



LiteM Magic

2017 CATALOGUE



Brand Profile

Founded in 2004, LiteMagic® (including trademarks: LiteMagic® and LiteMagic 磊明®) is one of the outstanding outdoor lighting brands in China. Specializing in three application fields including Urban Landscape Lighting, Outdoor Architectural Lighting and Public Lighting, LiteMagic has been committed to providing landscape designers, lighting designers, contractors, municipal projects and owners of commercial real estate projects with Optical and integrated lighting solutions through quality products, perfect services, and flexible and rapid-response product customization.

In the early days, LiteMagic achieved multiple state-level patents for inventions in lighting control system. We finished the Beijing Olympic Games Information Trees project in 2008 with the longest transmission distance by a single-set control system in China at that time and for the first time realized remote light interaction in five buildings in Qingdao Olympic Sub-site. LED technologies rapidly develop. Meanwhile, LiteMagic has invested a lot in R&D of luminaires and control system, facilitating constant technological innovation. In addition to the control system, LiteMagic has set up a comprehensive product portfolio including flood light, wall washer, linear pixel light, dot pixel light, dot light, panel light, structure light, handrail light, enabling us to offer all-in-one solutions for urban landscape lighting, outdoor architectural lighting and public lighting.

LiteMagic has set up selling network all over major cities in China and has sound pre-sales and after-sales technical support systems, enabling us to make rapid response to customer requirements; LiteMagic has accumulated rich large and medium-sized project experience after over ten years' practice, finished an array of excellent projects like Qihang Time Square in Xi'an, Midwest Commodity Exchange Center in Xi'an, Kunming Xishan Wanda Plaza, Haizhu Bridge in Guangzhou, Longwan Bridge in Foshan, Qiantang River South and North Banks' lighting project in Hangzhou, lighting project of the entire Wulong County, Chongqing, Binhai Avenue's night scene optimizing project in Huangdao District, Qingdao, Chifeng New District's night scene reconstruction project in Inner Mongolia in succession and won many awards.

With 'Create better lighting environment' as our mission, LiteMagic will continue in-depth study and innovation exploration and provide customers with competitive products and solutions.

R&D Strength

With long-term practice, the company has set up a market-oriented, customer requirement-centric and scientific R&D management system. Every stage, from requirements analysis to result testing and product launch, follows strict R&D management system so as to ensure product innovativeness, competitiveness and stability for mass production. Thanks to the scientific R&D management system, we are able to continuously produce products that can stand the test of the market and create value for customers.

Solid R&D talent reserve can guaranty sustainable innovation capability. The company's R&D team consists of nearly 60 specialists majoring in electronics, structural mechanics, optics, thermology, materials science and industrial design. These tech-savvy talents, with solid knowledge, have broken many technical difficulties with their innovative ideas and spirit of constant pursuit and exploration. They received state-level patents for inventions, patents for utility models and design patents. Also by their effort, the company can rapidly realize customer requirements with superior quality and accelerates application of excellent products and solutions to urban landscapes and architectures.

We pay much attention on technologies exchange and cooperation. We've worked out some industry-university-research cooperation projects such as chromatic algorithm, new-type luminaires design and so on with many colleges and universities and made exchanges with lighting designer organizations and lighting associations on cutting-edge lighting application ideas and technologies. Our R&D team keeps absorbing new knowledge and applying it to product innovation via industry-university-research projects and exchange of know-how.



Manufacturing Capacity

LiteMagic's factory is ISO 9001:2008 quality management system certified and ISO 14001 environment management system certified with nearly 2-sq.m. modernized plants including an LED chip workshop, 5 luminaires-manufacturing workshop and a hardware processing workshop. All LED and electronic parts and components are produced in a dustproof and antistatic workshop and the luminaire manufacturing workshop is equipped with advanced automatic and semi-automatic manufacturing facilities. There are multiple manual assembly lines in the factory with approximately 450 workers.

With first-rate testing equipments, the company is capable for product reliability testing, material analyses under simulative environment, mechanical structure reliability testing, EMC testing, optical testing and dustproof and waterproof testing. Purchase of LED, electronic parts and components and circuits and warehousing of semi-finished and finished products are subject to rigorous testing to ensure product quality and reliability.



Light source selection

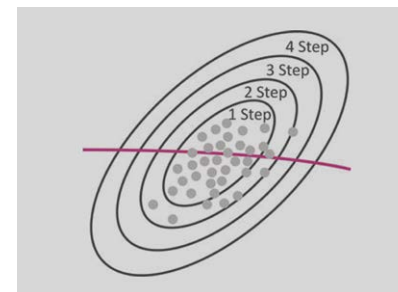
It's quite important to choose proper LED light sources during the designing and product R&D process. We usually take comprehensive consideration of practical application.



1. Requirements of the types of LED light sources: take the influence of different LED packages on the overall size and optical design into full consideration.



2. Light source brand selection: choose originally packed LED light sources from famous brands like OSRAM, CREE, LUMILEDS and more and choose LED light sources with up to L80 50000 hours to ensure overall quality.



3. Requirements of color quality and photoelectric parameter: choose LED light sources with CRI over 80 and SDCM less than 3 steps; power, flux and efficiency depend on requirements of product types.



4. Sustainable design requirements: take continuous improvement and development of LED technologies into pre-consideration and choose renewable and upgradable light source types with better size universality to guarantee follow-up R&D update of products.

Structure & material

The structure and appearance not only involves the 'image' of lighting products, but also directly affect the overall quality of products to ensure the reliability and operability. We usually focus on the following aspects:



1. Appearance demands: we take industrial design of product appearances into comprehensive consideration to meet multiple demands (such as dimension, aesthetics, etc.) of actual application environment according to requirements of different customers in the industry (such as property owners, architects, lighting designers, contractor and construction units, operating units, etc.)



2. Structure demands: we take the organic integration of all parts and components such as main body or housing, optic system, electric system and heat dissipation system into full consideration and meet functional structure demands of the lighting system to ensure lighting products' protection (such as IP, insulation, etc.), safety (such as anti-theft, anti-falling from high position, etc) and reliability (such as effective heat dissipation)



3. Installation, adjustability and maintenance demands: we take factors like human engineering into consideration and rationally design structures of installation components or Accessories to meet requirements such as user-friendly control and flexible operation. For instance, dot pixel lights require various installation methods.



4. Materials and manufacturing technique: we choose proper materials for all components and Accessories of lighting products based on different types of lighting application, eg., die-casting aluminum (floodlight/projector series), extruded aluminum profiles (wall washer/grazer series, linear pixel lights and various installation profiles), stainless steel (various mounting brackets), PC/PMMA/engineering plastic (optical components, housing and end caps), tempered glass (diffusers). We also fully consider appearance and safety regulations' requirements for surface finishing and protective measures (such as color uniformity, high temperature toleration, salt-spray resistance, structural or glue potting waterproof and so on) and choose technologies that can ensure long-term outdoor use.

Electronic design

As the lighting industry has stepped into the LED era, there are unprecedentedly strict requirements for electronic design. We will take the following aspects into consideration for the electronic design of lighting systems based on the requirements of LED on electronic parts and components:



1. Control mode requirements: besides of the most common ON/OFF mode, we always need to take dimming control into consideration, for instance, DMX, SPI modes. For some products (like dot pixel light and linear pixel light systems), single-pixel and multi-pixel design also need to be taken into consideration.



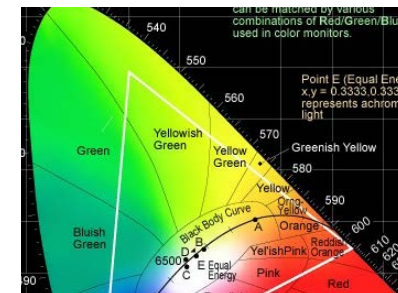
2. Accuracy requirements: we choose high-brightness IC to ensure more fluent and smoother dynamic changing effects as well as clearer visual effects.



3. Electric safety: we take safety and protection requirements like EMC, insulation and surge resistance into comprehensive consideration as needed.

Optical technologies

One of the core design points of lighting products is optical design. We've been committed to constantly meeting various kinds of optical requirements. To reach this goal, we usually make optical design through following process.



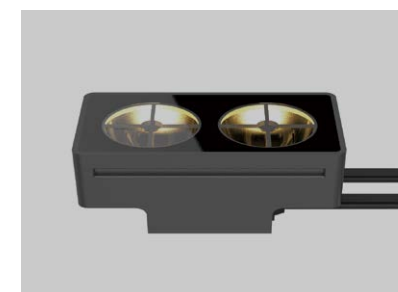
1. Optical analysis and verification method: based on sufficient communication, optical engineers will conduct preliminary optical design through simulation analysis with Optical software and testing with physical models. They will continuously modify deficiencies from the very beginning to ultimately achieve the best result, by repeated actual measurement with Optical light distribution tester during the design process. After optical design, light distribution curve will be acquired via processional testing and made available to designers for lighting design and calculation.



2. Optical component selection: based on specific products, appropriate materials and forms, such as PC/PMMA optical lens (TIR/Fresnel) and diffusers/transmitting rods, light guide pipes/rods, coated toughened glass, micro-structural optical films and so on, will be chosen for optical components. Specific processing, like coating, dull polish, etching, and anti-ageing treatment and salt-spray resistant design, especially for parts exposed to the open air, will be needed for different optical and protective requirements.



3. Light distribution design: based on the understanding of lighting application, we research and develop different types of light distribution, including a variety of beam angles (like ultra-narrow beam 3.5°, narrow beam 8°-15°, mid beam 25° and wide beam 45°-60° of flood lights), stretchable light distribution (like wall washer or grazer), symmetry and asymmetry (like the 'floor-washer' of the low-level lighting system), special light distribution (like the 'light blade' of the structural lighting system) etc. and precisely distribute light to specific space so as to reasonably and efficiently use light.



4. Visual comfort and light pollution: In addition to satisfying needs of lighting function, we make use of optical and structural components or Accessories to effectively cover unwanted light so as to increase visual comfort and reduce light pollution. Self-shading design of flood light/project light and structural lighting system, the light polarizing design of dot pixel light are good examples.

The Lighting linkage Project of the South Bank of the Qiantang River in Hangzhou



The Lighting linkage Project of the North Bank of the Qiantang River in Hangzhou



Midwest Commodity Exchange Center, in Xi'an



West Lake State Guest House, Hangzhou



Yuxi Park, Yulin



Zhejiang Xizi Hotel, Hangzhou



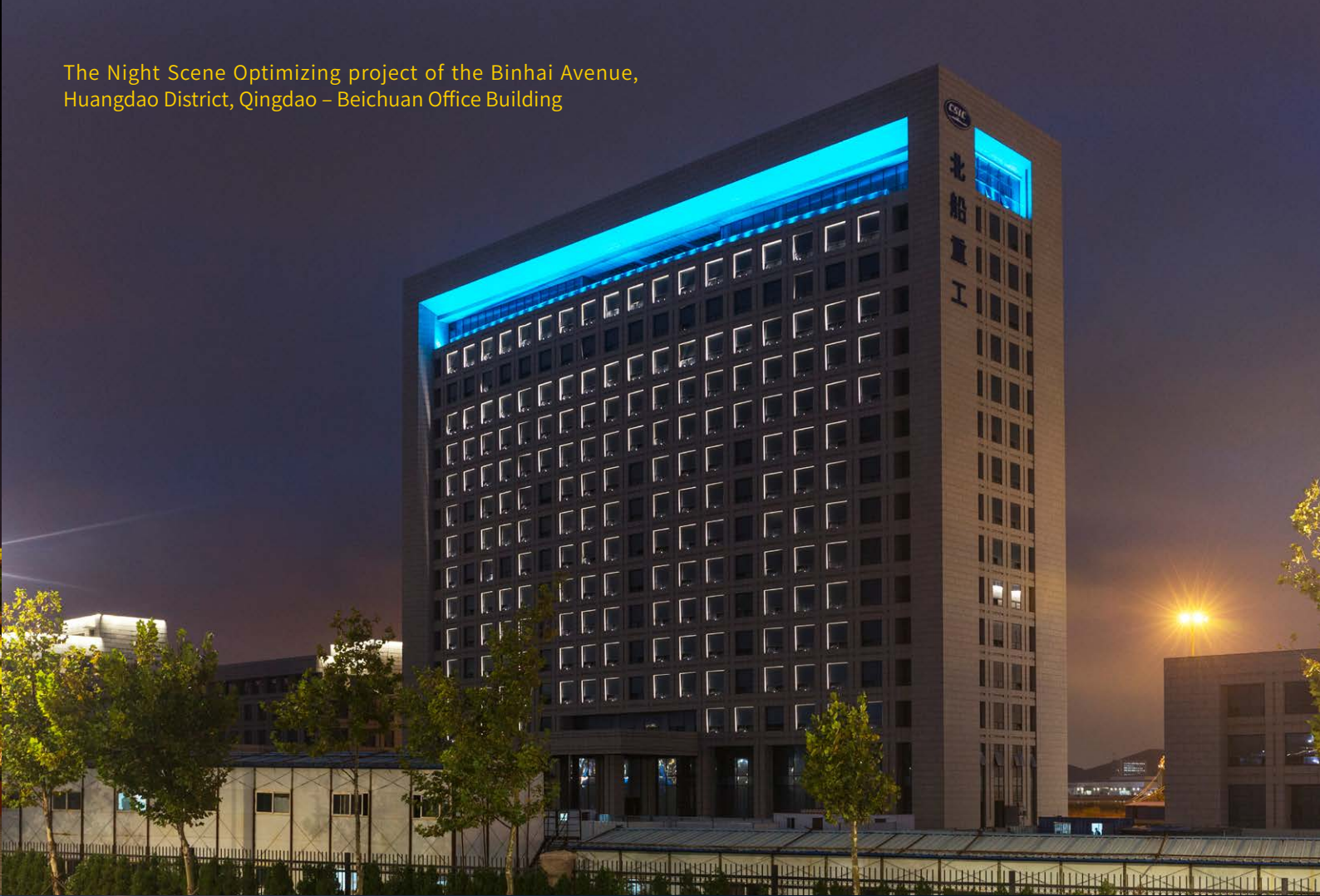
Yuxi Park, Yulin



The Night Scene Optimizing project of the Binhai Avenue,
Huangdao District, Qingdao – Moonlight on the Sea Garden



The Night Scene Optimizing project of the Binhai Avenue,
Huangdao District, Qingdao – Beichuan Office Building



The Night Scene Optimizing project of the Binhai Avenue,
Huangdao District, Qingdao – Mount Daoguan



The Night Scene Optimizing project of the Binhai Avenue,
Huangdao District, Qingdao – Light Pillars



The Night Scene Lighting Upgrade Project of the Chifeng New District, Inner Mongolia – the Convention and Exhibition Center



摄影师：仪皓琰

The Night Scene Lighting Upgrade Project of the Chifeng New District, Inner Mongolia – Longxing Valley Night Scene



摄影师：仪皓琰

The Clock Tower at ShanghaiTech University





Strive for better lighting environment



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