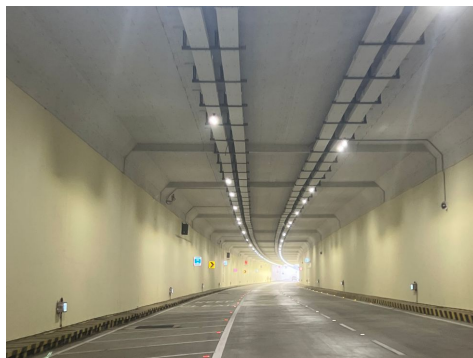


8 control unit LUMiMASTER

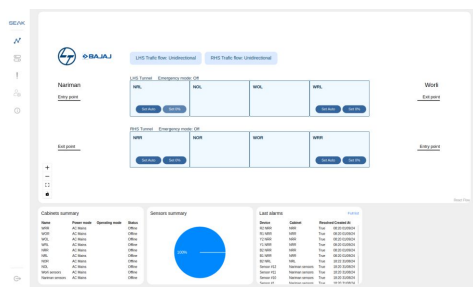
1700+ modules LUMiNODE



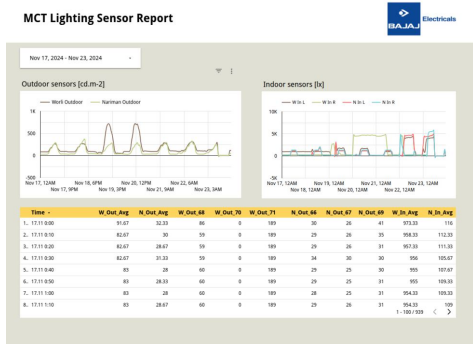
Mumbai Coastal Road Tunnel



Mumbai Coastal Road Tunnel



KDR05 software



Report from KDR05

Case Study Mumbai Coastal Road Tunnel

India's first undersea road tunnel at 3 kilometers in length was opened in Mumbai in 2024. Equipped with advanced LED luminaires by Bajaj Electricals and SEAK intelligent lighting control systems, the tunnels provide superior visibility, safety, and energy savings.

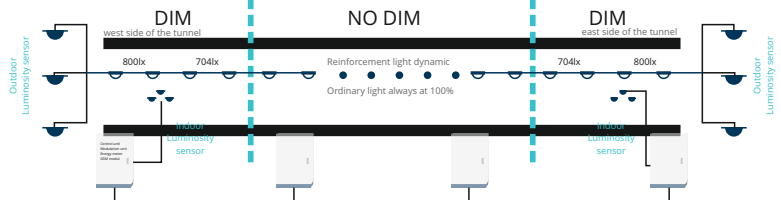
Efficient lighting control is provided by 1784 dimming modules LUMiNODE, 8 control units LUMiMASTER SLC-NOM and 48 modulation units LUMiBOX SLM-160A. Lighting and luminosity sensors are controlled by KDR-06 software.

Technical solution

Lighting control is based on information measured by luminosity sensors located at the western and eastern entrances to the tunnel. The reinforced lights in the entrance sections have an integrated dimming module and control system automatically adapt lighting intensity based on the measured values. As required by the CIE-88 standard, the system determines the dimming level for each light, so that the driver's eye can easily adapt, when a car is entering the tunnel. Through the whole tunnel, there are also ordinary lights that will not be dimmed as the lighting conditions there are constant. However, the system keep monitoring the health of these lights to detect any failures.

Each cabinet contains a modulation unit for each line as well as control unit and energy meters. Besides Seak components, the cabinet also contains standard equipment such as surge protectors (on input and output), additional I/O module, circuit breakers etc. SSR output allows automated turning the circuits on/off and a small battery to back up the controller, so that alerts can be sent in case of black out.

8:00 AM



4:00 PM

