

Signify Classified - Internal  
Cooper Lighting Solutions Photometric Lab  
1121 Highway 74 South  
Peachtree City, GA 30269



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: P621963

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

Issue Date: 9/2/2020

**Test Information**

Test Method: LM-79-2019  
Report Number: P621963  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2203-563-26, G2-2203-563-26)  
Test Lab: INNOVATION CENTER  
Issue Date: 10/28/2022  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: VLT-BB-M-100U-050D-940-UNV-STD-W-4  
Description: CORELITE VAULT SUSPENDED LED LUMINAIRE  
BLACK BAFFLE WITH MEDIUM OPTIC  
DOWNLIGHT 500 LUMENS PER FOOT  
UPLIGHT 1000 LUMENS PER FOOT  
Light Source: 4000K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

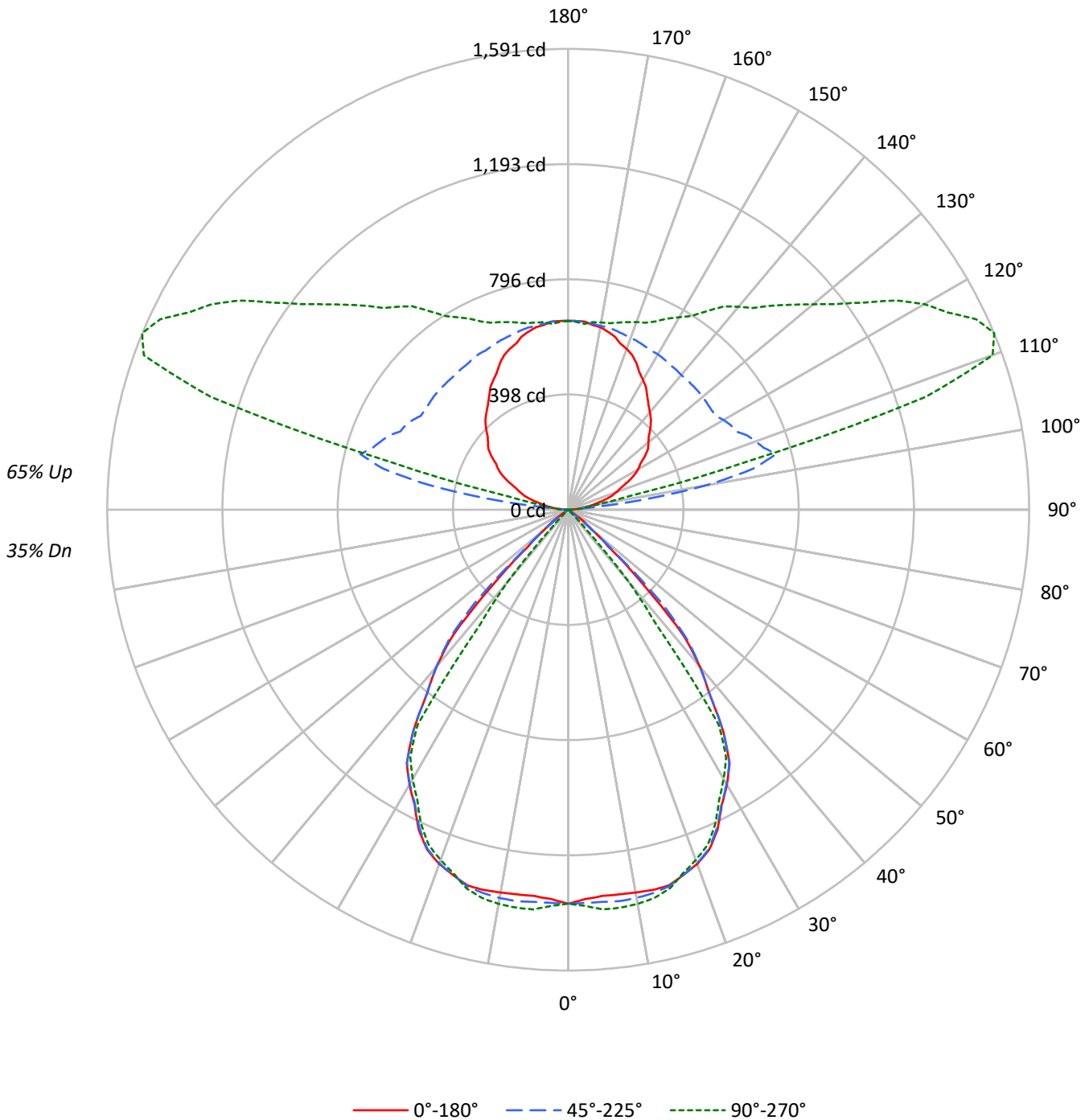
Lumens per Lamp: N/A  
Luminaire Lumens: 5377.2 lumens  
Efficiency: N/A  
Efficacy: 104.2 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.18 / 1.14  
Luminous Opening: Rectangular (W 0.38' x L: 4' x H: 0')  
CIE Type: Semi-Indirect

Input Watts (W): 51.6  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): 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	0
RCR																		
0	104	104	104	104	94	94	94	94	75	75	75	58	58	58	42	42	42	35
1	96	92	89	86	87	84	81	78	68	66	64	53	52	51	39	39	38	32
2	89	82	77	73	80	75	71	67	61	58	56	48	47	45	37	36	35	30
3	82	74	68	63	74	67	62	58	55	52	49	44	42	40	34	33	32	27
4	76	66	60	54	69	61	55	51	50	46	43	41	38	36	32	30	29	25
5	70	60	53	48	64	55	49	45	46	42	38	37	34	32	29	28	26	23
6	65	54	47	42	59	50	44	40	42	38	34	34	31	29	27	25	24	21
7	60	50	43	38	55	46	40	35	39	34	31	32	29	26	25	23	22	19
8	56	45	38	34	51	42	36	32	35	31	28	29	26	24	24	22	20	18
9	53	42	35	30	48	39	33	29	33	28	25	27	24	22	22	20	19	16
10	49	38	32	28	45	36	30	26	30	26	23	25	22	20	21	19	17	15

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	9761	9761	9761
5°	9645	9791	9980
10°	9778	9919	10066
15°	9977	10000	10060
20°	9938	9922	9830
25°	9653	9613	9501
30°	9077	9060	8892
35°	8157	8165	7935
40°	6623	6623	3031
45°	3809	4632	62
50°	1200	1110	57
55°	419	89	51
60°	29	59	59
65°	17	51	51
70°	21	63	63
75°	0	55	55
80°	0	83	83
85°	0	82	82

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 45°  
 Vertical Angle: 45°  
 Luminance: 4632 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	130.0	2.4
10°-20°	379.3	7.1
20°-30°	554.0	10.3
30°-40°	548.7	10.2
40°-50°	229.7	4.3
50°-60°	24.6	0.5
60°-70°	3.4	0.1
70°-80°	2.1	0.0
80°-90°	2.5	0.0
90°-100°	80.2	1.5
100°-110°	571.3	10.6
110°-120°	775.6	14.4
120°-130°	631.3	11.7
130°-140°	507.7	9.4
140°-150°	400.3	7.4
150°-160°	292.7	5.4
160°-170°	181.8	3.4
170°-180°	62.0	1.2
0°-30°	1063.3	19.8
0°-40°	1612.0	30.0
0°-60°	1866.3	34.7
0°-90°	1874.3	34.9
90°-120°	1427.1	26.5
90°-150°	2966.4	55.2
90°-180°	3503.0	65.1
0°-180°	5377.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1360	1360	1360	1360	1360	
5°	1339	1363	1359	1363	1386	128
15°	1343	1371	1346	1336	1354	377
25°	1219	1240	1214	1185	1200	557
35°	931	933	932	914	906	571
45°	375	446	456	9	6	294
55°	34	44	7	5	4	38
65°	1	4	3	3	3	1
75°	0	2	2	2	2	0
85°	0	1	1	1	1	0
90°	0	4	8	12	12	1
95°	33	61	33	37	45	37
105°	127	195	742	948	628	134
115°	226	274	640	1330	1554	224
125°	324	368	603	1054	1247	288
135°	402	446	607	868	997	309
145°	476	516	611	756	837	299
155°	558	578	623	686	718	256
165°	619	627	640	656	668	174
175°	652	656	652	648	644	62
180°	652	652	652	652	652	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1360.2	1360.2	1360.2	1360.2	1360.2
2.5°	1345.6	1364.6	1358.6	1357.2	1369.1
5°	1338.9	1362.7	1359.2	1362.7	1385.5
7.5°	1339.5	1361.5	1362.8	1362.7	1385.5
10°	1341.9	1364.7	1361.2	1358.7	1381.5
12.5°	1345.2	1368.8	1355.5	1351.3	1373.4
15°	1342.9	1370.7	1346.0	1336.2	1354.1
17.5°	1322.4	1354.6	1322.0	1303.3	1316.4
20°	1301.4	1335.1	1299.3	1273.3	1287.2
22.5°	1271.3	1302.7	1268.5	1238.4	1254.7
25°	1219.2	1240.0	1214.1	1185.0	1199.9
27.5°	1148.2	1160.1	1145.4	1119.2	1128.3
30°	1095.4	1103.4	1093.4	1067.2	1073.1
32.5°	1037.0	1041.0	1035.0	1011.1	1013.9
35°	931.1	933.1	932.1	913.7	905.8
37.5°	800.3	804.3	801.9	721.8	498.0
40°	707.0	710.9	707.0	422.7	323.6
42.5°	590.1	615.5	608.8	288.3	92.3
45°	375.3	445.7	456.4	9.1	6.1
47.5°	185.4	261.4	214.6	5.9	5.9
50°	107.5	154.1	99.4	5.1	5.1
52.5°	71.8	93.8	28.8	5.1	5.1
55°	33.5	44.4	7.1	5.0	4.1
57.5°	11.8	22.3	4.9	4.1	4.1
60°	2.0	11.0	4.1	4.1	4.1
62.5°	1.2	6.2	4.1	3.3	4.1
65°	1.0	4.0	3.0	3.0	3.0
67.5°	1.0	3.0	3.0	3.0	3.0
70°	1.0	3.0	3.0	3.0	3.0
72.5°	0.2	2.2	2.2	2.2	3.0
75°	0.0	2.0	2.0	2.0	2.0
77.5°	0.0	2.0	2.0	2.0	2.0
80°	0.0	2.0	2.0	2.0	2.0
82.5°	0.0	1.2	1.2	1.2	2.0
85°	0.0	1.0	1.0	1.0	1.0
87.5°	0.0	1.6	2.5	3.3	3.3
90°	0.0	4.0	8.2	12.3	12.3
92.5°	9.8	13.9	18.0	25.5	28.7
95°	32.8	60.9	32.8	37.1	45.1
97.5°	58.2	116.8	241.2	71.1	61.5
100°	77.9	146.1	483.9	142.5	94.3
102.5°	97.6	169.0	654.6	375.9	205.9
105°	127.1	195.3	742.3	948.3	627.5
107.5°	156.7	208.0	708.7	1380.1	1292.7
110°	176.4	224.5	689.0	1450.2	1558.5



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	196.0	244.2	669.3	1409.2	1591.3
115°	225.6	273.7	639.8	1329.8	1554.4
117.5°	255.9	303.2	632.4	1243.8	1474.8
120°	278.9	323.0	619.3	1178.4	1419.0
122.5°	295.3	342.6	602.9	1122.2	1343.6
125°	324.0	368.1	602.9	1054.3	1246.8
127.5°	347.8	392.7	603.7	975.5	1165.6
130°	360.9	409.0	607.0	922.8	1103.2
132.5°	377.3	425.4	607.0	899.1	1047.5
135°	401.9	446.0	607.0	868.3	996.6
137.5°	422.4	469.7	607.0	834.2	944.1
140°	438.8	482.9	607.0	814.3	914.6
142.5°	455.2	496.1	610.3	791.2	885.1
145°	475.7	515.8	611.1	756.5	836.7
147.5°	500.4	535.6	616.0	731.4	793.2
150°	516.8	548.8	619.3	714.8	766.9
152.5°	533.2	562.0	619.3	701.5	744.0
155°	557.8	577.8	623.4	685.6	717.7
157.5°	577.5	596.7	628.3	675.6	698.9
160°	590.6	606.6	631.6	669.0	689.0
162.5°	600.4	616.5	634.9	665.5	679.2
165°	619.3	627.3	639.8	656.5	668.5
167.5°	630.0	637.2	643.9	652.3	659.5
170°	639.8	643.8	643.9	652.2	656.2
172.5°	643.1	650.3	647.2	648.9	652.9
175°	652.1	656.1	652.1	647.9	643.9
177.5°	652.1	655.3	652.1	652.0	648.8
180°	652.1	652.1	652.1	652.1	652.1



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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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	3H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	4H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	6H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	8H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	12H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4H	2H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	3H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	4H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	6H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	8H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	12H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8H	4H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	6H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	8H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	12H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12H	4H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	6H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	8H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00