

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: P621449

Luminaire Tested: VLT-F-050U-100D-935-UNV-STD-W-4

Issue Date: 9/2/2020

Test Information

Test Method: LM-79-2019
Report Number: P621449
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-935-UNV-STD-W-4
Description: CORELITE VAULT SUSPENDED LED LUMINAIRE
FROSTED LENS
DOWNLIGHT 1000 LUMENS PER FOOT
UPLIGHT 500 LUMENS PER FOOT
Light Source: 3500K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

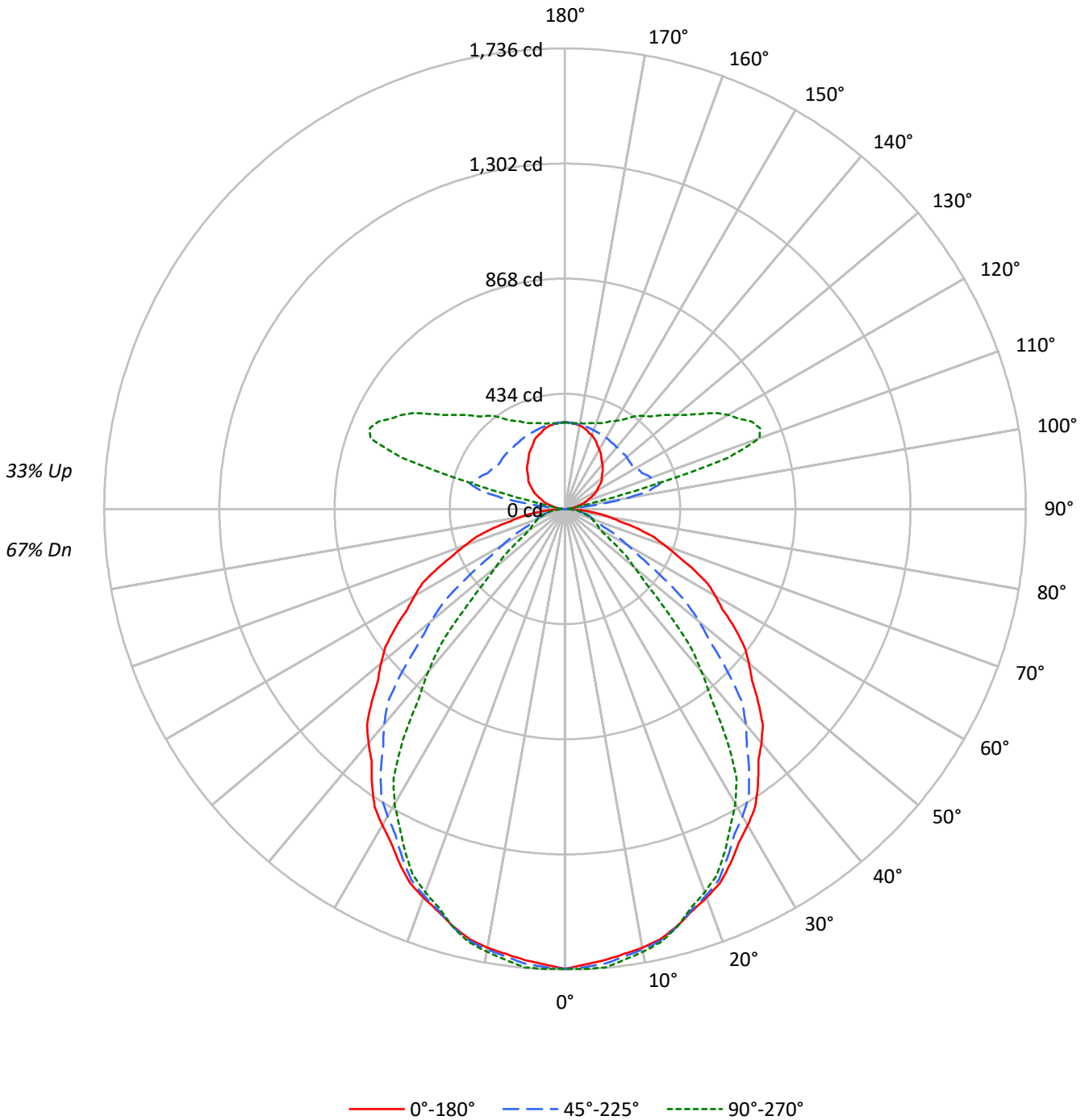
Lumens per Lamp: N/A
Luminaire Lumens: 5286.5 lumens
Efficiency: N/A
Efficacy: 120.7 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.12 / 1.23
Luminous Opening: Rectangular (W 0.38' x L: 4' x H: 0')
CIE Type: Semi-Direct

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	
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	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°	12434	12434	12434
5°	12301	12391	12494
10°	12234	12287	12352
15°	12101	12115	12115
20°	11906	11851	11742
25°	11679	11480	11281
30°	11406	11079	10634
35°	11102	10600	9330
40°	10782	9927	7512
45°	10446	8793	5450
50°	10092	7354	3777
55°	9742	5599	2821
60°	9378	3879	2133
65°	8967	2766	2189
70°	8376	2329	2253
75°	7741	2382	2282
80°	6732	2517	2368
85°	5451	2799	2355

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 10446 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	163.3	3.1
10°-20°	459.1	8.7
20°-30°	667.9	12.6
30°-40°	738.9	14.0
40°-50°	634.4	12.0
50°-60°	439.2	8.3
60°-70°	261.7	5.0
70°-80°	129.0	2.4
80°-90°	40.6	0.8
90°-100°	40.1	0.8
100°-110°	285.8	5.4
110°-120°	388.0	7.3
120°-130°	315.8	6.0
130°-140°	254.0	4.8
140°-150°	200.3	3.8
150°-160°	146.4	2.8
160°-170°	90.9	1.7
170°-180°	31.0	0.6
0°-30°	1290.3	24.4
0°-40°	2029.2	38.4
0°-60°	3102.8	58.7
0°-90°	3534.0	66.8
90°-120°	714.0	13.5
90°-150°	1484.1	28.1
90°-180°	1752.0	33.1
0°-180°	5286.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1733	1733	1733	1733	1733	
5°	1708	1734	1720	1719	1734	162
15°	1629	1650	1631	1622	1631	459
25°	1475	1486	1450	1425	1425	679
35°	1267	1264	1210	1112	1065	792
45°	1029	1012	866	626	537	794
55°	779	745	448	257	226	696
65°	528	425	163	131	129	523
75°	279	122	86	84	82	295
85°	66	33	34	30	29	77
90°	0	2	4	6	6	4
95°	16	30	16	19	23	18
105°	64	98	371	474	314	67
115°	113	137	320	665	778	112
125°	162	184	302	528	624	144
135°	201	223	304	434	499	155
145°	238	258	306	378	419	149
155°	279	289	312	343	359	128
165°	310	314	320	328	334	87
175°	326	328	326	324	322	31
180°	326	326	326	326	326	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1732.7	1732.7	1732.7	1732.7	1732.7
2.5°	1718.4	1738.0	1728.4	1728.6	1735.6
5°	1707.7	1733.9	1720.2	1718.8	1734.5
7.5°	1691.9	1716.1	1701.9	1700.1	1713.8
10°	1679.0	1701.8	1686.2	1682.9	1695.1
12.5°	1660.4	1683.2	1666.1	1660.0	1672.2
15°	1628.9	1649.9	1630.7	1621.9	1630.7
17.5°	1589.2	1606.7	1584.9	1571.0	1576.3
20°	1559.1	1576.6	1551.9	1532.4	1537.6
22.5°	1526.2	1540.9	1513.3	1490.8	1494.7
25°	1475.0	1485.5	1449.9	1424.8	1424.8
27.5°	1418.0	1424.3	1383.0	1356.7	1349.3
30°	1376.5	1380.0	1337.1	1306.2	1283.4
32.5°	1333.6	1335.7	1287.0	1237.2	1201.8
35°	1267.3	1263.8	1210.0	1112.3	1065.1
37.5°	1196.8	1189.1	1125.6	976.8	906.5
40°	1151.0	1140.5	1059.7	880.7	801.9
42.5°	1103.7	1089.0	986.7	781.7	694.5
45°	1029.3	1011.8	866.4	626.3	537.0
47.5°	955.5	932.4	743.2	485.1	408.5
50°	904.0	879.5	658.7	399.6	338.3
52.5°	852.4	827.9	572.8	335.4	286.8
55°	778.7	745.4	447.5	257.0	225.5
57.5°	703.5	655.9	333.3	200.3	175.8
60°	653.4	590.3	270.3	166.1	148.6
62.5°	604.7	524.9	221.6	144.9	141.4
65°	528.1	424.8	162.9	130.6	128.9
67.5°	455.0	324.1	121.0	117.7	116.0
70°	399.2	255.7	111.0	109.2	107.4
72.5°	349.1	195.7	101.0	99.1	97.4
75°	279.2	121.7	85.9	84.1	82.3
77.5°	208.7	76.7	70.9	69.1	67.3
80°	162.9	63.1	60.9	59.0	57.3
82.5°	122.8	51.0	49.4	47.6	45.8
85°	66.2	33.0	34.0	30.4	28.6
87.5°	22.9	16.3	16.6	14.1	12.7
90°	0.0	2.0	4.1	6.2	6.2
92.5°	4.9	6.9	9.0	12.8	14.4
95°	16.4	30.5	16.4	18.6	22.6
97.5°	29.1	58.4	120.6	35.6	30.8
100°	39.0	73.1	242.1	71.3	47.2
102.5°	48.8	84.5	327.5	188.1	103.0
105°	63.6	97.7	371.4	474.4	313.9
107.5°	78.4	104.1	354.6	690.5	646.7
110°	88.2	112.3	344.7	725.5	779.7



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	98.1	122.2	334.9	705.0	796.1
115°	112.9	136.9	320.1	665.3	777.6
117.5°	128.0	151.7	316.4	622.3	737.8
120°	139.5	161.6	309.8	589.6	709.9
122.5°	147.7	171.4	301.6	561.4	672.2
125°	162.1	184.2	301.6	527.5	623.8
127.5°	174.0	196.5	302.0	488.0	583.1
130°	180.6	204.6	303.7	461.7	551.9
132.5°	188.8	212.8	303.7	449.8	524.0
135°	201.1	223.1	303.7	434.4	498.6
137.5°	211.3	235.0	303.7	417.4	472.3
140°	219.5	241.6	303.7	407.4	457.6
142.5°	227.8	248.2	305.3	395.8	442.8
145°	238.0	258.1	305.7	378.4	418.6
147.5°	250.3	268.0	308.2	365.9	396.8
150°	258.5	274.6	309.8	357.6	383.7
152.5°	266.7	281.2	309.8	350.9	372.2
155°	279.0	289.1	311.9	343.0	359.1
157.5°	288.9	298.5	314.3	338.0	349.6
160°	295.5	303.5	316.0	334.7	344.7
162.5°	300.4	308.4	317.6	333.0	339.8
165°	309.8	313.8	320.1	328.4	334.4
167.5°	315.2	318.8	322.1	326.3	329.9
170°	320.1	322.1	322.1	326.3	328.3
172.5°	321.7	325.3	323.8	324.6	326.7
175°	326.2	328.2	326.2	324.1	322.1
177.5°	326.2	327.8	326.2	326.2	324.6
180°	326.2	326.2	326.2	326.2	326.2



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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	17.83	18.80	18.64	19.62	20.63	10.07	11.03	10.88	11.85	12.87
	3H	19.34	20.20	20.16	21.03	22.07	11.43	12.29	12.25	13.12	14.16
	4H	19.85	20.66	20.69	21.50	22.56	12.09	12.90	12.93	13.74	14.79
	6H	20.26	21.00	21.11	21.85	22.92	12.68	13.43	13.53	14.28	15.34
	8H	20.39	21.10	21.25	21.96	23.03	12.91	13.62	13.77	14.48	15.55
	12H	20.47	21.15	21.34	22.01	23.10	13.08	13.75	13.94	14.61	15.70
4H	2H	17.68	18.49	18.52	19.33	20.38	10.70	11.51	11.54	12.35	13.40
	3H	19.32	19.99	20.18	20.87	21.94	12.26	12.93	13.11	13.80	14.87
	4H	19.92	20.52	20.78	21.40	22.49	13.06	13.67	13.92	14.54	15.63
	6H	20.41	20.94	21.30	21.83	22.93	13.80	14.33	14.68	15.22	16.32
	8H	20.60	21.09	21.49	21.98	23.09	14.10	14.59	14.98	15.48	16.59
	12H	20.74	21.18	21.64	22.09	23.20	14.32	14.76	15.22	15.67	16.78
8H	4H	19.84	20.33	20.73	21.22	22.33	13.52	14.01	14.40	14.90	16.01
	6H	20.38	20.78	21.29	21.71	22.83	14.40	14.81	15.32	15.74	16.85
	8H	20.61	20.97	21.54	21.90	23.03	14.80	15.16	15.72	16.08	17.21
	12H	20.81	21.12	21.73	22.04	23.22	15.12	15.44	16.05	16.35	17.54
12H	4H	19.79	20.23	20.70	21.14	22.26	13.57	14.01	14.48	14.92	16.04
	6H	20.35	20.71	21.27	21.63	22.76	14.52	14.88	15.44	15.80	16.93
	8H	20.60	20.91	21.52	21.83	23.01	14.97	15.28	15.89	16.20	17.38