

Streetlight brightness control system consists of a brightness controller and control signal receivers. The controller is designed to generate control signals by briefly altering the waveform of the supply voltage, which are transmitted via the phase and neutral conductors of the power line. The control signal receiver is designed to continuously monitor the supply voltage waveform, recognize these changes as control commands, and convert them into a lamp brightness control signal. The brightness control controller is equipped with a microcontroller and peripherals that enable the reception of commands via the RS-485 interface, from the "Test" button, and via a discrete input, with the ability to distinguish the source of the control command and ensure its uniqueness. The control signal receiver is built into the lamp and is designed to generate a brightness control signal via the lamp driver's 0-10 V analog interface.