

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: P621936

Luminaire Tested: VLT-BB-M-050U-125D-940-UNV-STD-W-4

Issue Date: 9/2/2020

**Test Information**

Test Method: LM-79-2019  
Report Number: P621936  
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-050U-125D-940-UNV-STD-W-4  
Description: CORELITE VAULT SUSPENDED LED LUMINAIRE  
BLACK BAFFLE WITH MEDIUM OPTIC  
DOWNLIGHT 1250 LUMENS PER FOOT  
UPLIGHT 500 LUMENS PER FOOT  
Light Source: 4000K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

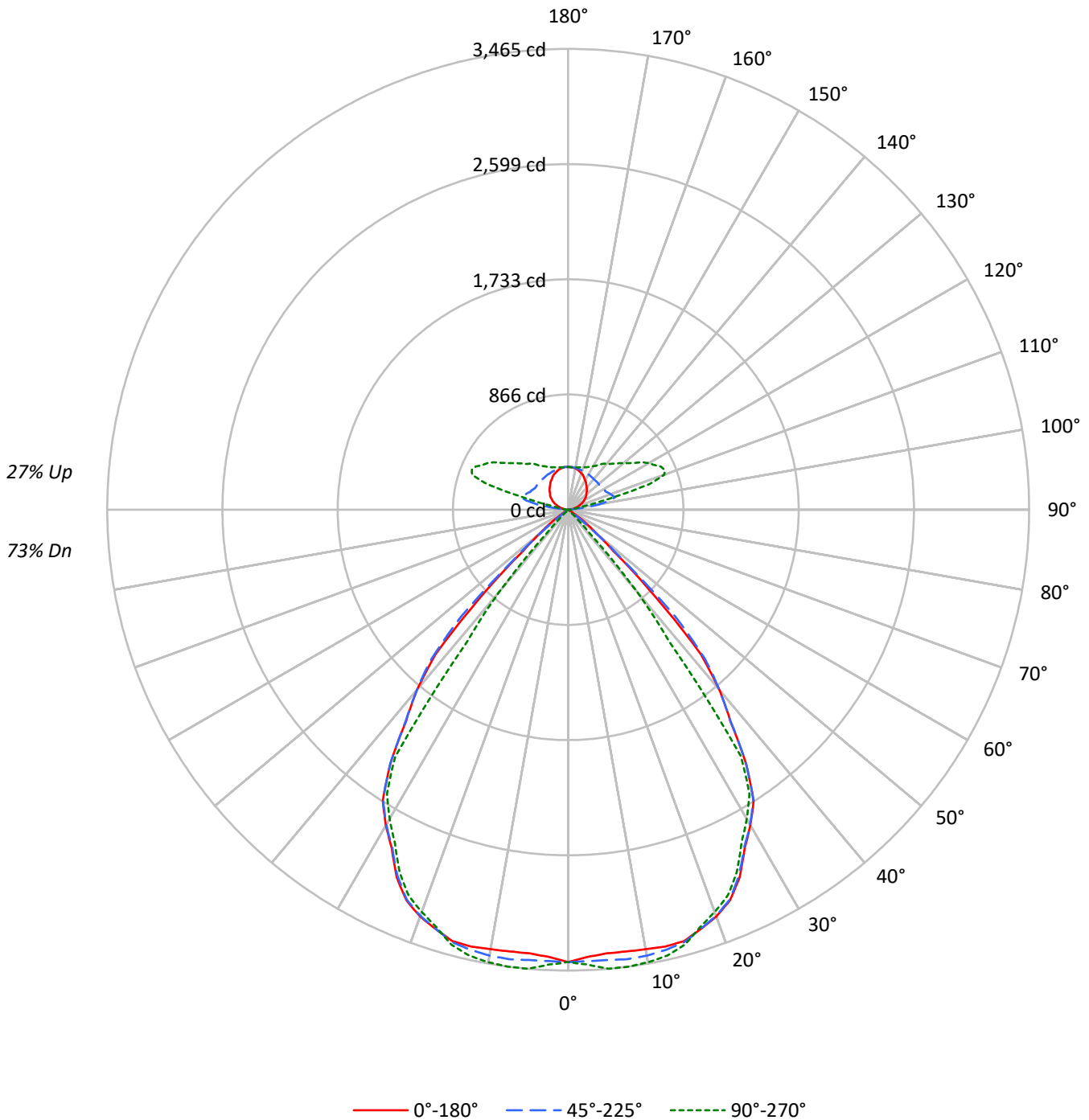
Lumens per Lamp: N/A  
Luminaire Lumens: 6412.7 lumens  
Efficiency: N/A  
Efficacy: 97.8 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.18 / 1.14  
Luminous Opening: Rectangular (W 0.38' x L: 4' x H: 0')  
CIE Type: Semi-Direct

Input Watts (W): 65.6  
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	
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	113	113	113	113	107	107	107	107	96	96	96	86	86	86	77	77	77	73				
1	106	103	100	97	101	98	95	93	89	87	85	81	79	78	73	72	71	68				
2	99	94	89	85	94	89	85	82	82	79	76	75	72	70	68	67	65	62				
3	93	85	80	75	88	82	77	73	75	71	68	69	66	64	64	61	60	57				
4	87	78	72	67	83	75	70	65	70	65	61	64	61	58	59	57	54	52				
5	81	72	65	60	78	69	63	59	64	59	56	60	56	53	55	52	50	48				
6	76	66	59	54	73	64	58	53	60	54	51	56	51	48	52	48	46	44				
7	72	61	54	49	68	59	53	48	55	50	46	52	47	44	48	45	42	40				
8	67	57	50	45	64	55	49	44	51	46	43	48	44	41	45	42	39	37				
9	63	52	46	41	61	51	45	41	48	43	39	45	41	38	42	39	36	34				
10	60	49	42	38	57	47	42	38	45	40	36	42	38	35	40	36	34	32				

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

	0°	45°	90°
0°	24410	24410	24410
5°	24119	24484	24960
10°	24453	24804	25174
15°	24950	25007	25157
20°	24852	24814	24581
25°	24141	24041	23760
30°	22700	22657	22237
35°	20399	20421	19844
40°	16562	16562	7580
45°	9524	11584	154
50°	3002	2775	142
55°	1047	223	126
60°	73	145	145
65°	42	129	129
70°	52	159	159
75°	0	141	141
80°	0	211	211
85°	0	206	206

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 45°  
 Vertical Angle: 45°  
 Luminance: 11584 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	325.0	5.1
10°-20°	948.5	14.8
20°-30°	1385.6	21.6
30°-40°	1372.2	21.4
40°-50°	574.5	9.0
50°-60°	61.5	1.0
60°-70°	8.6	0.1
70°-80°	5.2	0.1
80°-90°	3.2	0.0
90°-100°	39.6	0.6
100°-110°	281.9	4.4
110°-120°	382.7	6.0
120°-130°	311.5	4.9
130°-140°	250.5	3.9
140°-150°	197.5	3.1
150°-160°	144.4	2.3
160°-170°	89.7	1.4
170°-180°	30.6	0.5
0°-30°	2659.1	41.5
0°-40°	4031.3	62.9
0°-60°	4667.3	72.8
0°-90°	4684.3	73.0
90°-120°	704.2	11.0
90°-150°	1463.7	22.8
90°-180°	1728.0	26.9
0°-180°	6412.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	3402	3402	3402	3402	3402	
5°	3348	3408	3399	3408	3465	320
15°	3358	3428	3366	3342	3386	943
25°	3049	3101	3036	2964	3001	1392
35°	2329	2334	2331	2285	2265	1428
45°	938	1115	1142	23	15	736
55°	84	111	18	13	10	94
65°	2	10	8	8	8	3
75°	0	5	5	5	5	0
85°	0	2	2	2	2	0
90°	0	2	4	6	6	1
95°	16	30	16	18	22	18
105°	63	96	366	468	310	66
115°	111	135	316	656	767	110
125°	160	182	298	520	615	142
135°	198	220	300	428	492	153
145°	235	254	302	373	413	147
155°	275	285	308	338	354	126
165°	306	310	316	324	330	86
175°	322	324	322	320	318	30
180°	322	322	322	322	322	

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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	3401.6	3401.6	3401.6	3401.6	3401.6
2.5°	3365.0	3412.7	3397.5	3394.1	3423.9
5°	3348.3	3407.8	3399.0	3407.9	3465.0
7.5°	3349.8	3404.9	3408.2	3407.9	3465.0
10°	3355.9	3413.0	3404.1	3397.8	3454.8
12.5°	3364.0	3423.1	3389.9	3379.5	3434.5
15°	3358.4	3427.9	3366.1	3341.7	3386.3
17.5°	3307.2	3387.6	3306.2	3259.2	3292.0
20°	3254.4	3338.8	3249.4	3184.2	3218.9
22.5°	3179.4	3257.7	3172.3	3097.1	3137.8
25°	3049.0	3101.1	3036.3	2963.6	3000.8
27.5°	2871.4	2901.2	2864.3	2798.9	2821.7
30°	2739.5	2759.4	2734.4	2668.8	2683.7
32.5°	2593.4	2603.3	2588.3	2528.6	2535.6
35°	2328.6	2333.5	2331.1	2285.0	2265.2
37.5°	2001.4	2011.3	2005.4	1805.0	1245.5
40°	1768.0	1777.9	1768.0	1057.2	809.2
42.5°	1475.8	1539.3	1522.5	720.9	230.8
45°	938.5	1114.6	1141.5	22.7	15.2
47.5°	463.7	653.7	536.7	14.7	14.7
50°	268.9	385.4	248.6	12.7	12.7
52.5°	179.6	234.7	72.0	12.7	12.7
55°	83.7	111.0	17.8	12.6	10.1
57.5°	29.4	55.7	12.2	10.1	10.1
60°	5.1	27.4	10.1	10.1	10.1
62.5°	3.0	15.4	10.1	8.2	10.1
65°	2.5	10.0	7.6	7.6	7.6
67.5°	2.5	7.5	7.6	7.6	7.6
70°	2.5	7.5	7.6	7.6	7.6
72.5°	0.5	5.5	5.6	5.6	7.6
75°	0.0	5.0	5.1	5.1	5.1
77.5°	0.0	5.0	5.1	5.1	5.1
80°	0.0	5.0	5.1	5.1	5.1
82.5°	0.0	3.0	3.0	3.1	5.1
85°	0.0	2.5	2.5	2.5	2.5
87.5°	0.0	2.4	2.8	3.2	3.2
90°	0.0	2.0	4.0	6.1	6.1
92.5°	4.9	6.8	8.9	12.6	14.2
95°	16.2	30.0	16.2	18.3	22.3
97.5°	28.7	57.6	119.0	35.1	30.4
100°	38.4	72.1	238.8	70.3	46.5
102.5°	48.2	83.4	323.0	185.5	101.6
105°	62.7	96.4	366.3	467.9	309.6
107.5°	77.3	102.6	349.7	681.0	637.8
110°	87.0	110.8	340.0	715.5	769.0



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	96.7	120.5	330.2	695.3	785.1
115°	111.3	135.0	315.7	656.1	766.9
117.5°	126.3	149.6	312.0	613.7	727.7
120°	137.6	159.4	305.6	581.4	700.2
122.5°	145.7	169.0	297.5	553.7	662.9
125°	159.9	181.6	297.5	520.2	615.2
127.5°	171.6	193.8	297.9	481.3	575.1
130°	178.1	201.8	299.5	455.3	544.3
132.5°	186.2	209.9	299.5	443.6	516.8
135°	198.3	220.1	299.5	428.4	491.7
137.5°	208.4	231.8	299.5	411.6	465.8
140°	216.5	238.3	299.5	401.8	451.3
142.5°	224.6	244.8	301.1	390.4	436.7
145°	234.7	254.5	301.5	373.2	412.8
147.5°	246.9	264.3	303.9	360.9	391.4
150°	255.0	270.8	305.6	352.7	378.4
152.5°	263.1	277.3	305.6	346.1	367.1
155°	275.2	285.1	307.6	338.3	354.1
157.5°	284.9	294.4	310.0	333.3	344.8
160°	291.4	299.3	311.6	330.1	340.0
162.5°	296.2	304.2	313.2	328.4	335.1
165°	305.6	309.5	315.7	323.9	329.8
167.5°	310.8	314.4	317.7	321.8	325.4
170°	315.7	317.7	317.7	321.8	323.8
172.5°	317.3	320.9	319.3	320.2	322.2
175°	321.7	323.7	321.7	319.7	317.7
177.5°	321.7	323.3	321.7	321.7	320.1
180°	321.7	321.7	321.7	321.7	321.7



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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	0.54	1.34	1.31	2.10	3.02	0.00	0.00	0.00	0.00	0.00
	3H	0.41	1.12	1.19	1.89	2.84	0.00	0.00	0.00	0.00	0.00
	4H	0.31	0.98	1.12	1.76	2.72	0.00	0.00	0.00	0.00	0.00
	6H	0.21	0.82	1.03	1.61	2.58	0.00	0.00	0.00	0.00	0.00
	8H	0.16	0.73	0.98	1.54	2.51	0.00	0.00	0.00	0.00	0.00
	12H	0.10	0.64	0.92	1.44	2.44	0.00	0.00	0.00	0.00	0.00
4H	2H	0.27	0.94	1.08	1.72	2.68	0.00	0.00	0.00	0.00	0.00
	3H	0.19	0.74	1.01	1.55	2.53	0.00	0.00	0.00	0.00	0.00
	4H	0.12	0.61	0.95	1.43	2.43	0.00	0.00	0.00	0.00	0.00
	6H	0.07	0.49	0.91	1.33	2.34	0.00	0.00	0.00	0.00	0.00
	8H	0.02	0.41	0.87	1.25	2.27	0.00	0.00	0.00	0.00	0.00
	12H	0.00	0.31	0.83	1.16	2.19	0.00	0.00	0.00	0.00	0.00
8H	4H	0.03	0.42	0.87	1.25	2.27	0.00	0.00	0.00	0.00	0.00
	6H	0.05	0.37	0.93	1.25	2.27	0.00	0.00	0.00	0.00	0.00
	8H	0.06	0.34	0.94	1.21	2.25	0.00	0.00	0.00	0.00	0.00
	12H	0.04	0.29	0.92	1.15	2.24	0.00	0.00	0.00	0.00	0.00
12H	4H	0.00	0.33	0.84	1.18	2.20	0.00	0.00	0.00	0.00	0.00
	6H	0.04	0.32	0.93	1.20	2.24	0.00	0.00	0.00	0.00	0.00
	8H	0.08	0.33	0.96	1.19	2.28	0.00	0.00	0.00	0.00	0.00