

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: P303167

Luminaire Tested: **CTW-F-5050-50L930-UNV-STD-4**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P303167
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-5050-50L930-UNV-STD-4
Description: CORELITE CONTINUA LINEAR WALL LED LUMINAIRE
50% UPLIGHT, 50% DOWNLIGHT, 5000 LUMEN PACKAGE
Light Source: 3000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

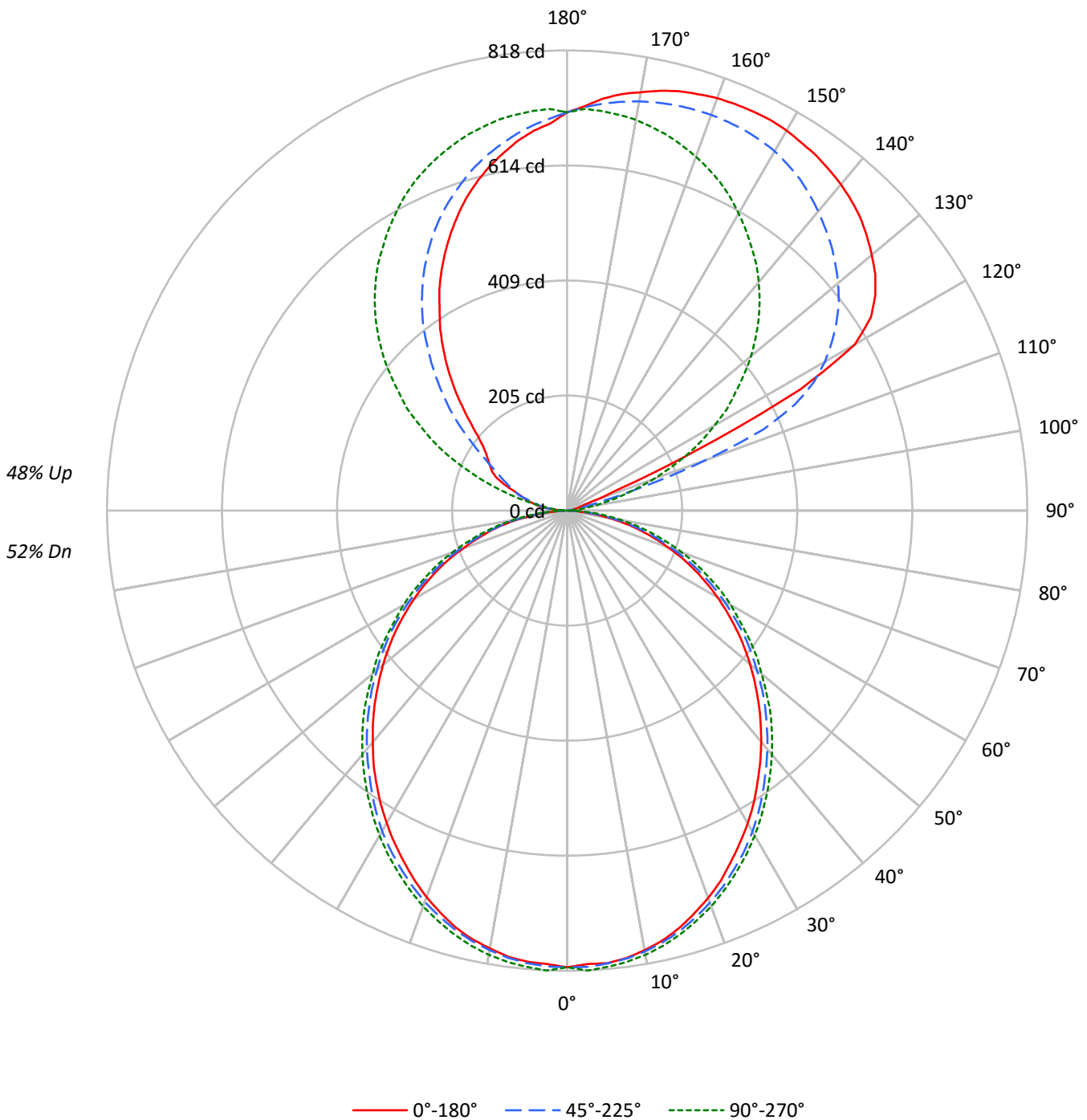
Lumens per Lamp: N/A
Luminaire Lumens: 4176.8 lumens
Efficiency: N/A
Efficacy: 104.4 lumens/watt
Spacing Criteria (0/90/45): 1.18 / 1.22 / 1.32
Luminous Opening: Rectangular (W 4' x L: 0.12' x H: 0')
CIE Type: General Diffuse

Input Watts (W): 40
Input Voltage (V): 120
Input Current (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	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°	17476	17476	17476
5°	17452	17597	17398
10°	17346	17527	17272
15°	17128	17368	17092
20°	16788	17150	16749
25°	16359	16872	16338
30°	15961	16580	15942
35°	15498	16241	15542
40°	15077	15917	15100
45°	14635	15573	14711
50°	14207	15098	14318
55°	13767	14765	13955
60°	13287	14467	13537
65°	12755	14064	13091
70°	11991	13665	12406
75°	11071	13075	11903
80°	9484	12162	10724
85°	5953	10671	7805



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	76.6	1.8
10°-20°	217.1	5.2
20°-30°	321.4	7.7
30°-40°	377.4	9.0
40°-50°	382.7	9.2
50°-60°	341.3	8.2
60°-70°	261.6	6.3
70°-80°	154.0	3.7
80°-90°	41.5	1.0
90°-100°	20.2	0.5
100°-110°	87.0	2.1
110°-120°	243.7	5.8
120°-130°	352.3	8.4
130°-140°	380.3	9.1
140°-150°	361.7	8.7
150°-160°	296.8	7.1
160°-170°	194.0	4.6
170°-180°	67.2	1.6
0°-30°	615.1	14.7
0°-40°	992.5	23.8
0°-60°	1716.5	41.1
0°-90°	2173.6	52.0
90°-120°	350.8	8.4
90°-150°	1445.1	34.6
90°-180°	2003.0	48.0
0°-180°	4176.8	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	812	812	812	812	812	
5°	808	808	814	808	805	77
15°	768	774	779	771	767	216
25°	689	703	710	701	688	317
35°	590	607	618	606	591	369
45°	481	498	512	498	483	371
55°	367	383	393	385	372	328
65°	250	262	276	266	257	248
75°	133	142	157	146	143	140
85°	24	32	43	36	32	31
90°	1	1	1	4	6	1
95°	5	6	15	27	25	5
105°	22	63	98	68	76	25
115°	252	448	235	122	139	279
125°	669	585	365	202	176	593
135°	737	665	482	326	265	569
145°	771	720	571	450	393	483
155°	783	746	644	554	511	362
165°	772	746	690	633	609	219
175°	735	726	713	688	678	71
180°	708	708	708	708	708	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	811.8	811.8	811.8	811.8	811.8	811.8	811.8	811.8	811.8	811.8	811.8
2.5°	806.8	805.9	808.4	810.1	810.1	810.9	812.6	813.4	812.6	815.9	811.8
5°	807.6	805.9	806.8	806.8	805.9	806.8	808.4	809.3	809.3	812.6	808.4
7.5°	802.6	801.8	802.6	801.8	801.0	801.8	802.6	804.3	803.5	806.8	803.5
10°	793.5	792.6	792.6	792.6	791.8	792.6	794.3	796.0	796.0	798.5	796.0
12.5°	782.7	781.0	781.8	782.7	781.0	781.8	783.5	785.2	785.2	788.5	786.0
15°	768.5	767.7	769.4	771.0	769.4	769.4	771.0	771.8	772.7	775.2	773.5
17.5°	751.1	751.1	752.7	755.2	753.5	753.5	755.2	756.9	756.9	758.5	758.5
20°	732.8	731.9	733.6	735.2	735.2	734.4	736.9	738.6	739.4	741.1	741.9
22.5°	712.8	711.1	712.0	714.5	713.6	713.6	714.5	717.8	719.4	721.1	723.6
25°	688.7	688.7	690.3	692.0	692.0	692.0	692.8	695.3	697.8	700.3	702.8
27.5°	665.4	665.4	666.2	669.5	669.5	668.7	670.4	674.5	677.0	678.7	682.0
30°	642.1	639.6	642.1	644.6	646.3	644.6	647.1	650.4	652.1	654.6	658.7
32.5°	617.1	616.3	616.3	619.6	621.3	620.5	621.3	625.5	628.8	629.6	633.8
35°	589.7	590.5	590.5	593.0	594.7	593.9	594.7	598.8	602.2	603.0	607.2
37.5°	563.9	563.9	563.9	566.4	568.1	568.1	568.1	572.2	575.6	578.1	580.5
40°	536.5	537.3	536.5	539.0	541.5	540.6	541.5	544.8	548.9	551.4	553.9
42.5°	509.0	508.2	508.2	510.7	514.0	513.2	514.0	517.3	520.7	524.0	525.7
45°	480.7	479.1	480.7	483.2	485.7	486.6	485.7	489.1	492.4	494.9	498.2
47.5°	452.5	451.6	451.6	454.1	456.6	456.6	457.5	459.9	464.1	465.8	469.9
50°	424.2	424.2	423.4	425.8	428.3	429.2	429.2	430.8	435.0	438.3	440.0
52.5°	395.9	395.9	395.9	396.7	398.4	400.9	400.9	402.6	405.1	409.2	411.7
55°	366.8	367.6	366.8	367.6	370.1	371.8	371.8	373.4	375.9	380.1	382.6
57.5°	337.7	338.5	337.7	338.5	341.0	341.8	342.7	344.3	346.0	349.3	351.8
60°	308.6	309.4	308.6	309.4	311.9	313.6	312.7	315.2	316.9	318.6	321.9
62.5°	279.5	281.1	280.3	282.0	282.8	284.5	283.6	286.1	287.8	289.4	292.8
65°	250.4	252.0	251.2	252.8	252.8	254.5	253.7	256.2	257.8	259.5	262.0
67.5°	221.2	222.9	222.1	222.9	223.7	225.4	223.7	227.1	228.7	229.6	232.1
70°	190.5	192.1	191.3	192.1	193.0	193.8	193.0	195.5	198.0	198.8	200.4
72.5°	161.4	163.0	163.0	163.9	163.9	165.5	165.5	165.5	167.2	169.7	170.5
75°	133.1	134.7	134.7	134.7	134.7	136.4	136.4	138.1	138.9	140.6	142.2
77.5°	104.8	106.5	106.5	106.5	106.5	108.1	108.1	109.8	110.6	112.3	113.9
80°	76.5	78.2	79.0	79.0	79.0	79.8	79.8	81.5	82.3	84.0	85.7
82.5°	49.9	50.7	51.6	50.7	51.6	52.4	54.1	54.1	54.9	56.6	58.2
85°	24.1	25.0	25.8	25.8	25.8	26.6	26.6	28.3	29.1	29.9	31.6
87.5°	3.3	4.2	4.2	4.2	4.2	5.0	5.0	5.0	5.8	5.8	7.5
90°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
92.5°	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
95°	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.8
97.5°	7.5	7.5	8.3	7.5	8.3	8.3	8.3	8.3	9.1	9.1	10.8
100°	11.6	11.6	11.6	11.6	11.6	11.6	12.5	12.5	14.1	15.0	17.5
102.5°	15.8	15.8	15.8	16.6	16.6	17.5	17.5	18.3	20.8	24.1	31.6
105°	21.6	21.6	22.5	22.5	23.3	24.1	25.0	28.3	33.3	43.2	63.2
107.5°	29.9	30.8	31.6	32.4	34.9	37.4	39.9	49.1	64.0	94.8	141.4
110°	47.4	48.2	51.6	54.9	63.2	71.5	79.8	110.6	155.5	212.1	263.7



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
112.5°	99.0	102.3	104.8	124.8	151.4	174.7	196.3	251.2	310.2	358.5	378.4
115°	252.0	257.8	262.0	301.1	342.7	369.3	385.9	423.4	447.5	455.0	447.5
117.5°	468.3	470.8	476.6	490.7	509.9	519.0	520.7	526.5	520.7	509.0	494.0
120°	590.5	590.5	587.2	588.0	585.5	585.5	582.2	573.1	560.6	546.4	529.0
122.5°	640.4	637.9	633.8	630.5	623.0	621.3	616.3	604.7	591.4	577.2	558.1
125°	668.7	666.2	662.9	658.7	650.4	647.1	642.1	630.5	617.1	602.2	584.7
127.5°	690.3	687.8	684.5	680.4	672.9	669.5	663.7	652.1	638.8	624.6	608.8
130°	707.0	706.1	702.0	699.5	692.0	688.7	682.9	671.2	658.7	644.6	628.8
132.5°	722.8	721.1	717.0	715.3	708.6	704.5	699.5	688.7	676.2	662.1	647.1
135°	736.9	735.2	730.3	728.6	722.8	717.8	713.6	703.6	692.8	678.7	664.6
137.5°	747.7	745.2	741.9	740.2	734.4	729.4	726.1	717.0	706.1	692.8	679.5
140°	756.9	754.4	751.9	750.2	745.2	741.1	736.9	727.8	718.6	707.8	694.5
142.5°	764.4	762.7	760.2	757.7	752.7	749.4	746.1	738.6	730.3	719.4	707.8
145°	771.0	769.4	766.9	765.2	759.4	756.9	753.5	746.9	739.4	728.6	720.3
147.5°	775.2	774.3	772.7	771.0	765.2	762.7	759.4	754.4	746.9	736.9	729.4
150°	780.2	778.5	776.8	776.0	770.2	767.7	766.0	760.2	753.5	744.4	737.7
152.5°	782.7	781.0	779.3	778.5	772.7	771.0	769.4	764.4	756.9	748.6	742.7
155°	782.7	781.8	780.2	779.3	773.5	771.0	770.2	765.2	758.5	751.9	746.1
157.5°	781.8	780.2	779.3	777.7	772.7	771.0	769.4	765.2	759.4	753.5	747.7
160°	780.2	778.5	777.7	776.0	771.8	770.2	769.4	765.2	761.0	755.2	748.6
162.5°	776.0	775.2	774.3	773.5	770.2	768.5	767.7	764.4	759.4	754.4	747.7
165°	771.8	770.2	769.4	767.7	764.4	764.4	763.5	761.0	756.0	753.5	746.1
167.5°	764.4	761.9	761.9	759.4	756.9	756.9	756.0	755.2	751.1	749.4	742.7
170°	755.2	754.4	752.7	751.9	750.2	750.2	749.4	748.6	745.2	745.2	738.6
172.5°	746.9	746.1	745.2	743.6	741.1	741.1	741.1	741.1	738.6	738.6	732.8
175°	735.2	733.6	733.6	732.8	731.1	731.9	731.9	731.9	730.3	731.9	726.1
177.5°	719.4	717.8	719.4	721.1	720.3	721.1	721.9	721.9	720.3	722.8	717.8
180°	707.8	707.8	707.8	707.8	707.8	707.8	707.8	707.8	707.8	707.8	707.8



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CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	811.8	811.8	811.8	811.8	811.8	811.8	811.8	811.8	811.8	811.8	811.8
2.5°	808.4	809.3	808.4	809.3	810.1	809.3	810.1	813.4	816.8	818.4	816.8
5°	805.1	805.9	805.1	805.9	806.8	805.9	806.8	809.3	813.4	814.3	813.4
7.5°	800.1	801.0	800.1	801.0	801.0	801.0	801.0	804.3	807.6	809.3	807.6
10°	791.8	792.6	791.8	793.5	793.5	793.5	793.5	796.8	800.1	801.8	799.3
12.5°	781.8	782.7	781.8	783.5	782.7	783.5	784.3	786.8	790.1	791.8	790.1
15°	768.5	770.2	769.4	771.0	771.0	771.0	771.0	774.3	777.7	779.3	777.7
17.5°	753.5	754.4	754.4	756.0	756.0	756.0	756.9	760.2	762.7	764.4	762.7
20°	736.9	738.6	738.6	739.4	739.4	740.2	741.1	743.6	746.9	748.6	746.9
22.5°	718.6	720.3	721.1	721.1	721.1	721.9	722.8	725.3	729.4	730.3	728.6
25°	699.5	699.5	701.1	701.1	702.0	702.8	703.6	705.3	709.5	710.3	709.5
27.5°	678.7	677.9	678.7	680.4	680.4	682.0	682.9	684.5	687.8	689.5	687.8
30°	655.4	655.4	657.1	657.9	657.9	658.7	660.4	662.1	665.4	667.0	665.4
32.5°	632.1	631.3	633.8	633.8	634.6	635.4	636.3	638.8	641.3	642.9	642.1
35°	608.0	605.5	608.8	608.8	609.7	611.3	611.3	613.0	616.3	618.0	616.3
37.5°	583.0	580.5	583.0	584.7	583.9	585.5	586.4	588.0	591.4	592.2	592.2
40°	557.3	554.8	557.3	558.1	558.1	558.9	560.6	561.4	563.9	566.4	564.7
42.5°	529.0	528.1	529.8	531.5	531.5	532.3	533.1	534.0	536.5	539.0	537.3
45°	500.7	500.7	502.4	504.0	504.9	504.9	505.7	506.5	508.2	511.5	509.0
47.5°	472.4	472.4	474.1	474.9	474.9	475.7	477.4	477.4	480.7	480.7	481.6
50°	442.5	444.1	445.8	448.3	446.6	447.5	449.1	449.1	450.8	450.8	453.3
52.5°	413.4	414.2	416.7	419.2	420.0	419.2	420.0	420.0	421.7	424.2	422.5
55°	384.3	384.3	387.6	390.1	390.1	390.1	390.1	390.9	393.4	393.4	393.4
57.5°	354.3	355.1	357.6	361.0	361.0	361.0	361.0	361.8	363.5	362.6	365.1
60°	325.2	325.2	328.5	330.2	330.2	331.9	331.9	332.7	333.5	336.0	336.0
62.5°	296.1	296.1	298.6	300.3	301.9	301.1	301.9	302.7	304.4	306.9	305.2
65°	266.2	266.2	268.6	269.5	272.0	271.1	272.0	274.5	275.3	276.1	275.3
67.5°	235.4	236.2	238.7	239.5	242.0	242.9	242.0	245.4	246.2	247.9	247.0
70°	202.9	203.8	207.1	207.9	209.6	208.8	210.4	214.6	216.2	217.1	215.4
72.5°	173.8	174.7	178.0	178.8	180.5	179.7	181.3	183.8	185.5	186.3	186.3
75°	143.9	145.6	147.2	148.9	151.4	150.5	152.2	154.7	156.4	157.2	157.2
77.5°	115.6	116.4	118.9	119.8	122.3	121.4	122.3	123.9	126.4	127.3	127.3
80°	87.3	89.0	89.8	91.5	93.2	92.3	94.0	96.5	97.3	98.1	98.1
82.5°	59.9	60.7	62.4	64.0	65.7	66.5	67.4	69.0	69.9	69.9	69.9
85°	33.3	34.9	36.6	37.4	39.1	38.3	40.8	42.4	43.2	43.2	44.1
87.5°	9.1	10.8	11.6	13.3	15.0	15.0	15.0	18.3	18.3	19.1	19.1
90°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
92.5°	2.5	3.3	3.3	4.2	5.0	5.8	8.3	8.3	6.7	5.8	6.7
95°	6.7	7.5	9.1	14.1	17.5	20.0	23.3	22.5	19.1	15.0	14.1
97.5°	12.5	15.8	22.5	34.1	40.8	44.1	47.4	42.4	35.8	29.1	26.6
100°	23.3	31.6	48.2	68.2	75.7	79.0	78.2	67.4	58.2	47.4	41.6
102.5°	44.1	67.4	95.6	118.1	123.1	118.9	112.3	99.0	85.7	70.7	61.5
105°	95.6	135.6	164.7	173.0	175.5	167.2	151.4	134.7	115.6	98.1	84.8
107.5°	190.5	227.1	237.9	232.1	228.7	214.6	194.6	173.0	150.5	128.9	112.3
110°	301.9	308.6	301.1	282.8	272.8	260.3	237.9	212.9	184.6	163.0	143.1



TEST NUMBER: P303167

CATALOG NUMBER: CTW-F-5050-50L930-UNV-STD-4

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
112.5°	383.4	369.3	350.2	326.0	314.4	301.1	277.0	252.8	222.1	198.0	176.3
115°	435.8	415.0	391.7	366.0	353.5	339.3	315.2	288.6	257.8	235.4	210.4
117.5°	476.6	450.8	427.5	402.6	390.9	376.8	352.7	323.5	292.8	270.3	245.4
120°	508.2	484.1	459.9	436.7	423.4	411.7	386.8	357.6	326.9	301.9	278.6
122.5°	536.5	514.0	490.7	468.3	455.8	442.5	416.7	388.4	360.1	336.9	313.6
125°	563.1	542.3	519.0	496.5	484.1	470.8	445.8	418.4	390.1	365.1	345.2
127.5°	588.0	568.1	544.8	523.2	510.7	496.5	472.4	445.8	421.7	395.9	375.9
130°	610.5	592.2	569.7	548.1	535.6	522.3	498.2	472.4	449.1	426.7	405.1
132.5°	630.5	612.2	590.5	570.6	557.3	545.6	522.3	498.2	474.9	454.1	434.2
135°	649.6	630.5	610.5	589.7	578.1	567.2	544.8	522.3	500.7	481.6	463.3
137.5°	667.0	646.3	626.3	606.3	595.5	586.4	564.7	544.0	525.7	506.5	488.2
140°	682.0	660.4	642.1	623.0	613.0	603.8	583.9	563.9	548.1	529.8	512.3
142.5°	693.7	672.0	655.4	637.1	628.0	620.5	601.3	583.9	568.1	552.3	534.8
145°	702.8	683.7	667.9	650.4	642.9	634.6	617.1	601.3	587.2	571.4	555.6
147.5°	712.0	695.3	679.5	663.7	656.2	648.7	632.9	618.8	605.5	591.4	575.6
150°	719.4	704.5	690.3	676.2	669.5	662.1	647.9	634.6	623.0	609.7	594.7
152.5°	724.4	712.0	699.5	687.0	680.4	674.5	661.2	650.4	639.6	628.0	613.0
155°	728.6	718.6	707.0	696.2	690.3	685.3	672.9	662.9	653.7	643.8	630.5
157.5°	732.8	722.8	712.8	702.8	697.8	692.8	682.0	674.5	666.2	657.1	644.6
160°	734.4	726.9	717.0	708.6	704.5	700.3	691.2	684.5	677.9	669.5	657.9
162.5°	735.2	728.6	720.3	713.6	710.3	707.0	697.8	692.8	687.0	680.4	670.4
165°	735.2	730.3	723.6	717.8	714.5	712.0	704.5	700.3	696.2	690.3	681.2
167.5°	734.4	729.4	724.4	719.4	717.0	714.5	708.6	706.1	702.8	697.8	690.3
170°	731.9	728.6	723.6	720.3	718.6	716.1	712.0	710.3	708.6	705.3	697.8
172.5°	727.8	725.3	721.9	719.4	718.6	716.1	712.8	712.0	712.0	709.5	703.6
175°	721.9	721.1	718.6	717.0	715.3	714.5	712.0	712.8	713.6	712.8	707.8
177.5°	714.5	714.5	712.8	712.8	712.0	711.1	710.3	712.0	714.5	714.5	711.1
180°	707.8	707.8	707.8	707.8	707.8	707.8	707.8	707.8	707.8	707.8	707.8



TEST NUMBER: P303167

CATALOG NUMBER: CTW-F-5050-50L930-UNV-STD-4

CANDELA DISTRIBUTION (continued):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	811.8	811.8	811.8	811.8	811.8	811.8	811.8	811.8	811.8	811.8	811.8
2.5°	814.3	810.9	810.1	810.1	809.3	807.6	806.8	807.6	810.9	815.9	810.9
5°	810.9	807.6	805.9	805.9	805.9	803.5	803.5	803.5	807.6	811.8	806.8
7.5°	805.1	801.8	801.0	801.0	800.1	798.5	797.6	798.5	801.8	805.9	801.0
10°	797.6	794.3	793.5	792.6	791.8	790.1	789.3	790.1	793.5	796.8	792.6
12.5°	787.6	784.3	782.7	783.5	781.8	779.3	779.3	779.3	783.5	786.0	781.8
15°	775.2	771.0	770.2	770.2	769.4	766.9	766.9	766.9	771.0	772.7	767.7
17.5°	760.2	756.9	756.0	756.0	754.4	751.9	751.9	751.1	756.0	756.9	753.5
20°	744.4	741.1	739.4	739.4	737.7	735.2	735.2	734.4	740.2	738.6	736.1
22.5°	726.9	722.8	721.1	721.9	720.3	717.0	717.0	716.1	721.1	718.6	715.3
25°	707.8	702.8	702.0	701.1	700.3	696.2	696.2	696.2	701.1	697.0	694.5
27.5°	685.3	682.0	681.2	678.7	678.7	675.4	675.4	675.4	680.4	674.5	673.7
30°	662.9	659.6	659.6	657.1	656.2	652.9	652.9	652.9	657.9	652.1	650.4
32.5°	640.4	636.3	634.6	632.9	632.9	629.6	629.6	629.6	632.9	627.1	625.5
35°	615.5	611.3	611.3	608.0	608.0	604.7	603.8	605.5	606.3	601.3	599.7
37.5°	589.7	585.5	585.5	583.0	583.0	579.7	579.7	582.2	579.7	577.2	573.9
40°	563.9	560.6	558.9	556.4	557.3	554.8	553.9	555.6	553.9	551.4	547.3
42.5°	536.5	533.1	532.3	530.6	530.6	528.1	527.3	529.0	526.5	523.2	520.7
45°	509.0	506.5	505.7	504.0	504.0	500.7	500.7	501.5	498.2	496.5	493.2
47.5°	479.9	478.2	476.6	476.6	475.7	473.3	473.3	473.3	470.8	469.1	464.9
50°	451.6	449.1	448.3	448.3	448.3	445.8	445.0	443.3	441.6	440.8	436.7
52.5°	422.5	420.9	420.0	420.0	420.9	416.7	415.9	414.2	413.4	412.5	407.5
55°	393.4	391.7	390.1	391.7	390.9	387.6	386.8	387.6	385.1	382.6	378.4
57.5°	364.3	361.8	361.8	362.6	361.8	358.5	357.6	358.5	355.1	352.7	349.3
60°	335.2	332.7	331.9	332.7	331.9	328.5	327.7	327.7	325.2	323.5	320.2
62.5°	306.1	303.6	303.6	303.6	302.7	301.1	298.6	298.6	296.1	293.6	291.1
65°	275.3	272.8	273.6	273.6	273.6	272.0	269.5	270.3	266.2	264.5	262.0
67.5°	246.2	243.7	243.7	243.7	243.7	243.7	239.5	238.7	236.2	235.4	232.9
70°	215.4	212.1	212.9	212.1	211.3	210.4	207.9	207.1	204.6	204.6	202.1
72.5°	184.6	183.0	183.0	183.0	182.1	181.3	179.7	178.8	175.5	175.5	173.8
75°	153.9	153.9	153.0	153.0	153.0	152.2	150.5	149.7	146.4	147.2	145.6
77.5°	125.6	125.6	123.9	123.9	123.9	123.1	122.3	119.8	119.8	118.1	117.3
80°	96.5	96.5	95.6	95.6	95.6	94.8	94.0	93.2	91.5	90.7	89.0
82.5°	69.9	69.0	68.2	68.2	67.4	67.4	66.5	65.7	64.0	61.5	60.7
85°	42.4	42.4	41.6	41.6	40.8	40.8	39.1	37.4	35.8	34.1	33.3
87.5°	18.3	18.3	15.8	15.8	15.0	15.0	14.1	13.3	11.6	10.8	10.0
90°	1.7	2.5	2.5	2.5	3.3	3.3	3.3	4.2	4.2	4.2	4.2
92.5°	10.0	12.5	13.3	13.3	13.3	13.3	13.3	13.3	13.3	12.5	12.5
95°	16.6	18.3	22.5	24.1	25.8	27.4	27.4	27.4	27.4	26.6	25.0
97.5°	25.0	26.6	29.1	29.1	29.9	34.1	37.4	39.1	40.8	41.6	41.6
100°	39.1	35.8	39.1	41.6	40.8	40.8	42.4	45.7	49.1	50.7	51.6
102.5°	55.7	49.9	48.2	49.9	51.6	54.9	53.2	54.1	55.7	58.2	60.7
105°	76.5	69.0	63.2	62.4	62.4	65.7	69.9	69.0	68.2	68.2	68.2
107.5°	100.6	89.8	80.7	79.0	77.4	77.4	79.8	84.8	88.2	84.8	83.2
110°	128.1	113.1	104.0	99.0	95.6	92.3	92.3	94.8	99.0	103.1	104.8



TEST NUMBER: P303167

CATALOG NUMBER: CTW-F-5050-50L930-UNV-STD-4

CANDELA DISTRIBUTION (continued):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
112.5°	158.9	140.6	128.1	123.9	117.3	109.8	107.3	107.3	109.8	113.9	117.3
115°	190.5	171.3	153.9	148.9	142.2	130.6	123.9	122.3	122.3	123.9	127.3
117.5°	225.4	202.1	183.0	176.3	168.8	155.5	144.7	138.9	136.4	136.4	138.1
120°	256.2	236.2	216.2	207.1	198.0	183.0	168.8	159.7	153.9	150.5	149.7
122.5°	291.1	270.3	248.7	241.2	231.2	213.8	198.8	184.6	175.5	168.8	163.9
125°	322.7	303.6	281.1	272.0	262.8	245.4	230.4	214.6	202.1	191.3	183.0
127.5°	353.5	334.4	312.7	304.4	295.3	277.0	261.2	246.2	232.9	219.6	207.9
130°	384.3	366.0	344.3	335.2	326.9	309.4	291.9	277.0	265.3	252.0	238.7
132.5°	414.2	395.1	375.1	365.1	357.6	340.2	324.4	308.6	295.3	283.6	271.1
135°	442.5	424.2	404.2	394.2	386.8	371.0	355.1	341.0	326.0	314.4	302.7
137.5°	469.1	450.8	433.3	422.5	415.0	400.9	385.9	372.6	357.6	345.2	333.5
140°	494.0	476.6	459.9	450.8	442.5	428.3	415.0	404.2	388.4	376.8	365.1
142.5°	517.3	499.9	484.1	476.6	468.3	455.0	442.5	432.5	420.9	408.4	396.7
145°	538.1	523.2	508.2	500.7	493.2	480.7	469.1	459.9	450.0	437.5	426.7
147.5°	559.8	544.8	530.6	524.0	518.2	505.7	494.9	485.7	478.2	466.6	455.8
150°	579.7	565.6	553.1	546.4	541.5	528.1	519.8	510.7	504.9	494.0	484.9
152.5°	598.8	586.4	573.9	568.9	563.1	550.6	542.3	533.1	529.8	519.0	511.5
155°	617.1	603.8	593.9	588.9	583.0	571.4	564.7	556.4	553.9	544.0	536.5
157.5°	633.8	620.5	611.3	606.3	601.3	591.4	584.7	577.2	575.6	568.1	559.8
160°	647.9	635.4	627.1	623.8	618.8	609.7	603.0	597.2	595.5	590.5	582.2
162.5°	660.4	649.6	642.9	638.8	634.6	626.3	621.3	614.6	614.6	610.5	603.8
165°	672.9	662.9	656.2	652.9	649.6	642.9	637.1	632.9	632.9	629.6	623.0
167.5°	682.9	673.7	668.7	665.4	662.9	656.2	652.1	647.9	648.7	647.1	640.4
170°	692.0	683.7	679.5	677.0	674.5	668.7	666.2	662.1	662.9	662.9	657.1
172.5°	699.5	692.0	688.7	686.2	685.3	679.5	677.9	675.4	676.2	677.9	670.4
175°	704.5	698.7	695.3	694.5	692.8	689.5	687.0	686.2	687.8	690.3	683.7
177.5°	708.6	703.6	702.0	702.0	700.3	697.0	695.3	695.3	697.8	701.1	696.2
180°	707.8	707.8	707.8	707.8	707.8	707.8	707.8	707.8	707.8	707.8	707.8



TEST NUMBER: P303167

CATALOG NUMBER: CTW-F-5050-50L930-UNV-STD-4

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	811.8	811.8	811.8	811.8	811.8	811.8	811.8	811.8
2.5°	812.6	811.8	810.9	809.3	808.4	806.8	805.9	806.8
5°	807.6	806.8	805.9	805.1	805.1	804.3	804.3	805.1
7.5°	801.8	801.0	800.1	799.3	799.3	799.3	799.3	800.1
10°	793.5	791.8	791.0	790.1	789.3	789.3	789.3	790.1
12.5°	782.7	781.0	779.3	778.5	778.5	778.5	778.5	780.2
15°	768.5	767.7	766.9	766.0	766.0	765.2	765.2	766.9
17.5°	754.4	752.7	751.1	750.2	749.4	749.4	748.6	749.4
20°	735.2	733.6	731.9	731.1	731.1	730.3	730.3	731.1
22.5°	714.5	712.0	711.1	710.3	710.3	709.5	709.5	710.3
25°	693.7	690.3	689.5	688.7	688.7	687.8	687.8	687.8
27.5°	672.0	668.7	667.9	666.2	667.0	665.4	664.6	665.4
30°	648.7	645.4	644.6	642.9	642.9	641.3	640.4	641.3
32.5°	623.8	620.5	619.6	618.8	619.6	616.3	615.5	617.1
35°	598.0	594.7	594.7	593.0	593.9	590.5	590.5	591.4
37.5°	571.4	568.1	568.9	567.2	567.2	564.7	564.7	565.6
40°	544.8	542.3	540.6	540.6	541.5	538.1	538.1	537.3
42.5°	517.3	514.8	514.0	514.0	513.2	510.7	509.9	510.7
45°	489.9	487.4	487.4	486.6	486.6	483.2	484.1	483.2
47.5°	461.6	459.9	459.1	458.3	458.3	455.0	455.8	455.0
50°	433.3	432.5	431.7	430.8	430.8	427.5	429.2	427.5
52.5°	405.1	404.2	403.4	403.4	402.6	400.9	400.9	399.2
55°	376.8	375.1	375.1	375.1	374.3	371.8	373.4	371.8
57.5°	348.5	346.8	346.0	345.2	345.2	344.3	343.5	342.7
60°	319.4	317.7	317.7	316.1	316.1	316.1	315.2	314.4
62.5°	290.3	288.6	288.6	287.8	287.8	287.8	286.9	286.1
65°	262.0	259.5	259.5	258.7	258.7	258.7	257.8	257.0
67.5°	232.1	230.4	230.4	229.6	230.4	230.4	229.6	227.9
70°	201.3	199.6	199.6	198.8	199.6	199.6	198.8	197.1
72.5°	173.0	171.3	170.5	171.3	171.3	171.3	169.7	168.8
75°	144.7	142.2	142.2	143.1	142.2	143.1	141.4	143.1
77.5°	116.4	113.9	113.9	114.8	113.9	113.9	113.1	114.8
80°	87.3	85.7	85.7	86.5	85.7	85.7	84.8	86.5
82.5°	59.9	59.1	59.9	58.2	56.6	56.6	55.7	57.4
85°	33.3	32.4	31.6	31.6	30.8	30.8	29.9	31.6
87.5°	10.0	10.8	10.8	10.0	10.0	10.0	10.0	10.8
90°	4.2	4.2	4.2	5.0	5.0	5.8	5.8	5.8
92.5°	12.5	12.5	11.6	12.5	11.6	11.6	11.6	11.6
95°	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0
97.5°	41.6	42.4	41.6	42.4	41.6	40.8	41.6	40.8
100°	52.4	54.1	54.1	54.9	54.9	54.9	54.9	54.9
102.5°	62.4	64.0	64.0	64.9	64.9	65.7	65.7	64.9
105°	70.7	71.5	72.4	73.2	74.9	76.5	76.5	76.5
107.5°	82.3	84.0	83.2	84.0	84.8	84.8	84.8	84.8
110°	103.1	101.5	100.6	99.0	99.0	99.0	99.0	99.0



TEST NUMBER: P303167

CATALOG NUMBER: CTW-F-5050-50L930-UNV-STD-4

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
112.5°	120.6	122.3	122.3	122.3	122.3	121.4	119.8	119.8
115°	131.4	134.7	135.6	136.4	138.1	138.9	138.9	138.9
117.5°	139.7	143.1	143.9	145.6	147.2	148.9	149.7	150.5
120°	150.5	153.0	153.9	153.9	155.5	156.4	158.0	158.0
122.5°	163.0	163.9	163.9	163.9	164.7	165.5	166.3	166.3
125°	179.7	177.2	177.2	175.5	175.5	174.7	175.5	175.5
127.5°	200.4	197.1	195.5	193.0	191.3	188.8	188.8	188.8
130°	229.6	223.7	220.4	216.2	212.9	207.9	207.9	207.9
132.5°	261.2	252.0	249.5	245.4	240.4	235.4	234.5	234.5
135°	293.6	283.6	280.3	276.1	270.3	266.2	262.8	265.3
137.5°	324.4	315.2	314.4	311.1	303.6	298.6	297.8	297.8
140°	356.0	346.0	344.3	341.0	336.9	331.9	329.4	330.2
142.5°	386.8	376.8	375.1	372.6	366.8	362.6	360.1	361.0
145°	418.4	408.4	406.7	403.4	397.6	394.2	390.9	393.4
147.5°	448.3	439.2	436.7	432.5	429.2	425.0	422.5	421.7
150°	477.4	468.3	466.6	462.4	459.1	455.8	452.5	454.1
152.5°	504.9	498.2	494.9	490.7	488.2	484.9	482.4	483.2
155°	530.6	522.3	520.7	517.3	515.7	512.3	510.7	510.7
157.5°	553.1	548.1	545.6	543.1	540.6	539.0	536.5	537.3
160°	577.2	572.2	569.7	568.1	564.7	564.7	562.2	563.1
162.5°	599.7	595.5	593.0	591.4	589.7	588.9	586.4	587.2
165°	619.6	615.5	614.6	612.2	611.3	611.3	608.8	608.8
167.5°	637.9	634.6	632.1	631.3	629.6	629.6	628.0	628.8
170°	655.4	652.1	650.4	648.7	647.1	647.1	646.3	646.3
172.5°	670.4	667.9	667.0	665.4	664.6	664.6	663.7	663.7
175°	684.5	682.0	681.2	679.5	678.7	677.9	677.9	677.9
177.5°	697.0	696.2	694.5	694.5	692.8	691.2	689.5	688.7
180°	707.8	707.8	707.8	707.8	707.8	707.8	707.8	707.8

(END OF REPORT)