



## Specification Sheet

# LLC7811, LLC7812, LLC7814, LLC7815

The CT node is a luminaire-based control device that connects your street light to Signify-supported lighting management systems, such as Interact City.

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 (1-10 V) interface.

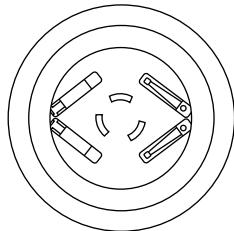
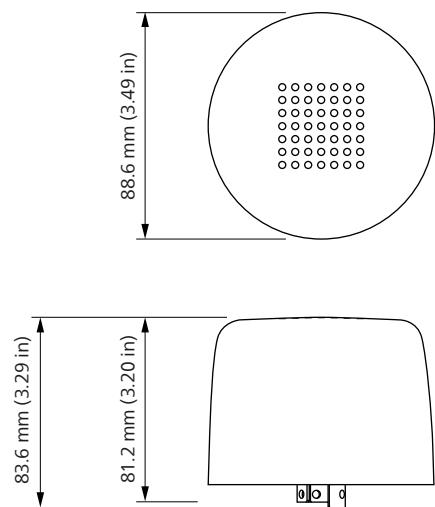


**LLC7811**

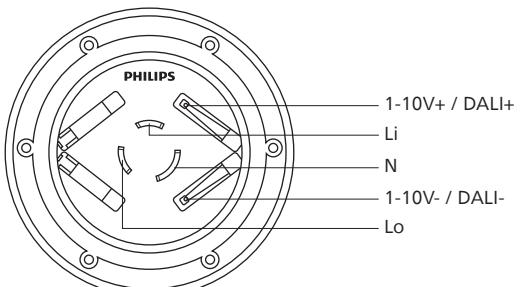
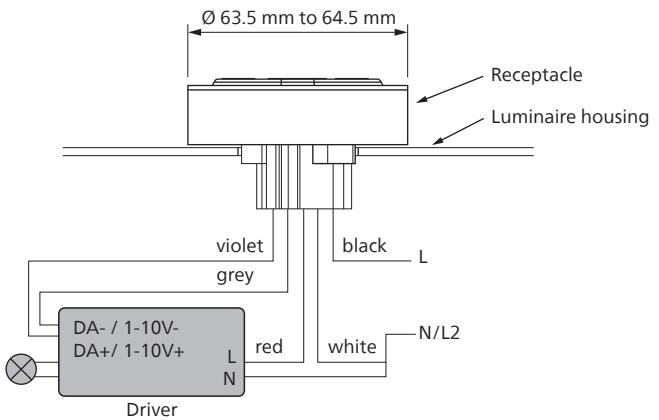
# LLC7811, LLC7812, LLC7814, LLC7815

- 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

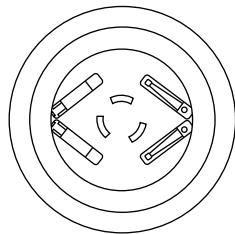
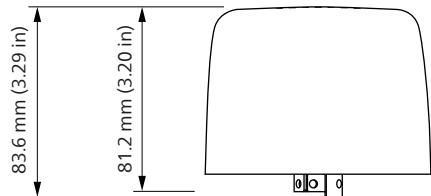
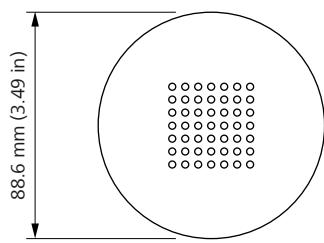


## Wiring diagrams



\*Third-party D4i certified sensor shall be qualified by Signify, prior to use with Interact City light management system.

# Specifications



## Dimensions <sup>1</sup>

Component height	83.6 mm (3.29 in)
Cover height	74.4 mm (2.93 in)
Diameter	88.6 mm (3.49 in)
Weight	
LLC7811, LLC7812, LLC7814	0.27 kg (0.60 lbs)
LLC7815	0.29 kg (0.64 lbs)

## Color

LLC7812, LLC7814, LLC7815	Light Grey (RAL 7035)
LLC7811	Black

## Supply

Mains voltage	
LLC7811, LLC7812, LLC7814	120 to 277 Vac -15%/+10%
LLC7815	347 to 480 Vac -15%/+10%
Mains frequency	50/60 Hz -5%/+5%
Rated current	
LLC7811, LLC7812, LLC7814	4A at 120 Vac or 3A at 277 Vac
LLC7815	3.7A at 347 Vac or 2.7A at 480 Vac

## Power Consumption

Standby power	$\leq 1.5$ W @ 277V
LLC7815	$\leq 2.0$ W @ 480V

## 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	Up to 3 LED drivers. 4A at 120 Vac or 3A at 277 Vac (LLC7811, LLC7812, and LLC7814) 3.7A at 347 Vac or 2.7A at 480 Vac (LLC7815)

## DALI SR interface

Performance requirements	IEC 62386-101 edition 2.0 IEC 62386-103 edition 2.0 IEC 62386-351 edition 1.0
D4i device type	Type A (The D4i specification-Part 351 ensures the Type A device can be used together with Type B device, such as D4i sensor, in a D4i luminaire)
DALI supply	<ul style="list-style-type: none"> <li>DALI master with integrated DALI power supply</li> <li>Suitable for multiple power supplies on a DALI bus</li> </ul>
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/5G (LTE Cat M1 bands 2, 4, 5, 12 and 13)
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<sup>1</sup> Conform ANSI C136.48

Energy metering device	Inside CT node	Tcase max	• 80 °C measured at Tcase point (LLC7811, LLC7812, LLC7814) • 86 °C measured at Tcase point
Energy meter accuracy	0.5% class conform ANSI C136.50	Tcase life	38 °C measured at Tcase point
<b>Auto location</b>			
Positioning device	Inside CT node	Storage temperature	-40 to 85 °C (-40 to 185 °F)
Positioning accuracy	CEP50 ≤ 2.5 m	Relative humidity	5 to 95% non-condensing
<b>Luminaire tilt notification</b>			
Tilt sensor	Inside CT node	90% survivals after 15 years continuous operation (125,000 hours) at Tcase-life.	
Tilt threshold accuracy	± 5°		
Configurable range	Between 20 and 45°		
Default setting	30°		
<b>Light control</b>			
Light sensing device	Inside CT node	Approval markings	cULus, FCC, ISED, D4i
Measurement range	Between 5 and 400 lux	Operability markings	D4i
Configurable range	Remote configurable light level between 15 and 200 lux	Ingress protection classification	IP66 (installed condition for CT node only in combination with NEMA compatible receptacle)
Default settings	Default dusk/dawn level 20/20 lux	Impact resistance classification	IK08
<b>Astronomical clock control</b>			
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°		
<b>Surge immunity</b>			
Power supply	6 kV/3kA acc. ANSI C136.10	RoHS directive	2011/65/EU
Control surge (diff. mode)	0.5 kV acc. IEC61000-4-5. 40 Ω, 1.2/50 μs, 8/20 μs	Hazardous substances	Directive 2011/65/EU, as amended by Directive (EU) 2015/863 of March 2015
Control surge (comm. mode)	1 kV acc. IEC61000-4-5. 40 Ω, 1.2/50 μs, 8/20 μs		
<b>Temperature characteristics</b>			
Operating temperature	-40 to 70 °C (-40 to 158 °F)		

## Ordering Data

Type	Order code	Country of Origin
LLC7811/00 CT NODE NEMA5 ACLV P US4VF BK	9137 010 58113	Poland
LLC7812/00 CT NODE NEMA5 ACLV P US4VF LG	9137 010 58213	Poland
LLC7814/00 CT NODE NEMA5 ACLV A US4VF LG	9137 010 58313	Poland
LLC7815/00 CT NODE NEMA5 ACHV P US4VF LG	9137 010 66413	Poland

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