

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: P621505

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

Issue Date: 9/2/2020

Test Information

Test Method: LM-79-2019
Report Number: P621505
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-830-UNV-STD-W-4
Description: CORELITE VAULT SUSPENDED LED LUMINAIRE
FROSTED LENS
DOWNLIGHT 500 LUMENS PER FOOT
UPLIGHT 1000 LUMENS PER FOOT
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

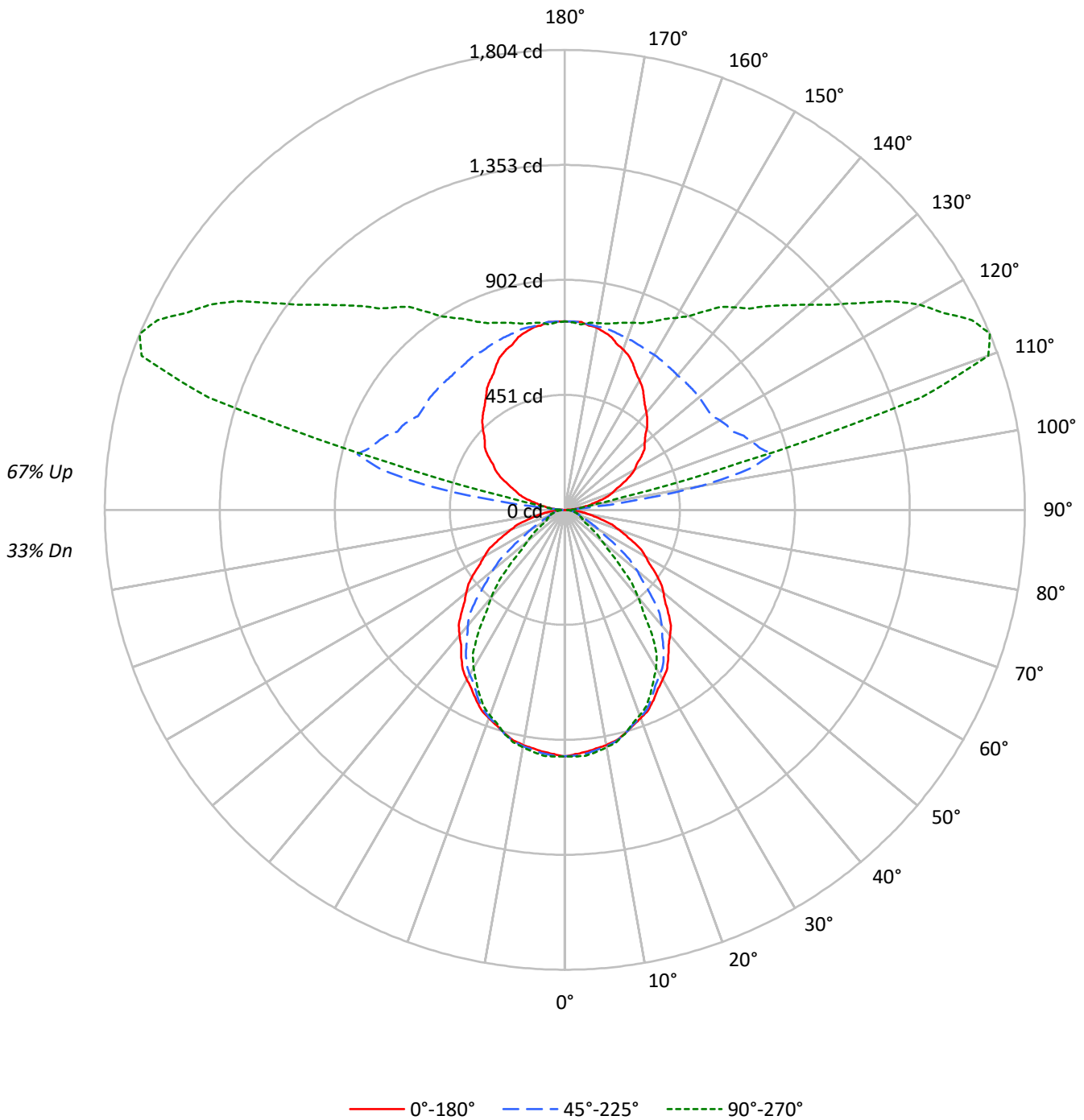
Lumens per Lamp: N/A
Luminaire Lumens: 5945.2 lumens
Efficiency: N/A
Efficacy: 137.0 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.12 / 1.23
Luminous Opening: Rectangular (W 0.38' x L: 4' x H: 0')
CIE Type: Semi-Indirect

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



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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	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°	6940	6940	6940
5°	6866	6916	6974
10°	6829	6858	6894
15°	6755	6762	6762
20°	6645	6615	6554
25°	6519	6408	6297
30°	6366	6184	5936
35°	6197	5917	5208
40°	6018	5541	4193
45°	5830	4908	3041
50°	5632	4105	2108
55°	5437	3125	1575
60°	5234	2166	1190
65°	5004	1543	1221
70°	4675	1299	1257
75°	4322	1331	1275
80°	3756	1405	1322
85°	3046	1564	1317

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 5830 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	91.1	1.5
10°-20°	256.3	4.3
20°-30°	372.8	6.3
30°-40°	412.4	6.9
40°-50°	354.1	6.0
50°-60°	245.2	4.1
60°-70°	146.1	2.5
70°-80°	72.0	1.2
80°-90°	23.9	0.4
90°-100°	90.9	1.5
100°-110°	647.7	10.9
110°-120°	879.4	14.8
120°-130°	715.7	12.0
130°-140°	575.6	9.7
140°-150°	453.8	7.6
150°-160°	331.8	5.6
160°-170°	206.1	3.5
170°-180°	70.3	1.2
0°-30°	720.2	12.1
0°-40°	1132.6	19.1
0°-60°	1731.8	29.1
0°-90°	1973.8	33.2
90°-120°	1618.0	27.2
90°-150°	3363.2	56.6
90°-180°	3971.0	66.8
0°-180°	5945.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	967	967	967	967	967	
5°	953	968	960	959	968	90
15°	909	921	910	905	910	256
25°	823	829	809	795	795	379
35°	707	705	675	621	594	442
45°	574	565	484	350	300	443
55°	435	416	250	144	126	388
65°	295	237	91	73	72	292
75°	156	68	48	47	46	164
85°	37	18	19	17	16	43
90°	0	4	9	14	14	3
95°	37	69	37	42	51	42
105°	144	221	842	1075	711	152
115°	256	310	725	1508	1762	254
125°	367	417	684	1195	1414	326
135°	456	506	688	984	1130	351
145°	539	585	693	858	949	339
155°	632	655	707	777	814	290
165°	702	711	725	744	758	197
175°	739	744	739	735	730	70
180°	739	739	739	739	739	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	967.1	967.1	967.1	967.1	967.1
2.5°	959.1	970.1	964.7	964.8	968.7
5°	953.1	967.8	960.1	959.3	968.1
7.5°	944.3	957.8	949.9	948.9	956.5
10°	937.2	949.9	941.2	939.3	946.1
12.5°	926.8	939.5	930.0	926.5	933.4
15°	909.2	920.9	910.2	905.3	910.2
17.5°	887.0	896.8	884.6	876.9	879.8
20°	870.2	880.0	866.2	855.3	858.2
22.5°	851.8	860.0	844.6	832.1	834.2
25°	823.3	829.1	809.3	795.3	795.3
27.5°	791.5	795.0	771.9	757.2	753.1
30°	768.3	770.3	746.3	729.1	716.4
32.5°	744.3	745.5	718.4	690.5	670.8
35°	707.4	705.4	675.4	620.8	594.5
37.5°	668.0	663.7	628.2	545.2	505.9
40°	642.4	636.6	591.5	491.6	447.6
42.5°	616.0	607.8	550.7	436.3	387.7
45°	574.5	564.7	483.6	349.6	299.7
47.5°	533.3	520.4	414.8	270.8	228.0
50°	504.5	490.9	367.7	223.0	188.8
52.5°	475.8	462.1	319.7	187.2	160.1
55°	434.6	416.0	249.8	143.5	125.9
57.5°	392.6	366.1	186.0	111.8	98.1
60°	364.7	329.5	150.9	92.7	82.9
62.5°	337.5	292.9	123.7	80.9	78.9
65°	294.7	237.1	90.9	72.9	71.9
67.5°	254.0	180.9	67.5	65.7	64.7
70°	222.8	142.7	61.9	60.9	59.9
72.5°	194.8	109.2	56.3	55.3	54.4
75°	155.9	67.9	48.0	46.9	46.0
77.5°	116.5	42.8	39.6	38.5	37.6
80°	90.9	35.2	34.0	32.9	32.0
82.5°	68.5	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	4.5	9.3	13.9	13.9
92.5°	11.2	15.7	20.5	28.9	32.5
95°	37.2	69.0	37.2	42.1	51.1
97.5°	66.0	132.4	273.4	80.7	69.7
100°	88.3	165.6	548.7	161.5	106.9
102.5°	110.7	191.6	742.1	426.2	233.4
105°	144.1	221.4	841.6	1075.1	711.4
107.5°	177.6	235.8	803.5	1564.7	1465.6
110°	199.9	254.5	781.2	1644.2	1766.9



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	222.3	276.8	758.9	1597.7	1804.1
115°	255.7	310.3	725.4	1507.7	1762.3
117.5°	290.1	343.8	717.0	1410.2	1672.1
120°	316.2	366.2	702.1	1336.0	1608.8
122.5°	334.8	388.4	683.5	1272.3	1523.3
125°	367.3	417.3	683.5	1195.3	1413.5
127.5°	394.3	445.2	684.5	1106.0	1321.5
130°	409.2	463.7	688.2	1046.2	1250.8
132.5°	427.8	482.3	688.2	1019.3	1187.6
135°	455.7	505.7	688.2	984.4	1129.9
137.5°	478.9	532.6	688.2	945.8	1070.4
140°	497.5	547.5	688.2	923.2	1036.9
142.5°	516.1	562.5	691.9	897.0	1003.4
145°	539.4	584.8	692.8	857.6	948.6
147.5°	567.3	607.3	698.4	829.3	899.3
150°	585.9	622.3	702.1	810.4	869.5
152.5°	604.5	637.2	702.1	795.3	843.5
155°	632.4	655.1	706.8	777.3	813.7
157.5°	654.7	676.5	712.4	766.0	792.3
160°	669.6	687.8	716.1	758.4	781.2
162.5°	680.7	698.9	719.8	754.6	770.0
165°	702.1	711.2	725.4	744.3	757.9
167.5°	714.2	722.4	730.0	739.5	747.7
170°	725.4	729.9	730.0	739.4	744.0
172.5°	729.1	737.3	733.7	735.7	740.3
175°	739.3	743.9	739.3	734.6	730.0
177.5°	739.3	743.0	739.3	739.2	735.6
180°	739.3	739.3	739.3	739.3	739.3



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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	12.53	13.23	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	6.73	7.21	7.83	9.34
	4H	14.52	15.11	15.64	16.21	17.73	6.75	7.35	7.87	8.45	9.96
	6H	14.91	15.45	16.03	16.56	18.09	7.34	7.88	8.46	8.98	10.51
	8H	15.04	15.55	16.17	16.67	18.20	7.56	8.07	8.69	9.19	10.72
	12H	15.11	15.60	16.24	16.71	18.26	7.72	8.21	8.85	9.32	10.87
4H	2H	12.34	12.93	13.47	14.03	15.55	5.36	5.96	6.49	7.06	8.57
	3H	13.97	14.46	15.09	15.58	17.11	6.90	7.39	8.03	8.52	10.05
	4H	14.55	15.00	15.68	16.12	17.67	7.69	8.14	8.82	9.26	10.81
	6H	15.03	15.42	16.17	16.56	18.10	8.42	8.81	9.56	9.95	11.49
	8H	15.22	15.58	16.36	16.71	18.27	8.71	9.07	9.85	10.20	11.76
	12H	15.34	15.67	16.50	16.81	18.37	8.92	9.25	10.08	10.39	11.95
8H	4H	14.46	14.82	15.59	15.95	17.50	8.13	8.49	9.27	9.62	11.18
	6H	14.99	15.28	16.14	16.45	18.01	9.01	9.31	10.17	10.48	12.04
	8H	15.22	15.48	16.38	16.63	18.21	9.41	9.67	10.57	10.82	12.39
	12H	15.40	15.63	16.57	16.78	18.39	9.72	9.95	10.89	11.10	12.71
12H	4H	14.40	14.73	15.55	15.87	17.43	8.18	8.50	9.33	9.64	11.21
	6H	14.96	15.22	16.12	16.37	17.95	9.13	9.39	10.29	10.54	12.11
	8H	15.19	15.42	16.36	16.57	18.18	9.56	9.79	10.73	10.94	12.55