

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: P621738

Luminaire Tested: VLT-FA-150U-100D-940-UNV-STD-W-4

Issue Date: 9/2/2020

**Test Information**

Test Method: LM-79-2019  
Report Number: P621738  
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-100D-940-UNV-STD-W-4  
Description: CORELITE VAULT SUSPENDED LED LUMINAIRE  
LIGHT SHAPING LENS - ASYMMETRIC  
DOWNLIGHT 1000 LUMENS PER FOOT  
UPLIGHT 1500 LUMENS PER FOOT  
Light Source: 4000K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

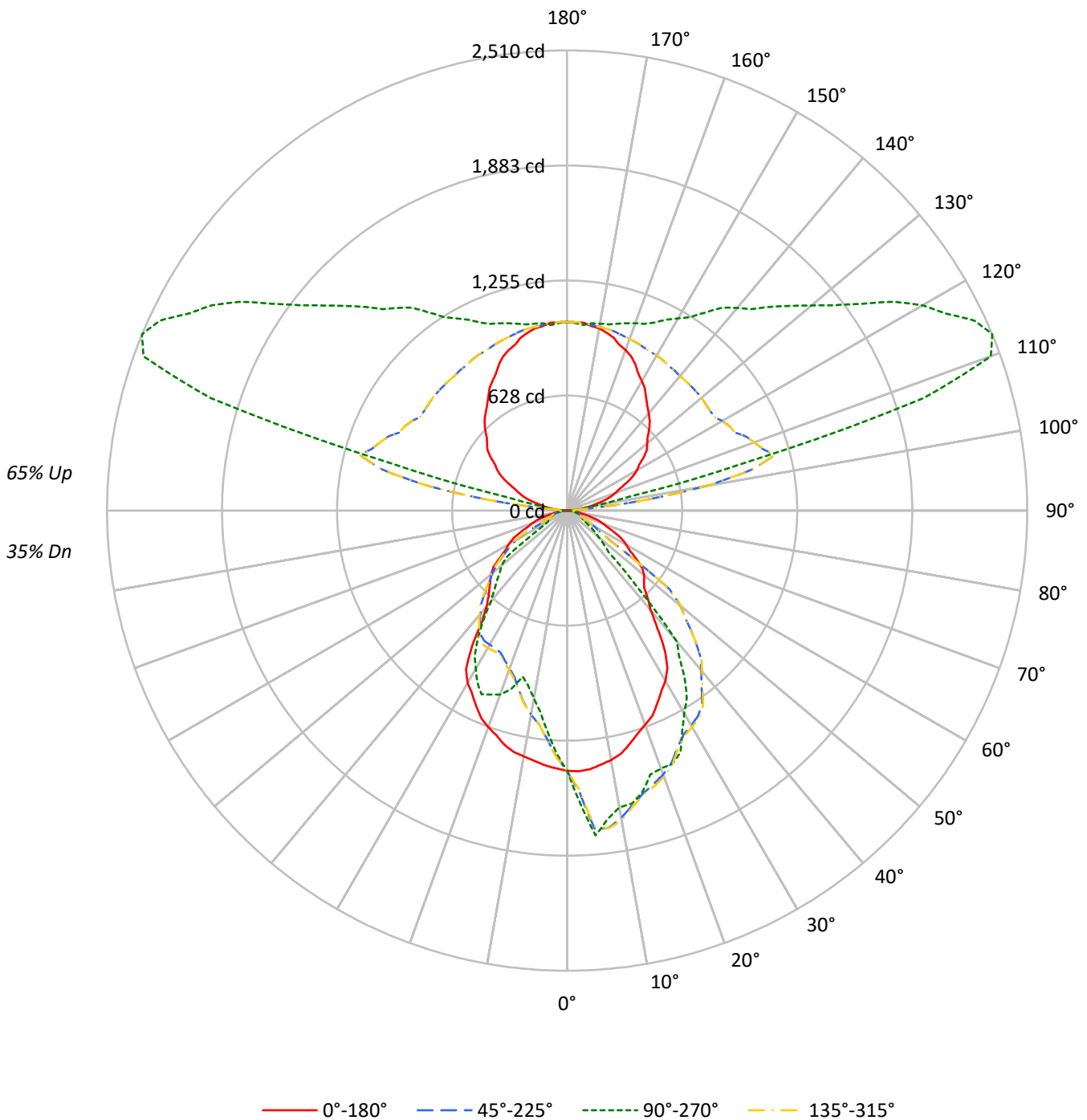
Lumens per Lamp: N/A  
Luminaire Lumens: 8454.1 lumens  
Efficiency: N/A  
Efficacy: 108.7 lumens/watt  
Spacing Criteria (0/90/45): 1.14 / 1.19 / 1.3  
Luminous Opening: Rectangular (W 0.38' x L: 4' x H: 0')  
CIE Type: Semi-Indirect

Input Watts (W): 77.8  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): 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	103	103	103	103	93	93	93	93	75	75	75	58	58	58	42	42	42	35				
1	95	91	87	84	86	82	79	77	66	64	62	52	50	49	38	37	37	30				
2	87	80	74	70	78	73	68	64	59	55	53	46	44	42	34	33	32	26				
3	80	71	64	59	72	64	59	54	52	48	45	41	38	36	31	29	28	23				
4	73	63	56	50	66	57	51	46	47	42	39	37	34	31	28	26	24	20				
5	67	56	49	43	61	51	45	40	42	37	34	33	30	27	25	23	21	18				
6	62	51	43	37	56	46	40	35	38	33	29	30	27	24	23	21	19	16				
7	57	46	38	33	52	42	35	31	34	30	26	28	24	21	21	19	17	14				
8	53	41	34	29	48	38	32	27	31	27	23	25	22	19	19	17	15	13				
9	49	38	31	26	45	35	28	24	29	24	21	23	20	17	18	16	14	12				
10	46	35	28	23	42	32	26	22	27	22	19	22	18	16	17	14	13	11				

**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	1.6
10°-20°	375.0	4.4
20°-30°	561.1	6.6
30°-40°	638.1	7.5
40°-50°	545.7	6.5
50°-60°	368.0	4.4
60°-70°	189.9	2.2
70°-80°	85.8	1.0
80°-90°	27.8	0.3
90°-100°	126.5	1.5
100°-110°	901.3	10.7
110°-120°	1223.6	14.5
120°-130°	995.9	11.8
130°-140°	800.9	9.5
140°-150°	631.5	7.5
150°-160°	461.7	5.5
160°-170°	286.8	3.4
170°-180°	97.8	1.2
0°-30°	1072.9	12.7
0°-40°	1711.0	20.2
0°-60°	2624.7	31.0
0°-90°	2928.2	34.6
90°-120°	2251.3	26.6
90°-150°	4679.6	55.4
90°-180°	5526.0	65.4
0°-180°	8454.1	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	19	0	19	0	3
95°	52	71	52	71	52	58
105°	201	990	201	990	201	212
115°	356	2452	356	2452	356	353
125°	511	1967	511	1967	511	454
135°	634	1572	634	1572	634	488
145°	750	1320	750	1320	750	471
155°	880	1132	880	1132	880	404
165°	977	1055	977	1055	977	274
175°	1029	1016	1029	1016	1029	97
180°	1029	1029	1029	1029	1029	



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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	11.6	11.8	10.8	10.8	10.8	10.7	10.4	5.8	12.7	13.0
90°	0.0	6.3	12.9	19.4	19.4	19.4	12.9	6.3	0.0	6.3	12.9
92.5°	15.5	21.9	28.5	40.2	45.3	40.2	28.5	21.9	15.5	21.9	28.5
95°	51.8	96.0	51.8	58.5	71.2	58.5	51.8	96.0	51.8	96.0	51.8
97.5°	91.9	184.2	380.4	112.2	97.0	112.2	380.4	184.2	91.9	184.2	380.4
100°	122.9	230.5	763.4	224.7	148.8	224.7	763.4	230.5	122.9	230.5	763.4
102.5°	154.0	266.6	1032.6	593.0	324.8	593.0	1032.6	266.6	154.0	266.6	1032.6
105°	200.6	308.1	1171.0	1496.0	989.9	1496.0	1171.0	308.1	200.6	308.1	1171.0
107.5°	247.1	328.1	1118.0	2177.2	2039.3	2177.2	1118.0	328.1	247.1	328.1	1118.0
110°	278.2	354.1	1086.9	2287.7	2458.5	2287.7	1086.9	354.1	278.2	354.1	1086.9



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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°	309.3	385.2	1055.9	2223.1	2510.3	2223.1	1055.9	385.2	309.3	385.2	1055.9
115°	355.8	431.7	1009.3	2097.8	2452.0	2097.8	1009.3	431.7	355.8	431.7	1009.3
117.5°	403.7	478.4	997.6	1962.2	2326.5	1962.2	997.6	478.4	403.7	478.4	997.6
120°	439.9	509.5	976.9	1859.0	2238.5	1859.0	976.9	509.5	439.9	509.5	976.9
122.5°	465.8	540.5	951.1	1770.3	2119.5	1770.3	951.1	540.5	465.8	540.5	951.1
125°	511.1	580.7	951.1	1663.2	1966.8	1663.2	951.1	580.7	511.1	580.7	951.1
127.5°	548.6	619.5	952.3	1538.9	1838.7	1538.9	952.3	619.5	548.6	619.5	952.3
130°	569.3	645.3	957.5	1455.7	1740.4	1455.7	957.5	645.3	569.3	645.3	957.5
132.5°	595.2	671.1	957.5	1418.3	1652.4	1418.3	957.5	671.1	595.2	671.1	957.5
135°	634.0	703.6	957.5	1369.7	1572.2	1369.7	957.5	703.6	634.0	703.6	957.5
137.5°	666.4	741.0	957.5	1316.0	1489.3	1316.0	957.5	741.0	666.4	741.0	957.5
140°	692.3	761.9	957.5	1284.6	1442.8	1284.6	957.5	761.9	692.3	761.9	957.5
142.5°	718.1	782.7	962.7	1248.1	1396.2	1248.1	962.7	782.7	718.1	782.7	962.7
145°	750.5	813.8	964.0	1193.3	1319.8	1193.3	964.0	813.8	750.5	813.8	964.0
147.5°	789.3	845.0	971.8	1153.8	1251.3	1153.8	971.8	845.0	789.3	845.0	971.8
150°	815.2	865.8	976.9	1127.6	1209.8	1127.6	976.9	865.8	815.2	865.8	976.9
152.5°	841.1	886.6	976.9	1106.6	1173.6	1106.6	976.9	886.6	841.1	886.6	976.9
155°	879.9	911.5	983.4	1081.6	1132.2	1081.6	983.4	911.5	879.9	911.5	983.4
157.5°	910.9	941.3	991.2	1065.8	1102.4	1065.8	991.2	941.3	910.9	941.3	991.2
160°	931.6	957.0	996.3	1055.3	1086.9	1055.3	996.3	957.0	931.6	957.0	996.3
162.5°	947.2	972.5	1001.5	1049.9	1071.4	1049.9	1001.5	972.5	947.2	972.5	1001.5
165°	976.9	989.6	1009.3	1035.6	1054.6	1035.6	1009.3	989.6	976.9	989.6	1009.3
167.5°	993.8	1005.1	1015.8	1029.0	1040.3	1029.0	1015.8	1005.1	993.8	1005.1	1015.8
170°	1009.3	1015.6	1015.8	1028.8	1035.2	1028.8	1015.8	1015.6	1009.3	1015.6	1015.8
172.5°	1014.5	1025.8	1020.9	1023.7	1030.0	1023.7	1020.9	1025.8	1014.5	1025.8	1020.9
175°	1028.7	1035.0	1028.7	1022.1	1015.8	1022.1	1028.7	1035.0	1028.7	1035.0	1028.7
177.5°	1028.7	1033.8	1028.7	1028.6	1023.5	1028.6	1028.7	1033.8	1028.7	1033.8	1028.7
180°	1028.7	1028.7	1028.7	1028.7	1028.7	1028.7	1028.7	1028.7	1028.7	1028.7	1028.7



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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°	13.1	12.0	14.2	15.3	13.8	6.9
90°	19.4	19.4	19.4	12.9	6.3	0.0
92.5°	40.2	45.3	40.2	28.5	21.9	15.5
95°	58.5	71.2	58.5	51.8	96.0	51.8
97.5°	112.2	97.0	112.2	380.4	184.2	91.9
100°	224.7	148.8	224.7	763.4	230.5	122.9
102.5°	593.0	324.8	593.0	1032.6	266.6	154.0
105°	1496.0	989.9	1496.0	1171.0	308.1	200.6
107.5°	2177.2	2039.3	2177.2	1118.0	328.1	247.1
110°	2287.7	2458.5	2287.7	1086.9	354.1	278.2





TEST NUMBER: P621738

CATALOG NUMBER: VLT-FA-150U-100D-940-UNV-STD-W-4

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
112.5°	2223.1	2510.3	2223.1	1055.9	385.2	309.3
115°	2097.8	2452.0	2097.8	1009.3	431.7	355.8
117.5°	1962.2	2326.5	1962.2	997.6	478.4	403.7
120°	1859.0	2238.5	1859.0	976.9	509.5	439.9
122.5°	1770.3	2119.5	1770.3	951.1	540.5	465.8
125°	1663.2	1966.8	1663.2	951.1	580.7	511.1
127.5°	1538.9	1838.7	1538.9	952.3	619.5	548.6
130°	1455.7	1740.4	1455.7	957.5	645.3	569.3
132.5°	1418.3	1652.4	1418.3	957.5	671.1	595.2
135°	1369.7	1572.2	1369.7	957.5	703.6	634.0
137.5°	1316.0	1489.3	1316.0	957.5	741.0	666.4
140°	1284.6	1442.8	1284.6	957.5	761.9	692.3
142.5°	1248.1	1396.2	1248.1	962.7	782.7	718.1
145°	1193.3	1319.8	1193.3	964.0	813.8	750.5
147.5°	1153.8	1251.3	1153.8	971.8	845.0	789.3
150°	1127.6	1209.8	1127.6	976.9	865.8	815.2
152.5°	1106.6	1173.6	1106.6	976.9	886.6	841.1
155°	1081.6	1132.2	1081.6	983.4	911.5	879.9
157.5°	1065.8	1102.4	1065.8	991.2	941.3	910.9
160°	1055.3	1086.9	1055.3	996.3	957.0	931.6
162.5°	1049.9	1071.4	1049.9	1001.5	972.5	947.2
165°	1035.6	1054.6	1035.6	1009.3	989.6	976.9
167.5°	1029.0	1040.3	1029.0	1015.8	1005.1	993.8
170°	1028.8	1035.2	1028.8	1015.8	1015.6	1009.3
172.5°	1023.7	1030.0	1023.7	1020.9	1025.8	1014.5
175°	1022.1	1015.8	1022.1	1028.7	1035.0	1028.7
177.5°	1028.6	1023.5	1028.6	1028.7	1033.8	1028.7
180°	1028.7	1028.7	1028.7	1028.7	1028.7	1028.7

(END OF REPORT)