

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: P621733

Luminaire Tested: VLT-FA-150U-100D-830-UNV-STD-W-4

Issue Date: 9/2/2020

Test Information

Test Method: LM-79-2019
Report Number: P621733
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-830-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: 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

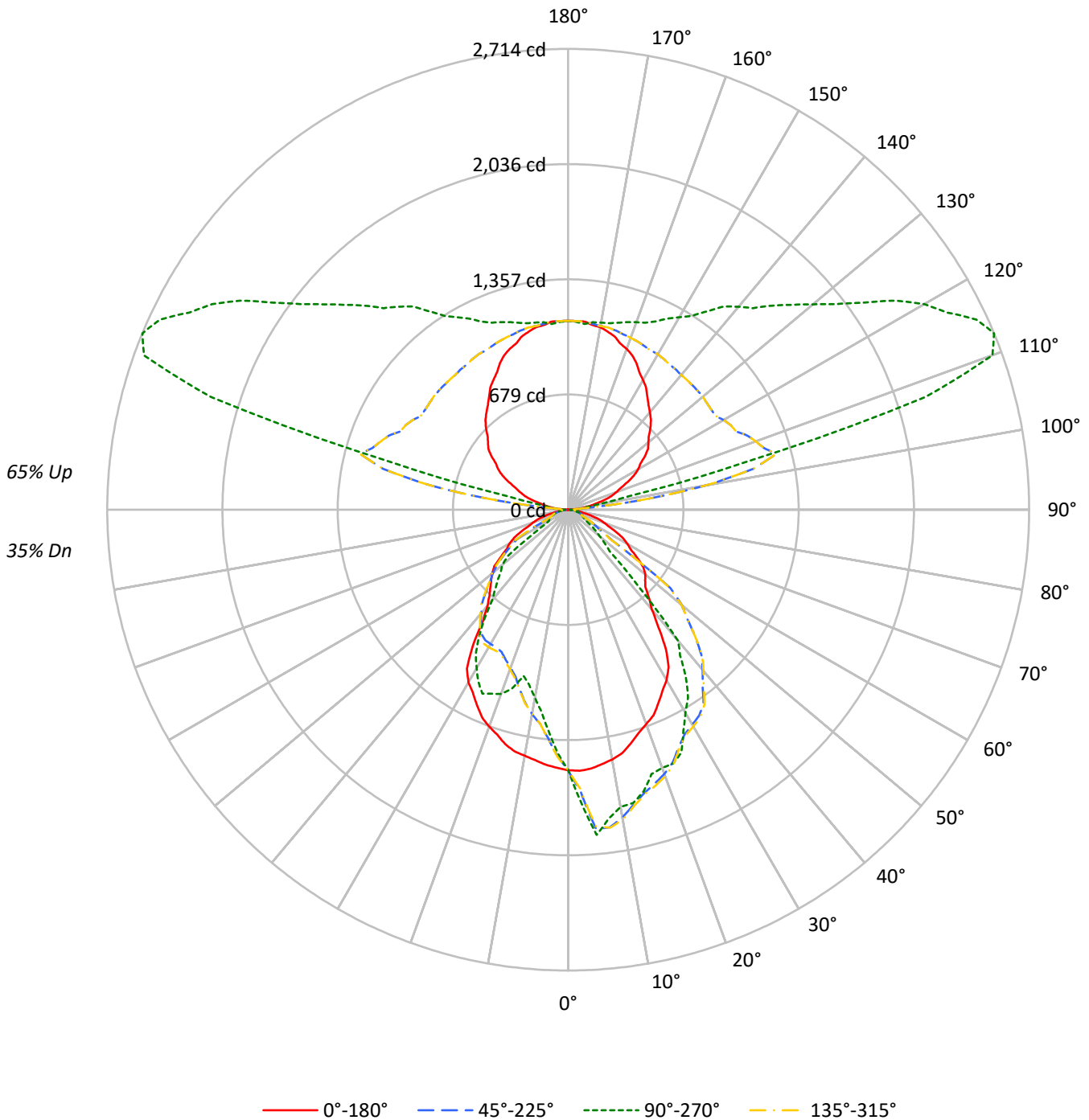
Lumens per Lamp: N/A
Luminaire Lumens: 9139.5 lumens
Efficiency: N/A
Efficacy: 117.5 lumens/watt
Spacing Criteria (0/90/45): 1.14 / 1.19 / 1.3
Luminous Opening: Rectangular (W 0.38' x L: 4' x H: 0')
CIE Type: Semi-Indirect

Input Watts (W): 77.8
Input Voltage (V): 120
Input Current (Ain): 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			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	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°	11008	11008	11008	11008
5°	11028	13849	10859	9442
10°	10882	12951	10723	8198
15°	10584	12753	10619	7524
20°	10260	12358	10380	8819
25°	9946	12492	10058	9465
30°	9594	11431	9724	8935
35°	8790	10595	8571	8011
40°	7163	9428	6914	6520
45°	6509	3500	6572	5939
50°	6620	2666	6498	5644
55°	6248	2069	6033	3378
60°	5757	1590	5711	1882
65°	5299	1644	5194	1987
70°	4714	1735	4584	2062
75°	4023	1816	3851	2121
80°	3029	1872	2839	2194
85°	2058	1671	1795	2058

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
 Vertical Angle: 45°
 Luminance: 12052 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	148.0	1.6
10°-20°	405.4	4.4
20°-30°	606.5	6.6
30°-40°	689.8	7.5
40°-50°	590.0	6.5
50°-60°	397.8	4.4
60°-70°	205.3	2.2
70°-80°	92.7	1.0
80°-90°	30.1	0.3
90°-100°	136.7	1.5
100°-110°	974.3	10.7
110°-120°	1322.8	14.5
120°-130°	1076.6	11.8
130°-140°	865.9	9.5
140°-150°	682.6	7.5
150°-160°	499.1	5.5
160°-170°	310.0	3.4
170°-180°	105.7	1.2
0°-30°	1159.9	12.7
0°-40°	1849.7	20.2
0°-60°	2837.5	31.0
0°-90°	3165.7	34.6
90°-120°	2433.8	26.6
90°-150°	5059.0	55.4
90°-180°	5974.0	65.4
0°-180°	9139.5	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	1534	1534	1534	1534	1534	
5°	1531	1923	1508	1311	1531	145
15°	1425	1717	1429	1013	1425	401
25°	1256	1578	1270	1195	1256	578
35°	1003	1209	978	914	1003	613
45°	641	345	648	585	641	509
55°	499	165	482	270	499	445
65°	312	97	306	117	312	309
75°	145	66	139	76	145	155
85°	25	20	22	25	25	32
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°	1534.0	1534.0	1534.0	1534.0	1534.0	1534.0	1534.0	1534.0	1534.0	1534.0	1534.0
2.5°	1539.0	1591.5	1657.6	1703.0	1722.5	1703.0	1646.3	1591.1	1521.5	1500.7	1451.6
5°	1530.9	1692.6	1888.2	1911.9	1922.6	1911.9	1871.1	1682.9	1507.5	1432.7	1351.4
7.5°	1512.1	1795.0	1886.0	1833.3	1833.6	1843.4	1888.8	1786.2	1487.8	1370.3	1270.6
10°	1493.4	1852.0	1839.8	1763.7	1777.4	1771.3	1853.9	1840.8	1471.6	1335.8	1221.9
12.5°	1468.4	1869.7	1778.7	1753.7	1768.7	1760.1	1787.7	1860.0	1457.8	1311.0	1165.7
15°	1424.7	1844.4	1727.5	1716.6	1716.6	1724.2	1735.3	1852.1	1429.4	1266.2	1097.0
17.5°	1379.8	1793.6	1691.9	1637.8	1632.0	1642.1	1704.7	1806.6	1389.2	1216.4	1030.6
20°	1343.6	1758.6	1655.7	1592.3	1618.3	1595.4	1669.7	1768.1	1359.2	1185.3	989.4
22.5°	1311.1	1715.2	1609.5	1582.5	1617.0	1583.1	1622.3	1724.6	1324.3	1150.3	958.2
25°	1256.2	1642.2	1540.2	1565.5	1577.7	1565.5	1546.5	1648.7	1270.3	1105.5	925.4
27.5°	1201.6	1565.4	1488.4	1505.4	1468.1	1496.8	1496.8	1565.6	1214.7	1053.3	915.4
30°	1157.9	1511.9	1462.2	1437.5	1379.5	1425.3	1473.1	1512.2	1173.5	1019.4	912.9
32.5°	1100.5	1463.0	1436.0	1350.6	1313.3	1344.5	1448.2	1462.0	1109.8	988.7	910.4
35°	1003.4	1394.0	1388.9	1247.5	1209.4	1238.4	1399.8	1390.4	978.4	940.3	891.1
37.5°	873.3	1332.5	1298.7	1143.4	1082.7	1135.8	1309.0	1325.9	823.0	895.9	845.8
40°	764.7	1291.1	1231.2	1066.0	1006.5	1058.4	1239.0	1287.4	738.1	864.8	795.9
42.5°	703.5	1254.3	1160.1	984.1	615.8	971.6	1167.9	1249.6	685.7	824.5	752.2
45°	641.4	1187.6	1056.5	544.8	344.9	518.8	1058.0	1171.0	647.6	763.6	685.1
47.5°	614.2	1105.5	948.2	328.1	291.2	318.7	947.2	1087.5	614.5	702.4	621.1
50°	593.0	1053.8	870.8	289.1	238.8	278.4	872.3	1036.8	582.1	661.4	577.4
52.5°	558.0	992.0	759.7	239.6	206.3	233.8	741.2	972.5	548.4	616.7	522.5
55°	499.4	873.2	316.8	188.3	165.4	180.7	301.2	843.8	482.2	546.3	458.8
57.5°	437.3	743.3	222.2	146.6	128.3	145.1	220.7	713.6	429.1	462.7	400.1
60°	401.1	655.9	181.0	123.0	110.8	121.5	179.5	629.9	397.9	407.1	346.4
62.5°	364.8	567.2	149.8	108.2	104.6	106.7	149.5	538.7	359.2	359.8	244.1
65°	312.1	429.6	110.8	98.3	96.8	96.8	107.7	414.2	305.9	296.7	140.4
67.5°	258.4	308.5	88.9	90.5	88.9	88.9	87.4	299.8	252.2	236.6	106.1
70°	224.7	236.9	82.7	84.2	82.7	82.7	81.1	230.7	218.5	183.4	99.9
72.5°	192.3	161.7	76.5	76.8	76.5	76.5	74.9	151.8	186.0	128.9	91.1
75°	145.1	81.0	65.5	65.5	65.5	65.5	64.0	77.9	138.9	84.0	78.0
77.5°	100.8	53.5	54.3	54.0	54.0	52.8	52.7	53.1	94.9	58.0	63.0
80°	73.3	44.4	46.8	45.3	45.3	45.3	45.3	42.7	68.7	48.8	53.1
82.5°	52.1	35.3	38.1	36.5	36.5	36.5	36.5	34.9	47.4	39.8	43.1
85°	25.0	23.4	25.0	21.8	20.3	21.8	23.4	23.4	21.8	26.4	28.1
87.5°	7.5	12.5	12.8	11.7	11.7	11.7	11.5	11.3	6.2	13.7	14.0
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°	1534.0	1534.0	1534.0	1534.0	1534.0	1534.0
2.5°	1434.1	1432.9	1435.3	1456.6	1499.9	1539.0
5°	1306.3	1310.8	1315.4	1351.4	1427.1	1530.9
7.5°	1208.0	1201.3	1211.7	1270.3	1363.2	1512.1
10°	1140.4	1125.1	1140.4	1220.3	1328.6	1493.4
12.5°	1076.6	1057.7	1081.5	1169.1	1300.0	1468.4
15°	994.5	1012.8	1002.1	1100.2	1256.9	1424.7
17.5°	1013.9	1106.1	1033.5	1040.2	1214.1	1379.8
20°	1060.2	1154.8	1090.7	1000.3	1186.4	1343.6
22.5°	1102.1	1173.5	1115.5	966.6	1158.9	1311.1
25°	1134.3	1195.4	1131.3	936.3	1118.9	1256.2
27.5°	1135.9	1144.5	1136.5	933.8	1069.5	1201.6
30°	1114.9	1078.3	1111.9	936.3	1034.3	1157.9
32.5°	1054.9	1013.4	1042.1	931.3	998.9	1100.5
35°	969.4	914.5	954.1	905.1	943.9	1003.4
37.5°	879.2	809.6	864.5	853.3	897.1	873.3
40°	818.1	696.0	805.8	802.1	871.5	764.7
42.5°	739.8	636.1	728.8	760.9	843.2	703.5
45°	597.4	585.2	591.3	691.3	783.3	641.4
47.5°	546.3	538.1	543.3	628.0	715.5	614.2
50°	516.3	505.6	513.2	586.8	672.3	593.0
52.5°	474.7	445.7	471.6	530.6	627.6	558.0
55°	356.9	270.0	355.4	466.6	560.4	499.4
57.5°	209.5	156.1	204.9	406.0	474.8	437.3
60°	141.8	131.1	143.3	357.4	417.8	401.1
62.5°	129.4	126.1	129.8	248.7	367.0	364.8
65°	118.6	117.0	118.6	143.6	302.9	312.1
67.5°	107.3	105.8	108.5	110.2	239.2	258.4
70°	99.8	98.3	99.8	101.4	183.5	224.7
72.5°	91.1	89.6	91.1	92.7	129.1	192.3
75°	78.0	76.5	78.0	79.6	85.6	145.1
77.5°	63.0	63.0	64.6	64.6	59.9	100.8
80°	53.1	53.1	54.6	54.6	52.0	73.3
82.5°	43.0	41.8	44.6	45.9	43.0	52.1
85°	26.5	25.0	28.0	29.6	28.0	25.0
87.5°	14.2	12.9	15.4	16.5	15.0	7.5
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



TEST NUMBER: P621733

CATALOG NUMBER: VLT-FA-150U-100D-830-UNV-STD-W-4

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

(END OF REPORT)