LED Street/Area Luminaire





### **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

 ${\it Extended warranty (up\ to\ 10\ years)\ available\ for\ approved\ projects.\ Contact\ ADLT\ for\ further\ information.}$ 



### **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  | ССТ  | Insulation<br>Class | Voltage             | Finish                     | Option  | Variant   | Protection  | Cable<br>Length  |
| TRLB Energy TRE Version B  TULB Energy TRE LCu Version B | - 2<br>Horiz/vert tenon<br>60/42mm OD<br>3<br>Vert tenon<br>76mm OD | - K07 NanoComfort Narrow Street  K08 NanoComfort Narrow Street  K09 NanoComfort Narrow Street  K10 NanoComfort Medium Street  K11 NanoComfort Medium Street  K11 NanoComfort Medium Street  K12 NanoComfort Broad Street  NanoComfort Medium Street  K12 NanoComfort Narrow  Pedestrian Crossing Left  K12 Poseptian Narrow  Poseptian Narrow  Pedestrian Narrow  Pedestrian Narrow  Pedestrian Narrow  Pedestrian Narrow  Pedestrian Narrow  Page Medium Street  Street  Street  Street  Street  Street  Straw Wide | - <b>G</b> Up to 28000 lm <b>H</b> Up to 33000 lm | - 240 - 24000lm<br>260 - 26000lm<br>280 - 28000lm<br>300 - 30000lm<br>330 - 33000lm | - 227<br>2200K<br>CRI70<br>277<br>2700K<br>CRI70<br>307<br>3000K<br>CRI70<br>407<br>4000K<br>CRI70 | Class I             | - <b>A</b> 220-240V | - G Sapphire Grey S Silver | FX Fixed Output M1 Virtual Midnight 1 M2 Virtual Midnight 2 | - S No socket/<br>No sensor  N Nema socket  Z Zhaga Top  B Zhaga Bottom  D Zhaga Top & Bottom | SF*<br>Standard<br>+Fuse<br>U<br>10 kV<br>UF*<br>10 kV<br>+Fuse | - OO No cable  B1 Exit cable 1 m  B6 Exit cable 6 m  B8 Exit cable 8 m  OB Exit cable 10 m  2B Exit cable 12 m |

<sup>\*</sup>Fuseholder with 5x20 8A rit. fuse on the input (line only)

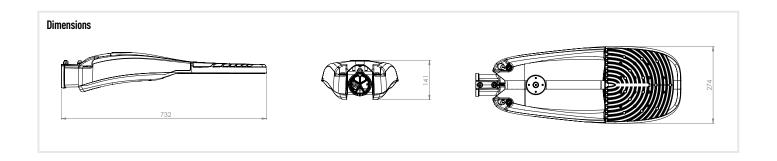
Standard cable cross-section 1.5 mm  $^{\!2}.$  Other cross-sections available on request.

| 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 |



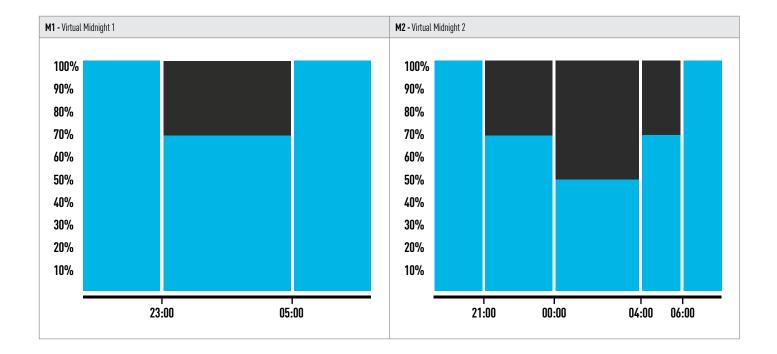




| Light engine | System Lumen Output (lm) | Power (W) | Efficacy (lm/W) |
|--------------|--------------------------|-----------|-----------------|
|              | 23968                    | 141,6     | 169             |
| G            | 25978                    | 157,9     | 165             |
|              | 28053                    | 180,9     | 159             |
| ш            | 30012                    | 173,7     | 173             |
| П            | 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

Note<sup>2</sup>: Lumen and power data are typical values at  $25^{\circ}$ C ambient temperature. These values are subject to a tolerance of  $\pm$  7%. In order to facilitate product updates, Cree Lighting Europe reserves the right to make changes without prior notice



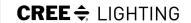
### Virtual Midnight

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.

Rev.Date: 18/03/2025

### LED Street/Area Luminaire





#### **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 ∆u'v' < 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 +/-  $20^{\circ}$  and with  $5^{\circ}$  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

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LED Street/Area Luminaire

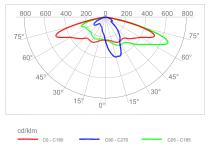


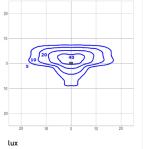


#### **Photometry**

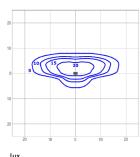
All published luminaire photometric testing performed by an external certified ISO 17025 laboratory. To obtain an IES file specific to your project consult: www.creelighting-europe.com

#### K07 - Narrow Street









Luminous Intensity Class G\*3 Glare Index D6

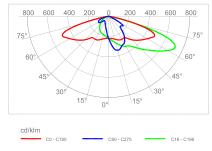
TRSB-2-K07-B-80-407 **Mounting Height:** 6m

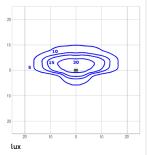
Luminous Intensity Class G\*3 Glare Index D5

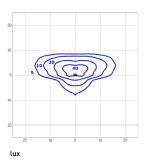
K10 - Medium Street

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

### K09 - Medium Street







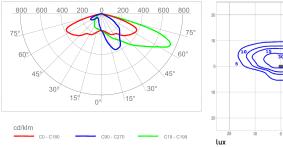
Luminous Intensity Class G\*3 Glare Index D5

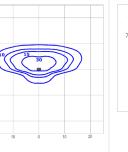
TRSB-2-K09-B-80-407 Mounting Height: 6m

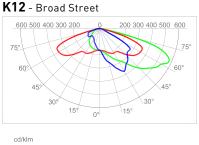
Luminous Intensity Class G\*3 Glare Index D5

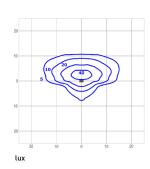
TRSB-2-K10-B-80-407 Mounting Height: 6m

### K11- Medium Street









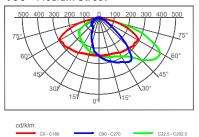
Luminous Intensity Class G\*3 Glare Index D5

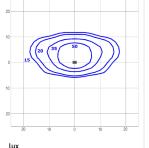
TRSB-2-K11-B-80-407 Mounting Height: 6m

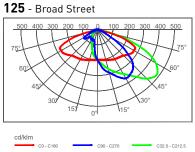
Luminous Intensity Class G\*3 Glare Index D5

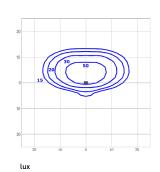
TRSB-2-K12-B-80-407 **Mounting Height:** 6m

## 100 - Medium Street









Luminous Intensity Class G\*4 Glare Index D5

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

Luminous Intensity Class G\*4 Glare Index D6

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

LED Street/Area Luminaire

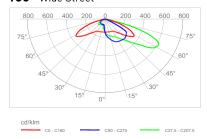


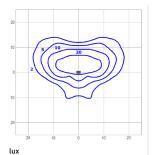


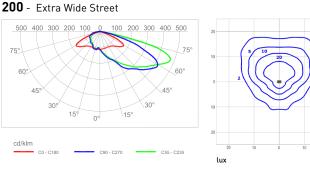
#### **Photometry**

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### 150 - Wide Street







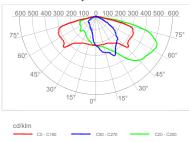
Luminous Intensity Class G\*3 Glare Index D5

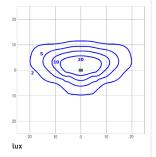
TRSB-2-150-B-80-407 Mounting Height: 6m

Luminous Intensity Class G\*3 Glare Index D5

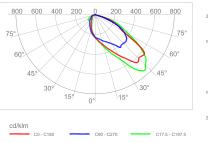
TRSB-2-200-B-80-407 Mounting Height: 6m

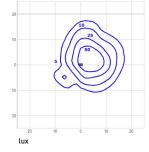
SCP - Street & Cycle Path





PCR - Pedestrian Crossing Right 800 600 400 200





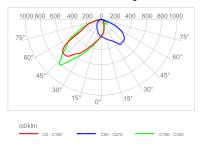
Luminous Intensity Class G\*2 Glare Index D4

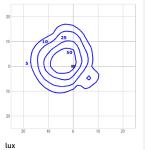
TRSB-2-SCP-B-80-407 Mounting Height: 6m

Luminous Intensity Class G\*6 Glare Index D5

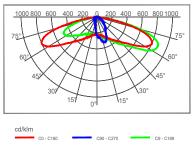
TRSB-2-PCR-B-80-407 Mounting Height: 6m

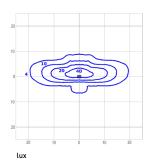
### PCL - Pedestrian Crossing Left





**P05** - Pedestrian Narrow





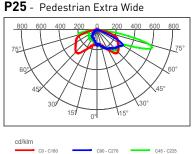
Luminous Intensity Class G\*6 Glare Index D5

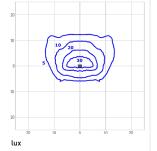
Luminous Intensity Class G\*0

Glare Index D4

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

Luminous Intensity Class G\*1 TRSB-2-P05-B-80-407 Glare Index D4 Mounting Height: 6m





TRSR-2-P25-R-80-407 Mounting Height: 6m

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