.5
60°	229.5	229.5	229.5	228.0	229.5	228.0	228.0	228.0
62.5°	210.0	210.0	208.5	208.5	208.5	207.0	207.0	207.0
65°	189.0	187.5	187.5	189.0	187.5	187.5	187.5	187.5
67.5°	169.5	169.5	168.0	168.0	168.0	166.5	166.5	166.5
70°	148.5	148.5	147.0	147.0	147.0	145.5	147.0	145.5
72.5°	127.5	127.5	126.0	127.5	126.0	124.5	126.0	126.0
75°	106.5	106.5	106.5	106.5	106.5	105.0	105.0	105.0
77.5°	87.0	87.0	85.5	85.5	85.5	85.5	85.5	84.0
80°	66.0	66.0	64.5	64.5	64.5	64.5	64.5	63.0
82.5°	46.5	45.0	45.0	45.0	45.0	43.5	43.5	43.5
85°	25.5	25.5	25.5	25.5	24.0	25.5	24.0	24.0
87.5°	9.0	9.0	9.0	7.5	7.5	9.0	9.0	7.5
90°	1.5	1.5	3.0	3.0	3.0	3.0	3.0	3.0
92.5°	7.5	7.5	7.5	6.0	6.0	6.0	6.0	6.0
95°	19.5	19.5	19.5	18.0	18.0	19.5	18.0	18.0
97.5°	31.5	31.5	31.5	31.5	30.0	31.5	30.0	30.0
100°	40.5	42.0	42.0	42.0	42.0	42.0	42.0	43.5
102.5°	48.0	48.0	48.0	48.0	49.5	49.5	49.5	49.5
105°	55.5	55.5	55.5	57.0	57.0	58.5	58.5	58.5
107.5°	66.0	66.0	66.0	66.0	67.5	67.5	67.5	67.5
110°	81.0	81.0	79.5	79.5	78.0	78.0	78.0	78.0



TEST NUMBER: P303120

CATALOG NUMBER: CTW-F-5050-20L835-UNV-STD-6

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
112.5°	93.0	94.5	94.5	94.5	94.5	94.5	94.5	94.5
115°	100.5	103.5	103.5	105.0	105.0	106.5	106.5	106.5
117.5°	108.0	111.0	111.0	112.5	112.5	114.0	115.5	115.5
120°	117.0	118.5	118.5	120.0	120.0	121.5	121.5	121.5
122.5°	126.0	126.0	126.0	127.5	127.5	127.5	129.0	129.0
125°	138.0	136.5	136.5	135.0	135.0	135.0	135.0	136.5
127.5°	154.5	150.0	148.5	148.5	147.0	145.5	145.5	144.0
130°	172.5	169.5	166.5	165.0	162.0	160.5	159.0	159.0
132.5°	196.5	190.5	187.5	184.5	181.5	178.5	178.5	177.0
135°	222.0	214.5	213.0	208.5	205.5	202.5	199.5	199.5
137.5°	244.5	238.5	237.0	234.0	231.0	226.5	226.5	223.5
140°	268.5	262.5	259.5	256.5	253.5	250.5	250.5	250.5
142.5°	292.5	286.5	283.5	280.5	277.5	274.5	273.0	274.5
145°	316.5	310.5	307.5	304.5	301.5	298.5	297.0	295.5
147.5°	339.0	333.0	330.0	328.5	325.5	322.5	321.0	319.5
150°	361.5	355.5	354.0	351.0	348.0	345.0	343.5	343.5
152.5°	382.5	378.0	375.0	372.0	370.5	367.5	366.0	366.0
155°	405.0	400.5	397.5	396.0	393.0	390.0	390.0	387.0
157.5°	424.5	420.0	417.0	415.5	412.5	411.0	411.0	411.0
160°	442.5	438.0	436.5	433.5	430.5	430.5	430.5	430.5
162.5°	459.0	456.0	454.5	451.5	448.5	448.5	448.5	447.0
165°	474.0	471.0	469.5	466.5	465.0	465.0	465.0	465.0
167.5°	489.0	484.5	483.0	481.5	480.0	480.0	480.0	480.0
170°	501.0	498.0	496.5	495.0	493.5	493.5	493.5	493.5
172.5°	513.0	511.5	510.0	507.0	507.0	507.0	508.5	507.0
175°	523.5	522.0	520.5	519.0	517.5	519.0	519.0	519.0
177.5°	532.5	531.0	531.0	529.5	528.0	526.5	528.0	526.5
180°	540.0	540.0	540.0	540.0	540.0	540.0	540.0	540.0

(END OF REPORT)