

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: P621735

Luminaire Tested: VLT-FA-150U-100D-840-UNV-STD-W-4

Issue Date: 9/2/2020

Test Information

Test Method: LM-79-2019
Report Number: P621735
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-840-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, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

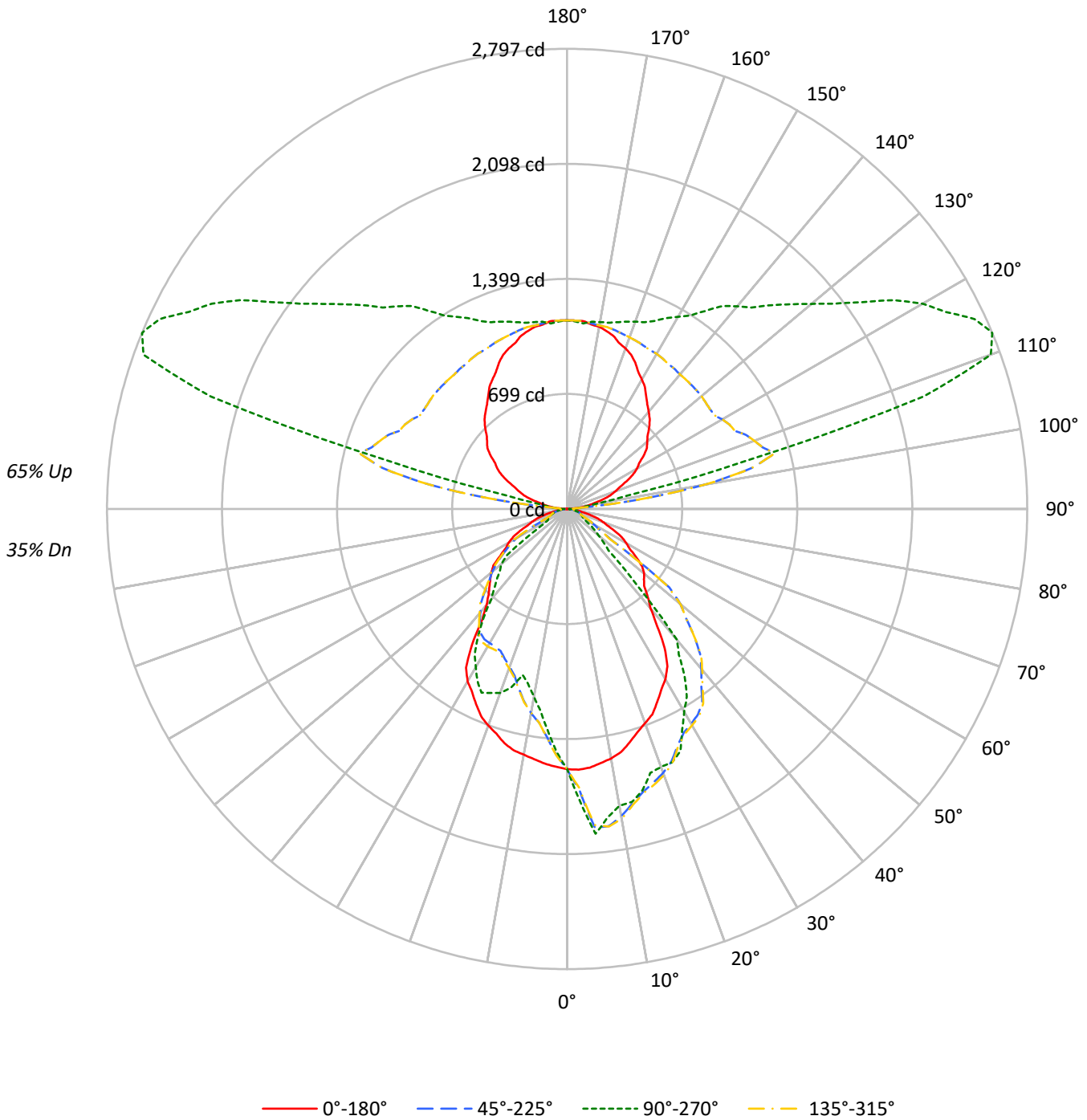
Lumens per Lamp: N/A
Luminaire Lumens: 9420.5 lumens
Efficiency: N/A
Efficacy: 121.1 lumens/watt
Spacing Criteria (0/90/45): 1.14 / 1.19 / 1.3
Luminous Opening: Rectangular (W 0.38' x L: 4' x H: 0')
CIE Type: Semi-Indirect

Input Watts (W): 77.8
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	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°	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	1.6
10°-20°	417.8	4.4
20°-30°	625.2	6.6
30°-40°	711.0	7.5
40°-50°	608.1	6.5
50°-60°	410.1	4.4
60°-70°	211.7	2.2
70°-80°	95.6	1.0
80°-90°	31.0	0.3
90°-100°	140.9	1.5
100°-110°	1004.3	10.7
110°-120°	1363.4	14.5
120°-130°	1109.7	11.8
130°-140°	892.5	9.5
140°-150°	703.6	7.5
150°-160°	514.5	5.5
160°-170°	319.6	3.4
170°-180°	109.0	1.2
0°-30°	1195.6	12.7
0°-40°	1906.6	20.2
0°-60°	2924.7	31.0
0°-90°	3263.0	34.6
90°-120°	2508.7	26.6
90°-150°	5214.5	55.4
90°-180°	6158.0	65.4
0°-180°	9420.5	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	22	0	22	0	3
95°	58	79	58	79	58	65
105°	224	1103	224	1103	224	236
115°	396	2732	396	2732	396	394
125°	570	2192	570	2192	570	506
135°	706	1752	706	1752	706	544
145°	836	1471	836	1471	836	525
155°	980	1262	980	1262	980	450
165°	1089	1175	1089	1175	1089	306
175°	1146	1132	1146	1132	1146	108
180°	1146	1146	1146	1146	1146	



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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	12.9	13.2	12.0	12.0	12.0	11.9	11.6	6.4	14.1	14.5
90°	0.0	7.0	14.4	21.6	21.6	21.6	14.4	7.0	0.0	7.0	14.4
92.5°	17.3	24.4	31.7	44.8	50.5	44.8	31.7	24.4	17.3	24.4	31.7
95°	57.7	107.0	57.7	65.2	79.3	65.2	57.7	107.0	57.7	107.0	57.7
97.5°	102.4	205.3	423.9	125.1	108.1	125.1	423.9	205.3	102.4	205.3	423.9
100°	137.0	256.8	850.7	250.4	165.8	250.4	850.7	256.8	137.0	256.8	850.7
102.5°	171.6	297.1	1150.6	660.8	361.9	660.8	1150.6	297.1	171.6	297.1	1150.6
105°	223.5	343.3	1304.9	1667.0	1103.0	1667.0	1304.9	343.3	223.5	343.3	1304.9
107.5°	275.4	365.6	1245.8	2426.1	2272.4	2426.1	1245.8	365.6	275.4	365.6	1245.8
110°	310.0	394.6	1211.2	2549.2	2739.5	2549.2	1211.2	394.6	310.0	394.6	1211.2



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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°	344.6	429.2	1176.6	2477.2	2797.2	2477.2	1176.6	429.2	344.6	429.2	1176.6
115°	396.5	481.1	1124.7	2337.6	2732.3	2337.6	1124.7	481.1	396.5	481.1	1124.7
117.5°	449.9	533.0	1111.7	2186.4	2592.5	2186.4	1111.7	533.0	449.9	533.0	1111.7
120°	490.2	567.8	1088.6	2071.5	2494.4	2071.5	1088.6	567.8	490.2	567.8	1088.6
122.5°	519.1	602.3	1059.8	1972.7	2361.8	1972.7	1059.8	602.3	519.1	602.3	1059.8
125°	569.5	647.1	1059.8	1853.3	2191.6	1853.3	1059.8	647.1	569.5	647.1	1059.8
127.5°	611.4	690.3	1061.2	1714.8	2048.9	1714.8	1061.2	690.3	611.4	690.3	1061.2
130°	634.4	719.0	1067.0	1622.1	1939.3	1622.1	1067.0	719.0	634.4	719.0	1067.0
132.5°	663.3	747.8	1067.0	1580.4	1841.3	1580.4	1067.0	747.8	663.3	747.8	1067.0
135°	706.5	784.1	1067.0	1526.3	1751.9	1526.3	1067.0	784.1	706.5	784.1	1067.0
137.5°	742.6	825.7	1067.0	1466.4	1659.6	1466.4	1067.0	825.7	742.6	825.7	1067.0
140°	771.4	848.9	1067.0	1431.5	1607.7	1431.5	1067.0	848.9	771.4	848.9	1067.0
142.5°	800.2	872.1	1072.7	1390.8	1555.8	1390.8	1072.7	872.1	800.2	872.1	1072.7
145°	836.3	906.8	1074.2	1329.7	1470.7	1329.7	1074.2	906.8	836.3	906.8	1074.2
147.5°	879.5	941.6	1082.8	1285.7	1394.3	1285.7	1082.8	941.6	879.5	941.6	1082.8
150°	908.4	964.8	1088.6	1256.5	1348.1	1256.5	1088.6	964.8	908.4	964.8	1088.6
152.5°	937.2	988.0	1088.6	1233.1	1307.8	1233.1	1088.6	988.0	937.2	988.0	1088.6
155°	980.5	1015.7	1095.8	1205.2	1261.6	1205.2	1095.8	1015.7	980.5	1015.7	1095.8
157.5°	1015.1	1048.9	1104.5	1187.6	1228.5	1187.6	1104.5	1048.9	1015.1	1048.9	1104.5
160°	1038.1	1066.3	1110.2	1175.9	1211.2	1175.9	1110.2	1066.3	1038.1	1066.3	1110.2
162.5°	1055.4	1083.6	1116.0	1169.9	1193.9	1169.9	1116.0	1083.6	1055.4	1083.6	1116.0
165°	1088.6	1102.7	1124.7	1154.0	1175.1	1154.0	1124.7	1102.7	1088.6	1102.7	1124.7
167.5°	1107.4	1120.0	1131.9	1146.6	1159.3	1146.6	1131.9	1120.0	1107.4	1120.0	1131.9
170°	1124.7	1131.7	1131.9	1146.4	1153.5	1146.4	1131.9	1131.7	1124.7	1131.7	1131.9
172.5°	1130.4	1143.1	1137.6	1140.7	1147.7	1140.7	1137.6	1143.1	1130.4	1143.1	1137.6
175°	1146.3	1153.3	1146.3	1138.9	1131.9	1138.9	1146.3	1153.3	1146.3	1153.3	1146.3
177.5°	1146.3	1151.9	1146.3	1146.2	1140.5	1146.2	1146.3	1151.9	1146.3	1151.9	1146.3
180°	1146.3	1146.3	1146.3	1146.3	1146.3	1146.3	1146.3	1146.3	1146.3	1146.3	1146.3



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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°	14.6	13.3	15.8	17.0	15.4	7.7
90°	21.6	21.6	21.6	14.4	7.0	0.0
92.5°	44.8	50.5	44.8	31.7	24.4	17.3
95°	65.2	79.3	65.2	57.7	107.0	57.7
97.5°	125.1	108.1	125.1	423.9	205.3	102.4
100°	250.4	165.8	250.4	850.7	256.8	137.0
102.5°	660.8	361.9	660.8	1150.6	297.1	171.6
105°	1667.0	1103.0	1667.0	1304.9	343.3	223.5
107.5°	2426.1	2272.4	2426.1	1245.8	365.6	275.4
110°	2549.2	2739.5	2549.2	1211.2	394.6	310.0



TEST NUMBER: P621735

CATALOG NUMBER: VLT-FA-150U-100D-840-UNV-STD-W-4

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
112.5°	2477.2	2797.2	2477.2	1176.6	429.2	344.6
115°	2337.6	2732.3	2337.6	1124.7	481.1	396.5
117.5°	2186.4	2592.5	2186.4	1111.7	533.0	449.9
120°	2071.5	2494.4	2071.5	1088.6	567.8	490.2
122.5°	1972.7	2361.8	1972.7	1059.8	602.3	519.1
125°	1853.3	2191.6	1853.3	1059.8	647.1	569.5
127.5°	1714.8	2048.9	1714.8	1061.2	690.3	611.4
130°	1622.1	1939.3	1622.1	1067.0	719.0	634.4
132.5°	1580.4	1841.3	1580.4	1067.0	747.8	663.3
135°	1526.3	1751.9	1526.3	1067.0	784.1	706.5
137.5°	1466.4	1659.6	1466.4	1067.0	825.7	742.6
140°	1431.5	1607.7	1431.5	1067.0	848.9	771.4
142.5°	1390.8	1555.8	1390.8	1072.7	872.1	800.2
145°	1329.7	1470.7	1329.7	1074.2	906.8	836.3
147.5°	1285.7	1394.3	1285.7	1082.8	941.6	879.5
150°	1256.5	1348.1	1256.5	1088.6	964.8	908.4
152.5°	1233.1	1307.8	1233.1	1088.6	988.0	937.2
155°	1205.2	1261.6	1205.2	1095.8	1015.7	980.5
157.5°	1187.6	1228.5	1187.6	1104.5	1048.9	1015.1
160°	1175.9	1211.2	1175.9	1110.2	1066.3	1038.1
162.5°	1169.9	1193.9	1169.9	1116.0	1083.6	1055.4
165°	1154.0	1175.1	1154.0	1124.7	1102.7	1088.6
167.5°	1146.6	1159.3	1146.6	1131.9	1120.0	1107.4
170°	1146.4	1153.5	1146.4	1131.9	1131.7	1124.7
172.5°	1140.7	1147.7	1140.7	1137.6	1143.1	1130.4
175°	1138.9	1131.9	1138.9	1146.3	1153.3	1146.3
177.5°	1146.2	1140.5	1146.2	1146.3	1151.9	1146.3
180°	1146.3	1146.3	1146.3	1146.3	1146.3	1146.3

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