Tesis – The benchmark in the outdoor area

An innovative archetype in outdoor lighting
Tesis has long been a regular feature in the outdoor range. In a completely upgraded version, it now delivers an entirely new level of performance. Innovative photometrics ensure maximum brilliance and efficiency. The robust polymer housing is fully corrosion-resistant and designed to ensure long life and ease of use. Be it directional luminaire, uplight or wallwasher, Tesis sets the benchmark in outdoor lighting.

Structure and characteristics
The features described here are typical of products in this range. Special versions may offer additional or varying features. A comprehensive description of the features of individual products can be found on our website.

1 ERCO Spherolit lens
- Directional spotlight light distributions: narrow spot, spot, flood or oval flood
- Uplight light distribution: wide flood

or

Lens wallwasher
- Optical cut-off 40°
- ERCO lens system: wallwash
- Wallwasher reflector: Metal or polymer, aluminised, silver, textured, partially coated black, with diffuser on lower side

2 ERCO LED-module
- High-power LEDs: warm white (3000K) or neutral white (4000K)
- Directional spotlight and uplight: collimating lens made of optical polymer
- Directional spotlight pivotable through 0°-30°

3 Cover ring
- Covered or flush mounting detail
- Stainless steel
- Safety glass: 15mm, transparent

4 Housing
- Polymer, black
- Longitudinally watertight cable
- Installation with separate connection sleeve
- Mounting is possible without mounting enclosure
- Installation in mounting enclosure: driveable, can be driven over by vehicles with air-filled tyres. Load 20kN or 50kN
- Hollow floor installation only with overlapping installation detail: Fixing set to be ordered separately

5 Control gear
- Switchable, phase dimmable or DALI dimmable
- Phase dimmable version: Dimming with external dimmers possible (trailing edge)

Protection mode IP68
Protection against the ingress of dust, protection against the consequences of continuous immersion in water to a depth of max. 3m.

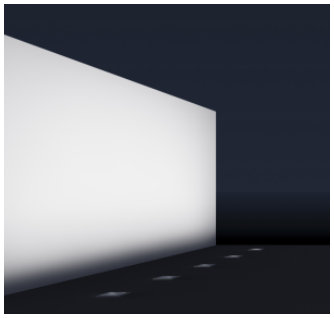
Variants on request
- High-power LEDs: 3000K CRI 97 or 2700K, 3500K, 4000K with CRI 92
- Cover ring: V4A stainless steel
- Anti-slip safety glass

Please contact your ERCO consultant.

Design and application:
www.erco.com/tesis

Tesis In-ground luminaires

Improved visual comfort
ERCO has developed luminaires with special housing designs and highquality optical components specifically for demanding visual tasks to provide enhanced visual comfort.



Outstanding uniformity
To meet the stringent standards of vertical illuminance, ERCO has developed luminaires specifically to produce exceptionally uniform levels of illuminance.

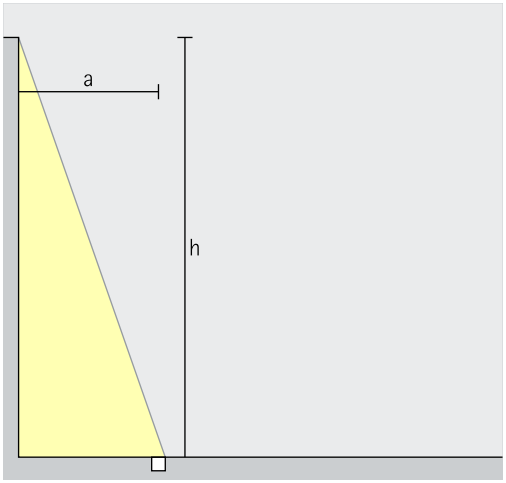
Large luminaire spacing
For some wallwashers, the luminaire spacing may be up to 1.5 times the offset from the wall. Corresponding details are provided in the wallwasher tables in the catalogue or the product data sheets. Computerised beam calculations are recommended to check potential intersections with side walls.

Special characteristics

- Improved visual comfort
- Outstanding uniformity
- Wide luminaire spacing with wallwashing
- ERCO high-power LEDs
- Efficient Spherolit technology
- Optical cut-off 40°
- Different light distributions
- Different light colours
- Excellent thermal management
- EMC-optimised
- Various construction sizes
- Flush or covered mounting detail
- Protection mode IP68
- Safety class II
- Switchable
- Phase dimmable
- DALI dimmable

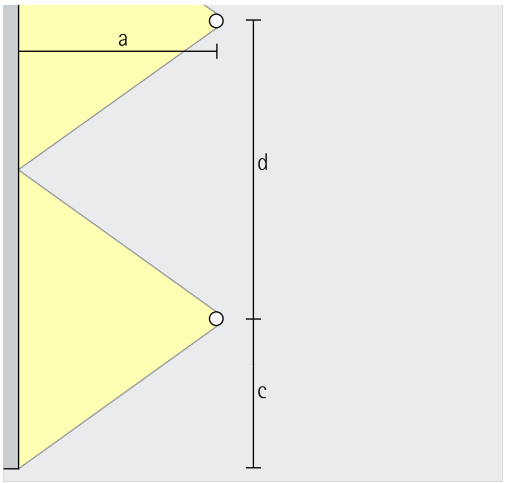
Tesis In-ground luminaires – Luminaire arrangement

Lens wallwashers
Wallwash



Wallwashing
Uniform vertical illuminance in the outdoor area defines spatial borders. Here, the distance (a) of Tesis lens wallwashers from the wall should be around one third of the room height (h).

Arrangement: a = 1/3 x h

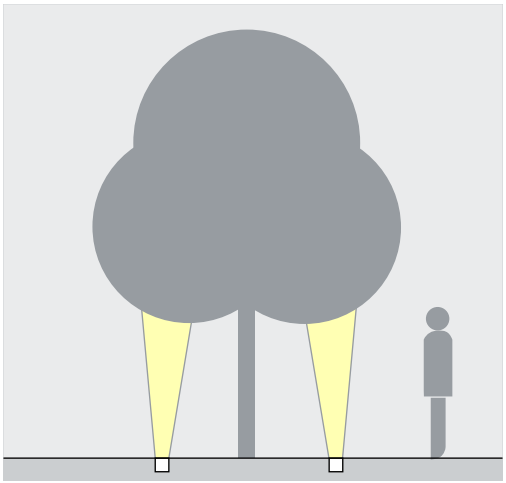


For good longitudinal uniformity, the spacing (d) of round Tesis lens wallwashers may be up to 1.3 times the offset from the wall (a).

Arrangement: d ≤ 1.3 x a

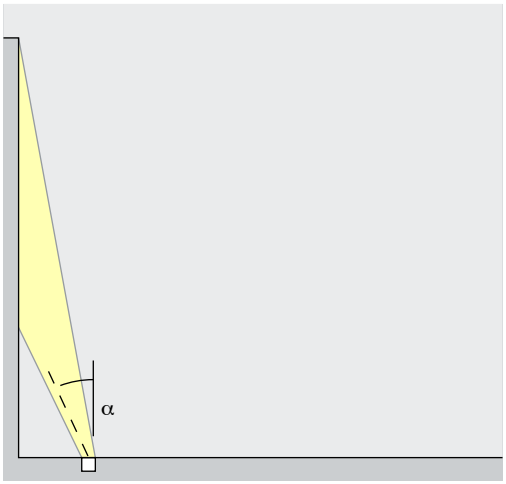
The optimal wall offset and luminaire spacing for each product are indicated in the wallwasher tables in the catalogue and the product data sheets.

Uplights
Spot, Flood, Wide flood, Oval flood



Accentuation
Tesis uplights used for the accentuation of objects such as treetops or cantilever roofs need to be accurately positioned and aligned to ensure that the light arrives precisely and only on the target surface to avoid light pollution.

Directional luminaires
Narrow spot, Spot, Flood, Oval flood



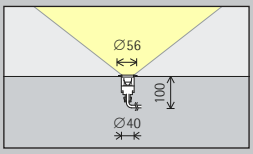
Accentuation
Experience has shown the ideal angle of tilt (a) for accent lighting with Tesis directional luminaires to be 25°. This ensures good modelling without excessive grazing light.

Arrangement: α = 25°

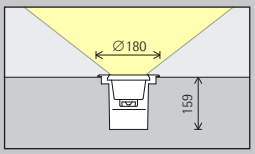
Düsseldorfer Schauspiel-haus, Düsseldorf. Architecture: ingenhoven architects, Düsseldorf. Lighting design: Tropp Lighting Design, Weilheim. Photography: Thomas Mayer, Neuss

Tesis In-ground luminaires

Construction size



Size 2



Size 3

LED module
Maximum value at 4000K CRI 82

Size 2	Size 3
3.1W/369lm	8.1W/1048lm

Light colour

Size 2		Size 3	
2700K CRI 92 *	3500K CRI 92 *	2700K CRI 92 *	3500K CRI 92 *
3000K CRI 92	4000K CRI 82	3000K CRI 92	4000K CRI 82
3000K CRI 97 *	4000K CRI 92 *	3000K CRI 97 *	4000K CRI 92 *

Light distribution

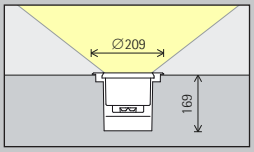
Size 2	Size 3
Lens wallwasher	Lens wallwasher
Wallwash	Wallwash
Uplights	Uplight
Spot	Wide Flood
Flood	
Wide flood	
Oval flood	

Control

Size 2	Size 3
Switchable	Switchable
DALI	DALI

Accessories

	Connection sleeve		Recessed housing		Installation unit
	Branching sleeve		Mounting kit		



Size 4

16.2W/2096lm	2W/262lm (Narrow spot)

2700K CRI 92 *	3500K CRI 92 *
3000K CRI 92	4000K CRI 82
3000K CRI 97 *	4000K CRI 92 *

Lens wallwasher	Directional luminaire
Wallwash	Narrow spot
Uplights	Spot
Wide Flood	Flood
	Oval flood

	Switchable
DALI	DALI

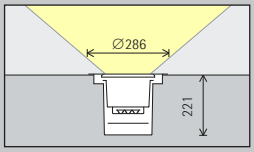
* available on request

Article numbers and planning data:
www.erco.com/015146

Design and application:
www.erco.com/tesis

Tesis In-ground luminaires

Construction size



Size 5

LED module
Maximum value at 4000K CRI 82

4W/524lm (Narrow spot)	24.3W/3144lm

Light colour

4W/524lm (Narrow spot)			24.3W/3144lm		
2700K CRI 92 *	3500K CRI 92 *		2700K CRI 92 *	3500K CRI 92 *	
3000K CRI 92	4000K CRI 82		3000K CRI 92	4000K CRI 82	
3000K CRI 97 *	4000K CRI 92 *		3000K CRI 97 *	4000K CRI 92 *	

Light distribution

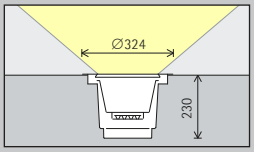
4W/524lm (Narrow spot)	24.3W/3144lm	
Directional luminaire	Lens wallwasher	Directional luminaire
Narrow spot	Wallwash	Spot
	Uplight	Flood
	Wide Flood	Oval flood

Control

4W/524lm (Narrow spot)	24.3W/3144lm
Switchable	Phase dimmable
DALI	DALI

Accessories

Connection sleeve		Recessed housing		Installation unit	
Branching sleeve		Mounting kit			



Size 7

32.3W/4192lm	8.1W/1048lm (Narrow spot)

2700K CRI 92 *	3500K CRI 92 *
3000K CRI 92	4000K CRI 82
3000K CRI 97 *	4000K CRI 92 *

Lens wallwasher	Directional luminaire
Wallwash	Narrow spot
Uplight	Spot
Wide Flood	Flood
	Oval flood

Phase dimmable
DALI

* available on request

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Design and application:
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Anzac Memorial, Sydney. Architecture: JPW - Johnson Pilton Walker. Lighting design: Arup Sydney. Photography: Jackie Chan, Sydney.

Parliament, Stockholm. Photography: Johan Elm.