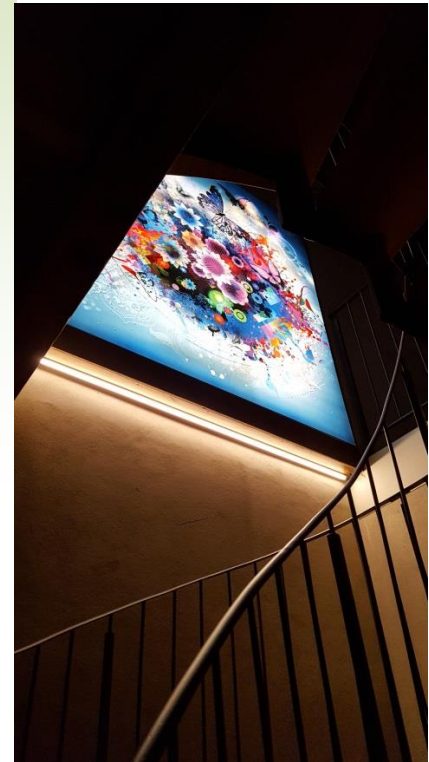


Case Study. Printed fabric backlit for home decorative lighting application.



Make it more cozy and personal their own living room with a backlit printed fabric using Velarium™ LED curtain.

How many times have you thought about the furnishing accessories to improve your leaving room with personal touch? This is the same question that Mr. Felice asked to himself when his rustic renovation was completed and he started thinking to interior decorations.

The large loft obtained from the old born is suitable for many solutions. The ceiling wooden beams make a warm and cozy atmosphere and a decorative lighting application should be carefully chosen.

Mr. Felice had the idea when he visited a furniture factory showroom: they used a backlighted printed canvas to improve a living room furniture proposal.

The choice of graphic it is fundamental for this kind of application, it was accomplished by mixing personal style and environment.

This application provides a fantasy flowers picture with warm and cool colors. The place where install the lightbox is a large wall of the loft above a spiral staircase and, thanks to available space, the customer has chosen a printed fabric 175 cm wide and 200 cm high: a big decorative lightbox, sure.

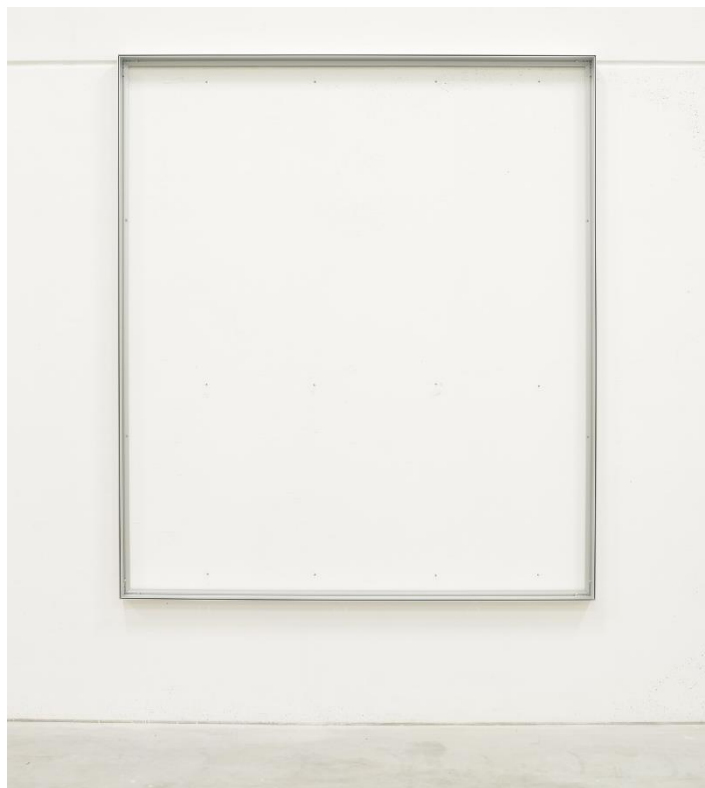
The customer: “My goal was: improve the living room with personal touch, I accomplished the project thanks to printed backlit fabric and Velarium LED curtain technology.”

The technical solution proposed by AvanBrite is an aluminum anodized frame where fit the printed fabric. It was mandatory keep the aluminum frame depth as lower as possible in order to avoid protruding effect. For this reason a 6 cm aluminum profiles height have been chosen.



The lightbox profile.

The picture above shows the frame made of four aluminum profiles mounted in laboratory.



The lightbox aluminum frame.

The choice of lamp used to backlight the printed fabric took into account the other project constraint: the lightness of application. For this reason the Velarium™ curtain lamp was used.



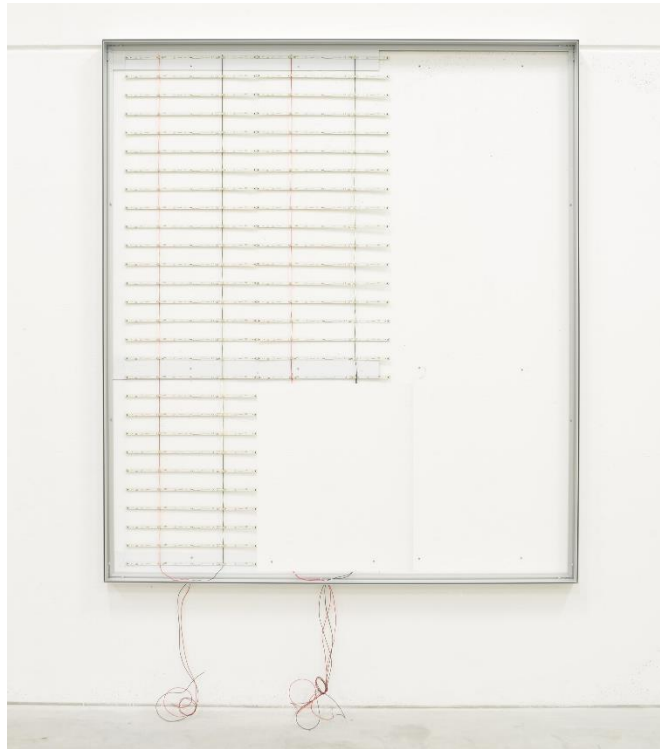
The LED lamp Velarium.

At glance

- Lightbox 175x200 cm with printed fabric
- Anodized aluminum frame with low profile: 6cm
- No reflective back
- Velarium™ LED curtain backlight
- Sublimation printing
- Overall weight 10 Kg
- Light flux 24500 lm maximum
- Total power consumption 270 Watt

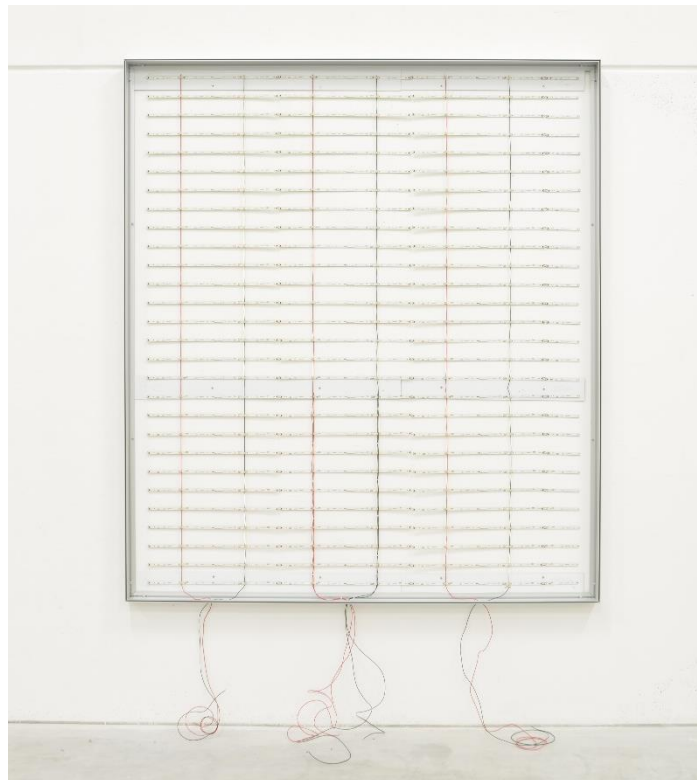
The Velarium™ LED curtain is a backlighting module consisting of a set of rigid LED bars connected to two electrical wires, which provide power as well as structural support.

Each LED bar has been placed at 7 cm from next: this pitch is ideal to backlight a printed fabric at 6 cm distance (the height of aluminum profile frame). The Velarium™ LED curtain module is made of 49 cm LED bars, but it can be reduced thanks to factory precut. Also the module length can be customized to fit the project needs. This application provides a backlit lightbox 175 cm width and 200 cm height: 4 Velarium™ modules have been used. The Velarium™ modules are electrically wired as two couple of series. Each series is connected to dimmer to adjust the light emitted.



Velarium™ module 1 and 2 fitted into aluminum frame.

The second couple of Velarium™ modules mounted inside the lightbox. The LED lamp engine has been completed:



Velarium™ module 1, 2, 3 and 4 fitted into aluminum frame.

An additional LED bar has been mounted behind the lightbox as courtesy lamp for spiral staircase. The LED lamp engine described has a maximum power consumption of 270 Watt and emits 24500 lumen.

The two dimmer devices are connected in master slave fashion: adjusting the master light knob also the slave will change its output. The Velarium™ modules are powered through two switching 24 V DC output, 150 Watt power supplies. Power supplies and dimmers have been installed inside a small box placed behind the lightbox. A main switch has been provided to completely disconnect the application from mains.

The Velarium™ modules have been fixed through plugs directly to the background wall, without any diffusor panel.

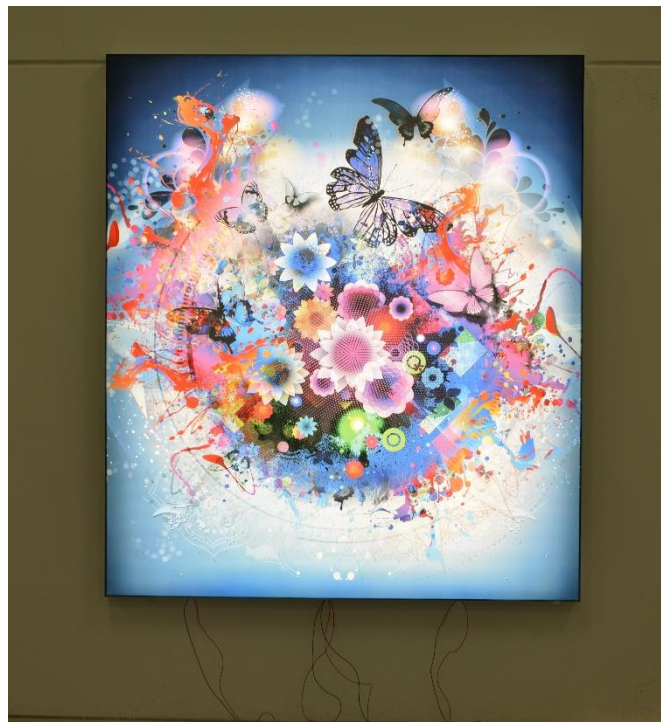
Thanks to intrinsic light weight of Velarium™ modules only the upper, the middle and the bottom LED bars have been fixed, the others bars are kept in place through the wirings. The printed fabric fits the aluminum frame without wrinkles thanks to dedicated slots around the frame. Installation doesn't need any tool and require only few minutes even for large printed fabric like this one.



The lightbox turned OFF completed.

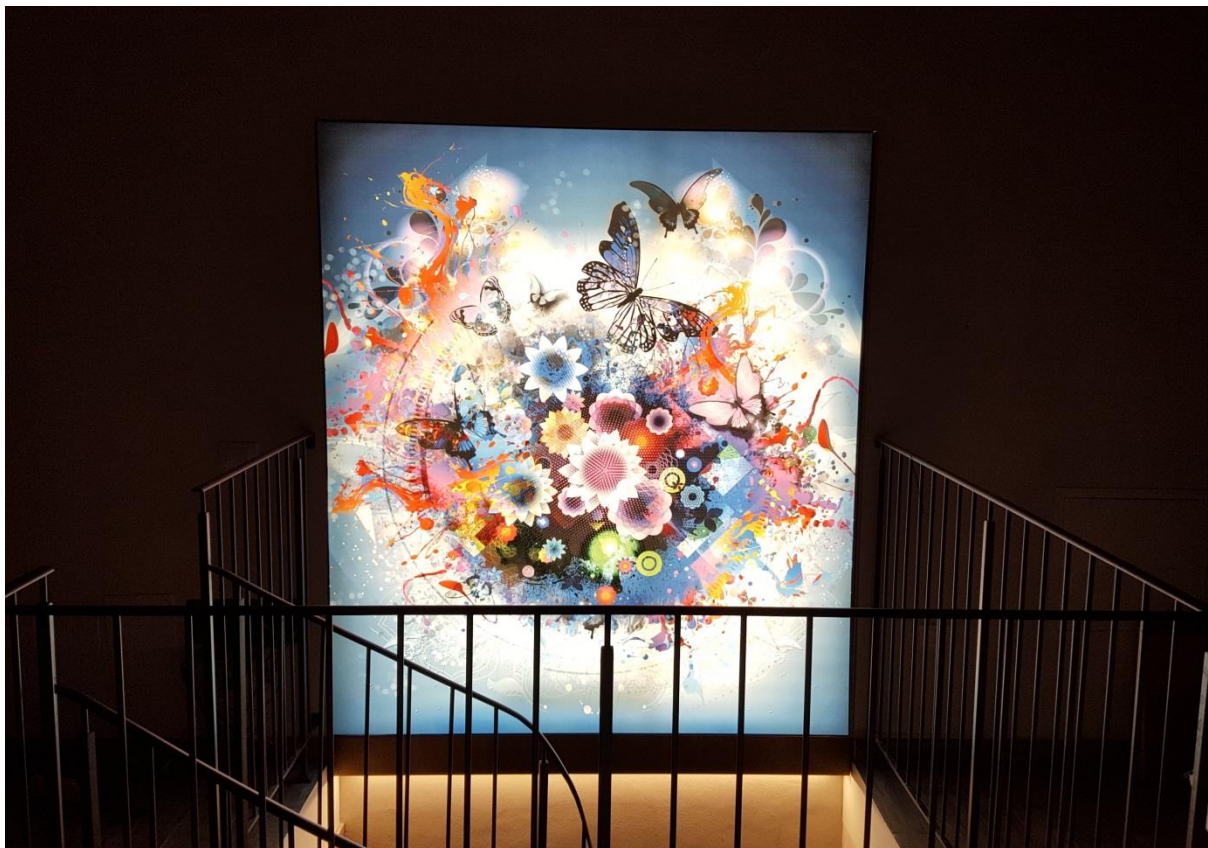
The graphic has been chosen by customer in a famous website that sell picture for professional purpose. The bought picture provides 300 dpi resolution: enough to achieve a good quality for this 175x200 cm printed fabric application.

Once the electrical wiring has been completed following the provided line diagram the system can be powered on.



The lightbox turned ON completed.

Final result of the application installed in the customer living room.



The lightbox installed in the customer living room.

The lightness of Velarium™ LED lamp has allowed to build an lightbox for decorative home interior with compact dimension, light weight, easy to install by the customers without dedicate tooling and specific skills; this last one advantage makes a big difference in home decorative lighting application.



AvanBrite Srl


Via dell'Artigianato, 91
30023 Concordia Sagittaria (VE)
ITALY

Phone: +39 0421 700117

info@avanbrite.com

www.avanbrite.com

Follow us on:

 @avanbrite

 pinterest.com/avanbrite

 linkedin.com/company/avanbrite