

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: P621993

Luminaire Tested: VLT-BB-M-150U-100D-940-UNV-STD-W-4

Issue Date: 9/2/2020

**Test Information**

Test Method: LM-79-2019  
Report Number: P621993  
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-100D-940-UNV-STD-W-4  
Description: CORELITE VAULT SUSPENDED LED LUMINAIRE  
BLACK BAFFLE WITH MEDIUM OPTIC  
DOWNLIGHT 1000 LUMENS PER FOOT  
UPLIGHT 1500 LUMENS PER FOOT  
Light Source: 4000K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

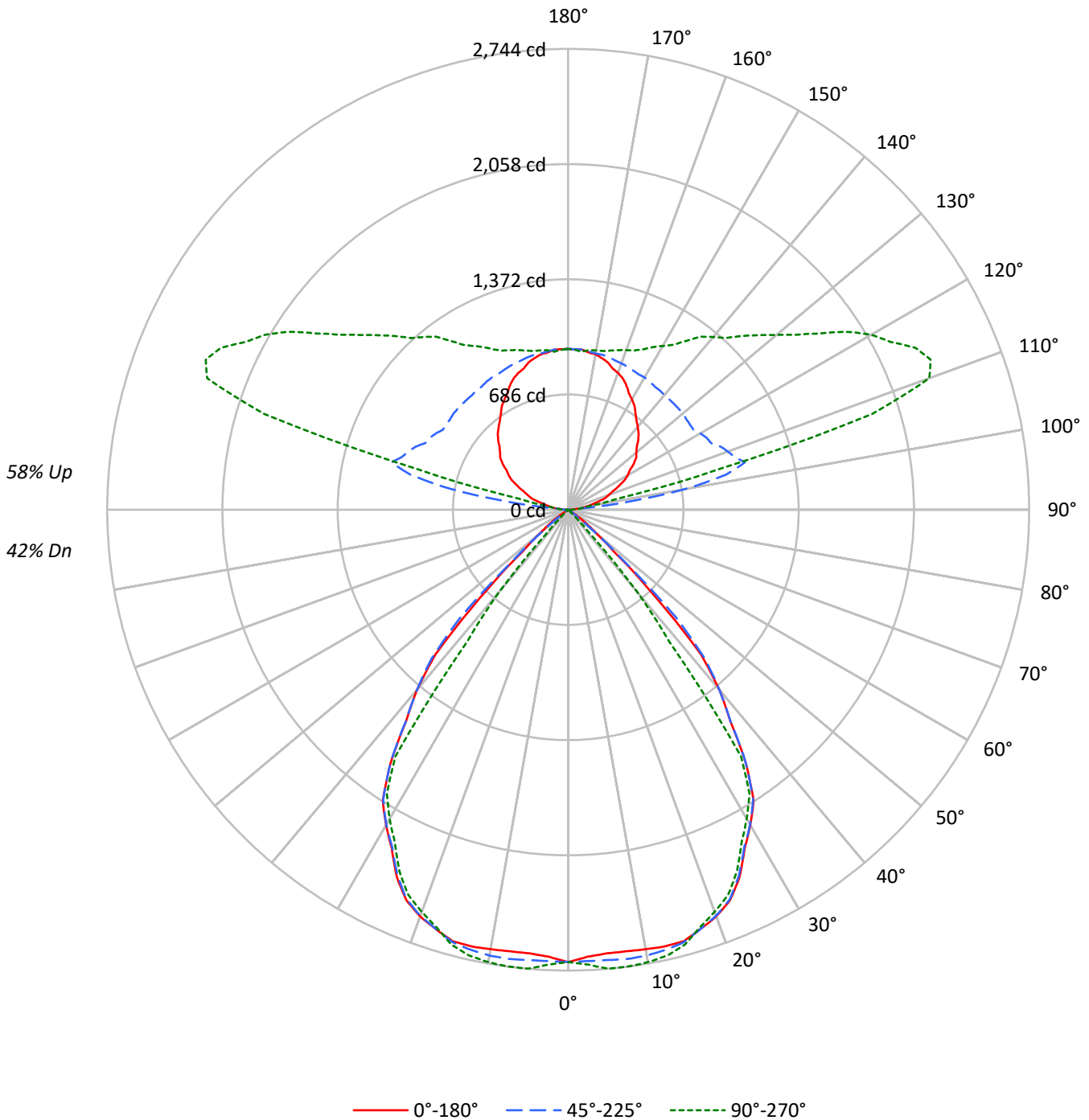
Lumens per Lamp: N/A  
Luminaire Lumens: 8850.8 lumens  
Efficiency: N/A  
Efficacy: 93.5 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.18 / 1.14  
Luminous Opening: Rectangular (W 0.38' x L: 4' x H: 0')  
CIE Type: General Diffuse

Input Watts (W): 94.7  
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	105	105	105	105	96	96	96	96	79	79	79		63	63	63		49	49	49	42
1	98	94	91	88	89	86	84	81	72	70	68		58	57	56		46	45	44	39
2	90	84	79	75	83	78	73	70	65	62	59		53	51	50		43	41	40	36
3	84	76	70	65	77	70	65	61	59	55	52		49	46	44		40	38	37	33
4	78	69	62	57	71	63	58	53	54	50	46		45	42	40		37	35	33	30
5	72	62	55	50	66	58	52	47	49	45	41		41	38	36		34	32	31	27
6	67	57	50	44	62	53	47	42	45	41	37		38	35	33		32	30	28	25
7	63	52	45	40	58	48	42	38	42	37	34		35	32	30		30	27	26	23
8	58	47	41	36	54	44	38	34	38	34	31		33	30	27		28	25	24	21
9	55	44	37	32	50	41	35	31	36	31	28		31	27	25		26	24	22	20
10	51	40	34	30	47	38	32	28	33	29	25		29	25	23		24	22	20	18

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

	0°	45°	90°
0°	19328	19328	19328
5°	19098	19387	19763
10°	19363	19640	19933
15°	19756	19801	19920
20°	19678	19648	19464
25°	19115	19036	18813
30°	17974	17941	17608
35°	16152	16170	15712
40°	13114	13114	6002
45°	7541	9172	123
50°	2377	2197	112
55°	829	176	100
60°	57	115	115
65°	34	102	102
70°	42	126	126
75°	0	111	111
80°	0	165	165
85°	0	165	165

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 45°

Vertical Angle: 45°

Luminance: 9172 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	257.4	2.9
10°-20°	751.0	8.5
20°-30°	1097.1	12.4
30°-40°	1086.6	12.3
40°-50°	454.9	5.1
50°-60°	48.7	0.5
60°-70°	6.8	0.1
70°-80°	4.1	0.0
80°-90°	4.1	0.0
90°-100°	117.7	1.3
100°-110°	838.3	9.5
110°-120°	1138.2	12.9
120°-130°	926.4	10.5
130°-140°	745.1	8.4
140°-150°	587.4	6.6
150°-160°	429.5	4.9
160°-170°	266.8	3.0
170°-180°	91.0	1.0
0°-30°	2105.5	23.8
0°-40°	3192.1	36.1
0°-60°	3695.6	41.8
0°-90°	3710.6	41.9
90°-120°	2094.2	23.7
90°-150°	4353.0	49.2
90°-180°	5140.0	58.1
0°-180°	8850.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2693	2693	2693	2693	2693	
5°	2651	2698	2691	2698	2744	254
15°	2659	2714	2665	2646	2681	747
25°	2414	2456	2404	2347	2376	1102
35°	1844	1848	1846	1809	1794	1131
45°	743	883	904	18	12	583
55°	66	88	14	10	8	74
65°	2	8	6	6	6	2
75°	0	4	4	4	4	0
85°	0	2	2	2	2	0
90°	0	6	12	18	18	2
95°	48	89	48	54	66	54
105°	187	287	1089	1392	921	197
115°	331	402	939	1951	2281	329
125°	475	540	885	1547	1830	422
135°	590	654	891	1274	1462	454
145°	698	757	897	1110	1228	438
155°	818	848	915	1006	1053	376
165°	909	920	939	963	981	255
175°	957	963	957	951	945	90
180°	957	957	957	957	957	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2693.4	2693.4	2693.4	2693.4	2693.4
2.5°	2664.5	2702.2	2690.2	2687.5	2711.1
5°	2651.2	2698.4	2691.4	2698.5	2743.6
7.5°	2652.4	2696.0	2698.6	2698.5	2743.6
10°	2657.3	2702.4	2695.4	2690.4	2735.6
12.5°	2663.7	2710.4	2684.2	2675.9	2719.5
15°	2659.3	2714.3	2665.3	2646.0	2681.4
17.5°	2618.7	2682.3	2617.9	2580.7	2606.6
20°	2576.9	2643.7	2572.9	2521.3	2548.8
22.5°	2517.5	2579.5	2511.8	2452.3	2484.5
25°	2414.2	2455.5	2404.2	2346.6	2376.1
27.5°	2273.6	2297.2	2268.0	2216.2	2234.3
30°	2169.2	2184.9	2165.2	2113.2	2125.0
32.5°	2053.5	2061.4	2049.5	2002.2	2007.7
35°	1843.8	1847.7	1845.8	1809.3	1793.6
37.5°	1584.7	1592.6	1587.9	1429.2	986.2
40°	1399.9	1407.8	1399.9	837.1	640.7
42.5°	1168.6	1218.8	1205.5	570.8	182.8
45°	743.1	882.6	903.8	17.9	12.1
47.5°	367.2	517.6	425.0	11.6	11.6
50°	212.9	305.2	196.8	10.0	10.0
52.5°	142.2	185.8	57.0	10.0	10.0
55°	66.3	87.9	14.1	10.0	8.0
57.5°	23.3	44.1	9.6	8.0	8.0
60°	4.0	21.7	8.0	8.0	8.0
62.5°	2.4	12.2	8.0	6.5	8.0
65°	2.0	7.9	6.0	6.0	6.0
67.5°	2.0	5.9	6.0	6.0	6.0
70°	2.0	5.9	6.0	6.0	6.0
72.5°	0.4	4.3	4.4	4.5	6.0
75°	0.0	3.9	4.0	4.0	4.0
77.5°	0.0	3.9	4.0	4.0	4.0
80°	0.0	3.9	4.0	4.0	4.0
82.5°	0.0	2.4	2.4	2.4	4.0
85°	0.0	2.0	2.0	2.0	2.0
87.5°	0.0	2.7	4.0	5.2	5.2
90°	0.0	5.9	12.0	18.1	18.1
92.5°	14.4	20.3	26.5	37.4	42.1
95°	48.1	89.3	48.1	54.4	66.2
97.5°	85.5	171.4	353.9	104.4	90.3
100°	114.3	214.4	710.2	209.0	138.4
102.5°	143.2	248.0	960.5	551.6	302.1
105°	186.6	286.6	1089.3	1391.5	920.8
107.5°	229.9	305.2	1039.9	2025.2	1896.9
110°	258.8	329.4	1011.1	2128.0	2286.9

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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	287.7	358.3	982.2	2067.9	2335.1
115°	331.0	401.6	938.8	1951.4	2280.9
117.5°	375.5	445.0	928.0	1825.2	2164.2
120°	409.2	474.0	908.8	1729.2	2082.3
122.5°	433.3	502.7	884.7	1646.7	1971.6
125°	475.4	540.2	884.7	1547.1	1829.5
127.5°	510.3	576.3	885.9	1431.5	1710.4
130°	529.6	600.2	890.7	1354.1	1618.9
132.5°	553.7	624.3	890.7	1319.3	1537.1
135°	589.8	654.5	890.7	1274.1	1462.4
137.5°	619.9	689.3	890.7	1224.2	1385.4
140°	643.9	708.7	890.7	1195.0	1342.1
142.5°	668.0	728.0	895.5	1161.0	1298.7
145°	698.1	757.0	896.7	1110.0	1227.7
147.5°	734.2	786.0	903.9	1073.3	1163.9
150°	758.3	805.4	908.8	1048.9	1125.4
152.5°	782.4	824.7	908.8	1029.3	1091.7
155°	818.5	847.9	914.8	1006.1	1053.2
157.5°	847.4	875.6	922.0	991.4	1025.5
160°	866.6	890.2	926.8	981.6	1011.1
162.5°	881.1	904.6	931.6	976.6	996.6
165°	908.8	920.5	938.8	963.3	981.0
167.5°	924.4	935.0	944.9	957.1	967.7
170°	938.8	944.7	944.9	957.0	962.9
172.5°	943.7	954.2	949.7	952.2	958.1
175°	956.9	962.8	956.9	950.7	944.9
177.5°	956.9	961.6	956.9	956.8	952.1
180°	956.9	956.9	956.9	956.9	956.9



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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	0.00	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