

TECHNOLOGY



Flow Sense

A built-in protector against power-related issues, ensuring lasting performance and safety.



Split & Seal

Uses protective polymers to shield Filix products from water and moisture, boosting durability and resilience.



Heat Sense

Automatically reduces LED power at high temperatures, ensuring longevity and safety in Filix products.

















Defines energy efficiency standards for building design, focusing on insulation, HVAC, and sustainable energy use.

Qualicoat Seaside Class Powder

Enhanced powder coating for aluminum, specifically formulated for superior durability and optimal performance in marine environments, lasting for over 10 years.





Specification Sheet





UL STD 1598 IP66/IP67

LUMINAIRE FEATURES

Design and Application

- Facade lighting
- Architectural lighting
- · Landscape lighting
- Accent lighting

Performance

- IK08
- IP66 / IP67
- 3G vibration rating resistance (ANSI C136.32)
- Material: Die-Cast aluminum body
- Double surface protected with anodised base layer and powder coat top layer in Qualicoat Seaside standard
- Surface Installation
- Lifetime TM-21 @85C L90(6K)=98,500h
- Operating temperature -40°C (-40°F) to +50°C (122°F)
- CRI >85
- On site LED module replacement
- Remote power supply
- · Low voltage operation

Control Protocols

- DMX, with compatible LED power supply,
- DALI, with compatible LED power supply,
- 0-10V, with compatible LED power supply,
- Mains, with compatible LED power supply

Sustainability

- · Recyclable material
- Repairable
- Dark Sky compliant

Integrated Systems

- · Split & Seal
- Heat Sense
- Flow Sense

Links & Downloads

- List of available drivers
- Voltage drop calculator
- Fixture installation manual
- CAD file
- IES-LTD data





ORDERING INFORMATION

MODEL		FINISH	
FR60		W	• W - RAL9003 Structure (Signal White)
POWER		S	• S - RAL7044 Structure (Silky Grey)
L	• L - 10W, 1000 lm	A	• A - RAL7016 Structure (Antracite Grey)
COLOR TEMP.		В	B - RAL9005 Structure (Jet Black)
AM	• AM - Amber	D	• D - RAL 1015 Structure (Desert Sand)
27	• 27 - 2700K	G	• G - RAL 6002 Structure (Leaf Green)
30	• 30 - 3000K	INTERNAL	
T6	• T6 - Tunable white 2200K-4000K	LIGHT CONTROL	
М4	• M4 - RGBW (CC option only)	0	• 0 - No internal light control
OPTICS		1	• 1 - Microlouvre
SP	• SP - Narrow Spot (8X8°)	2	• 2 - Hex louvre
MS	• MS - Medium Spot (15X15°)	3	• 3 - Discrete sight
NF	NF - Narrow Flood (30x30°)	4	• 4 - Half moon
MF	• MF - Medium Flood (40x40°)	5	• 5 - Honeymoon
W	• W - Wide (60x60°)	6	• 6 - Silhouetteform
SY	• SY - Spot Elliptical (10°x20°)		
NY	• NY - Narrow Elliptical (10°x40°)	EXTERNAL	
MY	• MY - Medium Elliptical (10°x60°)	LIGHT CONTROL	
INPUT OPTIONS		0	• 0 - No external light control
СС	CC - Constant current	1	• 1 - Snoot
24	• 24 - 24VDC		
48	• 48 - 48VDC (Tria Installation Only)	INSTALLATION	
CONTROL		TYPE	
Р	• P - PWM Operation	В	• B - Base
		E	• E - Spike
		F	• F - Tree Strap

G

Н

• G - Pole Base

• H - Tria S Pole

• I - Tria M Pole





MANDATORY ACCESSORIES

Power supplies



• List of available drivers

OPTIONAL ACCESSORIES

Various Accessories



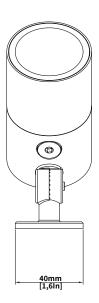
• 203953 - Safety wire rope

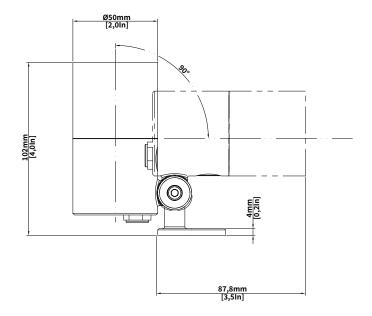




INSTALLATION DETAILS

Fixture





Adjustable tilt

Compliant with ANSI C136.31 standard for vibration conditions on bridges and overpasses. Designed to allow product tilt of 125°. The installation should be performed as per local codes and different applications but the bracket allows adjustment in terms of position on te product and with slots that are designed for 6mm bolt.





INTERNAL LIGHT CONTROL

Microlouvre

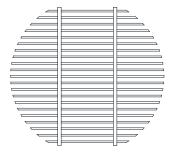
Provides low glare control with 30% lesslumen output than product without louvres.best for use where pedestrians are at least6m (20ft) from the light source

Hex louvre

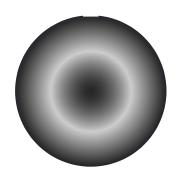
Provides low glare control with 45% less lumen output than product without louvres. Best for use when there is no need for segment beam cut off such as in half moon

Discrete sight

Provides low glare control with 60% less lumenoutput than product without louvres. best foruse in high trafic areas where pedestirans areat least 0,5m (1,64ft) away from the source







Halfmoon

Provides glare control by reducing lumen output and implementing a light beam cut-off, resulting in a 50% reduction in stray light and minimized light dispersion in undesirable directions.

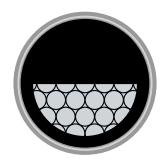
Honeymoon

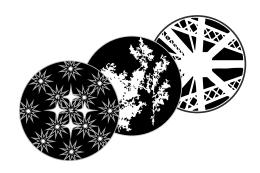
Combines the benefits of Hex Louvre and Halfmoon, offering both reduced glare and controlled light dispersion for comprehensive glare management.

Silhouetteform

An optical accessory designed to produce a soft, blurred silhouette on the target surface. Ideal for ambient effects, the insert diffuses the beam into abstract or naturalistic shapes without hard edges.







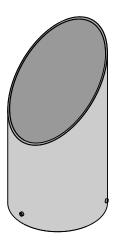




EXTERNAL LIGHT CONTROL

Snoot

External attachment providing enhanced glare control, effectively shielding the light source to reduce direct glare and prevent light spill in unwanted directions.







MANDATORY ACCESSORIES

Power supply

A LED power supply, is an electrical device designed to control the power supplied to an LED or an array of LEDs. It plays a critical role in LED lighting systems as LEDs demand a specific type and level of electrical current or voltage for optimal operation. It's important to note whether a constant current or constant voltage LED power supply is required. The power supply should be installed in a dry and easily accessible area.



OPTIONAL ACCESSORIES

Safety wire rope

300mm long safety bond for added security during high-altitude installations



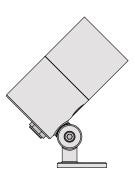




INSTALLATION OPTIONS

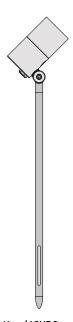
Base installation

Securely mounts the projector on a stable base, integrating wiring for a clean and permanent setup, ideal for environments requiring stable installations.



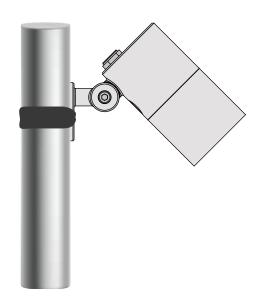
Spike installation

Ground spike-based setup allows easy insertion into the soil, perfect for flexible outdoor applications and landscape lighting.



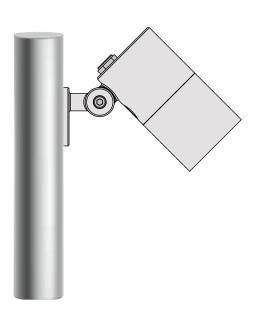
Tree strap installation

Adjustable metal strap secures the projector to a tree or branch, providing a versatile, non-invasive installation for natural settings.



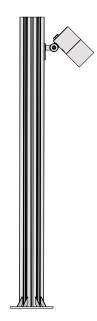
Pole base installation

Attaches the projector to a pole with an integrated wiring base, suitable for elevated, stable installations like street lighting.



Tria pole installation (48VDC only)

Quick, click-based installation on a Tria pole with a pre-installed power cable, ideal for streamlined, low-voltage setups.

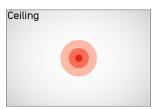






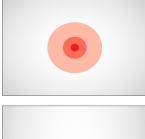
OPTICS

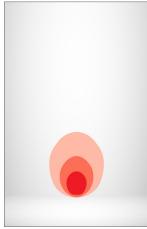
Narrow Spot Angle: 8°x8°



Wall

Wide Angle: 60°x60°





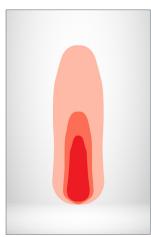
Medium Spot Angle: 15°x15°





Spot Asymmetric Angle: 10°x20°





Narrow Flood Angle: 30°x30°



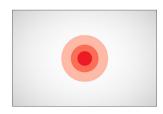


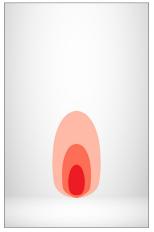
Narrow Asymmetric Angle: 10°x40°



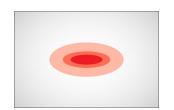


Medium Flood Angle: 40°x40°





Medium Asymmetric Angle: 10°x60°









ON/OFF SYSTEM TOPOLOGY

Integrated systems:

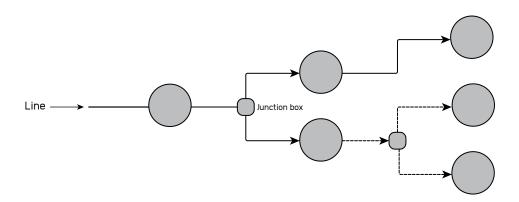
- Flow Sense
- Heat Sense
- · Split & Seal

System components

- · Wiring, protective devices and junction boxes leading up to feed cable at the start of the line are the responsibility of others
- Advised protective components:
- Surge protector device
- Inrush current limiter

System topology

• In the system design, any of the following system topologies can be utilized: line wiring, star wiring, or tree wiring.



Addressing & dimming notes

- ON/OFF system does not allow device addressing
- Dimming of the product not avaliable in this system

Segment length and limitations

- The maximum distance between the first and last fitting is limited to maximum voltage drop and fuse rating.
- Used only in single colour applications

Fault tolerance

- If one product fails the rest of the system continues to work
- $\bullet\,$ Class III wiring implemented in the fixture and voltage fluctuation filter implemented





0-10V SYSTEM TOPOLOGY

Integrated systems:

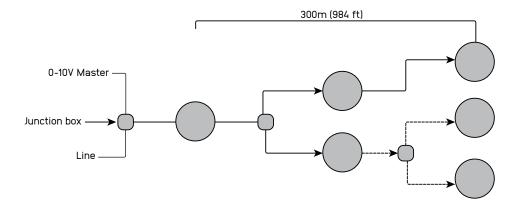
- · Flow Sense
- · Heat Sense
- · Split & Seal

System components

- The 0-10V system, wiring, protective devices and junction boxes leading up to feed cable at the start of the line are the responsibility of
- · Advised protective components: · Surg
 - Surge protector device
 - Inrush current limiter

System topology

• In the system design, any of the following system topologies can be utilized: line wiring, star wiring, or tree wiring.



Addressing & dimming notes

- 0-10V protocol does not allow addressing devices individually
- Logharitmic and linear dimming options available. The product is initially equipped with logarithmic dimming settings and it is suggested for the controlers to be linear in order to get the dimming that is most preffered in most cases due to the dimming curve percieved by human eye
- 0%-100% dimming range
- The product is initally set up as a source instead of as a sink type
- The product could also be set up as a sink type but this should be noted to sales represenative

Segment length and limitations

- The maximum distance between two fittings is 30 meters, and the maximum distance between the first and last fitting is 300 meters.
- Used in signle colour applications

Fault tolerance

- If the product is source type and in the case the control line doesn't have power the light fitting will turn at 100%. in the opposite case where the light is sink type, light will not work.
- If one product fails the rest of the system continues to work
- · Class III wiring implemented in the fixture and voltage flxtuation filter implemented





DALI SYSTEM TOPOLOGY

Integrated systems:

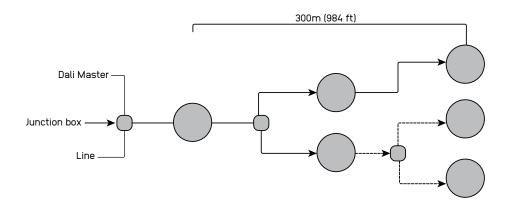
- · Flow Sense
- · Heat Sense
- Split & Seal

System components

- · The DALI system, wiring, protective devices and junction boxes leading up to feed cable at the start of the line are the responsibility of others
- Advised protective components:
- · Surge protector device
 - Inrush current limiter

System topology

· In the system design, any of the following system topologies can be utilized: line wiring, star wiring, or tree wiring.



Addressing & dimming notes

- · DALI protocol allows addressing devices individually
- · Addressing methods include a short address for individual devices, group addresses for up to 16 groups, and a broadcast address that targets everything on the line.
- · Logharitmic and linear dimming options avaliable. the product is initially equipped with logarithmic dimming settings, while you can easily switch to logarithmic dimming using a configuration device.
- 0%-100% dimming range

Segment length and limitations

- · A DALI master has the capacity to manage a line containing a maximum of 64 devices. Each device can be allocated to 16 unique groups and 16 individual scenes.
- · The maximum distance between two fittings is 30 meters [98ft], and the maximum distance between the first and last fitting is 300m [984ft).
- · Used in single colour and tunable white applications

Fault tolerance

- · Due to its relatively slow operating speed and high bus voltage, the DALI system exhibits significant reliability in the presence of electrical interference, making shielding unnecessary
- · If one product fails the rest of the system continues to work





DMX SYSTEM TOPOLOGY

Integrated systems:

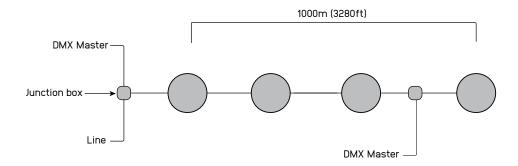
- · Flow Sense
- · Heat Sense
- · Split & Seal

System components

- · The DMX system, wiring, protective devices and junction boxes of the line are the responsibility of others
- Advised protective components:
- · Surge protector device
 - Inrush current limiter

System topology

• In the system design, line wirinig can only be used



Addressing & dimming notes

- DMX protocol allows addressing devices individually
- · Addressing methods allow short address for individual devices
- Logharitmic and linear dimming options avaliable. the product is initially equipped with logarithmic dimming settings, while you can easily
 switch to logarithmic dimming using a configuration device.
- 0%-100% dimming range

Segment length and limitations

- A DMX universee has the capacity to manage a line containing a maximum of 512 addresses. Each Luminaire can be allocated to maximum 4
 unique addresses.
- The maximum distance between two fittings is 30m (98ft), and the maximum distance between the first and last fitting is 1000 meters.
- Used in single colour, tunable white, and RGBW applications
- DMX addresses can be programmed in factory or on site. Consult your sales representative if addressing is to be done in factory

Fault tolerance

• If one product fails the rest of the system continues to work