



Retrofit CL55

## The perfect tunnellight

**Bicycle tunnels have been an integral part of the mobility network in the Netherlands for decades. This is also the case in Zwolle. The pulsating Hanseatic city not only has a medieval city center, but also a busy bicycle tunnel. The tunnel lighting installed there ensures road safety for cyclists. But what should be done when the lighting no longer meets the technical requirements and safety is no longer guaranteed?**

AGMI Traffic & Lighting is a leading supplier of traffic signs, signage, support structures and tunnel safety products. For over 70 years, the goal has been to be a leader in sustainability, quality and safety. Values and goals that also correspond to the DIANA-ID. So it was clear right from the start of the collaboration that the spirit was right here.

There are no statistics on how many kilometers of bicycle tunnels AGMI has equipped with lighting in the Netherlands in the past. But one thing is certain: all lighting systems are equipped with conventional fluorescent tubes. There was no question that all these light sources would have to be replaced by energy-saving LED solutions. But replacing them, including the existing housings, would be too costly. The use of cheaper standard LED retrofits was also no serious alternative for AGMI in terms of efficiency, service life and control.

So the task was quickly defined: Renew the existing lighting in the Zwolle bicycle tunnel without replacing it completely. In other words, the old housings were given a new inner life in shape of modern LED light sources that illuminate the bicycle tunnel with 60 lux during the day and 10 lux at night.

*We had a good connection with the project manager of DIANA right from the start and communication went smoothly. The cooperation between sales and engineering was extremely effective and solution-oriented.*

Twan Keizer, Project Manager AGMI Traffic & Lighting

## SUCCESS STORY

# DIANA

Said and done! In order to be able to create a targeted concept for the retrofit, the existing luminaires were first subjected to an extensive inventory in the lighting laboratory. And just three months after the first contact with DIANA, three ready-to-use prototypes arrived at AGMI in the Netherlands.

DIANA presented a 1:1 replaceable LED solution: The housing remains in place in the tunnel, the old light sources are dismantled, and the new LED lights are simply connected.

*We are very impressed by the short development time!*

Twan Keizer, Project Manager AGMI Traffic & Lighting

The advantages of this solution are remarkable: in addition to glare control, a long service life of up to 100,000 hours and IP67 protection, there is now also a choice between halving the energy consumption or doubling the light output. Whereas the previous installation could only be switched on/off, the Retrofit CL55 is controlled via DALI. This enables daylight-dependent light output and consequently further energy savings.

After just one year of test operation, the bicycle tunnel in Zwolle was completely equipped with the Retrofit CL55. Given the enormous service life of the lights, it will not be necessary to replace them any time soon. Since the LEDs will also last much longer than the ballasts, a quick and easy replacement of these was included in the concept. This reduces all maintenance work to a minimum.

*We are proud to make our contribution to the energy transition with this sustainable showcase project.*

Martin Weller, Managing Director DIANA

After successful installation and commissioning of the new lighting, further retrofits in other lengths have already been developed and installed in bicycle tunnels in Rotterdam and Eindhoven, among other places. Helpful in the planning of new projects are also the created Eulumdat data, which allow reliable lighting simulation in advance.

Of course, this form of „light renewal“ is not only suitable for bicycle tunnels. In public spaces, there are still countless lighting situations that need to be made fit for the future. However, this is no problem with individual LED retrofits from DIANA.



## Retrofit CL55

- Retrofits easily replace conventional light sources in existing housings
- DALI lighting control
- Reduction of operating costs by up to 50%
- Glare reduction despite significantly better illumination
- Long service life (L70):  $\geq 100.000$  h
- Reduction of maintenance work to a minimum
- High protection class IP67
- Eulumdat data for light simulation available



### Further information:

[www.agmi.nl](http://www.agmi.nl) · AGMI Traffic & Lighting - pioneer in the field of road signage and tunnel safety.

[www.DIANA-Leuchten.de](http://www.DIANA-Leuchten.de) · Industrial lighting solutions and individual LED solutions.