

PHILIPS

CT Node



Specification Sheet

LLC7290, LLC7291, LLC7293

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

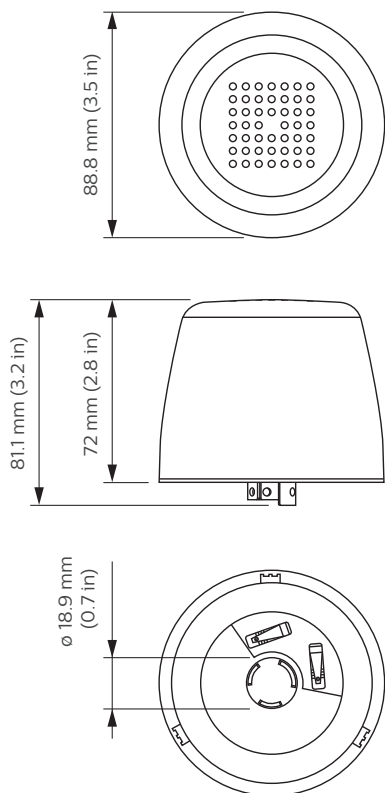
The CT node uses cellular communication to remotely manage, monitor and control each street light individually.

The CT node controls the street light by switching the mains supply and provides dimming by means of a digital (DALI) or analog (0-10V) interface.

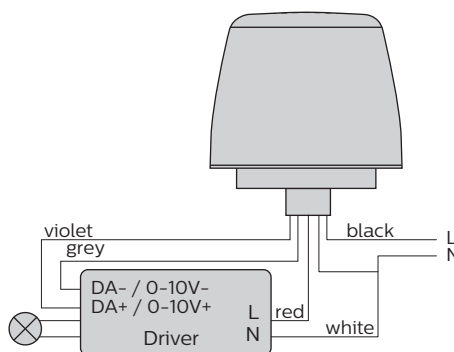
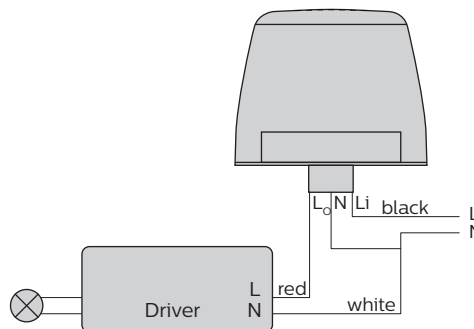
LLC7290, LLC7291, LLC7293

- The CT node is mounted to the luminaire by twist-locking it onto the 3, 5 or 7-pin NEMA 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 drawing



Wiring diagrams



Specifications

Dimensions

Component height	81.1 mm (3.2 in)
Cover height	72 mm (2.8 in)
Diameter	88.8 mm (3.5 in)
Weight	0.23 kg (8.11 oz)

Color

LLC7290, LLC7291	Light Grey (RAL 7035)
LLC7293	Black

Supply

Supply voltage	120 – 277 Vac
Mains voltage	120 – 277 Vac
Accuracy on mains voltage	10 to 15%
Mains frequency	50/60 Hz
Accuracy on mains frequency	± 5%
Rated current	4A at 120 Vac or 3A at 277 Vac for electronic drivers, 6A at 120 Vac or 3.6A at 277 Vac for electro-magnetic ballasts

Power Consumption

Standby power	≤ 1.5 W
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Control interface

Control method	ON/OFF, 1-10 V, DALI
Intra-luminaire DALI bus	IEC62386-101
Protection	Interface is protected against mains voltage and short circuit
Insulation	UL Class 2, Basic insulation
Load capacity	1 to 3 drivers

Mounting

5-pin plug conform ANSI C136.10 or ANSI C136.41

Connectivity

Technology	LTE Cat 1 bands 2, 4, 5 and 17, 3G (UMTS) fallback
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Energy metering

Energy metering device	Inside CT node
Energy meter accuracy	2% according EN50470-3 class A 0.5% class according ANSI C12:20

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	6 kV/3kA acc. ANSI C136.10
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 °C to 70 °C (-40 °F to 158 °F)
Tcase max	70 °C measured at Tcase point
Tcase life	38 °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	cULus, FCC
Ingress protection classification	IP65. The luminaire shall provide sealing of the compatible receptacle.

Impact resistance classification	IK08
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Sustainability

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

FCC

EMC	FCC47 Part 15B Class A
Telecommunication	FCC47 CFR 22H, FCC47 CFR 24E
RF	FCC47 Part 1.1310 / IEEE C95.1



Ordering Data

Type	Order code	UPC1	UPC3
LLC7290 Philips Connector Node LV photo cell	9137 010 36213	046677538781	50046677538786
LLC7291 Philips Connector Node LV Astro Clock	9137 010 36313	046677538798	50046677538793
LLC7293 Philips Connector Node LV photo cell (black)	9137 010 47213	046677560348	50046677560343

Packaging

		Net weight kg (oz)
LLC7290	bulk packaged, 30pcs/ carton, single pcs ordering possible	0.23 (8.11)
LLC7291	single packaged, 1pcs/carton, 30 pcs/ outer carton	0.23 (8.11)
LLC7293	bulk packaged, 30pcs/ carton, single pcs ordering possible	0.23 (8.11)

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