

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: P621637

Luminaire Tested: VLT-FA-075U-100D-830-UNV-STD-W-4

Issue Date: 9/2/2020

**Test Information**

Test Method: LM-79-2019  
Report Number: P621637  
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-075U-100D-830-UNV-STD-W-4  
Description: CORELITE VAULT SUSPENDED LED LUMINAIRE  
LIGHT SHAPING LENS - ASYMMETRIC  
DOWNLIGHT 1000 LUMENS PER FOOT  
UPLIGHT 750 LUMENS PER FOOT  
Light Source: 3000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

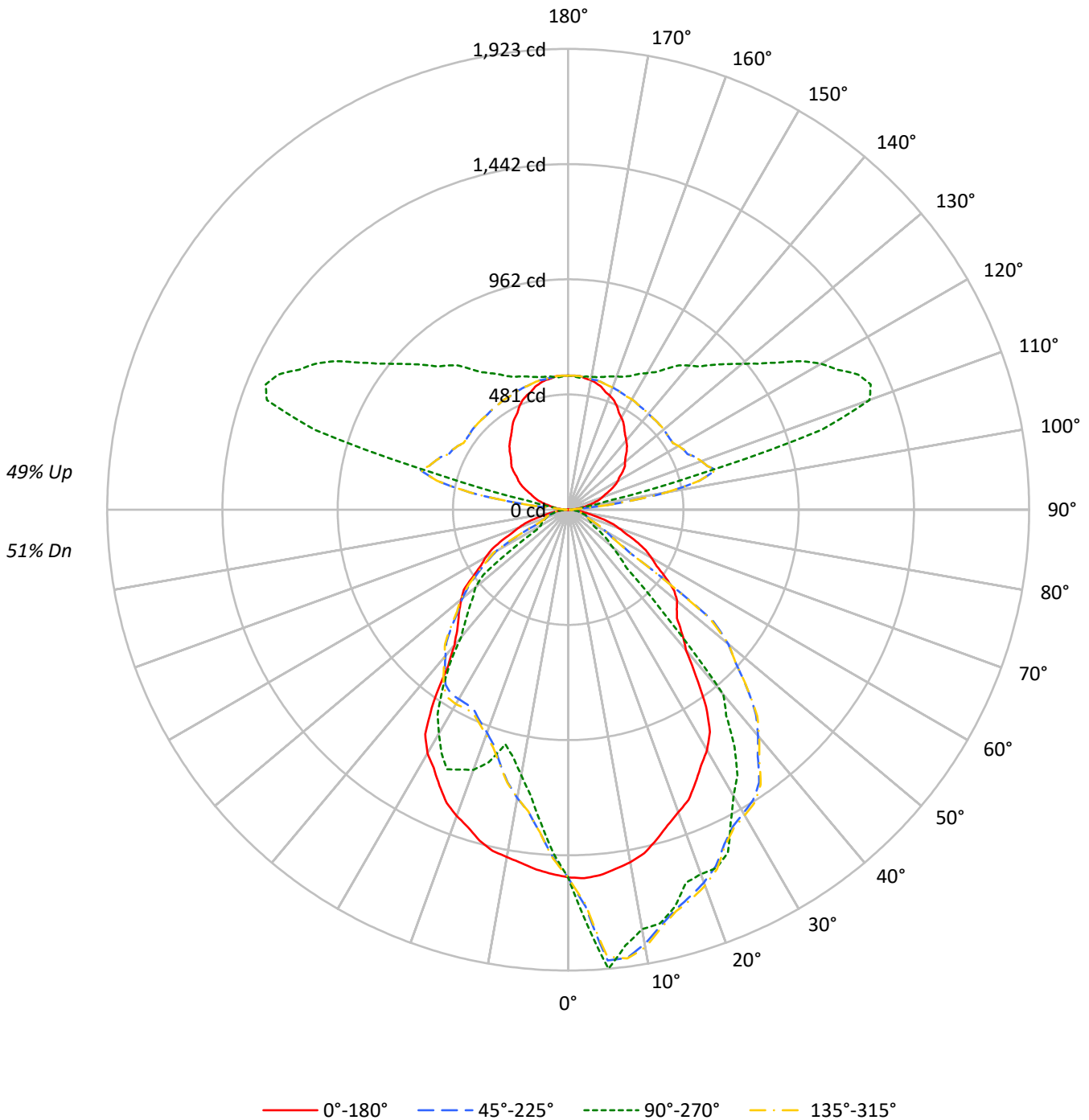
Lumens per Lamp: N/A  
Luminaire Lumens: 6171.3 lumens  
Efficiency: N/A  
Efficacy: 123.4 lumens/watt  
Spacing Criteria (0/90/45): 1.14 / 1.19 / 1.3  
Luminous Opening: Rectangular (W 0.38' x L: 4' x H: 0')  
CIE Type: General Diffuse

Input Watts (W): 50  
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



TEST NUMBER: P621637  
CATALOG NUMBER: VLT-FA-075U-100D-830-UNV-STD-W-4

### Luminous Intensity Polar Plot





TEST NUMBER: P621637

CATALOG NUMBER: VLT-FA-075U-100D-830-UNV-STD-W-4

**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	107	107	107	107	99	99	99	99	84	84	84	70	70	70	57	57	57	51				51
1	99	95	91	88	91	88	85	82	75	73	71	63	62	60	52	51	50				45	
2	91	84	78	73	84	78	73	69	67	63	60	56	54	52	47	45	44				39	
3	83	74	68	62	77	69	63	59	60	55	51	51	47	45	42	40	38				34	
4	77	66	59	53	71	62	55	50	53	48	45	46	42	39	38	36	33				30	
5	71	60	52	46	65	56	49	44	48	43	39	41	37	34	35	32	30				26	
6	65	54	46	40	60	50	43	38	44	38	34	38	33	30	32	29	26				24	
7	61	49	41	36	56	46	39	34	40	34	30	34	30	27	29	26	24				21	
8	56	44	37	32	52	42	35	30	36	31	27	32	27	24	27	24	21				19	
9	52	41	33	29	49	38	32	27	34	28	25	29	25	22	25	22	19				17	
10	49	37	30	26	46	35	29	25	31	26	22	27	23	20	23	20	18				16	

**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



TEST NUMBER: P621637

CATALOG NUMBER: VLT-FA-075U-100D-830-UNV-STD-W-4

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	148.0	2.4
10°-20°	405.4	6.6
20°-30°	606.5	9.8
30°-40°	689.8	11.2
40°-50°	590.0	9.6
50°-60°	397.8	6.4
60°-70°	205.3	3.3
70°-80°	92.7	1.5
80°-90°	28.8	0.5
90°-100°	68.8	1.1
100°-110°	490.4	7.9
110°-120°	665.8	10.8
120°-130°	541.9	8.8
130°-140°	435.8	7.1
140°-150°	343.6	5.6
150°-160°	251.2	4.1
160°-170°	156.1	2.5
170°-180°	53.2	0.9
0°-30°	1159.9	18.8
0°-40°	1849.7	30.0
0°-60°	2837.5	46.0
0°-90°	3164.4	51.3
90°-120°	1225.1	19.9
90°-150°	2546.4	41.3
90°-180°	3007.0	48.7
0°-180°	6171.3	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	11	0	11	0	2
95°	28	39	28	39	28	31
105°	109	539	109	539	109	115
115°	194	1334	194	1334	194	192
125°	278	1070	278	1070	278	247
135°	345	856	345	856	345	265
145°	408	718	408	718	408	257
155°	479	616	479	616	479	220
165°	532	574	532	574	532	149
175°	560	553	560	553	560	53
180°	560	560	560	560	560	



TEST NUMBER: P621637

CATALOG NUMBER: VLT-FA-075U-100D-830-UNV-STD-W-4

**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	11.8	11.4	9.6	9.6	9.6	10.1	10.6	6.2	13.0	12.6
90°	0.0	3.4	7.0	10.6	10.6	10.6	7.0	3.4	0.0	3.4	7.0
92.5°	8.4	11.9	15.5	21.9	24.6	21.9	15.5	11.9	8.4	11.9	15.5
95°	28.2	52.3	28.2	31.8	38.7	31.8	28.2	52.3	28.2	52.3	28.2
97.5°	50.0	100.3	207.0	61.1	52.8	61.1	207.0	100.3	50.0	100.3	207.0
100°	66.9	125.4	415.4	122.3	81.0	122.3	415.4	125.4	66.9	125.4	415.4
102.5°	83.8	145.1	561.9	322.7	176.7	322.7	561.9	145.1	83.8	145.1	561.9
105°	109.1	167.7	637.2	814.0	538.6	814.0	637.2	167.7	109.1	167.7	637.2
107.5°	134.5	178.5	608.4	1184.7	1109.7	1184.7	608.4	178.5	134.5	178.5	608.4
110°	151.4	192.7	591.5	1244.9	1337.8	1244.9	591.5	192.7	151.4	192.7	591.5



TEST NUMBER: P621637

CATALOG NUMBER: VLT-FA-075U-100D-830-UNV-STD-W-4

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
112.5°	168.3	209.6	574.6	1209.7	1366.0	1209.7	574.6	209.6	168.3	209.6	574.6
115°	193.6	234.9	549.2	1141.5	1334.3	1141.5	549.2	234.9	193.6	234.9	549.2
117.5°	219.7	260.3	542.9	1067.7	1266.0	1067.7	542.9	260.3	219.7	260.3	542.9
120°	239.4	277.3	531.6	1011.6	1218.1	1011.6	531.6	277.3	239.4	277.3	531.6
122.5°	253.5	294.1	517.5	963.3	1153.3	963.3	517.5	294.1	253.5	294.1	517.5
125°	278.1	316.0	517.5	905.0	1070.3	905.0	517.5	316.0	278.1	316.0	517.5
127.5°	298.5	337.1	518.2	837.4	1000.5	837.4	518.2	337.1	298.5	337.1	518.2
130°	309.8	351.1	521.0	792.1	947.0	792.1	521.0	351.1	309.8	351.1	521.0
132.5°	323.9	365.2	521.0	771.8	899.2	771.8	521.0	365.2	323.9	365.2	521.0
135°	345.0	382.9	521.0	745.3	855.5	745.3	521.0	382.9	345.0	382.9	521.0
137.5°	362.6	403.2	521.0	716.1	810.4	716.1	521.0	403.2	362.6	403.2	521.0
140°	376.7	414.6	521.0	699.0	785.1	699.0	521.0	414.6	376.7	414.6	521.0
142.5°	390.8	425.9	523.9	679.2	759.7	679.2	523.9	425.9	390.8	425.9	523.9
145°	408.4	442.8	524.6	649.4	718.2	649.4	524.6	442.8	408.4	442.8	524.6
147.5°	429.5	459.8	528.8	627.9	680.9	627.9	528.8	459.8	429.5	459.8	528.8
150°	443.6	471.1	531.6	613.6	658.3	613.6	531.6	471.1	443.6	471.1	531.6
152.5°	457.7	482.5	531.6	602.1	638.6	602.1	531.6	482.5	457.7	482.5	531.6
155°	478.8	496.0	535.1	588.6	616.1	588.6	535.1	496.0	478.8	496.0	535.1
157.5°	495.7	512.2	539.4	579.9	599.9	579.9	539.4	512.2	495.7	512.2	539.4
160°	507.0	520.7	542.2	574.2	591.5	574.2	542.2	520.7	507.0	520.7	542.2
162.5°	515.4	529.2	545.0	571.3	583.0	571.3	545.0	529.2	515.4	529.2	545.0
165°	531.6	538.5	549.2	563.5	573.9	563.5	549.2	538.5	531.6	538.5	549.2
167.5°	540.8	547.0	552.7	559.9	566.1	559.9	552.7	547.0	540.8	547.0	552.7
170°	549.2	552.7	552.7	559.9	563.3	559.9	552.7	552.7	549.2	552.7	552.7
172.5°	552.0	558.2	555.5	557.0	560.5	557.0	555.5	558.2	552.0	558.2	555.5
175°	559.8	563.2	559.8	556.2	552.7	556.2	559.8	563.2	559.8	563.2	559.8
177.5°	559.8	562.5	559.8	559.7	557.0	559.7	559.8	562.5	559.8	562.5	559.8
180°	559.8	559.8	559.8	559.8	559.8	559.8	559.8	559.8	559.8	559.8	559.8



TEST NUMBER: P621637

CATALOG NUMBER: VLT-FA-075U-100D-830-UNV-STD-W-4

**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°	12.1	10.9	13.3	15.1	14.3	7.5
90°	10.6	10.6	10.6	7.0	3.4	0.0
92.5°	21.9	24.6	21.9	15.5	11.9	8.4
95°	31.8	38.7	31.8	28.2	52.3	28.2
97.5°	61.1	52.8	61.1	207.0	100.3	50.0
100°	122.3	81.0	122.3	415.4	125.4	66.9
102.5°	322.7	176.7	322.7	561.9	145.1	83.8
105°	814.0	538.6	814.0	637.2	167.7	109.1
107.5°	1184.7	1109.7	1184.7	608.4	178.5	134.5
110°	1244.9	1337.8	1244.9	591.5	192.7	151.4





TEST NUMBER: P621637

CATALOG NUMBER: VLT-FA-075U-100D-830-UNV-STD-W-4

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
112.5°	1209.7	1366.0	1209.7	574.6	209.6	168.3
115°	1141.5	1334.3	1141.5	549.2	234.9	193.6
117.5°	1067.7	1266.0	1067.7	542.9	260.3	219.7
120°	1011.6	1218.1	1011.6	531.6	277.3	239.4
122.5°	963.3	1153.3	963.3	517.5	294.1	253.5
125°	905.0	1070.3	905.0	517.5	316.0	278.1
127.5°	837.4	1000.5	837.4	518.2	337.1	298.5
130°	792.1	947.0	792.1	521.0	351.1	309.8
132.5°	771.8	899.2	771.8	521.0	365.2	323.9
135°	745.3	855.5	745.3	521.0	382.9	345.0
137.5°	716.1	810.4	716.1	521.0	403.2	362.6
140°	699.0	785.1	699.0	521.0	414.6	376.7
142.5°	679.2	759.7	679.2	523.9	425.9	390.8
145°	649.4	718.2	649.4	524.6	442.8	408.4
147.5°	627.9	680.9	627.9	528.8	459.8	429.5
150°	613.6	658.3	613.6	531.6	471.1	443.6
152.5°	602.1	638.6	602.1	531.6	482.5	457.7
155°	588.6	616.1	588.6	535.1	496.0	478.8
157.5°	579.9	599.9	579.9	539.4	512.2	495.7
160°	574.2	591.5	574.2	542.2	520.7	507.0
162.5°	571.3	583.0	571.3	545.0	529.2	515.4
165°	563.5	573.9	563.5	549.2	538.5	531.6
167.5°	559.9	566.1	559.9	552.7	547.0	540.8
170°	559.9	563.3	559.9	552.7	552.7	549.2
172.5°	557.0	560.5	557.0	555.5	558.2	552.0
175°	556.2	552.7	556.2	559.8	563.2	559.8
177.5°	559.7	557.0	559.7	559.8	562.5	559.8
180°	559.8	559.8	559.8	559.8	559.8	559.8

(END OF REPORT)