

PHILIPS

CT node



Specification Sheet

LLC7811, LLC7812, LLC7814

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

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

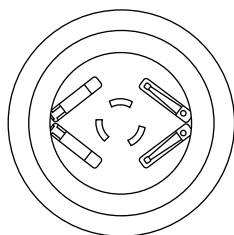
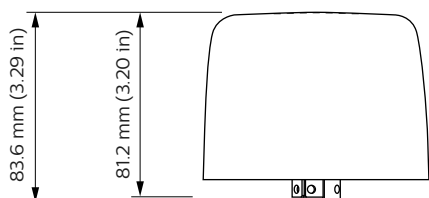
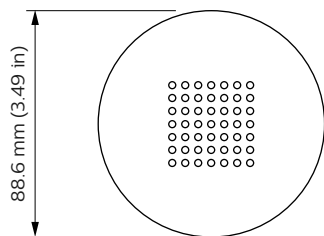
The CT node controls the street light by switching the mains supply and provides dimming by means of a digital (DALI) or analog (0-10V) interface.



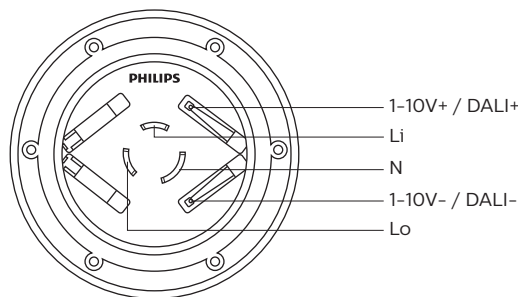
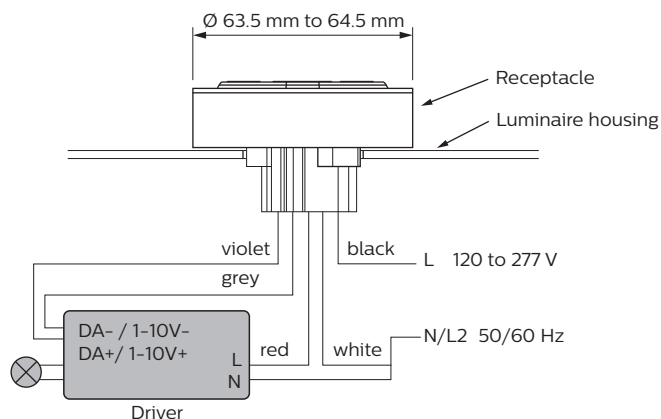
LLC7811, LLC7812, LLC7814

- 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 together with any certified D4i motion sensor.
- The CT node includes a tilt sensor to get instant notification in case the orientation of the luminaire and/or pole changes significantly.
- 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 ¹

Component height	83.6 mm (3.29 in)
Cover height	74.4 mm (2.93 in)
Diameter	88.6 mm (3.49 in)
Weight	0.27 kg (0.6 lb)

Color

LLC7812, LLC7814	Light Grey (RAL 7035)
LLC7811	Black

Supply

Supply voltage	120 to 277 Vac
Mains voltage	120 to 277 Vac
Accuracy on mains voltage	-15% to 10%
Mains frequency	50/60 Hz
Accuracy on mains frequency	± 5%
Rated current	4A at 120 Vac or 3A at 277 Vac

Power Consumption

Standby power	≤ 1.5 W
---------------	---------

Control interface

Control method	ON/OFF, 1-10 V, DALI
Protection	Interface is protected against short circuit
Insulation	UL Class 2, Basic insulation
Load capacity	Maximum 4 LED drivers up to 400 W

DALI SR interface

Performance requirements DALI	IEC 62386-101 edition 2.0 IEC 62386-103 edition 2.0 IEC 62386-351 edition 1.0
D4i device type	Type A

DALI supply	<ul style="list-style-type: none"> · DALI master with integrated DALI power supply · Suitable for multiple power supplies on a DALI bus
Supply voltage	Min. 11.5 V, Max. 22 V
Guaranteed supply current	Min. 10 mA
Max. supply current	Max. 30 mA

Mounting

5-pin plug conform ANSI C136.41

Connectivity

Technology	4G (LTE Cat M1 bands 2, 4, 5, 12 and 13)
------------	--

Energy metering

Energy metering device	Inside CT node
Energy meter accuracy	0.5% class conform ANSI C12:20

Auto location

Positioning device	Inside CT node
Positioning accuracy	CEP50 ≤ 2.5 m

Luminaire tilt notification

Tilt sensor	Inside CT node
Tilt threshold accuracy	± 5°
Configurable range	Between 20 and 45°
Default setting	30°

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 20/20 lux

¹ conform ANSI C136.48

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 Ω, 1.2/50 μs, 8/20 μs
Control surge (comm. mode)	1 kV acc. IEC61000-4-5. 40 Ω, 1.2/50 μs, 8/20 μs

Temperature characteristics

Operating temperature	-40 to 70 °C (-40 to 158 °F)
Tcase max	80 °C measured at Tcase point
Tcase life	38 °C measured at Tcase point
Storage temperature	-40 to 85 °C (-40 to 185 °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, ISED, SR, D4i
-------------------	---------------------------

Ordering Data

Type	Order code
LLC7811/00 CT NODE NEMA5 ACLV PC US4VF BK	9137 010 58113
LLC7812/00 CT NODE NEMA5 ACLV PC US4VF LG	9137 010 58213
LLC7814/00 CT NODE NEMA5 ACLV AS US4VF LG	9137 010 58313

Operability markings	SR, D4i
Ingress protection classification	Suitable for IPX6 luminaires. The luminaire shall provide sealing of the NEMA compatible receptacle.
Impact resistance classification	IK08

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, ICES-003, Issue 6 class A
Telecommunication	FCC47 CFR 22H, FCC47 CFR 24E, FCC47 CFR 27C RSS-130, RSS-132, RSS-133, RSS-139
RF Exposure	FCC47 part1.1307 & 2.1091, RSS-102
Safety	UL773, CSA C22.2 No. 182.2

PTCRB certified



© 2021 Signify Holding. All rights reserved. Specifications are subject to change without notice. No representation or warranty as to the accuracy or completeness of the information included herein is given and any liability for any action in reliance thereon is disclaimed. Philips and the Philips Shield Emblem are registered trademarks of Koninklijke Philips N.V. All other trademarks are owned by Signify Holding or their respective owners.



www.philips.com/lighting