



Ultra-BrightLite™ – Unique Light Emitting Diode Innovation Saves Electricity and Accelerates Applications

-The result of an R&D collaboration between local start-up BrightLite Systems and Singapore Institute of Manufacturing Technology, a research institute of A*STAR

Singapore, 13 November 2007: Users of BrightLite Systems' unique high power LED (Light Emitting Diode) packaging design, Ultra-BrightLite™, can expect to save more than 30% in electricity. Ultra-BrightLite™ uses a combination of high power LED technology with a smart compact built-in power supply to provide an all-in-one solution. It integrates the key elements – high power LED ranging from 5 to 30 watts, Smart Electronics, hard optical lens and aluminium metallic housing. Targeted at architectural companies, lighting and fixture manufacturers, Ultra-BrightLite™ offers low cost, high reliability, fast time-to-market LED design solutions and product. Ultra-BrightLite™ is launched on mid-November and showcased at GlobalEntrepolis Singapore from 13th to 15th November 2007.

LED – a semiconductor lighting which does not contain any heat generating filament, is able to efficiently convert more electrical energy to light. With a life-span typically 50 times longer than the traditional fluorescent lighting, it is an ideal energy effective lighting source. However, the widespread application of LED in lighting is constrained by two main challenges – effective heat dissemination and non-direct power source contact. Hence, for each LED type, a DC-DC power supply must be specifically designed.

The R&D collaboration with the Singapore Institute of Manufacturing Technology (SIMTech) in thermal analysis and simulation of the unique patent-pending LED housing design solved the problem of effective heat dissemination through effective and rapid 3-dimensional heat dissipation. Dr Lim Ser Yong, Executive Director of SIMTech commented, "SIMTech's expertise in thermal management has helped BrightLite Systems develop an innovative High Power LED lighting solution for the company to make its foray into the global market."

This unique LED packaging provides highly efficient three-dimensional heat dissipation far more superior than traditional LED packaging. Its dedicated, customised built-in Smart Electronics and hard optical lens provide consistent lighting results and enhanced mechanical protection, respectively.

Mr Bernard Lim, CEO of BrightLite Systems said, "By leveraging on SIMTech's competency and experience in thermal management of advanced electronics and microsystems, we have successfully developed a unique patent-pending LED housing design. The expertise in dynamics modeling and experimental validation, as well as electronics assembly and packaging, enable us to achieve a miniaturised and high performance LED solution with integrated electronics. This "Made-by-Singapore" product will enable us to capture the exciting opportunities in Solid State Lighting."

Ultra-BrightLite™ accelerates LED application in the lighting mass market. LED lighting is a US\$6.7 billion market with an average growth rate of up to 15% in 2009 (Strategies Unlimited). Its usage is being diversified into solar lighting by BrightLite Systems. The company will be unveiling Ultra-BrightLite™ at major light exhibitions in Frankfurt, Dubai and Korea.

Note to the Editor

Light Emitting Diodes (LEDs) are tiny light bulbs that fit into electrical circuits. As these do not have heat generating filaments, LEDs are cool light and do not burn out. LEDs are illuminated solely by the movement of electrons in a semiconductor material that conducts electrical current.

Media Contacts

Ms Andrea Chow

Marketing Manager

BrightLite Systems Pte Ltd

Tel: 6793 8230

Email: andrea_chow@brightlitesystems.com

Ms Lee Swee Heng

Manager

Singapore Institute of Manufacturing
Technology

Tel: 6793 8368

Email: shlee@SIMTech.a-star.edu.sg

About BrightLite Systems Pte Ltd

Formed in 2006, BrightLite Systems is a company that focuses mainly on high power LED engine development. BrightLite Systems' innovative products provide lighting product designer with low cost and complete LED solutions where it helps to shorten the development cycle and time-to-market for a new lighting product design.

The **Ultra-BrightLite™ LED Engine** is an innovative design which uses a combination of high power LED technology with a smart compact built-in power supply to provide an all-in-one solution. With its unique patent pending LED housing design, which helps to improve the overall lighting system's thermal efficiency whereby it effectively reduces the LED junction temperature within its safe operating range by allowing heat to be disseminated three dimensionally.

Ultra-BrightLite™ LED Engine is an Economic Development Board Industrial Commercial Scheme-approved project. SIMTech, a research institute of A*STAR is its strategic R&D partner in developing the High Power LED Engine.

About the Agency for Science, Technology and Research (A*STAR)

The Agency for Science, Technology and Research (A*STAR) is Singapore's national agency for science and technology, supporting the development of industry clusters. Its mission is to foster world-class scientific research and talent for a vibrant knowledge-based Singapore. A*STAR actively nurtures public sector research and development in Biomedical Sciences, Physical Sciences and Engineering, with a particular focus on fields essential to Singapore's manufacturing industry and new growth industries. It oversees 14 research institutes and supports extramural research with the universities, hospital research centres and other local and international partners.

At the heart of this knowledge intensive work is human capital. Top local and international scientific talent drive knowledge creation at A*STAR research institutes. The Agency also sends scholars for undergraduate, graduate and post-doctoral training in the best universities, a reflection of the high priority A*STAR places on nurturing the next generation of scientific talent. (Website: www.a-star.edu.sg)

About Singapore Institute of Manufacturing Technology (SIMTech)

The Singapore Institute of Manufacturing Technology (SIMTech) is a research institute of the Agency for Science, Technology and Research (A*STAR). SIMTech develops high value manufacturing technology and human capital to contribute to the competitiveness of the Singapore industry. It collaborates with multinational and local companies in the electronics,

semiconductor, precision engineering, medical technology, aerospace, automotive, marine, logistics and other sectors. (website: www.SIMTech.a-star.edu.sg)



PRODUCT FACT SHEET

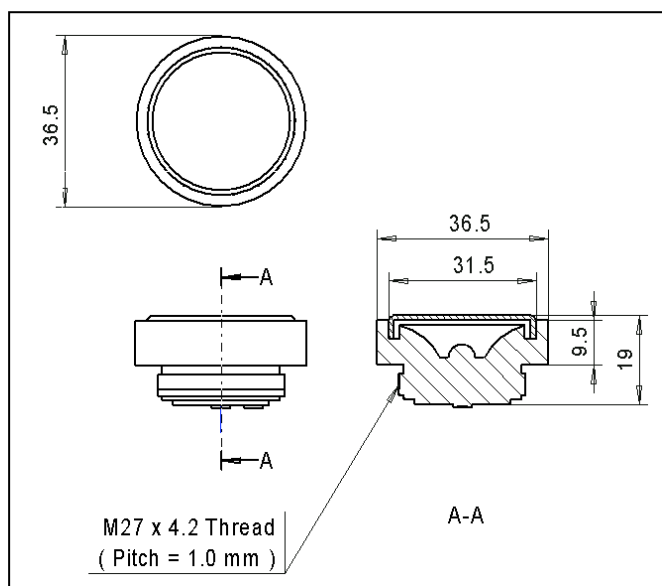
Ultra-BrightLite™ Series – 5 watts and 30 watts



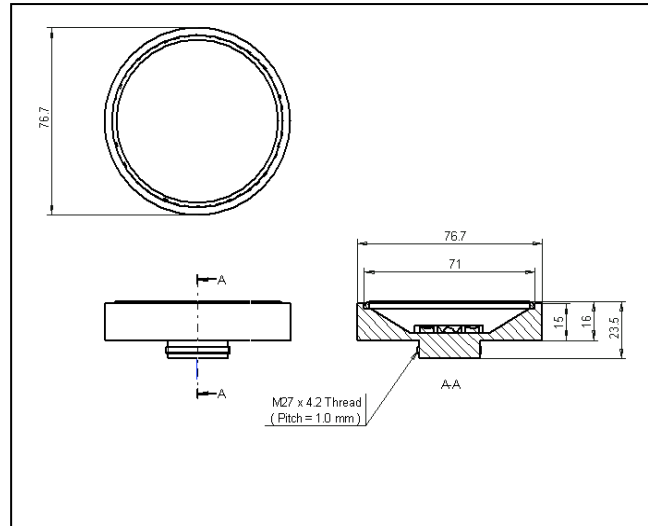
Product Description : Ultra-BrightLite™ has come with 2 wattages, 5W and 30W.

The product is an innovative design integrated with the following key elements, i.e. LED, Smart Electronics, Optical lens and an Aluminum metallic housing.

Product Dimension :
5 Watts



30 Watts



Light Source : High Power Light Emitting Diode (LED)

LED Color : White, Warm White, Red, Green & Blue

Features :

- “Screw and Lock” design concept for ease in maintenance
- High Energy Efficiency
- High Thermal Efficiency - a metal housing design
- An innovative design that dissipate heat in 3-dimensionally(x, y and z)
- Hard optical lens, enhance mechanical protection
- Built-in precision DC-DC power supply source
- Time To Market (TTM) is shorter

Applications :

- Lighting used in car, bus and aircraft
- Accent Lighting
- Architectural Lighting (lamp post, show case, cabinet, closet)
- Decorative (retail , restaurants, hotels)