

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: P621613

Luminaire Tested: VLT-FA-050U-100D-830-UNV-STD-W-4

Issue Date: 9/2/2020

Test Information

Test Method: LM-79-2019
Report Number: P621613
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-830-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: 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

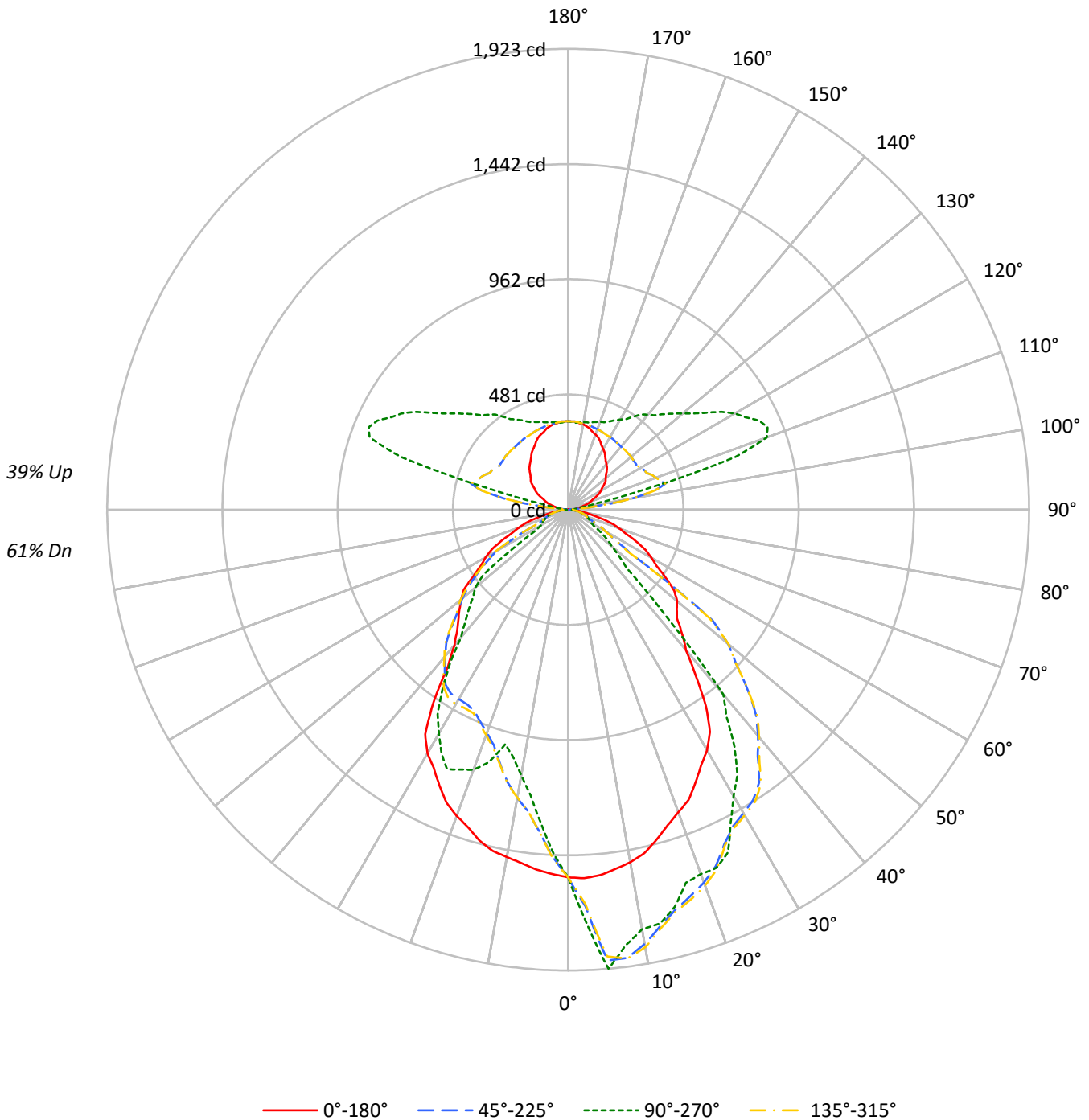
Lumens per Lamp: N/A
Luminaire Lumens: 5145.4 lumens
Efficiency: N/A
Efficacy: 117.5 lumens/watt
Spacing Criteria (0/90/45): 1.14 / 1.19 / 1.3
Luminous Opening: Rectangular (W 0.38' x L: 4' x H: 0')
CIE Type: Semi-Direct

Input Watts (W): 43.8
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



TEST NUMBER: P621613
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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	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	0														
RCR																																						
0	110	110	110	110	103	103	103	103	90	90	90	78	78	78	67	67	67	61	61	61	61	61	61	61														
1	101	97	94	91	95	91	88	86	80	78	76	70	68	67	61	59	58	54	54	54	54	54	54	54														
2	93	86	81	76	87	81	76	72	72	68	65	63	60	57	55	53	51	47	47	47	47	47	47	47														
3	86	77	70	64	80	72	66	61	64	59	55	56	53	50	49	47	44	41	41	41	41	41	41	41														
4	79	69	61	55	74	65	58	53	58	52	48	51	47	44	45	42	39	36	36	36	36	36	36	36														
5	73	62	54	48	68	58	51	46	52	46	42	46	42	38	41	37	35	32	32	32	32	32	32	32														
6	67	56	48	42	63	53	46	41	47	42	37	42	38	34	37	34	31	28	28	28	28	28	28	28														
7	63	51	43	37	59	48	41	36	43	37	33	38	34	30	34	31	28	25	25	25	25	25	25	25														
8	58	46	39	33	55	44	37	32	40	34	30	35	31	27	32	28	25	23	23	23	23	23	23	23														
9	54	42	35	30	51	40	34	29	36	31	27	33	28	25	29	26	23	21	21	21	21	21	21	21														
10	51	39	32	27	48	37	31	26	34	28	25	30	26	23	27	24	21	19	19	19	19	19	19	19														

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: P621613

CATALOG NUMBER: VLT-FA-050U-100D-830-UNV-STD-W-4

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	148.0	2.9
10°-20°	405.4	7.9
20°-30°	606.5	11.8
30°-40°	689.8	13.4
40°-50°	590.0	11.5
50°-60°	397.8	7.7
60°-70°	205.3	4.0
70°-80°	92.7	1.8
80°-90°	28.4	0.6
90°-100°	45.4	0.9
100°-110°	323.2	6.3
110°-120°	438.7	8.5
120°-130°	357.1	6.9
130°-140°	287.2	5.6
140°-150°	226.4	4.4
150°-160°	165.6	3.2
160°-170°	102.8	2.0
170°-180°	35.1	0.7
0°-30°	1159.9	22.5
0°-40°	1849.7	35.9
0°-60°	2837.5	55.1
0°-90°	3164.0	61.5
90°-120°	807.3	15.7
90°-150°	1677.9	32.6
90°-180°	1981.0	38.5
0°-180°	5145.4	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	7	0	7	0	2
95°	19	26	19	26	19	21
105°	72	355	72	355	72	76
115°	128	879	128	879	128	127
125°	183	705	183	705	183	163
135°	227	564	227	564	227	175
145°	269	473	269	473	269	169
155°	316	406	316	406	316	145
165°	350	378	350	378	350	98
175°	369	364	369	364	369	35
180°	369	369	369	369	369	



TEST NUMBER: P621613

CATALOG NUMBER: VLT-FA-050U-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	11.6	10.9	8.9	8.9	8.9	9.7	10.4	6.2	12.8	12.2
90°	0.0	2.3	4.6	7.0	7.0	7.0	4.6	2.3	0.0	2.3	4.6
92.5°	5.6	7.8	10.2	14.4	16.2	14.4	10.2	7.8	5.6	7.8	10.2
95°	18.6	34.4	18.6	21.0	25.5	21.0	18.6	34.4	18.6	34.4	18.6
97.5°	32.9	66.1	136.4	40.2	34.8	40.2	136.4	66.1	32.9	66.1	136.4
100°	44.1	82.6	273.7	80.6	53.4	80.6	273.7	82.6	44.1	82.6	273.7
102.5°	55.2	95.6	370.3	212.6	116.5	212.6	370.3	95.6	55.2	95.6	370.3
105°	71.9	110.5	419.9	536.4	354.9	536.4	419.9	110.5	71.9	110.5	419.9
107.5°	88.6	117.7	400.9	780.7	731.2	780.7	400.9	117.7	88.6	117.7	400.9
110°	99.8	127.0	389.7	820.3	881.6	820.3	389.7	127.0	99.8	127.0	389.7



TEST NUMBER: P621613

CATALOG NUMBER: VLT-FA-050U-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°	110.9	138.1	378.6	797.1	900.1	797.1	378.6	138.1	110.9	138.1	378.6
115°	127.6	154.8	361.9	752.2	879.2	752.2	361.9	154.8	127.6	154.8	361.9
117.5°	144.8	171.5	357.7	703.6	834.2	703.6	357.7	171.5	144.8	171.5	357.7
120°	157.8	182.7	350.3	666.6	802.7	666.6	350.3	182.7	157.8	182.7	350.3
122.5°	167.0	193.8	341.0	634.8	760.0	634.8	341.0	193.8	167.0	193.8	341.0
125°	183.3	208.2	341.0	596.4	705.2	596.4	341.0	208.2	183.3	208.2	341.0
127.5°	196.7	222.1	341.5	551.8	659.3	551.8	341.5	222.1	196.7	222.1	341.5
130°	204.2	231.4	343.3	522.0	624.1	522.0	343.3	231.4	204.2	231.4	343.3
132.5°	213.4	240.6	343.3	508.6	592.5	508.6	343.3	240.6	213.4	240.6	343.3
135°	227.3	252.3	343.3	491.1	563.7	491.1	343.3	252.3	227.3	252.3	343.3
137.5°	238.9	265.7	343.3	471.9	534.0	471.9	343.3	265.7	238.9	265.7	343.3
140°	248.2	273.2	343.3	460.6	517.3	460.6	343.3	273.2	248.2	273.2	343.3
142.5°	257.5	280.6	345.2	447.6	500.6	447.6	345.2	280.6	257.5	280.6	345.2
145°	269.1	291.8	345.7	427.9	473.3	427.9	345.7	291.8	269.1	291.8	345.7
147.5°	283.0	303.0	348.4	413.7	448.7	413.7	348.4	303.0	283.0	303.0	348.4
150°	292.3	310.5	350.3	404.3	433.8	404.3	350.3	310.5	292.3	310.5	350.3
152.5°	301.6	317.9	350.3	396.8	420.8	396.8	350.3	317.9	301.6	317.9	350.3
155°	315.5	326.8	352.6	387.8	406.0	387.8	352.6	326.8	315.5	326.8	352.6
157.5°	326.6	337.5	355.4	382.2	395.3	382.2	355.4	337.5	326.6	337.5	355.4
160°	334.1	343.1	357.3	378.4	389.7	378.4	357.3	343.1	334.1	343.1	357.3
162.5°	339.6	348.7	359.1	376.5	384.2	376.5	359.1	348.7	339.6	348.7	359.1
165°	350.3	354.8	361.9	371.3	378.1	371.3	361.9	354.8	350.3	354.8	361.9
167.5°	356.3	360.4	364.2	369.0	373.0	369.0	364.2	360.4	356.3	360.4	364.2
170°	361.9	364.2	364.2	368.9	371.2	368.9	364.2	364.2	361.9	364.2	364.2
172.5°	363.8	367.8	366.1	367.1	369.3	367.1	366.1	367.8	363.8	367.8	366.1
175°	368.9	371.1	368.9	366.5	364.2	366.5	368.9	371.1	368.9	371.1	368.9
177.5°	368.9	370.7	368.9	368.8	367.0	368.8	368.9	370.7	368.9	370.7	368.9
180°	368.9	368.9	368.9	368.9	368.9	368.9	368.9	368.9	368.9	368.9	368.9



TEST NUMBER: P621613

CATALOG NUMBER: VLT-FA-050U-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°	11.4	10.1	12.6	14.7	14.0	7.5
90°	7.0	7.0	7.0	4.6	2.3	0.0
92.5°	14.4	16.2	14.4	10.2	7.8	5.6
95°	21.0	25.5	21.0	18.6	34.4	18.6
97.5°	40.2	34.8	40.2	136.4	66.1	32.9
100°	80.6	53.4	80.6	273.7	82.6	44.1
102.5°	212.6	116.5	212.6	370.3	95.6	55.2
105°	536.4	354.9	536.4	419.9	110.5	71.9
107.5°	780.7	731.2	780.7	400.9	117.7	88.6
110°	820.3	881.6	820.3	389.7	127.0	99.8



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CATALOG NUMBER: VLT-FA-050U-100D-830-UNV-STD-W-4

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
112.5°	797.1	900.1	797.1	378.6	138.1	110.9
115°	752.2	879.2	752.2	361.9	154.8	127.6
117.5°	703.6	834.2	703.6	357.7	171.5	144.8
120°	666.6	802.7	666.6	350.3	182.7	157.8
122.5°	634.8	760.0	634.8	341.0	193.8	167.0
125°	596.4	705.2	596.4	341.0	208.2	183.3
127.5°	551.8	659.3	551.8	341.5	222.1	196.7
130°	522.0	624.1	522.0	343.3	231.4	204.2
132.5°	508.6	592.5	508.6	343.3	240.6	213.4
135°	491.1	563.7	491.1	343.3	252.3	227.3
137.5°	471.9	534.0	471.9	343.3	265.7	238.9
140°	460.6	517.3	460.6	343.3	273.2	248.2
142.5°	447.6	500.6	447.6	345.2	280.6	257.5
145°	427.9	473.3	427.9	345.7	291.8	269.1
147.5°	413.7	448.7	413.7	348.4	303.0	283.0
150°	404.3	433.8	404.3	350.3	310.5	292.3
152.5°	396.8	420.8	396.8	350.3	317.9	301.6
155°	387.8	406.0	387.8	352.6	326.8	315.5
157.5°	382.2	395.3	382.2	355.4	337.5	326.6
160°	378.4	389.7	378.4	357.3	343.1	334.1
162.5°	376.5	384.2	376.5	359.1	348.7	339.6
165°	371.3	378.1	371.3	361.9	354.8	350.3
167.5°	369.0	373.0	369.0	364.2	360.4	356.3
170°	368.9	371.2	368.9	364.2	364.2	361.9
172.5°	367.1	369.3	367.1	366.1	367.8	363.8
175°	366.5	364.2	366.5	368.9	371.1	368.9
177.5°	368.8	367.0	368.8	368.9	370.7	368.9
180°	368.9	368.9	368.9	368.9	368.9	368.9

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