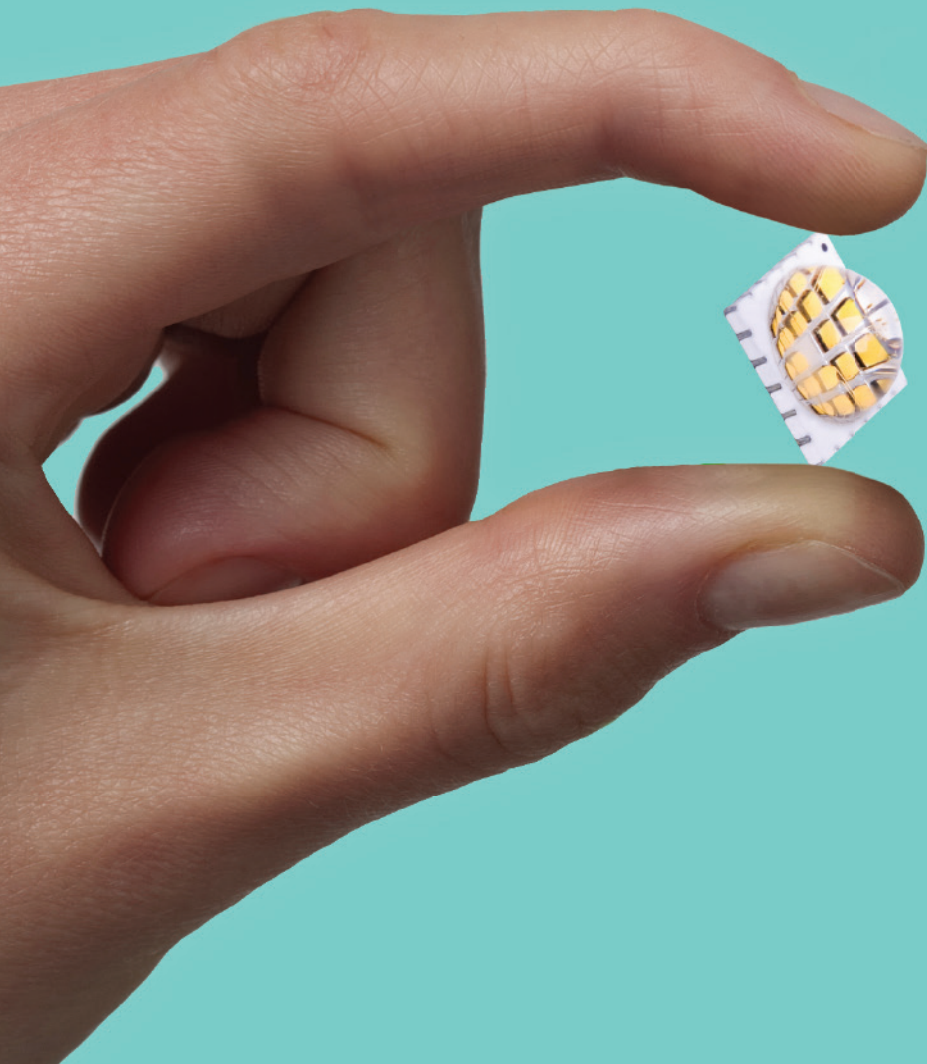


Bright Light. Tiny Package.

LuxiGen Platform



ENTERTAINMENT LIGHTING

ARCHITECTURAL LIGHTING

HIGH-END INTERIOR SPACES

UV CURING

INFRARED ILLUMINATION

HORTICULTURE & SPECIALTY

LED ENGIN 

Bright Light. Tiny Package.

The building blocks of light

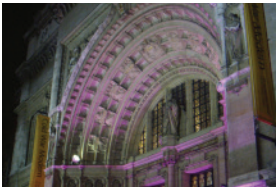
The LuxiGen™ platform provides designers and engineers with the building blocks to create dynamic lighting experiences wherever high-flux density, directional light is required — from entertainment lighting and innovative architectural spaces, to high-end downlighting, UV curing, infrared illumination, specialty and industrial lighting sources.

LuxiTune™ series of tunable white light engine is a multi-award winning compact, single emitter solution which leverage our LuxiGen emitters and lenses with smart controls to deliver halogen-style dimming and CCT tuning, giving lighting designers unprecedented creative freedom for dynamic directional lighting applications.



ENTERTAINMENT LIGHTING

When high-intensity, tunable light for stage and studio is required, LuxiGen delivers. With a package that delivers more light to the source, ultimate flexibility in light beam quality and control, and light specifically tuned for skin tones and textiles color rendering, LuxiGen provides the ultimate viewing experience for fans.



ARCHITECTURAL LIGHTING

LuxiGen powered fixtures provide unlimited design flexibility for both interior and exterior architectural spaces with high quality in-source mixing. From vivid wall washing color to high-end effect lighting, the LuxiGen Platform provides the essential building blocks for amazing architectural experiences.



HIGH-END INTERIOR SPACES

Retail and experiential interior environments demand high quality light and illumination. LuxiGen-powered single emitter solutions for down lighting, accent and decorative lighting offer superior color-rendering, color stability and control. Additionally, combination with our uniquely tailored TIR lens creates superior lux-on-target with a high lux, high-quality, well-controlled beam of light.



UV CURING

High speed UV curing requires the ultimate in high flux density, extreme reliability and tunable wavelength options. LuxiGen's superior high power density performance provides significant savings in curing and processing times. LuxiGen emitters provide a robust and reliable, energy-efficient solution to handle the demanding environments of printing and curing applications.

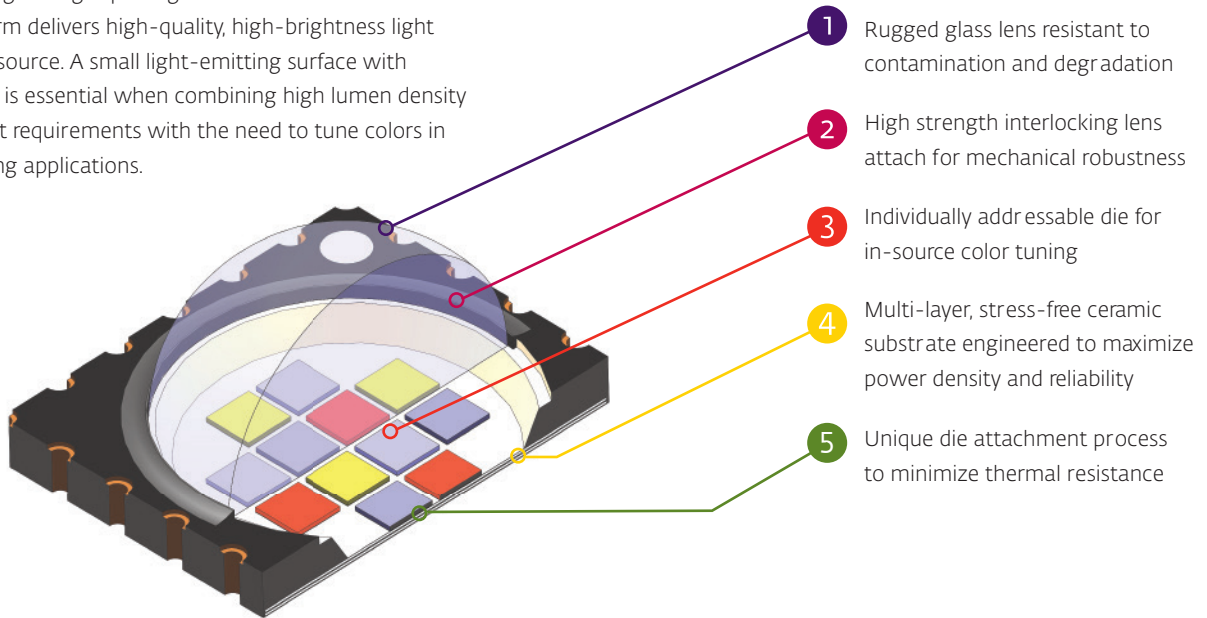


INFRARED ILLUMINATION, HORTICULTURE & SPECIALTY

The highly flexible LuxiGen Platform is ideally suited to address the needs of specialized lighting industries such as infrared, horticulture, medical and food illumination. With extreme moisture resistance, heat resilience, and a full range of wavelengths – including the ability to mix within a single package, LuxiGen emitters are well suited for industrial environments.

LuxiGen Packaging Technology

In demanding applications where dynamic directional light is required, choosing the right packaged LED solution is vital. The LuxiGen™ platform delivers high-quality, high-brightness light from a tiny light source. A small light-emitting surface with in-source mixing is essential when combining high lumen density and lux-on-target requirements with the need to tune colors in directional lighting applications.



LuxiGen Family of Products

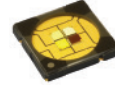
LuxiGen products benefit from a low thermal resistance, narrow binning options, multiple mounting options and an option for additional ESD protection. Further, the LuxiGen Platform includes a number of secondary optics designed specifically for LuxiGen emitters. These lenses offer superior color-mixing across the full color spectrum and allow for extremely well-controlled, high quality and uniform light.

	 LZ1-SERIES	 LZ4-SERIES	 LZ7-SERIES	 LZ9-SERIES	 LZC-SERIES	 LZP-SERIES
NUMBER OF DIE	1	4	7	9	12	24 or 25
LIGHT EMITTING SURFACE (LES) mm	3.2	6.2	3.8	6.2	8.2	10.5
DIMENSIONS L x W, mm	4.4 x 4.4	7.0 x 7.0	7.0 x 7.0	7.0 x 7.0	9.0 x 9.0	12.0 x 12.0
MAXIMUM DRIVE CURRENT mA	1500	1500	850 – 1500	800	1200	1200
THERMAL RESISTANCE °C/W	4.2* / 6.0	0.6 / 1.1 / 2.8	1.0	1.3	0.7	0.4 / 0.6

*For UV/DB

LuxiGen Multi-Color Products

LZ4 RGBW Series



TYPICAL PERFORMANCE LUMINOUS FLUX [LUMENS]	DOME LENS*		FLAT LENS	
	1000 mA	1500 mA	1000 mA	1500 mA
RED 623 nm dominant	180	260	110	160
GREEN 523 nm dominant	200	250	160	200
BLUE 457 nm dominant	50	68	39	53
WHITE 6500K	290	370	260	335

*Also available in RGBA and RGB options

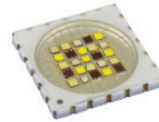
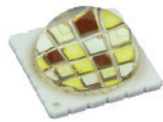
LZC RGBW Series



TYPICAL PERFORMANCE LUMINOUS FLUX [LUMENS]	DOME LENS*
	1000 mA
RED 623 nm dominant	460
GREEN 523 nm dominant	500
BLUE 457 nm dominant	125
WHITE 6500K	700

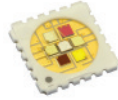
*Also available in RGBA and RGB options

LZP RGBW Series



TYPICAL PERFORMANCE LUMINOUS FLUX [LUMENS]	DOME LENS	FLAT LENS
	1000 mA	1000 mA
RED 623 nm dominant	1060	640
GREEN 523 nm dominant	1190	985
BLUE 457 nm dominant	300	245
WHITE 6500K	2000	1800

LZ77-Color Series



TYPICAL PERFORMANCE

LUMINOUS FLUX [LUMENS]	1500 mA*
RED 623 nm dominant	160
GREEN 523 nm dominant	200
BLUE 457 nm dominant	53
WHITE 6500K	335

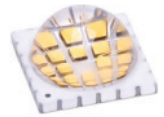
TYPICAL PERFORMANCE

LUMINOUS FLUX [LUMENS]	1000 mA*
AMBER 590 nm dominant	77
CYAN 500 nm dominant	120
RADIANT FLUX [mW]	
VIOLET 400 nm peak	1250

*Maximum current for individual die; maximum power dissipation per emitter is 20W

LuxiGen White Products

LuxiGen Emitters



TYPICAL PERFORMANCE

LUMINOUS FLUX [LUMENS]	LZ1-SERIES	LZ4-SERIES	LZ9-SERIES	LZC-SERIES	LZP-SERIES
	1200 mA	1000 mA	700 mA	1000 mA	1000 mA
COOL WHITE 5500K; CRI 75	275	1050	1800	3000	5700
GALLERY WHITE 3000K; CRI 98, R9 99	—	650	1060	1800	3450

LuxiTune Series*

Tunable White Light Engines

for halogen-style dimming and CCT Tuning,
with 0-10V, DMX, DALI, and ZigBee HA controls







TYPICAL PERFORMANCE @ 100% Intensity, $T_c = 65^\circ\text{C}$

LUMINOUS FLUX [LUMENS]	Emitter + Lens	800 / 1100 / 2200
COLOR TEMPERATURE	Halogen Dim Mode CCT Tune Mode	3000K - 1600K 4300K - 2100K
COLOR RENDERING	CRI	90
EFFICACY [LUMENS / WATT]	Emitter + TIR lens	72 / 63 / 63
BEAM OPTIONS		Narrow Flood / Flood / Wide Flood

*For more information on LuxiTune, please refer to LuxiTune brochure.

LuxiGen Single Color Products

LuxiGen UV Products

	 LZ1-SERIES	 LZ4-SERIES	 LZC-SERIES	 LZP-SERIES
TYPICAL PERFORMANCE				
RADIANT FLUX [mW]	1000 mA	1000 mA	1000 mA	1000 mA
UV 365 nm peak	1470	4200*	CONTACT LED ENGINE	
VIOLET 385, 395, 405 nm peak	1570	4900	14,100	27,000



*Flat lens emitter

LuxiGen Infrared Products



	 LZ1-SERIES	 LZ4-SERIES
TYPICAL PERFORMANCE		
RADIANT FLUX [mW]	1000 mA	1000 mA
INFRARED 850 nm peak	800 / 1150*	3150 / 4500*
INFRARED 940 nm peak	1150	4500

*Single Junction / Dual Junction product performance

LuxiGen Specialty Color Products

	 LZ1-SERIES	 LZ4-SERIES
TYPICAL PERFORMANCE		
RADIANT FLUX [mW]	1000 mA	1000 mA
DEEP RED 660 nm peak	1000	3800
FAR RED 740 nm peak	705	2700
DENTAL BLUE 460 nm peak	1100	4200








LuxiGen Visible Color Products

	 LZ1-SERIES	 LZ4-SERIES
TYPICAL PERFORMANCE		
LUMINOUS FLUX [LUMENS]	1500 mA	1000 mA
RED 623 nm dominant	230	700
GREEN 523 nm dominant	250	750
BLUE 457 nm dominant	68	185
AMBER 590 nm dominant	132*	520

*Product performance at max rated current of 1200 mA

LuxiGen Mounting Options

STANDARD MCPCB PRODUCT OPTIONS

	DESCRIPTION	DIMENSION mm	MCPCB THERMAL RESISTANCE °C/W	CHANNEL CONFIGURATION
	LZ1 Miniature	ø 11.5	2.0	1-channel
	LZ1 Star	ø 19.9	1.5	1-channel
	LZ4 Star	ø 19.9	1.1 / 0.1	1-channel / 4-channel
	LZ7 Rectangular	38.3 X 31.2	0.1	7-channel
	LZ9 Star	ø 19.9	0.2	1-channel / 3-channel
	LZC Star	ø 28.3	0.6 / 0.1	1 to 3-channel / 4-channel
	LZP Star	ø 28.3	0.1	4-channel / 5-channel

LuxiGen Lens Options



	LZ4-SERIES 4-die TIR lens options	LZ9-SERIES 9-die TIR lens options	LZC-SERIES 12-die TIR lens options	LZP-SERIES 25-die TIR lens options
NARROW SPOT	—	—	9°	10°
SPOT	14° / 18°	17°	13°	13°
NARROW FLOOD	22°	26°	20°	20° / 21°
FLOOD	40°	39°	32°	32° / 36°
WIDE FLOOD	—	—	50°	47°

*For more lens options, please visit www.ledengin.com/products/lenses.



LED ENGIN

LED Engin, Inc., based in California's Silicon Valley, specializes in ultra-bright, ultra-compact solid state lighting solutions allowing lighting designers & engineers the freedom to create uncompromised yet energy efficient lighting experiences.

LuxiGen™ emitters in combination with our secondary optics families deliver industry-leading flux density with beam angles ranging from 9 to 50 degree. Our product portfolio covers a large range of colors, including whites, multi-color, IR and UV LEDs in a unique patented compact ceramic package.

Our LuxiTune™ series of tunable white light engines combine LuxiGen emitter and secondary optics with smart controls to deliver dynamic color control by precisely tuning along the black body curve. LuxiGen emitter in-source mixing ensures high quality beam required in high-end lighting applications.

The small size, yet remarkably powerful beam output and superior in-source color mixing, allows for a previously unobtainable freedom of design wherever high-flux density, directional light is required.