Trade fair highlights
light+building 2012

Light is OSRAM
All we do is light.
And light is all we do.
Dear Visitor,

Light is multi-faceted and also a mirror of the technological possibilities. Over the past two years the level of innovation within the light market has risen significantly again. Semiconductor-based technologies like LED and OLED are continuing to increase the number of light applications and have established themselves as real alternatives to traditional light solutions. It is within this dynamic environment that the value of our comprehensive know-how becomes clear, allowing us to provide you with the right answers.

Light is OSRAM: For more than 100 years, OSRAM has been synonymous for innovative and sustained light.

Based on our years of experience we will be presenting state-of-the-art light technology at the light+building 2012 – be it modules, lamps, luminaires or highly-efficient light management systems. OSRAM will also be presenting two new affiliated companies for the first time – Siteco and Traxon Technologies. Come and visit our 2,000 qm stand and see for yourself our product highlights and comprehensive lighting expertise from one source. We clearly focus on the issue of light because it is our declared objective to offer you, as a customer, the best solutions and products. We look forward to constructive dialogues with you at the OSRAM stands at the light+building 2012.

Yours,

Wolfgang Dehen
Chairman of the Board, OSRAM AG
Light becomes more diverse

The light+building trade fair has around 2000 exhibitors, making it the most important exhibition within the lighting industry. And this year, even more so than in the past, it will reflect the rapid changes taking place in the light market with a wealth of new lighting solutions and technologies. As an innovative leader in the industry, OSRAM services all lighting sectors and will provide focussed target group specific information at the various OSRAM stands.

At the applications stand (Hall 2, Stand B50) in the festival hall we will be presenting professional lighting solutions for the shop & retail, industry, commercial buildings, street & urban, sports & area and hospitality markets. In contrast, the technology stand (Hall 2, Stand B10) will be displaying components, lamps, modules and light engines for a wide variety of light technologies, the issue of light management will be addressed and the new OSRAM subsidiary Traxon will also be presented here. For the first time this year, we will also have an OSRAM POS retail stand in Hall 6. Some of the highlights on display here will include the premiere of a comprehensive LED lamp range and the matching customised marketing concepts for excellent POS ideas.

Under the motto “Ideas meet Solutions” LED Light for you, our partner network for everything connected to LED technology, offers support in realising individual LED light solutions. 16 certified network partner companies from the fields of optical, electronic and thermal management and also system integrators will be displaying their new products on a joint stand (Hall 4.1, Stand D50, see plan on reverse). OSRAM OptoSemiconductors is also represented with general lighting application examples featuring the latest LEDs.

OSRAM wishes you a pleasant stay in Frankfurt. We look forward to seeing you at light+building 2012!
Hall 2 Stand B50 Application
Hall 2 Stand B10 Technology
Hall 6 Stand A54 POS Retail
Light means welcome!

Application orientation has always played a central role in OSRAM’s corporate philosophy. The objective is to provide the right light to meet the application, the requirements and individual tastes. OSRAM’s application stand welcomes you to a world of innovative and integrated light solutions for a wide range of artificial light application fields.

The ground floor is dedicated to commercial or public authority application fields ranging from business to gastronomy enterprises and even street lighting. On the upper storey we will be presenting exclusively to you our lighting solutions for the home application market, demonstrating OSRAM lights in hall, cloakroom, bedroom, office, seating area, bathroom, kitchen, dining room, lounge, bar and Zen garden settings.
Quality is a promise

First class shop lighting needs to satisfy a number of different requirements. What counts is excellent light quality and a high level of reliability, although other factors such as efficiency and flexibility are of ever-increasing importance. As a Pure Light Player with years of experience in the shop & retail field, OSRAM can supply outstanding light solutions, both for food and for non-food areas, that do what they promise day after day. In addition to the comprehensive and also first rate product range that comprises all light technologies, OSRAM also offers professional light consultation and intelligent light management service. OSRAM users profit from shop lighting that is perfectly tuned to their needs from one single source.

LUNIS® SL Track & Recessed
Be it a track-mounted spotlight or swivel-mounted fitted downlight – the new LUNIS® SL from OSRAM sets the right lighting atmosphere to prompt sales. There are a number of models with LED or HIT light sources, with up to 5000 lm illuminating power, special models such as DALI® and Tunable-White variants (light colours from 2700 to 6500 K) are available on request, and there is also an extensive array of accessories to ensure maximum application choice. Other important benefits: Extremely efficient reflector technology, various casing colours and beam angles, and simple integration into the Modario® lighting strip systems.
Light is a factor of success

Lighting in industrial areas needs to be functional, durable and efficient. Thanks to its comprehensive portfolio of high quality products and services, OSRAM can offer its customers first rate customised solutions. Be it a lamp, a luminaire or light management, OSRAM quality and know-how guarantee that decisive extra reliability and efficiency in every component – a real benefit in system operations. One of OSRAM’s further strengths is its planning competence in the industrial division. For example, specialists in the OSRAM Lighting Services (OLS) division can also carry out energy audits to analyse the existing light installations in terms of efficiency and sustainability and identify the optimisation potential.
**Light management**

Even in the industrial sector, modern, digitally-controlled light management is becoming increasingly important for presence-dependent lighting, for luminous flux adjustment and also daylight-dependent control. Lighting that is tuned to actual needs not only facilitates impressive cost savings but also minimises error rates within the production process, whilst simultaneously improving safety at the workplace. OSRAM offers various light management systems that can be used to realise different lighting concepts even including functional solutions for large spaces.

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1. **Hall light T16**
   The special luminaire for halls with a lighting height of between 6 and 20 metres stands out thanks to the T5 HO CONSTANT technology and very high illumination efficiency levels of over 93% as well as life cycles of up to 100,000 hours based on the OSRAM QTi Industrial ECG. It is suitable for high ambient temperatures up to +50 °C and for dry rooms, or IP65 for difficult ambient conditions.

2. **High Bay LED**
   Extremely sturdy, highly efficient, easy to install and service – these are the essential product advantages of the High Bay LED, the innovative OSRAM LED luminaire for industrial lighting systems. With 150 W or 300 W, various light distribution patterns (wide, deep, asymmetrical) and a service life of up to 50,000 hours, the High Bay LED is ideal for logistics centres or exhibition halls.
Light boosts performance

OSRAM supplies daylight and light management systems, luminaires and lamps from one single source, which is why OSRAM is able to supply the right light at the right time in the right quantity at the right place whatever the workplace requirements. OSRAM is your competent lighting partner for lights in office buildings. Daylight systems make use of the natural light to avoid glare or excessive heat build-up in the rooms. Classic-modern, high-quality OSRAM lights blend into all architecture designs and, particularly in the case of LEDs, combine maximum efficiency with outstanding light quality. The combination of daylight systems, luminaires and light management by OSRAM provides for a perfect light atmosphere whatever the workplace situation.

1 Daylight systems for well-being and efficiency
No sun, no life – no light, no well-being. The innovative daylight systems from OSRAM make optimum use of the daylight that falls onto the vertical facades, glass roofs and skylights. They utilise the physical laws of reflection, absorption and refraction to illuminate rooms perfectly and avoid excessive heat build-up caused by direct sunlight. In conjunction with light management systems, the energy consumption for artificial light and air conditioning is reduced, whilst at the same time the room comfort is improved.

Light scenes
Conference rooms, training or event rooms serve various purposes. Be it beamer presentations, discussions or celebrations, the OSRAM light management system allows pre-defined light scenarios to be called up at the push of a button ensuring the perfect light setting within the room whatever the occasion. Operation of the system is self-explanatory – important in rooms often used by many different people.

Micro sun shielding louvre
An ideal solution for making use of the available daylight for lighting: Based on a defined fade-out and opening range, the intelligent sun shielding louvre for glass roofs controls the angle at which the daylight enters the building without preventing direct eye contact. It can be modified and customised to suit every building. The micro sun shielding louvre guarantees first rate durable quality despite being low-maintenance or even maintenance-free.
2 Future® LED
The lights of the future in the workplaces of today. The standard lamp Future® LED provides workplace-oriented lighting using dual asymmetric light distribution. Integrated sensors ensure maximum efficiency; the lamp is set and operated via Bluetooth. The light engine is also dust-protected to minimise maintenance requirements. The performance data: 99 W, 8500 lm, 4000 K.

3 LEDVANCE® AREA
The innovative LED light window equipped with 640 OSRAM LED DURIS E3 supplies an absolutely even, bright light thanks to the lateral coupling. The lamp has a construction height of just 16 mm (without ECG), a high quality casing of white aluminium and is ideal for permanent mounting or suspended installation. It is the ideal solution for illuminating foyers, general building areas and meeting rooms or small offices.

4 Mira®
Owing to a fully new kind of prism structure, this intelligent lamp is highly efficient and has a unique radiating light effect. Mira® is very maintenance-friendly and is available as a 116 or LED light in a square or rectangular form. In addition to installation models, an add-on and a pendant model are also available. On request, with a sensor and/or LED emergency light.
Outdoor spaces offer more room to move

When planning modern road and city lighting systems, factors such as cost efficiency, environment-compatibility and sustainability are equally as important as light quality and design. Also, the many different application fields, whether illuminating roads, junctions, zebra crossings, pavements or cycle paths, parks, squares or façades, have very different requirements. OSRAM supplies optimised standard and complete LED solutions for all city applications from one source: casings, thermal management, lighting technology and control systems. Modular product concepts allow simple upgrading and therefore the greatest possible level of sustainability. OSRAM also offers its customers professional lighting design and implementation services.

1 DL® 20 LED
These innovative city and park lights combine excellent design with high levels of efficiency and excellent light radiation characteristics. Thanks to the different light colours and light distribution options, they are suitable for a wide variety of applications. Their excellent glare-free properties make them predestined for heavily frequented areas. They are easy to install and highly sustainable thanks to the upgradeable control systems.

2 Streetlight 10 micro, mini, midi LED
The innovative LED street light series illuminates residential, side and main streets extremely efficiently in compliance with the official standards. In addition to various output strengths and sizes, there are also other design variants and light colours available. The lights stand out thanks to high visual comfort and low glare. Upgradeable Plug-&-Play modules and consistent control concepts guarantee investment security and sustainability.

3 LARGE BELL LED SMALL BELL LED
The city and park lights in a more traditional design are equipped with highly efficient LED equipment and stand out thanks to the optimised lens and excellent technology. The LED module is also available separately which means that older bell lamps without LED technology can be easily upgraded. Available light colours are warm white and neutral white, whilst the cover is available in a transparent version or an ice-crystal pattern.
Light plays in a league of its own

The challenge faced when illuminating large areas is to provide as much light as possible with as little energy as possible. Other factors are safety, low maintenance, glare-free light and visual comfort as well as the flexibility of the lighting system. A high level of reliability is also crucial in sports arenas because light failures here could be critical. Lots of challenges, one lighting specialist: As a Pure Light Player, OSRAM not only supplies excellent lamps, luminaires and requirement-based light control systems for LED solutions, it also has comprehensive light planning competence.

1 SICOMPACT® FL MIDI S
This future-oriented LED module floodlight shows what is technically possible: It consumes around 30 % less energy than comparable conventional solutions, reaches a colour temperature of 5200K and a true colour reproduction index of at least 85. The best thing though is that it can also supply suitable lighting for HDTV and Super-Slow-Motion recordings. In 160 and 320-Watt models with up to 20,000 lm light current.
SPORTS & AREA

APPLICATION

17
Efficiency meets hospitality

In terms of hospitality, lighting is responsible for creating an inviting atmosphere in which the guest feels welcome. At the same time however, the efficiency of the lights is growing in importance. The broad OSRAM product range offers excellent solutions with which impressive energy and cost savings can be realised without having to compromise on light quality. The spectrum ranges from innovative LED lamp modules, high quality conventional lighting material through to customised light management systems. If energy-saving products are used, the OSRAM light consultants will work out the payback periods for you to achieve greater cost transparency.

There are live displays of our hospitality application products on both the OSRAM application stand and also the technology stand. Just come and talk to us and we will be happy to give you a tour of the various hospitality hotspots explaining each one in detail!
1. **PARATHOM® PRO PAR16**
   The dimmable LED reflector lamp can directly replace standard mains voltage halogen reflector lamps with a GU10 socket. It stands out thanks to its long service life, low energy consumption, good light quality with a narrow colour location and a high colour rendering index. It is impact and vibration-resistant and generates neither UV nor close IR radiation. Available in various colour temperatures ranging from 2700 K to 6500 K.

2. **LINEARlight Flex® PROTECT**
   A flexible LED module in high-performance resistant silicon – ideal for outdoor applications – for stylish and subtle effect lighting of contours, coves, machines or facades (in the POWER model). The module can be shortened as required and is easy to mount thanks to the pre-mounted connector and self-adhering reverse side. Several modules can be easily connected to each other using the optional CONNECT system.

3. **LEDVANCE® DOWNLIGHT L DALI®**
   The innovative LED recessed ceiling luminaire with compact dimensions and excellent technical lighting characteristics. Further power and cost savings can be made if the DALI® version is installed in a light management system. The opaque diffuser and the simple ring design in white or anodised aluminium allows the luminaire to fit subtly into the ceiling surface. The low installation depth is an added benefit during planning and installation. The LED downlight is an energy efficient and durable alternative to compact fluorescent tubes or halogen downlights.
Design develops illuminative power

LEDs are the future of light. OSRAM is making this particularly clear especially in the HOME market, where it can supply an LED alternative for almost every traditional light source, thereby facilitating energy savings of up to 90%. In addition to a large number of innovative, long-lasting LED lamps available in various light colours, bases and output strengths, new to the OSRAM range is an assortment of high quality design-oriented and functional LED lights for indoors and outdoors that allow unlimited planning of LED lights inside the home.
Lights indoors and in the garden need to satisfy a wide range of requirements, ranging from functional lighting in cellars or garages, through to ambient lighting in living areas or bedrooms. Whatever the requirements in the home market, OSRAM has a comprehensive product portfolio with perfect light solutions. And we would like to demonstrate this to you at light+building. The HUME division of our applications stand will captivate you with OSRAM products for a variety of domestic situations. Come inside and experience solutions found in areas such as the hall, cloakroom, bedroom, office, bathroom, kitchen, dining room, lounge, bar and Zen garden.

1
**POWER POLE**
The elegant RGB standard lamp has an extremely narrow diameter of 16 mm and an overall height of 1600 mm owing to the innovative optics light conductor. With an LED light output of 13.5 W and simple Plug & Light installation, the lamp can be used in a versatile manner for both direct and indirect decorative lighting. The high quality casing made of continuous anodised aluminium underscores the attractive light conduction. The POWER POLE can also be controlled either via an intuitive RGB remote control or a smartphone APP with a number of functions and options (COLOR CONTROL).

2
**SILENTO™ Poco and Lungo**
The unique pendant luminaire with its swivel-mounted 7"-LED panel impresses with its ultra-thin, purist design. But that’s not all: This luminaire, which is available in two lengths, has excellent efficiency values, a long service life and, depending on the panel settings, an harmonious direct or indirect light output in the pleasant light colour 3000 K.
Visions become reality

In recent years light has become increasingly diverse thanks to advancements in digitalisation and enormous progress in the field of semiconductor technology. This is already reflected in the various modern light products available for domestic use, but particularly for complex lighting solutions in the commercial or public fields. At its technology stand, OSRAM will be presenting itself as a professional light consultant and system supplier displaying its components, lamps, modules, light engines and light management solutions for all of its light technologies. Particular points of focus on the stand are the new LED and OLED options in combination with the innovative Traxon control system solutions.
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Page 26  High-pressure/low-pressure discharge lamps
Page 28  Light management systems
Page 30  LED
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Page 36  Zhaga/PrevaLED®
Page 38  Traxon Technologies
Vision preserves tradition

For decades the light bulb was the quintessential light source for consumers. As a result of ErP regulations this popular, albeit inefficient, product has almost completely disappeared from the market. It is little wonder then that the banishment of the classic light bulb and the available alternative solutions are still an important ongoing issue. With its wide range of HALOGEN ECO, compact fluorescent lamps and LED light solutions, OSRAM has the right replacement product for all applications and requirements. The three different technologies have different product benefits so that the consumer does not need to compromise at all in terms of light quality.

1  PARATHOM® CLASSIC A advanced
The dimmable LED lamp with an E27 base replaces standard light bulbs up to 75 W in a simple exchange process. The impressive price benefit: Much lower energy consumption, a service life of up to 30,000 hours, 320° light distribution, 100 % light immediately without a warm-up time, low heat development, no UV or close IR radiation in the light beam, impact and vibration resistant.

2  PARATHOM® CLASSIC B25 advanced
PARATHOM® CLASSIC P25 advanced
The supplement ‘advanced’ indicates very high-performance, especially with the dimmable models within the OSRAM LED lamp range. What they all have in common are very low energy consumption levels, extremely long service lives and an excellent light quality. In the classic B and P forms, they replace the standard light bulbs up to 25 W in a simple exchange process, and are therefore perfectly suited to general domestic usage.
Efficiency develops radiating power

Both metal halide lamps and fluorescent lamps are now indispensable sources of light in commercial or public settings. In both fields, OSRAM can fall back on years of experience and self-developed know-how. Consequently OSRAM has been able to convert 70% of its portfolio of high-pressure and low-pressure discharge lamps to higher energy efficiency. Also, the high quality, performance and efficiency of the OSRAM lamps can be further increased in system mode with matching OSRAM ECGs and light management systems.
LLR-free HCI® and HQI® products
OSRAM is second to none in the promotion of HCI®/HQI® lamps that are free of low level radioactive components (LLR). OSRAM is already supplying a wide array of high-pressure discharge lamps that are LLR-free and therefore not subject to national or international licences or hazardous goods guidelines and do not need to be identified in line with the hazardous goods regulations. As early as the end of 2012, all HCI®/HQI® lamps from OSRAM will be available without low level radioactive components.

1 POWERBALL HCl®-T/-TC Plus
The latest generation of metal halide lamps with round ceramic burners set new standards with their high efficiency of up to 107 lm/W, very good colour rendering (R, 90) and a high retention of the luminous flux throughout the entire service life (corresponds to a medium service life) of up to 15,000 hours (in system mode with POWERTRONIC® ECG). They are excellently suited for existing lights, but reach top performance in lights with reflectors that were specially developed for the POWERBALL® technology.

2 POWERTRONIC® OUTDOOR PTo 3DIM
The night comes alive with this ECG family for outdoor lighting on roads, in tunnels, buildings or industrial applications. The ballasts in output levels of 35 to 150 Watt can be easily installed and, thanks to the innovative 3DIM features, they can be tailored to meet individual customer requirements. 3DIM stands for the combination of the 3 dimmer functions DALI®, StepDIM and AstraDIM thereby facilitating high energy saving potential. Other benefits: Long service life, lightning protection up to 10 kV, ErP-conform efficiency class A2.

3 LUMILUX® T5 SEAMLESS HE
Long hallways or corridors with continuous light systems without shadows – the LUMILUX® T5 SEAMLESS HE makes it possible. Generates extremely efficient and consistent light, even when the lamp clearance is minimal. Versatile dimmable lights available on the market make specific use of the unique construction shape of the LUMILUX® T5 SEAMLESS HE.

4 QUICKTRONIC® INTELLIGENT DUAL POWER
This innovative hybrid-ECG is suitable for both the highly efficient T5 HE fluorescent tubes and also long-lasting LEDs. Perfect for motion detector applications that alternate between T5 HE or LED. Designed using the proven QTi platform, with a service life of up to 100,000 hours and A2 BAT energy efficiency.
Light has IQ

Intelligent, digital light control is growing in importance in all lighting fields for two reasons. Firstly, the modern light management systems (LMS) help to implement energy savings of up to 75%, and secondly, they satisfy the customers’ requirements in terms of individual, flexible and dynamic light design. OSRAM stands for integrated, customised light management solutions for a wide variety of applications. The combination of cleverly matched OSRAM components, be it the control system or light material operating devices, lamps, luminaires, software, operating interfaces and sensors, guarantees optimum performance both for indoor and outdoor applications. The OSRAM LMS is also characterised by its high level of functionality and ease of use. It is not only easy to install, it is also easy to understand and operate. Simply intelligent!
1

**OSRAM Encelium light management system**
The light management system Encelium from OSRAM shows how up to 75% of the energy used in offices, industrial buildings and purpose-built constructions such as hospitals or public buildings, can be saved. This is possible thanks to a combination of six power-saving strategies. Building operators can control and monitor the system worldwide via the Internet using unique software with a 3D screen; they can control the light level at the workplace from the comfort of their own desk. The latest generation of electronic ballasts (acc. to DALI®-Standard) from OSRAM allow the Encelium system to record and display the energy consumption of the lights in real time, thereby instantly allowing targeted adjustment. For example, it is possible to make use of flexible cheaper power tariffs. Also, the Encelium can be integrated into the building management system via an interface.

2

**QUICKTRONIC® intelligent DALI® GII**
Identifying the output consumption of the lights down to the light level is a trend set by the DALI® GII ECG as the world’s first ballast device family. The 3-level Plug & Play corridor function with a standard motion detector; the automatic recognition of a three-phase power supply when the emergency lights are required, and the option of switching flexibly between output-controlled and quasi-current controlled operating modes make the new DALI® GII ECG an ideal component for all projects.

3

**Street Light Control**
The versatile light control system for outdoor applications with a scalable system architecture down to thousands of light points based on standardised communication protocols and a Powerline technology platform that has been tested in the field. It offers better security and higher availability of the lights, thereby tapping the largest possible energy, CO₂, and cost savings potential, also thanks to an optimised maintenance concept.

4

**IQ Light Control**
The IQ Light Control product family – OSRAM’s new light management system for the home market – allows the existing lighting to be designed in higher quality, ensuring more comfort whilst at the same time saving energy. The IQ Light Control product line comprises switches, dimmers, sensors, remote controls and an app for smartphones and tablet devices plus a gateway. It installs dynamic and individual light scenarios quickly and easily to create a completely new light experience. The products are configured intuitively and are easy to operate, allowing you to design your home’s lighting to suit your own personal tastes.
Technology develops fascination

Manufacturers of lights and light designers are increasingly utilising the many advantages of LEDs – in particular the fascination that emanates from the LED technology. You will find OSRAM to be a strong ally when implementing your lighting ideas. As a competent and experienced light manufacturer, OSRAM has a wide array of LED products ranging from lamps and modules through light engines, operating and control units up to and including entire luminaires. OSRAM can even manufacture LED modules to customer specifications, satisfying individual requirements. The high quality LED products from OSRAM can be used in almost all applications in the home, in commercial or industrial environments, in offices, shops or restaurants to highlight architectural details on facades, bridges or towers and to set buildings in scene at night.

1 DRAGONchain® Tunable White
With a stepless light colour control ranging from 2700 and 6500 K, the flexible light chain comprising six LED modules each with four high-performance LEDs are excellently suited for daylight simulations and the homogeneous backlighting of large surfaces. Protected by a special paint (IPX5), it is also suitable for outdoor applications or use in damp rooms. UV and IR-free, also available in a RGBW version.

2 LINEARlight Flex® ShortPitch
Slim efficiency: The innovative LED strip light LINEARlight Flex® ShortPitch is just 8 mm wide, has an LED clearance of just 8.33 mm and does not need an extra cooling element. This makes it first choice for edge lighting and the homogenous illumination of small coves or furniture.

3 OPTOTRONIC® LEDset
Flexibility is the name of the game, which is why these innovative LED control units have a particularly broad performance and output current range, allowing not only predefined output currents (350/500/700 mA) but also flexible regulation up to at least 100 mA and are also suitable for ambient temperatures of −25 °C to +50 °C. In addition, they stand out thanks to their high constant efficiency. Other benefits: Very low starting current, temperature control of the LED modules, dimming via external resistors.
These programmable LED operating devices combine all the benefits of the LEDset family, like reliability, efficiency and flexibility, and also have the following features, ensuring they meet the requirements of modern outdoor lights: 4-kV over-voltage protection, 3DIM function (DALI®, StepDIM, AstroDIM), sturdy design and extreme durability. For an output range of 15 to 150 Watt and ambient temperatures of –30 °C to +60 °C. Suitable for lights of the protection class I and II.

**PARATHOM® PRO MR16 advanced**
The dimmable LED low voltage reflector lamp is a direct replacement to standard halogen reflector lamps up to 60 Watt. It requires very little energy, has a very long service life and good light quality with a narrow colour location and a high colour rendering index. It is impact and vibration-resistant and does not generate either UV or close IR radiation.

**SubstiTUBE® EXT Advanced**
The very bright LED tube with external ECG replaces the T8-flourescent tube in new fittings. The benefits of this product are manifold: A very high level of efficiency, immediate 100% light with no warm-up phase even at low outside temperatures, energy savings of up to 60% can be achieved, 2-level dimming function, reduced costs thanks to one ECG for different wattages and simplified luminaire approval owing to certifed safety.
Form follows freedom

OLED is pure fascination: No cooling element, no lens and no reflector – the ultra-flat organic light diodes are light in its purest form. As a Pure Light Player OSRAM covers the entire value-added chain for OLED in this future-oriented field – from panels through modules up to and including lights.
1 ORBEOS® CDW-030, RDW-046 and SDW-058
The ORBEOS® product family stands for high quality warm white and glare-free light and also absolute design freedom. Compared to the first generation, they last twice as long, are twice as efficient and twice as bright. OLED is no longer just light art; OLED is functional lighting in its most innovative form.

2 OLED Connector system
The Plug-&-Play solution for ORBEOS® panels is the first step toward a standardised contact system for OLED components. From now on all OLED panels can be contacted with just one click, both mechanically and also electrically, and it is also possible to mount them back to back.

3 Concept ORBEOS chandelier
The future-oriented chandelier for conference rooms is made of 65 ORBEOS® CDW-030 that illuminate faces and the table consistently without any harsh shadows or any direct or reflected glare. The light current reaches around 2000 lumen.
Inspiration generates innovation

LEDs are very trendy. And the potential of the LED has not been fully tapped by any means. This technology is still developing in terms of light yields and efficiency, light quality, colour consistency and colour rendering. OSRAM Opto Semiconductors combines more than 30 years of experience in the semiconductor technology field and OSRAM’s 100 years of lighting know-how. Whether you want a strong outdoor lighting solution, or are seeking to create a pleasant atmosphere in a restaurant or in a high quality shop or office, whatever the task, OSRAM Opto Semiconductors supplies LEDs that define the state-of-the-art in all sizes and output classes.

1 OSLON® Square
At a size of just 3 mm × 3 mm, these outstandingly efficient high-performance LEDs offer maximum flexibility for indoor and outdoor lights, especially in compact designs. They have a reflective casing, a thermal resistance of RthJS (typ.) 3.8 K/W and are suitable for currents of up to 1.5 A. Owing to the wide portfolio of colour temperatures ranging from 2700 K to 6500 K, they are also suitable for a wide range of applications.

2 DURIS® P 5
This highly efficient LED of the middle output class stands out thanks to its long service life, even at high currents and temperatures, and its significant light yield and high maximum current of 200 mA. It is extremely corrosion-resistant meaning that it is also well suited for applications subject to strict quality requirements. Casing dimensions: 2.6 mm x 2.2 mm.
3
SOLERIQ® E
The SOLERIQ® E, used simply in connection with a metal core board, comes in two sizes and is optimised for downlights of 1500 lm to 4500 lm and colour temperatures ranging from 2700 K to 6500 K. The Chip-on-Board LED stands out thanks to the colour consistency within 4 Step MacAdams, a very high light yield and a colour rendering index of CRI > 80.

4
OSLON® SSL – Next Generation
The first high-performance LED with optimised beam angles (80°/150°) is excellently suited for use with secondary lenses or reflectors. Thanks to the specific beam characteristics, the application efficiency is high. Its reflective casing is very compact measuring a mere 3 mm × 3 mm – ideal for dense clusters (high-flux packages). Various CRI variants in the colour temperature range of 2700 K to 6500 K satisfy the most diverse of application requirements. In addition, there are various colour versions available (red, green, blue, etc.).
Uniformity creates diversity

Owing to different mechanical, electrical, thermal and optical interfaces, it was not previously possible to interchange the LED light engines of different manufacturers, resulting in light manufacturers usually being tied to one specific supplier. However Zhaga – a consortium founded in 2010 of which OSRAM is a member – has set itself the task of defining a fixed interface for LED light engines to ensure that the light engines of the different manufacturers are interchangeable. The first Zhaga-conform products are already on display at the OSRAM technology stand.
Compatibility of light engines
The light industry profits enormously if it can work with standardised products. Defined interfaces permit sustainable designs, enable the development costs to be reduced and also mean that products from other manufacturers can be used. This not only ensures absolute flexibility, it is a prerequisite for realising the best possible light solution. And this is something everyone benefits from, be it the light manufacturers, the retailers, light planners or professional end customers. Zhaga is a global consortium with more than 180 members from the light industry, which has set itself the goal of generating standards in the LED field. OSRAM has been a committed member since Zhaga was founded in February 2010 because OSRAM believes that standards will simplify and promote the use of the LED technology in general lighting systems, also bringing down the price.

For a current overview of all light engines that have already been certified, please visit the website: www.zhagastandard.org.

1 PrevaLED® Core Z2
The light engine series produced to Zhaga standards achieves a module efficiency of up to 111 lm/W thereby allowing highly efficient lights to be developed. Versions with various light currents and colour temperatures are available and, owing to the identical form, are easily interchangeable. The small light-emitting surface allows concentrated focussing and, as a result, a much simpler optical design. The Chip-on-Board means that a very homogenous light is created and, in turn, this means that reflector designs can be realised easily without additional scattering elements.

2 PrevaLED® Linear
The SELV concept and automatic module recognition mean that this light engine can be used to create light constructions quickly and simply. The light engine module also stands out thanks to the consistent white light and a homogenous light distribution. It also allows a seamless transition without shadows between the modules. Various assembly options facilitate optimised thermal dissipation. And the efficiency is also impressive: 100 lm/W in a system, 118 lm/W for the module.

3 PrevaLED® Linear Slim
The narrower light engine “Linear Slim” is ideally suited for slim light designs e.g. strip lights or cost efficient systems. They stand out thanks to the same excellent properties shared by PrevaLED® Linear: Homogeneous light distribution, consistent white light in the colour temperatures 3000K or 4000K, shadow-tree module transition, excellent efficiency and a service life of up to 60,000 hours.

4 PrevaLED™ Compact
This extremely compact module with Lamber-tian light distribution manages to produce up to 10,000 lm from a small LES and is therefore suitable for example reflector-based street lights or industrial lights. It can also be integrated into various indoor or outdoor lighting concepts whilst remaining unbeatably efficient with up to 127 lm/W.
Innovation meets simplicity

The OSRAM company Traxon Technologies with the brands Traxon (lights) and e:cue (control systems) is one of the world’s leading suppliers in the fields of solid state lighting and control technology, and as such supplies sophisticated RGB and white light solutions for architectural, restaurant and trade applications. Flexibility, simplicity and innovation are the basis for everything that Traxon addresses: From the software and product development, through planning and project management up to and including individual customised solutions. To be able to offer actual customised LED lighting systems, Traxon also focuses on maintaining constant personal contact to its partners and customers. Valuable synergies within the scope of customer-oriented complete solutions also arise as a result of the connection to OSRAM and Siteco.

e:cue Butler XT2

e:cue Butler XT2 with an installed webserver can be remote controlled and stands out as a versatile DMX-/RDM-output device and as a stand-alone DMX control system, thanks to the new hardware with plenty of CPU power and RAM. Other features: Up to 1024 DMX-/HDM channels, e:bus-Interface, integrated real time and astronomical clock, eight potential-free inputs, RS232 input, Ethernet and installed logic for switching light scenarios depending on the daylight and height of the sun.
2 e:cue Butler S2
The DMX output device with up to 1024 DMX-/RDM channels can be operated in online and stand-alone mode and has an installed web-server. In conjunction with the remote action pad app from e:cue, it can be remote controlled per WLAN via an iPad, iPhone, Android or Internet Explorer. The e:cue Butler S2 also has a lot of other things to offer. As a stand-alone: Internal memory for up to 99 fully dynamic cue lists, playback of up to eight parallel sequences (DMX), clustering of several devices. In the online mode: Complete DMX-/RDM support and compatibility with Lighting Application Suite 5.5SR1 and the e:cue servers LCE, LCEfx and LCEmx.

3 e:cue LCE-mx
The control system has a sturdy, very small casing and, thanks to the fact that it functions without a fan or SSD drive, it is also absolutely silent. It is suitable for ambient temperatures of up to +50 °C and offers a number of secure mounting options. The product scope also includes the Lighting Application Suite LAS 5.5 Enterprise Edition. The e:cue LCE server guarantees full flexibility for small to medium-sized installations.

4 Glassiled Motion White
The conductive glass plates with individually controllable LED light points at a standard clearance of 62.5 mm (also available with a clearance of 31.25) combine absolute transparency with light in a previously unknown form. Ideal for room separators, balustrades, wall paneling, mirrors, shelving and facades. With over-heating protection.
Lights deserve attention

Be it practical, stylish or weatherproof, or all three at once, the new LED lights from OSRAM for indoor or outdoor use will certainly impress the consumers. Not only because of their excellent quality, application and design orientation or even their fantastic efficiency, but because of their excellent light quality. To ensure that this innovative LED light range grabs the attention of your customers right from the word go, OSRAM has come up with an eye-catching POS system for marketing purposes comprising various stand-alone and shelf solutions, tailor-made to meet the special requirements in DIY stores, lighting shops, department stores or furniture shops.

1 Stand alone without sales goods
The freestanding double module is a real eye-catcher ensuring clear branding and sustained increases in sales figures. It facilitates easy integration of new product assortments, flexible stocking and is suitable for lighting worlds of any kind. Ideal for lighting specialists, department stores or furniture shops.
2 Stand alone with sales goods
The attractive single positioning effectively conveys an impression of value and the high standard of the light quality of the new OSRAM LED lights. It can be flexibly stocked with new product ranges, presents the sales goods attractively and openly whilst also ensuring that the goods can be clearly assigned to the demonstration products. Ideal for DIY stores.

3 Modular rack system
Maximum flexibility owing to the modular principle: The OSRAM rack system can be used to position the light product ranges in a separate brand shop or also to integrate the products into existing thematic areas. Modular demo-boards present the OSRAM LED lights in an attractive manner and the continuous numbers in combination with the information board and attachments also guide the consumers very clearly. Can also be used as gondola displays in tight spaces (e.g. in electrical shops).
A multi-sensory experience: OSRAM presents OVO.

Light sculpture for the Luminale

OVO is the name of the light sculpture being presented by OSRAM and Traxon Technologies as part of the Luminale that is taking place on the streets of Frankfurt parallel to light+building. Between the hours of 7.30 pm and midnight you can come and see an inspiring light demonstration at the main gate that aims to present light in all its positive aspects. The system comprises high-performance LEDs specially designed for long output intervals and only requires around 700 W to create fascinating light effects – less than you would need to watch television of an evening. Also, low-energy RGB-LEDs illuminate the structure of the building height and egg-shaped sculpture, creating an intriguing play of colours. Each of the LEDs can be set and controlled separately to allow the sculpture to be individually illuminated, splashed with colour and animated. The LED system with protection class IP67 comes from Traxon Technologies, whilst the companies Odeabois and ACT Lighting Design are responsible for the artistic and technical implementation.

www.ovo-art.be
www.actlightingdesign.com
www.odeabois.be

Light gives answers

Would you like more information about OSRAM, OSRAM partners, special products or technologies? The following links contain lots of interesting and in-depth material about the light topics addressed at this year’s light+building.

Trade fair information: www.osram.com/light-building

Information
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