

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: P621433

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

Issue Date: 9/2/2020

Test Information

Test Method: LM-79-2019
Report Number: P621433
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-830-UNV-STD-W-4
Description: CORELITE VAULT SUSPENDED LED LUMINAIRE
FROSTED LENS
DOWNLIGHT 500 LUMENS PER FOOT
UPLIGHT 500 LUMENS PER FOOT
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

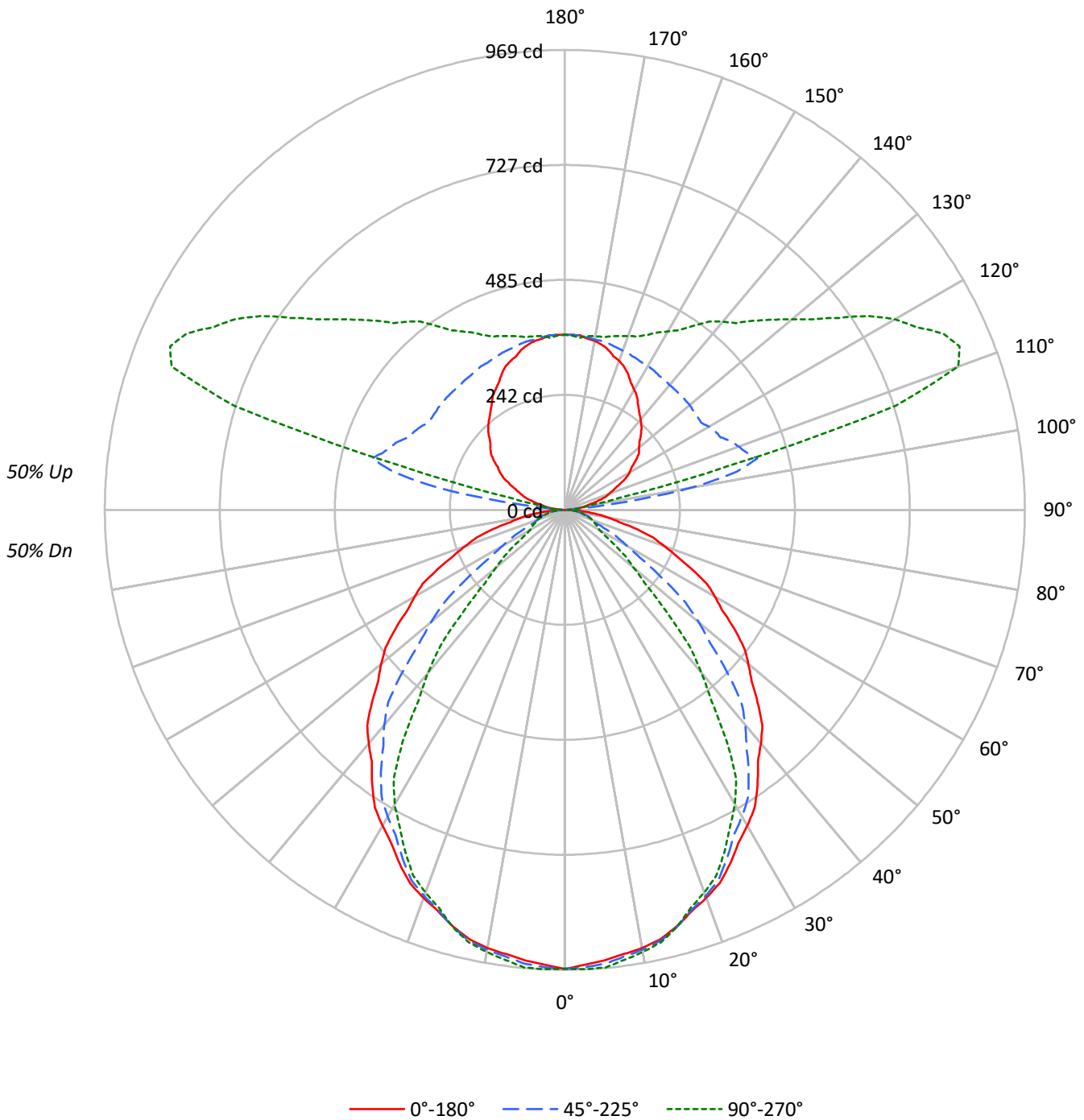
Lumens per Lamp: N/A
Luminaire Lumens: 3954.3 lumens
Efficiency: N/A
Efficacy: 136.4 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.12 / 1.23
Luminous Opening: Rectangular (W 0.38' x L: 4' x H: 0')
CIE Type: General Diffuse

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



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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	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°	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



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	91.1	2.3
10°-20°	256.3	6.5
20°-30°	372.8	9.4
30°-40°	412.4	10.4
40°-50°	354.1	9.0
50°-60°	245.2	6.2
60°-70°	146.1	3.7
70°-80°	72.0	1.8
80°-90°	23.1	0.6
90°-100°	45.4	1.1
100°-110°	323.2	8.2
110°-120°	438.7	11.1
120°-130°	357.1	9.0
130°-140°	287.2	7.3
140°-150°	226.4	5.7
150°-160°	165.6	4.2
160°-170°	102.8	2.6
170°-180°	35.1	0.9
0°-30°	720.2	18.2
0°-40°	1132.6	28.6
0°-60°	1731.8	43.8
0°-90°	1972.9	49.9
90°-120°	807.3	20.4
90°-150°	1677.9	42.4
90°-180°	1981.0	50.1
0°-180°	3954.3	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	2	5	7	7	3
95°	19	34	19	21	26	21
105°	72	110	420	536	355	76
115°	128	155	362	752	879	127
125°	183	208	341	596	705	163
135°	227	252	343	491	564	175
145°	269	292	346	428	473	169
155°	316	327	353	388	406	145
165°	350	355	362	371	378	98
175°	369	371	369	366	364	35
180°	369	369	369	369	369	

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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	9.3	9.7	8.6	7.8
90°	0.0	2.3	4.6	7.0	7.0
92.5°	5.6	7.8	10.2	14.4	16.2
95°	18.6	34.4	18.6	21.0	25.5
97.5°	32.9	66.1	136.4	40.2	34.8
100°	44.1	82.6	273.7	80.6	53.4
102.5°	55.2	95.6	370.3	212.6	116.5
105°	71.9	110.5	419.9	536.4	354.9
107.5°	88.6	117.7	400.9	780.7	731.2
110°	99.8	127.0	389.7	820.3	881.6



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	110.9	138.1	378.6	797.1	900.1
115°	127.6	154.8	361.9	752.2	879.2
117.5°	144.8	171.5	357.7	703.6	834.2
120°	157.8	182.7	350.3	666.6	802.7
122.5°	167.0	193.8	341.0	634.8	760.0
125°	183.3	208.2	341.0	596.4	705.2
127.5°	196.7	222.1	341.5	551.8	659.3
130°	204.2	231.4	343.3	522.0	624.1
132.5°	213.4	240.6	343.3	508.6	592.5
135°	227.3	252.3	343.3	491.1	563.7
137.5°	238.9	265.7	343.3	471.9	534.0
140°	248.2	273.2	343.3	460.6	517.3
142.5°	257.5	280.6	345.2	447.6	500.6
145°	269.1	291.8	345.7	427.9	473.3
147.5°	283.0	303.0	348.4	413.7	448.7
150°	292.3	310.5	350.3	404.3	433.8
152.5°	301.6	317.9	350.3	396.8	420.8
155°	315.5	326.8	352.6	387.8	406.0
157.5°	326.6	337.5	355.4	382.2	395.3
160°	334.1	343.1	357.3	378.4	389.7
162.5°	339.6	348.7	359.1	376.5	384.2
165°	350.3	354.8	361.9	371.3	378.1
167.5°	356.3	360.4	364.2	369.0	373.0
170°	361.9	364.2	364.2	368.9	371.2
172.5°	363.8	367.8	366.1	367.1	369.3
175°	368.9	371.1	368.9	366.5	364.2
177.5°	368.9	370.7	368.9	368.8	367.0
180°	368.9	368.9	368.9	368.9	368.9



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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	14.34	15.15	15.31	16.13	17.41	6.58	7.39	7.54	8.36	9.64
	3H	15.83	16.56	16.81	17.54	18.84	7.92	8.65	8.90	9.63	10.93
	4H	16.34	17.03	17.34	18.02	19.32	8.58	9.26	9.57	10.25	11.56
	6H	16.74	17.37	17.74	18.36	19.68	9.16	9.79	10.17	10.79	12.11
	8H	16.87	17.47	17.88	18.48	19.79	9.39	9.99	10.40	11.00	12.31
	12H	16.95	17.52	17.96	18.52	19.86	9.55	10.12	10.57	11.13	12.47
4H	2H	14.17	14.85	15.16	15.84	17.15	7.19	7.87	8.19	8.86	10.17
	3H	15.80	16.37	16.81	17.38	18.70	8.73	9.30	9.74	10.32	11.64
	4H	16.39	16.90	17.40	17.92	19.26	9.53	10.05	10.54	11.06	12.40
	6H	16.88	17.32	17.90	18.36	19.70	10.26	10.71	11.29	11.74	13.08
	8H	17.06	17.48	18.09	18.51	19.86	10.56	10.97	11.58	12.00	13.35
	12H	17.19	17.57	18.24	18.61	19.97	10.77	11.15	11.82	12.19	13.55
8H	4H	16.30	16.72	17.33	17.74	19.10	9.98	10.39	11.01	11.42	12.78
	6H	16.83	17.18	17.88	18.25	19.60	10.86	11.20	11.91	12.27	13.62
	8H	17.07	17.37	18.13	18.42	19.80	11.25	11.56	12.31	12.61	13.98
	12H	17.26	17.52	18.32	18.57	19.99	11.57	11.84	12.63	12.89	14.30
12H	4H	16.25	16.62	17.29	17.67	19.03	10.03	10.40	11.07	11.44	12.80
	6H	16.81	17.11	17.86	18.16	19.53	10.97	11.28	12.03	12.33	13.70
	8H	17.05	17.31	18.11	18.36	19.78	11.42	11.68	12.48	12.73	14.14