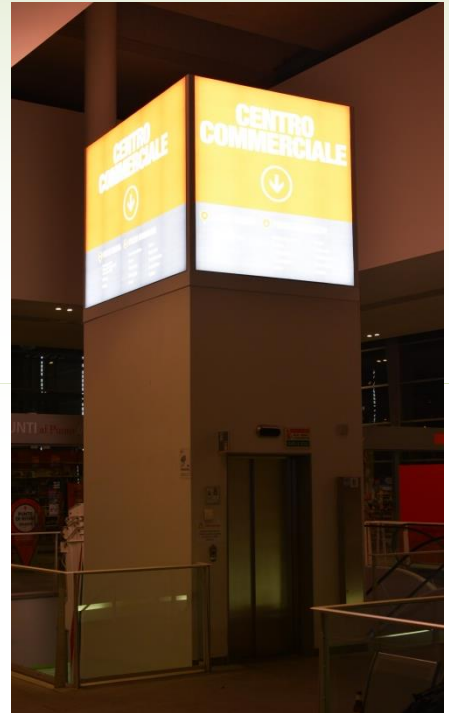




Case Study. Velarium for advertising signs in the hospital hall Careggi.

Reduce the costs and complexity for a large indoor advertising sign project with Velarium™ technology of AvanBrite.



One to One is a company involved in the indoor and outdoor advertising in the Tuscan Italian region from a long time. Company takes advantage from owner's knowledge gained through years of work in this business, assisted by engineering department, a production department and on field assembling team.

One to One Communication: *“The advertising sign developed with Velarium™ allowed us to reduce cost and complexity if compared to LED panels.”*

The project commissioned to One to One consists of four indoor advertising signs backlit, measuring 3x2 m and 2x2 m. The four advertising signs are mounted above lift tower inside the overall hospital.



Careggi (FI) hospital entrance hall.

The four advertising signs overlook the lift tower at about 8 meters from ground allowing anyone in the hall to see them, obtaining information concerning offices, wards and units available in the hospital.

At glance

- 2 advertising signs 3x2 m
- 2 advertising signs 2x2 m
- 60mm aluminum frame
- Aluminum composite background
- LED curtain Velarium™ backlighting
- Printed PCV canvas
- Total installation weight 120Kg
- Total flux 184000 lm
- Power consumption 1900 W



The lift tower in the hospital hall.

The advertising signs must satisfy the project requirements: PVC printed canvas backlit, 12 hours continuous working per day.

The One to One choice provides the LED curtain modules Velarium™ of AvanBrite as backlighting. The modules are mounted inside the two couple of aluminum boxes measuring 2x2 m and 3x2 m with reflective white background (composite aluminum). The aluminum boxes provide a perimetral guide suitable to lodge the rigid borders of PVC printed canvas.

The One to One Latex printing technology adopts ecologic inks water based solvents free, which doesn't release odors, but resistant to aging.



The pre-mounted advertising sign 3x2 m.

The technology adopted doesn't provide any diffuser layer between the LED engine and printed canvas allowing a low profile aluminum box (60 mm).

A dedicated frame has been developed, manufactured and mounted above the lift tower; the frame is used as support for the four advertising signs.

Although the application is for indoor installation and for this reason not exposed to winds, it is fundamental provides a stable and safe installation due to the height from ground, and also easy to install with a small lifter. The One to One engineering department has preferred aluminum for the frame and boxes this, together with Velarium™ LED curtain, allowed advertising sign (3x2 m) weight, without the canvas, lower than 30 kg. The printed canvas, since can be frequently replaced, has been mounted as final step. The lower weight is the most important advantage of the LED curtain if compared to classic LED light panel made of methacrylate panels and aluminum rear case. Take in consideration that 1 square meter of Velarium™ weighs only 1 Kg with cables, much less of 8 Kg per square meter of Lumio™ LED panels of AvanBrite. The advantage is obvious: 6 Kg for the 3x2 m advertising sign built with Velarium™ LED curtain instead of 48 kg for Lumio™ panel solution.

In addition to lower weight Velarium™ LED curtain provides also the easy mounting advantage. Velarium™ LED curtain is provided with electrical wiring already set in factory, which yield power as well a structural support.

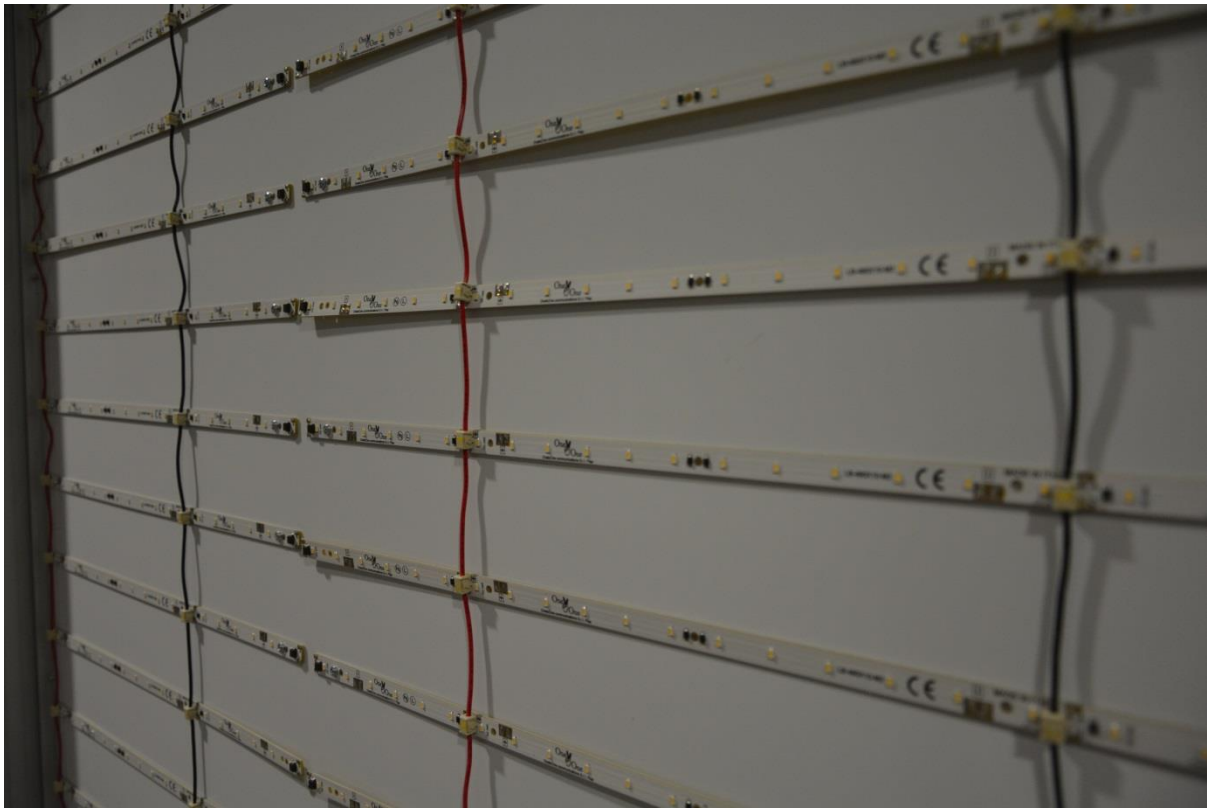


The advertising sign is going to be mounted above the tower lift.

Mounting system is completed with 3,2 mm self-tapping screws applied directly to LED bars (which is made Velarium™ LED curtain) and composite aluminum background.

The LED bars provide mounting holes for screws but also bi-adhesive tape can be used.

Even the mounting is cheaper and less complex if compared to LED panels: in fact the frame needed for classic LED panels it would have been heavier.



The Velarium™ LED curtain mounted on the reflective background composite aluminum

Velarium™ is powered at 24 VDC with power dissipation per square meter of 96 Watt in the standard application of 32 bars/square meter. The designer has provided an independent power supply for each advertising signs as following:

$$P_{\text{SIGN_3X2}} = 6 \text{ square meter} \times 96 \text{ W/square meter} = 576 \text{ W}$$

$$P_{\text{SIGN_2X2}} = 4 \text{ square meter} \times 96 \text{ W/square meter} = 384 \text{ W}$$

It means 5 power supplies for each advertising sign of 3x2 m and 4 power supplies for each advertising sign of 2x2 m. All power supplies are 150 Watt rated with integrated PFC (power factor corrector).



Functional test without the printed canvas.

The power supplies have been mounted on the backside of each advertising signs, keeping the wirings short. Designer has preferred to connect power supplies directly to LED curtain without the PWM dimmer accessories. This solution allows obtaining a well uniform lighting all over the advertising signs surface.



The final application switched on.

Finally, the cost of application. Although the Velarium™ LED curtain is much expensive than classic LED panels the advantages listed above have allowed One to One to reduce the overall application costs.



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](https://twitter.com/avanbrite)

 pinterest.com/avanbrite

 linkedin.com/company/avanbrite