THOME LIGHTING

MANUAL FOR

public lighting

PRELED 2G

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Our **REALISATIONS**

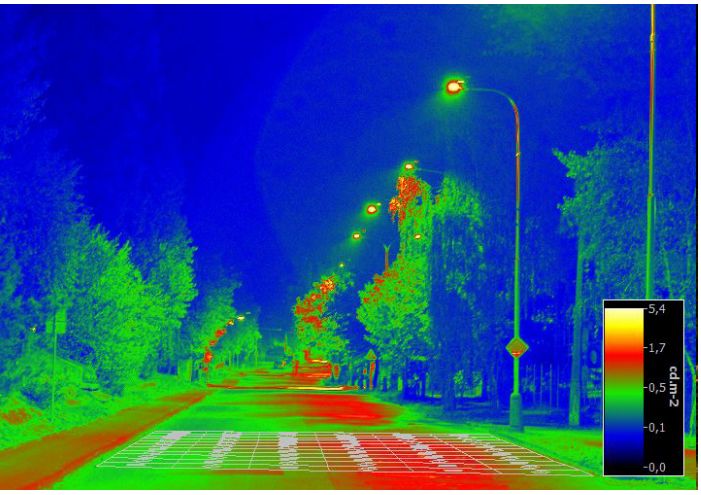

Foto z jasové kamery

REALISATIONS E.G.:

- Kamenický Šenov
- Srbská Kamenice
- Nový Bor
- Milovice
- Hejnice
- Ústí nad Labem
- Janov u Hřenska
- Vestec
- Litvínov
- Otice
- Třanovice
- Hradec nad Svitavou
- Svoboda nad Úpou
- Blatnice pod Svatým Antonínkem
- Doubice
- Habrovice
- Hanušovice
- Chuderov
- Kostelec nad Orlicí
- Kulířov
- Ledeč nad Sázavou
- Makovce
- Pozořice
- Průhonice
- Ruda nad Moravou
- Řendějov
- Smilovice
- Stročín
- Škvorec
- Tištín
- Trhová Hradská
- Třanovice
- Tuchlovice
- Vranov
- Zbiroh
- Želenice
- Želiezovce
- Želkovice

a další...

PUBLIC LIGHTING for Správa železnic:

- ŽST. Oldřichov u Duchcova
- ŽST. Karlovy Vary
- ŽST. Šakvice
- ŽST. Hustopeče
- ŽST. Židlochovice
- ŽST. Hrušovany
- ŽST. Studénka
- ŽST. Řetenice
- ŽST. Obrnice
- ŽST. Cheb
- ŽST. Šternberk
- ŽST. Skalice nad Svitavou
- ŽST. Brno
- ŽST. Uničov
- ŽST. Lovosice
- ŽST. Louny
- ŽST. Havířov
- ŽST. Litvínov
- ŽST. Lom u Mostu
- ŽST. Čížkovice
- ŽST. Kadaň
- ŽST. Děčín
- ŽST. Ústí nad Labem

etc.

Vyrábí **THOME Lighting s.r.o.**
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LED luminaire
PRELED 2G

SMART LED LIGHTING
in line with nature that is well suited for every municipality

ENVIRONMENTAL BENEFITS:

- Correlated color temperature ≤ 2700K ✓
- Light dimming via the ASTRODIM function ✓
- Setting CLO - constant light flow ✓
- Possibility of including a spill shield ✓
- The LED luminaire does not project disturbing light upward ULR = 0% ✓

TECHNICAL ADVANTAGES:

- The body of the LED luminaire is made of aluminum and has a protection rating of IP66
- IK10 mechanical protection, including for the hardened glass
- The optical part is protected with hardened glass
- 10kV overvoltage protection
- The LED luminaire can be accessed without the use of tools
- Compatible with ZHAGA/NEMA connectors
- Can be attached to columns or jibs with a diameter of 60 mm/76mm
- Joint with adaptable angle +-15°
- 5-year warranty for the whole luminaire unit (can be extended further upon request)
- ENEC certified

THOME® LIGHTING

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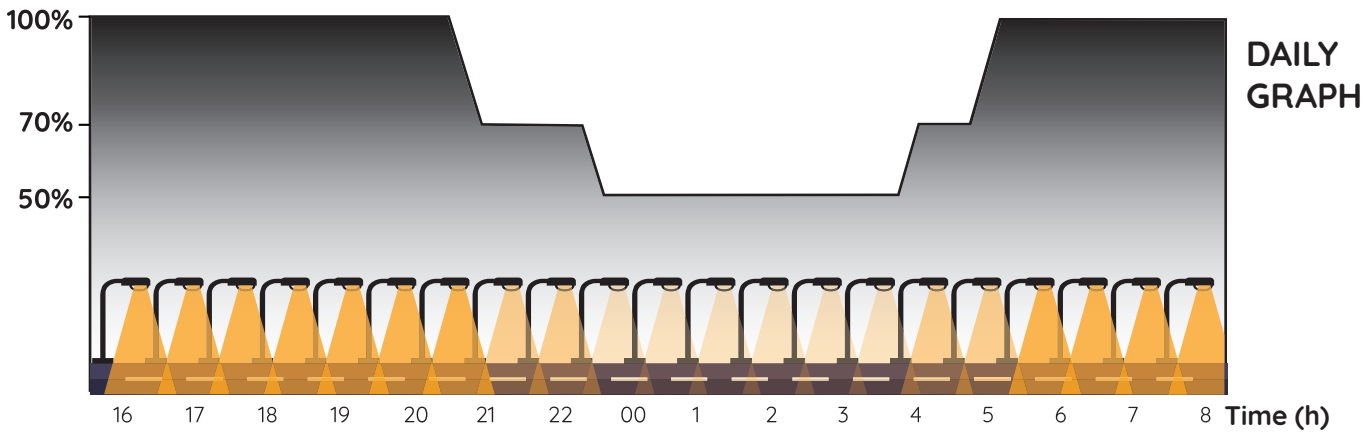
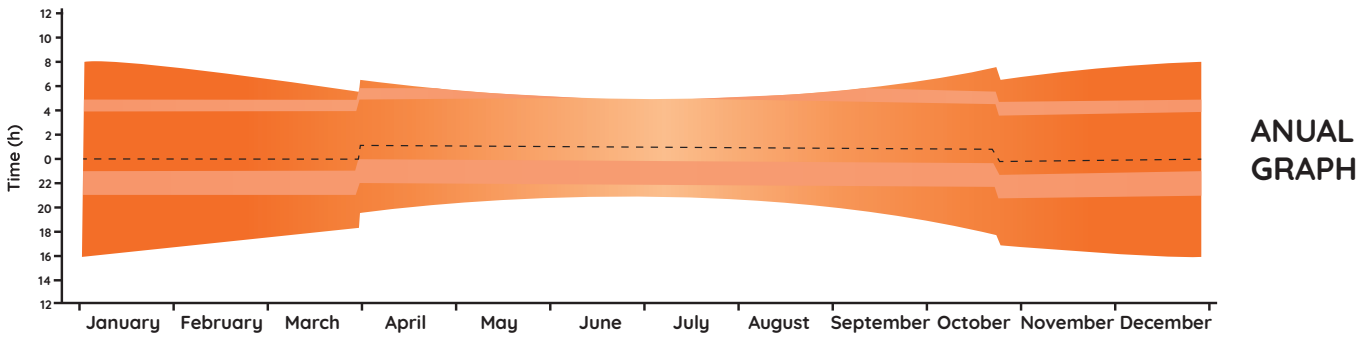
POSSIBLE SETUP OF THE
ASTRODIM FUNCTION

No need to run at 100 % capacity at night!
ASTRODIM means a more environmentally friendly operation!

The LED luminaire **PreLED 2G** unit utilizes a power supply OSRAM that can dim the light using the **ASTRODIM** function. This function can dim the lights at night without the use of any additional conductors. The power supply contains an internal clock that measures the time between activation and deactivation, allowing the light unit to determine when the output should be regulated. The dimming schedule becomes active already after the fight night, and achieves full accuracy after 8 cycles (nights). At the same time, it adapts to the length of the night all year long. This means that its regulation times remain accurate throughout the year with the exception of the switch to summer time, when the whole schedule shifts one hour forward.

The power supply is fully programmable using **NFC technology**. It supports up to five levels of dimming at night, in a range of 10-100 % of the light's output. The **"fade-time"** function can be used to set gradual transitions between individual levels, including gradually switching the light on and off. This means you don't need to worry that the lights will start blinking or that their luminosity will suddenly change at night.





Počet hodin svícení v jednotlivých měsících, vzhledem k východu a západu slunce.

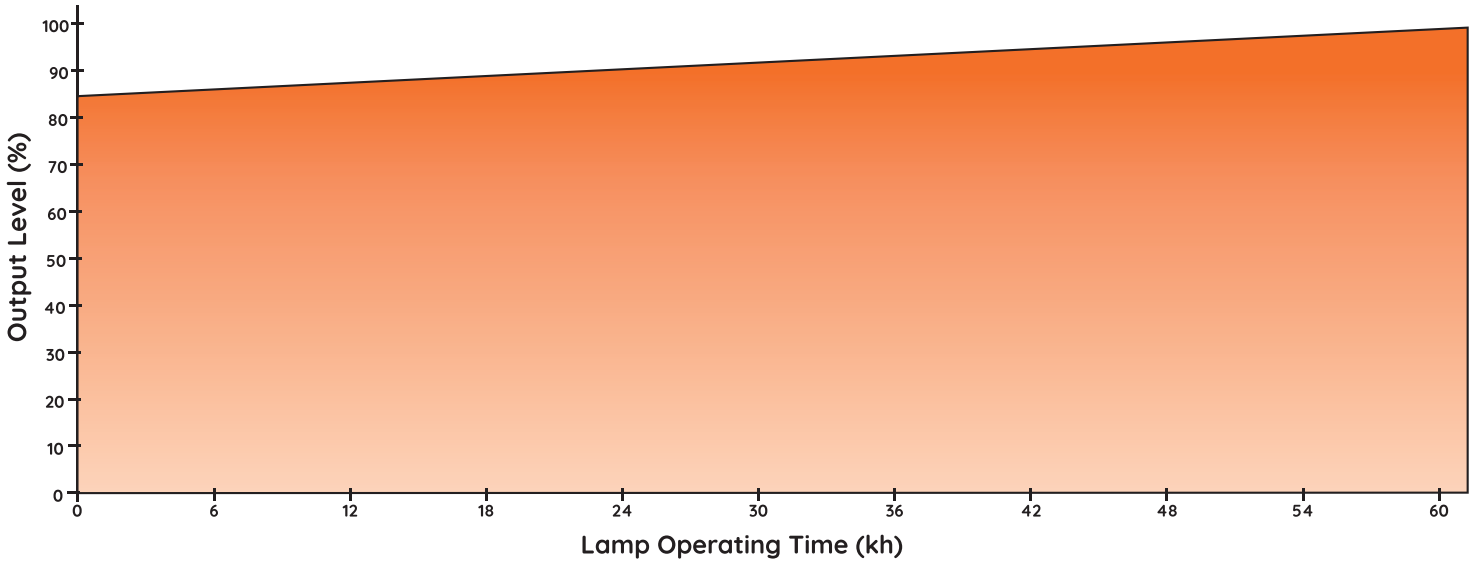
CLO FUNCTION
CONSTATNT LIGHT

The light output of each LED chip slightly decreases over time.

The LED luminaire output of each **LED chip** slightly decreases over time. For high-quality public lighting, this drop amounts to about 10 % after 100 000 hours, which is negligible considering the fact that the expected service life of a high-quality **LED luminaire** is 15-20 years. 15 years of operation represents about 61 500 hours of light, while 20 years correspond to 82 000 hours. But we also need to take into account that the hardened cover glass will become stained over time. For this reason, we recommend setting up the **CLO** function for each light unit; this will guarantee a constant light output for the whole service life of the LED luminaire. By default, we use an increase of 15 % over 15 years of operation. This setting can, however, be customized to fit the customer's needs.

CONSTANT LUMEN

Constant Lumen	Constant Lumen			
Enabled ✓	Output Level	85	100	(%)
	Operating Time	0	61	(kh)

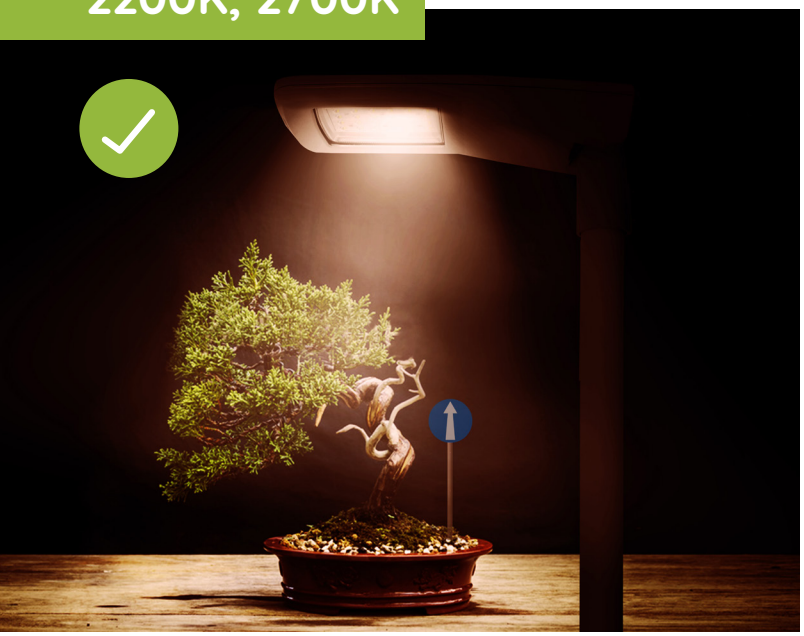


WHAT'S THE BEST COLOR TEMPERATURE FOR PUBLIC LED LUMINAIRES?

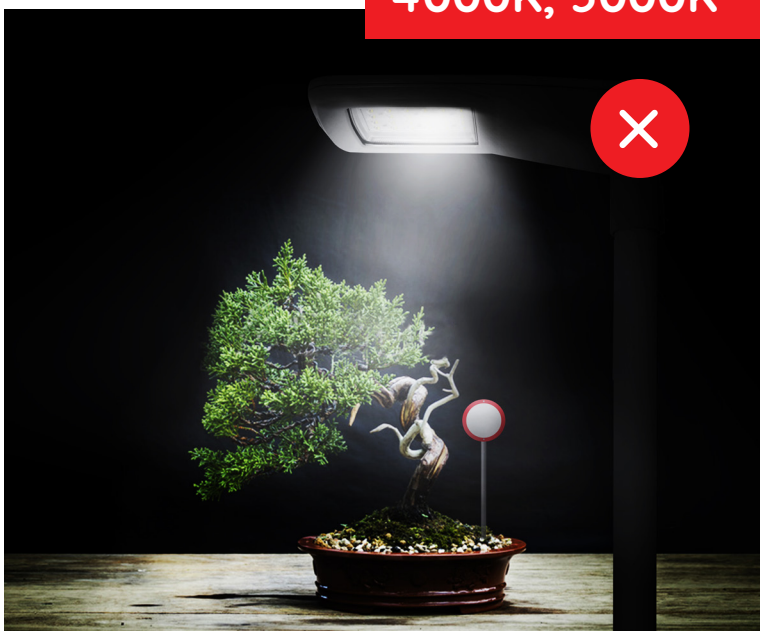
Blue light is currently a highly discussed topic. **The color temperature recommended by the Ministry of the Environment currently should not exceed 2700 K.** Adherence to this color temperature is a basic prerequisite for grant programmes.

At the company **THOME Lighting**, we prefer a color temperature 2200K-2700K which provides a nominal output of up to 120lm/W from the light while providing a color accuracy of CRI 70. When used at intensities that are common for public lighting, such color temperatures only have a minimum impact on a human's circadian system while providing a **highly energy-efficient** solution and retaining color accuracy. However, our offer of course also includes standard color temperatures 3000K, 4000K, 5000K.

2200K, 2700K



4000K, 5000K



Vyrábí **THOME Lighting s.r.o.**
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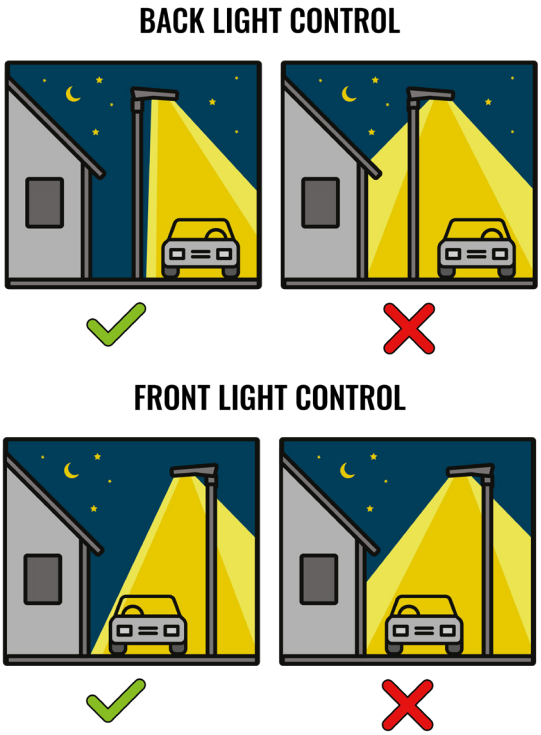
USE OF
A SPILL SHIELD „**BLC**“
BACK LIGHTING CONTROL

The LED luminaire **PreLED 2G BLC** is specially designed to prevent light spilling behind or in front of the unit (disruptive light) using an auxiliary spill shield. The spill shield prevents undesirable direct lighting of the area behind or in front of the light. The light flow is thus directed to the required directions only, without directly illuminating the surrounding buildings. The **spill shield** can also be easily implemented into an existing, already installed **PreLED 2G** supplied by our company **THOME Lighting.**

The spill shield for the light unit is protected under industrial patent number 37609

NO MORE
DISRUPTIVE LIGHT
in your windows and
the facades of houses!



ENEC
CERTIFICATION

As a proof of quality, the light unit is licensed for the use of the **ENEC certificate.** This is a European-wide certificate which witnesses that the product complies with European Norms (EN) for electric safety. Obtaining a license is conditioned by a meticulous inspection at the production plant, focusing on adherence to the designated rules. The manufacturer must also demonstrate that they are and will be capable of ensuring and maintaining a stable quality of products, especially in relation to the electric safety of the product.

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THOME LIGHTING

LED luminaire
PRELED 2G MIXCOLOR

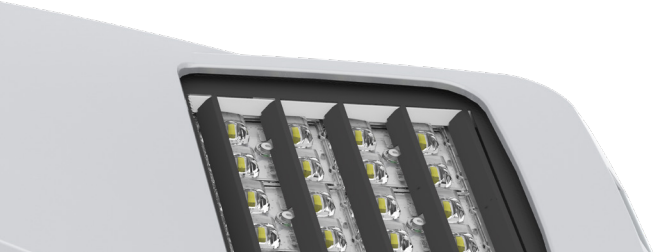
BIODYNAMIC LUMINAIRE
well suited for high-traffic areas

ENVIRONMENTAL BENEFITS:

- Regulation of the color temperature during the night ✓
- Elimination of the blue component in night hours ✓
- Light dimming via the MixCOLOR function ✓
- Setting CLO – constant light flow ✓
- Possibility of including a spill shield ✓
- The LED luminaire does not project disturbing light upward ULR = 0% ✓

TECHNICAL ADVANTAGES:

- The body of the luminaire is made of aluminum and has a protection rating of IP66
- IK10 mechanical protection, including for the hardened glass
- The optical part is protected with hardened glass
- 10kV overvoltage protection
- The LED luminaire can be accessed without the use of tools
- Compatible with ZHAGA/NEMA connectors
- Can be attached to columns or jibs with a diameter of 60 mm/76mm
- Joint with adaptable angle +-15°
- 5-year warranty for the whole luminaire unit (can be extended further upon request)
- ENEC certified



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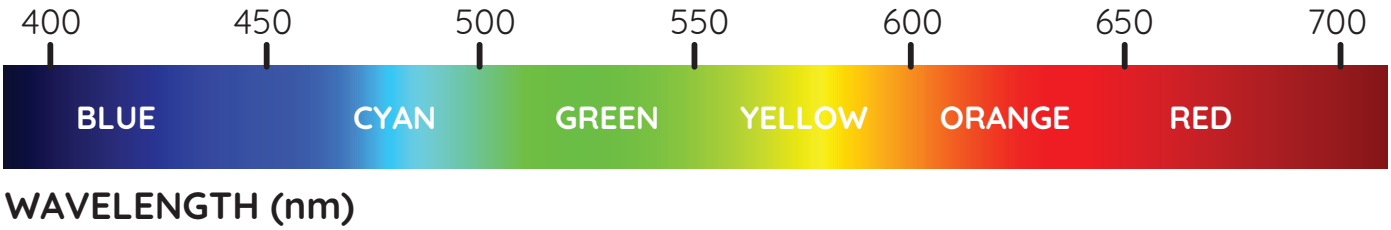
INTRODUCTION TO THE TOPIC OF
BLUE LIGHT IN NIGHT HOURS

Blue Light

Blue light refers to visible light in the wavelength range of 440-490 nanometers. It is very useful during the day, when we want to stay alert. For instance at work or in school. On the other hand, during the night we should strive to limit it whenever possible



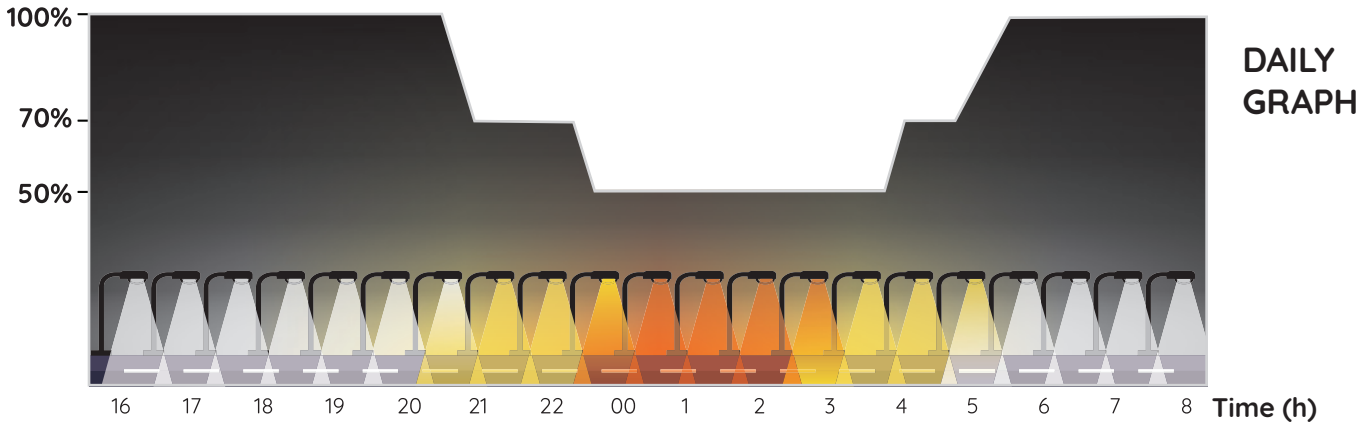
WHAT'S THE BEST PLACE FOR THE
PRELED 2G MixCOLOR?

We believe that the LED luminaire **PreLED 2G MixCOLOR** is best suited for high-traffic areas of cities and municipalities. During rush hours, it is necessary to ensure a high intensity of light with an appropriate color temperature **4000K** to ensure the best visibility and traffic safety. From 22:00 onward, when traffic intensity starts to decrease, it is possible to also reduce the light's intensity and gradually transition to an orange color temperature 2200K. Starting from 4:00 it is then possible to gradually return to **4000K** and 100% output.

HOW DOES THE
REGULATION MIXCOLOR WORK?

The LED luminaire **PreLED 2G MixCOLOR** unit utilizes a unique color temperature and intensity regulation system for night hours. This function can dim/regulate lights at night without the use of any additional conductors or complex control systems. Everything you need is already included in the luminaire unit.

The function **MixCOLOR** is fully programmable and allows users to set up to five levels of dimming over the course of the night. The **"fade-time"** function also remains available; this can be used to set gradual transitions between individual levels, including gradually switching the light on and off. We can set the regulation times based on the investor's requirements. A typical schedule that ideally copies the natural daily cycle in line with energy saving principles is illustrated below.

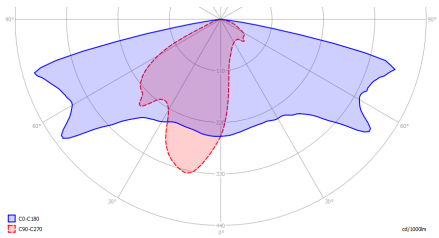


HEALTH AND SAFETY
FIRST AND FOREMOST!

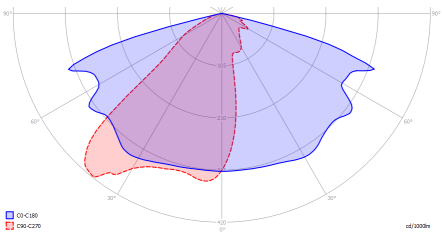
We believe that the LED luminaire **PreLED 2G MixCOLOR** is the best solution with respect to human health, the goal of ensuring safety on roads at night and minimizing our environmental impact.

DISTRIBUTION
OF LUMINOUS INTENSITY

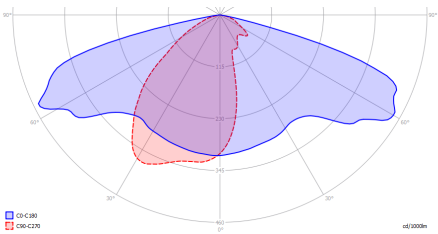
PRELED 2G - optika č. 14AK



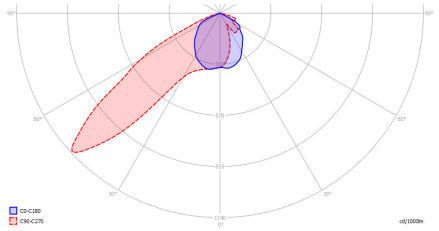
PRELED 2G - optika č. 6AK



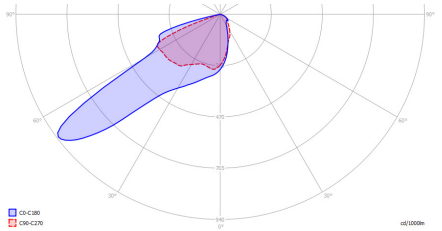
PRELED 2G - optika č. 7AK



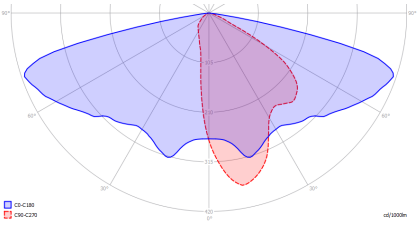
PRELED 2G - optika č. 9AK CROSS pravá



PRELED 2G - optika č. 8AK



PRELED 2G - optika č. 14AS clonící m.



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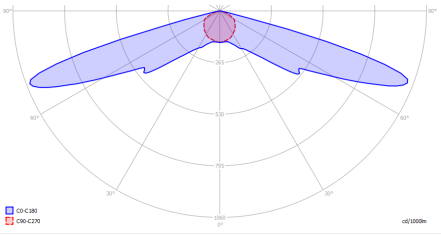

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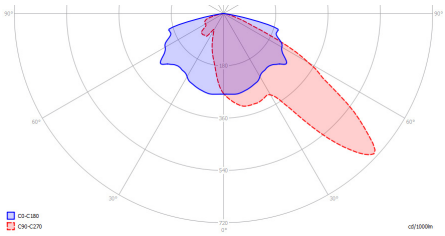

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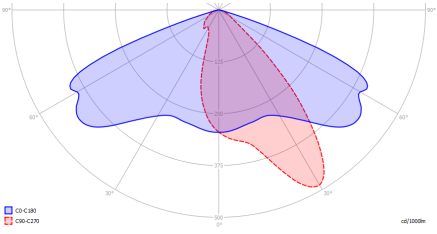

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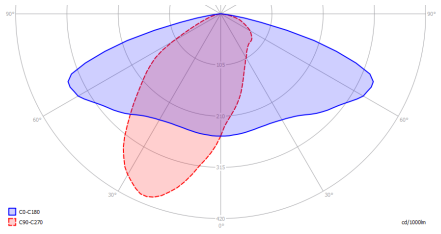

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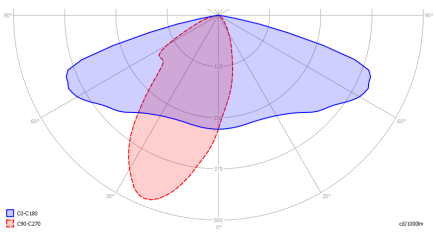

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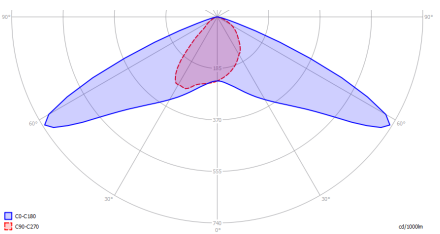

CONTACT

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