

ES ARCALED series



GENERAL SPECIFICATION	
Type	LED lamp for tunnel lighting
Applications	Motorways, roads and underpass tunnels
MATERIALS AND SURFACE TREATMENT	
<ul style="list-style-type: none"> The luminaire body is made of AISI 316-L stainless steel. Power cabinet housing and housing (ARCALED 5) made of AISI 316-L stainless steel, without welds. Extruded aluminum alloy radiator EN AW-6060 (ARCALED 4-5). Age-resistant rubber glass seal, non-removable, suitable for installation in corrosive environments such as tunnels. Compact EPDM (ARCALED 4-5) heatsink body gasket suitable for installation in corrosive environments such as tunnels. INFINITY protection system: extra clear tempered glass, 4 mm thick, made of one piece, without circumferential fixing ring. 	
Fastening the glass cover: using AISI 316-L stainless steel plates, fixed with M6 stainless steel screws.	
<ul style="list-style-type: none"> Repair of the housing power box: using A4 stainless steel screws and self-locking nuts (UTILITY BOX FOR ARCALED 5). The outer screws are made of A4 stainless steel. The mounting bracket is made of 316L stainless steel, 2mm thick. 	
MECHANICAL PROPERTIES	
<ul style="list-style-type: none"> Replacement of the entire LED module, inverter, surge protector and component wiring. The opening allows access to the optics and cable compartment by opening the glass. The fall safety system is structured on 4 levels. 	
SURGE PROTECTION	
Up to 10 kV, common and differential mode. The surge protector is connected between phase and zero.	
PERFORMANCE CHARACTERISTICS	
<ul style="list-style-type: none"> Power supply unit consisting of programmable ballast with a lifespan of over 100,000 hours. Electronic power source with integrated thermal protection with high efficiency and durability, designed for the outdoor environment. All versions are overload and surge protected to protect components and LEDs. The performance correction factor from 100% to 65% of the peak > 0.95. The performance correction factor of 64% to 50% of PN > 0.90. 230 Vac \pm10% / 50 - 60 Hz VAC. 	
ELECTRICAL CONFIGURATIONS	
INTERNAL POWER SUPPLY SYSTEM - ARCALED 2-3-4	
The internal power supply system is equipped with easily replaceable electronic power supplies.	
Connection between the appliance and the power supply system using a CEE IEC309 2P+T 230V 16A-IP67 electrical socket on a FG18OM16/1kV cable with a length of at least 80 cm.	
STANDALONE POWER SUPPLY SYSTEM - ARCALED 5	
The separate power supply system consists of an auxiliary power box.	
Connection between the box and the device via IP68 connectors with male/female fast connector on FG18OM16/1kV cable, total length equal to 100 cm (50 cm socket from the device, 50 cm from the box).	
The connection between the box and the power supply system is electrical sockets type CEE IEC309 2P+T 230V 16A-IP67 on a FG18OM16/1kV cable with a length of at least 80 cm.	
SMART SOLUTIONS	
<ul style="list-style-type: none"> Radio wave light flux regulation. ZHAGA: 4-pin socket (ZHAGA Book 18). 	

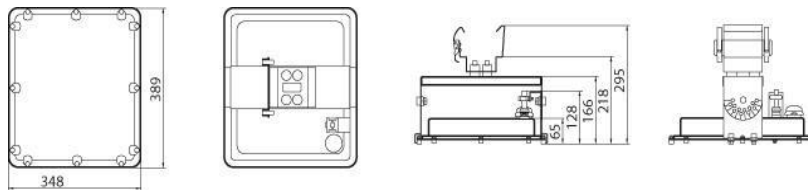
ARCALED SERIES

INSTALLATION AND DIMENSIONS

INSTALLATION

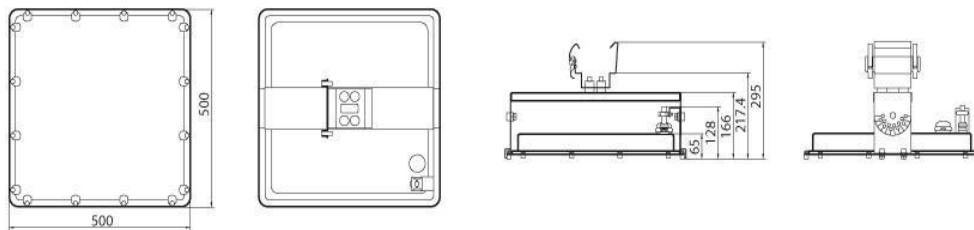
- Hanging installation on the mounting trough (dimensions 100x75 mm or 100x65 mm).
- Recommended installation height: from 5 meters.
- The bracket is attached to the body (and to the box for ARCALED 5) using M8 screws and self-locking A4 stainless steel nuts.
- **EASY FIX ADJUSTMENT SYSTEM** for adjusting the device both to the azimuth angle and to the road surface. Equipped with a scale directly on the holder and an anti-fall system with several safety levels.

ARCALED 2



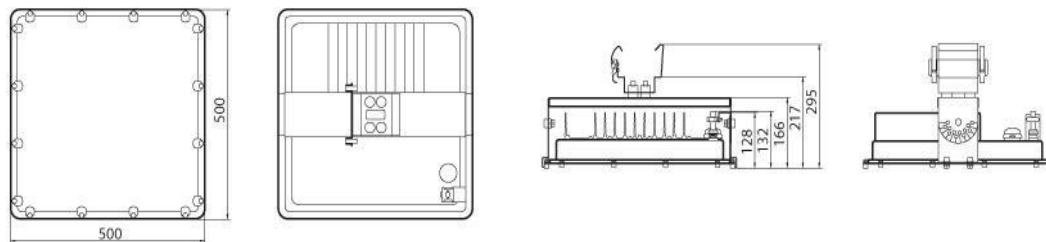
Maximum weight*/**	6.90 kg
Front surface exposed to wind with 0° slope	0.0028 m ²

ARCALED 3



Maximum weight*/**	11.60 kg
Front surface exposed to wind with 0° slope	0.039 m ²

ARCALED 4



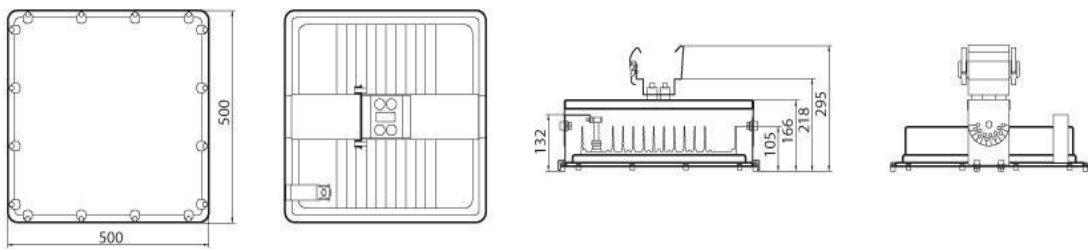
Maximum weight*/**	12.80 kg
Front surface exposed to wind with 0° slope	0.045 m ²

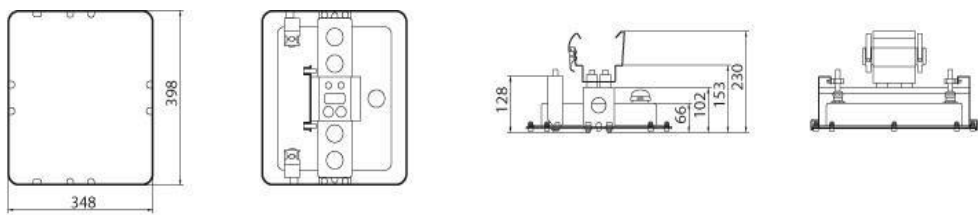
*Weight tolerance $\pm 5\%$

**Maximum weight means total weight: luminaire + power source, if included, + anchor brackets;

ARCALED SERIES

INSTALLATION AND DIMENSIONS

ARCALED 5	
	
Maximum weight*/**	12.40 kg
Front surface exposed to wind with 0° slope	0.033 m ²

ARCALED 5 BOX	
	
Maximum weight*/**	8.50 kg
Front surface exposed to wind with 0° slope	0.025 m ²

*Weight tolerance $\pm 5\%$

**Maximum weight means total weight: luminaire + power source, if included, + anchor brackets;

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OPTICAL SYSTEM CHARACTERISTICS

- SAFETUNNEL optics designed and patented in-house, based on the concept of a refractive system.
- PMMA optics with high transmittance and heat resistance.
- REINFORCEMENT optical illumination: a type of upstream refraction in which the photometric distribution of the luminous flux is projected in the opposite direction of travel, highlighting obstacles in contrast to the road surface.
- PERMANENT optical lighting technology: symmetrical refractive type, ensures proper illumination in terms of uniformity, glare and efficiency required by industry regulations.
- Maximum intensity: 55°.
- The optical group was easily replaced.
- Single-chamber optical unit protected by the INFINITY protection system: 4 mm thick extra-clear tempered glass protector, in one piece, without a fixing ring.
- Heat dissipation system using transverse cooling fins located on the top cover (ARCALED 4-5).
- Multi-matrix LED technology on extruded aluminum circuit, MCPCB (Printed Circuit Board) with high dissipation heat capacity.
- Color Temperature (400K ± Tolerance): 5700K - CRI >70. Additional color temperatures and color indices are available on request.

MAINTAINED AVERAGE LUMINOUS FLUX ACCORDING TO LM80 TM21 STANDARDS

Operating temperature range

-40°C ÷ +40°C

L90B10

> 100,000 hours

PHOTOMETRIC DATA

