

*smart DC
LED module*

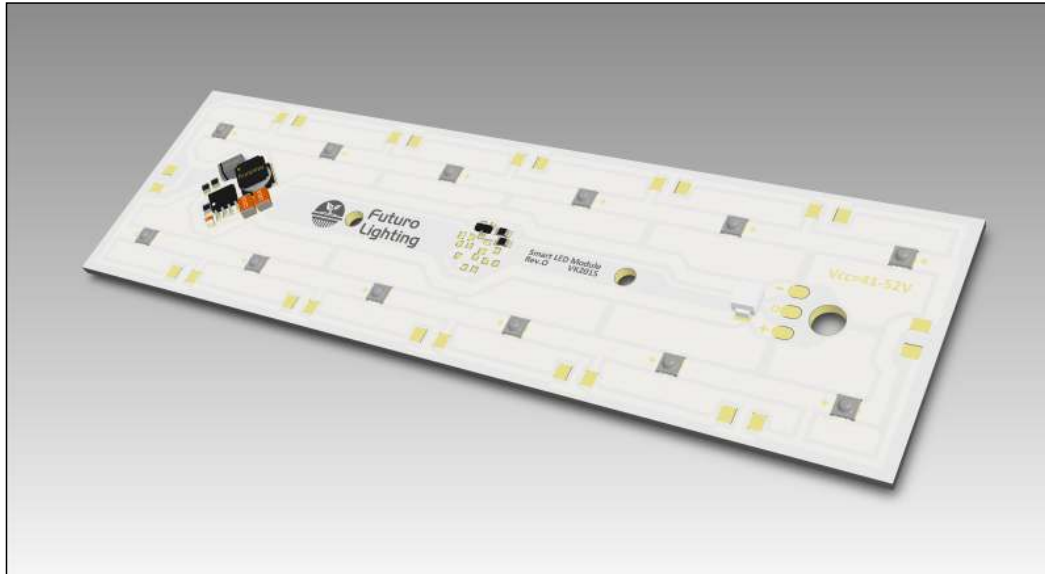
- self made LED fixtures
- easy to use
- low cost
- dimming options
- CV supply
- available accessories



**Futuro
Lighting**
design

Smart DC LED module

High efficient DC LED solution
module height just 4.1 mm!



Specification:

Vcc = 42-55 VDC
Pmodule <25W
module height: 4,1 mm

Features:

Integrated LED driver
Thermal foldback
Fast PWM input 0-100%

Options:

- PWM input protection
- Analog input 2,5-10V (on request)
- can be produced in various CCT, CRI, colors, based on customer requirements

compatible LEDs:

Cree XTE, XPG, XP-L...
Osram OSOLON, Square PC,
Others on request



Optic compatibility:

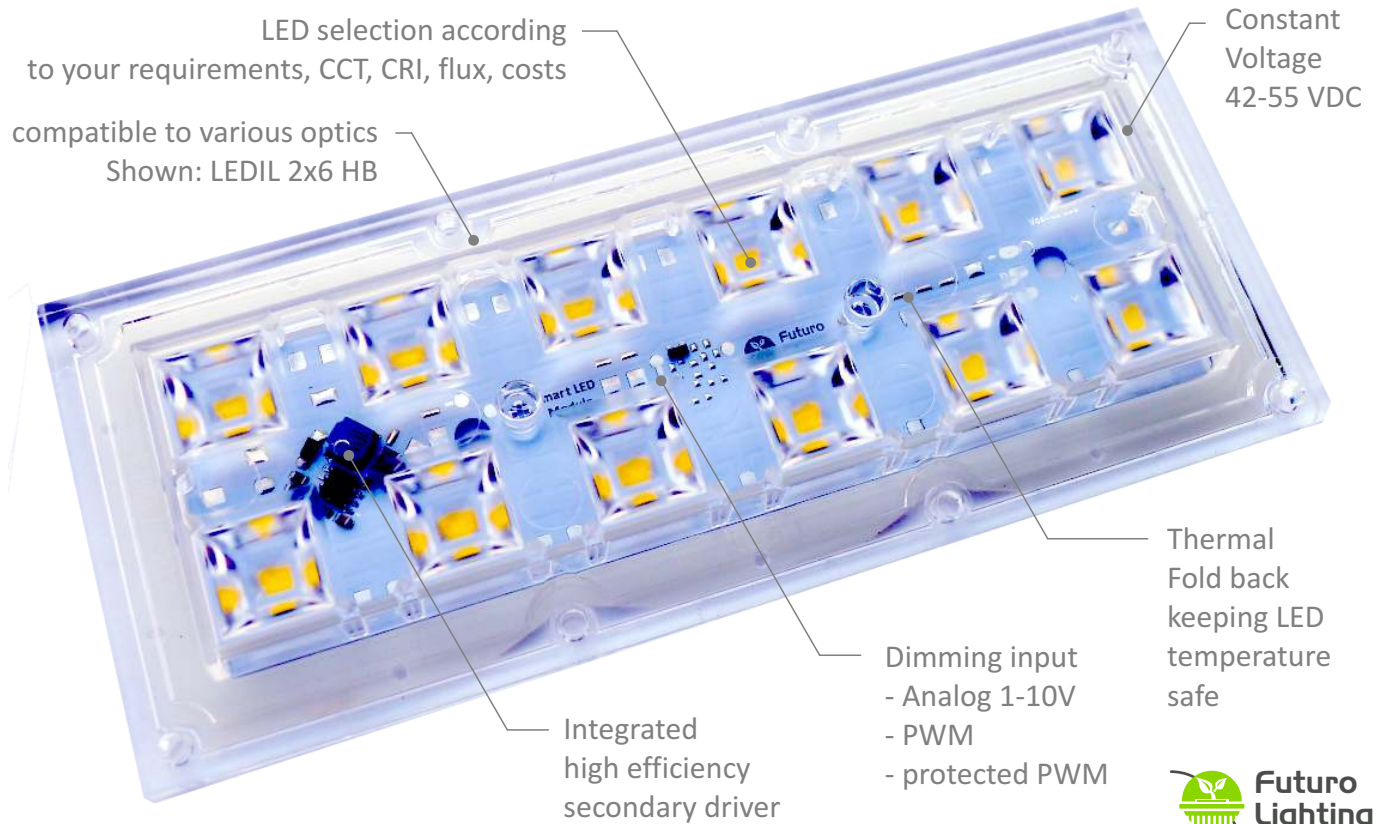
(LED distance 25.4 mm)
CARCLO: Freedom, on request
LEDIL CS14130, CS14263, CS12862,
CS14055, single optics on request

Product is customizable according to your
optic selection needs



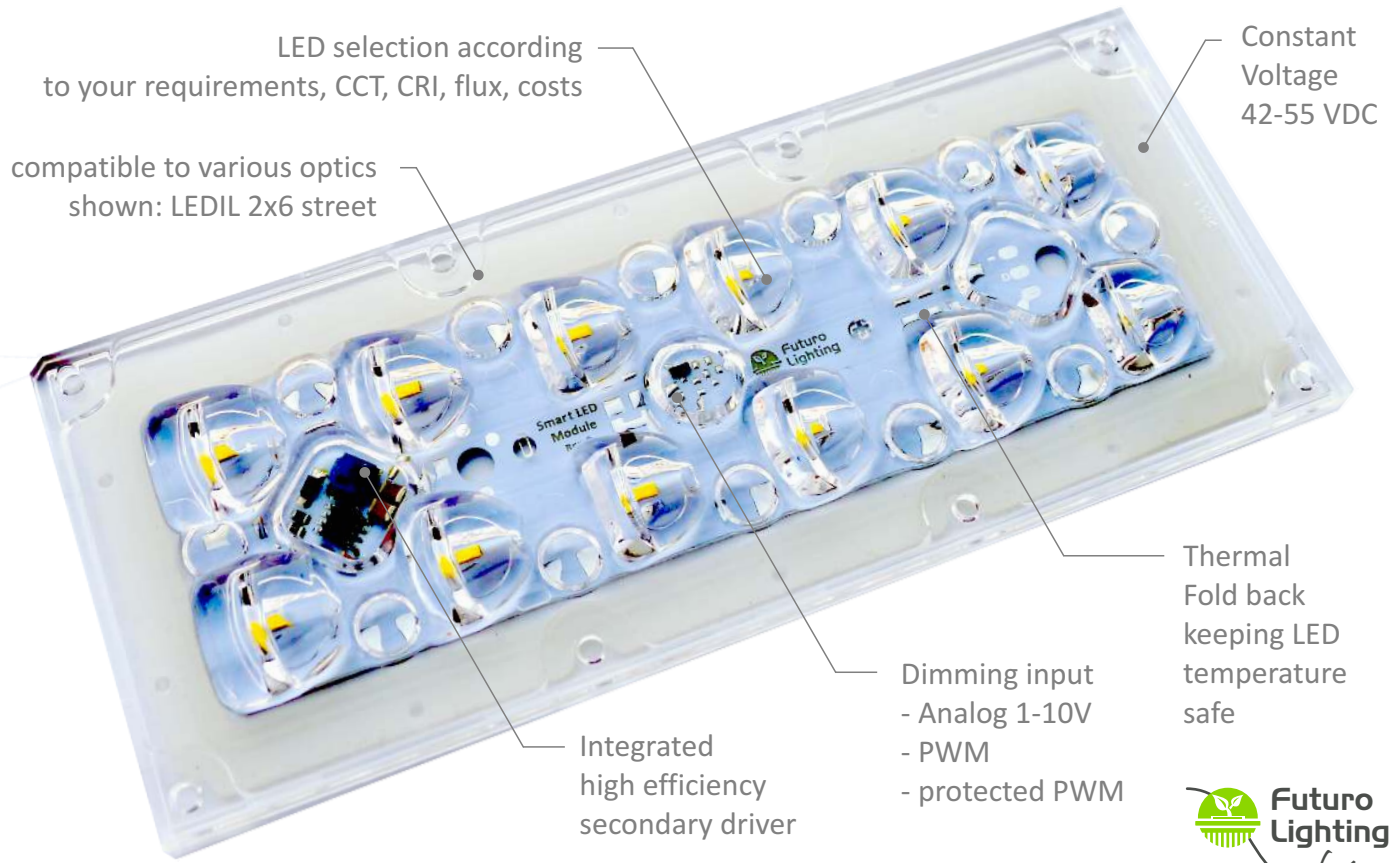
Smart DC LED module

High efficient DC LED solution
appropriate for low and high bay



Smart DC LED module

High efficient DC LED solution
appropriate for Street Lighting



LED selection according to your requirements, CCT, CRI, flux, costs

compatible to various optics shown: LEDIL 2x6 street

Constant Voltage 42-55 VDC

Thermal Fold back keeping LED temperature safe

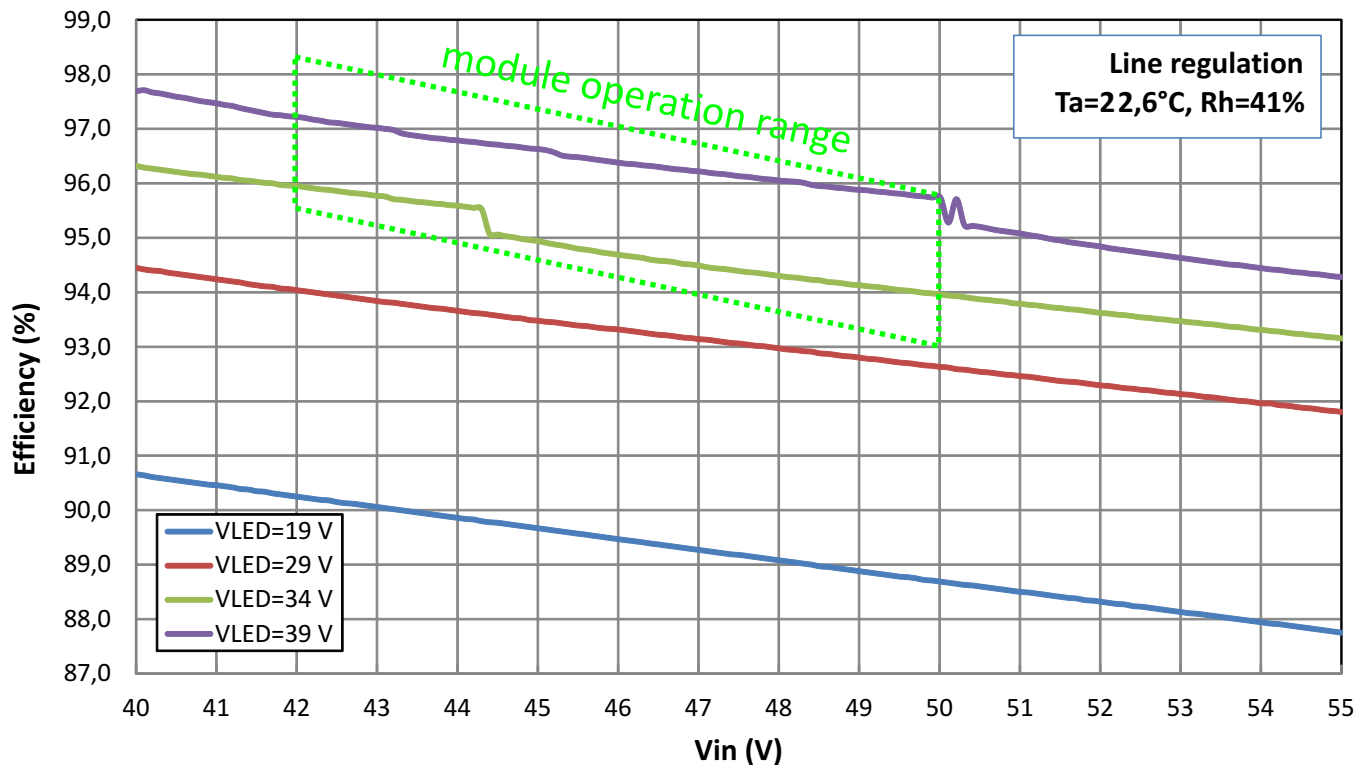
Dimming input
- Analog 1-10V
- PWM
- protected PWM

Integrated high efficiency secondary driver



Smart DC LED module

> 95% efficiency @ 36 VLED

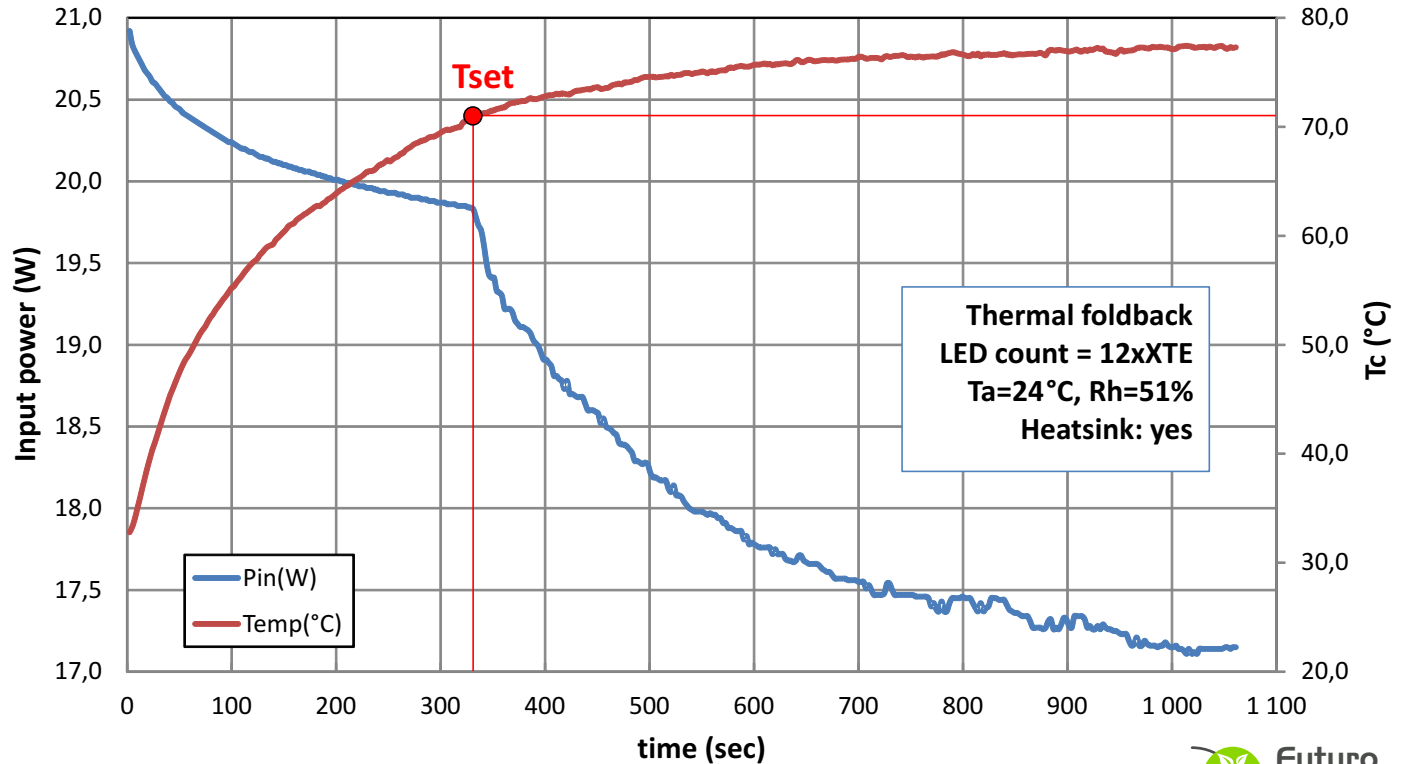


Characterization: Tc~45°C, FuturoLighting DC/DC Set-up



Smart DC LED module

Thermal foldback
Active Thermal Management
keeping module temperature within safe margin
protecting and prolonging module lifetime



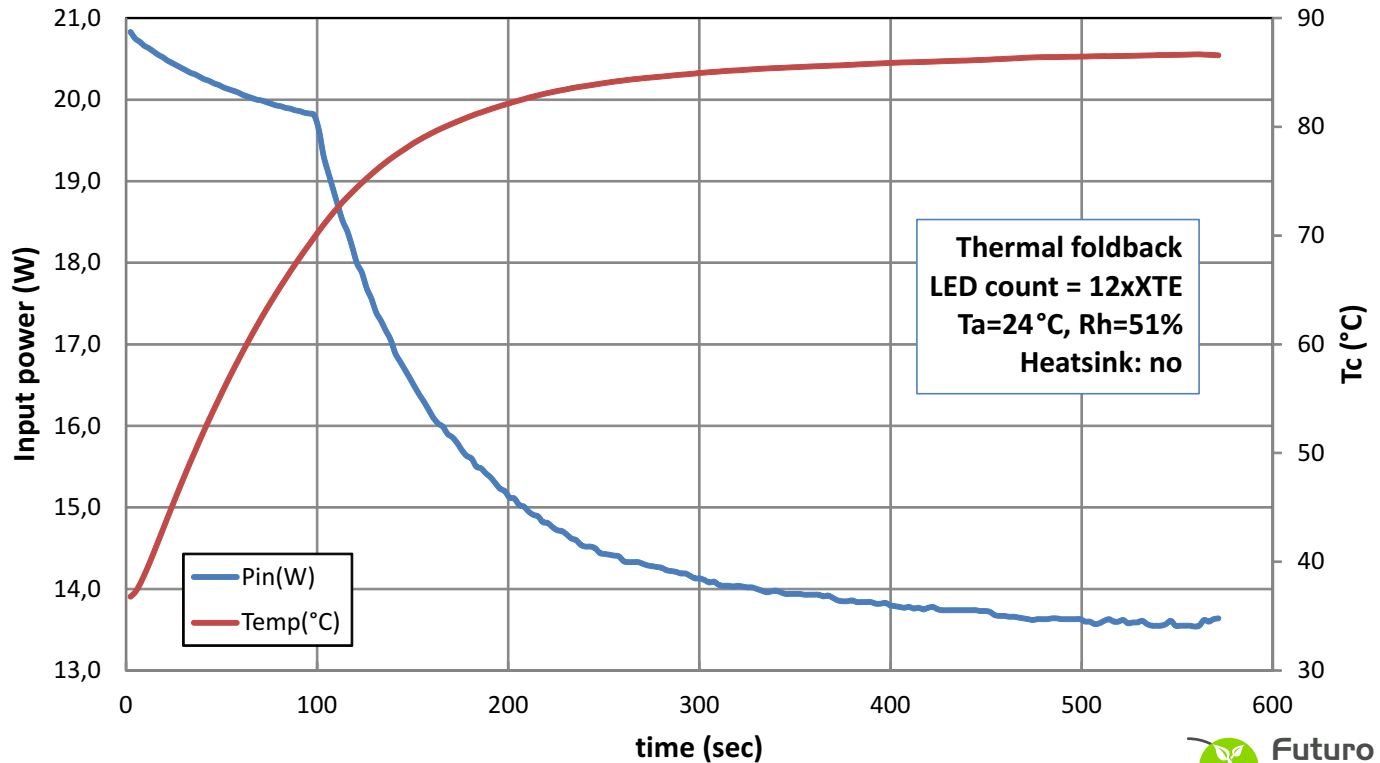
LED module with inappropriate heatsink

Smart DC LED module

Thermal foldback

Active Thermal Management

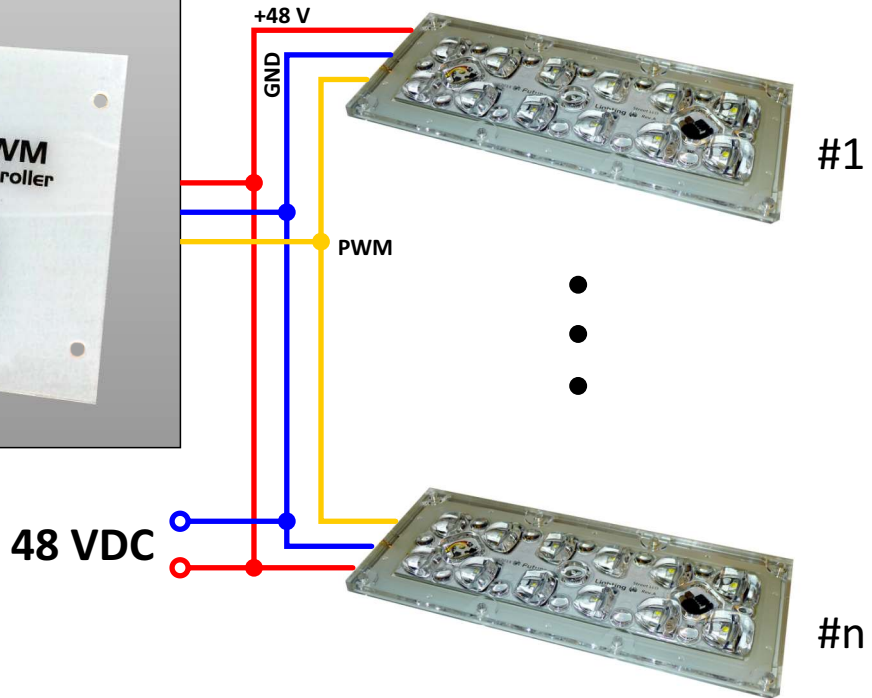
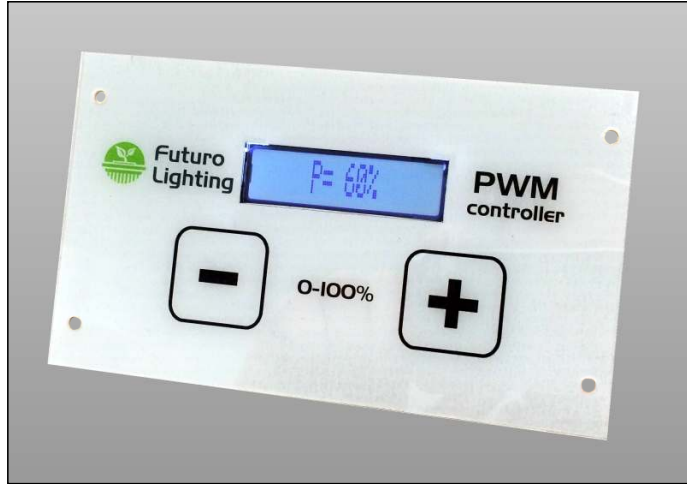
keeping module temperature within safe margin
protecting and prolonging module lifetime



LED module without heatsink

Smart DC LED module

*PWM dimming schematic example
Low voltage DC smart grid*



Options on request: DALI, 0-10V

Controller Spec:

Vin - 48 VDC (60 VDC max)

Dimming range: 0-100%

Dimming resolution: 1%

Mount style: panel

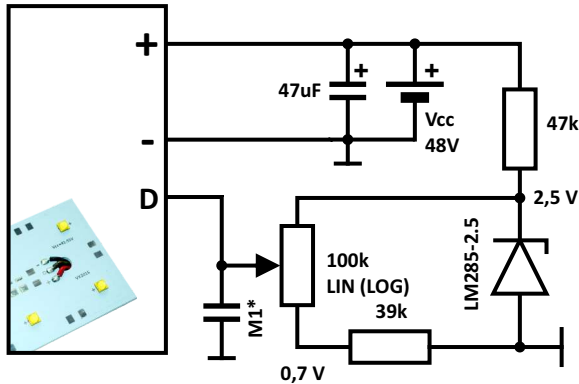
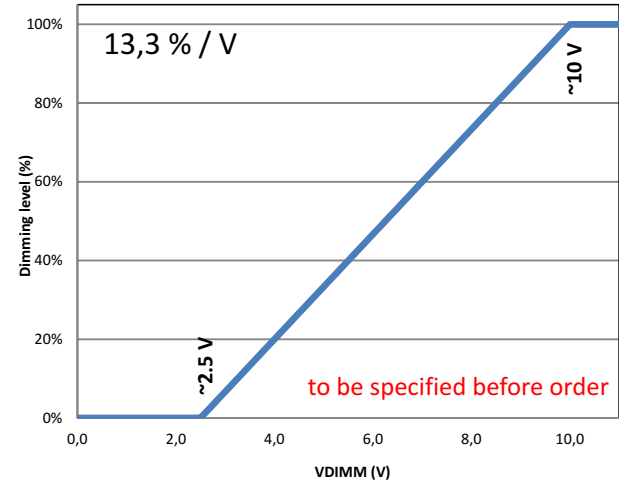
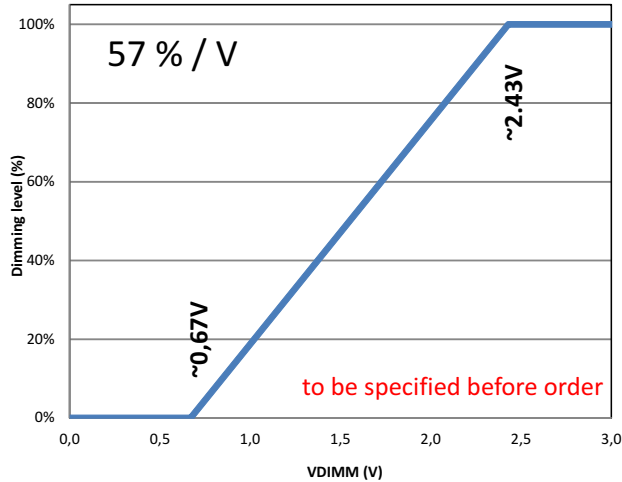
Note: Refer to datasheet for more details

Applications:

- Street fixtures
- low bay fixtures
- high bay fixtures
- Color illumination
- Aquarium fixtures
- high CRI fixtures
- Wall fixtures
- residential fixtures
- many others

Smart DC LED module

Analog Dimming example (local)
 Appropriate for local dimming (Potentiometer close to LED module)



Literature:

<http://www.ti.com/lit/ds/symlink/lm385b-2.5.pdf>

* soft start capacitor

Potentiometer selection:

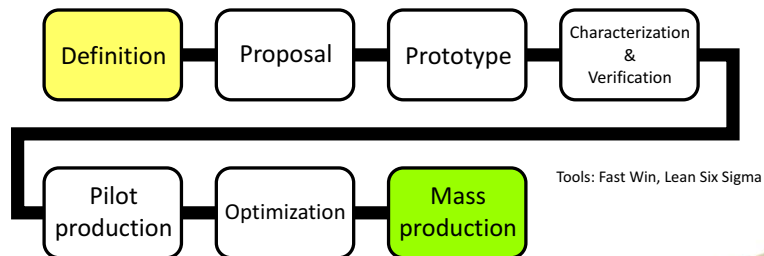
LIN - linear for linear dimming change

LOG - logarithmic change, more appropriate for human eye response



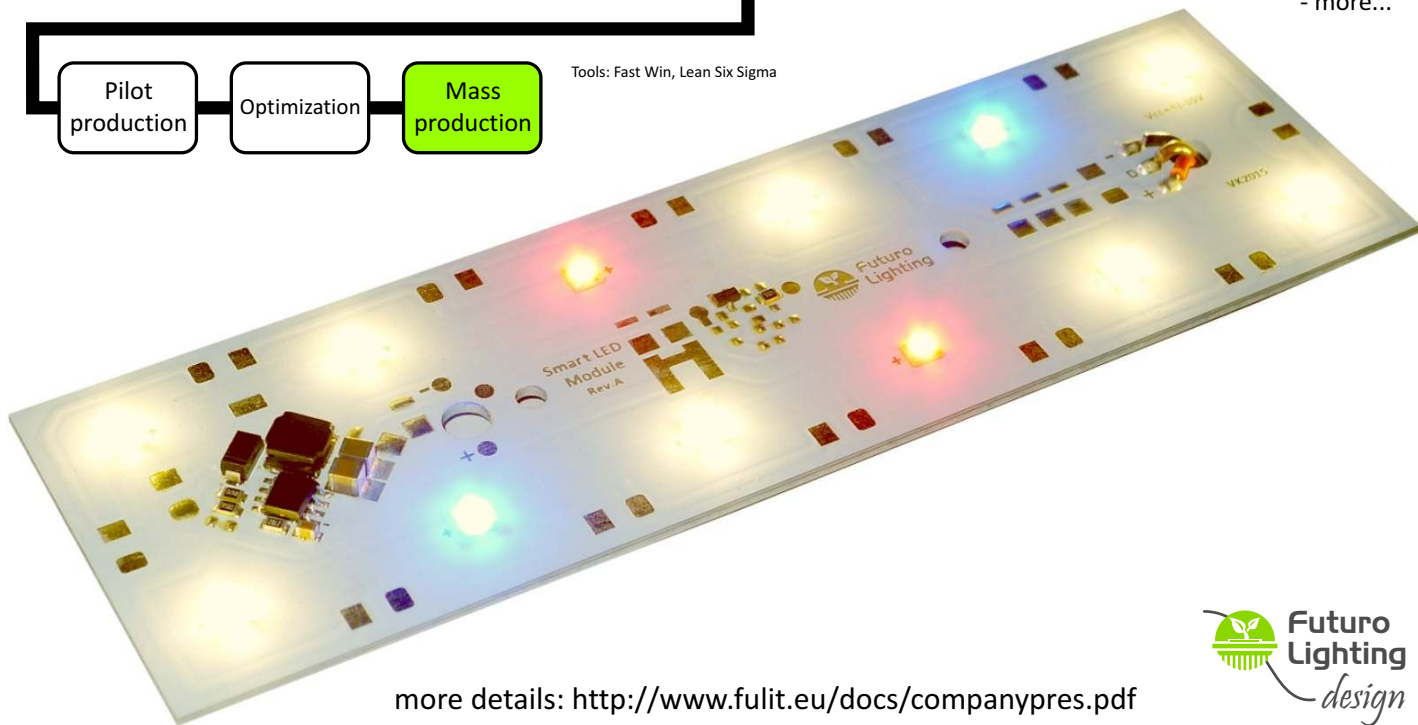
Smart DC LED module - CUSTOM

We are providing custom solution services according to your requirements and needs. Just tell us what you need and we will find the right solution for you.



Available modifications:

- LED brand and type
- LED current
- module power
- set temperature (thermal foldback)
- dimensions
- finishing
- more...



more details: <http://www.fulit.eu/docs/companypres.pdf>



Futuro Lighting

Designed and made-in Slovakia, EU



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