



Energy uno

ENGINEERED
TO EXCEED
EXPECTATIONS.

Embrace the future, now.

CREE LIGHTING





UNEXPECTED LIGHTING EXPERIENCE

ENERGY LED luminaires were designed with communities in mind.

Members of your community need lighting that enhances the aesthetics and safety of their surroundings and, at the same time, a rugged construction to ensure their longevity.

BUILT FOR TODAY, READY FOR THE FUTURE.

MADE IN ITALY

Energy series has been designed to continue with a Cree Lighting approach to traditional city lighting application. No matter which context the fixture needs to be installed in it, has to be sympathetic to the environment.
Light a Better Way.



OPTICAL CONTROL

Residents want the visibility provided by the Streetlights but they do not want light streaming through their windows. An optical control of Energy Series eliminates intrusive glare while providing a range of CCTs that create a familiar look for any neighborhood.
It's light that's easy to live with.

QUALITY BY DESIGN

Energy Series streetlights have been engineered and tested to ensure superior performance to guarantee our clients the highest value in term of quality - **performance ratio.**

ENERGY FOR MUNICIPALITIES

Outdoor lighting is often met with challenges that vary from project to project and from location to location.

When working in an urban context, performance and efficiency are no longer the only things that we need to consider, it's here that our products offer their best to the designer.

Energy Street Lights have a range of optics that provide the right amount of illumination for a variety of pedestrian and driver settings, helping your community look inviting while improving safety.



FLEXIBILITY

A lightweight body and simple installation are two important strengths of the Energy series. The product can be installed easily and reliably and, thanks to the flexibility of the tenon design, can be adjusted, 20°, in 5° increments. Rotation could be decided directly on site and after the installation has been done, thus reducing costs and increasing safety for installers.



EFFICIENCY

Reducing energy usage with the highest performance on the market. Energy series dramatically enhanced the efficiency by improving not just the quality of light but the environment itself.



INNOVATION

With Innovation in mind Energy series has been developed thinking about optimization and energy saving, both performances make the product one of the best by delivering unbeatable value on the market.



CONTROL

The Energy series can easily integrate sensors and control systems. Several control options allow to create a pleasant environment during the night, minimize light pollution and maximize energy savings, as well as monitor the lighting system and capture data.



THE SHAPE YOU KNOW WITH THE PERFORMANCE YOU NEED.

Cree Lighting wants to keep the impact on the environment to a minimum level while preserving the form of our cities during the day, but modernize the incumbent technology with energy-efficient, low-maintenance LED solutions to enhance their beauty at night.

Just what you would expect from Cree Lighting.



COLOURS REFERENCE



INSTALLER & MAINTENANCE FRIENDLY

Installation and maintenance of your street lighting should be as simple as possible.

The Energy Series was designed with this in mind; with its slim, lightweight body and quick connection features, the product can be easily installed in a few minutes.



ADJUSTABLE TENON

The hassle-free design of the Energy luminaire includes simplified mounting solutions: horizontal tenon mount or adjustable arm to allow for fixture leveling of +/-5.



FUTURE-READY TODAY

An innovative and advanced technology provides exceptional strength in terms of thermal performance, energy saving, exemplary sustainability and increasingly adopted in hi-tech where the data management is a key factor to succeed in the market.

Energy series is powered by the latest LED module technology which gives and efficiency up to 160lm/W making Energy the best in class on the market.

SUSTAINABILITY

Our LED luminaires not only last longer, reducing the amount of energy and resources required for maintenance they also need less energy, making Cree Lighting an ideal opportunity for cities to meet sustainable goals.

ENERGY IS FUTURE-PROOF

GUARANTEED SUSTAINABLE
PRODUCTION AND CONSUMPTION
MODELS; PROMOTE ACTIONS,
AT ALL LEVELS, TO FIGHT
CLIMATE CHANGE.

Cree Lighting has always been committed to respect the highest standards in terms of quality and environmental performance to guarantee levels of excellence of its products.

Starting from the concept design phases Cree Lighting has always set itself as a pioneer that revolutionized the industry through the development of eco-friendly LED technologies which guarantee energy savings in full compliance with standard requirements hence building the future foundations for a Centric Lighting.

To Cree Lighting, the study of the materials used in the production of a lighting product has a strategic importance, not only in terms of resources taken from the environment but also in terms of those returned when the product reaches the end of its life. In fact, we do not just focus on recyclability, but we go further by measuring Material Circularity, hence, analyzing all the materials product thinking from their origin to disassembly and their final destination in terms of End of Life.

Energy UNO - LED Street/Area Luminaire

Product description

Ease of installation, extended service life and optimal system management were the guidelines for the design of the conception of the Energy Series. Designed as a complete street lighting system optimized for LED light sources, it is distinguished by its extraordinary efficiency. Optimized for LED light sources, it stands out for its outstanding efficiency. Energy provides the best lighting solution in every situation thanks to its modular design. Energy guarantees the best lighting solution in every situation thanks to its modular system consisting of three product sizes, four lumens package per size, a complete optical repertoire, flux adjustment options and a wide range of light sources. A comprehensive optical repertoire, stand-alone flow control options and Zhaga connectivity.

Via the adjustable joint the luminaire can be mounted on a pole or bracket with an external diameter of 60mm, with the possibility of 20° adjustment, in 5° increments. Tilt adjustment is done from the outside without having to open the cover.

Applications: Urban and internal roads, pedestrian walkways and car parks.

Performance summary

Efficiency: up to 160lm/W

Initial Delivered LED Lumens: up to 8600lm

Lifetime color consistency: 4SDM

Limited Warranty: 5 years on luminaire



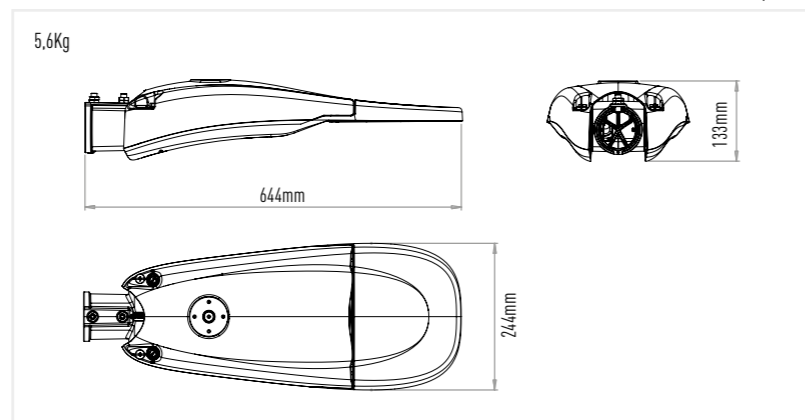
Eg: TRSA-2-075-2L-228-+-A-SG-FX-S-S-00+ FXA10HA0-00001

Ordering Information

TRSA	2	075	A	228	+	A	SG	FX	S	S	00
Product	Mounting	Optic	Lumen Package	CCT	Insulation Class	Voltage	Finish	Options	Variant	Protection	Cable length
TRSA	2 horiz/vert tenon 60mm	075 Narrow Street 0.75 (T2S) 100 Medium Street 1.00 (T2S) 125 Comfort Street 1.25 (T2S) 150 Wide Street 1.50 (T3S) 200 Extra Wide Street 2.00(T4S) SCP Street & Cycle Path classP(T2S) AFN Area Flood Narrow ARS RotoSymmetric Area PCR Pedestrian Crossing Right PCL Pedestrian Crossing Left	2L Up to 2100lm	228* 2200K CRI80	+ Class 1 ^ Class 2	A 220-240V	SG Sapphire Gray BK* Black Textured WH* White Textured	FX Fixed Output (setting on request)	S Standard N* Nema Socket 7 pin Z Zhaga Socket/ D4i driver	S Standard 6 kV SF 6 kV SPD+Fuse U 10 kV SPD UF 10 kV SPD+Fuse	00 Standard no cable 01 Exit Cable 1 m 03 Exit Cable 3 m 06 Exit Cable 6 m 10 Exit Cable 10 m
			VM Virtual Midnight								
			DL DALI								
			CL Constant Lumen								
			VMC Virtual Midnight+ Constant Lumen								
			RF D4i Regulator								
	G Lineswitch										
	FX Fixed Output (setting on request)	VM Virtual Midnight CL Constant Lumen VMC Virtual Midnight+ Constant Lumen									
	VM Virtual Midnight										
	CL Constant Lumen										
	VMC Virtual Midnight+ Constant Lumen										

*On request

ADAPTORS	
KIT-TRS-LS-42/48-V0	Fitter kit to mount to 42 & 48 mm tenon



TECHNICAL FEATURES

- Full cut-off optics and PCB LEDs compliant with Zhaga Book 15
- LED Lumen output up to 8600lm
- Zhaga Book 15 compliant LED module efficiency (excluding optical system): >185 lm/W
- Luminaire efficiency (including optical losses): up to 160 lm/W
- CCT: 2200K*, 2700K, 3000K @Ra80 and 4000K, 5700K* Ra70 (*On request for MOQ)
- CRI Standard min. 70, CRI80 @3000K
- Initial Chromatic Selection: < 4-Step MacAdam ellipse or Δu'v' < 0.003 (LM80:08)
- Colour change at 6,000 hours: < 7-Step MacAdam ellipse or Δu'v' < 0.007 (LM80:08)
- Luminous flux maintenance factor: L97B10 100,000 hours Ta=25°C (According to IESNA TM-21)
- Degree of protection optical compartment and wiring compartment: IP66 (IEC 60529)
- Optical compartment and wiring compartment impact resistance: > IK10 (EN 62262)
- Overvoltage protection: up to 10kV CM/DM according to EN 61000-4-5 and EN 61547
- Driver equipped with over-temperature protection for optimal performance and safety
- Power factor: >0.98 at full load
- Operating temperature: -40°C up to +50°C
- Control options: Virtual Midnight, DALI 2, Constant Flow, Flow Regulator, Lineswitch, D4i
- Available with fuse and 20mm Zhaga Book 18 connector

CONSTRUCTION AND MATERIALS

- Die-cast aluminum body with low copper content
- Power supply compartment accessible without the use of tools
- Removable wiring plate
- Knife disconnect
- 4mm thick ultra clear transparent glass protection screen
- Replaceable PMMA lenses
- Replaceable LED board equipped with ESD protection
- Cable type H07RN-F (Cable length up to 10m)
- Easy installation: wiring compartment installed on the cover and pre-assembled integrated joint - to install the luminaire it is not necessary to open it if outgoing cable version,
- Practicality in ordinary and extraordinary maintenance: power supply compartment accessible and component holder plate removable without tools; lenses and LEDs easily removable and replaceable using a single tool.
- Luminaire assembled without the use of adhesives, completely disassembled and recyclable

WARRANTY AND CERTIFICATIONS

- Warranty: 5 years
- CE marking/CB marking/ENEC marking/RoHS/RCM pending
- Risk group exempt in accordance with Standard CEI EN 62471 for photobiological safety (Tested IEC/TR62778)
- Compliant to: EN 60598-1; EN 60598-2-3
- Lead-free powder coatings with excellent exterior durability, conforms to the requirements
- Adhesion - test comply with ISO 2409
- Salt spray - test NSS comply with ISO 9227
- Accelerated Weathering - test UV comply with ISO 16474-2 (ex ISO 11507)
- Constant humidity - test comply with ISO 6270-1



ELECTRICAL DATA*

Lumen Package	System Watts 220-240V	Total Current	
		@230V, 50Hz	Power Factor
2L	15W	0,07	0,94
4L	28W	0,125	0,97
6L	41W	0,181	0,98
8L	54W	0,238	0,98

*Electrical data at 25°C (77°F)

LMF LUXEON - RECOMMENDED LUMEN MAINTENANCE FACTORS (LMF)¹

Ambient	LMF iniziale	25K hr Projected ² LMF	50K hr Projected ² LMF	75K hr Calculated ³ LMF	100K hr Calculated ³ LMF
25°C	1	0,97	0,94	0,92	0,90

LMF DURIS - RECOMMENDED LUMEN MAINTENANCE FACTORS (LMF)¹

Ambient	LMF iniziale	25K hr Projected ² LMF	50K hr Projected ² LMF	75K hr Calculated ³ LMF	100K hr Calculated ³ LMF
25°C	1	0,99	0,98	0,98	0,97

¹ Lumen maintenance values calculated at 25°C, with TM-21 based on LM-80 data and on-site testing. DURIS for SCP optic and LUXEON for 075, 100 and 125 optics.
² In accordance with IESNA TM-21-11, the values shown in the "projected" column represent interpolated and arc values within six times (6x) the total duration in hours of the tests (performed according to IESNA LM-80-08) to which the device has been subjected (DUT) e.g. the LED chip.
³ In accordance with IESNA TM-21-11, the values shown in the column "calculated" are calculated based on a time span greater than six times (6x) the total duration in hours of the tests (performed according to IESNA LM-80-08) to which the device has been subjected (DUT) e.g. the LED chip.

NEMAOPTIONS AVAILABLE

Option	Description	Control
FX-N	NEMA 7 pin combined with FX programs (Fixed Power)	(on-off)
VM-N	NEMA 7 pin combined with VM programs (Virtual Midnight)	(on-off)
DL-N	Nema 7 pin connected to DALI 2.0 driver	(on-off + Dim)
CL-N	Nema 7 pin combined with CL programs (Constant Light Output)	(on-off)
VMC-N	Nema 7 pin combined with VM+CL	(on-off)

-- on-off: Nema allows for on-off control only
 - on-off + Dim: Nema allows for on-off and dimming control

ZHAGA OPTIONS AVAILABLE

Option	Description
FX-Z	Zhaga Book 18 connector & D4i driver combined with FX programs (Fixed Power)
VM-Z	Zhaga Book 18 connector & D4i driver combined with VM programs (Virtual Midnight)
CL-Z	Zhaga Book 18 connector & D4i driver combined with CL programs (Constant Light Output)
VMC-Z	Zhaga Book 18 connector & D4i driver combined with VM+CL

CREE LIGHTING

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