

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: P621932

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

Issue Date: 9/2/2020

**Test Information**

Test Method: LM-79-2019  
Report Number: P621932  
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-100D-935-UNV-STD-W-4  
Description: CORELITE VAULT SUSPENDED LED LUMINAIRE  
BLACK BAFFLE WITH MEDIUM OPTIC  
DOWNLIGHT 1000 LUMENS PER FOOT  
UPLIGHT 500 LUMENS PER FOOT  
Light Source: 3500K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

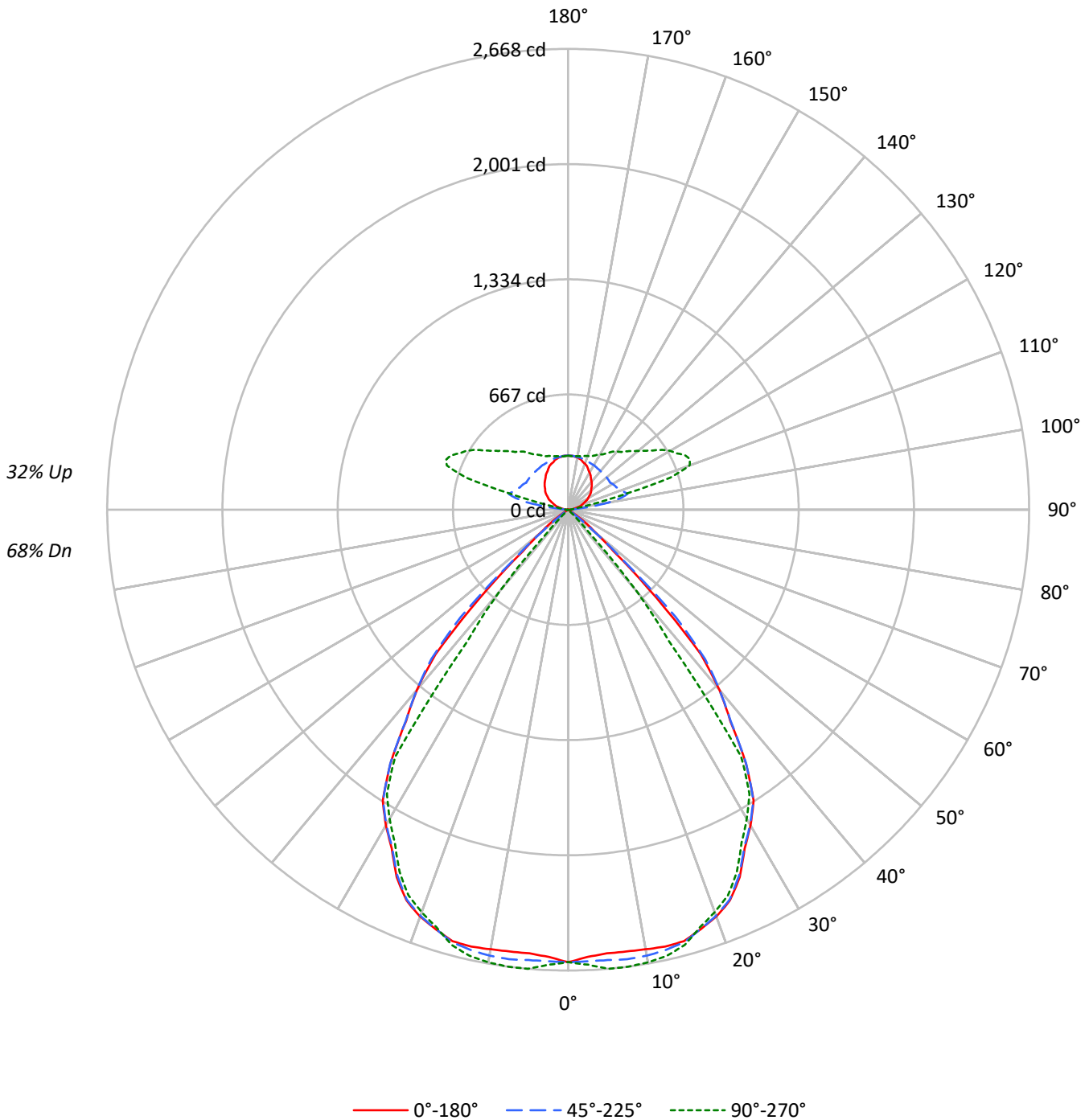
Lumens per Lamp: N/A  
Luminaire Lumens: 5288.3 lumens  
Efficiency: N/A  
Efficacy: 97.0 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.18 / 1.14  
Luminous Opening: Rectangular (W 0.38' x L: 4' x H: 0')  
CIE Type: Semi-Direct

Input Watts (W): 54.5  
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	0
RCR																		
0	111	111	111	111	105	105	105	105	93	93	93	83	83	83	73	73	73	68
1	105	101	98	96	99	96	93	91	86	84	83	77	76	75	69	68	67	63
2	98	92	87	83	93	88	83	80	79	76	73	71	69	67	64	63	61	58
3	91	84	78	73	87	80	75	71	73	69	66	66	63	61	60	58	56	53
4	85	77	70	65	81	73	68	63	67	63	59	61	58	55	56	53	51	48
5	80	70	64	59	76	67	61	57	62	57	53	57	53	50	52	49	47	44
6	75	65	58	53	71	62	56	51	57	52	49	53	49	46	49	46	43	41
7	70	60	53	48	67	57	51	47	53	48	44	49	45	42	45	42	40	38
8	66	55	48	44	63	53	47	43	49	44	41	46	42	39	43	39	37	35
9	62	51	45	40	59	49	43	39	46	41	37	43	39	36	40	36	34	32
10	58	48	41	37	56	46	40	36	43	38	35	40	36	33	37	34	31	30

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

	0°	45°	90°
0°	18797	18797	18797
5°	18573	18855	19221
10°	18831	19101	19386
15°	19213	19257	19373
20°	19138	19108	18929
25°	18590	18513	18296
30°	17480	17448	17124
35°	15709	15725	15280
40°	12754	12754	5837
45°	7334	8920	119
50°	2312	2137	109
55°	807	171	98
60°	56	112	112
65°	34	100	100
70°	42	124	124
75°	0	108	108
80°	0	161	161
85°	0	165	165

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 45°

Vertical Angle: 45°

Luminance: 8920 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	250.3	4.7
10°-20°	730.4	13.8
20°-30°	1067.0	20.2
30°-40°	1056.7	20.0
40°-50°	442.4	8.4
50°-60°	47.3	0.9
60°-70°	6.7	0.1
70°-80°	4.0	0.1
80°-90°	2.6	0.0
90°-100°	38.5	0.7
100°-110°	274.1	5.2
110°-120°	372.2	7.0
120°-130°	302.9	5.7
130°-140°	243.6	4.6
140°-150°	192.1	3.6
150°-160°	140.4	2.7
160°-170°	87.2	1.6
170°-180°	29.7	0.6
0°-30°	2047.7	38.7
0°-40°	3104.4	58.7
0°-60°	3594.1	68.0
0°-90°	3607.4	68.2
90°-120°	684.8	12.9
90°-150°	1423.4	26.9
90°-180°	1681.0	31.8
0°-180°	5288.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2619	2619	2619	2619	2619	
5°	2578	2624	2618	2624	2668	247
15°	2586	2640	2592	2573	2608	727
25°	2348	2388	2338	2282	2311	1072
35°	1793	1797	1795	1760	1744	1100
45°	723	858	879	17	12	567
55°	64	86	14	10	8	72
65°	2	8	6	6	6	2
75°	0	4	4	4	4	0
85°	0	2	2	2	2	0
90°	0	2	4	6	6	1
95°	16	29	16	18	22	18
105°	61	94	356	455	301	64
115°	108	131	307	638	746	107
125°	156	177	289	506	598	138
135°	193	214	291	417	478	148
145°	228	248	293	363	402	143
155°	268	277	299	329	344	123
165°	297	301	307	315	321	83
175°	313	315	313	311	309	30
180°	313	313	313	313	313	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2619.4	2619.4	2619.4	2619.4	2619.4
2.5°	2591.3	2628.0	2616.3	2613.7	2636.6
5°	2578.4	2624.3	2617.5	2624.3	2668.3
7.5°	2579.6	2622.0	2624.5	2624.3	2668.3
10°	2584.3	2628.2	2621.4	2616.5	2660.5
12.5°	2590.5	2636.0	2610.5	2602.4	2644.8
15°	2586.2	2639.7	2592.1	2573.3	2607.7
17.5°	2546.8	2608.7	2546.0	2509.8	2535.1
20°	2506.1	2571.1	2502.2	2452.1	2478.8
22.5°	2448.3	2508.7	2442.9	2385.0	2416.3
25°	2347.9	2388.0	2338.2	2282.2	2310.8
27.5°	2211.2	2234.1	2205.7	2155.3	2172.9
30°	2109.6	2124.9	2105.7	2055.2	2066.6
32.5°	1997.1	2004.7	1993.2	1947.2	1952.6
35°	1793.2	1797.0	1795.1	1759.6	1744.3
37.5°	1541.2	1548.8	1544.3	1390.0	959.1
40°	1361.5	1369.1	1361.5	814.1	623.1
42.5°	1136.5	1185.4	1172.4	555.2	177.8
45°	722.7	858.3	879.0	17.4	11.7
47.5°	357.1	503.4	413.3	11.3	11.3
50°	207.1	296.8	191.4	9.8	9.8
52.5°	138.3	180.7	55.5	9.8	9.8
55°	64.5	85.5	13.7	9.7	7.8
57.5°	22.7	42.9	9.4	7.8	7.8
60°	3.9	21.1	7.8	7.8	7.8
62.5°	2.3	11.9	7.8	6.3	7.8
65°	2.0	7.7	5.9	5.9	5.9
67.5°	2.0	5.8	5.9	5.9	5.9
70°	2.0	5.8	5.9	5.9	5.9
72.5°	0.4	4.2	4.3	4.3	5.9
75°	0.0	3.8	3.9	3.9	3.9
77.5°	0.0	3.8	3.9	3.9	3.9
80°	0.0	3.8	3.9	3.9	3.9
82.5°	0.0	2.3	2.3	2.4	3.9
85°	0.0	1.9	2.0	2.0	2.0
87.5°	0.0	1.9	2.3	2.7	2.7
90°	0.0	1.9	3.9	5.9	5.9
92.5°	4.7	6.6	8.7	12.2	13.8
95°	15.7	29.2	15.7	17.8	21.6
97.5°	27.9	56.0	115.7	34.1	29.5
100°	37.4	70.1	232.2	68.4	45.3
102.5°	46.8	81.1	314.1	180.4	98.8
105°	61.0	93.7	356.2	455.0	301.1
107.5°	75.2	99.8	340.1	662.3	620.3
110°	84.6	107.7	330.6	695.9	747.8



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	94.1	117.2	321.2	676.2	763.6
115°	108.2	131.3	307.0	638.1	745.9
117.5°	122.8	145.5	303.5	596.9	707.7
120°	133.8	155.0	297.2	565.5	680.9
122.5°	141.7	164.4	289.3	538.5	644.7
125°	155.5	176.6	289.3	505.9	598.3
127.5°	166.9	188.4	289.7	468.1	559.3
130°	173.2	196.3	291.3	442.8	529.4
132.5°	181.1	204.1	291.3	431.4	502.6
135°	192.9	214.0	291.3	416.6	478.2
137.5°	202.7	225.4	291.3	400.3	453.0
140°	210.6	231.7	291.3	390.8	438.9
142.5°	218.4	238.1	292.8	379.7	424.7
145°	228.3	247.5	293.2	363.0	401.5
147.5°	240.1	257.0	295.6	351.0	380.6
150°	248.0	263.4	297.2	343.0	368.0
152.5°	255.8	269.7	297.2	336.6	357.0
155°	267.6	277.3	299.1	329.0	344.4
157.5°	277.1	286.3	301.5	324.2	335.3
160°	283.4	291.1	303.1	321.0	330.6
162.5°	288.1	295.8	304.6	319.4	325.9
165°	297.2	301.0	307.0	315.0	320.8
167.5°	302.3	305.7	309.0	313.0	316.5
170°	307.0	308.9	309.0	313.0	314.9
172.5°	308.6	312.0	310.5	311.4	313.3
175°	312.9	314.8	312.9	310.9	309.0
177.5°	312.9	314.4	312.9	312.9	311.3
180°	312.9	312.9	312.9	312.9	312.9



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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	0.00	0.00	0.05	0.81	1.81	0.00	0.00	0.00	0.00	0.00
	3H	0.00	0.00	0.00	0.60	1.63	0.00	0.00	0.00	0.00	0.00
	4H	0.00	0.00	0.00	0.47	1.52	0.00	0.00	0.00	0.00	0.00
	6H	0.00	0.00	0.00	0.32	1.38	0.00	0.00	0.00	0.00	0.00
	8H	0.00	0.00	0.00	0.25	1.30	0.00	0.00	0.00	0.00	0.00
	12H	0.00	0.00	0.00	0.16	1.23	0.00	0.00	0.00	0.00	0.00
4H	2H	0.00	0.00	0.00	0.43	1.47	0.00	0.00	0.00	0.00	0.00
	3H	0.00	0.00	0.00	0.27	1.32	0.00	0.00	0.00	0.00	0.00
	4H	0.00	0.00	0.00	0.14	1.23	0.00	0.00	0.00	0.00	0.00
	6H	0.00	0.00	0.00	0.04	1.13	0.00	0.00	0.00	0.00	0.00
	8H	0.00	0.00	0.00	0.00	1.06	0.00	0.00	0.00	0.00	0.00
	12H	0.00	0.00	0.00	0.00	0.98	0.00	0.00	0.00	0.00	0.00
8H	4H	0.00	0.00	0.00	0.00	1.07	0.00	0.00	0.00	0.00	0.00
	6H	0.00	0.00	0.00	0.00	1.06	0.00	0.00	0.00	0.00	0.00
	8H	0.00	0.00	0.00	0.00	1.05	0.00	0.00	0.00	0.00	0.00
	12H	0.00	0.00	0.00	0.00	1.04	0.00	0.00	0.00	0.00	0.00
12H	4H	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
	6H	0.00	0.00	0.00	0.00	1.03	0.00	0.00	0.00	0.00	0.00
	8H	0.00	0.00	0.00	0.00	1.08	0.00	0.00	0.00	0.00	0.00