

Energy TRE

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 33000 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. TRLB-2-K10-H-330-407-^ - A-G-FX-S-S-00

TRLB	- 2	- K10	- H	- 330	- 407	- ^	- A	- G	- FX	- S	- S	- 00
Product	Mounting	Optic	Light engine	Lumen output	CCT	Insulation Class	Voltage	Finish	Option	Variant	Protection	Cable Length
TRLB Energy TRE Version B	2 Horiz/vert tenon 60/42mm OD	K07 NanoComfort Wide Street	G Up to 28000 lm	240 - 24000lm 260 - 26000lm 280 - 28000lm	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
TULB Energy TRE LCU Version B	3 Vert tenon 76mm OD	K08 NanoComfort Extra Wide Street	H Up to 33000 lm	300 - 30000lm 330 - 33000lm	277 2700K CRI70	^ Class II		S Silver	M1 Virtual Midnight 1	N Nema socket	SF* Standard +Fuse	B1 Exit cable 1 m
		K09 NanoComfort Street & Cycle Path			307 3000K CRI70				M2 Virtual Midnight 2	Z Zhaga Top	U 10 kV	B6 Exit cable 6 m
		K10 NanoComfort Pedestrian Crossing Right			407 4000K CRI70					B Zhaga Bottom	UF* 10 kV +Fuse	B8 Exit cable 8 m
		K11 NanoComfort Pedestrian Crossing Left								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	
TRL-BLSF	Front shield
TRM-BLSR	Right shield
TRM-BLSL	Left shield
TRL-BLSB	Back shield

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

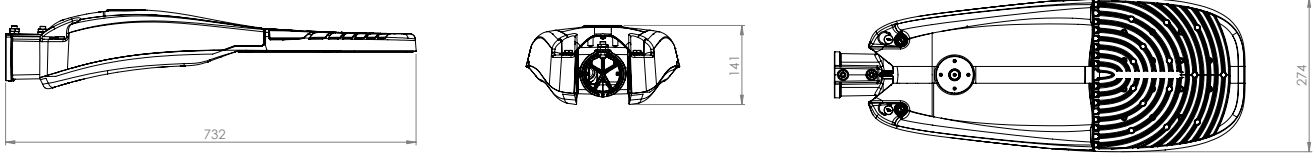
Energy TRE

LED Street/Area Luminaire



CREE LIGHTING

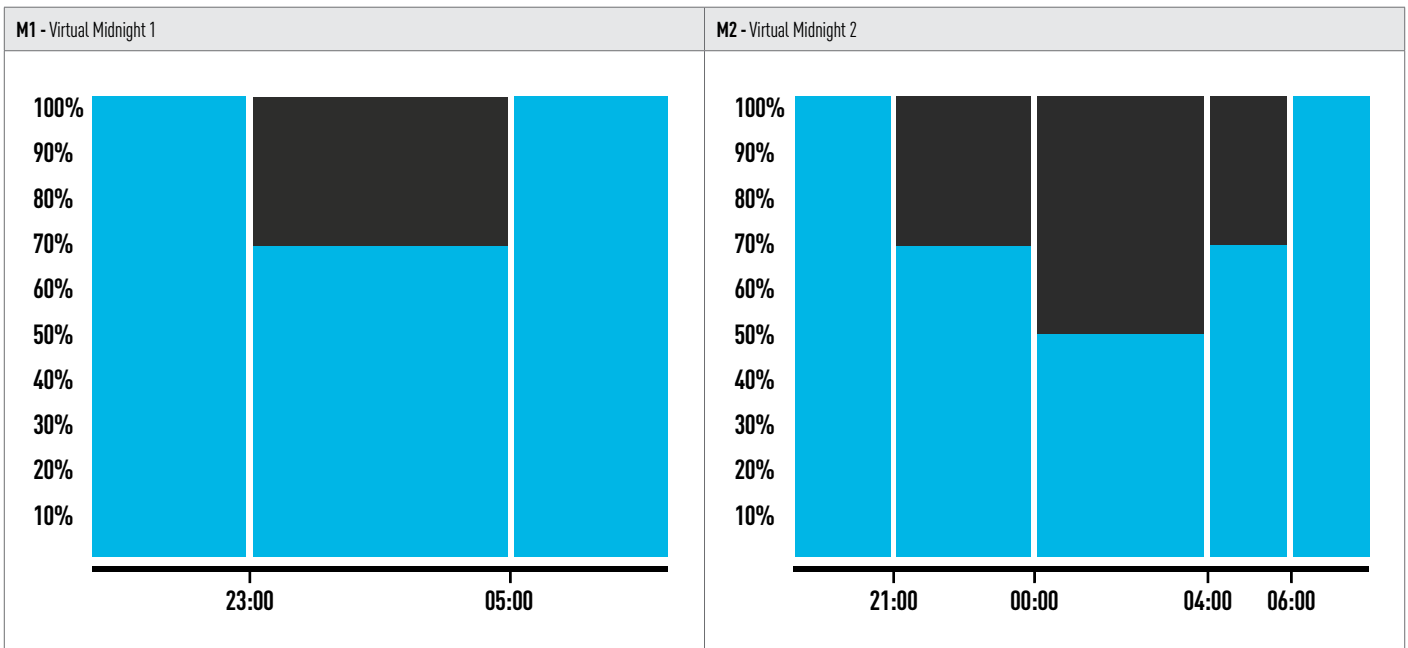
Dimensions



Light engine	System Lumen Output (lm)	Power (W)	Efficacy (lm/W)
G	23968	141,6	169
	25978	157,9	165
	28053	180,9	159
H	30012	173,7	173
	33023	195,4	169

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 33000 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: 8,5 kg
- Lateral windage area: 0.05 m², maximum windage area: 0.16 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

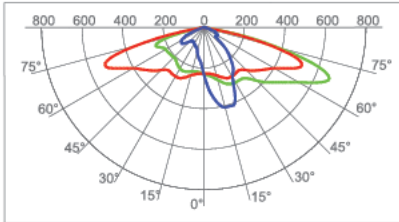
WARRANTY AND CERTIFICATIONS

- 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

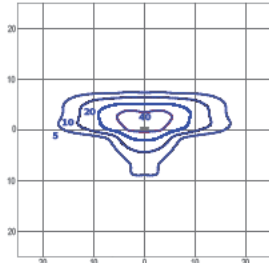
Photometry

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

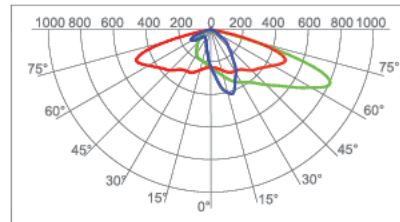


lux

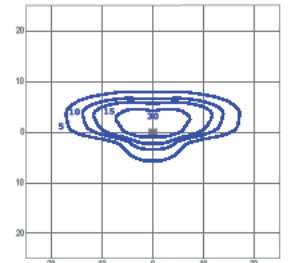
Luminous Intensity Class G*3
Glare Index D6

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

K08 - Narrow Street



cd/klm
C0 - C180 C90 - C270 C17 - C187

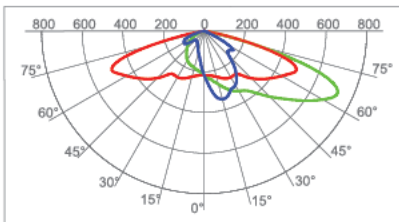


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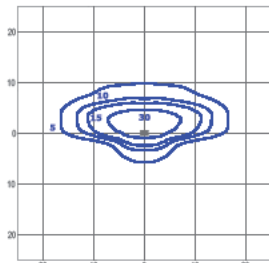
Luminous Intensity Class G*3
Glare Index D5

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

K09 - Medium Street



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

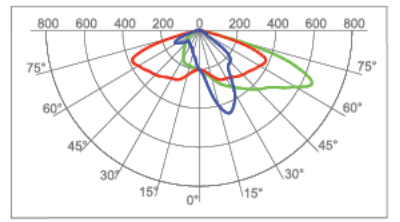


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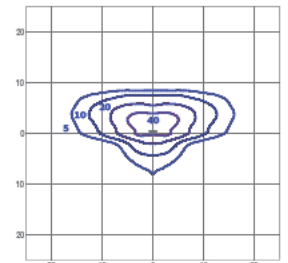
Luminous Intensity Class G*3
Glare Index D5

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

K10 - Medium Street



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

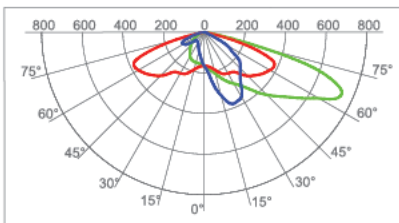


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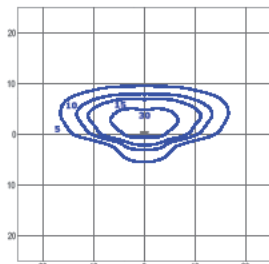
Luminous Intensity Class G*3
Glare Index D5

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

K11 - Medium Street



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

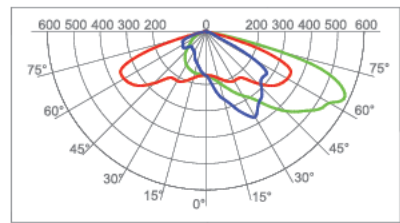


lux

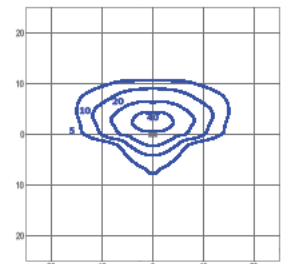
Luminous Intensity Class G*3
Glare Index D5

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

K12 - Broad Street



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

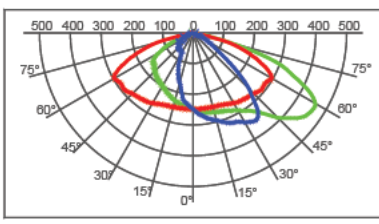


lux

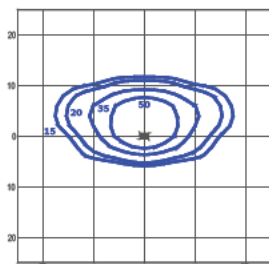
Luminous Intensity Class G*3
Glare Index D5

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

100 - Medium Street



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

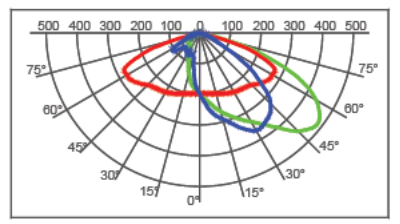


lux

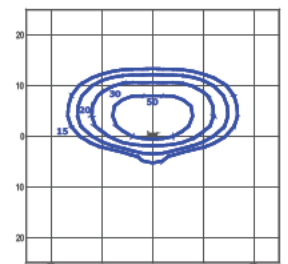
Luminous Intensity Class G*4
Glare Index D5

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

125 - Broad Street



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



lux

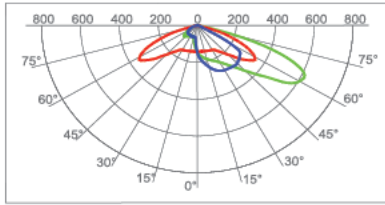
Luminous Intensity Class G*4
Glare Index D6

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

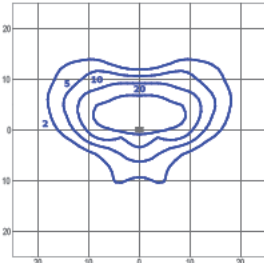
Photometry

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150 - Wide Street



cd/klm
C0 - C180 C90 - C270 C27.5 - C207.5

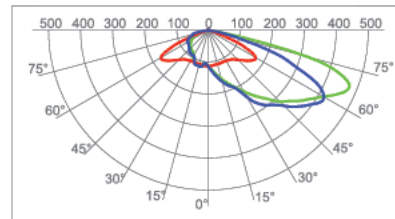


lux

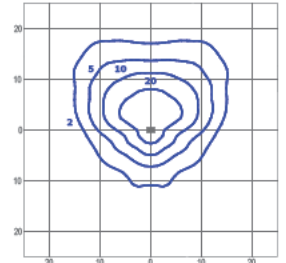
Luminous Intensity Class G*3
Glare Index D5

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

200 - Extra Wide Street



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

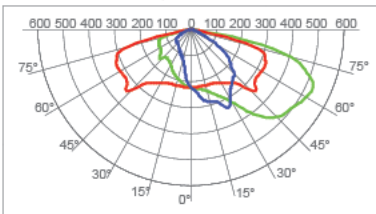


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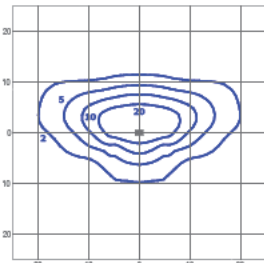
Luminous Intensity Class G*3
Glare Index D5

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

SCP - Street & Cycle Path



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

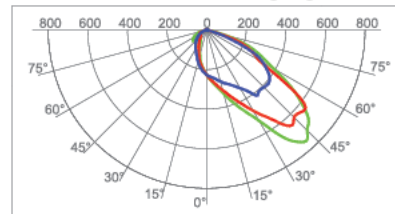


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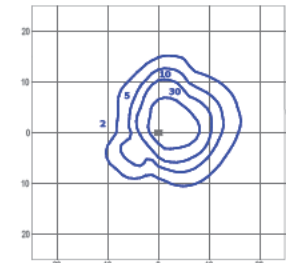
Luminous Intensity Class G*2
Glare Index D4

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

PCR - Pedestrian Crossing Right



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

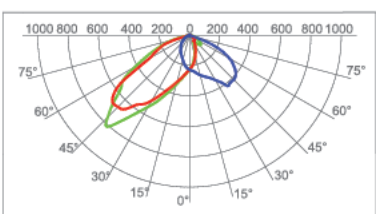


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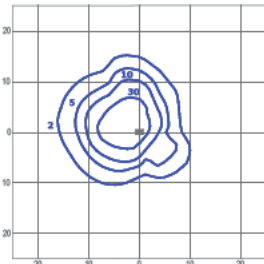
Luminous Intensity Class G*6
Glare Index D5

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

PCL - Pedestrian Crossing Left



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

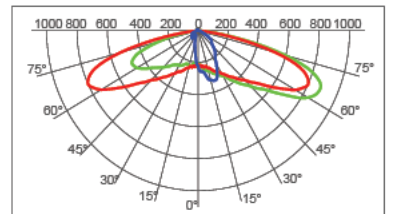


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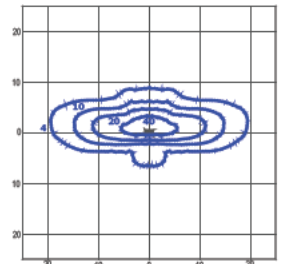
Luminous Intensity Class G*6
Glare Index D5

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

P05 - Pedestrian Narrow



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

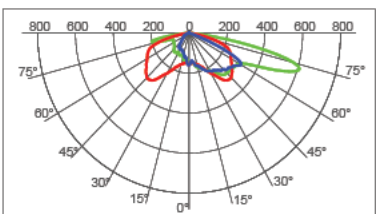


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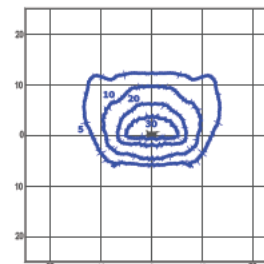
Luminous Intensity Class G*1
Glare Index D4

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