



# TSANA

Luminaire design: Eclatec

Does the design of **TSANA** square the circle?

With **TSANA**, today's technical solutions marry an intangible, immutable form, all contained within the magic ratio of a perfect circle.

Compact and discrete, the silhouette of **TSANA**, enriched by combinations heightening its sober geometry, becomes urban. Available in the most simple of trim, **TSANA** is also suitable for applications where functionality dominates.

**TSANA** accepts **ORALED** modules 1 and 2 or **REOLED** modules 1 and 2. In X version, **TSANA X** receives **XEOLED** modules 1 and 2.



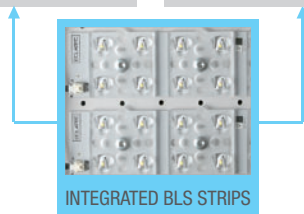
ORALED MODULE



REOLED MODULE



XEOLED MODULE



INTEGRATED BLS STRIPS

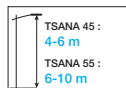


Tsana X on Baltic bracket



Tsana Top




**TSANA 45** With ORALED 1 module

**TSANA 55** With REOLED 2 module


## APPLICATIONS

- Mounting: top, bitop and side entry
- Tsana 45: Pedestrian areas, cycle paths, residential areas, street lighting  
Tsana 55: Roads, secondary urban and inter-urban streets
- Recommended heights: Tsana 45: 4 to 6 m / Tsana 55: 6 to 10 m

## DESCRIPTION

- Luminaire available in 2 sizes: Tsana 45 and Tsana 55
- Body and frame in injected die-cast aluminium
- Spun aluminium dome
- Polyester powder coating, any colour available
- IP 66
- Class I or II
- 2 types of sources:
  - ORALED 1 and 2 modules :**
    - equipped with an **ORALENS** mono lens in PMMA, IK 08, module colour grey 2150 sanded or 2900 sanded
    - colour temperature: 3000 K or 4000 K
  - REOLED 1 and 2 modules:**
    - equipped with BLS with **QUADRENS** lenses and PC bowl, IK 10, module colour grey 2900 sanded
    - colour temperature: 2400 K, 2700 K, 3000 K or 4000 K

## CITIZEN REFERENCE POINTS

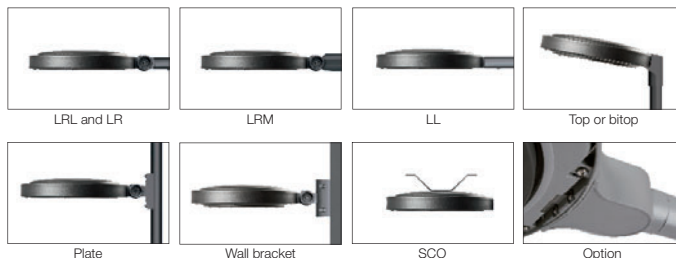
- Materials used:
  - Tsana 45: Aluminium 84%, Other 9%, Steel 4%, Plastic 3%
  - Tsana 55: Aluminium 86%, Other 7%, Steel 4%, Plastic 3%
- Complies with the RoHS directive
- High recyclability rate

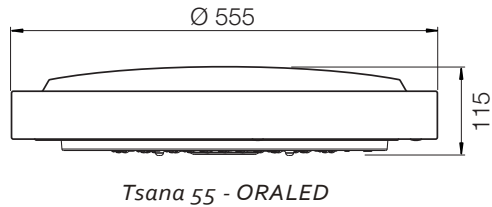
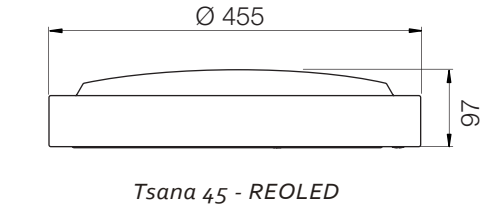
## WATERPROOFING

- IP 66 waterproofing in accordance with the standard EN 60 529
- Pneumatic silicone gasket
- Cable gland with anchoring device
- Breathing system with activated carbon filter

## MECHANICAL INTERFACES

- LRL: Tsana Side entry with plain swivel joint coupled with sleeve for bracket end with external Ø 60 mm Tilts from -90° to + 90° (see page 278 - E, F)
- LRM: Tsana Smooth Lateral Ball with wrapping sleeve for the end of the cross-arm Ø 60 mm and Ø 42 mm outside
- LR: Tsana side entry with swivel joint and Ø ¼" thread for female boss welded onto pole or bracket. Tilts from -90° to + 90° (see page 278 - G)
- LL: Tsana side entry coupled with sleeve for bracket end with external Ø 60 mm (see page 278 - E, F)
- Top or Bitop fitting for pole Ø 60/62 mm / l=100 mm  
For pole Ø 76 mm top, optional spigot A (see page 278)
- Luminaire tilted at 0° and 10°
- Tsana on cast aluminium plate (see page 278 - J)
- Tsana on cast aluminium wall bracket
- SCO: Tsana catenary version. Fixation on 5 to 14 mm diameter mechanical cable
- Option: specific trim in die cast aluminium for tube exterior Ø 60 mm





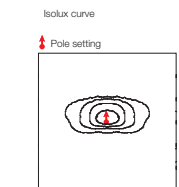
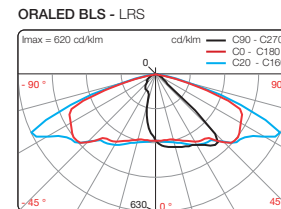
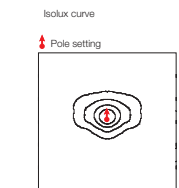
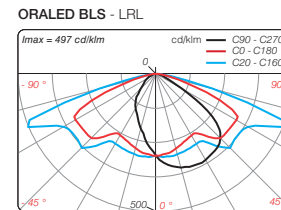
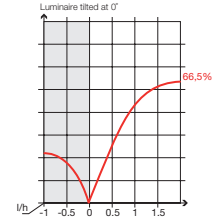
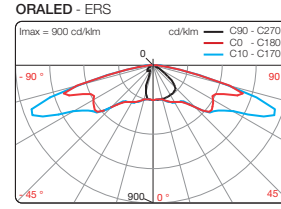
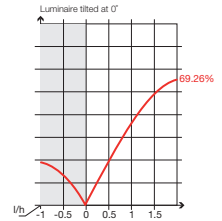
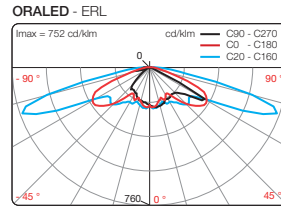
**KEY POINTS**

	TSANA 45	TSANA 55	
<b>Applications</b>	Pedestrian areas, cycle paths, residential areas, street lighting	Roads, secondary urban and inter-urban streets	
<b>Recommended heights</b>	4 to 6 m	6 to 10 m	
<b>Mounting</b>	Top, bitop and side entry		
<b>Dimensions</b>	$\varnothing$ 455 mm height 115 mm / 97 mm	$\varnothing$ 555 mm height 115 mm / 97 mm	
<b>Weight</b>	9,9 kg	13,7 kg	
<b>Windage area</b>	0,05 m <sup>2</sup>	0,06 m <sup>2</sup>	
<b>Sources</b>	ORALED 1 REOLED 1	ORALED 2 REOLED 2	
<b>Sources access</b>	Removable ORALED und REOLED modules		
<b>Optics and light distribution options</b>	ORALENS: ECL, ERS, ERL, LRM  QUADRALENS <sup>(1)</sup> : ERS, ERL, ECa, LRS, LRL, ERE, ETS, PFA, EPD, EPG	ORALENS: ERS, ERL, LRM, LRE  QUADRALENS <sup>(1)</sup> : ERS, ERL, ERE, LRS, LRL, PFA, ECa	
<b>Power supply current (mA)</b>	100 to 700 mA		
<b>OPTIONS</b>	<b>Backlight shield<sup>(1)</sup></b> (factory or site assembly)	<input type="radio"/>	<input type="radio"/>
	<b>SMART-READY<sup>®</sup> (2)</b> by Eclatec (construction)	<input type="radio"/>	<input type="radio"/>
	<b>DALI</b> (preset)	<input type="radio"/>	<input type="radio"/>
	<b>Dimming 5</b> (preset)	<input type="radio"/>	<input type="radio"/>
	<b>CLO</b> (preset)	Compatible with standard version, Dimming 5, Motion 5 or DALI option	
	<b>Motion 5</b> (setting on site)	<input type="radio"/>	-
	<b>Motion</b> (setting on site)	<input type="radio"/>	-
	<b>Motion COM</b> (setting on site)	<input type="radio"/>	-
	<b>Motion DALI</b> (set in the bottom of the pole)	<input type="radio"/>	-
<b>Motion P</b> (set in the bottom of the pole)	<input type="radio"/>	<input type="radio"/>	
<b>POLEDRIVE</b> (set in the bottom of the pole)	<input type="radio"/>	<input type="radio"/>	

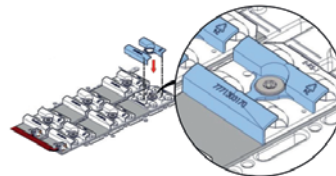
(1) Backlight shield optional except for EPD, EPG, ECa \* Option only available with BLS STRIPS  
 (2) Preconfigured communicating system: Wired Sensor Ready type driver and Zhaga consortium base. Be sure to hold the connector when installing the module

Glossary:  
 ● Standard ○ Option - Not available

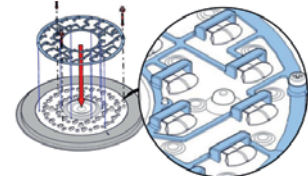
**E/L/P:** Lighting/Luminance/Projection, **R/C/T/F/P:** Road/Circulation/Path/Beam/Pedestrian walkway, **E/S/L/A/D/G:** Narrow/Standard/Wide/Asymmetric/Right/Left, **POLEDRIVE:** preset at the bottom of the pole / night dimming calculator with 2 configurable thresholds, set in the bottom of the pole, **Dimming 5:** night dimming calculator with 5 configurable thresholds, **Motion:** moving sensor, **Motion P:** Configurable offset presence detector at the foot of the pole, **Motion DALI:** Detector integrated to the luminaire, adjustable at pole base, **Motion 5:** Motion sensor and dimming calculator, **Motion COM:** Wireless detection and communication, **DALI:** compatible with the DALI protocol, **CLO:** Constant Lumen Output option



**BACKLIGHT SHIELD**



Backlight shield REOLED version



Backlight shield ORALED version

**MAINTENANCE**

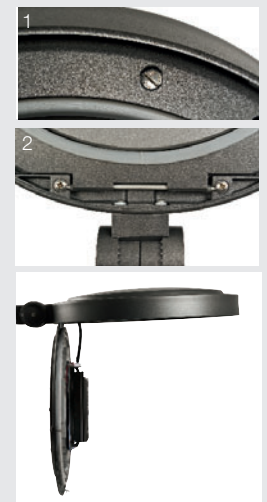
**Opening and closing**

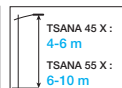
Opening of the luminaire by 3 quarter-turn screws. {1}  
 The module swivels around a hinge in aluminium. {2}

**LED module maintenance**

Direct access to the module, removable.

Power supply by quick connectors.





TSANA 45 X



TSANA 55 X



## APPLICATIONS

- Mounting: top, bitop and side entry
- Tsana 45 X: Pedestrian areas, cycle paths, residential areas, street lighting  
Tsana 55 X: Roads, secondary urban and inter-urban streets
- Recommended heights: Tsana 45 X: 4 to 6 m / Tsana 55 X: 6 to 10 m

## DESCRIPTION

- Body, cover paddles and module in die-cast aluminium
- Thermally tempered glass bowl
- Polyester powder coating, any colour available
- IP 66
- Tsana 45 X: IK 10, Tsana 55 X: IK 08
- Class I or II
- **XEOLED** 1 and 2 modules equipped with BLS with **QUADRALENS** lenses
- Colour temperatures: 2400 K, 2700 K, 3000 K or 4000 K

## CITIZEN REFERENCE POINTS

- Materials used:
  - Tsana 45 X: Aluminium 75%, Other 11%, Steel 8%, Glas 6%
  - Tsana 55 X: Aluminium 73%, Other 10%, Steel 5%, Glas 12%
- Complies with the RoHS directive
- High recyclability rate

## WATERPROOFING

- IP 66 waterproofing in accordance with the standard EN 60 529
- Extruded silicone seal
- Cable gland
- Breathing system with activated carbon filter

## MECHANICAL INTERFACES

- LRL: Tsana X Side entry with plain swivel joint coupled with sleeve for bracket end with external Ø 60 mm Tilts from -90° to +90° (see page 278 - E, F)
- LRM: Tsana X Smooth Lateral Ball with wrapping sleeve for the end of the cross-arm Ø 60 mm and Ø 42 mm outside
- LR: Tsana X side entry with swivel joint and Ø 3/4" thread for female boss welded onto pole or bracket. Tilts from -90° to +90° (see page 278 - G)
- LL: Tsana X side entry coupled with sleeve for bracket end with external Ø 60 mm (see page 278 - E, F)
- Top or Bitop fitting for pole Ø 60/62 mm / l=100 mm  
For pole Ø 76 mm top, optional spigot A (see page 278)  
Luminaire tilted at 0° and 10°
- Tsana X on cast aluminium plate (see page 278 - J)
- Tsana X on cast aluminium wall bracket
- SCO: Tsana X catenary version. Fixation on 5 to 14 mm diameter mechanical cable
- Option: specific trim in die cast aluminium for tube exterior Ø 60 mm



LRL et LR



LRM



LL



Top ou bitop



Patin



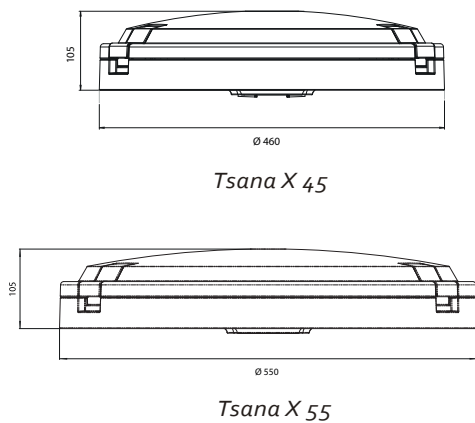
Applique murale



SCO

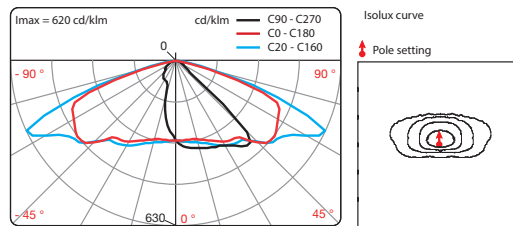


Option

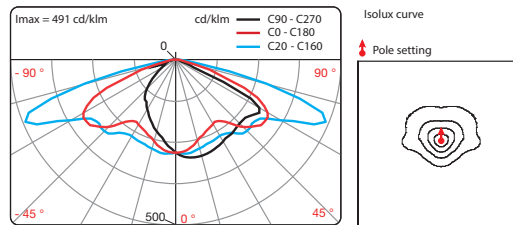


PHOTOMETRIC DISTRIBUTIONS

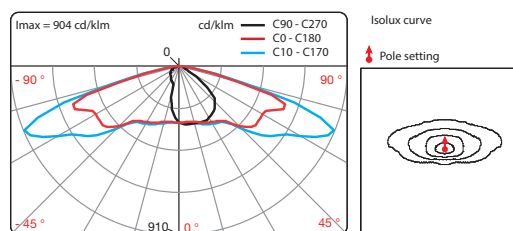
TSANA 55 X - LRS



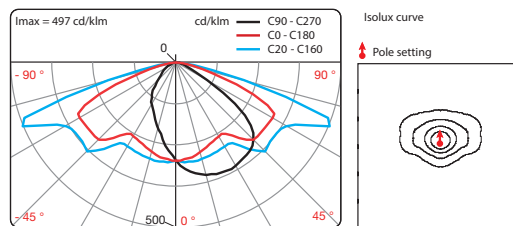
TSANA 55 X - ERL



TSANA 55 X - ERS



TSANA 55 X - LRL



KEY POINTS

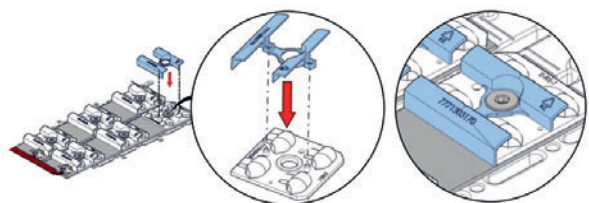
	TSANA 45 X	TSANA 55 X
<b>Applications</b>	Pedestrian areas, cycle paths, residential areas, street lighting	Roads, secondary urban and inter-urban streets
<b>Recommended heights</b>	4 to 6 m	6 to 10 m
<b>Mounting</b>	top, bitop and side entry	
<b>Dimensions</b>	$\varnothing$ 460 mm height 105 mm	555 mm 105 mm
<b>Weight</b>	9,0 kg	12 kg
<b>Windage area</b>	0,07 m <sup>2</sup>	0,05 m <sup>2</sup>
<b>Sources</b>	<b>XEOLED 1</b>	<b>XEOLED 2</b>
<b>Sources access</b>	Device or LED module opened and replaced without tools	
<b>Optics and light distribution options</b>	<b>QUADRALENS<sup>(1)</sup></b>	
	ERS, ERL, ERE, ETS, ECa, LRS, LRL, PFA, EPD, EPG	ERS, ERL, ECa, ERE, LRS, LRL, PFA
<b>OPTIONS</b>	<b>Backlight shield<sup>(1)</sup></b> (factory or site assembly)	○
	<b>SMART-READY<sup>®</sup> (2)</b> by Eclatec (construction)	○
	<b>DALI</b> (construction)	○
	<b>Dimming 5</b> (preset)	○
	<b>CLO</b> (preset)	Compatible with standard version, Dimming 5 or DALI option
	<b>Motion COM</b> (setting on site)	○
	<b>Motion P</b> (set in the bottom of the pole)	○
<b>POLEDRIVE</b> (set in the bottom of the pole)	○	

(1) Backlight shield optional except for EPD, EPG, ECa  
 (2) Preconfigured communicating system: Wired Sensor Ready type driver and Zhaga consortium base

Glossary:  
 ● Standard ○ Option - Not available

**E/L/P:** Lighting/Luminance/Projection, **R/C/T/F/P:** Road/Circulation/Path/Beam/Pedestrian walkway, **E/S/L/A/D/G:** Narrow/Standard/Wide/Asymmetric/Right/Left, **POLEDRIVE:** preset at the bottom of the pole / night dimming calculator with 2 configurable thresholds, set in the bottom of the pole, **Dimming 5:** night dimming calculator with 5 configurable thresholds, **Motion:** moving sensor, **Motion P:** Configurable offset presence detector at the foot of the pole, **Motion DALI:** Detector integrated to the luminaire, adjustable at pole base, **Motion S:** Motion sensor and dimming calculator, **Motion COM:** Wireless detection and communication, **DALI:** compatible with the DALI protocol, **CLO:** Constant Lumen Output option

BACKLIGHT SHIELD



Backlight shield XEOLED version

MAINTENANCE

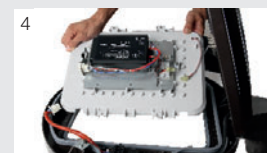
Opening and closing

The luminaire cover can be opened without tools using the 2 flaps {1}  
 The luminaire is held in the open position by a safety prop. {2}



Source maintenance

Automatic cutting of the power supply when the luminaire is opened by a dedicated ECLATEC connector  
 Quick electrical disconnection without tools.  
 Equipment circuit board removable onsite without tools  
 Complete LED module removable onsite without tools {3,4}



*LED Luminaires*

Modern Streetfurniture

Waste bins

**Bollards Light**

**tree grill**

Bollards

Classic poles cast iron

Steel poles

MODERN POLES CAST IRON

Defence bollards

Drinking water fountain

**SEATING**

TRAMWAY POLES

Modern LED luminaires

Classic luminaires

Classic street furniture

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