

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: P621685

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

Issue Date: 9/2/2020

Test Information

Test Method: LM-79-2019
Report Number: P621685
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-100U-100D-830-UNV-STD-W-4
Description: CORELITE VAULT SUSPENDED LED LUMINAIRE
LIGHT SHAPING LENS - ASYMMETRIC
DOWNLIGHT 1000 LUMENS PER FOOT
UPLIGHT 1000 LUMENS PER FOOT
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

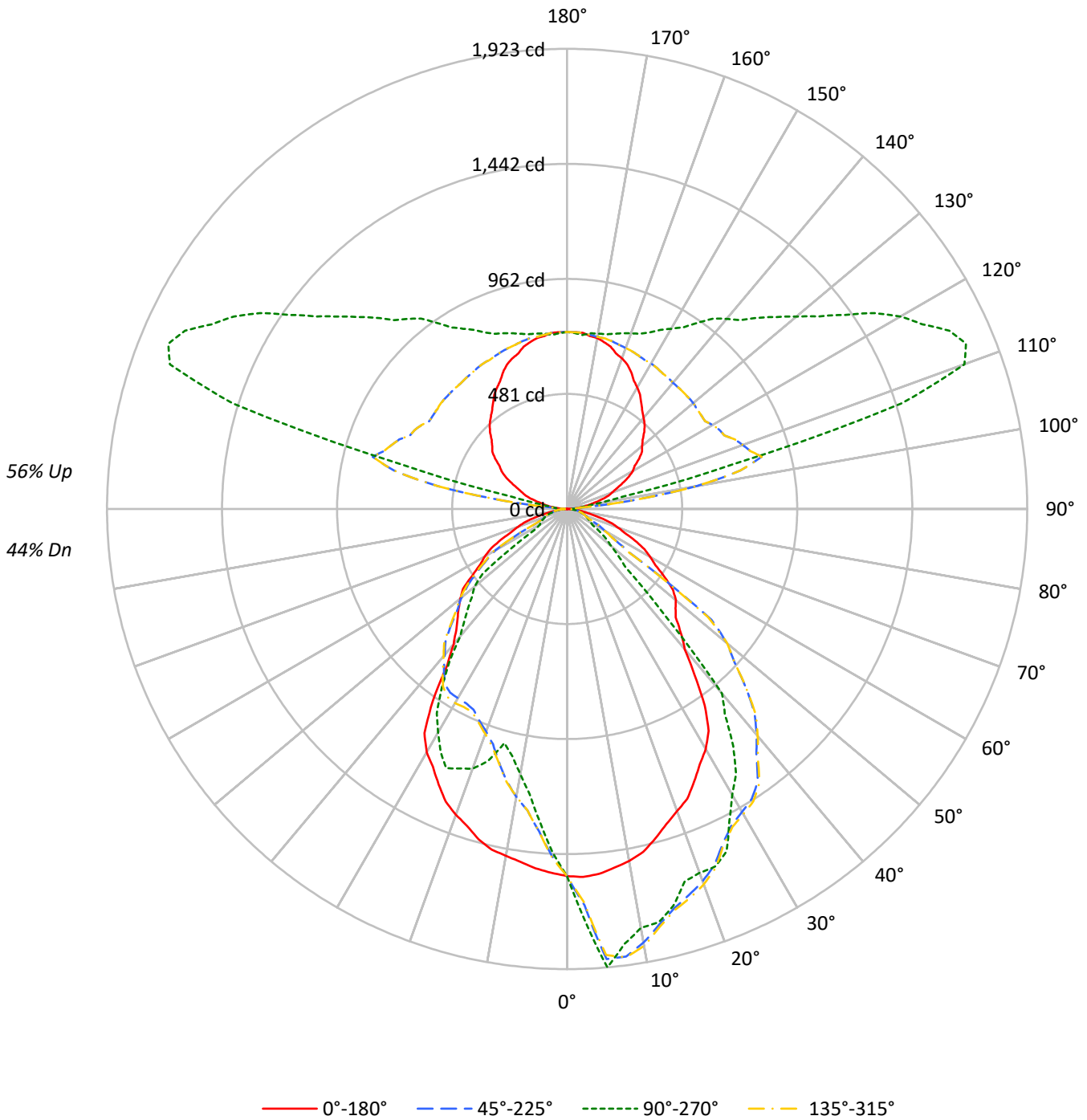
Lumens per Lamp: N/A
Luminaire Lumens: 7136.2 lumens
Efficiency: N/A
Efficacy: 122.6 lumens/watt
Spacing Criteria (0/90/45): 1.14 / 1.19 / 1.3
Luminous Opening: Rectangular (W 0.38' x L: 4' x H: 0')
CIE Type: General Diffuse

Input Watts (W): 58.2
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	0
RCR																		
0	106	106	106	106	97	97	97	97	80	80	80	65	65	65	51	51	51	44
1	97	93	90	86	89	86	83	80	71	69	67	58	57	56	46	45	44	39
2	89	82	77	72	82	76	71	67	63	60	57	52	50	48	42	40	39	34
3	82	73	66	61	75	67	61	57	57	52	49	47	44	41	37	35	34	29
4	75	65	58	52	69	60	54	49	51	46	42	42	39	36	34	32	30	26
5	69	58	51	45	63	54	47	42	46	41	37	38	34	31	31	28	26	23
6	64	52	45	39	58	49	42	37	41	36	32	35	31	28	28	25	23	20
7	59	47	40	35	54	44	37	33	38	32	29	32	28	25	26	23	21	18
8	55	43	36	31	50	40	34	29	34	29	26	29	25	22	24	21	19	17
9	51	39	32	27	47	37	30	26	32	27	23	27	23	20	22	19	17	15
10	48	36	29	25	44	34	28	23	29	24	21	25	21	18	21	18	16	14

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	2.1
10°-20°	405.4	5.7
20°-30°	606.5	8.5
30°-40°	689.8	9.7
40°-50°	590.0	8.3
50°-60°	397.8	5.6
60°-70°	205.3	2.9
70°-80°	92.7	1.3
80°-90°	29.2	0.4
90°-100°	90.9	1.3
100°-110°	647.7	9.1
110°-120°	879.4	12.3
120°-130°	715.7	10.0
130°-140°	575.6	8.1
140°-150°	453.8	6.4
150°-160°	331.8	4.7
160°-170°	206.1	2.9
170°-180°	70.3	1.0
0°-30°	1159.9	16.3
0°-40°	1849.7	25.9
0°-60°	2837.5	39.8
0°-90°	3164.8	44.3
90°-120°	1618.0	22.7
90°-150°	3363.2	47.1
90°-180°	3971.0	55.6
0°-180°	7136.2	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	14	0	14	0	3
95°	37	51	37	51	37	42
105°	144	711	144	711	144	152
115°	256	1762	256	1762	256	254
125°	367	1414	367	1414	367	326
135°	456	1130	456	1130	456	351
145°	539	949	539	949	539	339
155°	632	814	632	814	632	290
165°	702	758	702	758	702	197
175°	739	730	739	730	739	70
180°	739	739	739	739	739	



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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	12.1	11.8	10.3	10.3	10.3	10.6	10.8	6.2	13.3	13.1
90°	0.0	4.5	9.3	13.9	13.9	13.9	9.3	4.5	0.0	4.5	9.3
92.5°	11.2	15.7	20.5	28.9	32.5	28.9	20.5	15.7	11.2	15.7	20.5
95°	37.2	69.0	37.2	42.1	51.1	42.1	37.2	69.0	37.2	69.0	37.2
97.5°	66.0	132.4	273.4	80.7	69.7	80.7	273.4	132.4	66.0	132.4	273.4
100°	88.3	165.6	548.7	161.5	106.9	161.5	548.7	165.6	88.3	165.6	548.7
102.5°	110.7	191.6	742.1	426.2	233.4	426.2	742.1	191.6	110.7	191.6	742.1
105°	144.1	221.4	841.6	1075.1	711.4	1075.1	841.6	221.4	144.1	221.4	841.6
107.5°	177.6	235.8	803.5	1564.7	1465.6	1564.7	803.5	235.8	177.6	235.8	803.5
110°	199.9	254.5	781.2	1644.2	1766.9	1644.2	781.2	254.5	199.9	254.5	781.2



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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°	222.3	276.8	758.9	1597.7	1804.1	1597.7	758.9	276.8	222.3	276.8	758.9
115°	255.7	310.3	725.4	1507.7	1762.3	1507.7	725.4	310.3	255.7	310.3	725.4
117.5°	290.1	343.8	717.0	1410.2	1672.1	1410.2	717.0	343.8	290.1	343.8	717.0
120°	316.2	366.2	702.1	1336.0	1608.8	1336.0	702.1	366.2	316.2	366.2	702.1
122.5°	334.8	388.4	683.5	1272.3	1523.3	1272.3	683.5	388.4	334.8	388.4	683.5
125°	367.3	417.3	683.5	1195.3	1413.5	1195.3	683.5	417.3	367.3	417.3	683.5
127.5°	394.3	445.2	684.5	1106.0	1321.5	1106.0	684.5	445.2	394.3	445.2	684.5
130°	409.2	463.7	688.2	1046.2	1250.8	1046.2	688.2	463.7	409.2	463.7	688.2
132.5°	427.8	482.3	688.2	1019.3	1187.6	1019.3	688.2	482.3	427.8	482.3	688.2
135°	455.7	505.7	688.2	984.4	1129.9	984.4	688.2	505.7	455.7	505.7	688.2
137.5°	478.9	532.6	688.2	945.8	1070.4	945.8	688.2	532.6	478.9	532.6	688.2
140°	497.5	547.5	688.2	923.2	1036.9	923.2	688.2	547.5	497.5	547.5	688.2
142.5°	516.1	562.5	691.9	897.0	1003.4	897.0	691.9	562.5	516.1	562.5	691.9
145°	539.4	584.8	692.8	857.6	948.6	857.6	692.8	584.8	539.4	584.8	692.8
147.5°	567.3	607.3	698.4	829.3	899.3	829.3	698.4	607.3	567.3	607.3	698.4
150°	585.9	622.3	702.1	810.4	869.5	810.4	702.1	622.3	585.9	622.3	702.1
152.5°	604.5	637.2	702.1	795.3	843.5	795.3	702.1	637.2	604.5	637.2	702.1
155°	632.4	655.1	706.8	777.3	813.7	777.3	706.8	655.1	632.4	655.1	706.8
157.5°	654.7	676.5	712.4	766.0	792.3	766.0	712.4	676.5	654.7	676.5	712.4
160°	669.6	687.8	716.1	758.4	781.2	758.4	716.1	687.8	669.6	687.8	716.1
162.5°	680.7	698.9	719.8	754.6	770.0	754.6	719.8	698.9	680.7	698.9	719.8
165°	702.1	711.2	725.4	744.3	757.9	744.3	725.4	711.2	702.1	711.2	725.4
167.5°	714.2	722.4	730.0	739.5	747.7	739.5	730.0	722.4	714.2	722.4	730.0
170°	725.4	729.9	730.0	739.4	744.0	739.4	730.0	729.9	725.4	729.9	730.0
172.5°	729.1	737.3	733.7	735.7	740.3	735.7	733.7	737.3	729.1	737.3	733.7
175°	739.3	743.9	739.3	734.6	730.0	734.6	739.3	743.9	739.3	743.9	739.3
177.5°	739.3	743.0	739.3	739.2	735.6	739.2	739.3	743.0	739.3	743.0	739.3
180°	739.3	739.3	739.3	739.3	739.3	739.3	739.3	739.3	739.3	739.3	739.3



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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°	12.7	11.5	14.0	15.6	14.5	7.5
90°	13.9	13.9	13.9	9.3	4.5	0.0
92.5°	28.9	32.5	28.9	20.5	15.7	11.2
95°	42.1	51.1	42.1	37.2	69.0	37.2
97.5°	80.7	69.7	80.7	273.4	132.4	66.0
100°	161.5	106.9	161.5	548.7	165.6	88.3
102.5°	426.2	233.4	426.2	742.1	191.6	110.7
105°	1075.1	711.4	1075.1	841.6	221.4	144.1
107.5°	1564.7	1465.6	1564.7	803.5	235.8	177.6
110°	1644.2	1766.9	1644.2	781.2	254.5	199.9



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

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
112.5°	1597.7	1804.1	1597.7	758.9	276.8	222.3
115°	1507.7	1762.3	1507.7	725.4	310.3	255.7
117.5°	1410.2	1672.1	1410.2	717.0	343.8	290.1
120°	1336.0	1608.8	1336.0	702.1	366.2	316.2
122.5°	1272.3	1523.3	1272.3	683.5	388.4	334.8
125°	1195.3	1413.5	1195.3	683.5	417.3	367.3
127.5°	1106.0	1321.5	1106.0	684.5	445.2	394.3
130°	1046.2	1250.8	1046.2	688.2	463.7	409.2
132.5°	1019.3	1187.6	1019.3	688.2	482.3	427.8
135°	984.4	1129.9	984.4	688.2	505.7	455.7
137.5°	945.8	1070.4	945.8	688.2	532.6	478.9
140°	923.2	1036.9	923.2	688.2	547.5	497.5
142.5°	897.0	1003.4	897.0	691.9	562.5	516.1
145°	857.6	948.6	857.6	692.8	584.8	539.4
147.5°	829.3	899.3	829.3	698.4	607.3	567.3
150°	810.4	869.5	810.4	702.1	622.3	585.9
152.5°	795.3	843.5	795.3	702.1	637.2	604.5
155°	777.3	813.7	777.3	706.8	655.1	632.4
157.5°	766.0	792.3	766.0	712.4	676.5	654.7
160°	758.4	781.2	758.4	716.1	687.8	669.6
162.5°	754.6	770.0	754.6	719.8	698.9	680.7
165°	744.3	757.9	744.3	725.4	711.2	702.1
167.5°	739.5	747.7	739.5	730.0	722.4	714.2
170°	739.4	744.0	739.4	730.0	729.9	725.4
172.5°	735.7	740.3	735.7	733.7	737.3	729.1
175°	734.6	730.0	734.6	739.3	743.9	739.3
177.5°	739.2	735.6	739.2	739.3	743.0	739.3
180°	739.3	739.3	739.3	739.3	739.3	739.3

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