

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: P621434

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

Issue Date: 9/2/2020

**Test Information**

Test Method: LM-79-2019  
Report Number: P621434  
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-050U-050D-835-UNV-STD-W-4  
Description: CORELITE VAULT SUSPENDED LED LUMINAIRE  
FROSTED LENS  
DOWNLIGHT 500 LUMENS PER FOOT  
UPLIGHT 500 LUMENS PER FOOT  
Light Source: 3500K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

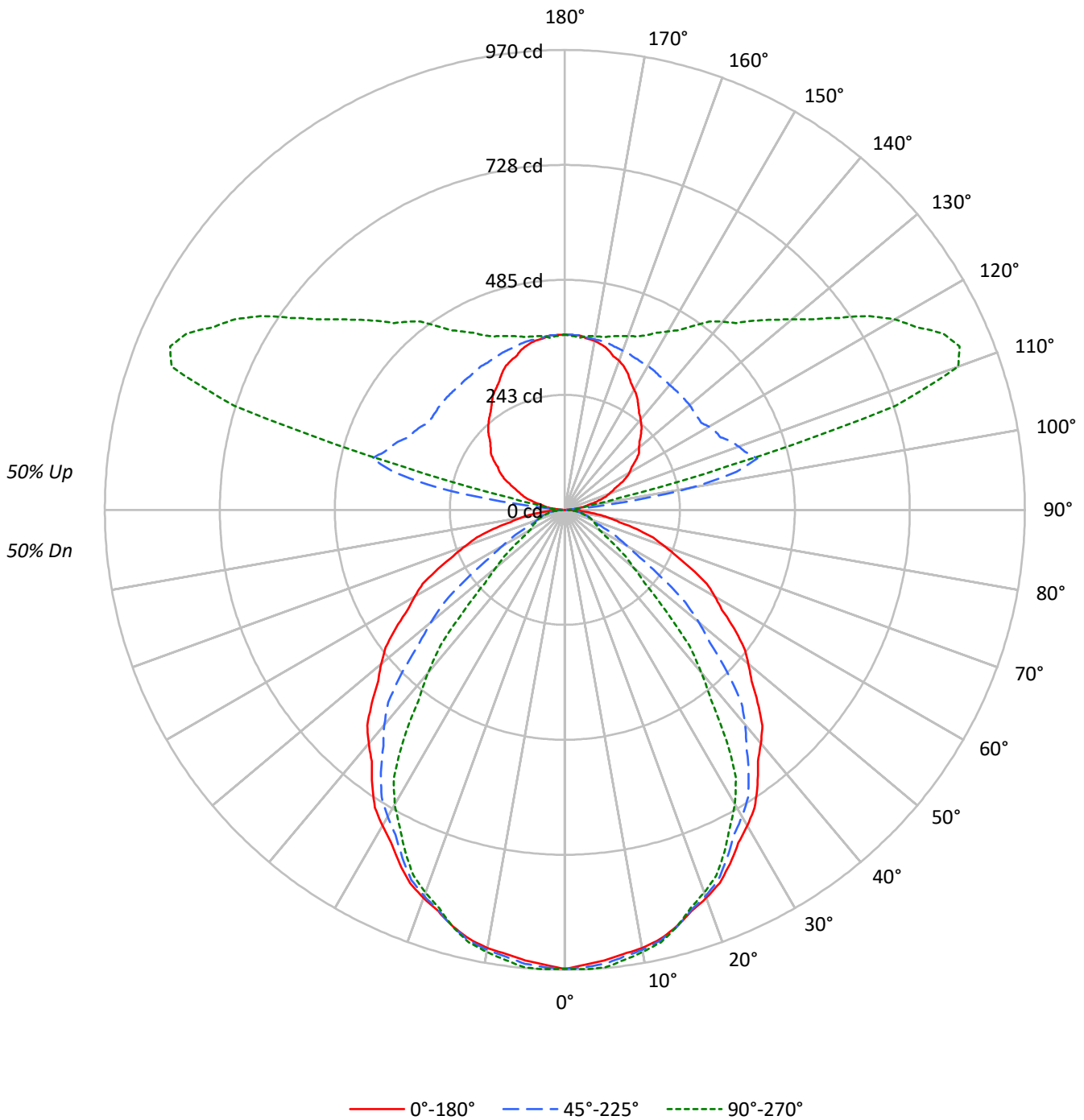
Lumens per Lamp: N/A  
Luminaire Lumens: 3958.0 lumens  
Efficiency: N/A  
Efficacy: 136.5 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 1.12 / 1.23  
Luminous Opening: Rectangular (W 0.38' x L: 4' x H: 0')  
CIE Type: General Diffuse

Input Watts (W): 29  
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	107	107	107	107	99	99	99	99	83	83	83	69	69	69	56	56	56	50
1	98	94	91	87	91	87	84	81	74	72	70	62	60	59	51	50	49	43
2	90	83	78	73	83	77	72	68	66	62	59	55	53	50	45	44	42	38
3	83	74	67	61	76	69	63	58	59	54	50	49	46	43	41	39	37	33
4	76	66	58	53	70	61	55	50	53	48	44	44	41	38	37	34	32	29
5	70	59	51	45	65	55	48	43	47	42	38	40	36	33	34	31	28	25
6	65	53	45	40	60	50	43	38	43	38	34	37	33	29	31	28	25	23
7	60	48	41	35	55	45	38	33	39	34	30	34	29	26	28	25	23	20
8	56	44	36	31	52	41	34	30	36	30	27	31	27	24	26	23	21	18
9	52	40	33	28	48	38	31	27	33	28	24	28	24	21	24	21	19	17
10	49	37	30	25	45	35	28	24	30	25	22	26	22	19	23	19	17	15

**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



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	91.2	2.3
10°-20°	256.5	6.5
20°-30°	373.1	9.4
30°-40°	412.8	10.4
40°-50°	354.4	9.0
50°-60°	245.4	6.2
60°-70°	146.2	3.7
70°-80°	72.0	1.8
80°-90°	23.1	0.6
90°-100°	45.4	1.1
100°-110°	323.5	8.2
110°-120°	439.1	11.1
120°-130°	357.4	9.0
130°-140°	287.5	7.3
140°-150°	226.6	5.7
150°-160°	165.7	4.2
160°-170°	102.9	2.6
170°-180°	35.1	0.9
0°-30°	720.8	18.2
0°-40°	1133.6	28.6
0°-60°	1733.4	43.8
0°-90°	1974.7	49.9
90°-120°	808.0	20.4
90°-150°	1679.5	42.4
90°-180°	1983.0	50.1
0°-180°	3958.0	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	2	5	7	7	3
95°	19	34	19	21	26	21
105°	72	111	420	537	355	76
115°	128	155	362	753	880	127
125°	183	208	341	597	706	163
135°	228	252	344	492	564	175
145°	269	292	346	428	474	169
155°	316	327	353	388	406	145
165°	351	355	362	372	378	98
175°	369	372	369	367	365	35
180°	369	369	369	369	369	



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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	9.3	9.7	8.6	7.8
90°	0.0	2.3	4.6	7.0	7.0
92.5°	5.6	7.8	10.2	14.4	16.3
95°	18.6	34.5	18.6	21.0	25.5
97.5°	33.0	66.1	136.5	40.3	34.8
100°	44.1	82.7	274.0	80.7	53.4
102.5°	55.3	95.7	370.6	212.8	116.6
105°	72.0	110.6	420.3	536.9	355.3
107.5°	88.7	117.8	401.2	781.4	731.9
110°	99.8	127.1	390.1	821.1	882.4



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	111.0	138.2	378.9	797.9	900.9
115°	127.7	155.0	362.2	752.9	880.0
117.5°	144.9	171.7	358.0	704.2	835.0
120°	157.9	182.9	350.6	667.2	803.4
122.5°	167.2	194.0	341.3	635.4	760.7
125°	183.4	208.4	341.3	596.9	705.9
127.5°	196.9	222.3	341.8	552.3	659.9
130°	204.3	231.6	343.7	522.4	624.6
132.5°	213.6	240.9	343.7	509.0	593.0
135°	227.6	252.5	343.7	491.6	564.2
137.5°	239.2	266.0	343.7	472.3	534.5
140°	248.5	273.4	343.7	461.0	517.8
142.5°	257.7	280.9	345.5	448.0	501.1
145°	269.4	292.1	346.0	428.3	473.7
147.5°	283.3	303.3	348.8	414.1	449.1
150°	292.6	310.7	350.6	404.7	434.2
152.5°	301.9	318.2	350.6	397.1	421.2
155°	315.8	327.1	352.9	388.2	406.3
157.5°	326.9	337.8	355.7	382.5	395.7
160°	334.4	343.4	357.6	378.7	390.1
162.5°	339.9	349.0	359.4	376.8	384.5
165°	350.6	355.2	362.2	371.7	378.5
167.5°	356.7	360.7	364.6	369.3	373.4
170°	362.2	364.5	364.6	369.2	371.5
172.5°	364.1	368.2	366.4	367.4	369.7
175°	369.2	371.5	369.2	366.8	364.6
177.5°	369.2	371.0	369.2	369.2	367.3
180°	369.2	369.2	369.2	369.2	369.2

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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	14.34	15.16	15.31	16.13	17.41	6.58	7.39	7.55	8.37	9.64
	3H	15.83	16.56	16.82	17.54	18.84	7.93	8.65	8.91	9.64	10.94
	4H	16.35	17.03	17.34	18.02	19.33	8.58	9.27	9.57	10.25	11.56
	6H	16.74	17.37	17.74	18.36	19.68	9.17	9.80	10.17	10.79	12.11
	8H	16.87	17.47	17.88	18.48	19.80	9.39	9.99	10.40	11.00	12.32
	12H	16.95	17.52	17.96	18.52	19.86	9.56	10.13	10.57	11.13	12.47
4H	2H	14.17	14.85	15.17	15.84	17.15	7.19	7.87	8.19	8.86	10.17
	3H	15.80	16.37	16.81	17.39	18.71	8.74	9.31	9.75	10.32	11.65
	4H	16.39	16.91	17.40	17.92	19.26	9.53	10.05	10.55	11.06	12.41
	6H	16.88	17.33	17.91	18.36	19.70	10.27	10.71	11.30	11.75	13.09
	8H	17.07	17.48	18.09	18.51	19.86	10.56	10.98	11.59	12.00	13.36
	12H	17.19	17.57	18.24	18.61	19.97	10.78	11.15	11.82	12.19	13.55
8H	4H	16.30	16.72	17.33	17.75	19.10	9.98	10.40	11.01	11.42	12.78
	6H	16.84	17.18	17.89	18.25	19.60	10.86	11.21	11.91	12.28	13.63
	8H	17.07	17.37	18.13	18.43	19.80	11.26	11.56	12.32	12.61	13.99
	12H	17.26	17.52	18.32	18.57	19.99	11.58	11.84	12.64	12.89	14.31
12H	4H	16.25	16.63	17.30	17.67	19.03	10.03	10.40	11.07	11.45	12.81
	6H	16.81	17.11	17.87	18.17	19.54	10.98	11.28	12.04	12.33	13.71
	8H	17.05	17.32	18.11	18.36	19.78	11.42	11.69	12.48	12.73	14.15