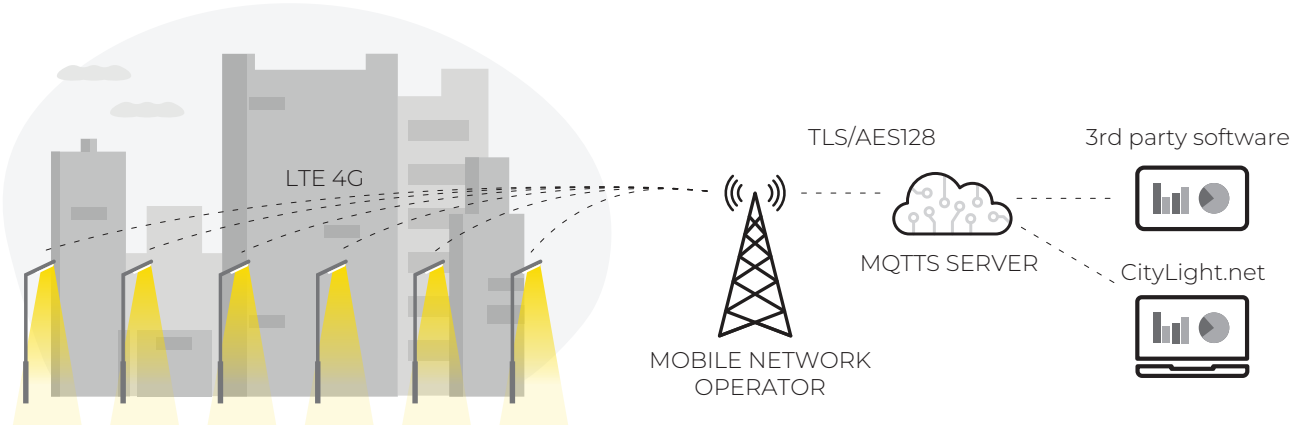
CNODE
Zhaga IOT2

The CNODE Zhaga IOT2 is a compact, low-cost smart lighting controller for outdoor luminaires. It features builtin 4G LTE connectivity and a global flat-rate eSIM, enabling remote streetlight control without extra SIM or gateway management. Supporting DALI D4i and the Zhaga Book 18 socket, it offers plug-and-play installation and reliable performance for smart city lighting. With open payload data and secure IOT industry-standard MQTTS, it ensures easy integration into a wide range of smart city platforms.

- **COMPACT DESIGN**
- **AMBIENT LIGHT SENSOR**
- **GLOBAL LTE 4G COVERAGE**
- **OPEN PAYLOAD**
- **ZHAGA BOOK 18 SOCKET**
- **DALI 2, D4i**
- **GPS Autolocation**
- **MQTTS**

IK09 IP66 5 YEAR MQTT

HOW IT WORKS



SPECIFICATION

PRODUCT CODE

HLCCZIOT2

DIMENSIONS AND WEIGHT

Diameter: 70 mm
Height: 25 mm
Weight: 65 g

ENCLOSURE

IP class: IP66
Impact resistance: IK09
UV resistant
Material: polycarbonate
Rubber Isolation class: Class II
Colour: Black (RAL9004)

MOUNTING

Lamp: ZHAGA Book-18 standard receptacle

COMMUNICATION

4G/LTE Cat- 1
Frequency Bands:
LTE-FDD: B1/B3/B7/B8/B20/B28
Protocol: MQTT over SSL/TLS with certificate-based authentication
Data Update Interval: 60 minutes (user-configurable)
Server connection time: <3min.

POWER SUPPLY

Voltage: 12-24 VDC
Backup power supply: 0,5F
Power consumption: <1W
Power consumption idle mode: <0.5W

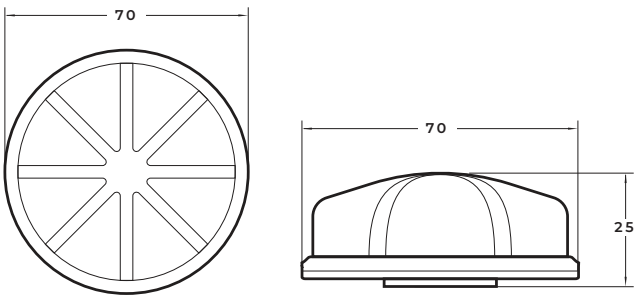
ENVIRONMENTAL REQUIREMENTS

Operating temperature: from -40 to +75 C
Storage temperature: from -40 to +75 C
Relative humidity: <95% non-condensing

AMBIENT LIGHT SENSOR (OPTIONAL)

Range: 0 - 256 000 Lx
Resolution: 1 Lx

DIMENTIONS



INTERFACES

DALI Interface
Version: 2/ D4i/ SR
Max current: 50 mA
Supports up to 4 D4i or 4 Philips SR drivers.
DALI BUS Power/ Master / Main voltage shall not exceed 1 driver.
Additionally supports 4 DALI 1.0 devices
Fade time: 0-90sec.
Dimming range: 10 - 100%
Dimming step: 1%
External motion sensor data
Dali DT8:
Colour temperature (CW/WW) RGB / RGBWAF X/Y

GNSS AUTOLOCATION TECHNOLOGY

GPS (L1)
Galileo (E1)
QZSS (L1)
BeiDou (B1)
GLONASS (G1)

FEATURES

Real time clock with backup power supply
Built-in memory
Astronomical clock for dimming profiles
Stand alone operation
Firmware Over-the-Air (FOTA)

STANDARDS

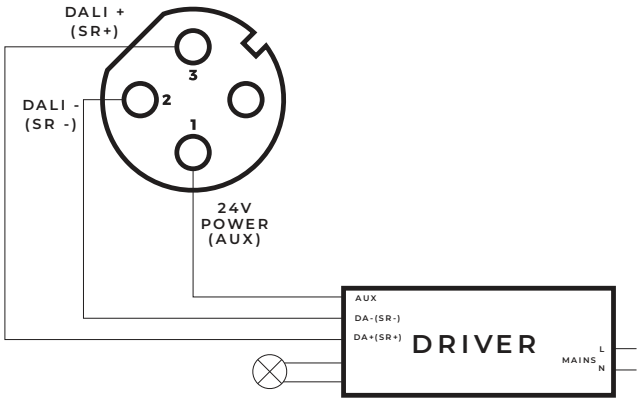
Directive 2014/35/EU
Low Voltage Directive (LVD)
- EN 61347-1:2015 (IEC 61347-1)
- EN 61347-2-11
- EN 61984:2009
- EN 60529
- EN 62262

Directive 2014/30/EU
Electromagnetic compatibility (EMC)
- EN 301 489-1 V2.1.1
- EN 301 489-52 V1.1.0
- EN 55015:2013+A1:2015
- EN 61547:2009
- EN 55032

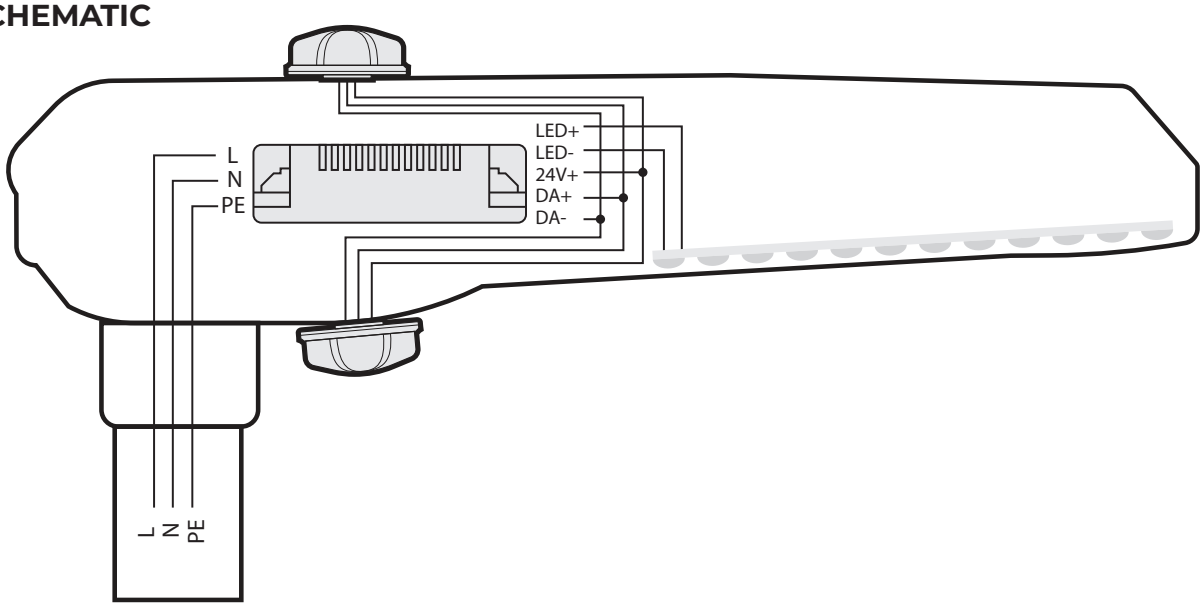
Directive 2014/53/EU
Radio Equipment (RED)
- EN 300 440 V2.1.1
- EN 300 328 V2.1.1
- EN 300 220-2 V3.1.1
- EN 62368-1
- EN 301 908-1
- EN 301 908-13
- EN 62311/EN 62479
- EN 303 413
- EN 18031-1/-2/-3

IEC 62386-251/252/253/150
Directive 2011/65/EU RoHS directive
Directive 2012/19/EU WEEE directive

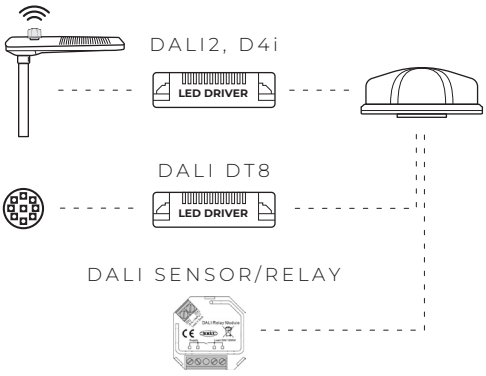
WIRING DIAGRAM



SCHEMATIC



LUMINAIRE DATA



DATA:
- Dimming level/status (%)
- Mains Voltage (V)
- Mains Current (mA)
- Power (W)
- LED voltage (V)
- LED current (mA)
- Driver working hours (h)
- Day Energy Conusmption
- Active (Wh)
- Total consumption (kWh)
- Fade time
- LED temperature, C
- Driver temperature, C

CONTROL:

DALI2
- Dimming level 0-100%
- Dimming step: 1%

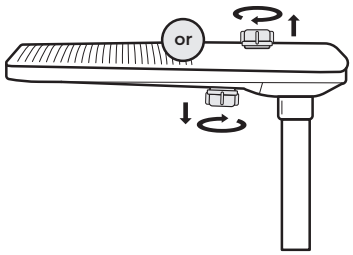
Dali DT8:
- Colour temperature(CW/WW)
- RGB / RGBWAF
- X/Y

ALERTS:
- Power failure
- Power level below set threshold
- Luminaire working hours overreached
- Dimming profile difference between node and driver
- LED temperature threshold, C
- Driver temperature threshold, C

INSTALATION INSTRUCTIONS

FIELD INSTALLATION

1 Remove protective cover



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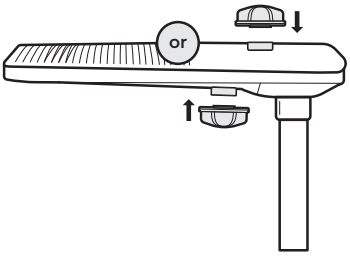

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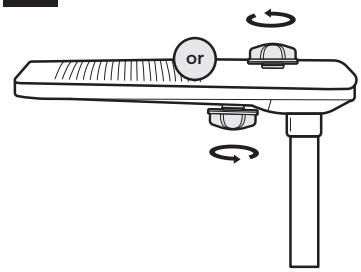

4 Download APP

Available on the Google Play

Download on the App Store

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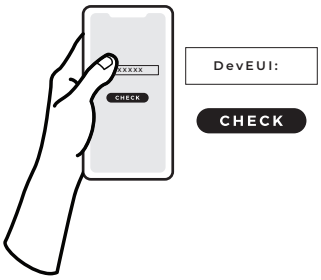

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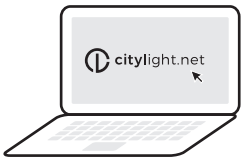
Enter e-mail and click send.

email@email.com

SEND

8



Upload device ID numbers from file

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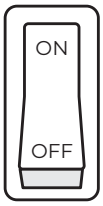

Power ON

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