

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: P621679

Luminaire Tested: VLT-FA-100U-075D-830-UNV-STD-W-4

Issue Date: 9/2/2020

Test Information

Test Method: LM-79-2019
Report Number: P621679
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-100U-075D-830-UNV-STD-W-4
Description: CORELITE VAULT SUSPENDED LED LUMINAIRE
LIGHT SHAPING LENS - ASYMMETRIC
DOWNLIGHT 750 LUMENS PER FOOT
UPLIGHT 1000 LUMENS PER FOOT
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

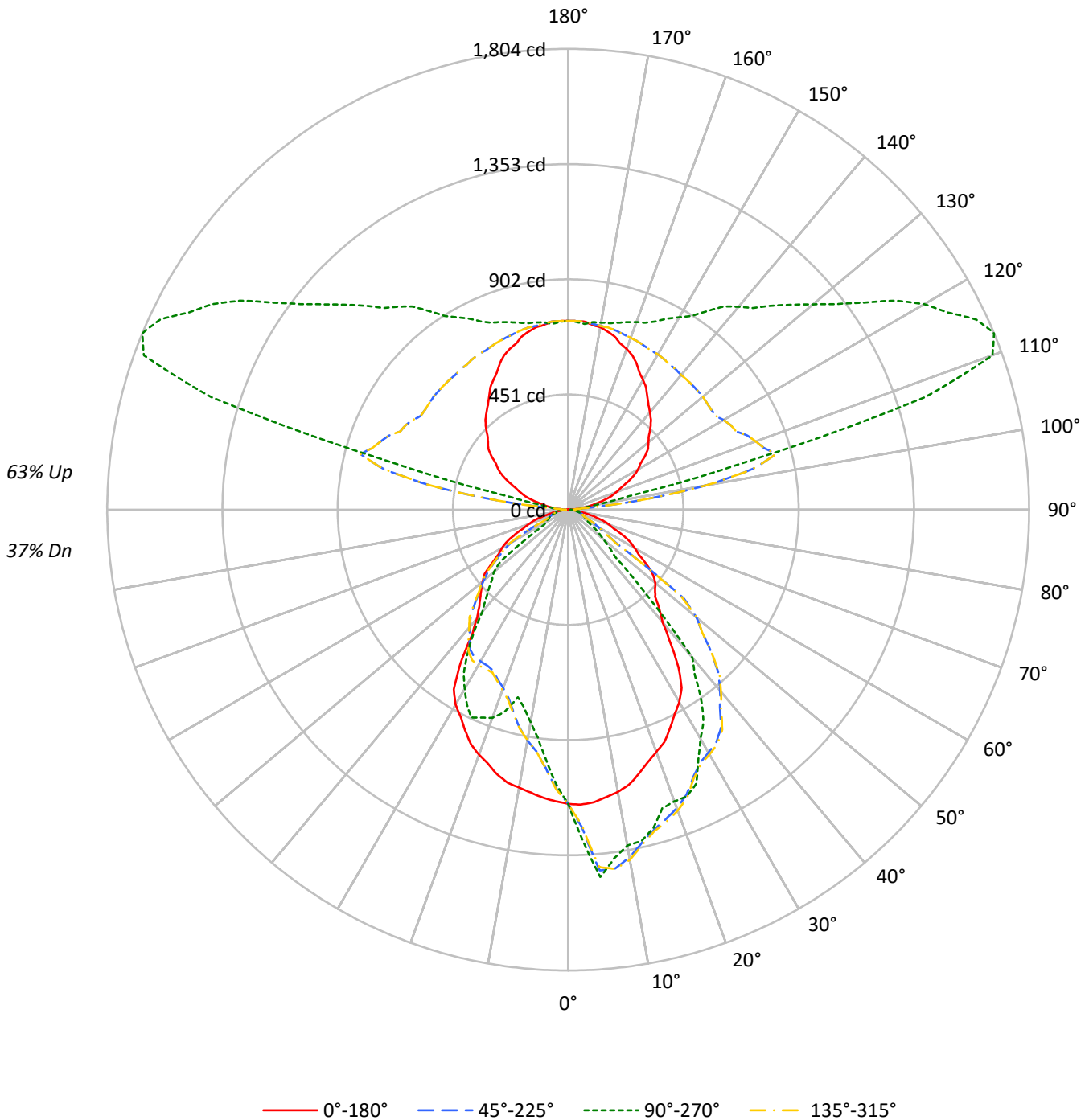
Lumens per Lamp: N/A
Luminaire Lumens: 6347.8 lumens
Efficiency: N/A
Efficacy: 125.4 lumens/watt
Spacing Criteria (0/90/45): 1.14 / 1.19 / 1.3
Luminous Opening: Rectangular (W 0.38' x L: 4' x H: 0')
CIE Type: Semi-Indirect

Input Watts (W): 50.6
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	50	30	10	0	
RCR																						
0	104	104	104	104	94	94	94	94	76	76	76	60	60	60	45	45	45	37				
1	96	92	88	85	87	83	80	78	68	66	64	54	52	51	40	40	39	33				
2	88	81	75	70	79	74	69	65	60	57	54	48	45	44	36	35	34	28				
3	80	71	65	59	73	65	59	55	54	49	46	43	40	37	33	31	29	25				
4	74	64	56	50	67	58	52	47	48	43	40	38	35	33	30	27	26	22				
5	68	57	49	44	61	52	45	40	43	38	34	35	31	29	27	25	23	19				
6	62	51	43	38	57	47	40	35	39	34	30	31	28	25	25	22	20	17				
7	58	46	39	33	52	42	36	31	35	30	27	29	25	22	23	20	18	15				
8	54	42	35	30	49	39	32	28	32	27	24	26	23	20	21	18	16	14				
9	50	38	31	26	45	35	29	25	30	25	21	24	21	18	19	17	15	13				
10	47	35	28	24	42	32	26	22	27	23	19	22	19	16	18	15	14	12				

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	8264	8264	8264	8264
5°	8279	10397	8152	7089
10°	8170	9723	8050	6155
15°	7946	9574	7972	5648
20°	7703	9278	7792	6620
25°	7467	9378	7550	7105
30°	7203	8581	7300	6708
35°	6599	7953	6435	6014
40°	5378	7078	5191	4895
45°	4886	2627	4934	4458
50°	4970	2001	4879	4238
55°	4690	1554	4529	2536
60°	4321	1194	4287	1412
65°	3978	1233	3899	1493
70°	3540	1303	3441	1548
75°	3022	1364	2892	1591
80°	2277	1405	2128	1645
85°	1540	1251	1350	1540

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
 Vertical Angle: 45°
 Luminance: 9048 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	111.1	1.8
10°-20°	304.3	4.8
20°-30°	455.4	7.2
30°-40°	517.9	8.2
40°-50°	442.9	7.0
50°-60°	298.7	4.7
60°-70°	154.2	2.4
70°-80°	69.6	1.1
80°-90°	22.4	0.4
90°-100°	90.9	1.4
100°-110°	647.7	10.2
110°-120°	879.4	13.9
120°-130°	715.7	11.3
130°-140°	575.6	9.1
140°-150°	453.8	7.1
150°-160°	331.8	5.2
160°-170°	206.1	3.2
170°-180°	70.3	1.1
0°-30°	870.8	13.7
0°-40°	1388.7	21.9
0°-60°	2130.2	33.6
0°-90°	2376.3	37.4
90°-120°	1618.0	25.5
90°-150°	3363.2	53.0
90°-180°	3971.0	62.6
0°-180°	6347.8	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	1152	1152	1152	1152	1152	
5°	1149	1443	1132	984	1149	109
15°	1070	1289	1073	760	1070	301
25°	943	1184	954	897	943	434
35°	753	908	735	686	753	461
45°	482	259	486	439	482	382
55°	375	124	362	203	375	334
65°	234	73	230	88	234	232
75°	109	49	104	57	109	116
85°	19	15	16	19	19	24
90°	0	14	0	14	0	2
95°	37	51	37	51	37	42
105°	144	711	144	711	144	152
115°	256	1762	256	1762	256	254
125°	367	1414	367	1414	367	326
135°	456	1130	456	1130	456	351
145°	539	949	539	949	539	339
155°	632	814	632	814	632	290
165°	702	758	702	758	702	197
175°	739	730	739	730	739	70
180°	739	739	739	739	739	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
0°	1151.6	1151.6	1151.6	1151.6	1151.6	1151.6	1151.6	1151.6	1151.6	1151.6	1151.6
2.5°	1155.4	1194.8	1244.4	1278.5	1293.2	1278.5	1236.0	1194.5	1142.3	1126.7	1089.8
5°	1149.3	1270.7	1417.6	1435.3	1443.3	1435.3	1404.7	1263.4	1131.7	1075.6	1014.6
7.5°	1135.2	1347.6	1415.9	1376.3	1376.6	1383.9	1418.0	1341.0	1117.0	1028.7	953.9
10°	1121.2	1390.4	1381.3	1324.1	1334.4	1329.8	1391.8	1382.0	1104.8	1002.8	917.3
12.5°	1102.4	1403.7	1335.3	1316.6	1327.8	1321.4	1342.1	1396.4	1094.5	984.3	875.1
15°	1069.6	1384.6	1296.9	1288.7	1288.7	1294.4	1302.8	1390.4	1073.1	950.6	823.6
17.5°	1035.9	1346.5	1270.2	1229.6	1225.2	1232.8	1279.8	1356.3	1042.9	913.2	773.7
20°	1008.7	1320.3	1243.0	1195.4	1214.9	1197.7	1253.6	1327.4	1020.4	889.8	742.8
22.5°	984.3	1287.7	1208.3	1188.1	1214.0	1188.5	1217.9	1294.8	994.2	863.6	719.3
25°	943.1	1232.9	1156.3	1175.3	1184.4	1175.3	1161.0	1237.7	953.6	829.9	694.7
27.5°	902.1	1175.2	1117.4	1130.1	1102.2	1123.7	1123.7	1175.4	911.9	790.7	687.2
30°	869.3	1135.0	1097.7	1079.2	1035.6	1070.0	1105.9	1135.3	881.0	765.3	685.4
32.5°	826.2	1098.3	1078.1	1013.9	986.0	1009.3	1087.2	1097.6	833.2	742.2	683.5
35°	753.3	1046.6	1042.7	936.6	907.9	929.7	1050.9	1043.8	734.6	705.9	669.0
37.5°	655.6	1000.4	975.0	858.4	812.8	852.7	982.7	995.4	617.9	672.6	635.0
40°	574.1	969.3	924.3	800.3	755.6	794.6	930.2	966.5	554.1	649.2	597.5
42.5°	528.1	941.7	870.9	738.8	462.3	729.4	876.8	938.2	514.8	619.0	564.7
45°	481.5	891.6	793.1	409.0	258.9	389.5	794.3	879.1	486.2	573.2	514.3
47.5°	461.1	830.0	711.8	246.3	218.6	239.2	711.1	816.5	461.4	527.3	466.3
50°	445.2	791.1	653.7	217.0	179.2	209.0	654.9	778.3	437.0	496.6	433.5
52.5°	418.9	744.7	570.3	179.9	154.9	175.5	556.5	730.1	411.7	463.0	392.2
55°	374.9	655.5	237.8	141.4	124.2	135.6	226.1	633.5	362.0	410.1	344.4
57.5°	328.3	558.1	166.8	110.0	96.3	108.9	165.7	535.7	322.2	347.4	300.4
60°	301.1	492.4	135.9	92.3	83.2	91.2	134.7	472.9	298.7	305.6	260.1
62.5°	273.9	425.8	112.5	81.2	78.5	80.1	112.2	404.4	269.7	270.1	183.2
65°	234.3	322.5	83.2	73.8	72.6	72.6	80.8	311.0	229.6	222.7	105.4
67.5°	194.0	231.6	66.8	67.9	66.8	66.8	65.6	225.1	189.3	177.6	79.7
70°	168.7	177.9	62.1	63.2	62.1	62.1	60.9	173.2	164.0	137.7	75.0
72.5°	144.3	121.4	57.4	57.6	57.4	57.4	56.2	114.0	139.6	96.8	68.4
75°	109.0	60.8	49.2	49.2	49.2	49.2	48.0	58.4	104.3	63.0	58.6
77.5°	75.7	40.2	40.8	40.5	40.5	39.6	39.6	39.8	71.2	43.5	47.3
80°	55.1	33.3	35.1	34.0	34.0	34.0	34.0	32.1	51.5	36.7	39.8
82.5°	39.1	26.5	28.6	27.4	27.4	27.4	27.4	26.2	35.6	29.9	32.3
85°	18.7	17.6	18.7	16.4	15.2	16.4	17.6	17.5	16.4	19.8	21.1
87.5°	5.6	9.3	9.4	8.4	8.4	8.4	8.4	8.3	4.7	10.2	10.3
90°	0.0	4.5	9.3	13.9	13.9	13.9	9.3	4.5	0.0	4.5	9.3
92.5°	11.2	15.7	20.5	28.9	32.5	28.9	20.5	15.7	11.2	15.7	20.5
95°	37.2	69.0	37.2	42.1	51.1	42.1	37.2	69.0	37.2	69.0	37.2
97.5°	66.0	132.4	273.4	80.7	69.7	80.7	273.4	132.4	66.0	132.4	273.4
100°	88.3	165.6	548.7	161.5	106.9	161.5	548.7	165.6	88.3	165.6	548.7
102.5°	110.7	191.6	742.1	426.2	233.4	426.2	742.1	191.6	110.7	191.6	742.1
105°	144.1	221.4	841.6	1075.1	711.4	1075.1	841.6	221.4	144.1	221.4	841.6
107.5°	177.6	235.8	803.5	1564.7	1465.6	1564.7	803.5	235.8	177.6	235.8	803.5
110°	199.9	254.5	781.2	1644.2	1766.9	1644.2	781.2	254.5	199.9	254.5	781.2



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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°	222.3	276.8	758.9	1597.7	1804.1	1597.7	758.9	276.8	222.3	276.8	758.9
115°	255.7	310.3	725.4	1507.7	1762.3	1507.7	725.4	310.3	255.7	310.3	725.4
117.5°	290.1	343.8	717.0	1410.2	1672.1	1410.2	717.0	343.8	290.1	343.8	717.0
120°	316.2	366.2	702.1	1336.0	1608.8	1336.0	702.1	366.2	316.2	366.2	702.1
122.5°	334.8	388.4	683.5	1272.3	1523.3	1272.3	683.5	388.4	334.8	388.4	683.5
125°	367.3	417.3	683.5	1195.3	1413.5	1195.3	683.5	417.3	367.3	417.3	683.5
127.5°	394.3	445.2	684.5	1106.0	1321.5	1106.0	684.5	445.2	394.3	445.2	684.5
130°	409.2	463.7	688.2	1046.2	1250.8	1046.2	688.2	463.7	409.2	463.7	688.2
132.5°	427.8	482.3	688.2	1019.3	1187.6	1019.3	688.2	482.3	427.8	482.3	688.2
135°	455.7	505.7	688.2	984.4	1129.9	984.4	688.2	505.7	455.7	505.7	688.2
137.5°	478.9	532.6	688.2	945.8	1070.4	945.8	688.2	532.6	478.9	532.6	688.2
140°	497.5	547.5	688.2	923.2	1036.9	923.2	688.2	547.5	497.5	547.5	688.2
142.5°	516.1	562.5	691.9	897.0	1003.4	897.0	691.9	562.5	516.1	562.5	691.9
145°	539.4	584.8	692.8	857.6	948.6	857.6	692.8	584.8	539.4	584.8	692.8
147.5°	567.3	607.3	698.4	829.3	899.3	829.3	698.4	607.3	567.3	607.3	698.4
150°	585.9	622.3	702.1	810.4	869.5	810.4	702.1	622.3	585.9	622.3	702.1
152.5°	604.5	637.2	702.1	795.3	843.5	795.3	702.1	637.2	604.5	637.2	702.1
155°	632.4	655.1	706.8	777.3	813.7	777.3	706.8	655.1	632.4	655.1	706.8
157.5°	654.7	676.5	712.4	766.0	792.3	766.0	712.4	676.5	654.7	676.5	712.4
160°	669.6	687.8	716.1	758.4	781.2	758.4	716.1	687.8	669.6	687.8	716.1
162.5°	680.7	698.9	719.8	754.6	770.0	754.6	719.8	698.9	680.7	698.9	719.8
165°	702.1	711.2	725.4	744.3	757.9	744.3	725.4	711.2	702.1	711.2	725.4
167.5°	714.2	722.4	730.0	739.5	747.7	739.5	730.0	722.4	714.2	722.4	730.0
170°	725.4	729.9	730.0	739.4	744.0	739.4	730.0	729.9	725.4	729.9	730.0
172.5°	729.1	737.3	733.7	735.7	740.3	735.7	733.7	737.3	729.1	737.3	733.7
175°	739.3	743.9	739.3	734.6	730.0	734.6	739.3	743.9	739.3	743.9	739.3
177.5°	739.3	743.0	739.3	739.2	735.6	739.2	739.3	743.0	739.3	743.0	739.3
180°	739.3	739.3	739.3	739.3	739.3	739.3	739.3	739.3	739.3	739.3	739.3



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CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
0°	1151.6	1151.6	1151.6	1151.6	1151.6	1151.6
2.5°	1076.6	1075.7	1077.5	1093.5	1126.1	1155.4
5°	980.7	984.1	987.5	1014.6	1071.4	1149.3
7.5°	906.9	901.9	909.6	953.6	1023.4	1135.2
10°	856.1	844.7	856.1	916.1	997.5	1121.2
12.5°	808.3	794.1	811.9	877.7	976.0	1102.4
15°	746.6	760.3	752.3	825.9	943.6	1069.6
17.5°	761.2	830.4	775.9	781.0	911.5	1035.9
20°	795.9	866.9	818.8	751.0	890.7	1008.7
22.5°	827.4	881.0	837.5	725.7	870.0	984.3
25°	851.6	897.4	849.3	702.9	840.0	943.1
27.5°	852.8	859.2	853.3	701.1	802.9	902.1
30°	837.0	809.5	834.7	702.9	776.5	869.3
32.5°	792.0	760.8	782.3	699.2	749.9	826.2
35°	727.8	686.5	716.3	679.5	708.6	753.3
37.5°	660.0	607.8	649.0	640.6	673.5	655.6
40°	614.1	522.5	605.0	602.2	654.2	574.1
42.5°	555.4	477.5	547.2	571.2	633.1	528.1
45°	448.5	439.3	443.9	519.0	588.0	481.5
47.5°	410.1	403.9	407.8	471.4	537.2	461.1
50°	387.6	379.6	385.3	440.5	504.8	445.2
52.5°	356.4	334.6	354.1	398.3	471.2	418.9
55°	268.0	202.7	266.8	350.3	420.7	374.9
57.5°	157.2	117.2	153.8	304.8	356.4	328.3
60°	106.4	98.4	107.6	268.3	313.7	301.1
62.5°	97.2	94.7	97.4	186.7	275.5	273.9
65°	89.0	87.9	89.0	107.8	227.4	234.3
67.5°	80.6	79.4	81.5	82.7	179.6	194.0
70°	75.0	73.8	75.0	76.2	137.8	168.7
72.5°	68.4	67.2	68.4	69.6	96.9	144.3
75°	58.6	57.4	58.6	59.7	64.3	109.0
77.5°	47.3	47.3	48.5	48.5	45.0	75.7
80°	39.8	39.8	41.0	41.0	39.0	55.1
82.5°	32.3	31.4	33.5	34.4	32.3	39.1
85°	19.9	18.7	21.0	22.3	21.0	18.7
87.5°	10.3	9.4	11.2	12.2	11.1	5.6
90°	13.9	13.9	13.9	9.3	4.5	0.0
92.5°	28.9	32.5	28.9	20.5	15.7	11.2
95°	42.1	51.1	42.1	37.2	69.0	37.2
97.5°	80.7	69.7	80.7	273.4	132.4	66.0
100°	161.5	106.9	161.5	548.7	165.6	88.3
102.5°	426.2	233.4	426.2	742.1	191.6	110.7
105°	1075.1	711.4	1075.1	841.6	221.4	144.1
107.5°	1564.7	1465.6	1564.7	803.5	235.8	177.6
110°	1644.2	1766.9	1644.2	781.2	254.5	199.9



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CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
112.5°	1597.7	1804.1	1597.7	758.9	276.8	222.3
115°	1507.7	1762.3	1507.7	725.4	310.3	255.7
117.5°	1410.2	1672.1	1410.2	717.0	343.8	290.1
120°	1336.0	1608.8	1336.0	702.1	366.2	316.2
122.5°	1272.3	1523.3	1272.3	683.5	388.4	334.8
125°	1195.3	1413.5	1195.3	683.5	417.3	367.3
127.5°	1106.0	1321.5	1106.0	684.5	445.2	394.3
130°	1046.2	1250.8	1046.2	688.2	463.7	409.2
132.5°	1019.3	1187.6	1019.3	688.2	482.3	427.8
135°	984.4	1129.9	984.4	688.2	505.7	455.7
137.5°	945.8	1070.4	945.8	688.2	532.6	478.9
140°	923.2	1036.9	923.2	688.2	547.5	497.5
142.5°	897.0	1003.4	897.0	691.9	562.5	516.1
145°	857.6	948.6	857.6	692.8	584.8	539.4
147.5°	829.3	899.3	829.3	698.4	607.3	567.3
150°	810.4	869.5	810.4	702.1	622.3	585.9
152.5°	795.3	843.5	795.3	702.1	637.2	604.5
155°	777.3	813.7	777.3	706.8	655.1	632.4
157.5°	766.0	792.3	766.0	712.4	676.5	654.7
160°	758.4	781.2	758.4	716.1	687.8	669.6
162.5°	754.6	770.0	754.6	719.8	698.9	680.7
165°	744.3	757.9	744.3	725.4	711.2	702.1
167.5°	739.5	747.7	739.5	730.0	722.4	714.2
170°	739.4	744.0	739.4	730.0	729.9	725.4
172.5°	735.7	740.3	735.7	733.7	737.3	729.1
175°	734.6	730.0	734.6	739.3	743.9	739.3
177.5°	739.2	735.6	739.2	739.3	743.0	739.3
180°	739.3	739.3	739.3	739.3	739.3	739.3

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