

LA LINEA TUNNEL

CAJAMARCA, COLOMBIA

CASE STUDY

SMART LIGHTING

NYX HEMERA TECHNOLOGIES INSTALLED THE TUNNEL LIGHTING CONTROL SOLUTION TLACS-EM IN THE LONGEST TUNNEL IN AMERICA: THE LA LINEA TÚNEL.



* Reference.

ABOUT THE PROJECT



With a length of 8650 meters (28 380 ft), the **La Línea tunnel**, located on Highway 40 in Calarcá, Cajamarca, Colombia, is the longest tunnel in the Americas. This new tunnel located in the departments of Quindío and Tolima in central Colombia is part of a new road project, making this road more agile and reducing travel time from Bogota to the port of Buenaventura.

The construction of this tunnel offers several advantages, such as lower operating costs for transport, shorter travel time and a reduction in the number of accidents due to the difficult terrain, as well as better support for heavy truck traffic on the road. It is estimated that, for light vehicles, travel time can be reduced by 40 minutes, and by 80 minutes for heavy vehicles.

* El Túnel de la Línea, una oportunidad al turismo responsable en Armenia, (2020)
<https://www.asocapitales.co/2020/09/el-tunel-de-la-linea-una-oportunidad-al-turismo-responsable-en-armenia/>

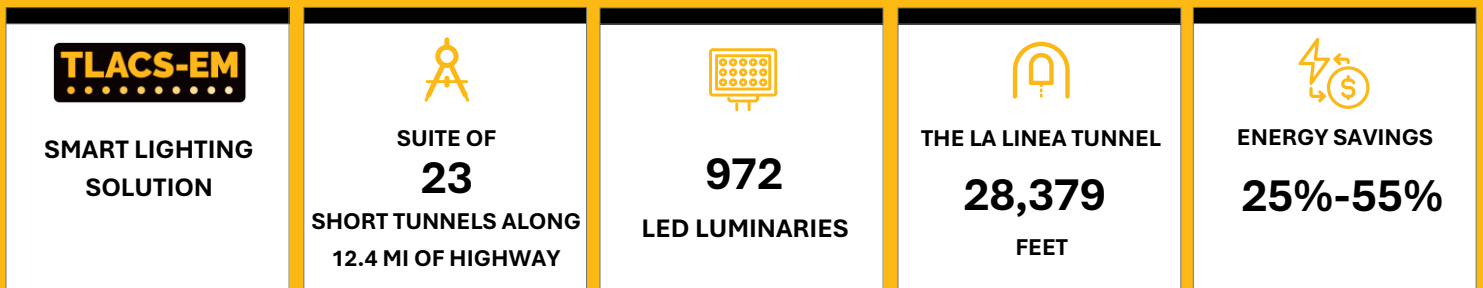


OUR SOLUTION – TLACS-EM

The **TLACS-EM** system has been installed in **La Linea tunnel** to control the luminaires in the threshold and transition areas, where the luminaires are controlled by two (2) main lighting control cabinets (LCC) with redundancy. This is in addition to the previous implementation of the TLACS lighting control system in **23 other short tunnels** that are part of this new road project. It will be possible to integrate this solution in the remaining tunnels of the project.

Nyx Hemera's TLACS solution uses the most advanced technologies using **Power line communication** which relies on methods that combine techniques based on different frequencies and transmission speeds to achieve **ultra-robust communication** over powerline grid. Since no control wires need to be installed, installation and maintenance become seamless compared to other control technologies.

KEY INFORMATION



BENEFITS OFFERED BY THE TLACS-EM SOLUTION

1. Enhanced Safety with lighting that adapts to reduce black hole and glaring effects in the critical entry area
2. Reduced maintenance operations and costs
3. Better adjustment of lighting requirements throughout the day and across tunnel areas
4. Less energy consumption and longer life of luminaires

For more information about our intelligent lighting control systems for tunnels, underpasses and other infrastructure please contact us.



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