

PROFILE

Light Engine Limited

6/F, Photonics Centre, 2 Science Park East Avenue,
Hong Kong Science Park, Shatin, Hong Kong.
Tel: + 852 2144 2082 | Fax: + 852 2144 2081
www.lightengine-tech.com | sales@lightengine-tech.com



Light Engine

ENABLING LED INNOVATIONS

ABOUT US

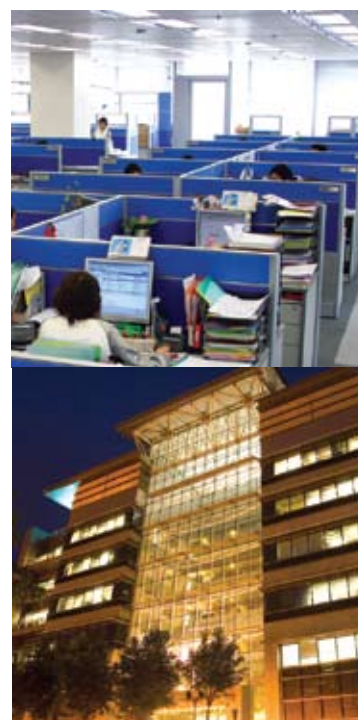
Forging a Cleaner, Brighter Future

Light Engine is a company dedicated to designing, innovating, and producing lighting products that benefit the daily lives of its every day users. This includes lifestyle products that provide the user with an experience that is dedicated to making their daily activities more enjoyable and improving their mental and physical well-being. The improvement extends well beyond the direct usage of the lifestyle products, assuring the user that Light Engine has taken into account the fact that technology can play a part in impacting one's environment beyond the light of their lamps. The result is a company focused on producing lighting products that are green and environmentally friendly.

LED module and product manufacturer, Light Engine has leveraged its technological expertise in various engineering and manufacturing disciplines related to LED applications and has developed a state - of - the - art manufacturing infrastructure and quality management system to serve our world-class customers. With the rapid advancement of LED efficiency and brightness, along with the diminishing cost per lumen and the world's pressing demand for environmentally friendly lighting solutions, Light Engine is in a perfect position for the forthcoming environmentally conscious era. Our competencies in technology integration and manufacturing are indispensable elements to the ever globalizing LED supply chain.

Enabling LED Innovations

Our transition to the 21st century initiated a deluge of technology innovations. Web 2.0 became 3.0 as is the case with many other sectors and technology - intensive industries. It is only natural that lighting also looks to reinvent itself with technology fitting of the new global landscape. Incandescent light bulbs, outdated and wasteful of energy, will soon be an extinct species immortalized as a fossil in a historical lighting museum. It will be replaced by the superior technology of Light Emitting Diodes. LEDs are not only superior due to its ability to directly emit light at wavelengths that demonstrate purer and truer color rendering, but also has the added benefit of being less wasteful of energy resulting in environmentally friendly technology. In addition, its small pinpoint size allows for greater flexibility in lighting whether products or signage.



Light Engine creates LED products that focus on design and innovation for the present and future. Our vision is to drive technological innovations for the future that serve to improve society while minimizing environmental impact. We pride ourselves on focusing on technologies that are innovative and forward thinking. We produce products that are geared towards the future of one's daily lives. This means products that are practical, state-of-the-art, and environmentally friendly. Light Engine uses its technological expertise to help create lighting products that are made for the future and prepared to find ways to innovate for a 3.0 world. Lighting 3.0 will make LEDs an essential element in all lighting fixtures due to its efficiency, flexibility, and environmentally friendly features. Any lighting innovations will incorporate LEDs which is the mainstay of Light Engine and its technological expertise.

INDUSTRY OVERVIEW

High durability and high brightness make LED lighting and its over 50,000 hours of operation the most enticing new lighting option for the 21st century. Unlike conventional lighting sources, LED lighting is lead-free and mercury-free making it a safer and greener option for illumination, signage, signal, backlighting and many other lighting applications.



The emergence of LED white lighting has led to LEDs being sought after for use in areas that have traditionally been monopolized by incandescent and fluorescent lighting. LED lighting is predicted to supersede the luminous efficacy of conventional light bulbs at 100 lumen/watt and with continued technological advancements and diminishing production costs, the innovation of LED lighting and its adaptable, flexible technology is poised to dominate over the conventional light bulb market within the next decade. Governments have already begun backing initiatives to create lighting products that place a greater emphasis on the use of LED technology as a means to push environmentally friendly agendas. The result is a newfound focus on innovative lighting solutions featuring LEDs.

Innovation Through Integration

Finding the right mix of technological expertise and mutual understanding is difficult in this day and age. Some manufacturers have the technological know-how but cannot grasp the vision of their customers. Others can comprehend the vision but do not have the expertise to execute. Fact is, it is difficult to find someone who can be trusted to produce what you want, when you want, how you want. Since today's flat world has generated a global economy of specialized industries, it is important to find partnerships with the right people who have the innovative vision and the technological tools to produce quality products.

Light Engine has been partnering with companies to help them realize their product innovation by integrating their vision with our expertise. We envision our technological expertise helping companies to realize their vision of innovation.

Having worked with some of the biggest players in the industry, Light Engine has the respect of some of the most reputed lighting multi-nationals in the industry. They have partnered to produce general lighting, signage, automotive lighting, and light modules at a quality that OEMs and ODMs trust. Light Engine has also joined up with key industry players to assure that their customers receive products that attain the level of innovation and excellence that is demanded of them.

PRODUCT FOCUS

Special Lighting



Intelligent module for indoor/outdoor full color video display

Module for event lighting, architectural accent lighting, mood lighting and artistic installations etc.

General Lighting



Outdoor Lighting: Lighting fixtures that illuminate streets, highways, parking garages and billboards etc.

Indoor Lighting: Light bulbs and fixtures for residential and commercial applications

Industrial lighting: Lighting fixtures for production areas, warehouses, storage facilities and tunnels etc.

Consumer



Flashlight

Desk lamp

Floor lamp

Consumer lighting product

Signage



LED strings for channel letter

Mono/full color for roof-top logo

Automotive Lighting



Central High Mount Stop Light (CHMSL)

Rear Combination Lamp (RCL)

Fog Lamp/Marker Lamp

Mirror-mount turn signal repeater

Dashboard backlight

Map Lamp/Reading Lamp

Digital Display Module



Custom-designed digital displays for white goods, consumer electronics and meters

White/color display for elegant signs

CAPABILITY

Our People

At Light Engine, integrity, communication, vision and collaboration are the shared values on which our success is built. We attach a great importance to human resources as the essence of a corporation's success and strive to attract and retain a strong array of talents from around the globe. We believe in developing, empowering and trusting our people to understand the vision of our customer and use their expertise to deliver high-quality products to our customer's standard. And with over 25 years of experience in the LED industry, it is evident that Light Engine's key manufacturing and R&D personnel have the technological expertise and know-how to make even the impossible possible. Most have been groomed and have grown together with the LED industry making them some of the most knowledgeable minds on LED technology.

Our Factory

Our state-of-the-art manufacturing plants are based in Huizhou, Dalang, Hongmei and Zhongshan. Each of our bases focuses on expertise in different areas of LED manufacturing- auto/color lighting, general illumination, heavy LED + SMT content, displays, and consumer lighting. The Hong Kong headquarters is the home of Light Engine's Research and Development Center, sustainable R&D Expertise, and IP Management. Light Engine's Shenzhen Research Lab caters to full-cycle product development and is the site of our world-class SSL lab. Integrated together, Light Engine's operations are dedicated to collaborating and providing customers with a comprehensive innovative solution that fits their vision.

Our facilities

Multiple automatic production lines including die bond, wire bond and optical SMT soldering quality screening facilities

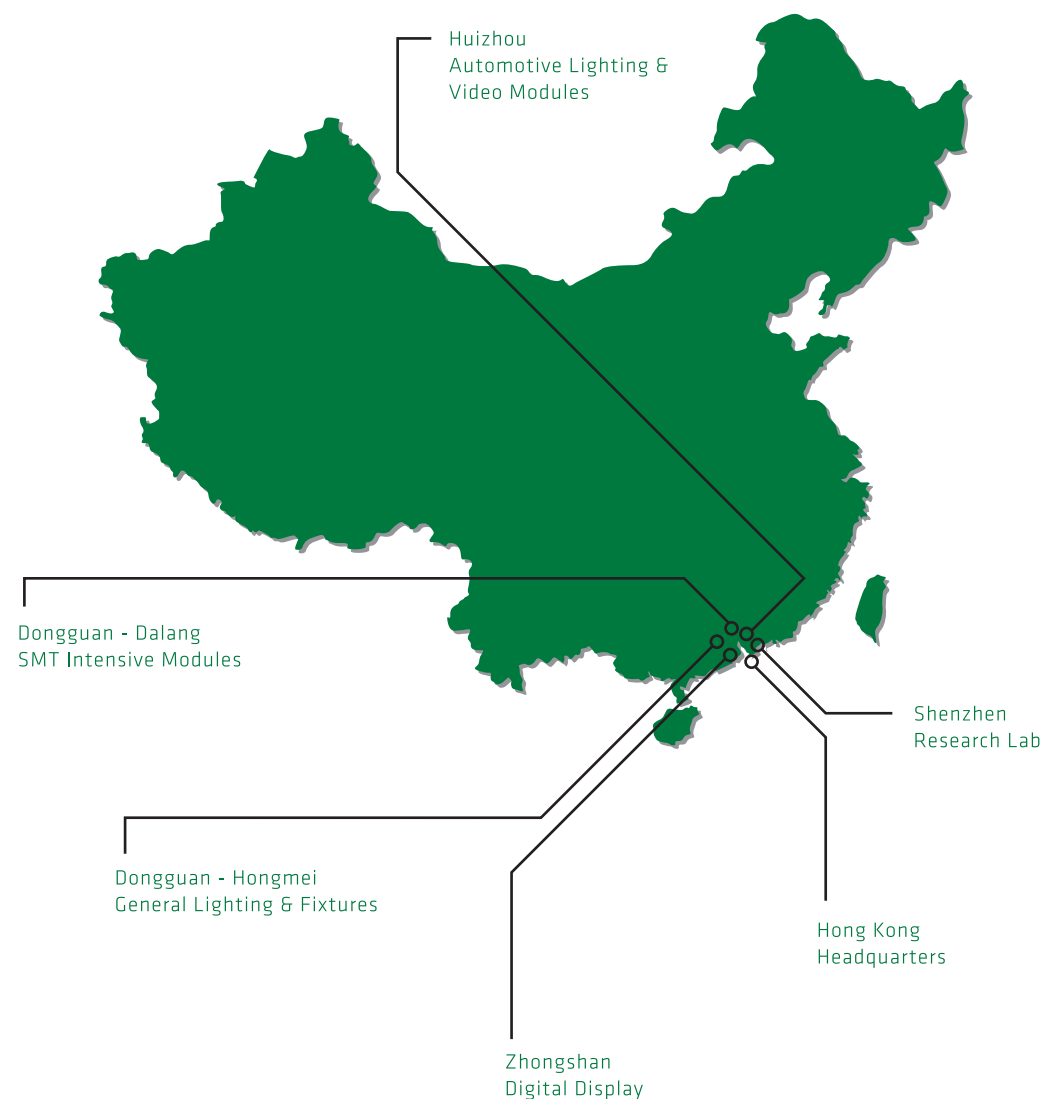
Administered by 5S production management approach

100% burn in reliability test capability

COB packaging technology

Class 100K clean room

Precise photometer



INTEGRATION

Solid State Lighting technology integrates power supply design, thermal management, optical solution, digital control, mechanical design and LED technology. To deliver such a highly specialized and integrated product, Light Engine is powered by an R&D department composed of dedicated specialists in these areas: (figure 1)

Light Engine does not only backup product design with its own IP and patent, but also leverages the expertise of others through comprehensive collaboration with associated companies and strategic partners. Our substantial R&D resources will continue to be devoted towards an ever expanding market to bring innovation and creativity to customers.

Light Engine works together with its customers to help shape the world producing innovative lighting products. And, in turn, we aim to create products that have a lasting positive effect on the social and physical environment we live in thus making it a cleaner and brighter place.

Figure 1

POWER	THERMAL	CONTROL
Power Supply & Electronic	Thermal Management	Digital Control
High efficient power supply	Thermal design with simulation	Video electronics for LED video display system
LED driving and control	Steady and dynamic thermal analysis capability	Fast speed digital electronic system design

INTEGRATION

MECHANICAL	OPTICAL
Mechanical Design	Optical Design
Mechanical structure analysis and design	Advance non-imaging optical design, lens prototyping
Waterproofing mechanical structure design	Precise ray-tracing and optical computer simulation
Sealing material for LED in-water application	Lighting effect computer simulation
	Photometric and Optical measurement