

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: P621446

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

Issue Date: 9/2/2020

**Test Information**

Test Method: LM-79-2019  
Report Number: P621446  
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-100D-835-UNV-STD-W-4  
Description: CORELITE VAULT SUSPENDED LED LUMINAIRE  
FROSTED LENS  
DOWNLIGHT 1000 LUMENS PER FOOT  
UPLIGHT 500 LUMENS PER FOOT  
Light Source: 3500K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

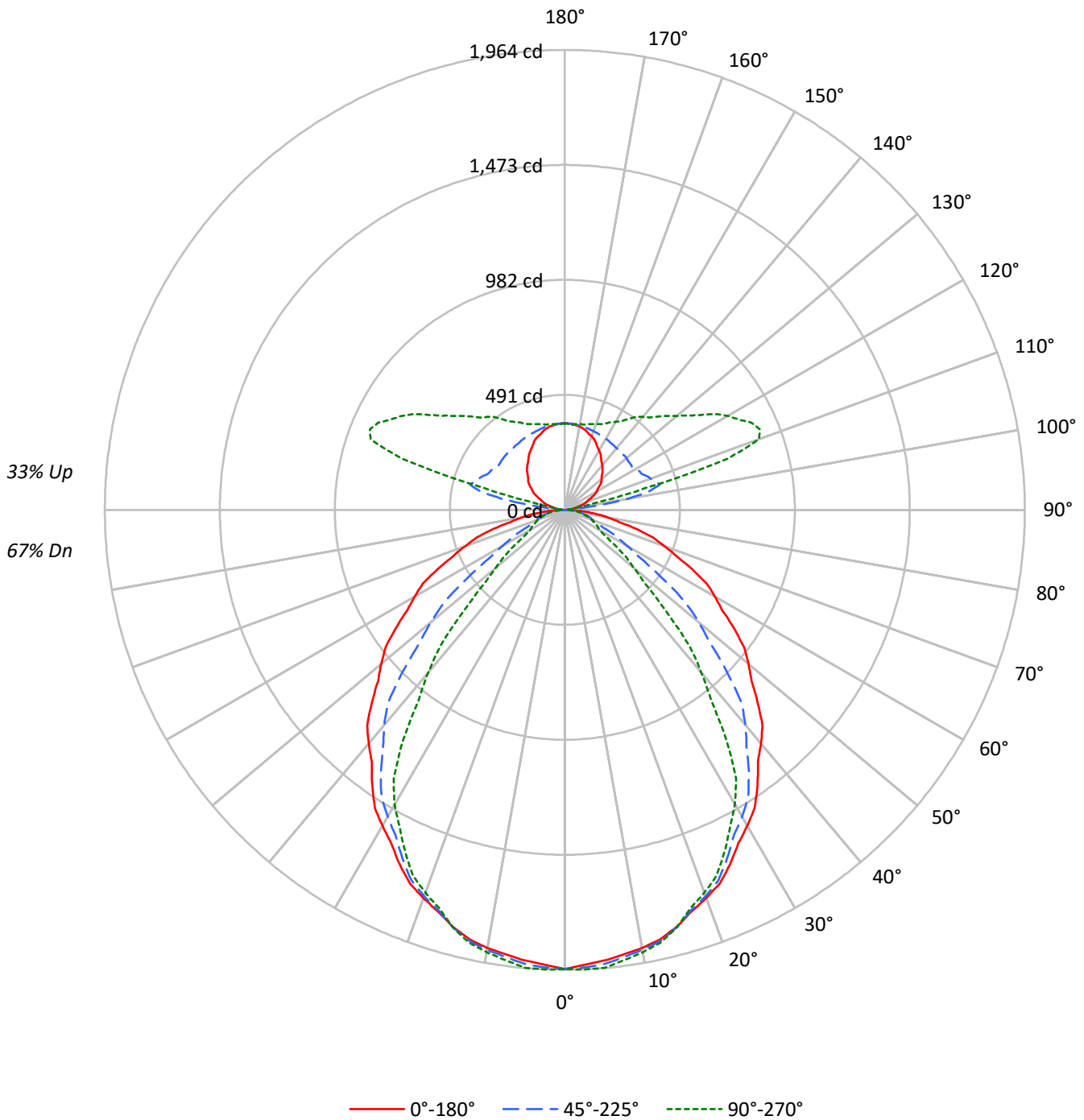
Lumens per Lamp: N/A  
Luminaire Lumens: 5982.5 lumens  
Efficiency: N/A  
Efficacy: 136.6 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 1.12 / 1.23  
Luminous Opening: Rectangular (W 0.38' x L: 4' x H: 0')  
CIE Type: Semi-Direct

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



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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	50	30	10	0	
RCR																						
0	111	111	111	111	105	105	105	105	93	93	93	82	82	82	72	72	72	67				
1	102	98	95	91	96	93	90	87	83	80	78	73	72	70	65	64	62	58				
2	94	87	81	76	89	82	77	73	74	70	66	66	63	60	58	56	54	50				
3	87	77	70	65	81	73	67	62	66	61	57	59	55	52	52	50	47	44				
4	80	69	62	56	75	66	59	54	59	54	49	53	49	45	48	44	41	38				
5	74	62	54	49	69	59	52	47	54	48	43	48	44	40	43	40	37	34				
6	68	56	48	43	64	54	47	41	49	43	38	44	39	36	40	36	33	30				
7	63	51	43	38	60	49	42	37	44	39	34	40	35	32	36	32	29	27				
8	59	47	39	34	56	45	38	33	41	35	31	37	32	29	34	30	27	25				
9	55	43	36	31	52	41	34	30	38	32	28	34	30	26	31	27	24	22				
10	52	40	33	28	49	38	31	27	35	29	25	32	27	24	29	25	22	20				

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	14071	14071	14071
5°	13920	14023	14139
10°	13845	13904	13978
15°	13695	13710	13710
20°	13474	13412	13288
25°	13216	12991	12767
30°	12908	12538	12035
35°	12564	11996	10559
40°	12201	11234	8501
45°	11821	9949	6167
50°	11421	8323	4275
55°	11025	6336	3193
60°	10612	4390	2413
65°	10147	3129	2476
70°	9477	2635	2549
75°	8761	2695	2584
80°	7616	2847	2678
85°	6175	3170	2668

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 11821 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	184.8	3.1
10°-20°	519.6	8.7
20°-30°	755.8	12.6
30°-40°	836.2	14.0
40°-50°	717.9	12.0
50°-60°	497.1	8.3
60°-70°	296.2	5.0
70°-80°	145.9	2.4
80°-90°	45.9	0.8
90°-100°	45.4	0.8
100°-110°	323.5	5.4
110°-120°	439.1	7.3
120°-130°	357.4	6.0
130°-140°	287.5	4.8
140°-150°	226.6	3.8
150°-160°	165.7	2.8
160°-170°	102.9	1.7
170°-180°	35.1	0.6
0°-30°	1460.2	24.4
0°-40°	2296.3	38.4
0°-60°	3511.3	58.7
0°-90°	3999.3	66.8
90°-120°	808.0	13.5
90°-150°	1679.5	28.1
90°-180°	1983.0	33.1
0°-180°	5982.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1961	1961	1961	1961	1961	
5°	1932	1962	1947	1945	1963	183
15°	1843	1867	1845	1836	1845	519
25°	1669	1681	1641	1612	1612	768
35°	1434	1430	1369	1259	1205	896
45°	1165	1145	980	709	608	899
55°	881	844	506	291	255	788
65°	598	481	184	148	146	592
75°	316	138	97	95	93	334
85°	75	37	38	34	32	87
90°	0	2	5	7	7	4
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°	1960.9	1960.9	1960.9	1960.9	1960.9
2.5°	1944.7	1966.8	1956.0	1956.2	1964.1
5°	1932.5	1962.2	1946.7	1945.1	1962.9
7.5°	1914.7	1942.0	1926.0	1923.9	1939.4
10°	1900.1	1925.8	1908.2	1904.5	1918.3
12.5°	1879.0	1904.8	1885.5	1878.5	1892.4
15°	1843.4	1867.1	1845.4	1835.5	1845.4
17.5°	1798.4	1818.2	1793.5	1777.9	1783.8
20°	1764.4	1784.2	1756.3	1734.1	1740.1
22.5°	1727.1	1743.7	1712.5	1687.1	1691.4
25°	1669.2	1681.0	1640.8	1612.4	1612.4
27.5°	1604.7	1611.9	1565.0	1535.3	1527.0
30°	1557.8	1561.7	1513.2	1478.2	1452.4
32.5°	1509.1	1511.5	1456.5	1400.1	1360.0
35°	1434.2	1430.2	1369.4	1258.8	1205.3
37.5°	1354.4	1345.7	1273.8	1105.4	1025.8
40°	1302.5	1290.6	1199.2	996.6	907.5
42.5°	1249.0	1232.4	1116.6	884.6	786.0
45°	1164.8	1145.0	980.4	708.7	607.7
47.5°	1081.3	1055.2	841.1	549.0	462.3
50°	1023.0	995.2	745.5	452.2	382.9
52.5°	964.6	936.9	648.2	379.6	324.5
55°	881.2	843.5	506.4	290.9	255.2
57.5°	796.1	742.2	377.2	226.7	198.9
60°	739.4	668.1	305.9	187.9	168.1
62.5°	684.3	594.0	250.8	164.0	160.0
65°	597.6	480.7	184.3	147.8	145.8
67.5°	514.9	366.8	136.9	133.2	131.3
70°	451.7	289.3	125.6	123.5	121.5
72.5°	395.0	221.5	114.2	112.2	110.2
75°	316.0	137.7	97.2	95.2	93.2
77.5°	236.2	86.9	80.2	78.1	76.2
80°	184.3	71.4	68.9	66.8	64.8
82.5°	139.0	57.8	55.9	53.8	51.9
85°	75.0	37.3	38.5	34.4	32.4
87.5°	25.9	18.5	18.8	15.9	14.4
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	18.26	19.23	19.07	20.05	21.06	10.50	11.46	11.31	12.28	13.30
	3H	19.76	20.62	20.59	21.46	22.50	11.86	12.72	12.68	13.55	14.59
	4H	20.28	21.09	21.12	21.93	22.99	12.52	13.33	13.36	14.17	15.22
	6H	20.69	21.43	21.54	22.28	23.34	13.11	13.86	13.96	14.70	15.77
	8H	20.82	21.53	21.68	22.39	23.46	13.34	14.05	14.20	14.91	15.98
	12H	20.90	21.58	21.77	22.44	23.53	13.51	14.18	14.37	15.04	16.13
4H	2H	18.11	18.92	18.95	19.76	20.81	11.13	11.94	11.97	12.78	13.83
	3H	19.75	20.42	20.61	21.30	22.36	12.69	13.36	13.54	14.23	15.30
	4H	20.35	20.95	21.21	21.83	22.92	13.49	14.10	14.35	14.97	16.06
	6H	20.84	21.37	21.73	22.26	23.36	14.23	14.76	15.11	15.65	16.75
	8H	21.03	21.52	21.92	22.41	23.52	14.52	15.01	15.41	15.90	17.02
	12H	21.17	21.61	22.07	22.52	23.63	14.75	15.19	15.65	16.10	17.21
8H	4H	20.27	20.76	21.15	21.65	22.76	13.95	14.44	14.83	15.33	16.44
	6H	20.81	21.21	21.72	22.14	23.26	14.83	15.24	15.75	16.17	17.28
	8H	21.04	21.40	21.96	22.33	23.45	15.23	15.59	16.15	16.51	17.64
	12H	21.24	21.55	22.16	22.47	23.65	15.55	15.87	16.48	16.78	17.97
12H	4H	20.22	20.66	21.13	21.57	22.69	14.00	14.44	14.91	15.35	16.47
	6H	20.78	21.14	21.70	22.06	23.19	14.95	15.31	15.87	16.23	17.36
	8H	21.03	21.34	21.95	22.26	23.44	15.40	15.71	16.32	16.63	17.81