

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: P621450

Luminaire Tested: VLT-F-050U-100D-940-UNV-STD-W-4

Issue Date: 9/2/2020

Test Information

Test Method: LM-79-2019
Report Number: P621450
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-940-UNV-STD-W-4
Description: CORELITE VAULT SUSPENDED LED LUMINAIRE
FROSTED LENS
DOWNLIGHT 1000 LUMENS PER FOOT
UPLIGHT 500 LUMENS PER FOOT
Light Source: 4000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

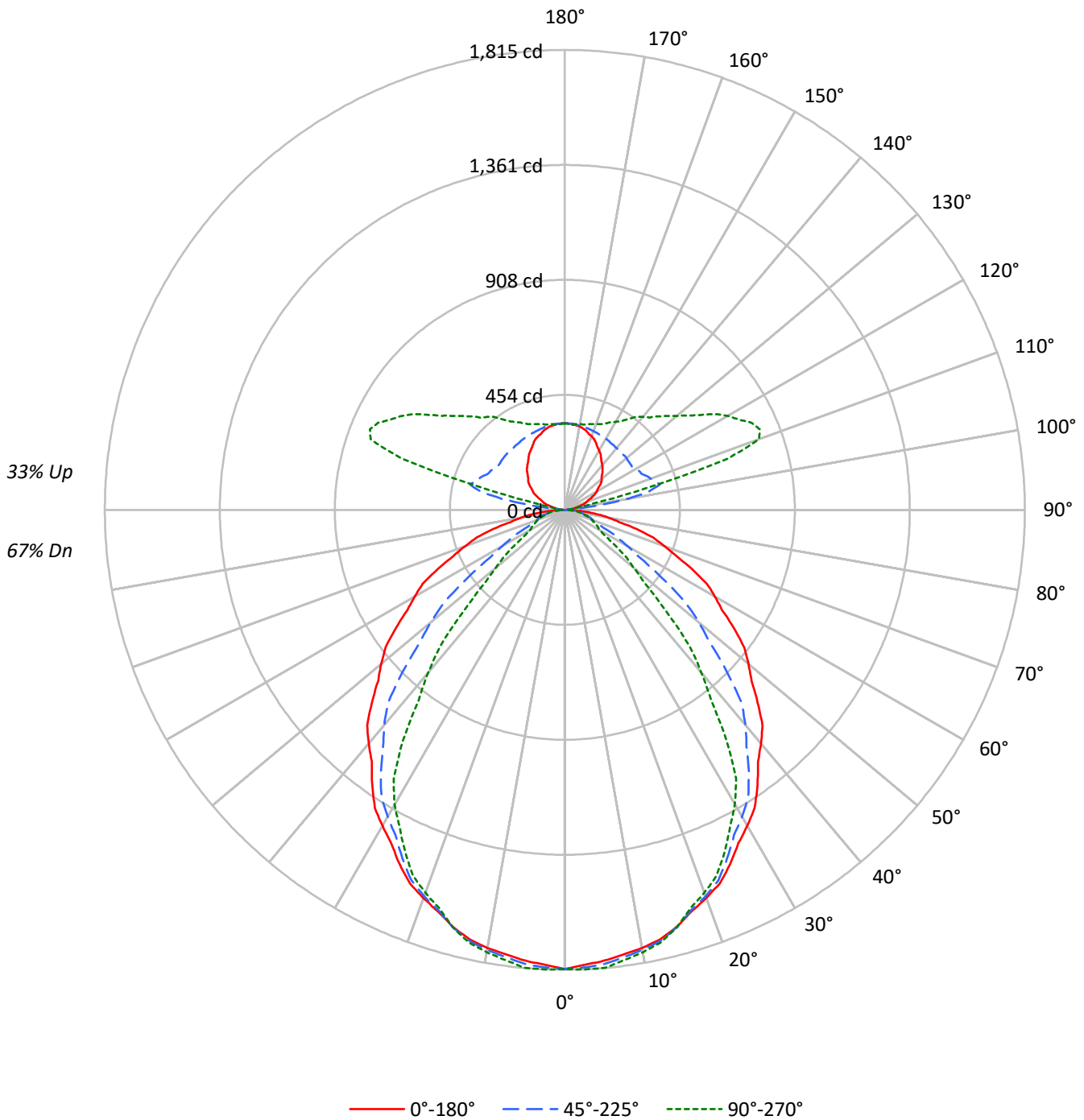
Lumens per Lamp: N/A
Luminaire Lumens: 5528.9 lumens
Efficiency: N/A
Efficacy: 126.2 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.12 / 1.23
Luminous Opening: Rectangular (W 0.38' x L: 4' x H: 0')
CIE Type: Semi-Direct

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									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	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°	13004	13004	13004
5°	12865	12960	13067
10°	12795	12850	12918
15°	12656	12670	12670
20°	12452	12395	12280
25°	12214	12007	11799
30°	11929	11587	11122
35°	11611	11086	9758
40°	11276	10382	7857
45°	10924	9195	5699
50°	10554	7691	3950
55°	10189	5855	2951
60°	9807	4057	2230
65°	9378	2893	2289
70°	8760	2436	2356
75°	8096	2493	2387
80°	7042	2632	2475
85°	5706	2931	2470

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 10924 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	170.8	3.1
10°-20°	480.2	8.7
20°-30°	698.5	12.6
30°-40°	772.8	14.0
40°-50°	663.4	12.0
50°-60°	459.4	8.3
60°-70°	273.7	5.0
70°-80°	134.9	2.4
80°-90°	42.4	0.8
90°-100°	41.9	0.8
100°-110°	298.9	5.4
110°-120°	405.8	7.3
120°-130°	330.3	6.0
130°-140°	265.7	4.8
140°-150°	209.4	3.8
150°-160°	153.1	2.8
160°-170°	95.1	1.7
170°-180°	32.4	0.6
0°-30°	1349.5	24.4
0°-40°	2122.2	38.4
0°-60°	3245.0	58.7
0°-90°	3696.1	66.9
90°-120°	746.7	13.5
90°-150°	1552.1	28.1
90°-180°	1833.0	33.2
0°-180°	5528.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1812	1812	1812	1812	1812	
5°	1786	1813	1799	1798	1814	169
15°	1704	1726	1706	1696	1706	480
25°	1543	1554	1516	1490	1490	710
35°	1325	1322	1266	1163	1114	828
45°	1076	1058	906	655	562	830
55°	814	780	468	269	236	728
65°	552	444	170	137	135	547
75°	292	127	90	88	86	308
85°	69	34	36	32	30	80
90°	0	2	4	6	6	4
95°	17	32	17	19	24	19
105°	66	102	388	496	328	70
115°	118	143	335	696	813	117
125°	170	193	315	552	652	151
135°	210	233	318	454	522	162
145°	249	270	320	396	438	156
155°	292	302	326	359	376	134
165°	324	328	335	344	350	91
175°	341	343	341	339	337	32
180°	341	341	341	341	341	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1812.2	1812.2	1812.2	1812.2	1812.2
2.5°	1797.2	1817.7	1807.7	1807.8	1815.2
5°	1786.0	1813.4	1799.1	1797.6	1814.0
7.5°	1769.5	1794.7	1780.0	1778.0	1792.3
10°	1756.0	1779.8	1763.5	1760.0	1772.9
12.5°	1736.5	1760.3	1742.5	1736.1	1748.9
15°	1703.6	1725.6	1705.5	1696.3	1705.5
17.5°	1662.0	1680.3	1657.5	1643.1	1648.6
20°	1630.6	1648.9	1623.1	1602.6	1608.1
22.5°	1596.1	1611.5	1582.7	1559.2	1563.2
25°	1542.6	1553.6	1516.4	1490.2	1490.2
27.5°	1483.1	1489.6	1446.4	1418.9	1411.2
30°	1439.6	1443.3	1398.4	1366.1	1342.3
32.5°	1394.7	1396.9	1346.0	1293.9	1256.9
35°	1325.4	1321.8	1265.5	1163.3	1113.9
37.5°	1251.7	1243.6	1177.2	1021.6	948.0
40°	1203.7	1192.8	1108.3	921.1	838.7
42.5°	1154.3	1138.9	1031.9	817.5	726.4
45°	1076.4	1058.1	906.1	655.0	561.6
47.5°	999.3	975.2	777.3	507.4	427.2
50°	945.4	919.8	688.9	417.9	353.8
52.5°	891.5	865.9	599.1	350.8	299.9
55°	814.4	779.6	468.0	268.8	235.9
57.5°	735.7	685.9	348.6	209.5	183.8
60°	683.3	617.4	282.7	173.7	155.4
62.5°	632.4	548.9	231.8	151.6	147.9
65°	552.3	444.3	170.4	136.6	134.8
67.5°	475.9	339.0	126.6	123.1	121.3
70°	417.5	267.4	116.1	114.2	112.3
72.5°	365.1	204.7	105.6	103.7	101.8
75°	292.0	127.3	89.9	87.9	86.1
77.5°	218.3	80.3	74.1	72.2	70.4
80°	170.4	66.0	63.7	61.7	59.9
82.5°	128.4	53.4	51.7	49.8	47.9
85°	69.3	34.5	35.6	31.8	30.0
87.5°	24.0	17.1	17.3	14.7	13.3
90°	0.0	2.1	4.3	6.4	6.4
92.5°	5.2	7.2	9.4	13.3	15.0
95°	17.2	31.9	17.2	19.4	23.6
97.5°	30.5	61.1	126.2	37.2	32.2
100°	40.8	76.4	253.2	74.5	49.4
102.5°	51.1	88.4	342.5	196.7	107.7
105°	66.5	102.2	388.4	496.2	328.3
107.5°	82.0	108.8	370.8	722.1	676.4
110°	92.3	117.5	360.5	758.8	815.4



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	102.6	127.8	350.2	737.4	832.6
115°	118.0	143.2	334.8	695.8	813.3
117.5°	133.9	158.7	330.9	650.8	771.7
120°	145.9	169.0	324.0	616.6	742.5
122.5°	154.5	179.3	315.4	587.2	703.0
125°	169.5	192.6	315.4	551.6	652.4
127.5°	182.0	205.5	315.9	510.4	609.9
130°	188.8	214.0	317.6	482.8	577.2
132.5°	197.4	222.6	317.6	470.4	548.1
135°	210.3	233.4	317.6	454.3	521.5
137.5°	221.0	245.8	317.6	436.5	494.0
140°	229.6	252.7	317.6	426.1	478.5
142.5°	238.2	259.6	319.3	414.0	463.1
145°	248.9	269.9	319.7	395.8	437.8
147.5°	261.8	280.3	322.3	382.7	415.0
150°	270.4	287.2	324.0	374.0	401.3
152.5°	279.0	294.1	324.0	367.0	389.3
155°	291.8	302.3	326.2	358.7	375.5
157.5°	302.1	312.2	328.8	353.5	365.7
160°	309.0	317.4	330.5	350.0	360.5
162.5°	314.2	322.6	332.2	348.2	355.4
165°	324.0	328.2	334.8	343.5	349.8
167.5°	329.6	333.4	336.9	341.3	345.1
170°	334.8	336.9	336.9	341.2	343.3
172.5°	336.5	340.3	338.6	339.5	341.6
175°	341.2	343.3	341.2	339.0	336.9
177.5°	341.2	342.9	341.2	341.2	339.5
180°	341.2	341.2	341.2	341.2	341.2



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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	17.99	18.95	18.80	19.78	20.79	10.22	11.19	11.03	12.01	13.02
	3H	19.49	20.35	20.31	21.18	22.23	11.58	12.44	12.41	13.28	14.32
	4H	20.01	20.82	20.85	21.66	22.71	12.24	13.05	13.08	13.89	14.95
	6H	20.41	21.16	21.26	22.01	23.07	12.84	13.58	13.69	14.43	15.50
	8H	20.55	21.25	21.41	22.12	23.19	13.07	13.77	13.93	14.64	15.71
	12H	20.63	21.30	21.50	22.16	23.25	13.23	13.91	14.10	14.77	15.86
4H	2H	17.83	18.64	18.68	19.48	20.54	10.85	11.66	11.70	12.50	13.56
	3H	19.48	20.15	20.33	21.02	22.09	12.41	13.09	13.27	13.96	15.03
	4H	20.07	20.68	20.94	21.55	22.65	13.21	13.82	14.08	14.69	15.79
	6H	20.57	21.09	21.45	21.99	23.09	13.96	14.48	14.84	15.38	16.48
	8H	20.76	21.25	21.64	22.14	23.25	14.25	14.74	15.14	15.63	16.74
	12H	20.89	21.33	21.80	22.24	23.36	14.47	14.91	15.38	15.82	16.94
8H	4H	20.00	20.49	20.88	21.38	22.49	13.67	14.16	14.56	15.05	16.17
	6H	20.53	20.94	21.45	21.87	22.98	14.56	14.96	15.47	15.90	17.01
	8H	20.77	21.13	21.69	22.05	23.18	14.95	15.31	15.88	16.24	17.37
	12H	20.96	21.28	21.89	22.19	23.38	15.28	15.59	16.20	16.51	17.69
12H	4H	19.95	20.39	20.85	21.30	22.42	13.73	14.17	14.63	15.08	16.19
	6H	20.51	20.87	21.43	21.79	22.92	14.67	15.03	15.60	15.96	17.09
	8H	20.75	21.07	21.68	21.99	23.17	15.12	15.44	16.05	16.35	17.54