SKYLITE PRIME
PR155901 SkyLite Prime Zhaga 24VDC 2.4GHz

TVILIGHT
E M P O W E R I N G   I N T E L L I G E N C E

SkyLite Prime - Next-generation Smart City lighting controller

With SkyLite Prime, cities can effortlessly upgrade their streetlights with intelligent controls turning them into smart city connectivity hubs. When combined with a smart driver, SkyLite Prime delivers advanced system health analytics, power metering and asset management support. A standardized Zhaga interface (Book 18) ensures a quick installation and universal luminaire compatibility.

Designed in the Netherlands 🇳🇱 Made in Europe 🇪🇺

Features
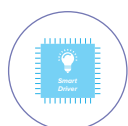
Smart Driver ready

Lighting control via DALI / DALI 2.0 / SR / D4i, DALI Multi-Master mode

Controls up to 4 drivers

Lux sensor to measure ambient light levels

Adaptive, autonomous, AstroClock and calendar-based dimming

IP65 with similar rated Luminaire + UV Stabilized

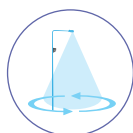Compatible with all existing TVILIGHT products

2.4 GHz communication

Benefits

Universal luminaire compatibility via standard Zhaga socket (Book 18)

Advanced luminaire health information and monitoring

External sensor input; trigger surrounding lights creating a safe circle of light around the road user

Open API for third party software compatibility

High accuracy power metering; ANSI 136.52 compliant for supported drivers

TVILIGHT
EMPOWERING INTELLIGENCE

ELECTRICAL INPUT DATA

Rated supply voltage range	18-30VDC
Rated supply voltage	24VDC
Rated supply current	125mA
Power consumption operating	~1.5W
Power backup (RTC)	24 hours
Logical system input (LSI)	0 - 30VDC
LSI logical low	0 - 6VDC or open
LSI logical high	7 - 30VDC
LSI max current draw	10mA
LSI output range	0 - max supply voltage
Dimming control	DALI / DALI 2.0 / SR / D4i, DALI Multi-Master mode
DALI supply bus voltage	20VDC
DALI supply current	60mA
DALI supply current guarantee	53mA

COMMUNICATION DATA

Network	2.4GHz IEEE 802.15.4 self-forming, self-healing wireless network
Radio (max. transmit power)	+9.5dBm (EU)
Radio (receiver sensitivity)	-96dBm
Security	128 AES encryption
Wireless range	200 m*
Gateway to device ratio	1:200*
*depending on field conditions	

CERTIFICATES & STANDARDS

Approval marks	CE
IEC protection class	Class 3
Ingress protection classification	IP65 with similar rated Luminaire

MECHANICAL DATA

Enclosure	Transparent Polycarbonate, UL94 V-0
Color	Pantone - Cool Grey 5 C
Antenna	Integrated
Weight	88g
Dimensions	80 x 50 mm

69 mm

50 mm

80 mm

80 mm
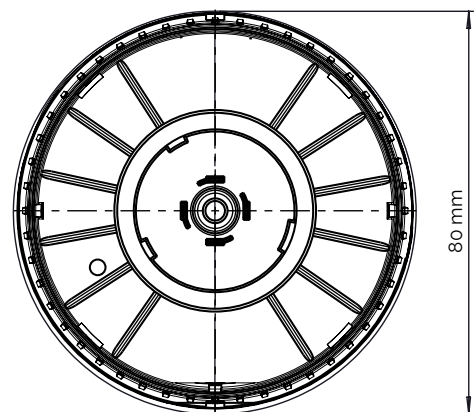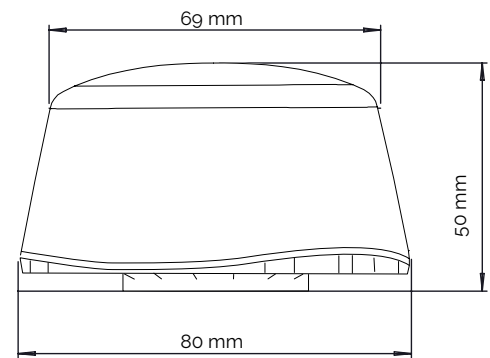
PROTECTION

Supply protection	Reverse polarity protection
Output protection	Short circuit protection with auto-recovery
	Reverse polarity protection and over-voltage protection on DIMMING lines (pin 2/3)
	LSI I/O mode protection; configuration of incorrect function mode will not damage device
	LSI output over-current protection with auto-recovery

OPERATIONAL TEMPERATURES & HUMIDITY

Ambient temperature (T_a)	-30 to +60 ºC	Higher ambient temperature allowed as long as T_{case}-max is not exceeded
Relative humidity	10 to 90 %	Non-condensing
T_{case}-max	+85 ºC	
T_{case}-life	+70 ºC	

STORAGE TEMPERATURES & HUMIDITY

Storage temperature	-40 to +60 ºC	
Relative humidity	5 – 95 %	Non-condensing

LIFETIME

Device lifetime	50K Hours	At T_{case} = +70 ºC at Tc point / 10 % failure rate

ADDITIONAL INFORMATION

Default ambient light sensor setting	ON	Turn light ON: 30 Lux / Turn light OFF: 45 Lux
Default light output	100 %	
Default LSI function	OFF	Refer to latest product documentation for supported functions
Default LSI mode	INPUT	

LED STAGE INDICATION

Red LED Blinking	Standalone Tvilight switch mode enabled
Green LED	Connected mode enabled

WARRANTY INFORMATION

Warranty period	2 years	Subject to proper use of installation & application manuals

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WIRING INFORMATION

Pin Number	Function
1	+24V power supply
2	Negative pole for analogue or DALI or DALI based protocol and shared ground return for 24V supply
3	Positive pole for analogue or DALI or DALI based protocol
4	General digital i/o (greater than 7VDC)
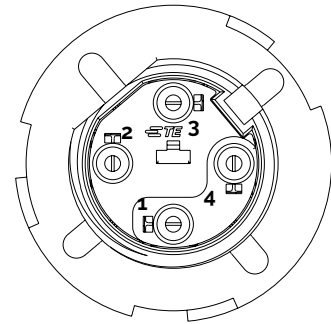
Bottom view Receptacle Assembly
(Gasket, Nut and Washer not shown for clarity)

LOGISTICS INFORMATION

Order Code	Product Description	Packaging Unit	Dimensions	Weight
PR155101	SkyLite Prime Zhaga 24VDC 9.5dBm 2.4GHz Multipack 12	Carton shipping box containing 12 x PR155101	**(L - W - H)** 394 - 294 - 60 mm	1400g

Use PR155101 when placing an order. This is a multipack with 12 devices and which is MOQ

APPROVED ACCESSORIES

Accessory Type	Manufacturer	Manufacturers Part Description	Part Code
Mounting assembly	TE	RECEPTACLE ASSEM., LUMAWISE ENDURANCE S	2213858-1

Application

Roadways

Area lighting

Residential

Urban

Industrial

Parking

Ports

Rail stations