

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: P621783

Luminaire Tested: VLT-FB-050U-100D-840-UNV-STD-W-4

Issue Date: 9/2/2020

Test Information

Test Method: LM-79-2019
Report Number: P621783
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2203-563-26, G2-2203-563-19)
Test Lab: INNOVATION CENTER
Issue Date: 9/2/2020
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: VLT-FB-050U-100D-840-UNV-STD-W-4
Description: CORELITE VAULT SUSPENDED LED LUMINAIRE
LIGHT SHAPING LENS - BATWING
DOWNLIGHT 1000 LUMENS PER FOOT
UPLIGHT 500 LUMENS PER FOOT
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

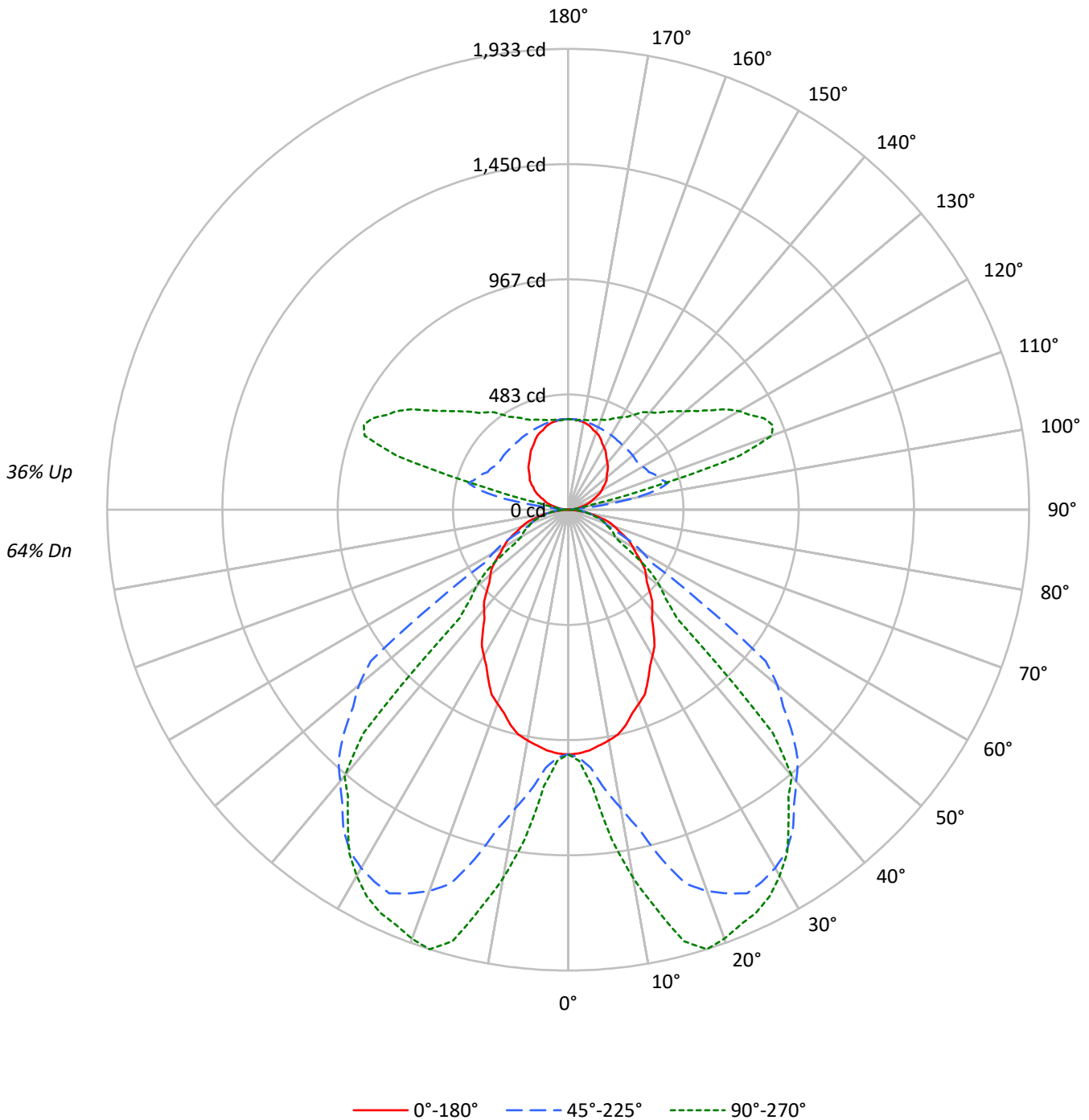
Lumens per Lamp: N/A
Luminaire Lumens: 5721.2 lumens
Efficiency: N/A
Efficacy: 130.6 lumens/watt
Spacing Criteria (0/90/45): 1.05 / 1.83 / 1.75
Luminous Opening: Rectangular (W 0.38' x L: 4' x H: 0')
CIE Type: Semi-Direct

Input Watts (W): 43.8
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	
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	111	111	111	111	104	104	104	104	91	91	91	80	80	80	69	69	69	64				
1	102	98	94	91	96	92	89	86	81	79	77	71	70	68	62	61	60	56				
2	93	86	80	75	88	81	76	72	72	68	65	64	61	58	56	54	52	48				
3	86	76	69	64	80	72	66	61	64	59	55	57	53	50	50	47	45	41				
4	79	68	60	55	74	65	58	52	58	52	48	51	47	44	45	42	39	36				
5	73	61	53	47	68	58	51	45	52	46	42	46	42	38	41	37	35	32				
6	67	55	47	41	63	52	45	40	47	41	37	42	37	34	37	34	31	28				
7	62	50	42	36	58	47	40	35	43	37	32	38	34	30	34	30	27	25				
8	58	45	38	32	54	43	36	31	39	33	29	35	30	27	31	28	25	22				
9	54	42	34	29	51	40	33	28	36	30	26	32	28	24	29	25	22	20				
10	50	38	31	26	47	36	30	25	33	27	24	30	25	22	27	23	20	18				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7365	7365	7365
5°	7303	7829	8385
10°	7159	9257	11431
15°	6943	11283	13917
20°	6611	12999	14624
25°	6260	14056	14766
30°	5860	14381	14693
35°	5464	14382	14107
40°	5139	13933	13660
45°	4890	13506	6542
50°	4751	12786	5635
55°	4619	8560	4463
60°	4491	5210	3233
65°	4393	3966	3365
70°	4333	3458	3458
75°	4223	3585	3471
80°	3707	3620	3446
85°	2750	3779	3260

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 13506 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	110.7	1.9
10°-20°	408.1	7.1
20°-30°	691.2	12.1
30°-40°	838.5	14.7
40°-50°	738.0	12.9
50°-60°	456.7	8.0
60°-70°	247.6	4.3
70°-80°	141.1	2.5
80°-90°	47.0	0.8
90°-100°	46.8	0.8
100°-110°	333.1	5.8
110°-120°	452.2	7.9
120°-130°	368.1	6.4
130°-140°	296.0	5.2
140°-150°	233.4	4.1
150°-160°	170.7	3.0
160°-170°	106.0	1.9
170°-180°	36.1	0.6
0°-30°	1210.0	21.1
0°-40°	2048.5	35.8
0°-60°	3243.2	56.7
0°-90°	3678.9	64.3
90°-120°	832.1	14.5
90°-150°	1729.6	30.2
90°-180°	2042.0	35.7
0°-180°	5721.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1026	1026	1026	1026	1026	
5°	1014	1046	1087	1133	1164	96
15°	935	1077	1519	1796	1873	262
25°	791	1082	1775	1828	1865	363
35°	624	1003	1642	1619	1610	391
45°	482	825	1331	1128	645	374
55°	369	575	684	396	357	331
65°	259	324	234	200	198	257
75°	152	134	129	127	125	159
85°	33	46	46	42	40	41
90°	0	2	5	7	7	2
95°	19	36	19	22	26	21
105°	74	114	433	553	366	78
115°	132	160	373	775	906	131
125°	189	215	352	615	727	168
135°	234	260	354	506	581	180
145°	277	301	356	441	488	174
155°	325	337	364	400	418	149
165°	361	366	373	383	390	101
175°	380	382	380	378	375	36
180°	380	380	380	380	380	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1026.3	1026.3	1026.3	1026.3	1026.3
2.5°	1023.0	1034.4	1039.7	1049.8	1054.7
5°	1013.8	1046.5	1086.8	1133.4	1164.0
7.5°	997.6	1055.9	1183.6	1330.7	1393.5
10°	982.5	1062.1	1270.4	1483.1	1568.7
12.5°	965.9	1068.2	1372.2	1630.0	1717.3
15°	934.6	1077.3	1518.7	1795.8	1873.3
17.5°	894.1	1083.0	1645.5	1883.6	1933.4
20°	865.7	1084.0	1702.2	1894.6	1915.0
22.5°	839.0	1085.0	1742.3	1867.8	1885.0
25°	790.6	1082.3	1775.2	1828.2	1864.9
27.5°	742.2	1070.2	1759.0	1801.7	1828.2
30°	707.2	1058.0	1735.6	1771.1	1773.2
32.5°	673.8	1037.7	1700.6	1710.9	1708.1
35°	623.7	1003.1	1641.7	1618.6	1610.4
37.5°	577.0	957.2	1555.8	1518.6	1516.6
40°	548.6	923.9	1487.4	1452.0	1458.2
42.5°	521.9	885.8	1425.6	1384.2	1269.6
45°	481.9	824.6	1330.9	1128.0	644.6
47.5°	447.3	754.8	1223.7	604.3	554.9
50°	425.6	707.0	1145.3	531.3	504.8
52.5°	403.9	662.5	1043.5	477.8	443.1
55°	369.2	575.2	684.2	395.5	356.7
57.5°	336.3	483.5	418.0	307.4	265.3
60°	312.9	429.2	363.0	247.7	225.3
62.5°	291.2	384.6	309.6	219.8	215.3
65°	258.7	323.9	233.6	200.2	198.2
67.5°	228.2	266.2	178.2	180.2	178.2
70°	206.5	224.9	164.8	166.8	164.8
72.5°	186.5	185.3	151.4	150.2	148.1
75°	152.3	133.9	129.3	127.2	125.2
77.5°	116.4	98.9	104.3	102.2	100.1
80°	89.7	83.6	87.6	85.5	83.4
82.5°	66.3	68.4	70.9	67.1	65.1
85°	33.4	45.6	45.9	41.7	39.6
87.5°	10.0	20.3	19.3	16.4	14.8
90°	0.0	2.3	4.8	7.2	7.2
92.5°	5.7	8.1	10.5	14.9	16.7
95°	19.1	35.5	19.1	21.6	26.3
97.5°	34.0	68.1	140.6	41.5	35.9
100°	45.4	85.2	282.2	83.1	55.0
102.5°	56.9	98.5	381.6	219.2	120.0
105°	74.1	113.9	432.8	552.9	365.9
107.5°	91.3	121.3	413.2	804.7	753.7
110°	102.8	130.9	401.7	845.5	908.7



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	114.3	142.4	390.2	821.6	927.8
115°	131.5	159.6	373.0	775.3	906.3
117.5°	149.2	176.8	368.7	725.2	859.9
120°	162.6	188.3	361.1	687.1	827.4
122.5°	172.2	199.8	351.5	654.3	783.4
125°	188.9	214.6	351.5	614.7	726.9
127.5°	202.8	229.0	352.0	568.8	679.6
130°	210.4	238.5	353.9	538.0	643.2
132.5°	220.0	248.0	353.9	524.2	610.7
135°	234.3	260.1	353.9	506.2	581.1
137.5°	246.3	273.9	353.9	486.4	550.5
140°	255.9	281.6	353.9	474.8	533.2
142.5°	265.4	289.3	355.8	461.3	516.0
145°	277.4	300.8	356.3	441.0	487.8
147.5°	291.7	312.3	359.2	426.5	462.5
150°	301.3	320.0	361.1	416.8	447.2
152.5°	310.9	327.7	361.1	409.0	433.8
155°	325.2	336.9	363.5	399.8	418.5
157.5°	336.7	347.9	366.3	393.9	407.5
160°	344.3	353.7	368.2	390.0	401.7
162.5°	350.1	359.4	370.2	388.0	396.0
165°	361.1	365.7	373.0	382.8	389.8
167.5°	367.3	371.5	375.4	380.3	384.5
170°	373.0	375.4	375.4	380.3	382.6
172.5°	374.9	379.1	377.3	378.3	380.7
175°	380.2	382.5	380.2	377.8	375.4
177.5°	380.2	382.1	380.2	380.2	378.3
180°	380.2	380.2	380.2	380.2	380.2

(END OF REPORT)