lumoflex®
INTELLIGENT LIGHTING CONTROL

LUMINAIRE CONTROLLER DATA SHEET

MODEL: LFX-CZ002

Wirless luminaire controller.

Electrical characteristics	
Operating voltage	24VDC
Power consumption of the control unit, max	0,15 W
Dimming control output	DALI broadcast
Mechanical characteristics	
Connector	Zhaga book 18 standard
Size	h 80mm, d 40mm
Colour	Smoke grey or clear
Operating conditions	
Operating temperature	-40°C to +70°C
Operating humidity	Max. 95% RH
IP protection rating	66
Communication interfaces	
Between controllers	IEEE802.15.4 standard based radio, operating at 2.4 GHz, 16 channels, 250kbps standard data rate
Network and device security	192 bit ECC protected Public Key Infrastructure method encrypted security certificate and AES-128
To central server via Gateway	GSM GPRS/3G/4G or Ethernet
Node to gateway ratio	100:1
Communication protocol with CMS	XML or JSON
Features	
Dimming interface	DALI
Sensor	Ambient light and inclination
Location	GPS

Operations and features performed by luminaire controller via saved high-level rules. Rules are set from Lumoflex CMS a Cloud-based Central Management Software and then sent and saved to controller ensuring that all the operations below are performed without the need to have permanent uplink communication between a central server and each luminaire.

Luminaire operational rules

- on/off switching based on the astronomical clock or integrated ambient light sensor
dimming based on the real-time clock, five time slots for dimming
dimming based on external sensor information
traffic flow - lower traffic flow leads to lower lighting level and vice versa
human presence - when movement is detected light level is increased to the defined level for defined time time
Luminaire controller can have the information from multiple sensors at the same time and combine the data to find the needed lighting level for the current situation.

Power consumption and failure monitoring

The controller is using DALI2 standard interface to read the operating parameters and failure alerts from the compatible LED driver and sends them to the CMS. Integrated inclination sensor monitors luminaire XYZ axis and in case of deviation sends an alert to CMS.

Daylight Saving Time

Daylight Savings Time will be set automatically based on the location where it is in use.

Routine check message to CMS

The controller sends a routine check message to CMS to inform that he is operational. Once it has not been received during a specific period, an alert is displayed in the CMS.

Boot notification

The controller sends boot notification to CMS about its operational status.

Automatic commissioning

The controller is using self-configuring, self-healing wireless mesh network communication technology. Once the controllers and gateways are installed and powered on they connect with CMS automatically. By using an integrated GPS receiver, it sends the location coordinated automatically to the software where luminaire icons will be displayed on a GIS map, and the system is ready to use.