

**PHILIPS**

CT Node



## Specification Sheet

# LLC7270, LLC7271

The CT node is a luminaire-based control device that connects your street light to the CityTouch lighting management system.

The CT node uses cellular communication to remotely manage, monitor and control each street light individually.

The CT node controls the street light by switching the mains supply and provides dimming by means of a digital (DALI) interface.

The luminaire shall contain a smart (D4i/SR) LED driver for powering the CT node and energy reporting.

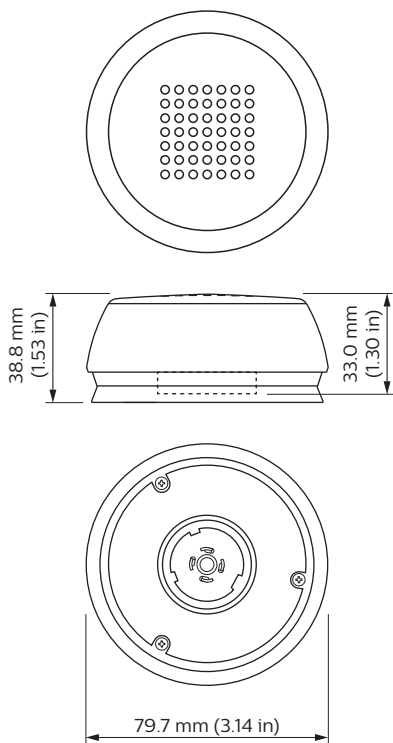


LLC7270

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- The CT node is mounted to the luminaire by twist-locking it onto the 4-pin Zhaga receptacle.
- The CT node provides true plug and play commissioning: it automatically connects to the mobile network, automatically locates itself with the onboard GPS, and automatically uploads its asset data to the lighting management system.
- The CT Node works with street lights from almost any manufacturer
- The CT Node is available in different colors to match the color of the luminaire.

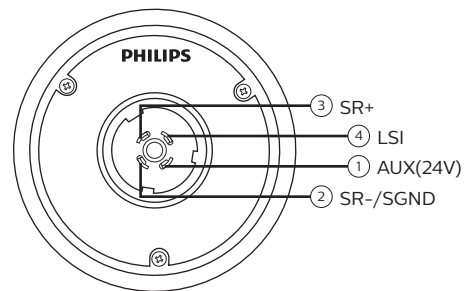
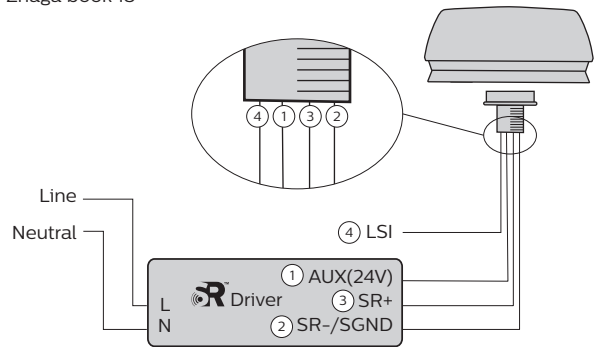
## Dimensional drawings



LLC7270, LLC7271

## Wiring diagram

Zhaga book 18



# Specifications

## Dimensions

Component height	38.8 mm (1.53 in)
Cover height	33 mm (1.3 in)
Diameter	80 mm (3.2 in)
Weight	0.1 kg (3.5 oz)

## Color

LLC7270	Light Grey (RAL 7035)
LLC7271	Dark Grey (RAL 7043)

## Supply

Supply voltage	24 Vdc
Mains voltage	N/A
Accuracy on mains voltage	N/A
Mains frequency	N/A
Accuracy on mains frequency	N/A
Rated current	N/A

## Power Consumption

Standby power	≤ 0.5 W
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## Control interface

Control method	DALI
Intra-luminaire DALI bus	IEC62386-101, Philips SR certified specification v2, DALI Data specifications (DALI part 251, 252, 253)
Protection	Interface is protected against short circuit
Insulation	Class I, basic insulation
Load capacity	1 to 4 drivers

## Mounting

4-pin plug conform Zhaga book 18

## Connectivity

Technology	2G (GSM, GPRS)
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## Energy metering

Energy metering device	Inside LED driver
Energy meter accuracy	Refer to specification of LED driver

## Auto location

Positioning device	Inside CT node
Positioning accuracy	CEP50 ≤ 2.5 m

## Light control

Light sensing device	Inside CT node
Measurement range	Between 5 and 400 lux
Configurable range	Remote configurable light level between 15 and 200 lux
Default settings	Default dusk/dawn level 35/18 lux

## Astronomical clock control

Configurable range	Remote configurable time offset range -120 to 120 minutes, sun elevation angle range -25 to 25°
Default settings	Default dusk/dawn angle 0°/0°

## Surge immunity

Power supply	N/A
Control surge (diff. mode)	0.5 kV acc. IEC61000-4-5. 40 Ohm, 1.2/50 us, 8/20 us
Control surge (comm. mode)	1 kV acc. IEC61000-4-5. 40 Ohm, 1.2/50 us, 8/20 us

## Temperature characteristics

Operating temperature	-40 to 70 °C (-40 to 158 °F)
Tcase max	70 °C measured at Tcase point
Tcase life	45 °C measured at Tcase point
Storage temperature	-40 to 80 °C (-40 to 176 °F)
Relative humidity	5 to 95% non-condensing

## Lifetime

90% survivals after 15 years continuous operation (125,000 hours) at Tcase-life.

## Certificates and Standards

Approval markings	CE, ENEC
Operability markings	SR
Ingress protection classification	IP66 The luminaire shall provide sealing of the compatible receptacle.
Impact resistance classification	IK09

## Sustainability

RoHS directive	2011/65/EU
Hazardous substances	Directive 2011/65/EU, as amended by Directive (EU) 2015/863 of March 2015

## Radio Equipment Directive 2014/53/EU

Safety (lighting equipment)	IEC/EN 61347-1 (2015) IEC/EN 61347-2-11 (2001)
Safety (IT equipment)	IEC/EN 60950-1 (2006+ A11:2009+A12:2011+ A1:2010+AC:2011+A2:2013)
EMC (lighting equipment)	EN 55015 (2013) EN 61547 (2009)
EMC (telecommunication)	ETSI EN 300 440-1 (v2.1.1) ETSI EN 301 489-1 (v2.1.1) ETSI EN 301-489-3 (v2.1.0) ETSI EN 301 489-52 (v1.1.0)
EMC (harmonic currents)	EN 61000-3-2 (2014)
EMC (voltage fluctuations)	EN 61000-3-3 (2013)
RF (telecommunication)	ETSI EN 301 511 (v12.1.10)
RF exposure	EN 62311 (2008)



## Ordering Data

Type	Order code	EAN1	EAN3	EOC
LLC7270/00 CityTouch OLC COM SR DG	9137 003 92903	8718696 720653	8718696 720660	720653 00
LLC7271/00 CityTouch OLC COM SR LG	9137 003 93003	8718696 720677	8718696 720684	720677 00

### Note

Check with your Signify representative on the availability of this CT node in your market.

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