

# TALEX LED PREMIUM **Tunable White**







Downlights











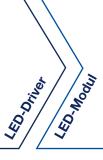
## Tunable White gives you the option of setting the colour temperature of white light to any value.

With the right colour temperature and illumination it is possible to feel comfortable despite artificial lighting whether you are working in an office, studying at university or recovering in hospital. The "Tunable White" solution simulates natural daylight and can adapt to personal requirements. For example, the well-being of patients in healthcare facilities is improved and the healing process is accelerated. Students and office workers also benefit from this lighting system as they are able to concentrate for longer and are more productive.

The colour temperature can be set to any value. The colourSWITCH mode available for spotlights enables the light colour to be selected specifically for the application. This is useful particularly in the retail sector as it allows the merchandise to be presented in the most appropriate light. The system can also be dimmed between 100% and 15% (10% for LLE and QLE) without shifting the colour temperature. The system is precalibrated at the factory and can be used immediately without any further adjustment.

## **PREMIUM Tunable White System**

The PREMIUM Tunable White system is available as a kit with LED modules and a pre-configured converter. The set enables the sequence of daylight to be simulated in spotlights as well as in linear and planar lighting.



Tunable White for spotlights: 2,700–6,500 K with a CRI of > 90

Tunable White for linear and planar lighting: 3,000-6,000 K with a CRI of > 80

## **Product Portfolio – Overview**





## **Typical applications**

#### Office & Education

 Simulation of the changes in natural light throughout the day
Increased concentration and productivity



#### Retail

- Product-specific lighting
- Seasonal lighting



### **Health Care**

- Simulation of the changes in natural light throughout the day
  Improved well-being
- \_\_\_\_ Therapeutic support



#### Sample application in an office



08:00 Warm white light gets the day off to an agreeable start



10:30 Artificial lighting is turned down as more daylight becomes available, light colour is made more intermediate



12:00 Just as outdoors, the colour temperature reaches its maximum level at midday



14:30 Intermediate white luminaires supplement the general lighting and compensate for low levels of daylight



17:00 When darkness falls, artificial lighting ensures a balanced ratio of warm white light components

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08:00	09:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00
Changes	s in the light i	n the course	e of a day						
				1	l				1
08:00	09:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00
1									

These timelines show various ways of modifying colour temperature in a biologically effective manner: the upper timeline and the series of photos show variation that is synced with daylight. The lower timeline uses biologically effective light to speed up the inner body clock in the morning; this has a positive impact on sleep behaviour. The typical afternoon dip in energy levels is also compensated by an invigorating light component.

Biologically effective changes in the light



## TALEX(engine SLE PREMIUM



## **Typical applications**



## ▼ At a glance: TALEX(engine SLE PREMIUM

- \_\_ Colour temperature: 2,700 K to 6,500 K; Tunable White
- (dimmable and controllable colour temperatures along the planckian curve)
- \_\_ Extended colour space for individual colour spectrum e.g. for lighting for food
- \_\_\_ Colour rendering/colour tolerance: CRI > 90 / MacAdam 3
- \_\_\_ Dimming range of 100 to 15% without changing the colour temperature
- \_\_\_ Low-profile LED Drivers with digital interface (DALI DT8, DSI, switchDIM,
- colourSWITCH) and very low standby power (<0.5W)
- \_\_\_ Luminous flux tp =  $65 \,^{\circ}$ C): 2,050 lm or 1,350 lm
- \_\_\_ Long lifetime of 50,000 hours
- \_\_\_ System guarantee: 5 years



## TALEX(engine SLE PREMIUM

Туре	System components	Colour temperature	Mac Adam	Typ. Iuminous flux <sup>1)</sup>	CRI	Typ. power consump- tion. <sup>1)</sup>	System efficacy	Size	Order No.
STARK-SLE-2000-PRE-KIT	LMAI + SLE-2000 with housing	2,700 K – 6,500 K Tunable White	SDCM 3	2,050 lm	> 90	31.7W	65 lm/W	Ø 50mm	89601316
STARK-SLE-1400-PRE-KIT	LMAI + SLE-1400 with housing	2,700 K – 6,500 K Tunable White	SDCM 3	1,350lm	> 90	22.2W	61 lm/W	Ø 50mm	89601317

 $^{1)}$  Tolerance range for electrical and optical data:  $\pm 10\,\%$ 

### Matching TALEX/driver

Туре	TALEX/driver LCAU remote Order No. 86459108	TALEX/driver LCAU built-in Order No. 86459414	TALEX(driver LMAI 044/0500 (already in KIT included)
STARK-SLE-2000-PRE-KIT			•
STARK-SLE-1400-PRE-KIT	•	•	•

## Matching connection cable

TALEX/accessory CONNECT

Туре	Connection	Order No.	Length
RJ45/RJ45 1.0m	TALEX/driver LCAU to	24166480	1 m
RJ45/RJ45 2.0m	TALEX:driver LMAI	24166481	2 m
10PIN PLUG/10 PIN PLUG 0.2m	TALEX/driver LMAI to TALEX/module	24166482	0.2 m

# $\bigcirc$

## The appropriate cap for an uniform distribution of light

TALEX accessory LENS MIXING CAP

Туре	Order No.
LED MIXING CAP STARK SLE 1500	88167564
LED MIXING CAP STARK SLE 2500	88167565

## TALEX engine LLE PREMIUM



## **Typical applications**

## ▼ At a glance: TALEX(engine LLE PREMIUM

- Linear Tunable White system with infinitely adjustable colour temperature between 3,000 K and 6,000 K
- \_\_\_\_ High system efficacy of up to 106 lm/W (tp =  $65^{\circ}$ C)
- \_ Sets calibrated at the factory to ensure high quality of light and colour consistency of MacAdam 4 across the entire adjustable range
- Dimming range of 100% to 10% without changing the colour temperature
- \_\_\_ Low-profile LED Drivers with digital interface (DALI DT8, DSI, switchDIM, colourSWITCH) and very low standby power
- Linear LED modules with 700 lm and 1,500 lm
- \_\_ Long lifetime of 50,000 hours
- \_\_\_ System guarantee: 5 years
- \_\_\_ LED modules also available individually









## TALEX engine LLE PREMIUM

Туре	System components	Colour- temperature	Typ. lumi- nous flux <sup>1)</sup>	CRI	Typ. power draw <sup>1)</sup>	Module efficacy	Size per module	Order No.
STARK LLE 3x24-280-700-830-860-PRE-KIT	1 LED Driver + 3 LED modules	3,000–6,000 K Tunable White	2,000 lm	> 80	20W	up to 100 lm/W	280 x 24 mm	89601896
STARK LLE 4x24-280-700-830-860-PRE-KIT	1 LED Driver + 4 LED modules	3,000–6,000 K Tunable White	2,650 lm	> 80	26W	up to 102 lm/W	280 x 24 mm	89601897
STARK LLE 5x24-280-700-830-860-PRE-KIT	1 LED Driver + 5 LED modules	3,000–6,000 K Tunable White	3,350 lm	> 80	32 W	up to 105 lm/W	280 x 24 mm	89601898
STARK LLE 3x24-280-1500-830-860-PRE-KIT	1 LED Driver + 3 LED modules	3,000–6,000 K Tunable White	4,300 lm	> 80	40W	up to 108 lm/W	280 x 24 mm	89601899
STARK LLE 4x24-280-1500-830-860-PRE-KIT	1 LED Driver + 4 LED modules	3,000–6,000 K Tunable White	5,700 lm	> 80	52W	up to 110 lm/W	280 x 24 mm	89601900
STARK LLE 5x24-280-1500-830-860-PRE-KIT	1 LED Driver + 5 LED modules	3,000–6,000 K Tunable White	7,500 lm	> 80	63 W	up to 1141m/W	280 x 24 mm	89601901

 $^{1)}$  Tolerance range for optical data:  $\pm 5\,\%$  and tolerance range for electrical data:  $\pm 15\,\%.$ 

### TALEX/module LLE PREMIUM

Туре	Mac Adam	Colour- temperature	Typ. luminous flux <sup>1)</sup>	CRI	Size	Order No.
TW LLE G1 24x280mm 700lm 827-865 PRE	SDCM 3	2,700 K	645 lm	> 80	280 x 24 mm	89602390
	SDCM 3	6,500K	715lm	> 80	280 x 24 mm	89602390
TW LLE G1 24x280mm 1500lm 827-865 PRE	SDCM 3		1,290 lm	> 80	280 x 24 mm	89602391
TW LLE GT 24x2001111 1300111 627-603 PRE	SDCM 3	6,500K	1,430 lm	> 80	280 x 24 mm	89602391

 $^{1)}$  Tolerance range for optical data:  $\pm 5\,\%$  and tolerance range for electrical data:  $\pm 15\,\%.$ 

## Matching TALEX(driver (in each KIT included)



PREMIUM

## TALEX(engine QLE PREMIUM



## **Typical applications**



## ▼ At a glance: TALEX(engine QLE PREMIUM

- Quadratic Tunable White system with adjustable colour temperature between 3,000 K and 6,000 K at constant luminous flux
- \_\_\_\_ High system efficiency of up to 132 lm/W (tp =  $45^{\circ}$ C)
- Precalibrated set for optimum quality of light and colour consistency, consisting of an LED driver and 4–6 quadratic LED modules
- \_\_\_ LED modules are also available individually
- \_\_\_ Dimming range of 100–10% with no change in colour temperature
- Low-profile LED drivers with digital interface (DALI DT8, DSI, switchDIM, colourSWITCH)
- \_\_\_ Long lifetime of 50,000 hours with 5-year system guarantee



## TALEX(engine QLE PREMIUM KIT

Туре	Colour- temperature	Typ. lumi- nous flux <sup>1)</sup>	CRI	Typ. power consump- tion <sup>1)</sup>	Module efficacy	Size per module	Order No.
TW QLE G1 270mm 4x1250lm 830-860 PRE KIT (1 LED Driver + 4 LED module à 1.250lm)	3,000–6,000 K Tunable White	5,120 lm	> 80	38.7 W	up to 132 lm/W (System)	270 x 270 mm	89600647
TW QLE G1 270mm 5x1250lm 830-860 PRE KIT (1 LED Driver + 5 LED module à 1.250 lm)	3,000–6,000 K Tunable White	6,400 lm	> 80	48.5W	up to 132 lm/W (System)	270 x 270 mm	89602481
TW QLE G1 270mm 6x1250lm 830-860 PRE KIT* (1 LED Driver + 6 LED module à 1.250 lm)	3,000–6,000 K Tunable White	7,680 lm	> 80	57.8W	up to 133 lm/W (System)	270 x 270 mm	89602482
TW QLE G1 270mm 1250lm 827-865 PRE	2,700K	1,290 lm	> 80	9.1 W	up to 142 lm/W (Module)	270 x 270 mm	89600648
(LED module)	6,500 K	1,430 lm	> 80	9.1 W	up to 156 lm/W (Module)	270 x 270 mm	09000040

<sup>1)</sup>Tolerance range for optical data:  $\pm 5$ %, Tolerance range for electrical data:  $\pm 15$ %, tp = 45 °C

## System components







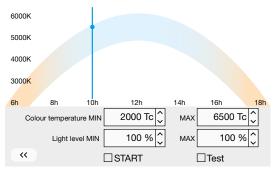
# comfortDIM, Comfortable lighting for unrestricted freedom

With the comfortDIM light management system from Tridonic you have unlimited control of your Tunable White lighting solution. comfortDIM is based on two principles: comfort and independence: Your projects benefit from simplicity and maximum flexibility. At start-up and beyond.

## DALI x/e-touchPANEL 02

#### Touch panel

With the DALI x/e-touchPANEL 02 you can program lighting scenes and RGB colour mixes and call them up them via the graphical user interface as well. The panel also includes a sequencer which is used to automate calendar-controlled se-quences.



The daylight sequence enables the colour temperature of the light to change throughout the course of the day.



## **DALI TOUCHPANEL 02**

#### Touch panel

Setting up and operating DALI systems – Tridonic touch panels enable you to accomplish this conveniently via a graphical user interface. DALI TOUCHPANEL 02 has a keypad with user-selectable key functions for manually controlling lighting groups and lighting scenes. It is programmed by using masterCONFIGURATOR software, which is available free of charge.



## DALI XC comfortDIM momentary-action switch module

Conventional momentary-action switches can be connected quickly and easily to the comfortDIM XC module. This gives you the opportunity to custom design your lighting. These momentary-action switch modules are used to group luminaires together, define scenes and program macros. Tunable White also allows colour temperature variations.



### Support and advice from a single source

We will help you to create lighting solutions that are unbeatable in terms of economy and functionality, according to the slogan: We devote all our energy to your light.



TALEX engine DLE



TALEX engine CLE



TALEX engine CLE Integrated



TALEXIengine LLE-FLEX



TALEX engine SLE



TALEX engine FLE



TALEX engine LLE



TALEX engine QLE

As an international company, Tridonic is represented worldwide by 30 branch offices and partners in 73 countries.



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