

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: P621618

Luminaire Tested: VLT-FA-050U-100D-940-UNV-STD-W-4

Issue Date: 9/2/2020

Test Information

Test Method: LM-79-2019
Report Number: P621618
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-940-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, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

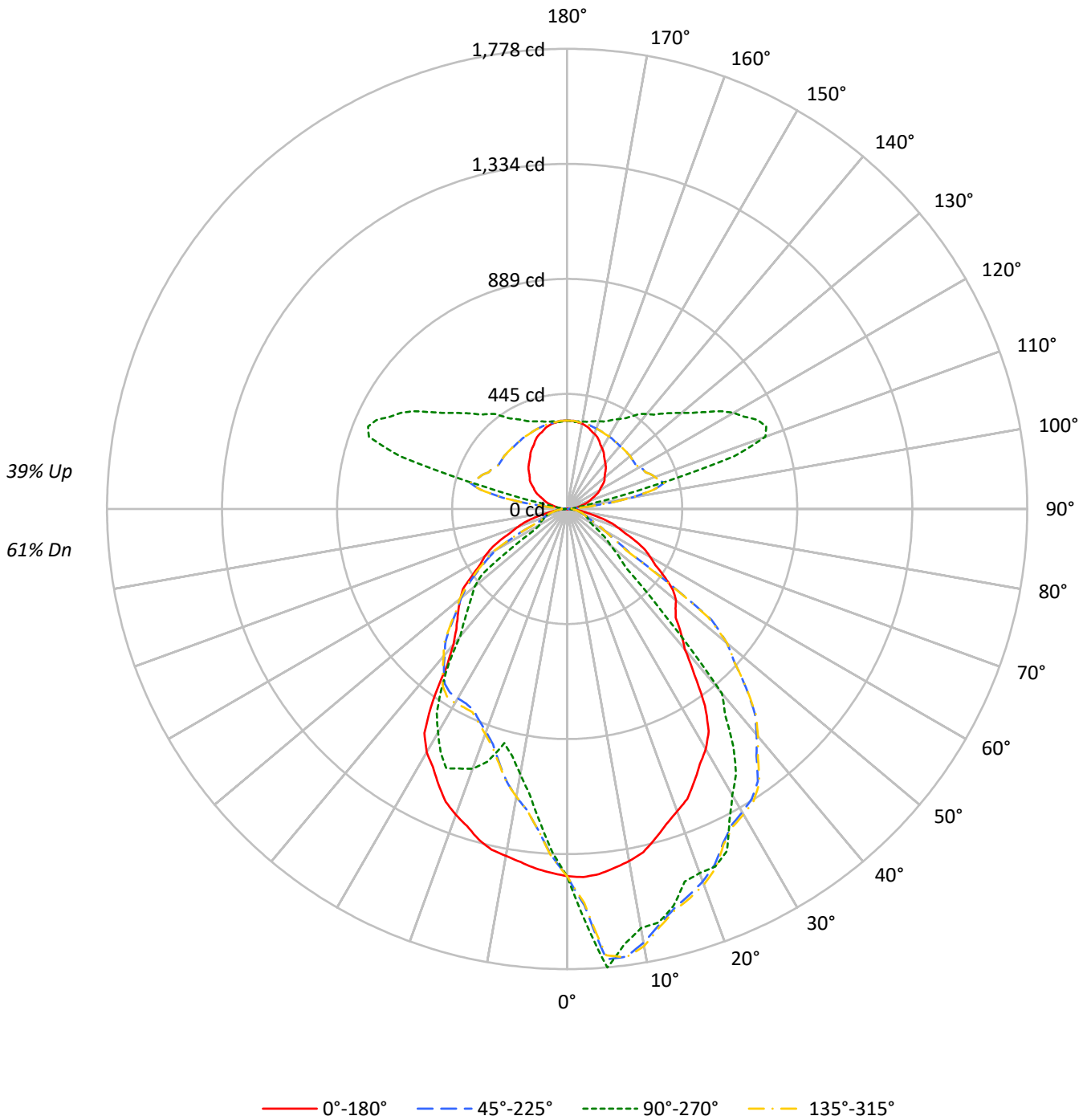
Lumens per Lamp: N/A
Luminaire Lumens: 4759.5 lumens
Efficiency: N/A
Efficacy: 108.7 lumens/watt
Spacing Criteria (0/90/45): 1.14 / 1.19 / 1.3
Luminous Opening: Rectangular (W 0.38' x L: 4' x H: 0')
CIE Type: Semi-Direct

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	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	61	54	54	54	47	47	47	41	41	41	36	36	36														
1	101	97	94	91	95	91	88	86	80	78	76	70	68	67	61	59	58	54	54	54	47	47	47	41	41	41	36	36	36	32	32	32														
2	93	86	81	76	87	81	76	72	72	68	65	63	60	57	55	53	51	47	47	47	41	41	41	36	36	36	32	32	32	28	28	28														
3	86	77	70	64	80	72	66	61	64	59	55	56	53	50	49	47	44	41	41	41	36	36	36	32	32	32	28	28	28	25	25	25														
4	79	69	61	55	74	65	58	53	58	52	48	51	47	44	45	42	39	36	36	36	32	32	32	28	28	28	25	25	25	21	21	21														
5	73	62	54	48	68	58	51	46	52	46	42	46	42	38	41	37	35	32	32	32	28	28	28	25	25	25	21	21	21	19	19	19														
6	67	56	48	42	63	53	46	41	47	42	37	42	38	34	37	34	31	28	28	28	25	25	25	21	21	21	19	19	19	15	15	15														
7	63	51	43	37	59	48	41	36	43	37	33	38	34	30	34	31	28	25	25	25	21	21	21	19	19	19	15	15	15	11	11	11														
8	58	46	39	33	55	44	37	32	40	34	30	35	31	27	32	28	25	23	23	23	21	21	21	19	19	19	15	15	15	11	11	11														
9	54	42	35	30	51	40	34	29	36	31	27	33	28	25	29	26	23	21	21	21	19	19	19	15	15	15	11	11	11	7	7	7														
10	51	39	32	27	48	37	31	26	34	28	25	30	26	23	27	24	21	19	19	19	15	15	15	11	11	11	7	7	7	3	3	3														

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	10182	10182	10182	10182
5°	10201	12810	10044	8734
10°	10066	11980	9919	7583
15°	9791	11796	9823	6960
20°	9491	11431	9601	8157
25°	9200	11555	9303	8755
30°	8875	10573	8995	8265
35°	8131	9800	7929	7410
40°	6626	8721	6396	6031
45°	6021	3237	6079	5493
50°	6123	2466	6011	5221
55°	5779	1914	5580	3124
60°	5325	1471	5283	1741
65°	4902	1520	4804	1839
70°	4362	1605	4240	1907
75°	3721	1680	3563	1960
80°	2802	1732	2624	2029
85°	1902	1548	1663	1902

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
 Vertical Angle: 45°
 Luminance: 11149 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	136.9	2.9
10°-20°	375.0	7.9
20°-30°	561.1	11.8
30°-40°	638.1	13.4
40°-50°	545.7	11.5
50°-60°	368.0	7.7
60°-70°	189.9	4.0
70°-80°	85.8	1.8
80°-90°	26.3	0.6
90°-100°	41.9	0.9
100°-110°	298.9	6.3
110°-120°	405.8	8.5
120°-130°	330.3	6.9
130°-140°	265.7	5.6
140°-150°	209.4	4.4
150°-160°	153.1	3.2
160°-170°	95.1	2.0
170°-180°	32.4	0.7
0°-30°	1072.9	22.5
0°-40°	1711.0	35.9
0°-60°	2624.7	55.1
0°-90°	2926.7	61.5
90°-120°	746.7	15.7
90°-150°	1552.1	32.6
90°-180°	1833.0	38.5
0°-180°	4759.5	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	1419	1419	1419	1419	1419	
5°	1416	1778	1394	1212	1416	134
15°	1318	1588	1322	937	1318	371
25°	1162	1459	1175	1106	1162	535
35°	928	1119	905	846	928	567
45°	593	319	599	541	593	471
55°	462	153	446	250	462	412
65°	289	90	283	108	289	285
75°	134	61	128	71	134	143
85°	23	19	20	23	23	30
90°	0	6	0	6	0	2
95°	17	24	17	24	17	19
105°	66	328	66	328	66	70
115°	118	813	118	813	118	117
125°	170	652	170	652	170	151
135°	210	522	210	522	210	162
145°	249	438	249	438	249	156
155°	292	376	292	376	292	134
165°	324	350	324	350	324	91
175°	341	337	341	337	341	32
180°	341	341	341	341	341	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
0°	1418.9	1418.9	1418.9	1418.9	1418.9	1418.9	1418.9	1418.9	1418.9	1418.9	1418.9
2.5°	1423.6	1472.1	1533.3	1575.2	1593.3	1575.2	1522.9	1471.8	1407.4	1388.2	1342.7
5°	1416.1	1565.7	1746.6	1768.5	1778.4	1768.5	1730.7	1556.7	1394.4	1325.2	1250.1
7.5°	1398.7	1660.4	1744.6	1695.8	1696.1	1705.1	1747.2	1652.3	1376.2	1267.5	1175.3
10°	1381.4	1713.1	1701.9	1631.4	1644.1	1638.5	1714.9	1702.8	1361.2	1235.6	1130.2
12.5°	1358.3	1729.5	1645.3	1622.2	1636.0	1628.1	1653.7	1720.5	1348.5	1212.7	1078.3
15°	1317.9	1706.0	1597.9	1587.8	1587.8	1594.9	1605.2	1713.2	1322.2	1171.2	1014.8
17.5°	1276.3	1659.1	1565.0	1515.0	1509.6	1518.9	1576.9	1671.1	1285.0	1125.2	953.3
20°	1242.8	1626.7	1531.5	1472.9	1496.9	1475.7	1544.5	1635.5	1257.3	1096.4	915.2
22.5°	1212.8	1586.6	1488.8	1463.8	1495.7	1464.4	1500.6	1595.3	1224.9	1064.0	886.3
25°	1162.0	1519.1	1424.7	1448.1	1459.4	1448.1	1430.5	1525.0	1175.0	1022.6	856.0
27.5°	1111.5	1448.0	1376.8	1392.5	1358.0	1384.6	1384.6	1448.2	1123.6	974.3	846.7
30°	1071.1	1398.5	1352.5	1329.7	1276.0	1318.4	1362.6	1398.8	1085.5	942.9	844.4
32.5°	1017.9	1353.3	1328.3	1249.3	1214.8	1243.6	1339.6	1352.4	1026.6	914.5	842.1
35°	928.2	1289.5	1284.7	1154.0	1118.7	1145.5	1294.8	1286.1	905.1	869.8	824.2
37.5°	807.8	1232.6	1201.3	1057.7	1001.5	1050.6	1210.8	1226.5	761.3	828.8	782.4
40°	707.3	1194.2	1138.9	986.1	931.0	979.0	1146.1	1190.9	682.8	799.9	736.2
42.5°	650.7	1160.2	1073.1	910.3	569.6	898.7	1080.3	1155.9	634.3	762.7	695.8
45°	593.3	1098.6	977.2	503.9	319.0	479.9	978.7	1083.2	599.0	706.3	633.7
47.5°	568.2	1022.6	877.1	303.5	269.4	294.8	876.2	1006.0	568.4	649.7	574.5
50°	548.5	974.8	805.5	267.4	220.9	257.5	806.9	959.0	538.4	611.8	534.1
52.5°	516.2	917.6	702.7	221.6	190.8	216.2	685.7	899.6	507.2	570.5	483.3
55°	461.9	807.7	293.0	174.2	153.0	167.1	278.6	780.5	446.0	505.3	424.4
57.5°	404.5	687.6	205.6	135.6	118.7	134.2	204.1	660.0	397.0	428.0	370.1
60°	371.0	606.7	167.4	113.8	102.5	112.4	166.0	582.6	368.1	376.6	320.5
62.5°	337.5	524.6	138.6	100.1	96.7	98.7	138.3	498.3	332.3	332.9	225.8
65°	288.7	397.4	102.5	90.9	89.5	89.5	99.6	383.1	282.9	274.5	129.9
67.5°	239.0	285.3	82.3	83.7	82.3	82.3	80.8	277.3	233.3	218.9	98.2
70°	207.9	219.2	76.5	77.9	76.5	76.5	75.1	213.4	202.1	169.6	92.4
72.5°	177.8	149.6	70.7	71.0	70.7	70.7	69.3	140.4	172.1	119.3	84.3
75°	134.2	75.0	60.6	60.6	60.6	60.6	59.2	72.0	128.5	77.7	72.2
77.5°	93.2	49.5	50.2	49.9	49.9	48.8	48.8	49.1	87.8	53.6	58.3
80°	67.8	41.0	43.3	41.9	41.9	41.9	41.9	39.5	63.5	45.2	49.1
82.5°	48.2	32.7	35.2	33.8	33.8	33.8	33.8	32.3	43.9	36.8	39.8
85°	23.1	21.7	23.1	20.2	18.8	20.2	21.7	21.6	20.2	24.4	26.0
87.5°	6.9	10.7	10.1	8.2	8.2	8.2	8.9	9.6	5.8	11.8	11.3
90°	0.0	2.1	4.3	6.4	6.4	6.4	4.3	2.1	0.0	2.1	4.3
92.5°	5.2	7.2	9.4	13.3	15.0	13.3	9.4	7.2	5.2	7.2	9.4
95°	17.2	31.9	17.2	19.4	23.6	19.4	17.2	31.9	17.2	31.9	17.2
97.5°	30.5	61.1	126.2	37.2	32.2	37.2	126.2	61.1	30.5	61.1	126.2
100°	40.8	76.4	253.2	74.5	49.4	74.5	253.2	76.4	40.8	76.4	253.2
102.5°	51.1	88.4	342.5	196.7	107.7	196.7	342.5	88.4	51.1	88.4	342.5
105°	66.5	102.2	388.4	496.2	328.3	496.2	388.4	102.2	66.5	102.2	388.4
107.5°	82.0	108.8	370.8	722.1	676.4	722.1	370.8	108.8	82.0	108.8	370.8
110°	92.3	117.5	360.5	758.8	815.4	758.8	360.5	117.5	92.3	117.5	360.5



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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°	102.6	127.8	350.2	737.4	832.6	737.4	350.2	127.8	102.6	127.8	350.2
115°	118.0	143.2	334.8	695.8	813.3	695.8	334.8	143.2	118.0	143.2	334.8
117.5°	133.9	158.7	330.9	650.8	771.7	650.8	330.9	158.7	133.9	158.7	330.9
120°	145.9	169.0	324.0	616.6	742.5	616.6	324.0	169.0	145.9	169.0	324.0
122.5°	154.5	179.3	315.4	587.2	703.0	587.2	315.4	179.3	154.5	179.3	315.4
125°	169.5	192.6	315.4	551.6	652.4	551.6	315.4	192.6	169.5	192.6	315.4
127.5°	182.0	205.5	315.9	510.4	609.9	510.4	315.9	205.5	182.0	205.5	315.9
130°	188.8	214.0	317.6	482.8	577.2	482.8	317.6	214.0	188.8	214.0	317.6
132.5°	197.4	222.6	317.6	470.4	548.1	470.4	317.6	222.6	197.4	222.6	317.6
135°	210.3	233.4	317.6	454.3	521.5	454.3	317.6	233.4	210.3	233.4	317.6
137.5°	221.0	245.8	317.6	436.5	494.0	436.5	317.6	245.8	221.0	245.8	317.6
140°	229.6	252.7	317.6	426.1	478.5	426.1	317.6	252.7	229.6	252.7	317.6
142.5°	238.2	259.6	319.3	414.0	463.1	414.0	319.3	259.6	238.2	259.6	319.3
145°	248.9	269.9	319.7	395.8	437.8	395.8	319.7	269.9	248.9	269.9	319.7
147.5°	261.8	280.3	322.3	382.7	415.0	382.7	322.3	280.3	261.8	280.3	322.3
150°	270.4	287.2	324.0	374.0	401.3	374.0	324.0	287.2	270.4	287.2	324.0
152.5°	279.0	294.1	324.0	367.0	389.3	367.0	324.0	294.1	279.0	294.1	324.0
155°	291.8	302.3	326.2	358.7	375.5	358.7	326.2	302.3	291.8	302.3	326.2
157.5°	302.1	312.2	328.8	353.5	365.7	353.5	328.8	312.2	302.1	312.2	328.8
160°	309.0	317.4	330.5	350.0	360.5	350.0	330.5	317.4	309.0	317.4	330.5
162.5°	314.2	322.6	332.2	348.2	355.4	348.2	332.2	322.6	314.2	322.6	332.2
165°	324.0	328.2	334.8	343.5	349.8	343.5	334.8	328.2	324.0	328.2	334.8
167.5°	329.6	333.4	336.9	341.3	345.1	341.3	336.9	333.4	329.6	333.4	336.9
170°	334.8	336.9	336.9	341.2	343.3	341.2	336.9	336.9	334.8	336.9	336.9
172.5°	336.5	340.3	338.6	339.5	341.6	339.5	338.6	340.3	336.5	340.3	338.6
175°	341.2	343.3	341.2	339.0	336.9	339.0	341.2	343.3	341.2	343.3	341.2
177.5°	341.2	342.9	341.2	341.2	339.5	341.2	341.2	342.9	341.2	342.9	341.2
180°	341.2	341.2	341.2	341.2	341.2	341.2	341.2	341.2	341.2	341.2	341.2



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CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
0°	1418.9	1418.9	1418.9	1418.9	1418.9	1418.9
2.5°	1326.5	1325.4	1327.7	1347.3	1387.4	1423.6
5°	1208.3	1212.5	1216.8	1250.1	1320.1	1416.1
7.5°	1117.4	1111.2	1120.8	1175.0	1261.0	1398.7
10°	1054.9	1040.7	1054.9	1128.8	1229.0	1381.4
12.5°	995.9	978.4	1000.4	1081.5	1202.5	1358.3
15°	919.9	936.8	926.9	1017.7	1162.6	1317.9
17.5°	937.9	1023.1	956.0	962.2	1123.0	1276.3
20°	980.7	1068.2	1008.9	925.3	1097.5	1242.8
22.5°	1019.4	1085.5	1031.9	894.1	1072.0	1212.8
25°	1049.3	1105.7	1046.4	866.1	1035.0	1162.0
27.5°	1050.7	1058.6	1051.3	863.8	989.3	1111.5
30°	1031.3	997.4	1028.5	866.1	956.7	1071.1
32.5°	975.8	937.4	963.9	861.5	923.9	1017.9
35°	896.7	845.9	882.6	837.2	873.1	928.2
37.5°	813.2	748.9	799.7	789.3	829.8	807.8
40°	756.7	643.8	745.4	741.9	806.1	707.3
42.5°	684.3	588.4	674.2	703.8	780.0	650.7
45°	552.6	541.3	547.0	639.5	724.5	593.3
47.5°	505.3	497.7	502.5	580.9	661.9	568.2
50°	477.6	467.7	474.7	542.7	621.9	548.5
52.5°	439.1	412.3	436.3	490.8	580.5	516.2
55°	330.2	249.7	328.8	431.6	518.4	461.9
57.5°	193.7	144.3	189.5	375.6	439.2	404.5
60°	131.1	121.3	132.5	330.6	386.5	371.0
62.5°	119.7	116.6	120.0	230.1	339.5	337.5
65°	109.7	108.3	109.7	132.8	280.2	288.7
67.5°	99.3	97.9	100.4	101.9	221.3	239.0
70°	92.4	90.9	92.4	93.8	169.8	207.9
72.5°	84.3	82.9	84.3	85.7	119.4	177.8
75°	72.1	70.7	72.1	73.6	79.2	134.2
77.5°	58.3	58.3	59.7	59.8	55.4	93.2
80°	49.1	49.1	50.5	50.5	48.1	67.8
82.5°	39.8	38.7	41.2	42.4	39.7	48.2
85°	24.5	23.1	25.9	27.4	25.9	23.1
87.5°	10.5	9.4	11.6	13.6	13.0	6.9
90°	6.4	6.4	6.4	4.3	2.1	0.0
92.5°	13.3	15.0	13.3	9.4	7.2	5.2
95°	19.4	23.6	19.4	17.2	31.9	17.2
97.5°	37.2	32.2	37.2	126.2	61.1	30.5
100°	74.5	49.4	74.5	253.2	76.4	40.8
102.5°	196.7	107.7	196.7	342.5	88.4	51.1
105°	496.2	328.3	496.2	388.4	102.2	66.5
107.5°	722.1	676.4	722.1	370.8	108.8	82.0
110°	758.8	815.4	758.8	360.5	117.5	92.3



TEST NUMBER: P621618

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CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
112.5°	737.4	832.6	737.4	350.2	127.8	102.6
115°	695.8	813.3	695.8	334.8	143.2	118.0
117.5°	650.8	771.7	650.8	330.9	158.7	133.9
120°	616.6	742.5	616.6	324.0	169.0	145.9
122.5°	587.2	703.0	587.2	315.4	179.3	154.5
125°	551.6	652.4	551.6	315.4	192.6	169.5
127.5°	510.4	609.9	510.4	315.9	205.5	182.0
130°	482.8	577.2	482.8	317.6	214.0	188.8
132.5°	470.4	548.1	470.4	317.6	222.6	197.4
135°	454.3	521.5	454.3	317.6	233.4	210.3
137.5°	436.5	494.0	436.5	317.6	245.8	221.0
140°	426.1	478.5	426.1	317.6	252.7	229.6
142.5°	414.0	463.1	414.0	319.3	259.6	238.2
145°	395.8	437.8	395.8	319.7	269.9	248.9
147.5°	382.7	415.0	382.7	322.3	280.3	261.8
150°	374.0	401.3	374.0	324.0	287.2	270.4
152.5°	367.0	389.3	367.0	324.0	294.1	279.0
155°	358.7	375.5	358.7	326.2	302.3	291.8
157.5°	353.5	365.7	353.5	328.8	312.2	302.1
160°	350.0	360.5	350.0	330.5	317.4	309.0
162.5°	348.2	355.4	348.2	332.2	322.6	314.2
165°	343.5	349.8	343.5	334.8	328.2	324.0
167.5°	341.3	345.1	341.3	336.9	333.4	329.6
170°	341.2	343.3	341.2	336.9	336.9	334.8
172.5°	339.5	341.6	339.5	338.6	340.3	336.5
175°	339.0	336.9	339.0	341.2	343.3	341.2
177.5°	341.2	339.5	341.2	341.2	342.9	341.2
180°	341.2	341.2	341.2	341.2	341.2	341.2

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