Technical data sheet

Dimming modules

AstroDIM, StepDIM, DALI & CLO

AstroDIM

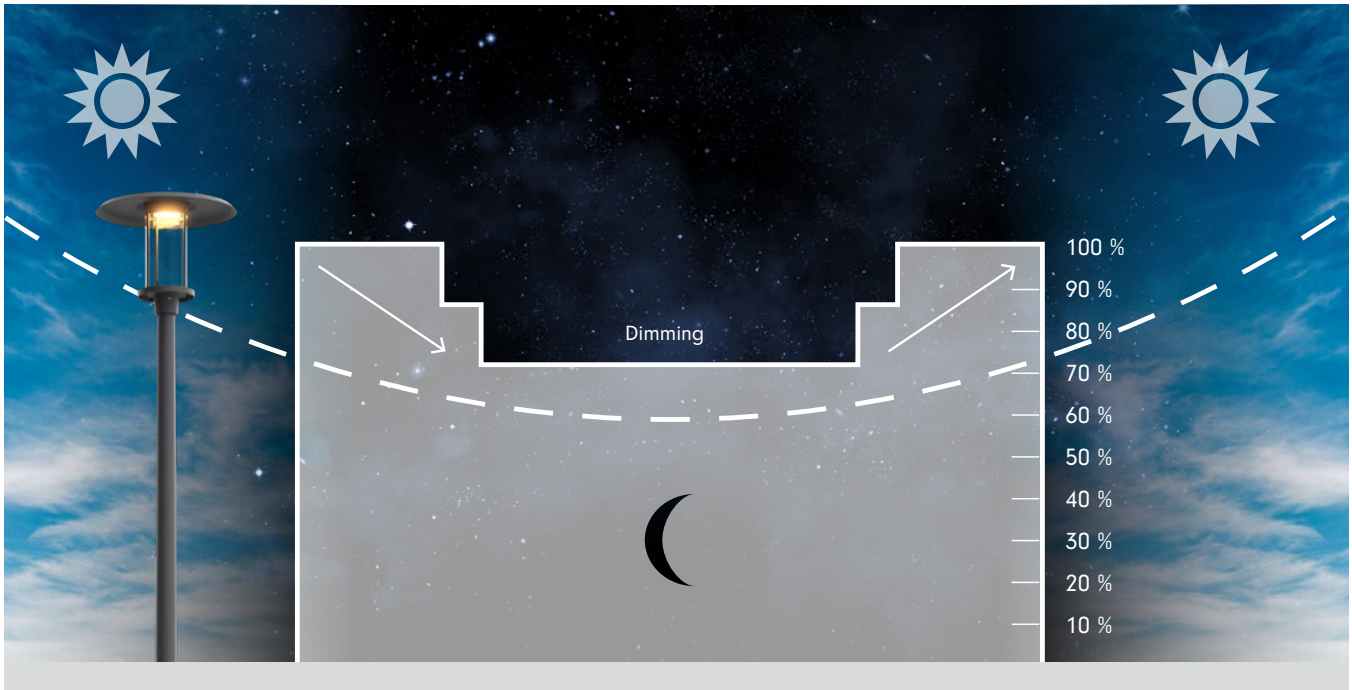
In a dimmable range of 30–90%*, up to 2 steps (levels) for night-time dimming can be set in increments of 5% (e.g., to 80% and then to 40%). These settings are already configured at the factory, and the luminaires are programmed accordingly. Typically, the luminaires are switched on and off using a brightness sensor, and the driver determines the theoretical/astronomical midpoint of the night.

To ensure that the dimming corresponds to the actual time, a location-based time correction (midnight correction) is applied through programming. AstroDIM does not account for the change to daylight saving time.

AstroDIM operates autonomously, meaning no external control infrastructure is required.

For location correction, only the country and postcode (PC) of the installation site of the luminaires need to be specified.

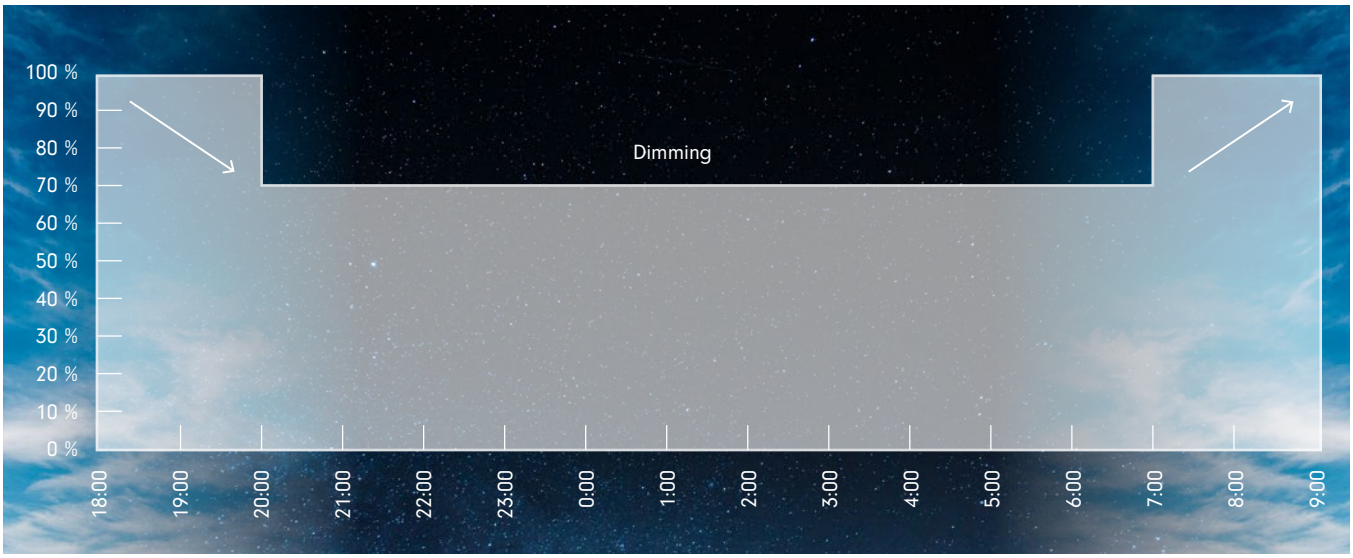
A midnight correction can be omitted if, for example, luminaires are integrated into an existing infrastructure as replacements or if a lighting system is expanded with additional luminaires.



*Only valid for our standard current ranges of 200–700 mA or 200–1050 mA.
If the current differs from the standard, the possible dimming ranges must be checked.

AstroDIM

Example for AstroDIM with midnight correction, single-stage:

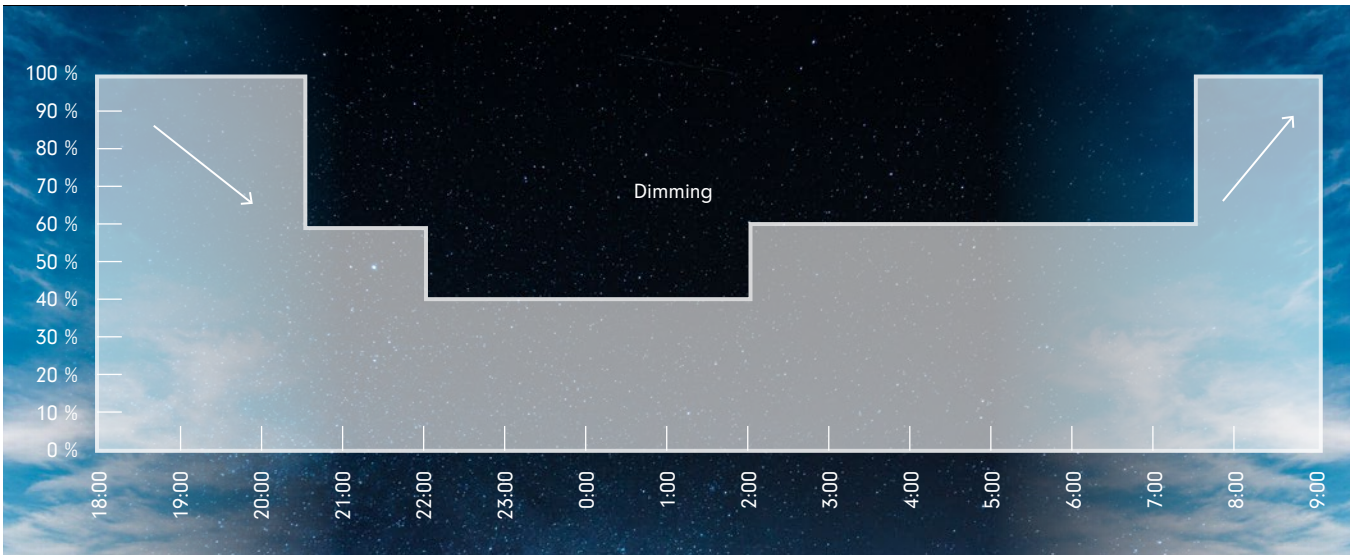


From 8:00 pm at 70%,
from 7:00 am at 100%

With midnight correction time (CET) for postcode DE 78
(Country code + first 2 digits of the postcode)

AstroDIM

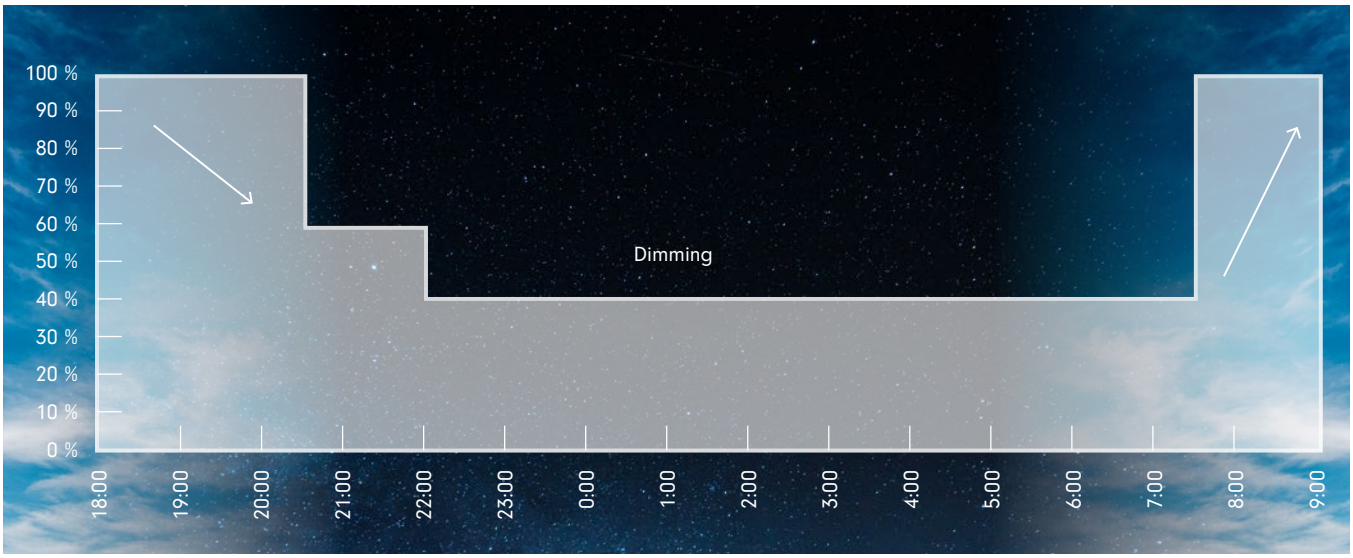
Example 1 for AstroDIM with midnight correction, multi-stage:



From 8:30 pm at 60%,
from 10:00 pm at 40%,
from 02:00 am at 60%,
from 7:30 am at 100%

With midnight correction time (CET) for postcode DE 78
(Country code + first 2 digits of the postcode)

Example 2 for AstroDIM with midnight correction, multi-stage:



From 8:30 PM at 60%,
from 10:00 pm at 40%,
from 7:30 AM at 100%

With midnight correction time (CET) for postcode DE 78
(Country code + first 2 digits of the postcode)

StepDIM

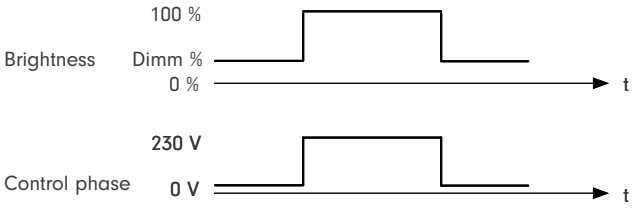
On request, the luminaires can be factory-set to a single-step (single level) night-time dimming level of "xx %".

However, it is possible to dim the lights, in 5% increments, to any level between 30% and 90%*. The control system – which is integrated into the driver – is operated via an additional 230 V control line.

Control:

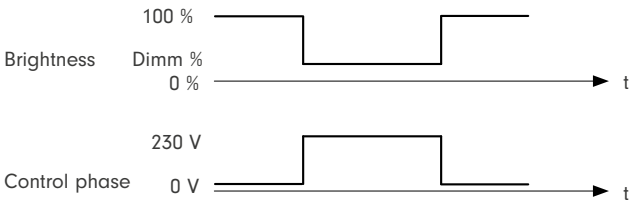
- with control line
- control via positive or negative logic

Positive logic:

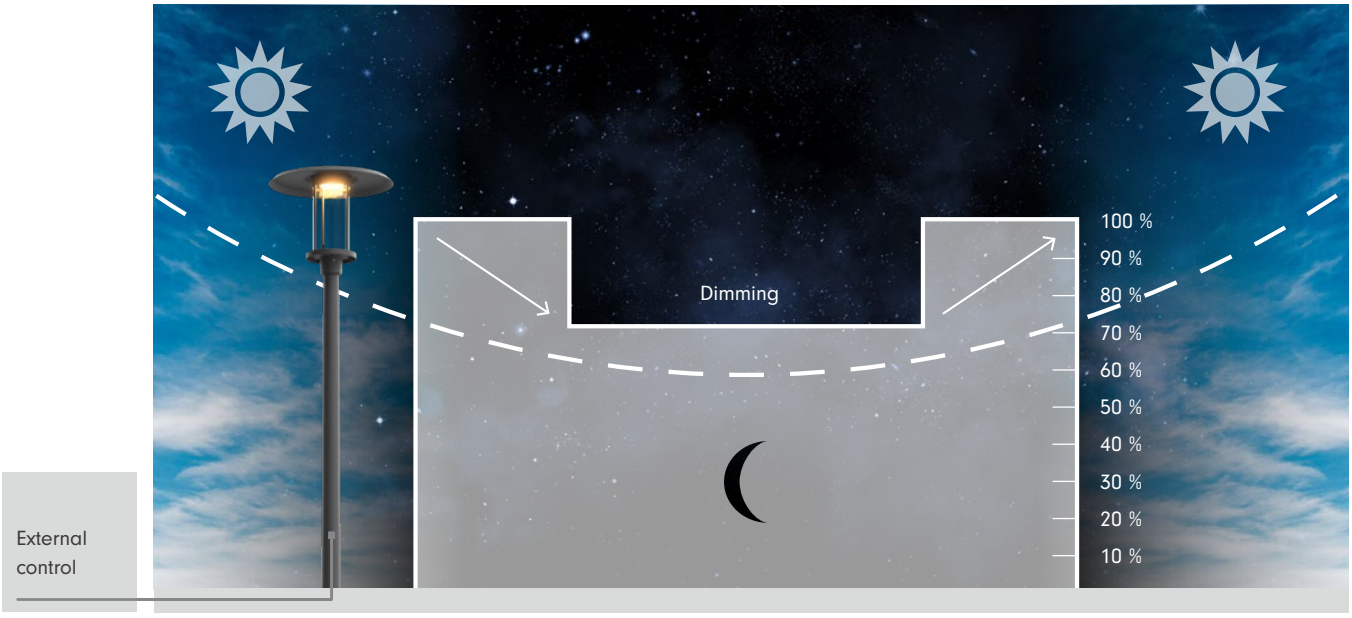


If there is voltage applied to the control line, the luminaire switches to 100% operation. If there is no voltage applied to the control line, the luminaire illuminates at the level of the set dimming value.

Negative logic:



If there is voltage applied to the control line, the luminaire switches to the dimmed state. If there is no voltage applied to the control line, the luminaire illuminates at 100%.



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If the current differs from the standard, the possible dimming ranges must be checked.

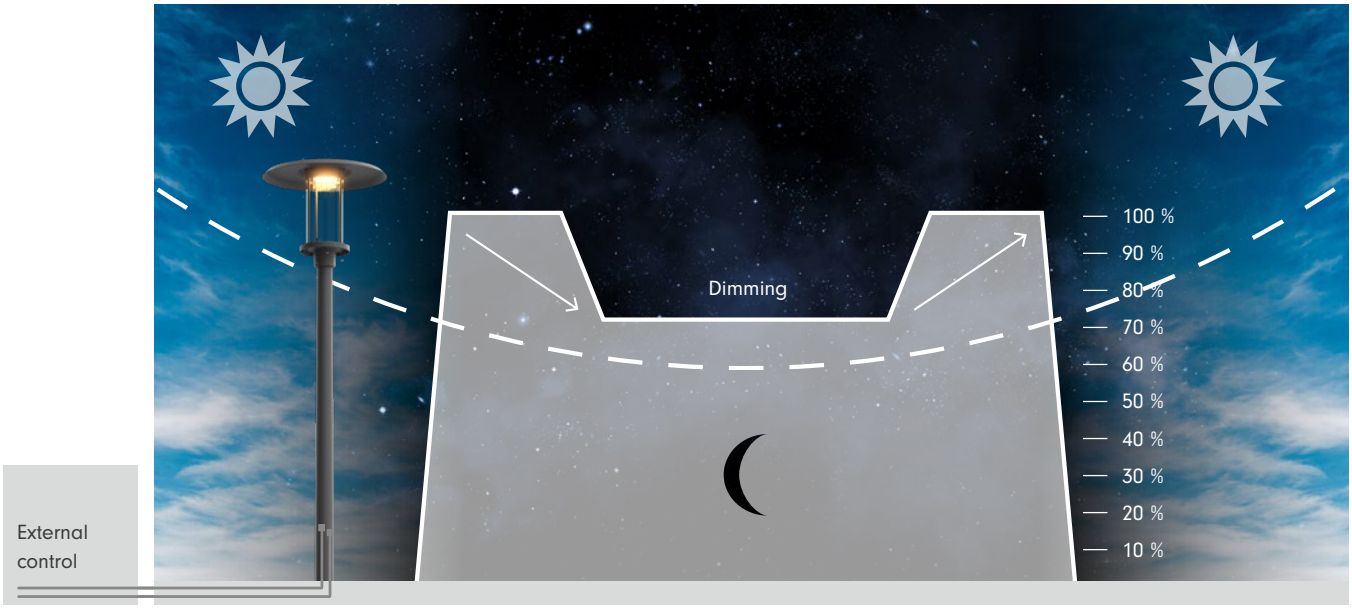
DALI

With DALI (Digital Addressable Lighting Interface), the control unit is fitted with a DALI interface as standard. This makes it easy to integrate into a DALI-controlled lighting system. DALI allows each luminaire to be controlled individually via the same cable.

Simple and effective – DALI.

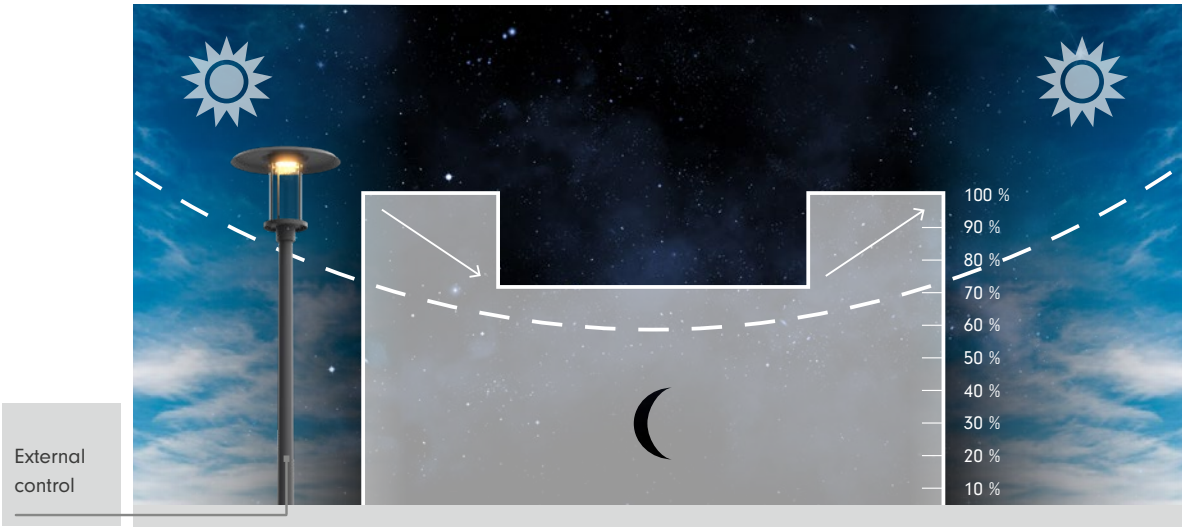
For the DALI version, a five-core cable is routed out of the luminaire. This cable can be used to connect a control unit already installed on site.

It should be noted that when a DALI signal is used, existing dimming systems, such as AstroDIM, are 'ignored'.

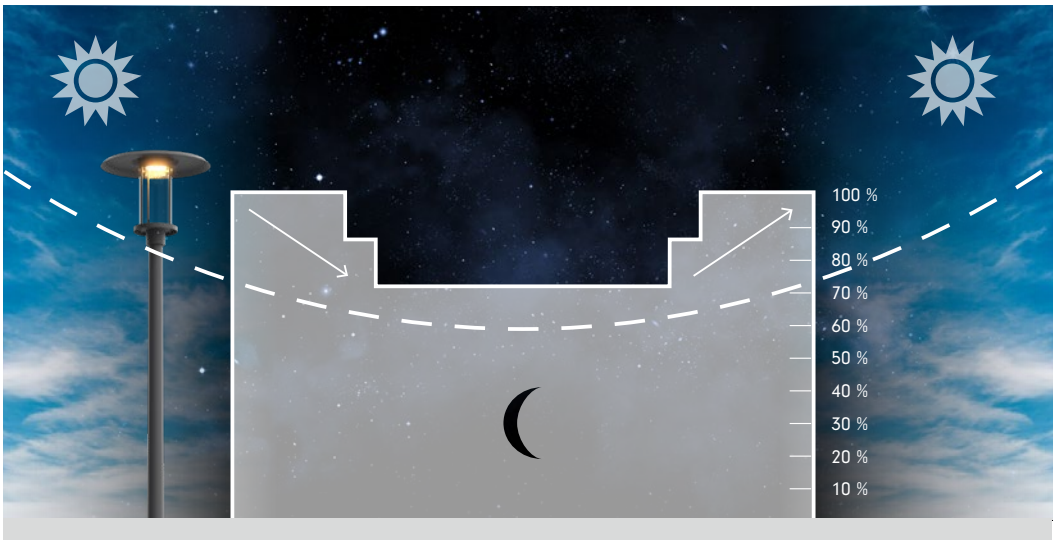


Overview of dimming modules

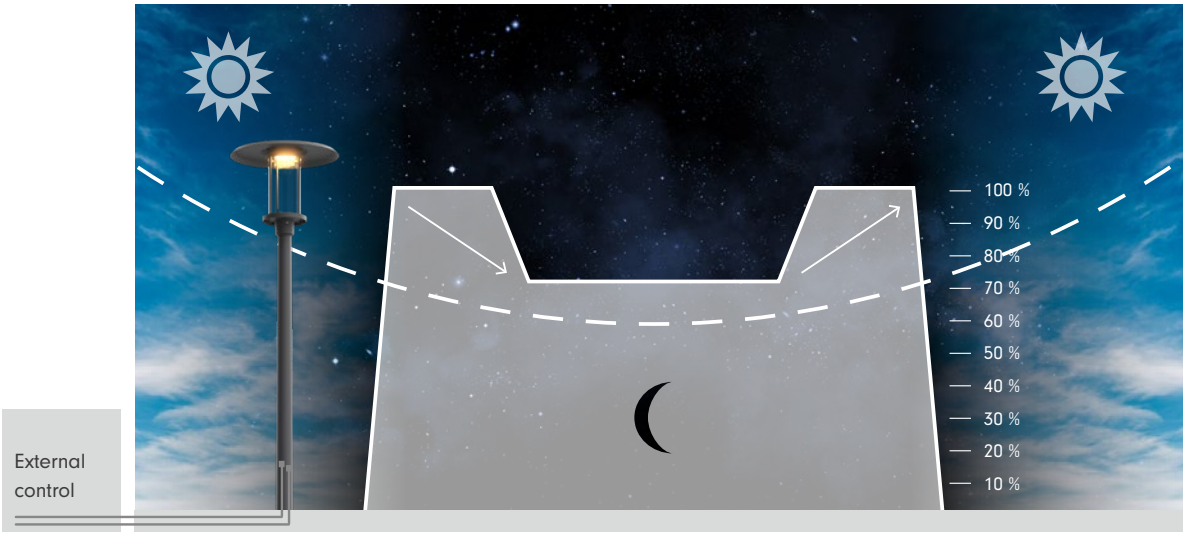
StepDIM



AstroDIM



DALI



CLO

CLO – Constant Lumen Output (Constant Lumen Management)

The luminous flux of all lamps, including LEDs, reduces as they age. The extent to which this declines depends on various parameters. Nowadays, however, this decline can be counteracted using an electronic control system, ensuring that a consistent luminous flux is maintained throughout the lamp's lifetime, whilst also saving energy.

Without constant luminous flux (without CLO)

Over the course of an illuminant's life, its luminous flux falls by approximately 10% (L90B10), but the system output remains unchanged. The drop in luminous flux must be taken into account when planning through use of the lamp luminous flux maintenance factor (LLWF). This means that the lighting system must be designed to consume more energy from the outset, in order to compensate for the decline in luminous flux and still provide the required amount of light at the end of its service life.

Without constant luminous flux (with CLO)

The integrated electronics increase the flux over the illuminant's life and thereby keep the luminous flux constant. This does increase the system output over the illuminant's life, but you save energy right from the start because you don't have to oversize your lighting system.

Hess GmbH Licht + Form
Lantwattenstrasse 22
D-78050 Villingen-Schwenningen
Phone: + 49 (0) 7721 920-0
E-mail: hess@hess.eu
www.hess.eu

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We reserve the right to make technical changes.