LuxiTune™

Tunable White Light Engines for warm dimming and CCT tuning
Introduction to LuxiTune™

LED Engin’s LuxiTune™ is a class-leading compact tunable white light engine solution, with two tuning modes - Warm Dimming and CCT Tuning. It enables ultra-precise and easy-to-control CCT tuning and dimming of downlights and track lights to mimic the tones of white light along the black body curve.

Since its release, LuxiTune™ has continued to evolve and deliver technological success which explains why it has gained an exceptional level of industry recognition.

What LuxiTune™ delivers

LuxiTune™ delivers tunable, almost natural light in a compact single emitter while maintaining colour quality and consistency. The colour consistency is 2 MacAdam ellipses at 3000K, full brightness and 3 MacAdam ellipses over the operating temperature range. Combined with the benefits of a long and sustained service life, LuxiTune™ provides high lumen density and Lux-on-Target for directional lighting over a range of beam angles.

The Generation 3.0 light engine supports 0-10V, DMX and DALI control interfaces, and works with a wide range of commercially available controllers. A solution that works with ZigBee Home Automation will be available soon. The light engine is available in different lumen options and delivers flicker-free light with deep dimming to 0.5%. The hardware also comes in two different form factors for integrating in different fixture types.

Award-winning LuxiTune™

LuxiTune™ has received significant industry acclaim. It has recently been awarded the Best Modular SSL Light Engine in the inaugural Sapphire Awards organised by North America’s flagship lighting trade journal LEDs Magazine.

LuxiTune™ has also won the prestigious Lighting Design Awards, Product Innovation Awards, ECN Impact Awards and Elektra Awards.

The award-winning LuxiTune™, the first truly tunable LED solution for light fixtures
LuxiTune™ Tunable White Light Engines for warm dimming and CCT tuning

Warm Dimming Mode

Now restaurants, hotels, entertainment and cultural venues can showcase themselves in their very best light, whatever the time of day or night.

The LuxiTune™ tunable white light engine provides high quality light as it dims from a bright 3000K to a warm 1600K glow along the black body curve and creates the softer tones of sunrise and sunset.

CCT Tuning Mode

LuxiTune™ offers a Correlated Color Temperature (CCT) tuning function that enables users to independently adjust light intensity and the CCT, between 2100K and 4300K.

The tune curve has been precisely designed to stay a short distance below the black body locus throughout the tuning range, resulting in more vibrant colors.
Human Centric Lighting

Light is part of our environment and we associate different tones and intensities of light with different functions, time of day and energy levels.

LuxiTune™ offers a range of warm and cool white light settings at different intensities from the same light engine. White light is now truly tunable to the user’s needs.

Cool Bright  Warm Bright  Warm Dim

Photo: Juno Lighting Group, Des Plaines, Illinois

High CRI color quality

LuxiTune™ emitters maintain a high level of color quality throughout the dimming range, ensuring natural color rendering at all intensity levels.

At 3000K and maximum brightness, LuxiTune™ engines have a CRI of 90. The CRI is 85 or better throughout the CCT tune range.
**Lux-on-Target™**

The compact emitter is coupled with a TIR lens and available in Narrow Flood, Flood and Wide Flood beams.

The TIRs not only control and mix the light, but also shape the beam, delivering the maximum usable light right where you want it with minimal glare.

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### LuxiTune™ TIR Lens

**Dimensions (D x H)**

<table>
<thead>
<tr>
<th>Light Engine</th>
<th>Beam Angle</th>
<th>CBCP @3000K, 100% Intensity (Cd)</th>
<th>Dimensions (D x H)</th>
</tr>
</thead>
<tbody>
<tr>
<td>LZP LuxiTune™ (2200lm) TIR</td>
<td>Narrow Flood</td>
<td>21°</td>
<td>7800</td>
</tr>
<tr>
<td></td>
<td>Flood</td>
<td>36°</td>
<td>4290</td>
</tr>
<tr>
<td></td>
<td>Wide Flood</td>
<td>45°</td>
<td>3230</td>
</tr>
<tr>
<td>LZC LuxiTune™ (1100lm) TIR</td>
<td>Narrow Flood</td>
<td>24°</td>
<td>2700</td>
</tr>
<tr>
<td></td>
<td>Flood</td>
<td>34°</td>
<td>1500</td>
</tr>
<tr>
<td></td>
<td>Wide Flood</td>
<td>45°</td>
<td>1250</td>
</tr>
</tbody>
</table>
Easy and adaptable installation

LuxiTune™ uses sophisticated hardware and software configurations that provide pre-programmed halogen-style warm dimming and also adapt easily to other dimming and tuning profiles.

All the customer needs to supply is a DC power supply and a standard dimming controller for 0-10V, DMX, DALI or ZigBee HA.
LuxiTune™ Key Features

- Compatible with standard, off-the-shelf, DC power supply
- Dims with off-the-shelf 0-10V controllers
- Self learning dimming mode enhances use with different dimmers
- Synchronous control of multiple light sources independent of wire length from dimmer
- DMX and DALI digital control
- Introducing wireless ZigBee control
- Pre-set warm dimming and CCT tuning profiles that track the black body locus
- Integrated thermal protection
- Smooth dimming from 100% to 0.5%
- LuxiTune™ Gen 3.0 provides for flicker free video filming

<table>
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<tr>
<th>LuxiTune™ Tunable White Light Engine</th>
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<tbody>
<tr>
<td>°Luminous flux at 3000K, ( T_c = 65^\circ \text{C} )</td>
</tr>
<tr>
<td>°Light engine efficiency at 3000K, ( T_c = 65^\circ \text{C} )</td>
</tr>
<tr>
<td>Typical power consumption at 3000K, ( T_c = 65^\circ \text{C} )</td>
</tr>
</tbody>
</table>

**CCT RANGE**
- Warm dim mode: 3000K - 1600K
- CCT tune mode: 4300K - 2100K
- CRI@3000K, full intensity: 90
- Color consistency over dimming range & operating temperature: 3.0 SDCM
- Color consistency at 3000K, 100% intensity: 2.0 SDCM

* based on output from TIR

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**Warm dimming from 3000K to 1600K**

**Precise color tuning below Black Body Locus**

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