

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: P621615

Luminaire Tested: VLT-FA-050U-100D-840-UNV-STD-W-4

Issue Date: 9/2/2020

Test Information

Test Method: LM-79-2019
Report Number: P621615
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-050U-100D-840-UNV-STD-W-4
Description: CORELITE VAULT SUSPENDED LED LUMINAIRE
LIGHT SHAPING LENS - ASYMMETRIC
DOWNLIGHT 1000 LUMENS PER FOOT
UPLIGHT 500 LUMENS PER FOOT
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

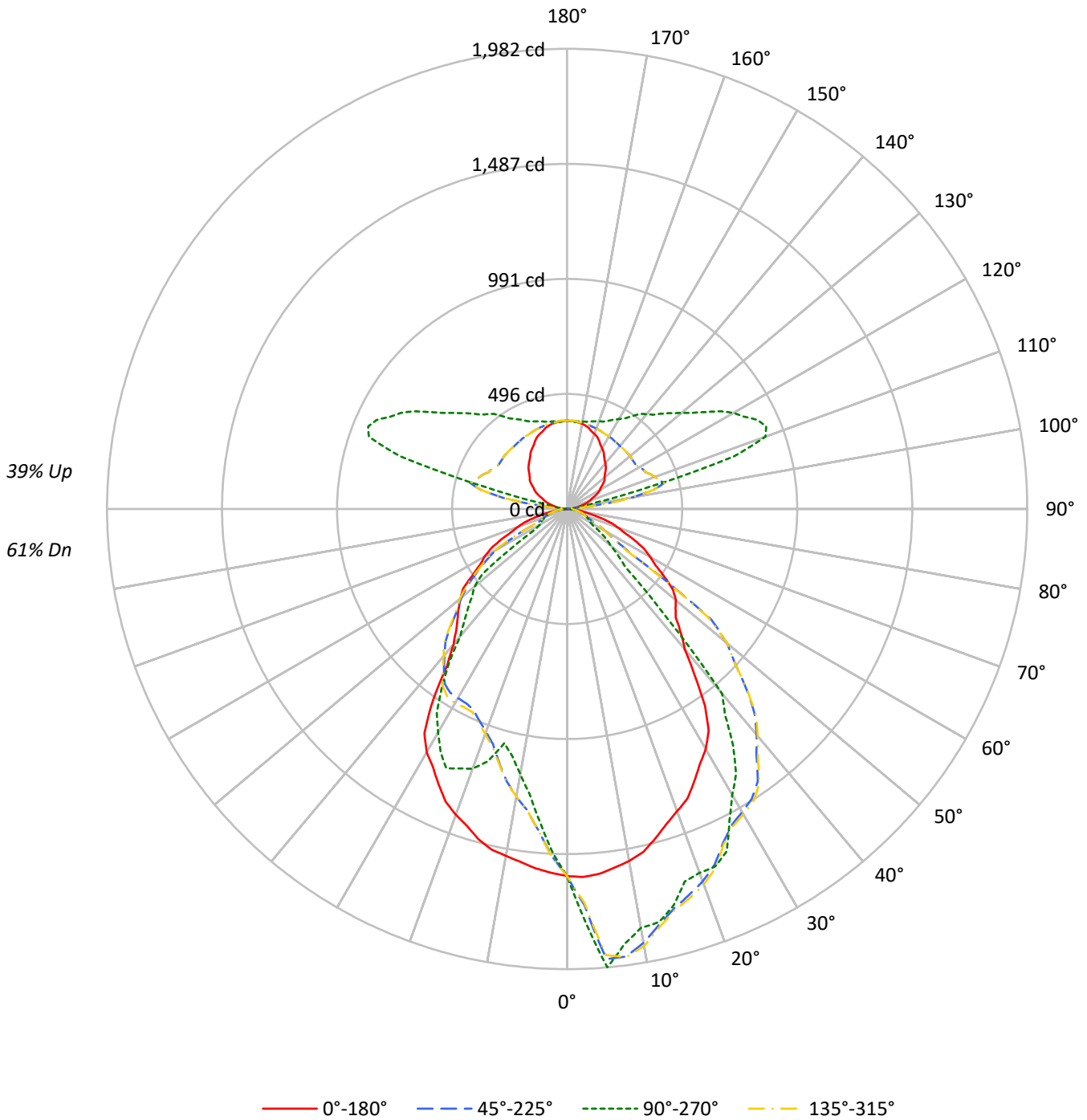
Lumens per Lamp: N/A
Luminaire Lumens: 5303.6 lumens
Efficiency: N/A
Efficacy: 121.1 lumens/watt
Spacing Criteria (0/90/45): 1.14 / 1.19 / 1.3
Luminous Opening: Rectangular (W 0.38' x L: 4' x H: 0')
CIE Type: Semi-Direct

Input Watts (W): 43.8
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	110	110	110	110	103	103	103	103	90	90	90	78	78	78	67	67	67	61				61
1	101	97	94	91	95	91	88	86	80	78	76	70	68	67	61	59	58	54				54
2	93	86	81	76	87	81	76	72	72	68	65	63	60	57	55	53	51	47				47
3	86	77	70	64	80	72	66	61	64	59	55	56	53	50	49	47	44	41				41
4	79	69	61	55	74	65	58	53	58	52	48	51	47	44	45	42	39	36				36
5	73	62	54	48	68	58	51	46	52	46	42	46	42	38	41	37	35	32				32
6	67	56	48	42	63	53	46	41	47	42	37	42	38	34	37	34	31	28				28
7	63	51	43	37	59	48	41	36	43	37	33	38	34	30	34	31	28	25				25
8	58	46	39	33	55	44	37	32	40	34	30	35	31	27	32	28	25	23				23
9	54	42	35	30	51	40	34	29	36	31	27	33	28	25	29	26	23	21				21
10	51	39	32	27	48	37	31	26	34	28	25	30	26	23	27	24	21	19				19

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	11346	11346	11346	11346
5°	11366	14275	11193	9732
10°	11216	13350	11052	8450
15°	10910	13144	10946	7755
20°	10576	12738	10699	9090
25°	10252	12876	10367	9755
30°	9889	11782	10023	9210
35°	9061	10920	8835	8257
40°	7383	9719	7127	6720
45°	6709	3608	6774	6121
50°	6823	2747	6698	5817
55°	6439	2133	6218	3482
60°	5933	1639	5887	1939
65°	5462	1693	5354	2048
70°	4859	1788	4725	2125
75°	4148	1874	3970	2185
80°	3124	1926	2926	2260
85°	2116	1721	1853	2116

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
 Vertical Angle: 45°
 Luminance: 12423 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	152.5	2.9
10°-20°	417.8	7.9
20°-30°	625.2	11.8
30°-40°	711.0	13.4
40°-50°	608.1	11.5
50°-60°	410.1	7.7
60°-70°	211.7	4.0
70°-80°	95.6	1.8
80°-90°	29.3	0.6
90°-100°	46.8	0.9
100°-110°	333.1	6.3
110°-120°	452.2	8.5
120°-130°	368.1	6.9
130°-140°	296.0	5.6
140°-150°	233.4	4.4
150°-160°	170.7	3.2
160°-170°	106.0	2.0
170°-180°	36.1	0.7
0°-30°	1195.6	22.5
0°-40°	1906.6	35.9
0°-60°	2924.7	55.1
0°-90°	3261.2	61.5
90°-120°	832.1	15.7
90°-150°	1729.6	32.6
90°-180°	2042.0	38.5
0°-180°	5303.6	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	1581	1581	1581	1581	1581	
5°	1578	1982	1554	1351	1578	149
15°	1468	1769	1473	1044	1468	413
25°	1295	1626	1309	1232	1295	596
35°	1034	1247	1008	943	1034	632
45°	661	356	668	603	661	525
55°	515	170	497	278	515	459
65°	322	100	315	121	322	318
75°	150	68	143	79	150	159
85°	26	21	22	26	26	33
90°	0	7	0	7	0	2
95°	19	26	19	26	19	21
105°	74	366	74	366	74	78
115°	132	906	132	906	132	131
125°	189	727	189	727	189	168
135°	234	581	234	581	234	180
145°	277	488	277	488	277	174
155°	325	418	325	418	325	149
165°	361	390	361	390	361	101
175°	380	375	380	375	380	36
180°	380	380	380	380	380	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
0°	1581.1	1581.1	1581.1	1581.1	1581.1	1581.1	1581.1	1581.1	1581.1	1581.1	1581.1
2.5°	1586.3	1640.4	1708.5	1755.3	1775.4	1755.3	1697.0	1640.0	1568.3	1546.9	1496.2
5°	1577.9	1744.6	1946.3	1970.6	1981.7	1970.6	1928.6	1734.7	1553.8	1476.7	1392.9
7.5°	1558.6	1850.2	1944.0	1889.7	1890.0	1900.0	1946.9	1841.2	1533.5	1412.4	1309.6
10°	1539.3	1908.9	1896.4	1817.9	1832.1	1825.8	1910.9	1897.4	1516.8	1376.8	1259.4
12.5°	1513.6	1927.2	1833.4	1807.6	1823.1	1814.3	1842.7	1917.2	1502.6	1351.4	1201.5
15°	1468.5	1901.1	1780.6	1769.3	1769.3	1777.2	1788.6	1909.0	1473.4	1305.1	1130.8
17.5°	1422.2	1848.8	1743.9	1688.1	1682.2	1692.5	1757.1	1862.2	1431.9	1253.8	1062.2
20°	1384.9	1812.7	1706.6	1641.3	1668.0	1644.4	1721.1	1822.5	1401.0	1221.7	1019.8
22.5°	1351.5	1767.9	1659.0	1631.2	1666.7	1631.8	1672.2	1777.6	1365.0	1185.7	987.6
25°	1294.8	1692.7	1587.6	1613.6	1626.2	1613.6	1594.0	1699.3	1309.3	1139.5	953.8
27.5°	1238.5	1613.5	1534.2	1551.6	1513.3	1542.8	1542.9	1613.8	1252.0	1085.6	943.5
30°	1193.5	1558.4	1507.2	1481.7	1421.9	1469.1	1518.4	1558.7	1209.6	1050.7	941.0
32.5°	1134.3	1508.0	1480.1	1392.1	1353.7	1385.8	1492.7	1506.9	1144.0	1019.1	938.4
35°	1034.3	1436.9	1431.6	1285.9	1246.6	1276.5	1442.8	1433.2	1008.5	969.2	918.4
37.5°	900.1	1373.5	1338.6	1178.6	1116.0	1170.7	1349.2	1366.7	848.3	923.5	871.8
40°	788.2	1330.8	1269.1	1098.8	1037.5	1090.9	1277.1	1327.0	760.8	891.4	820.3
42.5°	725.1	1292.9	1195.7	1014.4	634.7	1001.5	1203.8	1288.1	706.8	849.9	775.3
45°	661.1	1224.1	1088.9	561.5	355.5	534.8	1090.6	1207.0	667.5	787.1	706.1
47.5°	633.1	1139.5	977.3	338.2	300.1	328.5	976.4	1121.0	633.4	724.0	640.2
50°	611.2	1086.2	897.5	298.0	246.1	287.0	899.1	1068.6	600.0	681.7	595.1
52.5°	575.2	1022.5	783.0	246.9	212.6	241.0	764.0	1002.4	565.2	635.7	538.5
55°	514.7	900.0	326.5	194.1	170.5	186.2	310.4	869.8	497.0	563.1	472.9
57.5°	450.7	766.2	229.0	151.1	132.2	149.5	227.4	735.5	442.3	476.9	412.4
60°	413.4	676.0	186.6	126.8	114.2	125.2	185.0	649.2	410.2	419.6	357.1
62.5°	376.1	584.6	154.4	111.5	107.8	110.0	154.1	555.2	370.3	370.9	251.6
65°	321.7	442.8	114.2	101.3	99.7	99.7	111.0	426.9	315.3	305.8	144.8
67.5°	266.4	318.0	91.7	93.3	91.7	91.7	90.1	309.0	259.9	243.9	109.4
70°	231.6	244.2	85.2	86.8	85.2	85.2	83.6	237.8	225.2	189.0	102.9
72.5°	198.2	166.7	78.8	79.1	78.8	78.8	77.2	156.5	191.7	132.9	93.9
75°	149.6	83.5	67.6	67.6	67.6	67.6	65.9	80.2	143.2	86.5	80.4
77.5°	103.9	55.2	56.0	55.7	55.7	54.4	54.4	54.7	97.8	59.7	65.0
80°	75.6	45.7	48.3	46.6	46.6	46.6	46.6	44.0	70.8	50.3	54.7
82.5°	53.7	36.4	39.2	37.6	37.6	37.6	37.6	36.0	48.9	41.0	44.4
85°	25.7	24.2	25.7	22.5	20.9	22.5	24.1	24.1	22.5	27.2	29.0
87.5°	7.7	12.0	11.3	9.2	9.2	9.2	10.0	10.7	6.4	13.2	12.5
90°	0.0	2.3	4.8	7.2	7.2	7.2	4.8	2.3	0.0	2.3	4.8
92.5°	5.7	8.1	10.5	14.9	16.7	14.9	10.5	8.1	5.7	8.1	10.5
95°	19.1	35.5	19.1	21.6	26.3	21.6	19.1	35.5	19.1	35.5	19.1
97.5°	34.0	68.1	140.6	41.5	35.9	41.5	140.6	68.1	34.0	68.1	140.6
100°	45.4	85.2	282.2	83.1	55.0	83.1	282.2	85.2	45.4	85.2	282.2
102.5°	56.9	98.5	381.6	219.2	120.0	219.2	381.6	98.5	56.9	98.5	381.6
105°	74.1	113.9	432.8	552.9	365.9	552.9	432.8	113.9	74.1	113.9	432.8
107.5°	91.3	121.3	413.2	804.7	753.7	804.7	413.2	121.3	91.3	121.3	413.2
110°	102.8	130.9	401.7	845.5	908.7	845.5	401.7	130.9	102.8	130.9	401.7



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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°	114.3	142.4	390.2	821.6	927.8	821.6	390.2	142.4	114.3	142.4	390.2
115°	131.5	159.6	373.0	775.3	906.3	775.3	373.0	159.6	131.5	159.6	373.0
117.5°	149.2	176.8	368.7	725.2	859.9	725.2	368.7	176.8	149.2	176.8	368.7
120°	162.6	188.3	361.1	687.1	827.4	687.1	361.1	188.3	162.6	188.3	361.1
122.5°	172.2	199.8	351.5	654.3	783.4	654.3	351.5	199.8	172.2	199.8	351.5
125°	188.9	214.6	351.5	614.7	726.9	614.7	351.5	214.6	188.9	214.6	351.5
127.5°	202.8	229.0	352.0	568.8	679.6	568.8	352.0	229.0	202.8	229.0	352.0
130°	210.4	238.5	353.9	538.0	643.2	538.0	353.9	238.5	210.4	238.5	353.9
132.5°	220.0	248.0	353.9	524.2	610.7	524.2	353.9	248.0	220.0	248.0	353.9
135°	234.3	260.1	353.9	506.2	581.1	506.2	353.9	260.1	234.3	260.1	353.9
137.5°	246.3	273.9	353.9	486.4	550.5	486.4	353.9	273.9	246.3	273.9	353.9
140°	255.9	281.6	353.9	474.8	533.2	474.8	353.9	281.6	255.9	281.6	353.9
142.5°	265.4	289.3	355.8	461.3	516.0	461.3	355.8	289.3	265.4	289.3	355.8
145°	277.4	300.8	356.3	441.0	487.8	441.0	356.3	300.8	277.4	300.8	356.3
147.5°	291.7	312.3	359.2	426.5	462.5	426.5	359.2	312.3	291.7	312.3	359.2
150°	301.3	320.0	361.1	416.8	447.2	416.8	361.1	320.0	301.3	320.0	361.1
152.5°	310.9	327.7	361.1	409.0	433.8	409.0	361.1	327.7	310.9	327.7	361.1
155°	325.2	336.9	363.5	399.8	418.5	399.8	363.5	336.9	325.2	336.9	363.5
157.5°	336.7	347.9	366.3	393.9	407.5	393.9	366.3	347.9	336.7	347.9	366.3
160°	344.3	353.7	368.2	390.0	401.7	390.0	368.2	353.7	344.3	353.7	368.2
162.5°	350.1	359.4	370.2	388.0	396.0	388.0	370.2	359.4	350.1	359.4	370.2
165°	361.1	365.7	373.0	382.8	389.8	382.8	373.0	365.7	361.1	365.7	373.0
167.5°	367.3	371.5	375.4	380.3	384.5	380.3	375.4	371.5	367.3	371.5	375.4
170°	373.0	375.4	375.4	380.3	382.6	380.3	375.4	375.4	373.0	375.4	375.4
172.5°	374.9	379.1	377.3	378.3	380.7	378.3	377.3	379.1	374.9	379.1	377.3
175°	380.2	382.5	380.2	377.8	375.4	377.8	380.2	382.5	380.2	382.5	380.2
177.5°	380.2	382.1	380.2	380.2	378.3	380.2	380.2	382.1	380.2	382.1	380.2
180°	380.2	380.2	380.2	380.2	380.2	380.2	380.2	380.2	380.2	380.2	380.2



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CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
0°	1581.1	1581.1	1581.1	1581.1	1581.1	1581.1
2.5°	1478.2	1476.9	1479.4	1501.4	1546.0	1586.3
5°	1346.4	1351.1	1355.8	1392.9	1471.0	1577.9
7.5°	1245.1	1238.2	1248.9	1309.3	1405.1	1558.6
10°	1175.4	1159.7	1175.4	1257.8	1369.5	1539.3
12.5°	1109.7	1090.2	1114.8	1205.1	1340.0	1513.6
15°	1025.0	1043.9	1032.9	1134.0	1295.5	1468.5
17.5°	1045.1	1140.1	1065.2	1072.2	1251.4	1422.2
20°	1092.8	1190.3	1124.2	1031.0	1222.9	1384.9
22.5°	1136.0	1209.6	1149.8	996.3	1194.5	1351.5
25°	1169.2	1232.1	1166.0	965.1	1153.3	1294.8
27.5°	1170.9	1179.7	1171.5	962.5	1102.3	1238.5
30°	1149.2	1111.5	1146.1	965.1	1066.1	1193.5
32.5°	1087.3	1044.6	1074.1	959.9	1029.6	1134.3
35°	999.2	942.6	983.5	932.9	972.9	1034.3
37.5°	906.2	834.5	891.1	879.5	924.6	900.1
40°	843.2	717.4	830.6	826.8	898.3	788.2
42.5°	762.6	655.6	751.2	784.3	869.2	725.1
45°	615.8	603.2	609.5	712.6	807.4	661.1
47.5°	563.1	554.6	560.0	647.3	737.5	633.1
50°	532.2	521.1	529.0	604.8	693.0	611.2
52.5°	489.3	459.4	486.1	546.9	646.9	575.2
55°	367.9	278.3	366.3	480.9	577.6	514.7
57.5°	215.9	160.8	211.2	418.5	489.4	450.7
60°	146.1	135.1	147.7	368.3	430.7	413.4
62.5°	133.4	130.0	133.7	256.4	378.3	376.1
65°	122.2	120.6	122.2	148.0	312.3	321.7
67.5°	110.6	109.1	111.9	113.6	246.5	266.4
70°	102.9	101.3	102.9	104.6	189.2	231.6
72.5°	93.9	92.3	93.9	95.5	133.1	198.2
75°	80.4	78.8	80.4	82.0	88.3	149.6
77.5°	65.0	65.0	66.6	66.6	61.8	103.9
80°	54.7	54.7	56.3	56.3	53.6	75.6
82.5°	44.4	43.1	45.9	47.3	44.3	53.7
85°	27.3	25.7	28.9	30.6	28.9	25.7
87.5°	11.7	10.4	13.0	15.1	14.5	7.7
90°	7.2	7.2	7.2	4.8	2.3	0.0
92.5°	14.9	16.7	14.9	10.5	8.1	5.7
95°	21.6	26.3	21.6	19.1	35.5	19.1
97.5°	41.5	35.9	41.5	140.6	68.1	34.0
100°	83.1	55.0	83.1	282.2	85.2	45.4
102.5°	219.2	120.0	219.2	381.6	98.5	56.9
105°	552.9	365.9	552.9	432.8	113.9	74.1
107.5°	804.7	753.7	804.7	413.2	121.3	91.3
110°	845.5	908.7	845.5	401.7	130.9	102.8



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CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
112.5°	821.6	927.8	821.6	390.2	142.4	114.3
115°	775.3	906.3	775.3	373.0	159.6	131.5
117.5°	725.2	859.9	725.2	368.7	176.8	149.2
120°	687.1	827.4	687.1	361.1	188.3	162.6
122.5°	654.3	783.4	654.3	351.5	199.8	172.2
125°	614.7	726.9	614.7	351.5	214.6	188.9
127.5°	568.8	679.6	568.8	352.0	229.0	202.8
130°	538.0	643.2	538.0	353.9	238.5	210.4
132.5°	524.2	610.7	524.2	353.9	248.0	220.0
135°	506.2	581.1	506.2	353.9	260.1	234.3
137.5°	486.4	550.5	486.4	353.9	273.9	246.3
140°	474.8	533.2	474.8	353.9	281.6	255.9
142.5°	461.3	516.0	461.3	355.8	289.3	265.4
145°	441.0	487.8	441.0	356.3	300.8	277.4
147.5°	426.5	462.5	426.5	359.2	312.3	291.7
150°	416.8	447.2	416.8	361.1	320.0	301.3
152.5°	409.0	433.8	409.0	361.1	327.7	310.9
155°	399.8	418.5	399.8	363.5	336.9	325.2
157.5°	393.9	407.5	393.9	366.3	347.9	336.7
160°	390.0	401.7	390.0	368.2	353.7	344.3
162.5°	388.0	396.0	388.0	370.2	359.4	350.1
165°	382.8	389.8	382.8	373.0	365.7	361.1
167.5°	380.3	384.5	380.3	375.4	371.5	367.3
170°	380.3	382.6	380.3	375.4	375.4	373.0
172.5°	378.3	380.7	378.3	377.3	379.1	374.9
175°	377.8	375.4	377.8	380.2	382.5	380.2
177.5°	380.2	378.3	380.2	380.2	382.1	380.2
180°	380.2	380.2	380.2	380.2	380.2	380.2

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