LUMILEDS

LUXEON 3D LED

Turning your creative lighting design into reality

LUXEON 3D LED helps you turn the versatile shapes of your 3D lighting design into reality with flexible line width.

The light source's excellent homogeneity from all viewing angles simplifies optical design.

The compact size fits into extremely small spaces and its mechanical flexibility allows never-seen-before geometries.

FEATURES AND BENEFITS

- Extremely compact form enables integration into previously inaccessible areas of the car body

- Smart optical design and universally bendable light source can adapt to a wide variety of 3D shapes while maintaining a consistent appearance from any angle

- Segmented animation provides a simple solution for dynamic lighting scenarios

- Easy handling and assembly due to integrated thermal, mechanical, and optical design

- Robust architecture allows minimal protection of the light source

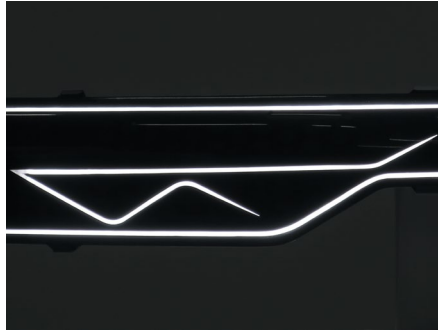- Soft materials help meet pedestrian-protection requirements

PRIMARY APPLICATIONS

- Decorative car-body lighting

- Grille illumination

- Animated welcome-scenario lighting

- Position light, daytime running light (DRL)

- Front turn, rear turn

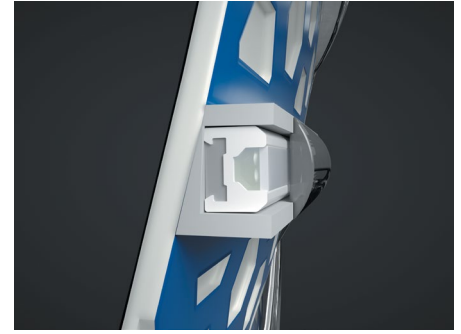- Tail, stop, center high-mounted stop light (CHMSL)

LUXEON 3D LED: Bringing form and function together
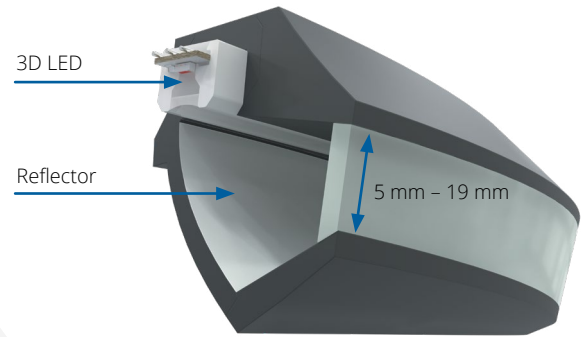

Wide range of colors

Bend and twist in 3D space

Smallest build-in depth

Application example

LUXEON 3D LED for perfect homogeneity of dynamically shaped areas from all angles

- 3D-shaped cover lens with line thicknesses varying between 5 mm and 19 mm
- Animation welcome sequence across the full lighting-signature length (10 segments, each of 7 cm length)
- Lighting signature wrapped around the corner (90-degree bend)
- Compact depth across the full length (< 20 mm)
- Indirect whitebox as minimalist, simple optical architecture enables uniform luminance on twisted exit

Product portfolio[1]

Color	Lum. flux	Illuminance	Homogeneity	Static version		Dynamic version[2]	
				V_f	I	V_f	I
Cool White	900 lm	285 cd	> 92%	9 V	900 mA	27 V	300 mA
PC Cyan[3]	475 lm	150 cd	> 92%	9 V	900 mA	27 V	300 mA
Direct Cyan[3] (490-505 nm)	500 lm	155 cd	> 92%	7.5 V	900 mA	22.5 V	300 mA
PC Amber	540 lm	170 cd	> 92%	9 V	900 mA	27 V	300 mA
Red Orange (615 nm)	320 lm	100 cd	> 92%	7.5 V	900 mA	22.5 V	300 mA
Red (623 nm)	265 lm	85 cd	> 92%	7.5 V	900 mA	22.5 V	300 mA
Long Red (630 nm)	225 lm	70 cd	> 92%	7.5 V	900 mA	22.5 V	300 mA
Super Red (635 nm)	155 lm	59 cd	> 92%	7.5 V	900 mA	22.5 V	300 mA

[1] Valid for 450 mm string. | [2] For 5-segmented version. | [3] Under development. Optical performance specifications subject to change.