

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: P621986

Luminaire Tested: VLT-BB-M-150U-050D-935-UNV-STD-W-4

Issue Date: 9/2/2020

**Test Information**

Test Method: LM-79-2019  
Report Number: P621986  
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-150U-050D-935-UNV-STD-W-4  
Description: CORELITE VAULT SUSPENDED LED LUMINAIRE  
BLACK BAFFLE WITH MEDIUM OPTIC  
DOWNLIGHT 500 LUMENS PER FOOT  
UPLIGHT 1500 LUMENS PER FOOT  
Light Source: 3500K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

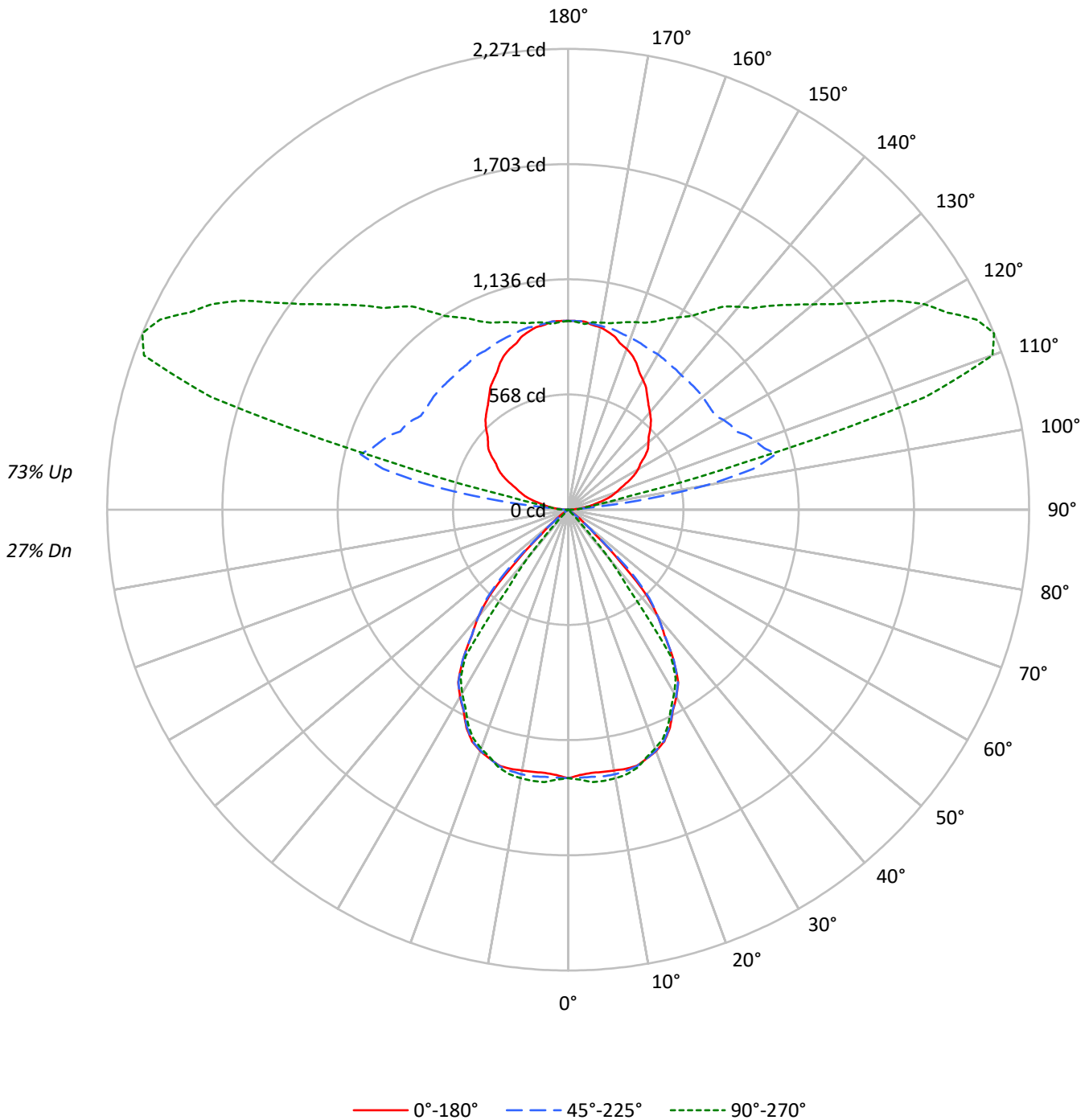
Lumens per Lamp: N/A  
Luminaire Lumens: 6822.5 lumens  
Efficiency: N/A  
Efficacy: 91.5 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.18 / 1.14  
Luminous Opening: Rectangular (W 0.38' x L: 4' x H: 0')  
CIE Type: Semi-Indirect

Input Watts (W): 74.6  
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	0
RCR																		
0	102	102	102	102	91	91	91	91	70	70	70	52	52	52	35	35	35	27
1	94	90	87	84	84	81	78	75	63	61	60	47	46	45	32	32	31	25
2	86	80	75	70	77	72	67	64	57	54	51	43	41	40	30	29	28	23
3	79	71	65	60	71	64	59	55	51	48	45	39	37	35	28	27	26	21
4	73	64	57	52	66	58	52	47	46	42	39	36	33	31	26	24	23	19
5	68	57	50	45	61	52	46	42	42	38	35	33	30	28	24	22	21	17
6	63	52	45	40	56	47	41	37	38	34	31	30	27	25	22	20	19	16
7	58	47	40	35	52	43	37	33	35	31	27	27	25	22	20	19	18	15
8	54	43	36	31	49	39	33	29	32	28	25	25	22	20	19	17	16	14
9	50	39	33	28	45	36	30	26	30	25	22	24	21	19	18	16	15	13
10	47	36	30	25	43	33	27	24	27	23	20	22	19	17	17	15	14	12

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

	0°	45°	90°
0°	9492	9492	9492
5°	9379	9521	9707
10°	9510	9646	9790
15°	9703	9725	9783
20°	9665	9649	9559
25°	9388	9349	9240
30°	8828	8811	8648
35°	7933	7941	7717
40°	6441	6441	2948
45°	3704	4505	60
50°	1168	1080	55
55°	408	86	49
60°	29	56	56
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: 4505 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	126.4	1.9
10°-20°	368.9	5.4
20°-30°	538.8	7.9
30°-40°	533.6	7.8
40°-50°	223.4	3.3
50°-60°	23.9	0.4
60°-70°	3.4	0.0
70°-80°	2.0	0.0
80°-90°	3.1	0.0
90°-100°	114.4	1.7
100°-110°	815.3	12.0
110°-120°	1106.9	16.2
120°-130°	900.9	13.2
130°-140°	724.6	10.6
140°-150°	571.2	8.4
150°-160°	417.7	6.1
160°-170°	259.4	3.8
170°-180°	88.5	1.3
0°-30°	1034.1	15.2
0°-40°	1567.7	23.0
0°-60°	1815.0	26.6
0°-90°	1823.5	26.7
90°-120°	2036.7	29.9
90°-150°	4233.4	62.1
90°-180°	4999.0	73.3
0°-180°	6822.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1323	1323	1323	1323	1323	
5°	1302	1325	1322	1325	1348	125
15°	1306	1333	1309	1300	1317	367
25°	1186	1206	1181	1152	1167	541
35°	906	908	906	889	881	555
45°	365	434	444	9	6	286
55°	33	43	7	5	4	37
65°	1	4	3	3	3	1
75°	0	2	2	2	2	0
85°	0	1	1	1	1	0
90°	0	6	12	18	18	2
95°	47	87	47	53	64	52
105°	181	279	1059	1353	896	191
115°	322	391	913	1898	2218	320
125°	462	525	860	1505	1779	411
135°	574	636	866	1239	1422	441
145°	679	736	872	1080	1194	426
155°	796	825	890	978	1024	365
165°	884	895	913	937	954	248
175°	931	936	931	925	919	88
180°	931	931	931	931	931	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1322.8	1322.8	1322.8	1322.8	1322.8
2.5°	1308.6	1327.1	1321.2	1319.9	1331.5
5°	1302.1	1325.3	1321.8	1325.3	1347.5
7.5°	1302.7	1324.1	1325.4	1325.3	1347.5
10°	1305.1	1327.3	1323.8	1321.4	1343.5
12.5°	1308.2	1331.2	1318.3	1314.2	1335.6
15°	1306.1	1333.1	1309.0	1299.5	1316.9
17.5°	1286.1	1317.4	1285.7	1267.5	1280.2
20°	1265.6	1298.4	1263.6	1238.3	1251.8
22.5°	1236.4	1266.9	1233.6	1204.4	1220.2
25°	1185.7	1206.0	1180.8	1152.5	1167.0
27.5°	1116.7	1128.2	1113.9	1088.4	1097.3
30°	1065.4	1073.1	1063.4	1037.9	1043.7
32.5°	1008.5	1012.4	1006.6	983.4	986.1
35°	905.6	907.5	906.5	888.6	880.9
37.5°	778.3	782.2	779.9	701.9	484.3
40°	687.6	691.4	687.6	411.1	314.7
42.5°	573.9	598.6	592.1	280.4	89.8
45°	365.0	433.5	443.9	8.8	5.9
47.5°	180.3	254.2	208.7	5.7	5.7
50°	104.6	149.9	96.7	4.9	4.9
52.5°	69.8	91.3	28.0	4.9	4.9
55°	32.6	43.2	6.9	4.9	3.9
57.5°	11.4	21.7	4.7	3.9	3.9
60°	2.0	10.7	3.9	3.9	3.9
62.5°	1.2	6.0	3.9	3.2	3.9
65°	1.0	3.9	3.0	3.0	3.0
67.5°	1.0	2.9	3.0	3.0	3.0
70°	1.0	2.9	3.0	3.0	3.0
72.5°	0.2	2.1	2.2	2.2	3.0
75°	0.0	1.9	2.0	2.0	2.0
77.5°	0.0	1.9	2.0	2.0	2.0
80°	0.0	1.9	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	1.9	3.1	4.3	4.3
90°	0.0	5.7	11.7	17.6	17.6
92.5°	14.0	19.8	25.8	36.4	41.0
95°	46.8	86.9	46.8	52.9	64.4
97.5°	83.1	166.7	344.2	101.5	87.8
100°	111.2	208.5	690.6	203.3	134.6
102.5°	139.3	241.2	934.1	536.5	293.8
105°	181.4	278.7	1059.4	1353.3	895.5
107.5°	223.6	296.8	1011.4	1969.6	1844.8
110°	251.7	320.4	983.3	2069.6	2224.1



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	279.8	348.4	955.2	2011.1	2270.9
115°	321.9	390.6	913.1	1897.8	2218.3
117.5°	365.2	432.8	902.5	1775.1	2104.7
120°	398.0	461.0	883.8	1681.7	2025.1
122.5°	421.4	488.9	860.4	1601.5	1917.4
125°	462.4	525.3	860.4	1504.6	1779.3
127.5°	496.3	560.4	861.6	1392.1	1663.4
130°	515.1	583.7	866.2	1316.9	1574.4
132.5°	538.5	607.1	866.2	1283.1	1494.8
135°	573.6	636.5	866.2	1239.1	1422.3
137.5°	602.9	670.4	866.2	1190.5	1347.3
140°	626.3	689.2	866.2	1162.1	1305.2
142.5°	649.7	708.0	870.9	1129.1	1263.1
145°	678.9	736.2	872.1	1079.5	1194.0
147.5°	714.1	764.4	879.1	1043.8	1132.0
150°	737.5	783.3	883.8	1020.1	1094.5
152.5°	760.9	802.1	883.8	1001.1	1061.7
155°	796.0	824.6	889.6	978.5	1024.3
157.5°	824.1	851.6	896.7	964.1	997.3
160°	842.8	865.7	901.4	954.7	983.3
162.5°	856.9	879.8	906.0	949.8	969.2
165°	883.8	895.2	913.1	936.9	954.0
167.5°	899.0	909.3	918.9	930.9	941.2
170°	913.1	918.8	918.9	930.7	936.5
172.5°	917.7	928.0	923.6	926.1	931.8
175°	930.6	936.3	930.6	924.6	918.9
177.5°	930.6	935.2	930.6	930.5	925.9
180°	930.6	930.6	930.6	930.6	930.6



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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