

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: P621517

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

Issue Date: 9/2/2020

**Test Information**

Test Method: LM-79-2019  
Report Number: P621517  
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-830-UNV-STD-W-4  
Description: CORELITE VAULT SUSPENDED LED LUMINAIRE  
FROSTED LENS  
DOWNLIGHT 1000 LUMENS PER FOOT  
UPLIGHT 1000 LUMENS PER FOOT  
Light Source: 3000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

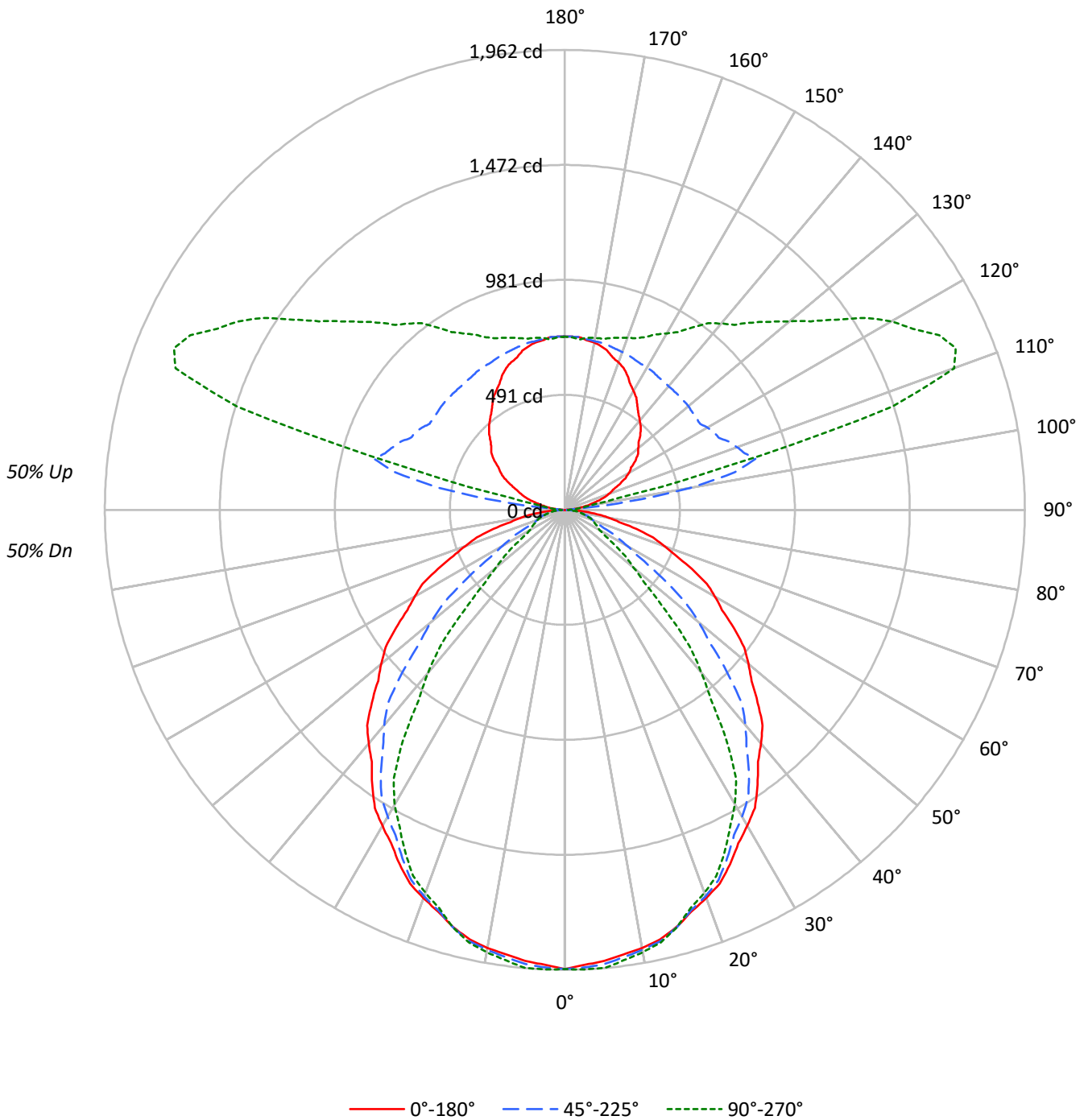
Lumens per Lamp: N/A  
Luminaire Lumens: 7967.9 lumens  
Efficiency: N/A  
Efficacy: 136.9 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 1.12 / 1.23  
Luminous Opening: Rectangular (W 0.38' x L: 4' x H: 0')  
CIE Type: General Diffuse

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	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°	14058	14058	14058
5°	13908	14010	14126
10°	13833	13892	13966
15°	13682	13697	13697
20°	13462	13400	13276
25°	13204	12980	12756
30°	12896	12527	12024
35°	12553	11985	10549
40°	12190	11223	8494
45°	11810	9940	6162
50°	11409	8315	4270
55°	11015	6331	3190
60°	10602	4386	2411
65°	10137	3128	2474
70°	9469	2633	2547
75°	8753	2692	2581
80°	7612	2843	2678
85°	6167	3170	2668

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 11810 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	184.6	2.3
10°-20°	519.1	6.5
20°-30°	755.1	9.5
30°-40°	835.4	10.5
40°-50°	717.2	9.0
50°-60°	496.6	6.2
60°-70°	295.9	3.7
70°-80°	145.8	1.8
80°-90°	46.7	0.6
90°-100°	90.9	1.1
100°-110°	647.7	8.1
110°-120°	879.4	11.0
120°-130°	715.7	9.0
130°-140°	575.6	7.2
140°-150°	453.8	5.7
150°-160°	331.8	4.2
160°-170°	206.1	2.6
170°-180°	70.3	0.9
0°-30°	1458.9	18.3
0°-40°	2294.3	28.8
0°-60°	3508.1	44.0
0°-90°	3996.5	50.2
90°-120°	1618.0	20.3
90°-150°	3363.2	42.2
90°-180°	3971.0	49.8
0°-180°	7967.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1959	1959	1959	1959	1959	
5°	1931	1960	1945	1943	1961	183
15°	1842	1866	1844	1834	1844	519
25°	1668	1680	1639	1611	1611	767
35°	1433	1429	1368	1258	1204	895
45°	1164	1144	980	708	607	898
55°	880	843	506	291	255	787
65°	597	480	184	148	146	591
75°	316	138	97	95	93	333
85°	75	37	38	34	32	87
90°	0	4	9	14	14	5
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°	1959.1	1959.1	1959.1	1959.1	1959.1
2.5°	1942.9	1965.1	1954.2	1954.4	1962.3
5°	1930.8	1960.4	1944.9	1943.3	1961.1
7.5°	1913.0	1940.3	1924.3	1922.2	1937.6
10°	1898.4	1924.1	1906.5	1902.7	1916.6
12.5°	1877.3	1903.1	1883.8	1876.8	1890.7
15°	1841.7	1865.5	1843.7	1833.8	1843.7
17.5°	1796.8	1816.6	1791.9	1776.3	1782.2
20°	1762.8	1782.6	1754.7	1732.6	1738.5
22.5°	1725.5	1742.2	1711.0	1685.6	1689.9
25°	1667.7	1679.5	1639.3	1611.0	1611.0
27.5°	1603.3	1610.4	1563.6	1533.9	1525.6
30°	1556.3	1560.3	1511.8	1476.8	1451.1
32.5°	1507.8	1510.1	1455.2	1398.8	1358.8
35°	1432.9	1428.9	1368.1	1257.6	1204.2
37.5°	1353.2	1344.4	1272.6	1104.4	1024.9
40°	1301.3	1289.5	1198.1	995.7	906.7
42.5°	1247.9	1231.3	1115.6	883.8	785.3
45°	1163.7	1143.9	979.5	708.1	607.2
47.5°	1080.3	1054.2	840.3	548.5	461.8
50°	1022.0	994.3	744.8	451.8	382.5
52.5°	963.8	936.1	647.6	379.2	324.2
55°	880.4	842.8	506.0	290.6	255.0
57.5°	795.4	741.6	376.8	226.4	198.7
60°	738.7	667.5	305.6	187.8	168.0
62.5°	683.7	593.4	250.6	163.8	159.9
65°	597.0	480.3	184.2	147.7	145.7
67.5°	514.5	366.4	136.8	133.1	131.1
70°	451.3	289.1	125.5	123.4	121.4
72.5°	394.7	221.3	114.1	112.1	110.1
75°	315.7	137.6	97.1	95.1	93.1
77.5°	236.0	86.8	80.1	78.1	76.1
80°	184.2	71.4	68.8	66.7	64.8
82.5°	138.8	57.7	55.9	53.8	51.8
85°	74.9	37.3	38.5	34.4	32.4
87.5°	25.9	18.9	19.7	17.3	15.7
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	16.82	17.63	17.79	18.61	19.88	9.05	9.87	10.02	10.84	12.11
	3H	18.31	19.04	19.29	20.02	21.32	10.40	11.13	11.38	12.11	13.41
	4H	18.82	19.51	19.81	20.49	21.80	11.06	11.74	12.05	12.73	14.03
	6H	19.22	19.85	20.22	20.84	22.16	11.64	12.27	12.64	13.27	14.58
	8H	19.35	19.95	20.35	20.95	22.27	11.87	12.47	12.87	13.47	14.79
	12H	19.43	20.00	20.44	21.00	22.33	12.03	12.60	13.04	13.60	14.94
4H	2H	16.64	17.33	17.64	18.32	19.62	9.66	10.35	10.66	11.34	12.64
	3H	18.28	18.85	19.28	19.86	21.18	11.21	11.78	12.22	12.80	14.12
	4H	18.86	19.38	19.88	20.39	21.73	12.01	12.53	13.02	13.53	14.88
	6H	19.36	19.80	20.38	20.83	22.17	12.74	13.19	13.77	14.22	15.56
	8H	19.54	19.96	20.57	20.98	22.34	13.03	13.45	14.06	14.48	15.83
	12H	19.67	20.05	20.71	21.09	22.44	13.25	13.63	14.29	14.67	16.02
8H	4H	18.78	19.20	19.80	20.22	21.57	12.46	12.87	13.48	13.90	15.25
	6H	19.31	19.66	20.36	20.72	22.07	13.34	13.68	14.39	14.75	16.10
	8H	19.55	19.85	20.60	20.90	22.27	13.73	14.04	14.79	15.09	16.46
	12H	19.73	20.00	20.79	21.05	22.46	14.05	14.32	15.11	15.36	16.78
12H	4H	18.73	19.10	19.77	20.14	21.50	12.50	12.88	13.55	13.92	15.28
	6H	19.28	19.59	20.34	20.64	22.01	13.45	13.76	14.51	14.81	16.18
	8H	19.53	19.79	20.58	20.84	22.25	13.89	14.16	14.95	15.21	16.62