

Project		Catalog #		Type	
Prepared by		Notes		Date	



Trellix Infrastructure Cellular

Network Lighting Controller

Specification Sheet:
TI-1X-CELL

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Product Certifications



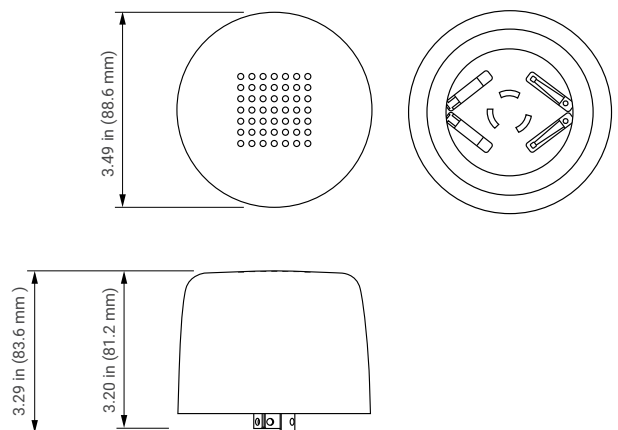
Quick Facts

- The cellular node works with streetlights from almost any manufacturer
- Available in 120-277V and 347-480V versions
- The cellular node is mounted to the luminaire by twist locking it onto the 5 or 7 pin NEMA receptacle
- The cellular 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 cellular node includes a tilt sensor to get instant notification in case the orientation of the luminaire and/or pole changes significantly
- The cellular node is available in different colors to match the color of the luminaire

Connected Systems

- Trellix Infrastructure powered by Interact City

Dimensional Details



Ordering Information

SAMPLE ORDER NUMBER: TI-12-CELL"

Trellix Infrastructure Cellular Connected Lighting Control Order Information)

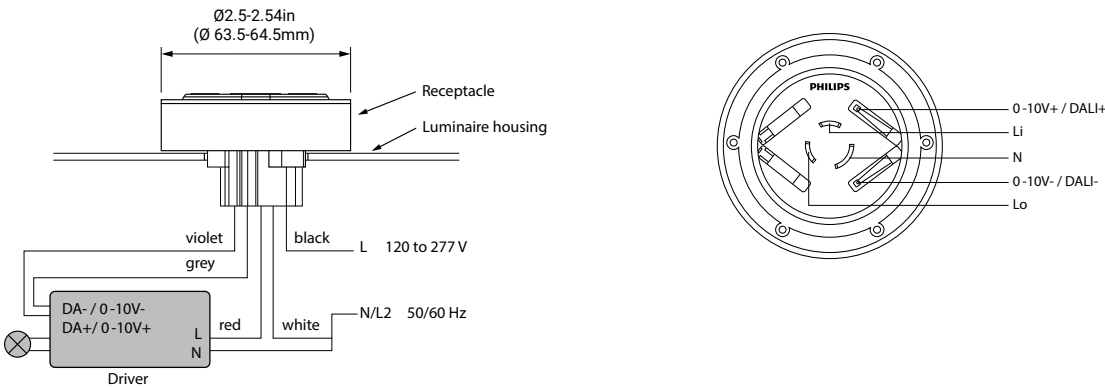
Catalog Number	Description
TI-11-CELL	Black Housing & Photocell version: Philips LLC7811/00 control node, NEMA 5 pin ANSI C136.41, 120-277V
TI-12-CELL	Gray Housing and Photocell version: Philips LLC7812/00 control node, NEMA 5 pin ANSI C136.41, 120-277V
TI-14-CELL	Gray Housing and Astro Clock version: Philips LLC7814/00 control node, NEMA 5 pin ANSI C136.41, 120-277V
TI-15-CELL	Gray Housing and Photocell version: Philips LLC7812/00 control node, NEMA 5 pin ANSI C136.41, 347-480V

SAMPLE ORDER NUMBER: TI-SAAS-CELL-1YR

Order one of the following subscription service plans below in conjunction with hardware:

Catalog Number	Description
TI-SAAS-CELL-1YR	1 Year: Trellix Infrastructure Cellular Data and CMS Subscription
TI-SAAS-CELL-5YR	5 year: Trellix Infrastructure Cellular Data and CMS Subscription
TI-SAAS-CELL-10YR	10 year: Trellix Infrastructure Cellular Data and CMS Subscription

Wiring Diagrams



Product Specifications (Philips LLC781X)

	TI-11-CELL	TI-12-CELL	TI-14-CELL	TI-15-CELL
Dimensions	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)			0.29 kg (0.64 lbs)
Color	Black	Light Grey (RAL 7035)		
Supply	Supply voltage: 120 to 277 VAC			Supply voltage: 347 to 480 VAC
	Mains voltage: 120 to 277 VAC			Mains voltage: 347 to 480 VAC
	Accuracy on mains voltage: -15% - 10%			
	Rated current: 4A at 120 VAC or 3A at 277 VAC			Rated current: 3.7A at 347 VAC or 2.7A at 480 VAC
	Mains frequency: 50/60 Hz			
	Accuracy on mains frequency: -5% / +5%			
Power Consumption	Standby power: ≤ 1.5 W			Standby power: < 2.0 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 400W			Load capacity: Maximum 3 LED drivers, and up to 3.7A at 347 VAC or 2.7A at 480 VAC
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 (The D4i specification-Part 351 ensures the Type A device can be used together with Type B device, such as D4i sensor, in aD4i luminaire)			
	Data specifications: DALI part 251, 252, 253			
	DALI Supply: DALI master with integrated DALI power supply Suitable for multiple supplies on 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, 13)			
Energy Metering	Energy metering device Inside CT node			
	Energy meter accuracy 0.5% class conform ANSI C136:50			
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°			

	TI-11-CELL	TI-12-CELL	TI-14-CELL	TI-15-CELL
Light Control	Light sensing device Inside CT node		NA	Light sensing device inside CT node
	Measurement range: Between .5 and 40 FC			Measurement range: Between .5 and 40 FC
	Configurable range: Remote configurable light level between 1.5 and 20 FC			Configurable range: Remote configurable light level between 1.5 and 20 FC
	Default settings: Default dusk/dawn level 2/2 FC			Default settings: Default dusk/dawn level 2/2 FC
Astronomical Clock Control	NA		Configurable range: Remote configurable time offset range -120 to 120 minutes, sun elevation angle range -25 to 25°	NA
			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)			Operating temperature: -40 to 70 °C (-40 to 158 °F)
	Tcase max: 86 °C measured at Tcase point			Tcase max: 80 °C measured at Tcase point
	Tcase life: 38 °C measured at Tcase point			Tcase life: 38 °C measured at Tcase point
	Storage temperature: -40 to 80 °C (-40 to 176 °F)			Storage temperature: -40 to 80 °C (-40 to 176 °F)
	Relative humidity: 5 to 95% non-condensing			Relative humidity: 5 to 95% non-condensing
	Lifetime: 90% survivals after 15 years continuous operation (125,000 hours) at Tcase-life			Lifetime: 90% survivals after 15 years continuous operation (125,000 hours) at Tcase-life
Certificates and Standards	Approval markings: cULus, FCC, ISED, D4i			
	Operability markings: 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, PTCBR certified			
Warranty	Five-year limited warranty. Contact Cooper Lighting Solutions sales and technical support for details: trellixinfrastructuresupport@cooperlighting.com			