

Scaled data based on original data using
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: CORELITE

Report Number: P621721

Luminaire Tested: VLT-FA-150U-050D-830-UNV-STD-W-4

Issue Date: 9/2/2020

Test Information

Test Method: LM-79-2019
Report Number: P621721
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2203-563-26, G2-2203-563-21)
Test Lab: INNOVATION CENTER
Issue Date: 9/2/2020
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: VLT-FA-150U-050D-830-UNV-STD-W-4
Description: CORELITE VAULT SUSPENDED LED LUMINAIRE
LIGHT SHAPING LENS - ASYMMETRIC
DOWNLIGHT 500 LUMENS PER FOOT
UPLIGHT 1500 LUMENS PER FOOT
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

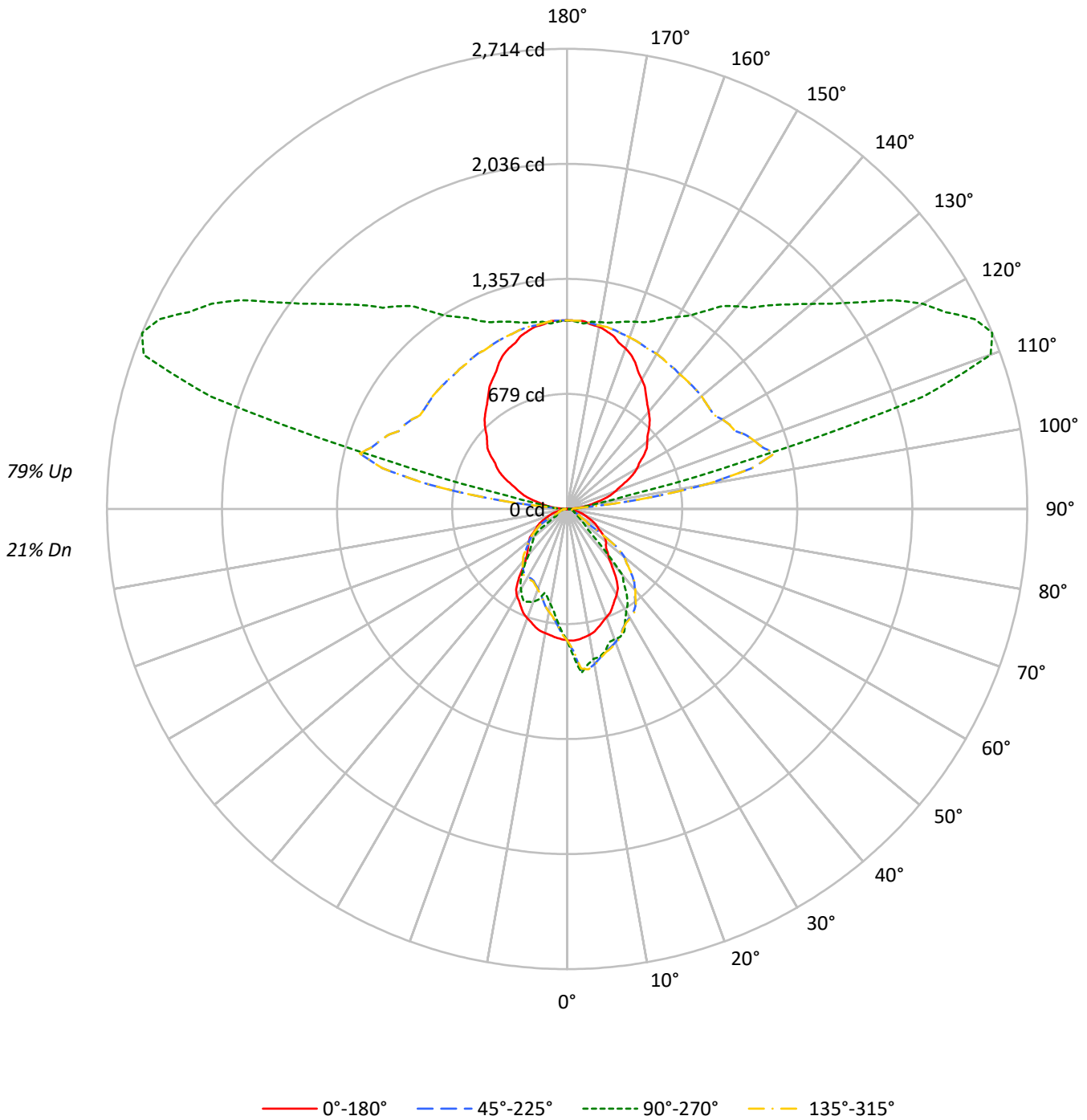
Lumens per Lamp: N/A
Luminaire Lumens: 7573.8 lumens
Efficiency: N/A
Efficacy: 120.2 lumens/watt
Spacing Criteria (0/90/45): 1.14 / 1.19 / 1.3
Luminous Opening: Rectangular (W 0.38' x L: 4' x H: 0')
CIE Type: Semi-Indirect

Input Watts (W): 63
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: 24 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	100	100	100	100	89	89	89	89	67	67	67	48	48	48	30	30	30	21
1	92	88	84	81	81	78	75	72	59	57	56	42	41	40	27	26	26	18
2	84	77	71	67	74	68	64	60	52	49	47	38	36	34	24	23	22	16
3	77	68	61	56	68	60	55	50	46	43	39	33	31	29	21	20	19	14
4	70	60	53	47	62	54	47	43	41	37	34	30	27	25	19	18	17	12
5	64	53	46	40	57	48	41	37	37	33	29	27	24	22	18	16	15	11
6	59	48	40	35	52	43	36	32	33	29	25	24	21	19	16	14	13	10
7	55	43	36	31	48	39	32	28	30	26	22	22	19	17	15	13	12	9
8	51	39	32	27	45	35	29	24	27	23	20	20	17	15	13	12	10	8
9	47	36	28	24	42	32	26	22	25	21	18	19	16	13	12	11	9	7
10	44	32	26	21	39	29	23	19	23	19	16	17	14	12	11	10	9	7

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	5559	5559	5559	5559
5°	5569	6994	5484	4769
10°	5496	6540	5415	4140
15°	5345	6440	5363	3800
20°	5181	6241	5242	4454
25°	5023	6308	5079	4780
30°	4845	5772	4910	4513
35°	4439	5350	4328	4045
40°	3618	4762	3492	3293
45°	3287	1768	3318	2999
50°	3344	1346	3281	2850
55°	3155	1045	3046	1705
60°	2906	804	2885	950
65°	2676	830	2623	1004
70°	2381	877	2314	1041
75°	2032	918	1944	1070
80°	1529	946	1434	1107
85°	1037	840	906	1037

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
 Vertical Angle: 45°
 Luminance: 6087 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	74.7	1.0
10°-20°	204.7	2.7
20°-30°	306.3	4.0
30°-40°	348.4	4.6
40°-50°	297.9	3.9
50°-60°	200.9	2.7
60°-70°	103.7	1.4
70°-80°	46.8	0.6
80°-90°	16.4	0.2
90°-100°	136.7	1.8
100°-110°	974.3	12.9
110°-120°	1322.8	17.5
120°-130°	1076.6	14.2
130°-140°	865.9	11.4
140°-150°	682.6	9.0
150°-160°	499.1	6.6
160°-170°	310.0	4.1
170°-180°	105.7	1.4
0°-30°	585.8	7.7
0°-40°	934.1	12.3
0°-60°	1432.9	18.9
0°-90°	1599.9	21.1
90°-120°	2433.8	32.1
90°-150°	5059.0	66.8
90°-180°	5974.0	78.9
0°-180°	7573.8	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	775	775	775	775	775	
5°	773	971	761	662	773	73
15°	720	867	722	512	720	203
25°	634	797	642	604	634	292
35°	507	611	494	462	507	310
45°	324	174	327	296	324	257
55°	252	84	244	136	252	225
65°	158	49	154	59	158	156
75°	73	33	70	39	73	78
85°	13	10	11	13	13	16
90°	0	21	0	21	0	3
95°	56	77	56	77	56	63
105°	217	1070	217	1070	217	229
115°	385	2651	385	2651	385	382
125°	553	2126	553	2126	553	491
135°	685	1700	685	1700	685	527
145°	811	1427	811	1427	811	510
155°	951	1224	951	1224	951	437
165°	1056	1140	1056	1140	1056	297
175°	1112	1098	1112	1098	1112	105
180°	1112	1112	1112	1112	1112	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
0°	774.7	774.7	774.7	774.7	774.7	774.7	774.7	774.7	774.7	774.7	774.7
2.5°	777.2	803.7	837.1	860.0	869.9	860.0	831.4	803.5	768.4	757.9	733.1
5°	773.1	854.8	953.6	965.5	970.9	965.5	944.9	849.9	761.3	723.5	682.5
7.5°	763.6	906.5	952.5	925.8	926.0	930.9	953.9	902.1	751.3	692.0	641.6
10°	754.2	935.3	929.1	890.7	897.6	894.5	936.2	929.6	743.1	674.6	617.1
12.5°	741.6	944.2	898.2	885.6	893.2	888.9	902.8	939.3	736.2	662.1	588.7
15°	719.5	931.4	872.4	866.9	866.9	870.7	876.3	935.3	721.9	639.4	554.0
17.5°	696.8	905.8	854.4	827.1	824.2	829.2	860.9	912.4	701.5	614.3	520.4
20°	678.5	888.1	836.1	804.1	817.2	805.7	843.2	892.9	686.4	598.6	499.6
22.5°	662.1	866.2	812.8	799.2	816.6	799.5	819.3	870.9	668.8	580.9	483.9
25°	634.4	829.3	777.8	790.6	796.7	790.6	781.0	832.6	641.5	558.3	467.3
27.5°	606.8	790.5	751.7	760.2	741.4	755.9	755.9	790.7	613.4	531.9	462.3
30°	584.7	763.5	738.4	725.9	696.6	719.8	743.9	763.7	592.6	514.8	461.0
32.5°	555.7	738.8	725.2	682.0	663.2	679.0	731.3	738.3	560.5	499.3	459.8
35°	506.7	704.0	701.4	630.0	610.7	625.4	706.9	702.2	494.1	474.9	450.0
37.5°	441.0	672.9	655.8	577.4	546.8	573.6	661.0	669.6	415.6	452.5	427.1
40°	386.2	652.0	621.8	538.4	508.3	534.5	625.7	650.2	372.8	436.7	401.9
42.5°	355.3	633.4	585.8	497.0	311.0	490.7	589.8	631.1	346.3	416.4	379.8
45°	323.9	599.8	533.5	275.1	174.2	262.0	534.3	591.3	327.0	385.6	346.0
47.5°	310.2	558.3	478.8	165.7	147.1	160.9	478.4	549.2	310.3	354.7	313.6
50°	299.5	532.2	439.7	146.0	120.6	140.6	440.5	523.6	293.9	334.0	291.6
52.5°	281.8	501.0	383.6	121.0	104.2	118.1	374.3	491.1	276.9	311.4	263.8
55°	252.2	441.0	160.0	95.1	83.5	91.2	152.1	426.1	243.5	275.9	231.7
57.5°	220.8	375.4	112.2	74.0	64.8	73.3	111.4	360.3	216.7	233.7	202.1
60°	202.5	331.2	91.4	62.1	56.0	61.3	90.6	318.1	201.0	205.6	175.0
62.5°	184.2	286.4	75.7	54.6	52.8	53.9	75.5	272.0	181.4	181.7	123.3
65°	157.6	216.9	56.0	49.6	48.9	48.9	54.4	209.2	154.5	149.8	70.9
67.5°	130.5	155.8	44.9	45.7	44.9	44.9	44.1	151.4	127.4	119.5	53.6
70°	113.5	119.6	41.8	42.5	41.8	41.8	41.0	116.5	110.3	92.6	50.4
72.5°	97.1	81.7	38.6	38.8	38.6	38.6	37.8	76.7	93.9	65.1	46.0
75°	73.3	40.9	33.1	33.1	33.1	33.1	32.3	39.3	70.1	42.4	39.4
77.5°	50.9	27.0	27.4	27.3	27.3	26.7	26.6	26.8	47.9	29.3	31.8
80°	37.0	22.4	23.6	22.9	22.9	22.9	22.9	21.6	34.7	24.7	26.8
82.5°	26.3	17.8	19.2	18.4	18.4	18.4	18.4	17.6	24.0	20.1	21.8
85°	12.6	11.8	12.6	11.0	10.2	11.0	11.8	11.8	11.0	13.3	14.2
87.5°	3.8	7.0	7.8	8.0	8.0	8.0	7.2	6.4	3.2	7.6	8.5
90°	0.0	6.8	14.0	21.0	21.0	21.0	14.0	6.8	0.0	6.8	14.0
92.5°	16.8	23.6	30.8	43.5	49.0	43.5	30.8	23.6	16.8	23.6	30.8
95°	56.0	103.8	56.0	63.3	76.9	63.3	56.0	103.8	56.0	103.8	56.0
97.5°	99.3	199.2	411.3	121.3	104.9	121.3	411.3	199.2	99.3	199.2	411.3
100°	132.9	249.2	825.3	242.9	160.9	242.9	825.3	249.2	132.9	249.2	825.3
102.5°	166.5	288.2	1116.3	641.1	351.1	641.1	1116.3	288.2	166.5	288.2	1116.3
105°	216.8	333.1	1266.0	1617.2	1070.1	1617.2	1266.0	333.1	216.8	333.1	1266.0
107.5°	267.2	354.7	1208.6	2353.7	2204.6	2353.7	1208.6	354.7	267.2	354.7	1208.6
110°	300.8	382.8	1175.0	2473.2	2657.8	2473.2	1175.0	382.8	300.8	382.8	1175.0



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
112.5°	334.3	416.4	1141.5	2403.3	2713.8	2403.3	1141.5	416.4	334.3	416.4	1141.5
115°	384.7	466.8	1091.1	2267.9	2650.8	2267.9	1091.1	466.8	384.7	466.8	1091.1
117.5°	436.4	517.1	1078.5	2121.2	2515.2	2121.2	1078.5	517.1	436.4	517.1	1078.5
120°	475.6	550.8	1056.1	2009.7	2420.0	2009.7	1056.1	550.8	475.6	550.8	1056.1
122.5°	503.6	584.3	1028.2	1913.8	2291.3	1913.8	1028.2	584.3	503.6	584.3	1028.2
125°	552.6	627.8	1028.2	1798.0	2126.3	1798.0	1028.2	627.8	552.6	627.8	1028.2
127.5°	593.1	669.7	1029.6	1663.6	1987.8	1663.6	1029.6	669.7	593.1	669.7	1029.6
130°	615.5	697.6	1035.2	1573.7	1881.5	1573.7	1035.2	697.6	615.5	697.6	1035.2
132.5°	643.5	725.5	1035.2	1533.3	1786.3	1533.3	1035.2	725.5	643.5	725.5	1035.2
135°	685.4	760.7	1035.2	1480.8	1699.6	1480.8	1035.2	760.7	685.4	760.7	1035.2
137.5°	720.4	801.1	1035.2	1422.7	1610.1	1422.7	1035.2	801.1	720.4	801.1	1035.2
140°	748.4	823.6	1035.2	1388.8	1559.7	1388.8	1035.2	823.6	748.4	823.6	1035.2
142.5°	776.4	846.1	1040.8	1349.3	1509.4	1349.3	1040.8	846.1	776.4	846.1	1040.8
145°	811.3	879.7	1042.2	1290.1	1426.8	1290.1	1042.2	879.7	811.3	879.7	1042.2
147.5°	853.3	913.5	1050.5	1247.4	1352.7	1247.4	1050.5	913.5	853.3	913.5	1050.5
150°	881.3	936.0	1056.1	1219.0	1307.9	1219.0	1056.1	936.0	881.3	936.0	1056.1
152.5°	909.3	958.5	1056.1	1196.3	1268.8	1196.3	1056.1	958.5	909.3	958.5	1056.1
155°	951.2	985.4	1063.1	1169.3	1224.0	1169.3	1063.1	985.4	951.2	985.4	1063.1
157.5°	984.8	1017.6	1071.5	1152.2	1191.8	1152.2	1071.5	1017.6	984.8	1017.6	1071.5
160°	1007.2	1034.5	1077.1	1140.8	1175.0	1140.8	1077.1	1034.5	1007.2	1034.5	1077.1
162.5°	1024.0	1051.3	1082.7	1135.0	1158.3	1135.0	1082.7	1051.3	1024.0	1051.3	1082.7
165°	1056.1	1069.8	1091.1	1119.6	1140.1	1119.6	1091.1	1069.8	1056.1	1069.8	1091.1
167.5°	1074.3	1086.6	1098.1	1112.4	1124.7	1112.4	1098.1	1086.6	1074.3	1086.6	1098.1
170°	1091.1	1098.0	1098.1	1112.3	1119.1	1112.3	1098.1	1098.0	1091.1	1098.0	1098.1
172.5°	1096.7	1109.0	1103.7	1106.7	1113.5	1106.7	1103.7	1109.0	1096.7	1109.0	1103.7
175°	1112.1	1118.9	1112.1	1104.9	1098.1	1104.9	1112.1	1118.9	1112.1	1118.9	1112.1
177.5°	1112.1	1117.6	1112.1	1112.0	1106.5	1112.0	1112.1	1117.6	1112.1	1117.6	1112.1
180°	1112.1	1112.1	1112.1	1112.1	1112.1	1112.1	1112.1	1112.1	1112.1	1112.1	1112.1



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CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
0°	774.7	774.7	774.7	774.7	774.7	774.7
2.5°	724.2	723.6	724.8	735.6	757.5	777.2
5°	659.7	662.0	664.3	682.5	720.7	773.1
7.5°	610.0	606.7	611.9	641.5	688.4	763.6
10°	575.9	568.2	575.9	616.3	671.0	754.2
12.5°	543.7	534.1	546.2	590.4	656.5	741.6
15°	502.2	511.5	506.1	555.6	634.7	719.5
17.5°	512.0	558.6	521.9	525.3	613.1	696.8
20°	535.4	583.2	550.8	505.1	599.2	678.5
22.5°	556.6	592.6	563.3	488.1	585.2	662.1
25°	572.8	603.7	571.3	472.8	565.0	634.4
27.5°	573.7	578.0	574.0	471.6	540.1	606.8
30°	563.0	544.6	561.5	472.8	522.3	584.7
32.5°	532.7	511.8	526.3	470.3	504.4	555.7
35°	489.5	461.8	481.8	457.1	476.7	506.7
37.5°	444.0	408.8	436.6	430.9	453.0	441.0
40°	413.1	351.5	407.0	405.1	440.1	386.2
42.5°	373.6	321.2	368.1	384.3	425.8	355.3
45°	301.7	295.5	298.6	349.1	395.6	323.9
47.5°	275.9	271.7	274.3	317.1	361.3	310.2
50°	260.7	255.3	259.2	296.3	339.5	299.5
52.5°	239.7	225.1	238.2	267.9	316.9	281.8
55°	180.3	136.3	179.5	235.6	283.0	252.2
57.5°	105.8	78.8	103.5	205.1	239.8	220.8
60°	71.6	66.2	72.4	180.5	211.0	202.5
62.5°	65.4	63.7	65.5	125.6	185.3	184.2
65°	59.9	59.1	59.9	72.5	153.0	157.6
67.5°	54.2	53.4	54.8	55.6	120.8	130.5
70°	50.4	49.6	50.4	51.2	92.7	113.5
72.5°	46.0	45.2	46.0	46.8	65.2	97.1
75°	39.4	38.6	39.4	40.2	43.2	73.3
77.5°	31.8	31.8	32.6	32.6	30.3	50.9
80°	26.8	26.8	27.6	27.6	26.3	37.0
82.5°	21.7	21.1	22.5	23.2	21.7	26.3
85°	13.4	12.6	14.2	15.0	14.2	12.6
87.5°	9.2	8.6	9.8	9.7	8.2	3.8
90°	21.0	21.0	21.0	14.0	6.8	0.0
92.5°	43.5	49.0	43.5	30.8	23.6	16.8
95°	63.3	76.9	63.3	56.0	103.8	56.0
97.5°	121.3	104.9	121.3	411.3	199.2	99.3
100°	242.9	160.9	242.9	825.3	249.2	132.9
102.5°	641.1	351.1	641.1	1116.3	288.2	166.5
105°	1617.2	1070.1	1617.2	1266.0	333.1	216.8
107.5°	2353.7	2204.6	2353.7	1208.6	354.7	267.2
110°	2473.2	2657.8	2473.2	1175.0	382.8	300.8



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CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
112.5°	2403.3	2713.8	2403.3	1141.5	416.4	334.3
115°	2267.9	2650.8	2267.9	1091.1	466.8	384.7
117.5°	2121.2	2515.2	2121.2	1078.5	517.1	436.4
120°	2009.7	2420.0	2009.7	1056.1	550.8	475.6
122.5°	1913.8	2291.3	1913.8	1028.2	584.3	503.6
125°	1798.0	2126.3	1798.0	1028.2	627.8	552.6
127.5°	1663.6	1987.8	1663.6	1029.6	669.7	593.1
130°	1573.7	1881.5	1573.7	1035.2	697.6	615.5
132.5°	1533.3	1786.3	1533.3	1035.2	725.5	643.5
135°	1480.8	1699.6	1480.8	1035.2	760.7	685.4
137.5°	1422.7	1610.1	1422.7	1035.2	801.1	720.4
140°	1388.8	1559.7	1388.8	1035.2	823.6	748.4
142.5°	1349.3	1509.4	1349.3	1040.8	846.1	776.4
145°	1290.1	1426.8	1290.1	1042.2	879.7	811.3
147.5°	1247.4	1352.7	1247.4	1050.5	913.5	853.3
150°	1219.0	1307.9	1219.0	1056.1	936.0	881.3
152.5°	1196.3	1268.8	1196.3	1056.1	958.5	909.3
155°	1169.3	1224.0	1169.3	1063.1	985.4	951.2
157.5°	1152.2	1191.8	1152.2	1071.5	1017.6	984.8
160°	1140.8	1175.0	1140.8	1077.1	1034.5	1007.2
162.5°	1135.0	1158.3	1135.0	1082.7	1051.3	1024.0
165°	1119.6	1140.1	1119.6	1091.1	1069.8	1056.1
167.5°	1112.4	1124.7	1112.4	1098.1	1086.6	1074.3
170°	1112.3	1119.1	1112.3	1098.1	1098.0	1091.1
172.5°	1106.7	1113.5	1106.7	1103.7	1109.0	1096.7
175°	1104.9	1098.1	1104.9	1112.1	1118.9	1112.1
177.5°	1112.0	1106.5	1112.0	1112.1	1117.6	1112.1
180°	1112.1	1112.1	1112.1	1112.1	1112.1	1112.1

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