

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: P621435

Luminaire Tested: VLT-F-050U-050D-840-UNV-STD-W-4

Issue Date: 9/2/2020

Test Information

Test Method: LM-79-2019
Report Number: P621435
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-050D-840-UNV-STD-W-4
Description: CORELITE VAULT SUSPENDED LED LUMINAIRE
FROSTED LENS
DOWNLIGHT 500 LUMENS PER FOOT
UPLIGHT 500 LUMENS PER FOOT
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

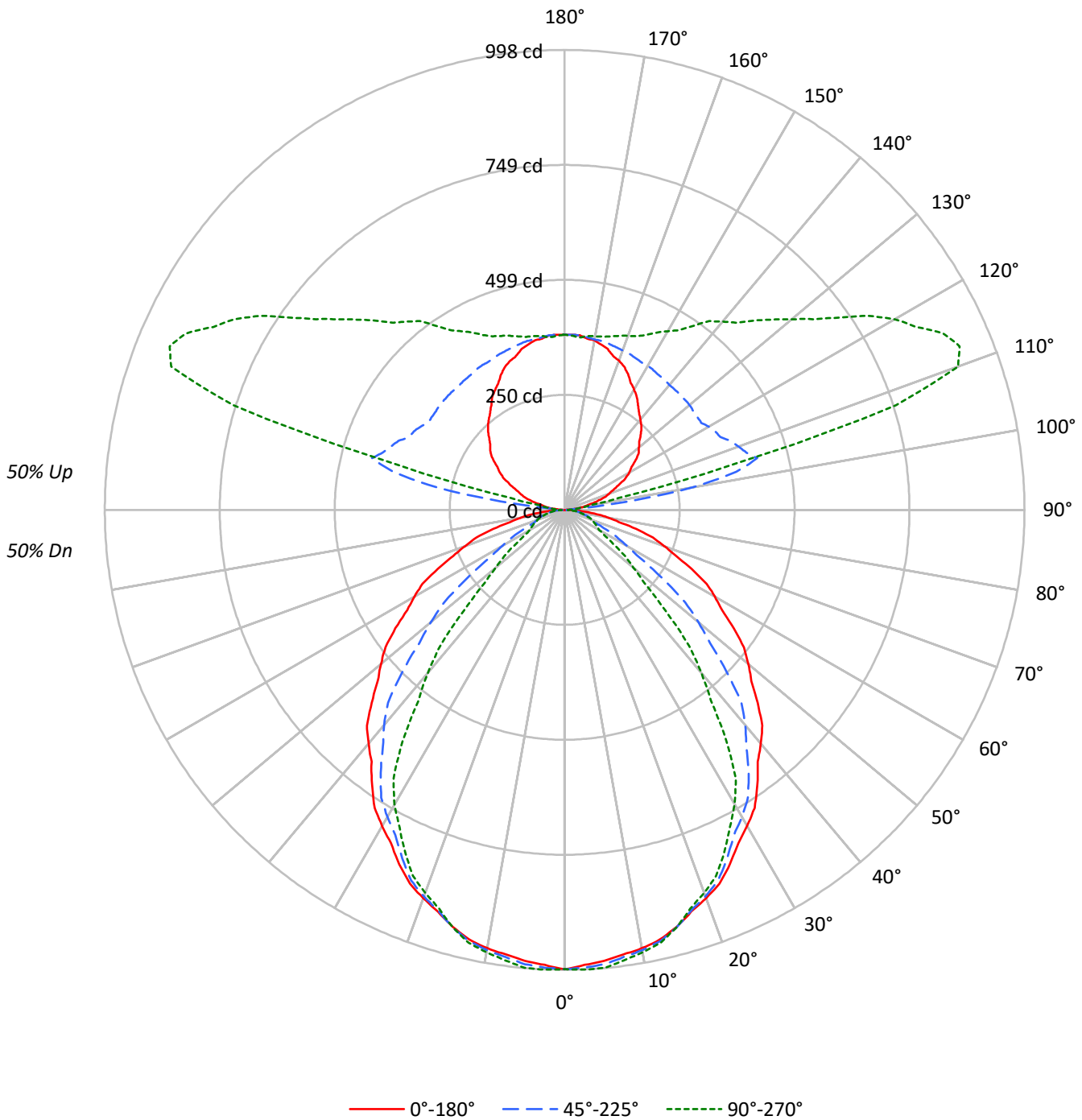
Lumens per Lamp: N/A
Luminaire Lumens: 4076.0 lumens
Efficiency: N/A
Efficacy: 140.6 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.12 / 1.23
Luminous Opening: Rectangular (W 0.38' x L: 4' x H: 0')
CIE Type: General Diffuse

Input Watts (W): 29
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



TEST NUMBER: P621435
CATALOG NUMBER: VLT-F-050U-050D-840-UNV-STD-W-4

Luminous Intensity Polar Plot





TEST NUMBER: P621435

CATALOG NUMBER: VLT-F-050U-050D-840-UNV-STD-W-4

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	98	94	91	87	91	87	84	81	74	72	70	62	60	59	51	50	49	43
2	90	83	78	73	83	77	72	68	66	62	59	55	53	50	45	44	42	38
3	83	74	67	61	76	69	63	58	59	54	50	49	46	43	41	39	37	33
4	76	66	58	53	70	61	55	50	53	48	44	44	41	38	37	34	32	29
5	70	59	51	45	65	55	48	43	47	42	38	40	36	33	34	31	28	25
6	65	53	45	40	60	50	43	38	43	38	34	37	33	29	31	28	25	23
7	60	48	41	35	55	45	38	33	39	34	30	34	29	26	28	25	23	20
8	56	44	36	31	52	41	34	30	36	30	27	31	27	24	26	23	21	18
9	52	40	33	28	48	38	31	27	33	28	24	28	24	21	24	21	19	17
10	49	37	30	25	45	35	28	24	30	25	22	26	22	19	23	19	17	15

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7154	7154	7154
5°	7077	7129	7188
10°	7039	7069	7106
15°	6962	6970	6970
20°	6850	6818	6755
25°	6719	6604	6490
30°	6562	6374	6118
35°	6387	6099	5367
40°	6203	5710	4322
45°	6009	5058	3135
50°	5806	4231	2172
55°	5605	3222	1624
60°	5395	2232	1227
65°	5158	1591	1258
70°	4817	1339	1297
75°	4456	1370	1314
80°	3872	1446	1364
85°	3137	1614	1359

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 6009 cd/sqm



TEST NUMBER: P621435

CATALOG NUMBER: VLT-F-050U-050D-840-UNV-STD-W-4

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	93.9	2.3
10°-20°	264.2	6.5
20°-30°	384.2	9.4
30°-40°	425.1	10.4
40°-50°	365.0	9.0
50°-60°	252.7	6.2
60°-70°	150.6	3.7
70°-80°	74.2	1.8
80°-90°	23.8	0.6
90°-100°	46.8	1.1
100°-110°	333.1	8.2
110°-120°	452.2	11.1
120°-130°	368.1	9.0
130°-140°	296.0	7.3
140°-150°	233.4	5.7
150°-160°	170.7	4.2
160°-170°	106.0	2.6
170°-180°	36.1	0.9
0°-30°	742.3	18.2
0°-40°	1167.4	28.6
0°-60°	1785.1	43.8
0°-90°	2033.6	49.9
90°-120°	832.1	20.4
90°-150°	1729.6	42.4
90°-180°	2042.0	50.1
0°-180°	4076.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	997	997	997	997	997	
5°	982	998	990	989	998	93
15°	937	949	938	933	938	264
25°	849	855	834	820	820	390
35°	729	727	696	640	613	456
45°	592	582	498	360	309	457
55°	448	429	258	148	130	400
65°	304	244	94	75	74	301
75°	161	70	49	48	47	170
85°	38	19	20	18	16	44
90°	0	2	5	7	7	3
95°	19	36	19	22	26	21
105°	74	114	433	553	366	78
115°	132	160	373	775	906	131
125°	189	215	352	615	727	168
135°	234	260	354	506	581	180
145°	277	301	356	441	488	174
155°	325	337	364	400	418	149
165°	361	366	373	383	390	101
175°	380	382	380	378	375	36
180°	380	380	380	380	380	

TEST NUMBER: P621435

CATALOG NUMBER: VLT-F-050U-050D-840-UNV-STD-W-4

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	996.9	996.9	996.9	996.9	996.9
2.5°	988.6	999.9	994.4	994.5	998.5
5°	982.4	997.5	989.7	988.8	997.9
7.5°	973.4	987.3	979.1	978.1	985.9
10°	966.0	979.1	970.1	968.2	975.2
12.5°	955.3	968.3	958.6	955.0	962.1
15°	937.1	949.2	938.2	933.1	938.2
17.5°	914.3	924.3	911.8	903.8	906.9
20°	897.0	907.0	892.8	881.6	884.6
22.5°	878.0	886.5	870.6	857.7	859.9
25°	848.6	854.6	834.1	819.7	819.7
27.5°	815.8	819.4	795.6	780.5	776.3
30°	791.9	793.9	769.3	751.5	738.4
32.5°	767.2	768.4	740.4	711.8	691.4
35°	729.1	727.1	696.2	639.9	612.7
37.5°	688.5	684.1	647.5	562.0	521.5
40°	662.2	656.1	609.6	506.7	461.4
42.5°	635.0	626.5	567.6	449.7	399.6
45°	592.1	582.1	498.4	360.3	308.9
47.5°	549.7	536.4	427.6	279.1	235.0
50°	520.1	506.0	379.0	229.9	194.6
52.5°	490.4	476.3	329.5	193.0	165.0
55°	448.0	428.8	257.5	147.9	129.8
57.5°	404.7	377.3	191.8	115.2	101.1
60°	375.9	339.6	155.5	95.5	85.5
62.5°	347.9	302.0	127.5	83.4	81.4
65°	303.8	244.4	93.7	75.2	74.1
67.5°	261.8	186.5	69.6	67.7	66.7
70°	229.6	147.1	63.8	62.8	61.8
72.5°	200.8	112.6	58.1	57.0	56.0
75°	160.7	70.0	49.4	48.4	47.4
77.5°	120.1	44.2	40.8	39.7	38.7
80°	93.7	36.3	35.0	34.0	33.0
82.5°	70.6	29.4	28.4	27.4	26.4
85°	38.1	19.0	19.6	17.5	16.5
87.5°	13.2	9.6	10.0	8.8	8.0
90°	0.0	2.3	4.8	7.2	7.2
92.5°	5.7	8.1	10.5	14.9	16.7
95°	19.1	35.5	19.1	21.6	26.3
97.5°	34.0	68.1	140.6	41.5	35.9
100°	45.4	85.2	282.2	83.1	55.0
102.5°	56.9	98.5	381.6	219.2	120.0
105°	74.1	113.9	432.8	552.9	365.9
107.5°	91.3	121.3	413.2	804.7	753.7
110°	102.8	130.9	401.7	845.5	908.7



TEST NUMBER: P621435

CATALOG NUMBER: VLT-F-050U-050D-840-UNV-STD-W-4

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	114.3	142.4	390.2	821.6	927.8
115°	131.5	159.6	373.0	775.3	906.3
117.5°	149.2	176.8	368.7	725.2	859.9
120°	162.6	188.3	361.1	687.1	827.4
122.5°	172.2	199.8	351.5	654.3	783.4
125°	188.9	214.6	351.5	614.7	726.9
127.5°	202.8	229.0	352.0	568.8	679.6
130°	210.4	238.5	353.9	538.0	643.2
132.5°	220.0	248.0	353.9	524.2	610.7
135°	234.3	260.1	353.9	506.2	581.1
137.5°	246.3	273.9	353.9	486.4	550.5
140°	255.9	281.6	353.9	474.8	533.2
142.5°	265.4	289.3	355.8	461.3	516.0
145°	277.4	300.8	356.3	441.0	487.8
147.5°	291.7	312.3	359.2	426.5	462.5
150°	301.3	320.0	361.1	416.8	447.2
152.5°	310.9	327.7	361.1	409.0	433.8
155°	325.2	336.9	363.5	399.8	418.5
157.5°	336.7	347.9	366.3	393.9	407.5
160°	344.3	353.7	368.2	390.0	401.7
162.5°	350.1	359.4	370.2	388.0	396.0
165°	361.1	365.7	373.0	382.8	389.8
167.5°	367.3	371.5	375.4	380.3	384.5
170°	373.0	375.4	375.4	380.3	382.6
172.5°	374.9	379.1	377.3	378.3	380.7
175°	380.2	382.5	380.2	377.8	375.4
177.5°	380.2	382.1	380.2	380.2	378.3
180°	380.2	380.2	380.2	380.2	380.2



TEST NUMBER: P621435

CATALOG NUMBER: VLT-F-050U-050D-840-UNV-STD-W-4

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	14.45	15.26	15.42	16.23	17.51	6.68	7.49	7.65	8.47	9.74
	3H	15.94	16.66	16.92	17.65	18.95	8.03	8.76	9.01	9.74	11.04
	4H	16.45	17.13	17.44	18.12	19.43	8.68	9.37	9.68	10.36	11.66
	6H	16.84	17.47	17.85	18.47	19.79	9.27	9.90	10.28	10.89	12.21
	8H	16.97	17.57	17.98	18.58	19.90	9.50	10.09	10.51	11.10	12.42
	12H	17.05	17.62	18.07	18.62	19.96	9.66	10.23	10.67	11.23	12.57
4H	2H	14.27	14.96	15.27	15.94	17.25	7.29	7.98	8.29	8.96	10.27
	3H	15.90	16.47	16.91	17.49	18.81	8.84	9.41	9.85	10.43	11.75
	4H	16.49	17.01	17.51	18.02	19.37	9.63	10.15	10.65	11.16	12.51
	6H	16.98	17.43	18.01	18.46	19.80	10.37	10.82	11.40	11.85	13.19
	8H	17.17	17.58	18.20	18.61	19.97	10.66	11.08	11.69	12.11	13.46
	12H	17.30	17.67	18.34	18.71	20.07	10.88	11.25	11.92	12.30	13.66
8H	4H	16.41	16.82	17.43	17.85	19.20	10.08	10.50	11.11	11.53	12.88
	6H	16.94	17.28	17.99	18.35	19.70	10.97	11.31	12.02	12.38	13.73
	8H	17.17	17.48	18.23	18.53	19.90	11.36	11.66	12.42	12.72	14.09
	12H	17.36	17.63	18.42	18.67	20.09	11.68	11.95	12.74	12.99	14.41
12H	4H	16.35	16.73	17.40	17.77	19.13	10.13	10.51	11.18	11.55	12.91
	6H	16.91	17.21	17.97	18.27	19.64	11.08	11.38	12.14	12.44	13.81
	8H	17.15	17.42	18.21	18.47	19.88	11.52	11.79	12.58	12.84	14.25