

Introduction of Lighting Design Expert System



Speaker

Zhigang ZHAO

Vice President

Tsinghua Holdings Habitat Development Lighting Institute
(THDLI)

Contact Email: jinzhao@isa-world.org



Mr. Zhigang ZHAO graduated from Department of light source and lighting engineering in Fudan University in Shanghai. He has been engaged in this industry for 18 years and devoted to research and development, application and marketing of urban landscape, architectural interior and exterior lighting environment products and technology. He has taken charge of and participated in various types of projects of interior and exterior lighting of the National Museum, the office building of National People's Congress, Tian' anmen Tower, Great Hall of the People, CCTV new office building, InterContinental Hotels Group and landscape of some SOHO architectures.

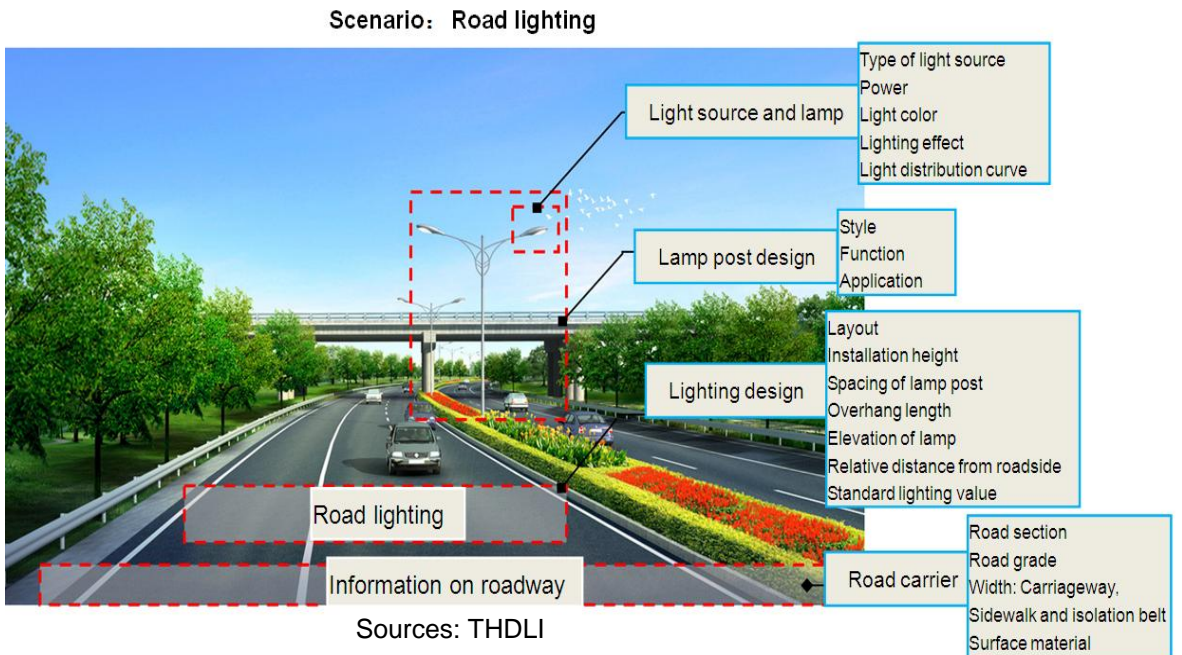
In 2015 Mr. ZHAO took the position of Vice president of Tsinghua Holdings Habitat Development Lighting Institute Co., Ltd. (THDLI). In THDLI he devotes himself to China lighting industry fast transition and development by Tsinghua lighting system planning and designing, R&D achievement transformation and value marketing.

Value to the Lighting Industry

- Provide services for the whole industry chain, including the Owner, related designers, the Contractor and the Manufacturer.
- Provide analysis data for the owner, deepening designed technical support for related design side. Persuade the auditing department in accordance with the technical specifications for reasonable pricing to avoid business loss due to low-level construction.
- Provide the Manufacturer with approaches which can understand market application demands deeply and timely, and carry out targeted research and development to avoid homogenized product under vicious price competition, and enhance its viability and competition capability.
- Guide the industry to pursue progress in technology by setting design parameters to get rid of the bad pattern of blind pursuit of low price, and guide a virtuous circle that good currency

overcomes bad currency.

●With the help from such system, any demander can become the expert.



Background of Market Development

As the demands for urban nighttime lighting increase, the number of lighting design projects increases and the quality is required to be improved constantly.

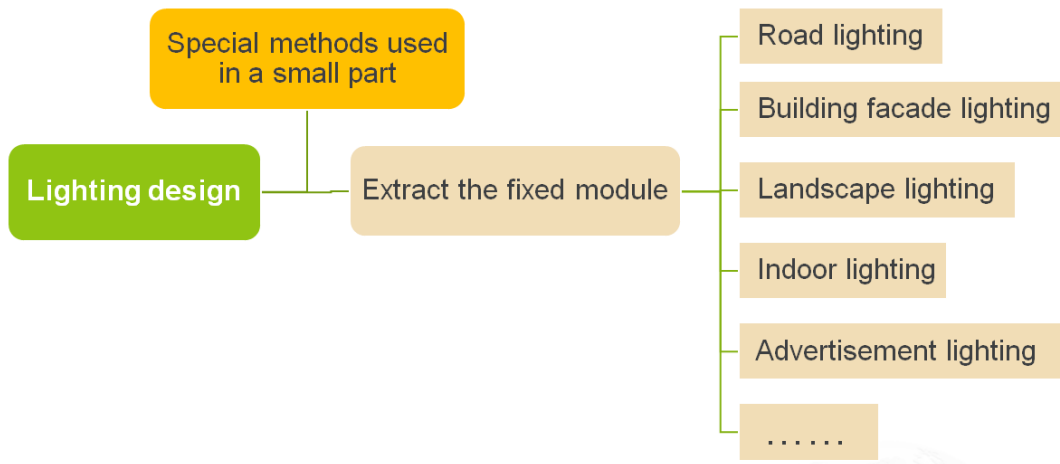
Targeted Barrier

At present, about 80% of lighting design projects are still completed by non-professional lighting designers, including architects, landscape designers and interior designers. Detailed design and lamp selection shall be completed by the Manufacturers, who are more familiar with these aspects. No manufacturer is good at all products, so the simplification of manufacturers will make the designers impossible to use better products by comparison.

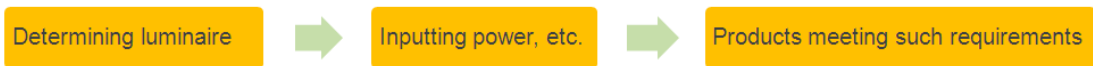
- ◇ How to match and select better products from different manufacturers?
- ◇ How to select products with different price/performance ratios according to the importance of the different design parts?

Solution

Cooperating with CSA and ISA, THDLI has developed five types of expert systems for typical lighting scene.

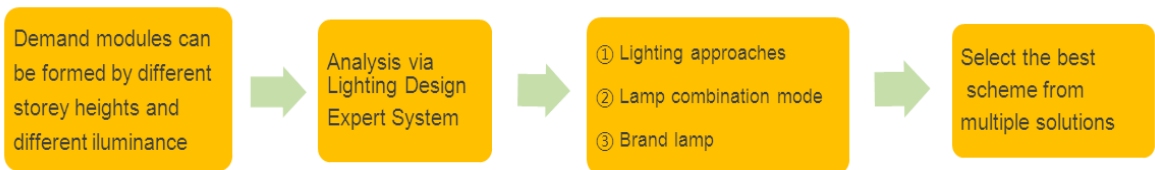


Conventional design databases



Lighting Design Expert System

For example, interior lighting design

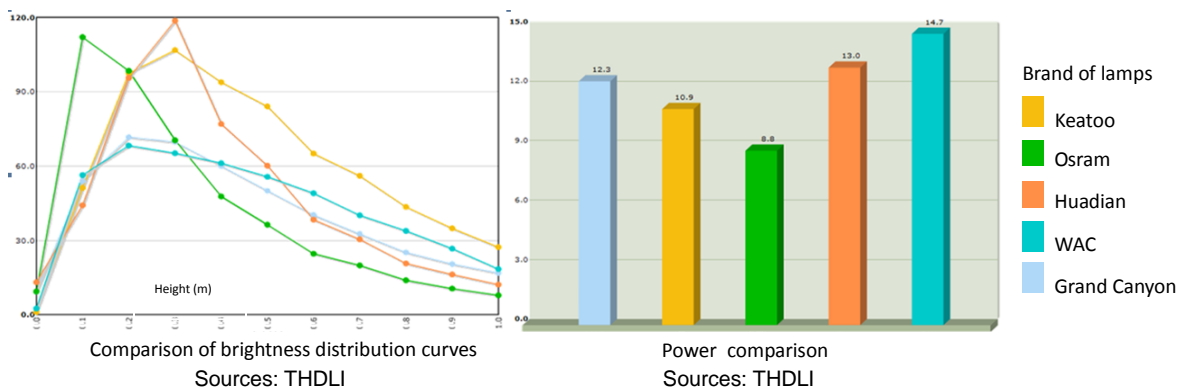


This Expert System starts from the demands to sum up scenes and extracts scene parameters, carries out preliminary design for different scenes, and finally finds proper products based on preliminary design.

The user can obtain several corresponding solutions only if he inputs his demands. These solutions are checked to prevent false data from making uncertain influences on results.

The solution provided by this Expert System enables the user to know price/performance ratios of different products through comparison, including the final effects comparison, power comparison, cost comparison, and manufacturers' performance capability comparison, etc.

The owner can make choices according to the project investment and quality requirement.



**Working Agenda of
2016 ISA-India International Solid State Lighting Workshop
Section I: Introduction of Lighting Design Expert System**

New Delhi, India

14:00 – 17:00, October 7th, 2016

Hosted by ISA

Supported by ELCOMA

14:00-14:10	Welcome Address ISA ELCOMA
14:10-14:50	“Introduction of Lighting Design Expert System and its Applications” Mr. Zhigang ZHAO Vice President Tsinghua Holdings Habitat Development Lighting Institute (THDLI)
14:50-15:50	Question & Answer
15:50-16:10	Coffee Break
16:10-16:50	Free Discussion
16:50-17:00	Summary
17:00	Adjourn



International SSL Alliance

Address: Room A1719, Tower A, Top Electronic City, No.3 Haidian Avenue,
Haidian District, Beijing, P.R.China (100080)

Tel: 86-10-62607581

Fax: 86-10-62607258

Website: www.isa-world.org