

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: P621519

Luminaire Tested: VLT-F-100U-100D-840-UNV-STD-W-4

Issue Date: 9/2/2020

**Test Information**

Test Method: LM-79-2019  
Report Number: P621519  
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-100D-840-UNV-STD-W-4  
Description: CORELITE VAULT SUSPENDED LED LUMINAIRE  
FROSTED LENS  
DOWNLIGHT 1000 LUMENS PER FOOT  
UPLIGHT 1000 LUMENS PER FOOT  
Light Source: 4000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

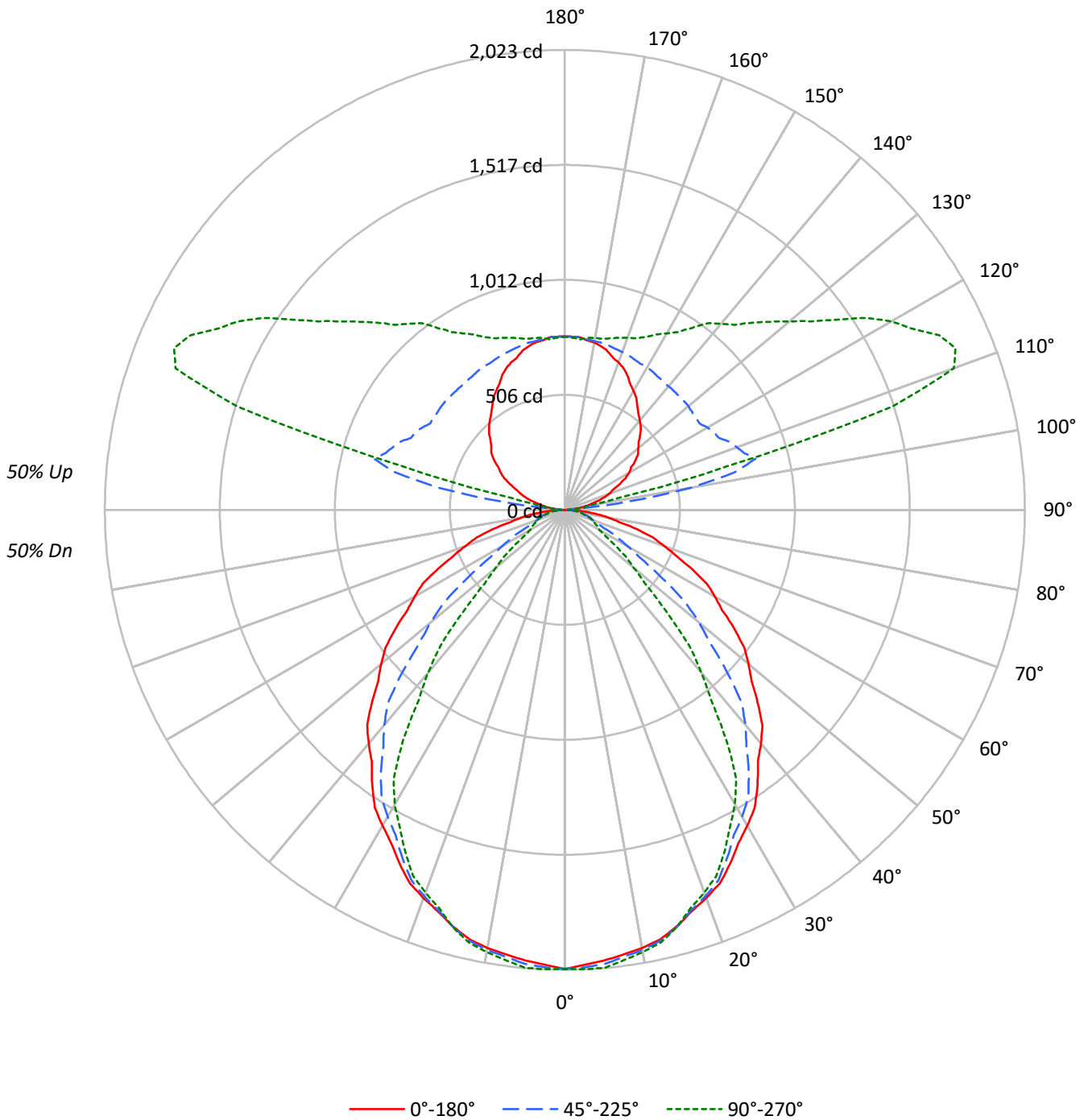
Lumens per Lamp: N/A  
Luminaire Lumens: 8212.9 lumens  
Efficiency: N/A  
Efficacy: 141.1 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 1.12 / 1.23  
Luminous Opening: Rectangular (W 0.38' x L: 4' x H: 0')  
CIE Type: General Diffuse

Input Watts (W): 58.2  
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	107	107	107	107	99	99	99	99	83	83	83	69	69	69	56	56	56	50				
1	99	94	91	88	91	87	84	81	74	72	70	62	60	59	51	50	49	44				
2	90	83	78	73	83	77	72	68	66	62	59	55	53	50	46	44	42	38				
3	83	74	67	61	76	69	63	58	59	54	51	50	46	44	41	39	37	33				
4	76	66	58	53	70	61	55	50	53	48	44	45	41	38	37	35	32	29				
5	70	59	51	46	65	55	48	43	47	42	38	40	36	33	34	31	29	25				
6	65	53	45	40	60	50	43	38	43	38	34	37	33	30	31	28	26	23				
7	60	48	41	35	56	45	38	33	39	34	30	34	29	26	28	25	23	20				
8	56	44	36	31	52	41	34	30	36	31	27	31	27	24	26	23	21	18				
9	52	40	33	28	48	38	31	27	33	28	24	29	24	21	24	21	19	17				
10	49	37	30	25	45	35	28	24	30	25	22	26	22	20	23	20	17	15				

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

	0°	45°	90°
0°	14490	14490	14490
5°	14335	14441	14561
10°	14258	14319	14395
15°	14103	14118	14118
20°	13875	13811	13684
25°	13610	13379	13147
30°	13293	12912	12393
35°	12938	12354	10873
40°	12565	11569	8755
45°	12173	10247	6351
50°	11761	8570	4402
55°	11352	6524	3288
60°	10928	4521	2484
65°	10449	3223	2550
70°	9760	2713	2627
75°	9022	2775	2662
80°	7843	2930	2760
85°	6356	3260	2750

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 12173 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	190.3	2.3
10°-20°	535.1	6.5
20°-30°	778.3	9.5
30°-40°	861.1	10.5
40°-50°	739.3	9.0
50°-60°	511.9	6.2
60°-70°	305.0	3.7
70°-80°	150.3	1.8
80°-90°	48.1	0.6
90°-100°	93.7	1.1
100°-110°	667.6	8.1
110°-120°	906.4	11.0
120°-130°	737.7	9.0
130°-140°	593.3	7.2
140°-150°	467.8	5.7
150°-160°	342.0	4.2
160°-170°	212.4	2.6
170°-180°	72.4	0.9
0°-30°	1503.7	18.3
0°-40°	2364.8	28.8
0°-60°	3616.0	44.0
0°-90°	4119.4	50.2
90°-120°	1667.7	20.3
90°-150°	3466.6	42.2
90°-180°	4094.0	49.8
0°-180°	8212.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2019	2019	2019	2019	2019	
5°	1990	2021	2005	2003	2021	189
15°	1898	1923	1900	1890	1900	534
25°	1719	1731	1690	1660	1660	791
35°	1477	1473	1410	1296	1241	923
45°	1200	1179	1010	730	626	925
55°	907	869	522	300	263	811
65°	615	495	190	152	150	609
75°	325	142	100	98	96	343
85°	77	38	40	35	33	89
90°	0	5	10	14	14	5
95°	38	71	38	43	53	43
105°	149	228	868	1108	733	157
115°	264	320	748	1554	1816	262
125°	379	430	704	1232	1457	336
135°	470	521	709	1015	1165	361
145°	556	603	714	884	978	349
155°	652	675	728	801	839	299
165°	724	733	748	767	781	203
175°	762	767	762	757	752	72
180°	762	762	762	762	762	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2019.3	2019.3	2019.3	2019.3	2019.3
2.5°	2002.6	2025.5	2014.3	2014.5	2022.7
5°	1990.1	2020.7	2004.7	2003.0	2021.4
7.5°	1971.8	1999.9	1983.4	1981.3	1997.2
10°	1956.7	1983.3	1965.1	1961.2	1975.5
12.5°	1935.0	1961.6	1941.7	1934.5	1948.8
15°	1898.3	1922.8	1900.4	1890.2	1900.4
17.5°	1852.0	1872.4	1847.0	1830.9	1837.0
20°	1817.0	1837.4	1808.6	1785.8	1791.9
22.5°	1778.6	1795.7	1763.6	1737.4	1741.9
25°	1718.9	1731.2	1689.7	1660.5	1660.5
27.5°	1652.6	1659.9	1611.7	1581.1	1572.5
30°	1604.2	1608.3	1558.3	1522.2	1495.7
32.5°	1554.1	1556.6	1499.9	1441.8	1400.6
35°	1476.9	1472.9	1410.2	1296.3	1241.2
37.5°	1394.8	1385.8	1311.7	1138.4	1056.4
40°	1341.3	1329.1	1235.0	1026.3	934.6
42.5°	1286.3	1269.1	1149.8	911.0	809.4
45°	1199.5	1179.1	1009.7	729.8	625.8
47.5°	1113.5	1086.6	866.1	565.4	476.0
50°	1053.5	1024.9	767.7	465.7	394.3
52.5°	993.4	964.8	667.5	390.9	334.2
55°	907.4	868.7	521.5	299.6	262.8
57.5°	819.8	764.3	388.4	233.4	204.9
60°	761.4	688.0	315.0	193.5	173.1
62.5°	704.7	611.7	258.3	168.9	164.8
65°	615.4	495.0	189.8	152.2	150.2
67.5°	530.3	377.7	141.0	137.2	135.2
70°	465.2	297.9	129.3	127.2	125.2
72.5°	406.8	228.1	117.7	115.5	113.5
75°	325.4	141.9	100.1	98.0	96.0
77.5°	243.2	89.4	82.6	80.5	78.4
80°	189.8	73.6	70.9	68.8	66.8
82.5°	143.1	59.5	57.6	55.4	53.4
85°	77.2	38.4	39.6	35.4	33.4
87.5°	26.7	19.5	20.3	17.9	16.2
90°	0.0	4.7	9.6	14.4	14.4
92.5°	11.5	16.2	21.1	29.8	33.5
95°	38.3	71.1	38.3	43.3	52.7
97.5°	68.1	136.5	281.8	83.1	71.9
100°	91.1	170.7	565.5	166.5	110.2
102.5°	114.1	197.5	764.9	439.3	240.6
105°	148.6	228.2	867.5	1108.2	733.3
107.5°	183.1	243.1	828.2	1612.8	1510.7
110°	206.1	262.3	805.2	1694.7	1821.3



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	229.1	285.3	782.2	1646.8	1859.6
115°	263.6	319.8	747.7	1554.0	1816.5
117.5°	299.1	354.4	739.0	1453.6	1723.5
120°	325.9	377.5	723.7	1377.1	1658.3
122.5°	345.1	400.4	704.5	1311.4	1570.1
125°	378.6	430.2	704.5	1232.1	1457.0
127.5°	406.4	458.9	705.5	1140.0	1362.1
130°	421.8	478.0	709.3	1078.4	1289.3
132.5°	440.9	497.2	709.3	1050.7	1224.1
135°	469.7	521.2	709.3	1014.7	1164.6
137.5°	493.7	549.0	709.3	974.9	1103.3
140°	512.8	564.4	709.3	951.6	1068.8
142.5°	532.0	579.8	713.2	924.6	1034.3
145°	556.0	602.8	714.1	884.0	977.7
147.5°	584.7	626.0	719.9	854.8	926.9
150°	603.9	641.4	723.7	835.3	896.2
152.5°	623.1	656.8	723.7	819.7	869.4
155°	651.8	675.2	728.5	801.2	838.7
157.5°	674.8	697.3	734.3	789.5	816.7
160°	690.2	708.9	738.1	781.8	805.2
162.5°	701.7	720.4	741.9	777.7	793.7
165°	723.7	733.1	747.7	767.2	781.2
167.5°	736.2	744.6	752.5	762.2	770.7
170°	747.7	752.4	752.5	762.2	766.8
172.5°	751.5	759.9	756.3	758.3	763.0
175°	762.1	766.7	762.1	757.2	752.5
177.5°	762.1	765.8	762.1	762.0	758.2
180°	762.1	762.1	762.1	762.1	762.1

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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	16.92	17.74	17.89	18.71	19.98	9.16	9.97	10.12	10.95	12.22
	3H	18.41	19.14	19.39	20.12	21.42	10.51	11.23	11.49	12.22	13.51
	4H	18.93	19.61	19.92	20.60	21.90	11.16	11.85	12.15	12.83	14.14
	6H	19.32	19.95	20.32	20.94	22.26	11.75	12.38	12.75	13.37	14.69
	8H	19.45	20.05	20.46	21.06	22.37	11.97	12.57	12.98	13.58	14.89
	12H	19.53	20.10	20.54	21.10	22.44	12.14	12.71	13.15	13.71	15.04
4H	2H	16.75	17.43	17.75	18.42	19.73	9.77	10.46	10.77	11.44	12.75
	3H	18.38	18.95	19.39	19.97	21.28	11.32	11.89	12.32	12.90	14.22
	4H	18.97	19.49	19.98	20.50	21.84	12.11	12.63	13.12	13.64	14.98
	6H	19.46	19.91	20.49	20.94	22.28	12.85	13.29	13.87	14.33	15.67
	8H	19.65	20.06	20.67	21.09	22.44	13.14	13.56	14.17	14.58	15.93
	12H	19.77	20.15	20.82	21.19	22.55	13.36	13.73	14.40	14.77	16.13
8H	4H	18.88	19.30	19.91	20.32	21.68	12.56	12.98	13.59	14.00	15.36
	6H	19.42	19.76	20.47	20.83	22.18	13.44	13.79	14.49	14.85	16.20
	8H	19.65	19.95	20.71	21.01	22.38	13.84	14.14	14.90	15.19	16.56
	12H	19.84	20.11	20.90	21.15	22.56	14.16	14.42	15.22	15.47	16.88
12H	4H	18.83	19.21	19.87	20.25	21.60	12.61	12.98	13.65	14.03	15.38
	6H	19.39	19.69	20.45	20.74	22.11	13.56	13.86	14.61	14.91	16.28
	8H	19.63	19.90	20.69	20.94	22.36	14.00	14.27	15.06	15.31	16.72