



UNDERPASSES



# TLACS-U

## Smart Lighting Control System for underpasses and short tunnels



### Benefits:

- Increases user safety and security
- Increases visual comfort
- Optimizes maintenance
- Minimizes closures
- Reduces energy consumption
- Reduces carbon footprint

- Up to 200 luminaires per system
- Plug-and-play solution
- Simplified scalable system
- Configurable system according to the specific needs
- Remote access via the intuitive customized **EOS** user interface
- Compatible with Smart-City protocols
- Easy control and management
- Complies with **ANSI/EIS** recommendations



## Smart Lighting Control Solution for underpasses and short tunnels

The **TLACS-U** is a turnkey lighting solution that controls and monitors luminaires. It uses **smart control systems** to manage light levels, monitor performance, and **enhance safety** in **underpasses and short tunnels**.

It is built to withstand challenging tunnel environments, which often involve high humidity, dust, corrosion, and the need for smooth transitions between outside daylight and inside lighting levels.

The **TLACS-U** is a simplified version of the TLACS-EM that provides the same level of robustness. It is easy to operate and offers comprehensive control and monitoring via a remote-control station or an integrated touchscreen in the lighting cabinet. ●



### UDE

The **Underpass Dimming Enclosure (UDE)** is the main controller that communicates with each luminaire individually via 0–10 V power line communication or DALI.

### LCAM

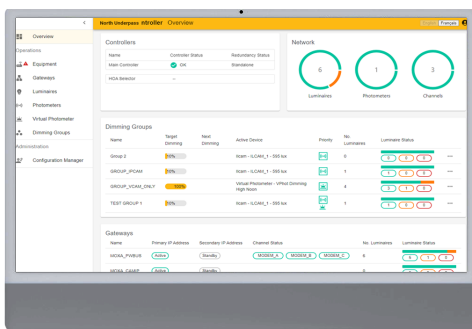
A **luminance meter (LCAM)** or standard photocell measures the luminance at the underpass portal and sends the data to the UDE. The UDE then adjusts the brightness of the luminaires to maximize visibility for drivers entering the underpass. Sensors can connect to the main controller (UDE) via power line, RS-485 or Ethernet/FO (fiber optic) options.

### LPC

Each luminaire is fitted with a **Local Product Controller (LPC)** that communicates with the UDE through the powerline, thus eliminating the need for dedicated control wiring.

### EOS

The **intuitive, customisable EOS user interface** provides seamless control and monitoring on site or remotely.



### KEY BENEFITS:

- **Increased Safety:** Thanks to improved, dynamic lighting control that improves visibility for drivers.
- **Lower operational costs:** Facilitates remote troubleshooting and reduces unplanned interventions through enhanced remote operations.
- **Energy Efficiency:** It controls individual luminaires based on real outdoor ambient lighting conditions to reduce energy consumption.
- **Ease of installation:** It can be installed by any qualified electrical contractor as a “plug-and-play” solution, and no software programming is needed.
- **Smart-City Ready:** It easily integrates with common Smart-City platforms for full monitoring and management within Smart-City implementations.

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## Nyx Hemera Technologies

Nyx Hemera Technologies develops and installs smart lighting control systems for infrastructures where energy savings, reduced operating costs, improved safety, optimized operations, and sustainability are essential. The TLACS smart lighting control system has been installed in more than 200 infrastructures around the world over the past 20 years. It is agnostic, making it compatible with any type of luminaire. The company offers a turnkey service ranging from feasibility analysis to after-sales service.

Disclaimer: All of the above information, including drawings, illustrations, and graphic designs, reflects our present understanding, and is to the best of our knowledge. We believe that the data presented is accurate and reliable. Users, however, should independently evaluate the suitability of each product for the desired application. Under no circumstances does this constitute an assurance of any particular quality or performance. Such an assurance is only provided in the context of our product specifications or explicit contractual arrangements. Our liability for these products is set forth in our standard terms and conditions of sale.