

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: P621553

Luminaire Tested: VLT-F-150U-050D-830-UNV-STD-W-4

Issue Date: 9/2/2020

**Test Information**

Test Method: LM-79-2019  
Report Number: P621553  
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-150U-050D-830-UNV-STD-W-4  
Description: CORELITE VAULT SUSPENDED LED LUMINAIRE  
FROSTED LENS  
DOWNLIGHT 500 LUMENS PER FOOT  
UPLIGHT 1500 LUMENS PER FOOT  
Light Source: 3000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

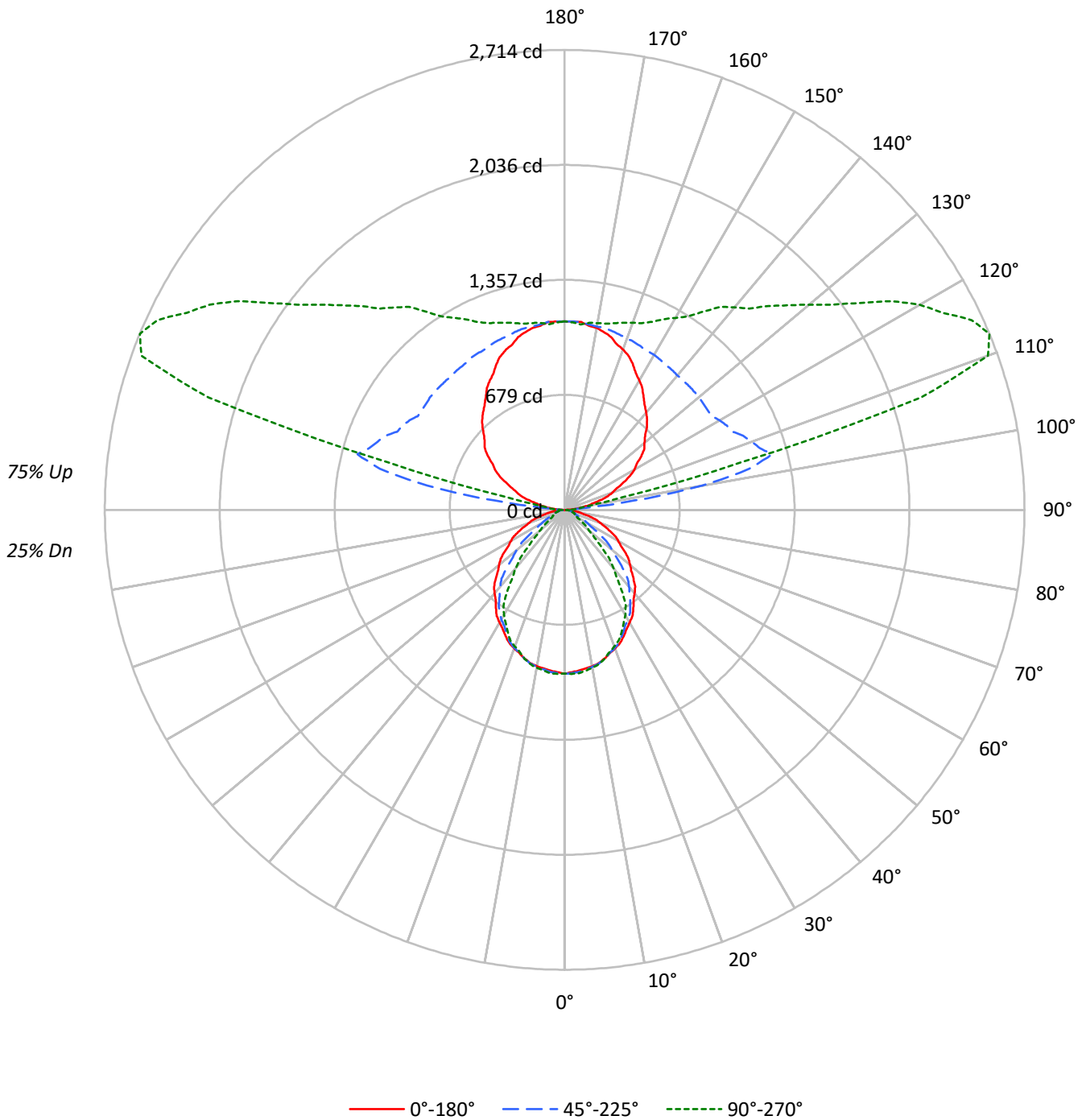
Lumens per Lamp: N/A  
Luminaire Lumens: 7948.5 lumens  
Efficiency: N/A  
Efficacy: 126.2 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 1.12 / 1.23  
Luminous Opening: Rectangular (W 0.38' x L: 4' x H: 0')  
CIE Type: Semi-Indirect

Input Watts (W): 63  
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	101	101	101	101	90	90	90	90	69	69	69	50	50	50	33	33	33	25
1	92	88	85	82	82	79	76	73	61	59	57	45	44	42	30	29	28	22
2	84	78	72	67	75	69	65	61	54	51	48	40	38	36	27	25	25	19
3	77	68	62	56	69	61	56	51	48	44	41	35	33	31	24	22	21	16
4	71	61	53	48	63	54	48	43	43	38	35	32	29	27	21	20	19	14
5	65	54	46	41	58	49	42	37	38	34	30	29	26	23	19	18	16	13
6	60	48	41	35	53	44	37	32	34	30	26	26	23	20	18	16	15	11
7	55	44	36	31	49	39	33	28	31	27	23	23	20	18	16	14	13	10
8	51	40	32	27	46	36	29	25	28	24	21	21	18	16	15	13	12	9
9	48	36	29	24	42	33	26	22	26	21	18	20	17	14	14	12	11	8
10	44	33	26	22	40	30	24	20	24	19	16	18	15	13	13	11	10	8

**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



TEST NUMBER: P621553

CATALOG NUMBER: VLT-F-150U-050D-830-UNV-STD-W-4

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	91.1	1.1
10°-20°	256.3	3.2
20°-30°	372.8	4.7
30°-40°	412.4	5.2
40°-50°	354.1	4.5
50°-60°	245.2	3.1
60°-70°	146.1	1.8
70°-80°	72.0	0.9
80°-90°	24.7	0.3
90°-100°	136.7	1.7
100°-110°	974.3	12.3
110°-120°	1322.8	16.6
120°-130°	1076.6	13.5
130°-140°	865.9	10.9
140°-150°	682.6	8.6
150°-160°	499.1	6.3
160°-170°	310.0	3.9
170°-180°	105.7	1.3
0°-30°	720.2	9.1
0°-40°	1132.6	14.2
0°-60°	1731.8	21.8
0°-90°	1974.6	24.8
90°-120°	2433.8	30.6
90°-150°	5059.0	63.6
90°-180°	5974.0	75.2
0°-180°	7948.5	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	7	14	21	21	4
95°	56	104	56	63	77	63
105°	217	333	1266	1617	1070	229
115°	385	467	1091	2268	2651	382
125°	553	628	1028	1798	2126	491
135°	685	761	1035	1481	1700	527
145°	811	880	1042	1290	1427	510
155°	951	985	1063	1169	1224	437
165°	1056	1070	1091	1120	1140	297
175°	1112	1119	1112	1105	1098	105
180°	1112	1112	1112	1112	1112	



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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	10.2	11.6	11.4	10.6
90°	0.0	6.8	14.0	21.0	21.0
92.5°	16.8	23.6	30.8	43.5	49.0
95°	56.0	103.8	56.0	63.3	76.9
97.5°	99.3	199.2	411.3	121.3	104.9
100°	132.9	249.2	825.3	242.9	160.9
102.5°	166.5	288.2	1116.3	641.1	351.1
105°	216.8	333.1	1266.0	1617.2	1070.1
107.5°	267.2	354.7	1208.6	2353.7	2204.6
110°	300.8	382.8	1175.0	2473.2	2657.8



TEST NUMBER: P621553

CATALOG NUMBER: VLT-F-150U-050D-830-UNV-STD-W-4

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	334.3	416.4	1141.5	2403.3	2713.8
115°	384.7	466.8	1091.1	2267.9	2650.8
117.5°	436.4	517.1	1078.5	2121.2	2515.2
120°	475.6	550.8	1056.1	2009.7	2420.0
122.5°	503.6	584.3	1028.2	1913.8	2291.3
125°	552.6	627.8	1028.2	1798.0	2126.3
127.5°	593.1	669.7	1029.6	1663.6	1987.8
130°	615.5	697.6	1035.2	1573.7	1881.5
132.5°	643.5	725.5	1035.2	1533.3	1786.3
135°	685.4	760.7	1035.2	1480.8	1699.6
137.5°	720.4	801.1	1035.2	1422.7	1610.1
140°	748.4	823.6	1035.2	1388.8	1559.7
142.5°	776.4	846.1	1040.8	1349.3	1509.4
145°	811.3	879.7	1042.2	1290.1	1426.8
147.5°	853.3	913.5	1050.5	1247.4	1352.7
150°	881.3	936.0	1056.1	1219.0	1307.9
152.5°	909.3	958.5	1056.1	1196.3	1268.8
155°	951.2	985.4	1063.1	1169.3	1224.0
157.5°	984.8	1017.6	1071.5	1152.2	1191.8
160°	1007.2	1034.5	1077.1	1140.8	1175.0
162.5°	1024.0	1051.3	1082.7	1135.0	1158.3
165°	1056.1	1069.8	1091.1	1119.6	1140.1
167.5°	1074.3	1086.6	1098.1	1112.4	1124.7
170°	1091.1	1098.0	1098.1	1112.3	1119.1
172.5°	1096.7	1109.0	1103.7	1106.7	1113.5
175°	1112.1	1118.9	1112.1	1104.9	1098.1
177.5°	1112.1	1117.6	1112.1	1112.0	1106.5
180°	1112.1	1112.1	1112.1	1112.1	1112.1

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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	11.34	12.00	12.50	13.13	14.73	3.58	4.23	4.73	5.37	6.96
	3H	12.82	13.40	13.98	14.55	16.16	4.91	5.50	6.08	6.64	8.25
	4H	13.33	13.88	14.49	15.02	16.64	5.56	6.11	6.73	7.26	8.87
	6H	13.71	14.22	14.89	15.37	16.99	6.14	6.65	7.32	7.79	9.42
	8H	13.84	14.32	15.02	15.48	17.10	6.36	6.84	7.54	8.00	9.62
	12H	13.91	14.37	15.09	15.53	17.16	6.52	6.98	7.70	8.13	9.77
4H	2H	11.15	11.70	12.32	12.85	14.46	4.17	4.72	5.35	5.87	7.48
	3H	12.77	13.23	13.95	14.40	16.02	5.70	6.16	6.88	7.33	8.96
	4H	13.35	13.77	14.53	14.93	16.57	6.49	6.91	7.67	8.07	9.71
	6H	13.83	14.19	15.02	15.37	17.01	7.22	7.58	8.40	8.76	10.39
	8H	14.01	14.35	15.20	15.52	17.17	7.51	7.84	8.69	9.02	10.67
	12H	14.13	14.44	15.34	15.62	17.28	7.72	8.02	8.92	9.21	10.86
8H	4H	13.25	13.59	14.44	14.76	16.41	6.93	7.27	8.11	8.44	10.09
	6H	13.78	14.06	14.98	15.27	16.92	7.81	8.08	9.01	9.30	10.94
	8H	14.01	14.26	15.22	15.45	17.12	8.20	8.44	9.41	9.63	11.30
	12H	14.19	14.41	15.41	15.60	17.30	8.51	8.73	9.73	9.92	11.61
12H	4H	13.19	13.50	14.39	14.68	16.34	6.97	7.28	8.17	8.46	10.11
	6H	13.75	13.99	14.96	15.19	16.85	7.92	8.16	9.13	9.35	11.02
	8H	13.99	14.20	15.20	15.39	17.09	8.35	8.57	9.57	9.76	11.45