

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: P621506

Luminaire Tested: VLT-F-100U-050D-835-UNV-STD-W-4

Issue Date: 9/2/2020

Test Information

Test Method: LM-79-2019
Report Number: P621506
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2203-563-26, G2-2203-563-1)
Test Lab: INNOVATION CENTER
Issue Date: 9/2/2020
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: VLT-F-100U-050D-835-UNV-STD-W-4
Description: CORELITE VAULT SUSPENDED LED LUMINAIRE
FROSTED LENS
DOWNLIGHT 500 LUMENS PER FOOT
UPLIGHT 1000 LUMENS PER FOOT
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

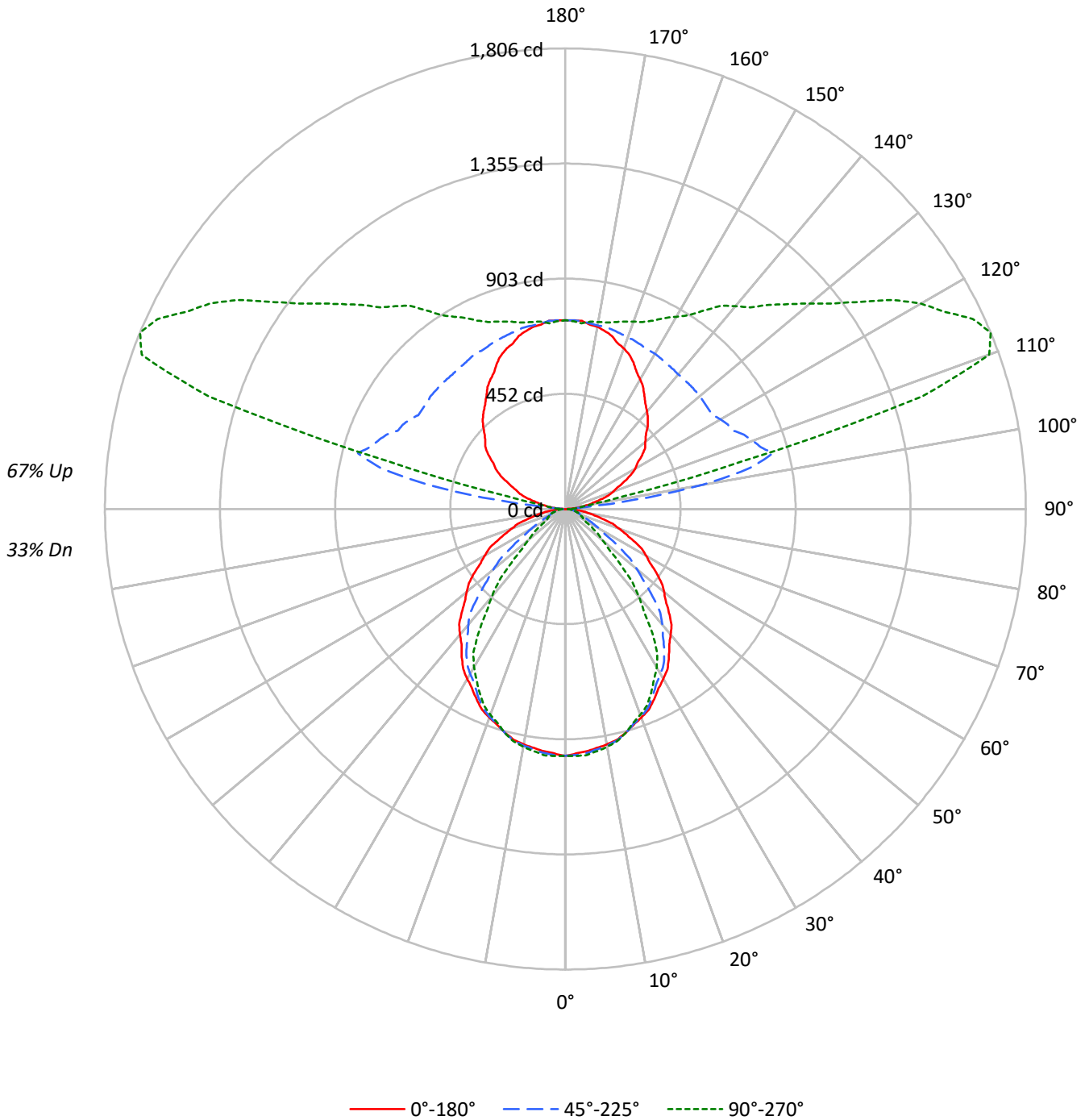
Lumens per Lamp: N/A
Luminaire Lumens: 5950.6 lumens
Efficiency: N/A
Efficacy: 137.1 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.12 / 1.23
Luminous Opening: Rectangular (W 0.38' x L: 4' x H: 0')
CIE Type: Semi-Indirect

Input Watts (W): 43.4
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: P621506
CATALOG NUMBER: VLT-F-100U-050D-835-UNV-STD-W-4

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	103	103	103	103	93	93	93	93	74	74	74	57	57	57	41	41	41	33
1	94	90	87	84	85	82	79	76	65	63	62	50	49	48	37	36	35	29
2	86	79	74	69	78	72	67	63	58	55	52	45	43	41	33	32	30	25
3	79	70	63	58	71	64	58	53	51	47	44	40	37	35	30	28	26	22
4	73	62	55	49	65	57	50	45	46	41	38	36	33	30	27	25	23	19
5	67	56	48	42	60	51	44	39	41	36	33	32	29	27	24	22	20	17
6	61	50	42	37	55	46	39	34	37	32	29	29	26	23	22	20	18	15
7	57	45	38	32	51	41	35	30	34	29	25	27	23	21	20	18	16	13
8	53	41	34	29	48	38	31	27	31	26	23	25	21	19	19	16	15	12
9	49	37	30	26	44	34	28	24	28	24	20	23	19	17	17	15	13	11
10	46	34	27	23	41	31	25	21	26	21	18	21	18	15	16	14	12	10

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6946	6946	6946
5°	6872	6922	6980
10°	6835	6864	6900
15°	6760	6768	6768
20°	6651	6621	6560
25°	6524	6413	6303
30°	6372	6190	5941
35°	6202	5922	5212
40°	6023	5546	4197
45°	5835	4912	3044
50°	5638	4108	2110
55°	5442	3128	1576
60°	5238	2167	1191
65°	5009	1545	1223
70°	4679	1301	1259
75°	4325	1331	1275
80°	3761	1405	1322
85°	3046	1564	1317

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 5835 cd/sqm



TEST NUMBER: P621506

CATALOG NUMBER: VLT-F-100U-050D-835-UNV-STD-W-4

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	91.2	1.5
10°-20°	256.5	4.3
20°-30°	373.1	6.3
30°-40°	412.8	6.9
40°-50°	354.4	6.0
50°-60°	245.4	4.1
60°-70°	146.2	2.5
70°-80°	72.0	1.2
80°-90°	23.9	0.4
90°-100°	91.0	1.5
100°-110°	648.3	10.9
110°-120°	880.2	14.8
120°-130°	716.4	12.0
130°-140°	576.2	9.7
140°-150°	454.2	7.6
150°-160°	332.1	5.6
160°-170°	206.3	3.5
170°-180°	70.3	1.2
0°-30°	720.8	12.1
0°-40°	1133.6	19.1
0°-60°	1733.4	29.1
0°-90°	1975.6	33.2
90°-120°	1619.5	27.2
90°-150°	3366.3	56.6
90°-180°	3975.0	66.8
0°-180°	5950.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	968	968	968	968	968	
5°	954	969	961	960	969	91
15°	910	922	911	906	911	256
25°	824	830	810	796	796	379
35°	708	706	676	621	595	442
45°	575	565	484	350	300	444
55°	435	416	250	144	126	389
65°	295	237	91	73	72	292
75°	156	68	48	47	46	165
85°	37	18	19	17	16	43
90°	0	5	9	14	14	3
95°	37	69	37	42	51	42
105°	144	222	842	1076	712	152
115°	256	311	726	1509	1764	254
125°	368	418	684	1196	1415	327
135°	456	506	689	985	1131	351
145°	540	585	693	858	949	339
155°	633	656	707	778	814	291
165°	703	712	726	745	759	197
175°	740	744	740	735	731	70
180°	740	740	740	740	740	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	968.0	968.0	968.0	968.0	968.0
2.5°	960.0	971.0	965.6	965.7	969.6
5°	954.0	968.7	961.0	960.2	969.0
7.5°	945.2	958.7	950.8	949.8	957.4
10°	938.0	950.7	942.0	940.2	947.0
12.5°	927.6	940.3	930.8	927.4	934.2
15°	910.0	921.7	911.0	906.1	911.0
17.5°	887.8	897.6	885.4	877.7	880.6
20°	871.0	880.8	867.0	856.1	859.0
22.5°	852.6	860.8	845.4	832.9	835.0
25°	824.0	829.9	810.0	796.0	796.0
27.5°	792.2	795.7	772.6	757.9	753.8
30°	769.0	771.0	747.0	729.7	717.0
32.5°	745.0	746.2	719.0	691.2	671.4
35°	708.0	706.0	676.0	621.4	595.0
37.5°	668.6	664.3	628.8	545.7	506.4
40°	643.0	637.1	592.0	492.0	448.0
42.5°	616.6	608.4	551.2	436.7	388.0
45°	575.0	565.2	484.0	349.9	300.0
47.5°	533.8	520.9	415.2	271.0	228.2
50°	505.0	491.3	368.0	223.2	189.0
52.5°	476.2	462.5	320.0	187.4	160.2
55°	435.0	416.4	250.0	143.6	126.0
57.5°	393.0	366.4	186.2	111.9	98.2
60°	365.0	329.8	151.0	92.8	83.0
62.5°	337.8	293.2	123.8	81.0	79.0
65°	295.0	237.3	91.0	73.0	72.0
67.5°	254.2	181.1	67.6	65.8	64.8
70°	223.0	142.8	62.0	61.0	60.0
72.5°	195.0	109.3	56.4	55.4	54.4
75°	156.0	68.0	48.0	47.0	46.0
77.5°	116.6	42.9	39.6	38.6	37.6
80°	91.0	35.3	34.0	33.0	32.0
82.5°	68.6	28.5	27.6	26.6	25.6
85°	37.0	18.4	19.0	17.0	16.0
87.5°	12.8	9.8	10.7	10.0	9.2
90°	0.0	4.6	9.3	14.0	14.0
92.5°	11.2	15.7	20.5	28.9	32.6
95°	37.2	69.1	37.2	42.1	51.2
97.5°	66.1	132.5	273.7	80.7	69.8
100°	88.4	165.8	549.2	161.6	107.0
102.5°	110.8	191.8	742.8	426.6	233.6
105°	144.3	221.6	842.4	1076.1	712.1
107.5°	177.8	236.0	804.2	1566.2	1466.9
110°	200.1	254.7	781.9	1645.7	1768.5



TEST NUMBER: P621506

CATALOG NUMBER: VLT-F-100U-050D-835-UNV-STD-W-4

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	222.5	277.1	759.5	1599.2	1805.8
115°	256.0	310.6	726.0	1509.0	1763.9
117.5°	290.4	344.1	717.7	1411.5	1673.6
120°	316.5	366.5	702.8	1337.3	1610.3
122.5°	335.1	388.8	684.1	1273.5	1524.7
125°	367.7	417.7	684.1	1196.4	1414.8
127.5°	394.7	445.6	685.1	1107.0	1322.7
130°	409.6	464.2	688.8	1047.2	1251.9
132.5°	428.2	482.8	688.8	1020.3	1188.6
135°	456.1	506.2	688.8	985.3	1130.9
137.5°	479.4	533.1	688.8	946.7	1071.4
140°	498.0	548.0	688.8	924.1	1037.8
142.5°	516.6	563.0	692.5	897.9	1004.3
145°	539.9	585.4	693.4	858.4	949.4
147.5°	567.8	607.8	699.0	830.0	900.1
150°	586.4	622.8	702.8	811.1	870.3
152.5°	605.0	637.8	702.8	796.0	844.2
155°	632.9	655.7	707.4	778.0	814.5
157.5°	655.3	677.1	713.0	766.7	793.0
160°	670.2	688.4	716.7	759.1	781.9
162.5°	681.3	699.6	720.4	755.2	770.7
165°	702.8	711.9	726.0	745.0	758.6
167.5°	714.9	723.0	730.7	740.2	748.4
170°	726.0	730.6	730.7	740.1	744.6
172.5°	729.8	737.9	734.4	736.4	740.9
175°	740.0	744.5	740.0	735.2	730.7
177.5°	740.0	743.6	740.0	739.9	736.3
180°	740.0	740.0	740.0	740.0	740.0



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CIE UGR TABLE:

Reflectances:											
Ceiling		0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
Wall		0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
Reference plane		0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Room dimensions		Viewed crosswise					Viewed endwise				
X=2H	Y=2H	12.54	13.24	13.63	14.32	15.82	4.77	5.47	5.87	6.56	8.05
	3H	14.02	14.64	15.12	15.74	17.25	6.11	6.74	7.22	7.83	9.35
	4H	14.52	15.12	15.64	16.21	17.73	6.76	7.35	7.88	8.45	9.97
	6H	14.91	15.46	16.04	16.56	18.09	7.34	7.88	8.46	8.99	10.52
	8H	15.04	15.56	16.17	16.67	18.20	7.56	8.08	8.69	9.20	10.72
	12H	15.12	15.61	16.25	16.72	18.26	7.72	8.21	8.85	9.32	10.87
4H	2H	12.35	12.94	13.47	14.04	15.56	5.37	5.96	6.49	7.06	8.58
	3H	13.97	14.46	15.10	15.59	17.12	6.91	7.40	8.03	8.52	10.05
	4H	14.55	15.00	15.68	16.12	17.67	7.70	8.15	8.83	9.26	10.81
	6H	15.04	15.42	16.18	16.56	18.11	8.43	8.81	9.57	9.95	11.49
	8H	15.22	15.58	16.36	16.71	18.27	8.72	9.08	9.85	10.21	11.76
	12H	15.34	15.67	16.50	16.81	18.38	8.93	9.25	10.08	10.39	11.96
8H	4H	14.46	14.82	15.60	15.95	17.51	8.14	8.50	9.28	9.63	11.19
	6H	14.99	15.29	16.15	16.46	18.01	9.02	9.31	10.17	10.49	12.04
	8H	15.22	15.48	16.39	16.63	18.21	9.41	9.67	10.58	10.82	12.40
	12H	15.41	15.63	16.57	16.78	18.39	9.73	9.95	10.89	11.10	12.71
12H	4H	14.40	14.73	15.56	15.87	17.43	8.18	8.51	9.33	9.65	11.21
	6H	14.96	15.22	16.13	16.37	17.95	9.13	9.39	10.30	10.54	12.12
	8H	15.20	15.43	16.36	16.57	18.18	9.57	9.80	10.73	10.94	12.55