

Energy UNO

LED Street/Area Luminaire



CREE LIGHTING

Product Description

Designed as a complete street lighting system and optimized for LED light sources, it is distinguished by its extraordinary efficiency. Energy provides the best lighting solution.

Developed with three product sizes, a wide range of light sources together with a comprehensive optical range, stand-alone flux control options and Zhaga and Nema connectivity. Energy can be mounted on a pole or bracket with an adjustability of +/- 20° and with 5° increments. Adjustments can be done from outside without having to open the product cover

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

Performance Summary

Efficacy: Up to 180 lm/W

Initial Color Consistency: 4 Step SDCM

System Lumen Output: Up to 11500 lm

Limited Warranty: 5 years on luminaire

Extended warranty (up to 10 years) available for approved projects. Contact ADLT for further information.



Ordering information

Eg. TRSB-2-K10-B-80-407-^ - A - G - FX - S - S - 00

Product	Mounting	Optic	Light engine	Lumen output	CCT	Insulation Class	Voltage	Finish	Option	Variant	Protection	Cable Length
TRSB Energy UNO Version B	2 Horiz/vert tenon 60/42mm OD	K07 NanoComfort Narrow Street	A Up to 4200 lm	20 - 2000lm 30 - 3000lm 36 - 3600lm 42 - 4200lm	227 2200K CRI70	+ Class I	A 220-240V	G Sapphire Grey	FX Fixed Output	S No socket/ No sensor	S By Driver	00 No cable
TUSB Energy UNO LCu Version B	3 Vert tenon 76mm OD	K08 NanoComfort Narrow Street	B Up to 8000 lm	50 - 5000lm 55 - 5500lm 60 - 6000lm 65 - 6500lm 70 - 7000lm 80 - 8000lm	277 2700K CRI70	^ Class II		S Silver	M1 Virtual Midnight 1	N Nema socket	SF* Standard +Fuse	B1 Exit cable 1 m
		K09 NanoComfort Medium Street	C Up to 11500 lm	60 - 6000lm 65 - 6500lm 70 - 7000lm 80 - 8000lm	307 3000K CRI70				M2 Virtual Midnight 2	Z Zhaga Top	U 10 kV	B6 Exit cable 6 m
		K10 NanoComfort Medium Street		90 - 9000lm 100 - 10000lm 115 - 11500lm	407 4000K CRI70					B Zhaga Bottom	UF* 10 kV +Fuse	B8 Exit cable 8 m
		K11 NanoComfort Medium Street								D Zhaga Top & Bottom		0B Exit cable 10 m
		K12 NanoComfort Broad Street										2B Exit cable 12 m
		100 Medium Street										
		125 Broad Street										

*Fuseholder with 5x20 8A rit. fuse on the input (line only)

Standard cable cross-section 1.5mm². Other cross-sections available on request.

LIGHT SHIELDS	
TRS-BLSF	Front shield
TRS-BLSR	Right shield
TRS-BLSL	Left shield
TRS-BLSB	Back shield

ADAPTER	
KIT-TRS-AP60-42-48-V0	Fitter kit to mount to 42 & 48 mm tenon

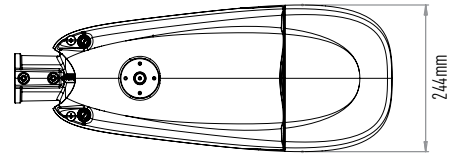
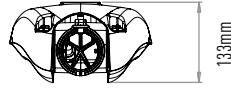
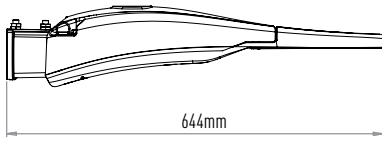
Energy UNO

LED Street/Area Luminaire



CREE LIGHTING

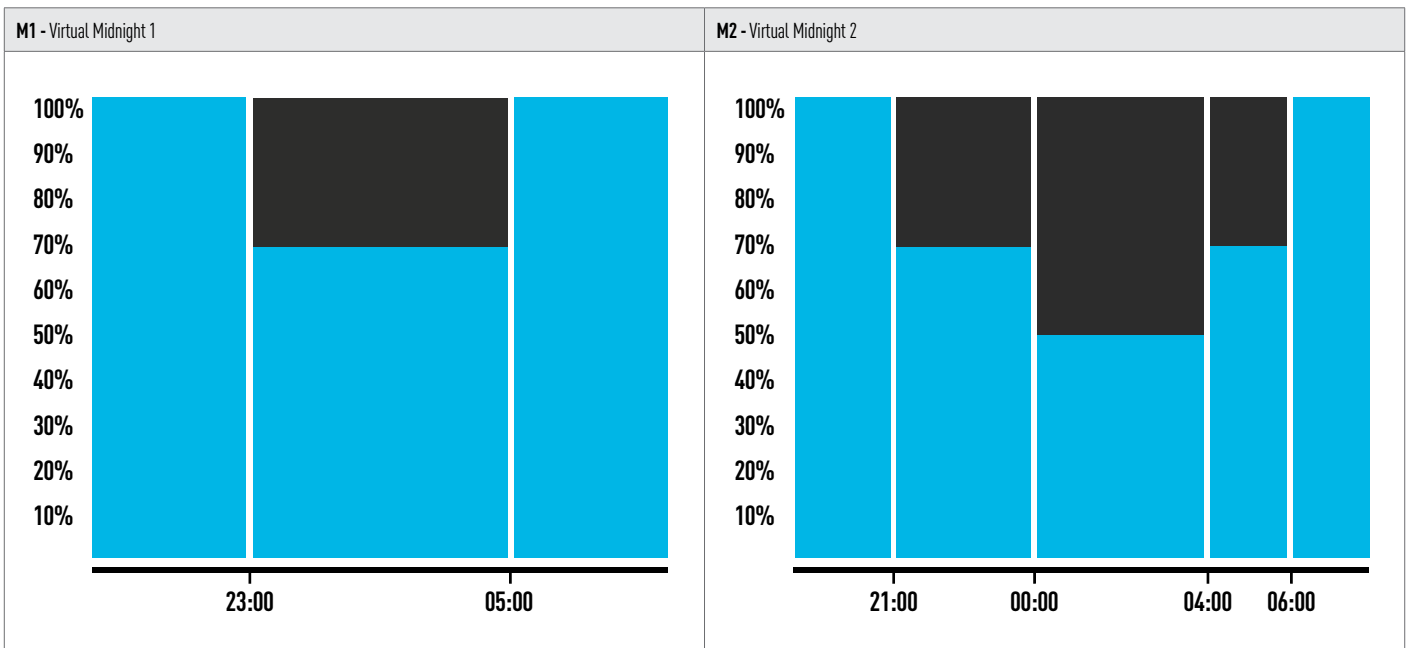
Dimensions



Light engine	System Lumen Output (lm)	Power (W)	Efficacy (lm/W)
A	2024	13,2	153
	2995	18,5	162
	3626	21,7	167
	4211	24,7	170
B	5027	29,8	169
	5507	32,7	168
	5985	35,4	169
	6538	38,7	169
	7010	41,4	169
	8023	47,4	169
C	9000	54,3	166
	9992	60,6	165
	11494	70,2	164

Note¹: Data above for 4000K CRI70. Conversion factor for 3000K CRI70 = 0.95 | 2700K CRI70 = 0.91 | 2200K CRI70 = 0.79

Note²: Lumen and power data are typical values at 25°C ambient temperature. These values are subject to a tolerance of ± 7%. In order to facilitate product updates, Cree Lighting Europe reserves the right to make changes without prior notice



Virtual Midnight

This independent stand-alone system requires no additional wiring; it is integrated into the luminaire and requires no intervention from the installer. A system that is reliable and easy to set, as the adjustment follows pre-defined steps. Virtual Midnight offers excellent results in terms of savings: the device updates automatically according to the system's switch-on and switch-off times. Most energy saving regulations - GPP and the like - require maximum light output during the first and last hours of operation, which are generally the busiest, and a reduction of at least 30% during the central hours of the night. Through a self-learning process, the microprocessor determines the central point - the so-called virtual midnight - between the time the system is switched on (sunset) and the time it is switched off (dawn). The process is carried out over three consecutive days with regular on/off cycles. Virtual midnight is the reference point for switching the setback intervals according to the desired profile.

FEATURES

- Available with **NanoComfort**[®] precision optical system
- System lumen output up to 11500 lm
- Zhaga Book 15 compliant LED module efficiency (excluding optical system): ≥ 220 lm/W
- Luminaire efficiency (including optical losses): up to 180 lm/W
- CCT: 4000K Ra70, 3000K Ra70, 2700K Ra70, 2200K Ra70
- CRI Standard min. 70
- Initial Chromatic Selection: ≤ 4 -Step MacAdam ellipse or $\Delta u'v' \leq 0.003$ (LM80:08)
- Luminous flux maintenance factor: L90B10 >100,000 hours Ta=25°C
- Optical compartment and wiring compartment ingress protection: 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: up to 0.98 at full load
- Operating temperature: -40°C up to +50°C
- Control options: Virtual Midnight, D4i
- Available with fuse, 20mm Zhaga Book 18 connector and NEMA socket
- Backlight control accessory available on request for selected lenses
- Front, side & rear light shield accessories available
- SPD with LED fault indicator (Standard in class I, available on request in class II)
- Weight: 6,5 kg
- Lateral windage area: 0.04 m², maximum windage area: 0.12 m²

CONSTRUCTION AND MATERIALS

- Die-cast aluminum body EN 47100 (copper content <0.7%). Aluminum alloy EN AB 44300 (copper content <0.1%) available as an option.
- Power supply compartment accessible without the use of tools
- Ultra-clear 4mm tempered glass with anti-reflective coating
- Replaceable PMMA lenses
- Replaceable LED board equipped with ESD protection
- Cable type H07RN-F (Cable length up to 15m)
- Easy installation: wiring compartment accessible without tools, no need to open it for installation if the fixture is configured with protruding cable
- Convenience in routine and extraordinary maintenance: accessible power supply compartment; lenses and LEDs easily removable and replaceable
- Luminaire assembled without the use of adhesives, fully demountable and recyclable
- Can be mounted on poles or brackets with an adjustability of +/- 20° and with 5° increments

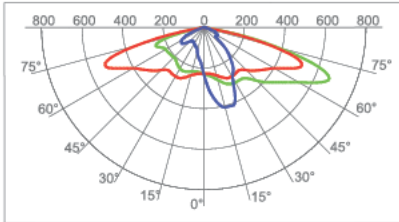
WARRANTY AND CERTIFICATIONS

- Warranty: 5 years / 10 years on request
- CE / CB / RoHS / ENEC
- Compliant to: EN 60598-1, EN 60598-2-3
- TM66 rated with an excellent circularity
- Meets CAM requirements
- Exempt risk class (EN 62471)
- Compliant with vibration test in accordance with IEC 60068-2-6 severity levels
- Lead-free powder coatings with excellent exterior durability, conforms to the requirements:
 - Adhesion - test compliant with ISO 2409
 - Salt spray - test NSS compliant with ISO 9227
 - Accelerated Weathering - test UV compliant with ISO 16474-3 (ex ISO 11507)
 - Constant humidity - test compliant with ISO 6270-1

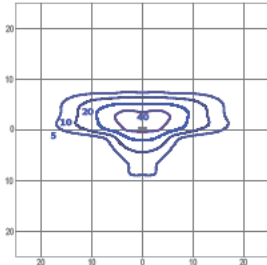
Photometry

All published luminaire photometric testing performed by an external certified ISO 17025 laboratory.
To obtain an IES file specific to your project consult: www.creelighting-europe.com

K07 - Narrow Street



cd/klm
C0 - C180 C90 - C270 C05 - C185

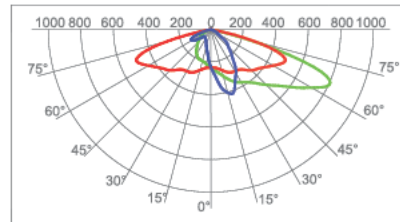


lux

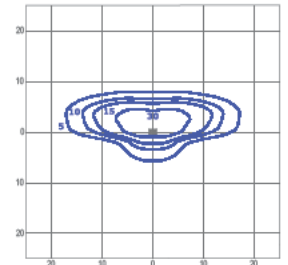
Luminous Intensity Class G*3
Glare Index D6

TRSB-2-K07-B-80-407
Mounting Height: 6m

K08 - Narrow Street



cd/klm
C0 - C180 C90 - C270 C17 - C197

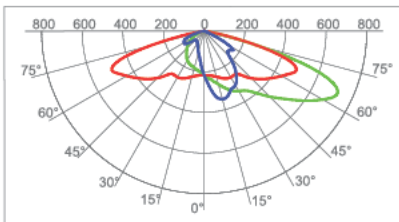


lux

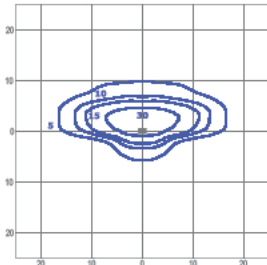
Luminous Intensity Class G*3
Glare Index D5

TRSB-2-K08-B-80-407
Mounting Height: 6m

K09 - Medium Street



cd/klm
C0 - C180 C90 - C270 C16 - C196

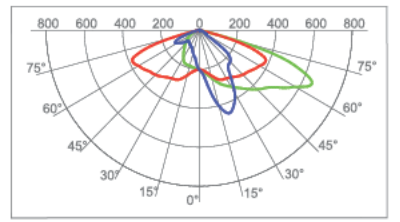


lux

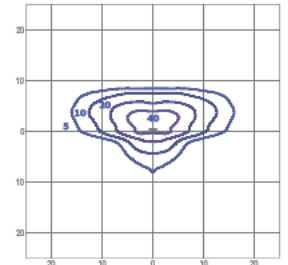
Luminous Intensity Class G*3
Glare Index D5

TRSB-2-K09-B-80-407
Mounting Height: 6m

K10 - Medium Street



cd/klm
C0 - C180 C90 - C270 C20 - C220

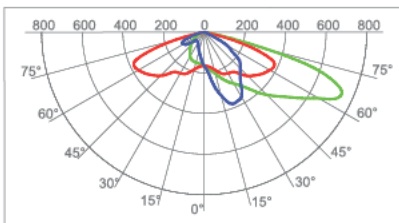


lux

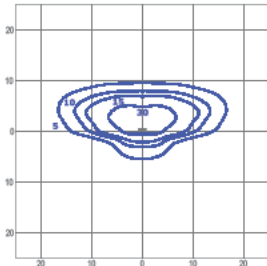
Luminous Intensity Class G*3
Glare Index D5

TRSB-2-K10-B-80-407
Mounting Height: 6m

K11 - Medium Street



cd/klm
C0 - C180 C90 - C270 C19 - C199

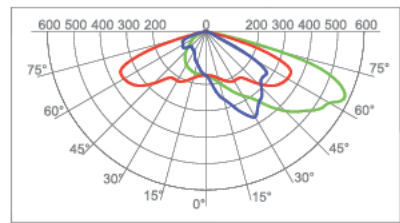


lux

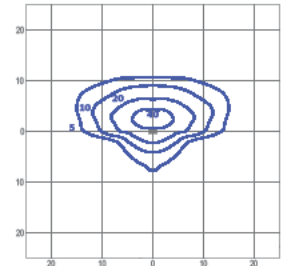
Luminous Intensity Class G*3
Glare Index D5

TRSB-2-K11-B-80-407
Mounting Height: 6m

K12 - Broad Street



cd/klm
C0 - C180 C90 - C270 C20 - C200

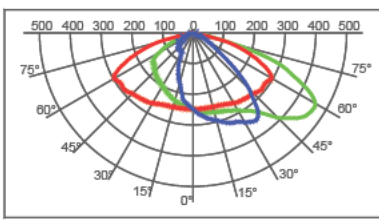


lux

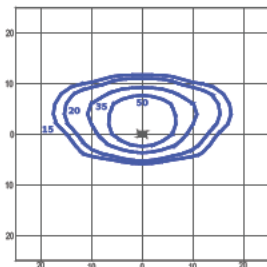
Luminous Intensity Class G*3
Glare Index D5

TRSB-2-K12-B-80-407
Mounting Height: 6m

100 - Medium Street



cd/klm
C0 - C180 C90 - C270 C22.5 - C202.5

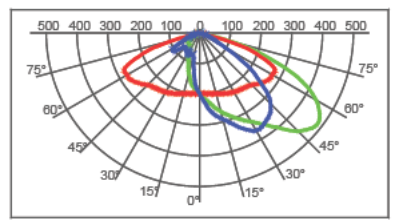


lux

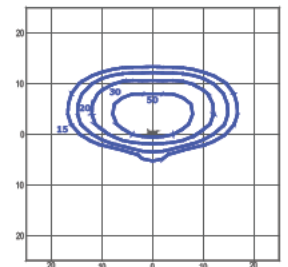
Luminous Intensity Class G*4
Glare Index D5

TRSB-2-100-B-80-407
Mounting Height: 6m

125 - Broad Street



cd/klm
C0 - C180 C90 - C270 C32.5 - C212.5



lux

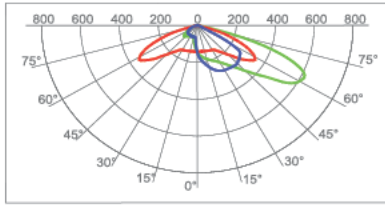
Luminous Intensity Class G*4
Glare Index D6

TRSB-2-125-B-80-407
Mounting Height: 6m

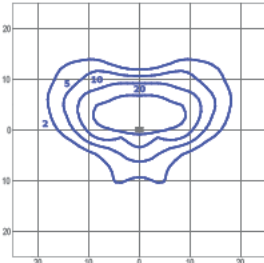
Photometry

All published luminaire photometric testing performed by an external certified ISO 17025 laboratory.
To obtain an IES file specific to your project consult: www.creelighting-europe.com

150 - Wide Street



cd/klm
C0 - C180 C90 - C270 C27.5 - C327.5

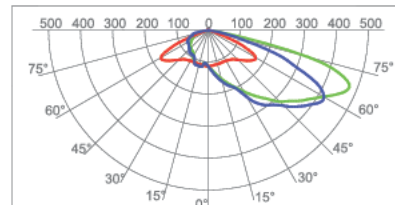


lux

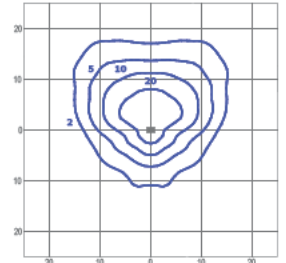
Luminous Intensity Class G*3
Glare Index D5

TRSB-2-150-B-80-407
Mounting Height: 6m

200 - Extra Wide Street



cd/klm
C0 - C180 C90 - C270 C55 - C235

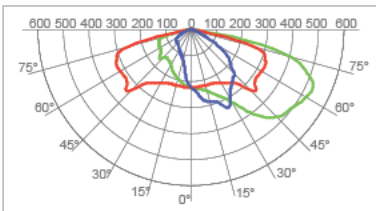


lux

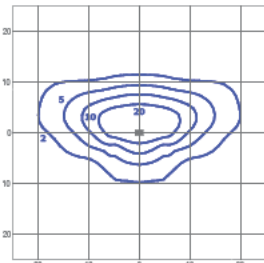
Luminous Intensity Class G*3
Glare Index D5

TRSB-2-200-B-80-407
Mounting Height: 6m

SCP - Street & Cycle Path



cd/klm
C0 - C180 C90 - C270 C20 - C200

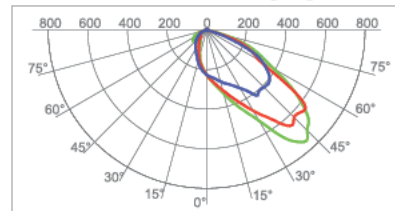


lux

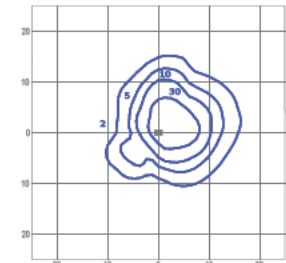
Luminous Intensity Class G*2
Glare Index D4

TRSB-2-SCP-B-80-407
Mounting Height: 6m

PCR - Pedestrian Crossing Right



cd/klm
C0 - C180 C90 - C270 C17.5 - C197.5

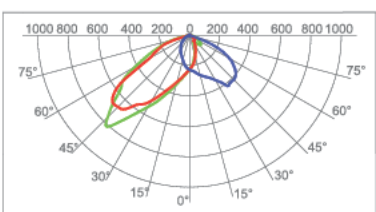


lux

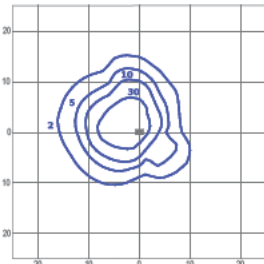
Luminous Intensity Class G*6
Glare Index D5

TRSB-2-PCR-B-80-407
Mounting Height: 6m

PCL - Pedestrian Crossing Left



cd/klm
C0 - C180 C90 - C270 C180 - C340

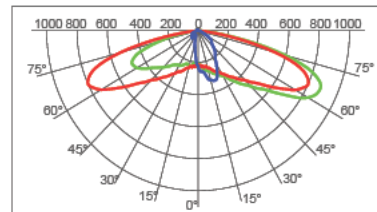


lux

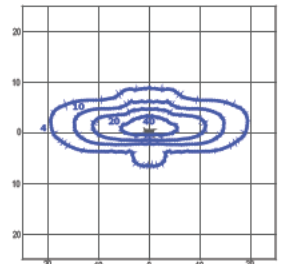
Luminous Intensity Class G*6
Glare Index D5

TRSB-2-PCL-B-80-407
Mounting Height: 6m

P05 - Pedestrian Narrow



cd/klm
C0 - C180 C90 - C270 C5 - C185

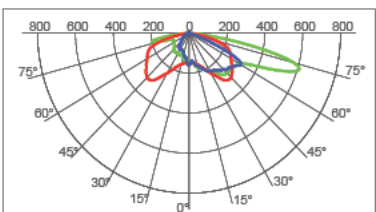


lux

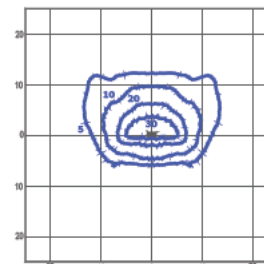
Luminous Intensity Class G*1
Glare Index D4

TRSB-2-P05-B-80-407
Mounting Height: 6m

P25 - Pedestrian Extra Wide



cd/klm
C0 - C180 C90 - C270 C45 - C225



lux

Luminous Intensity Class G*0
Glare Index D4

TRSB-2-P25-B-80-407
Mounting Height: 6m