

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: P621930

Luminaire Tested: VLT-BB-M-050U-075D-940-UNV-STD-W-4

Issue Date: 9/2/2020

**Test Information**

Test Method: LM-79-2019  
Report Number: P621930  
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-075D-940-UNV-STD-W-4  
Description: CORELITE VAULT SUSPENDED LED LUMINAIRE  
BLACK BAFFLE WITH MEDIUM OPTIC  
DOWNLIGHT 750 LUMENS PER FOOT  
UPLIGHT 500 LUMENS PER FOOT  
Light Source: 4000K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

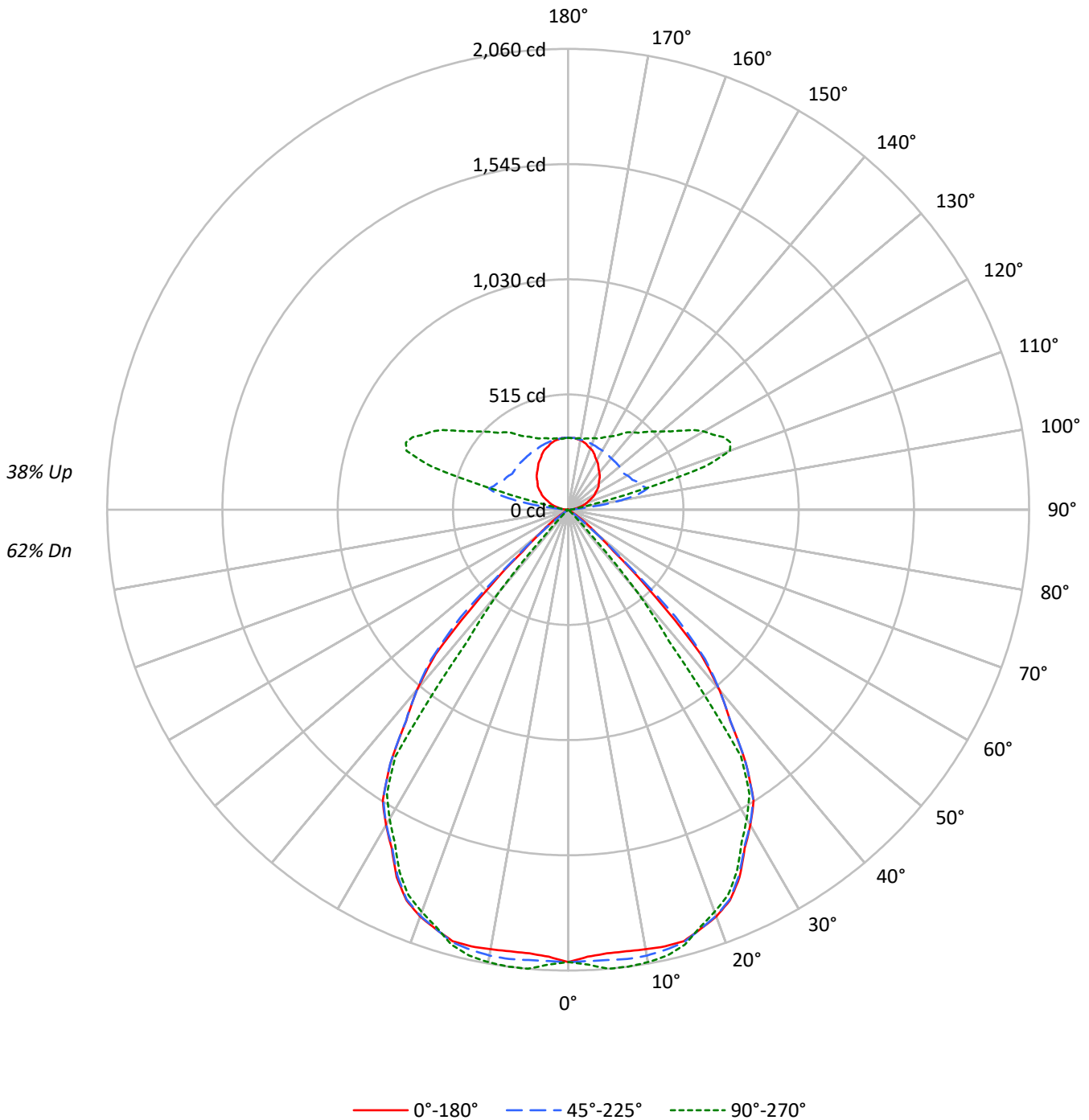
Lumens per Lamp: N/A  
Luminaire Lumens: 4513.2 lumens  
Efficiency: N/A  
Efficacy: 102.3 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.18 / 1.14  
Luminous Opening: Rectangular (W 0.38' x L: 4' x H: 0')  
CIE Type: Semi-Direct

Input Watts (W): 44.1  
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	110	110	110	110	103	103	103	103	90	90	90		78	78	78		67	67	67	62
1	103	100	96	94	96	94	91	89	83	81	79		72	71	70		63	62	61	57
2	96	90	85	81	90	85	81	77	76	73	70		67	65	63		59	57	56	52
3	90	82	76	71	84	78	72	68	69	66	62		62	59	57		55	53	51	48
4	84	75	68	63	79	71	65	61	64	59	56		57	54	51		51	49	47	44
5	78	68	61	56	73	65	59	54	59	54	51		53	49	47		48	45	43	40
6	73	63	56	51	69	60	54	49	54	49	46		49	45	43		44	42	39	37
7	68	58	51	46	64	55	49	45	50	45	42		46	42	39		42	39	36	34
8	64	53	46	42	61	51	45	41	47	42	38		43	39	36		39	36	33	31
9	60	49	43	38	57	47	41	37	43	38	35		40	36	33		36	33	31	29
10	57	46	39	35	54	44	38	34	41	36	32		37	33	30		34	31	29	27

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

	0°	45°	90°
0°	14510	14510	14510
5°	14338	14555	14837
10°	14536	14745	14965
15°	14831	14865	14955
20°	14774	14751	14612
25°	14351	14291	14124
30°	13494	13469	13219
35°	12126	12139	11796
40°	9845	9845	4506
45°	5662	6886	91
50°	1784	1650	84
55°	623	133	75
60°	43	86	86
65°	25	76	76
70°	31	94	94
75°	0	83	83
80°	0	124	124
85°	0	124	124

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 45°  
 Vertical Angle: 45°  
 Luminance: 6886 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	193.2	4.3
10°-20°	563.8	12.5
20°-30°	823.6	18.2
30°-40°	815.7	18.1
40°-50°	341.5	7.6
50°-60°	36.5	0.8
60°-70°	5.1	0.1
70°-80°	3.1	0.1
80°-90°	2.2	0.0
90°-100°	39.6	0.9
100°-110°	281.9	6.2
110°-120°	382.7	8.5
120°-130°	311.5	6.9
130°-140°	250.5	5.6
140°-150°	197.5	4.4
150°-160°	144.4	3.2
160°-170°	89.7	2.0
170°-180°	30.6	0.7
0°-30°	1580.7	35.0
0°-40°	2396.4	53.1
0°-60°	2774.4	61.5
0°-90°	2784.8	61.7
90°-120°	704.2	15.6
90°-150°	1463.7	32.4
90°-180°	1728.0	38.3
0°-180°	4513.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2022	2022	2022	2022	2022	
5°	1990	2026	2021	2026	2060	190
15°	1996	2038	2001	1986	2013	561
25°	1812	1843	1805	1762	1784	828
35°	1384	1387	1386	1358	1346	849
45°	558	663	678	14	9	438
55°	50	66	11	8	6	56
65°	2	6	4	4	4	2
75°	0	3	3	3	3	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°	2022.1	2022.1	2022.1	2022.1	2022.1
2.5°	2000.3	2028.7	2019.6	2017.6	2035.3
5°	1990.4	2025.8	2020.6	2025.8	2059.8
7.5°	1991.3	2024.0	2026.0	2025.8	2059.8
10°	1994.9	2028.8	2023.6	2019.8	2053.7
12.5°	1999.7	2034.8	2015.1	2008.9	2041.7
15°	1996.4	2037.7	2000.9	1986.5	2013.0
17.5°	1966.0	2013.7	1965.4	1937.5	1956.9
20°	1934.6	1984.7	1931.6	1892.9	1913.5
22.5°	1890.0	1936.6	1885.7	1841.1	1865.2
25°	1812.5	1843.4	1804.9	1761.7	1783.8
27.5°	1706.9	1724.6	1702.7	1663.8	1677.4
30°	1628.5	1640.3	1625.5	1586.5	1595.3
32.5°	1541.7	1547.5	1538.6	1503.1	1507.3
35°	1384.2	1387.2	1385.7	1358.3	1346.5
37.5°	1189.7	1195.6	1192.1	1073.0	740.4
40°	1051.0	1056.9	1051.0	628.4	481.0
42.5°	877.3	915.0	905.0	428.6	137.2
45°	557.9	662.6	678.5	13.5	9.0
47.5°	275.6	388.6	319.1	8.7	8.7
50°	159.8	229.1	147.8	7.5	7.5
52.5°	106.8	139.5	42.8	7.5	7.5
55°	49.8	66.0	10.6	7.5	6.0
57.5°	17.5	33.1	7.2	6.0	6.0
60°	3.0	16.3	6.0	6.0	6.0
62.5°	1.8	9.2	6.0	4.9	6.0
65°	1.5	5.9	4.5	4.5	4.5
67.5°	1.5	4.5	4.5	4.5	4.5
70°	1.5	4.5	4.5	4.5	4.5
72.5°	0.3	3.3	3.3	3.3	4.5
75°	0.0	2.9	3.0	3.0	3.0
77.5°	0.0	2.9	3.0	3.0	3.0
80°	0.0	2.9	3.0	3.0	3.0
82.5°	0.0	1.8	1.8	1.8	3.0
85°	0.0	1.5	1.5	1.5	1.5
87.5°	0.0	1.6	2.0	2.4	2.4
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	0.00	0.00	0.00	0.00	0.49	0.00	0.00	0.00	0.00	0.00
	3H	0.00	0.00	0.00	0.00	0.31	0.00	0.00	0.00	0.00	0.00
	4H	0.00	0.00	0.00	0.00	0.19	0.00	0.00	0.00	0.00	0.00
	6H	0.00	0.00	0.00	0.00	0.05	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	0.14	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